



Glendale Water & Power

EVOLVING THROUGH TECHNOLOGY AND INNOVATION

2020 – 2021 Annual Report

The Glendale City Council

Mayor Paula Devine

Council Members

Ara Najarian, Vrej Agajanian, 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

Ted Flanigan, Nina Jazmadarian, Sarojini Lall, Ronald Kedikian, Joel Peterson

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 - General Manager

Michael De Ghetto - Chief Assistant General Manager, Water

Daniel Scorza - Chief Assistant General Manager, Electric

Craig Kuennen - Assistant General Manager, Business Services

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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EVOLVING THROUGH TECHNOLOGY AND INNOVATION

A Message from General Manager Mark Young

Glendale Water & Power is evolving through technology and innovation to improve operational efficiency. While there is often a technological component to this improvement, the innovation is about improving processes — creating more efficiency in meeting our ultimate goal of serving our customers.

We strive to serve our customers reliably, affordably, safely, and with strong environmental stewardship. Balancing these four pillars is challenging and requires ongoing innovation on the part of the GWP workforce.

Achieving any of these goals requires trying out new ideas to truly show our community a dedication to continuous improvement. Therefore, it is an essential part of our work to continuously explore how new technologies, ideas, and processes might help us be more efficient, safe, and reliable. For example, Glendale is on board to transition to a low-carbon future and is on a path to achieving 100% of the energy needs of the Glendale community through reliable, affordable and sustainable clean energy. With this goal in mind we are investing in renewables, implementing clean energy programs and establishing GWP as a clean energy leader. In addition, our water section completed the City's first Water Shortage Contingency Plan, outlining actions the City will need to take during various levels of water supply shortages.

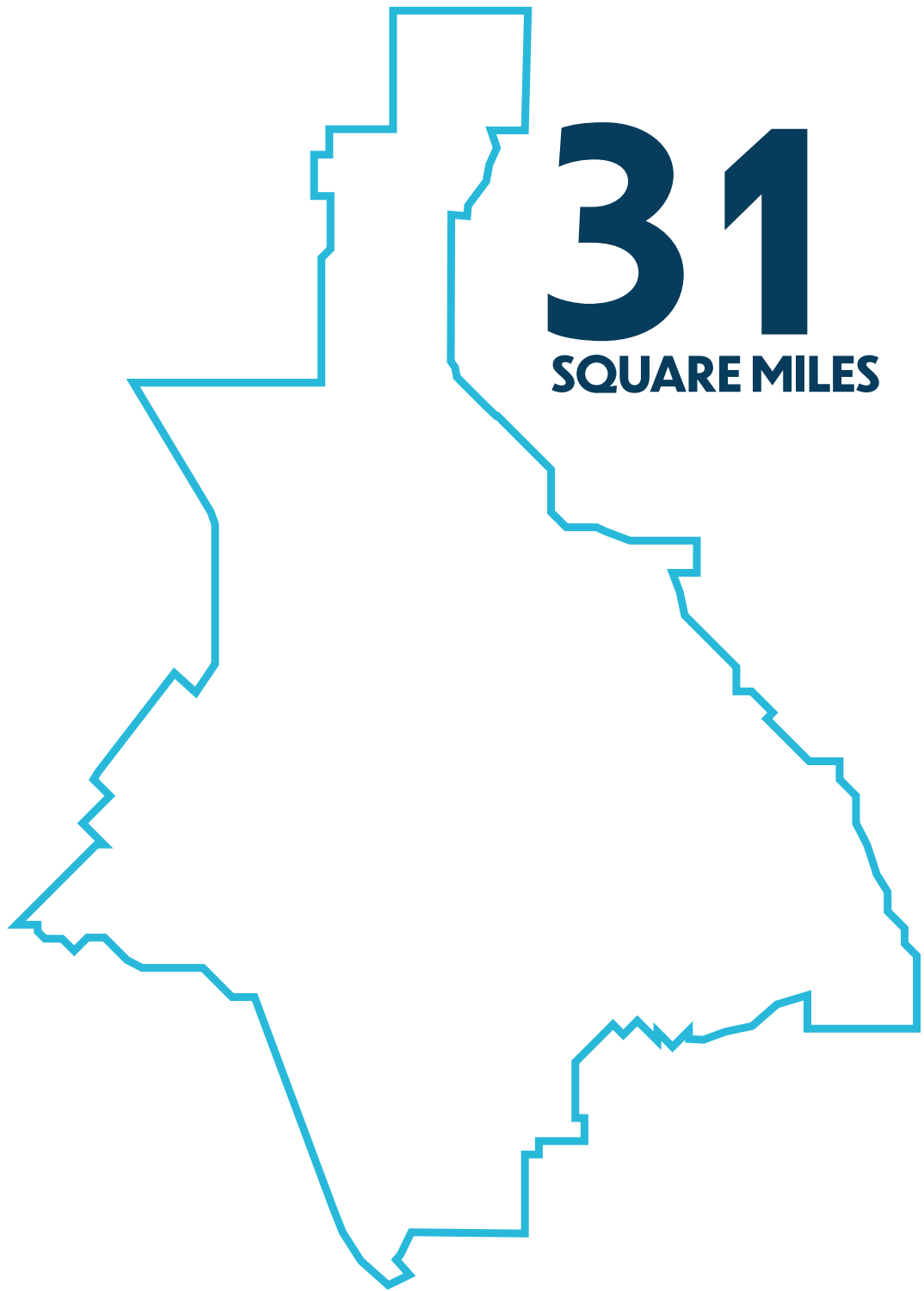
GWP is creating technological road maps for how to optimize and implement systems to achieve myriad goals, which included implementing new Electric and Water Outage Management System, Integrated Voice Recognition, texting systems and lineman application to enable GWP to better manage outages and communicate with its customers. Driving this change ultimately requires developing highly collaborative teams of public power utility staff who are supported to innovate, with that GWP implemented a PI Historian System, a data infrastructure and software suite for collecting, storing, and organizing operational data from plants, processes, and operational systems. The PI System delivers that data to users, including Electric and Water Operations, Power Dispatch, Engineering, Energy Trading, Customer Service, Maintenance, and Executive Management, so they can analyze, visualize, and share it.

