# UTILITY PROGRESS 2015-2020

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## SUMMARY

GPA continues to provide safe, reliable and affordable electric service to the island. GPA's actions are guided by its Strategic Plan & the Integrated Resource Plan (IRP). The Strategic Plan, developed in 2009, identified four areas of effective planning and policy development: **high reliability; financial strength; employee effectiveness; and safe and reliable operations**. The IRP was developed to provide the lowest cost solution for providing reliable, affordable power; diversifying power supply resources and fuels to mitigate risk; and exercising environmentally responsible stewardship of the economic and natural resources of the island. The 2016 IRP is currently being updated to reflect GPA's future growth and changes to the island wide power system.

Moving forward, GPA's business continuity and core values are outlined in its 2020 key initiatives.

# STRATEGIC PLAN SUMMARY

| CRITICAL SUCCESS FACTORS DASHBOARD | | | | |
|---|---|---|---|---|
| CSF # | CSF | KPI # | STATUS | TREND |
| 1 | **ACHIEVE EXCELLENT CUSTOMER SERVICES** | | | ▲ |
| | Sustatined Improvements of Customer Satisfaction<br>Residential Customer Satisfaction with GPA as a Company rose from 61% in 2014 to 76% in 2018; a 15% increase. | 1 | | ▲ |
| | Improve Customer Experience | 2 | | ▲ |
| 2 | **PROVIDE AFFORDABLE & VALUED PRODUCTS** | | | ▲ |
| | Minimize Energy Production Cost | 1 | | ▲ |
| | Reduce Line Loss & Unaccounted for Energy | 2 | | |
| | Achieve Energy Diversity at Affordable Cost | 3 | | ▲ |
| | Improve Credit Rating | 4 | | ▲ |
| 3 | **DEVELOP SUSTAINABLE WORKFORCE & LEADERSHIP PROGRAM** | | | ▲ |
| | Implement a Succession Planning Program | 1 | | ▲ |
| | Implement a Structured Leadership & Workforce Training Program | 2 | | ▲ |
| | Achieve Safety Awareness & Enhanced Safety Practices | 3 | | ▲ |
| | Enhance Employee Satisfaction | 4 | | ▲ |
| 4 | **ACHIEVE HIGH SYSTEM RELIABILITY** | | | ▲ |
| | Reduce Customer Outages | 1 | | ▲ |
| 5 | **EFFECTIVELY USE TECHNOLOGY** | | | ▲ |
| | Implement Excellent Cyber Security Program | 1 | | ▲ |
| | Improve Productivity Through Technology & Automation | 2 | | ▲ |

# INTEGRATED RESOURCE PLAN

| STRATEGIC ISSUES | STATUS | NOTES |
|---|---|---|
| Increase fuel diversity, mitigate fuel supply risk, and encourage cost-effective renewable energy | ON TRACK | 120 MW Solar PV + BESS Contracted for 2022 Completion. Phase III under protest process. Phase IV Under Internal Review |
| Comply with existing & future US EPA requirements including EGU MACT, RICE MACT, and 1-Hour SO2 NAAQS | ON TRACK | Compliance Scheduled Under Consent Decree |
| Understand and consider financial and operational impacts associated with compliance and non-compliance with existing and future US EPA requirements | COMPLETED | Environmental Strategic Plan Updated Annually<br>FY2020 Update Completed |
| Support electric power service requirements for the DOD build-up and its economic consequences | ON TRACK | Harmon-Anderson Underground 34.5 KV Transmission Line Completed. Marine Base infrastructure being installed |
| Evaluate the economic feasibility of retiring or extending the life of its existing generation | COMPLETED | LEIDOS Life Extension Report (FY 2017)<br>2020 IRP: Analysis of Generation Resource Adequacy |
| Reduce customer outages due to instantaneous loss of generation by examining operational and economic feasibility of using energy storage devices or requiring certain reliability enhanced characteristics for future generation additions | COMPLETED | Phase I 40 MW BESS in Commissioning Testing with Jan 2021 Completion. Renewable Integration Study Completed (2018) with Recommended Investments |

# STRATEGY & PLANNING
# INTEGRATED RESOURCE PLAN

| PRIMARY RECOMMENDATIONS | STATUS |
|---|---|
| Obtain agreement with US EPA & Guam EPA