GWP's innovation is moving us forward. We look at problems holistically and focus on finding the most efficient, effective and smart ways to work to benefit and serve our community, therefore we must keep learning and advancing. Now, more than ever, customers depend on safe and reliable water and electric services and GWP is committed to the highest standards. We thank our community for their support and will remain reliable, trustworthy and through new investments and advancements. We make every effort to enable each other to advance together — understanding where we might find new efficiencies, how to implement new service offerings, and how to better serve our community.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Young'.

Mark Young
General Manager of Glendale Water & Power



BY THE NUMBERS...

Water Maintains:

Population	203,834
Square Miles	31
Miles of Water Mains	393
Wells	16
Reservoirs	28
Treatment Plants	2
Pump Stations	28
Peak Day (million gallons)	31 (8/25/2020)
Number of Services	34,379
Residential Gallons Per Day Usage	83
Water Sales (billion gallons)	8.3

Electric Maintains:

Population	203,834
Square Miles	31
Number of Distribution Miles	503
Number of Subtransmission Miles	56
Number of Poles	14,763
Number of Substations	14
Highest Peak in FY 2020-2021	335 (8/18/2020)
Number of Meters	90,079
Power Sales (MWh)	1,461,060



EVOLVING THROUGH TECHNOLOGY AND INNOVATION

POWER MANAGEMENT SERVICES DIVISION

The Power Management Services Division 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 20-21

- Carbon Allowance and Low Carbon Fuel Standard (LCFS) auction market participation.
- Exceeded 2020 Renewable Portfolio Standard procurement targets by 7%.
- 22.88 million in revenue from system sales in FY 20-21.
- Completed Feasibility Study for 100% Clean Energy by 2030
- Completed Grayson Power Plant Unit No. 4 Air Preheater Basket and Bearing Replacement
- Completed Grayson Power Plant Units No. 8A and 8BC Annunciator Replacement; and Industrial Painting
- Completed Repair of two (2) Grayson Power Plant Unit 8 Engines and the Onsite Electrical/Controls Audit of Units 8A and 8BC
- Completed Grayson Power Plant Unit No. 9 Improvements including Gas Compressor Motor Overhaul, Gas Cooler Fan Bearing Replacement, Gas Compressor Bypass Conversion, Generator Bearing Inspection, and Chiller Repair.
- Completed Grayson Power Plant Replacement/upgrade of the Unit 9 Turbine Control System Human-Machine-Interfaces (HMI)

Clean Energy Programs

GWP actively seeks solutions that would enable the utility to integrate the maximum amount of renewable, zero-carbon and/or low-carbon energy and minimize the amount of fossil fuel generation in GWP’s portfolio. In Fiscal Year 2020-21 GWP Implemented the following Clean Energy programs:

- A four-year residential and commercial Demand Response program and “Smart Thermostat” program with an online marketplace that delivers up to 10 megawatts (MW) of reductions in energy demand during demand response events on up to 15 peak energy days a year.
- A seven-year Commercial Direct Install Energy Efficiency Program that delivers up to 8.3 (MW) and 36,500 MWh of energy efficiency improvements in commercial buildings over the course of the program with an expected average 12.5-year life for the installed energy efficiency measures.

In addition, GWP is in negotiation for a Virtual Power Plant Program for a single family residential and multi-family housing solar system which would deliver up to 37 MW of solar and 25.25 MW/50.50MWh of battery energy storage each year over the 25-year life of the program.

Investing in Renewables

As set forth in the Integrated Resource Plan (IRP), Glendale is on board to transition to a low-carbon future and is on a path to achieving 100% of the energy needs of the Glendale community through reliable, affordable and sustainable clean energy. Glendale’s power content for the most recent reporting year, contains approximately 40% renewable energy and 64% zero carbon energy. GWP continues to seek opportunities to expand its clean energy portfolio. In the last 3 years, GWP has entered into three renewable projects:

- Whitegrass and Star Peak Geothermal Projects for 15.5 MW of renewable geothermal energy
- Eland 1 Solar and Storage Center (Eland) for approximately 25 MW of renewable solar energy and 18.75 MW/75MWh of energy storage

Collectively these three long term Power Purchase Agreements through Southern California Public Power Authority (SCPPA) will contribute to approximately 20% 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 127MW. 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%.

RECEIVE \$50 EACH YEAR YOU PARTICIPATE!



Plus get a \$50 enrollment bonus today when you sign up for GWP’s Peak Savings Program.

GWPmarketplace.com



EVOLVING THROUGH TECHNOLOGY AND INNOVATION

ELECTRIC SERVICES DIVISION

- Replaced 3.13 circuit miles of aged underground high voltage cable.
- Completed the engineering plan to rebuild Vault #896 (Burchett Street, 1ST Vault West of Brand Blvd).
- Completed the engineering, construction and refurbishment of two vaults; Vault #1097 (Kenwood Street A/W, 2ND Vault N/o Lexington Drive) and Vault #986 (Burchett Street 1ST Vault West of Brand Blvd).
- Completed the engineering plan for a distribution project at 900-920 E Broadway to install 1000 feet of substructures and two distribution vaults on Harvard and Broadway street to expand our electrical system and improve system reliability by converting overhead lines to underground.
- Completed over 828 electrical service upgrades reconnects.
- Replaced 81 deteriorated poles.
- Replaced/installed 123 distribution transformers.

4kV / 12kV Conversion Project:

- Completed the 12kV reconstruction and conversion of #5 Tropico feeder in the Adams Hill area.
- Completed the 12kV reconstruction and conversion on a portion of the #3 Rossmoyne feeder to the #11 Rossmoyne feeder for summer load mitigation. A total of 5 poles were replaced in the process.
- Rebuilt 9 poles for 12Kv operation.
- Replaced 3 deteriorated poles.
- Replaced 13 distribution transformers.
- Constructed and rebuilt area 2 of #7 Tropico feeder for 12kV operation.
- This project will continue in to 2022.

Street Lighting:

- Converted over 1221 street lights to LEDs.
- Replaced 620 feet of street light conduit on west Lomita to improve street lighting system reliability.
- Replaced 1655 feet of street light conduit in several locations as part of street light system improvements.
- Installed 5 new street lights for customers via the street lighting petition process.
- A new street light system, incorporating 74 new LED street lights and over 9000 linear feet of street light conduit, was designed by staff and was installed by Public Work's contractor for the Glendale Train Station 1st/Last Mile Regional Improvements Project.

Substation, communication, and system protection:

- Engineered and installed 12 circuit breaker trip coil monitoring devices for Tropico substation to provide continuous monitoring of breaker status and improve service reliability.
- Completed Rossmoyne Substation Landscape Improvement Project.
- Completed Columbus Transformer #1 repair.
- Completed Scholl Transformer #4 Load Tap Changer repair.
- Upgraded Columbus feeders #3 & #4 protective overcurrent relays from electromechanical to microprocessor based type.
- Upgraded Scholl-Tropico line differential relays from electromechanical to microprocessor based relays.





EVOLVING THROUGH TECHNOLOGY AND INNOVATION

WATER SERVICES DIVISION

Glendale Water & Power's water continued to ensure the safety and reliability of the water served to the residents of Glendale during the ongoing COVID-19 pandemic. Water Engineering staff also processed an unprecedented surge of Accessory Dwelling Unit (ADU) water service applications, totaling over 800 applications, while working remotely and during the transition back into the office. Water Engineering staff also continued to work closely with the Governor's Office of Emergency Services to update the City's Emergency Action Plans for its five dams, and Water Engineering staff worked with the City's Emergency Manager to conduct a "table top exercise" to practice and coordinate a Citywide response to a hypothetical emergency at one of the City's dams.

Water Engineering staff also completed two major milestone projects during fiscal year 2020. These projects were the completion of the City's Urban Water Management Plan, which was a five-year update on the City's current water supply and projected water supply in the future. The team also completed the City's first Water Shortage Contingency Plan, outlining actions the City will need to take during various levels of water supply shortages. The City Council held a public hearing on both reports and adopted them at the end of the fiscal year.

Glendale Water & Power is committed to the safety of the water served to the residents of Glendale and in 2020 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
- Pro-actively operating the water system to balance storage for emergencies while minimizing the age of the water in the system to maintain its quality
- Rehabilitating two of the City's wells to return water production from the wells closer to their original specifications

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.





EVOLVING THROUGH TECHNOLOGY AND INNOVATION

Invest 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:

- 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.
- Replacing the Glendale Heights Tank, beginning demolition and completing major construction activities with final completion on target for 2021.
- Replacing worn and inefficient pumps, like pumps at Western Pump Station, the Glorietta Park Pump Station, and Grandview Pump Station.

BUSINESS SERVICES DIVISION

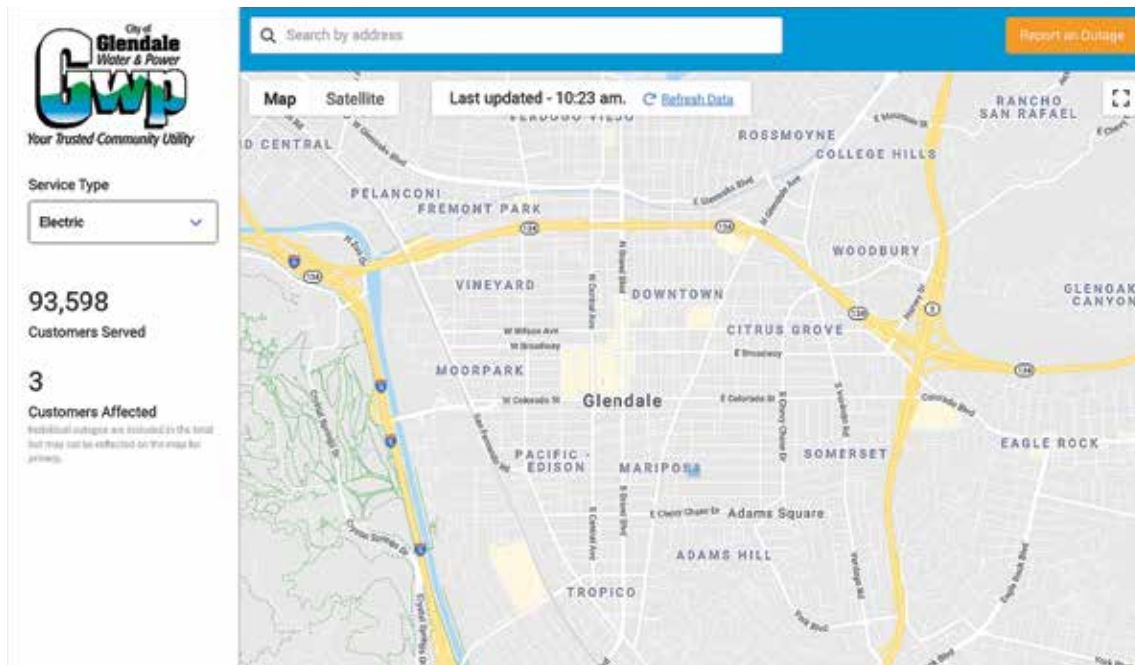
During this unprecedented year with to pandemic and having to work remotely the majority for fiscal year 2020/2021, the GWP Business System Support (BSS) continued to focus on modernization and security of its business enterprise and critical systems and infrastructure, business continuity and underlying technologies to better provide new service and communication options to our customers and GWP operations. Many large and small technical projects and upgrades were successfully implemented:

GWP Outage Management System

GWP implemented a new Electric and Water Outage Management System (OMS), Integrated Voice Recognition (IVR), texting systems and lineman application to enable GWP to better manage outages and communicate with its customers. OMS is used in the detection and restoration of electric and water outages. The IVR system is an automated telephonic system that can interact with multiple customers in collaboration with an OMS to enhance communication during electric and/or water outages. The OMS and IVR systems will assist the City in quickly detecting outages, providing efficient operation response, and communicating more efficiently with customers, improving overall outage management and customer satisfaction. The new OMS allows customers to report electric and water outages online through the GWP website, My GWP Web Portal, or by phone through the Customer Service IVR system 24/7 days a week (855)-550-4497. An outage report will automatically update the system with the reported location and possible reason of the outage. The AMI system will also automatically report meter outages. Once an outage is confirmed by Dispatch the system will display the number of customers affected and the estimated duration of the outage on the outage map. Customers can request automated outage status updates by text, email, or by phone of the outage duration, estimated restoral, and when services have been restored.

GWP Website Link for Customers report and view outages.

www.glendaleca.gov/government/departments/glendale-water-and-power





EVOLVING THROUGH TECHNOLOGY AND INNOVATION

OSiSoft Pi Historian Enterprise Agreement (EA) project:

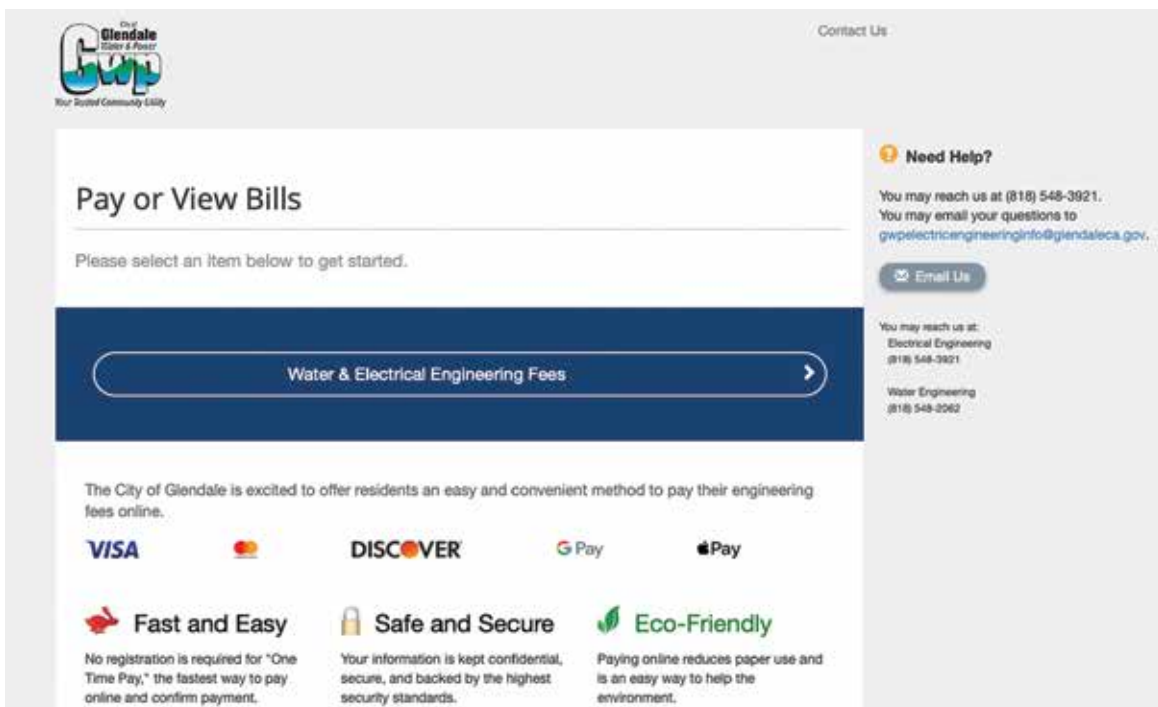
GWP implemented a PI Historian System. “A PI Historian System” is a data infrastructure and software suite for collecting, storing, and organizing operational data from plants, processes, and operational systems. The PI System delivers that data to users, including Electric and Water Operations, Power Dispatch, Engineering, Energy Trading, Customer Service, Maintenance, and Executive Management, so they can analyze, visualize, and share it. Users retrieve data from the PI Server and can display it on real-time dashboards using PI System visualization and reporting tools. This facilitates GWP’s ability to extend the life of expensive, long-lead-time equipment like substation transformers and underground cables. Customer outages will also be reduced by providing real-time and historical system visibility of distribution feeders. By expanding the program under the terms of an Enterprise Program Agreement, multiple data sources and data points can be aggregated under one system to provide integrated real-time operational analytics for day-to-day operations and monitoring of GWP’s field equipment, systems, and assets. Specifically for GWP, it provides visibility of real-time data for situational awareness at critical times that will enhance effective decision making. For example, the expanded program will allow GWP to retrieve and analyze historical operational data from GWP substations, transmission system, and distribution system; quickly visualize the current state of GWP’s electric grid, including loading of substations, distribution feeders, and other equipment; maintain an accurate and up-to-date situational awareness to ensure operators are fully aware of the state of the electric system; view the aggregate amount of solar generation within the City at any given time; and monitor the amount of energy being exchanged with LADWP at any given moment. The program will allow GWP to be less reliant

on other agencies for critical operational information. The new Enterprise Program Agreement will reduce complexity, provide risk management opportunities, and allow GWP to better manage its assets.

GWP has already integrated Advance Meter Infrastructure (AMI) electric interval data, Electric SCADA data, Grayson Power Plant data, TESLA Battery, and Magnolia Power Plant data to PI data archive. BSS is working with Electric Engineering and developed real time operational dashboard displays in PI Vision for GWP Engineering T & D and Dispatch. We have completed the GWP System Overview which is a high-level summary of the electric substations and transmission line total load. From the System Overview, the user can drill-down into each substation and get detailed feeder, transformer, and transmission line data. Along with real-time data displays, the Engineering T&D department is notified by email when a transformer’s voltage has dropped below a certain threshold. This allows engineers to react proactively to potential issues. As the number of integrations grows so does the administrative effort. In order to efficiently monitor our PI systems, we built the PI System Monitoring environment which monitors and reports when an interface stopped receiving data, when the archive is getting full, or when the servers CPU and memory is reaching a threshold. This allows our team to respond to issues quickly and minimize any data loss.

Our Pi environment consists of:

- 5 Pi Data Archives.
- Over 55,000 analytic tags.
- Over 95,000 data tags.
- 14 PI Vision displays.
- 8 data integrations.





EVOLVING THROUGH TECHNOLOGY AND INNOVATION

New Integrated Voice Recognition (IVR) system

In February of 2021, GWP implemented a new customer billing and payment integrated Voice Recognition (IVR) phone system using the same payment provider as the MY GWP online billing and payment portal to allow customer to hear their account balance and pay their utility bill by credit card or electronic check over the phone. The IVR has three different language options, English, Spanish, and Armenian.

Invoice Payment Arrangements

In order to assist our customers during pandemic, BSS implemented the option to **Invoice Payment Arrangements (IPA)** functionality in NorthStar Customer Information and Billing System (CIS) which allows the Customer Service Department to provide and create long term payment extensions that are billed through the customers' regular bill along with their current charges. It is geared mostly toward businesses and larger accounts that might have large outstanding balances and is intended to be used over a year. The Invoice Arrangements displays the exact amount of the agreed upon payment arrangement on the customer's monthly or bi-monthly bill along with their regular bill. Each installment picks up the due date of the current regular billing journal and also retains the history of what billing journal number that installment was charged and updates and tracks the payment transaction on their arrangement.

Online electric and Water Engineering Fees

GWP introduced the new online payment option for **Water and Electric Engineering Fees portal** which is hosted by PCI DSS complaint Invoice Cloud. Now customers have the convenience of paying their engineering fees online verses coming into the office. Customer will receive an email invoice with a link for payments. Once the invoice is paid the customer will receive an email receipt of payment and Customer Service Engineering will receive an email confirming payment.

Conservation Voltage Reduction (CVR) Program - GWP continues to work with Dominion Voltage Inc. (DVI) to expand its Conservation Voltage Reduction (CVR) program system wide. CVR conserves electricity by operating electric customer voltage in the lower half of ten percent (10%) voltage band required by equipment standards using the voltage data collected from the Advanced Meter Reading Infrastructure (AMI), to distribution feeders. We conduct a study of GWP conservation saving at the end of each year. For FY 2019-2020 we increased the number of transformer to 22 transformers and 37 Feeders that are in CVR mode with a combined savings of 4254.19 MWH. The average percentage of savings by feeder was 1.42%. During the FY 2020-2021 we installed CVR are an additional 2 transformers and 3 feeders.

Additional Major Systems upgraded and/or migrations:

- **GWP Domain migration:** of the GWP users, application and servers to a child domain of the City of Glendale Domain and the implementation of an isolated industrial control domain which allows for better security and the ability to upgrade to Windows 10 and Office 365.
- **Migration of all GWP workstations from Static IP to DHCP (Dynamic Host Configuration Protocol)**
- **Itron Enterprise Edition (IEE) Meter Data Management System (MDMS)** – The IEE MDMS is a system that collects customer's hourly and 15 minute interval electric usage data and the hourly water usage data on a daily basis was upgrade to version 10.3 to provide better security and support of new Microsoft version. This system integrates with many of GWP's customer engagement programs to support WaterSmart (water usage analysis), Opower (electric usage analysis), Franklin electric (demand response) and Ceiva (electric and water usage analysis) to provide customer with different options to view and manage their electric and water usage.
 - Upgraded custom billing module which resolves the electric meter demand reset issue for our commercial customer meters
 - Introduces EDGE Web client.
- Harris NorthStar Customer Information and Billing system: upgrade to version 6.6.7 to provide our customer service operation with new features to better serve and bill our customers including Net Energy Billing module for residential,
- My GWP was upgraded to version 6.6.5 which included additional features and bugs fixes, such migration of existing preauthorized payments, viewing of the last 4 digit of credit card or checking account information stored on the portal,
- Franklin Energy integration for Demand Response Program
- Assisted with set-up for the GWP CARES Bill Relief Program
- Assisted in setup of the Back on Track customer bill relief program
- ABB SuprOs Tropos Control that supports the Advanced Meter Infrastructure (AMI) Back haul Upgrade to version v8.9.4.1
- OsiSOft Pi Historian Vision to 2020 version
- Rate implementation - July 1, 2020 electric, water, Sewer, and fire rate and August 2020 and January 2021 Adjustable rates.
- Upgraded the SAP Business Enterprise Crystal Reporting System
- We increased the number of ABB Tropos routers by ten (10) and one (1) gateway that supports the electric and water AMI, Water SCADA, and electric reclosers communication backhaul mesh network
- Completed 1300 technical and reporting Help tickets



EVOLVING THROUGH TECHNOLOGY AND INNOVATION

Accounting, Billing and Field

We remained respectful of both residential and business customers who continued to face hardship by working with them and granting 6,347 payment arrangements. We sustained the moratorium on both service interruptions and late fee assessment. Additionally, we deferred the electric and water rate increases for July 2020. GWP further assisted customers by administering 16,084 GWP Cares Relief payment credits to qualifying business, residential, and low income electric account holders.

Accounting, Billing and Field operations met customer needs by completing 5,400 water and electric meter service requests, these include turn on and offs, unlock for repairs, and usage concerns. An additional 32,508 inspections were conducted to ensure meter equipment and billing accuracy. We reached out to 797 customers regarding reports for constant water use or potential leaks. Billing processed 768,425 utility bills with a 99.9% accuracy. Enrollment of the MYGWP portal increased to 46%, of those enrolled 62% are registered for paperless billing.

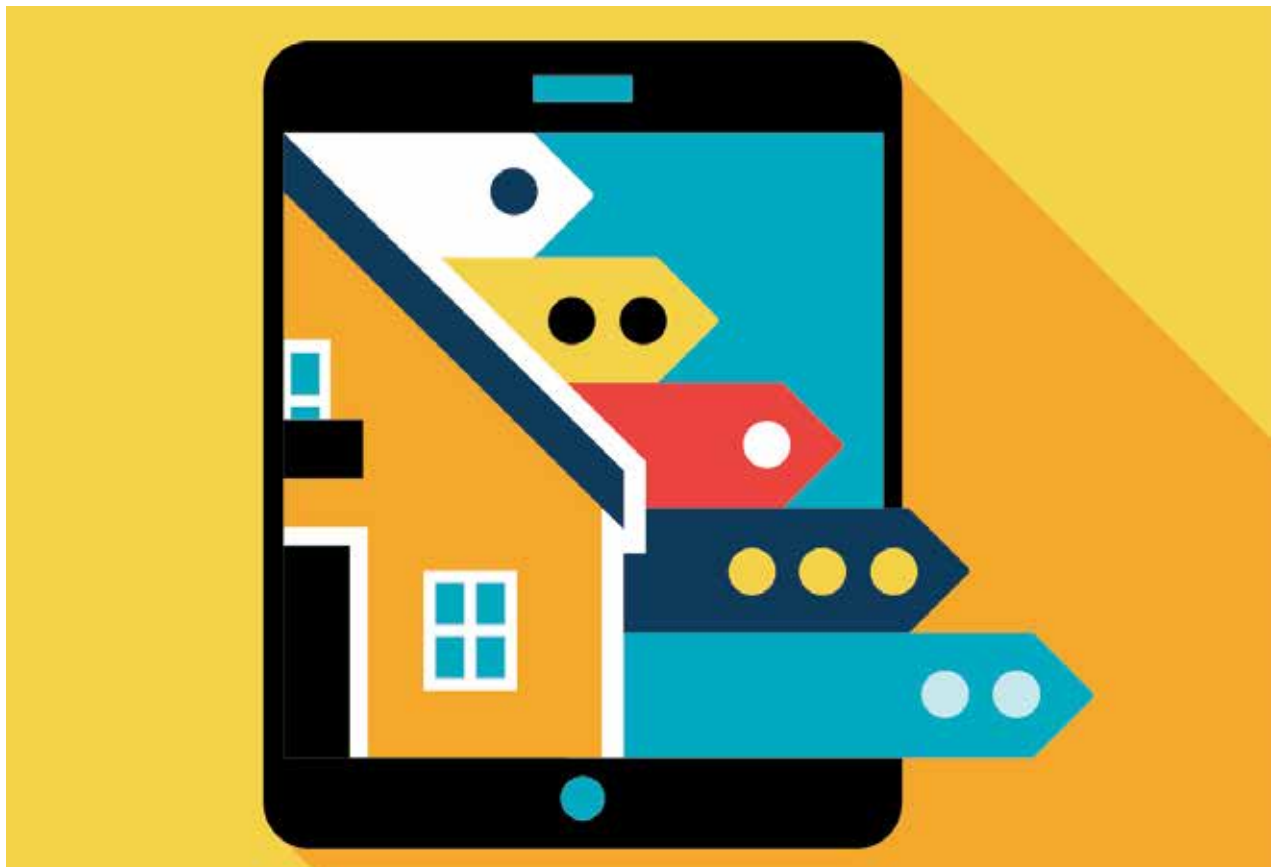
- Processed 768,425 utility bills with 99.9% accuracy.
- Issued 5,400 service orders with field staff completing 90% within 24-hours.
- Inspected 32,508 water and electric meters for billing accuracy and troubleshooting of AMI communication.
- Applied 16,084 payments/GWP Cares Relief credits

- Applied 386 held deposits (on file) to customer arrear balances
- 797 water leak/constant flow issues were completed (postcards, calls & field orders)

Contact & Payment Center

Remaining sensitive to our residential and business customers alike who continued to be impacted by the pandemic, we exercised all possibilities to accommodate their service from interruption such as offering to apply their deposits to outstanding balances, offering extended payment arrangements, advocating to them during telephone conversations and through written correspondence – the various payment assistance programs that were available to help with outstanding bills.

- Assisted 86,850 customer over the telephone
- Received 9,438 emails from customers and responded to 96% within 24 hours
- Approved 6,347 payment arrangements
- Processed over 587,000 customer payments totaling over 296 million dollars
- 72% of customer payments were made electronically





EVOLVING THROUGH TECHNOLOGY AND INNOVATION

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 124 shade trees through our Tree Power Program
- Provided 844 incentives through our Smart Home Rebate Program
- Incentivized a total of 100 solar residential installations in Glendale.
- Provided 44,000 WaterSmart Reports to our residential customers to inform them about their water usage and provide them with tips to conserve water. Provided 33,000 customers with web-access to their water usage.
- Installed 4 more electric publicly accessible vehicle charging stations, totaling 17 now available in Glendale.
- Installed over 89 smart thermostats and In-Home Digital Displays.
- 5 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.
- Incentivized the installation of 43 residential and commercial electric vehicle charging stations.
- Over 277 residential customers participated in the Smart Home Energy Upgrade program which provides a survey and free installation of energy and water saving devices.

Electric Vehicles

GWP has been committed to promoting the adoption of electric vehicles in Glendale for many years. GWP currently has installed 17 city-owned EV charging stations. Plans to significantly increase Glendale's public EV charger network are in progress, with goals of installing a minimum of 30 new chargers each fiscal year going forward.

In addition to expanding our infrastructure, GWP has provided over \$130,000 to incentivize 176 customers for EV charger installations at their home or business since 2017, and hosted multiple Electric Car Guest Drive events for residents to test drive and learn more about electric vehicles. GWP also partnered with the California Air Resources Board (CARB) and local EV dealerships to provide a point of sale rebate of up to \$1,500 through the state's Clean Fuel Rewards program. 928

customers received a Clean Fuel Reward incentive in fiscal year 2020-2021.

ENVIRONMENTAL SUSTAINABILITY DIVISION

GWP completed the evaluation of the City's current environmental programs and city operations with its Sustainability Consultant, EcoMotion. This citywide effort culminated in the hiring of a new Sustainability Officer and the creation of the City's Sustainability Office. GWP will continue its sustainability programs and will be working closely with the new Sustainability Office to further reduce Glendale's carbon footprint and ensure all city operations function in the most environmentally-conscious manner as possible. The Environmental Sustainability Division was also tasked with overseeing the CEQA process for the proposed Scholl Biogas Renewable Generation Project. This project aligns perfectly with both GWP's and the City Council's sustainability values since it will beneficially use the existing landfill gas to create 12 MW of 100% renewable energy. It is important to note that, if approved, this project will generate this electricity 24 hours a day, 365 days a year which equates to about 10% of the City's current total energy demand.

ADMINISTRATIVE SERVICES DIVISION

Glendale Water & Power (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 various monthly advocacy affairs. 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 March of 2021, GWP participated in the American Public Power Association's (APPA) Legislative Rally. GWP engaged in numerous meetings to advocate and 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, due to evolving global pandemic (COVID-19), GWP has been vigorously tracking all efforts by the State and Federal Agencies to ensure compliance. GWP will continue to monitor and advocate for any funding propositions from the Federal and State Levels for local governments and POU's. Due to our ongoing advocacy efforts, the State Legislature ratified two budget trailer bills (AB 148 & AB 135) and the Governor approved and allocated approximately \$2 Billion to provide funding on past due water, wastewater, electric, and gas utility bills.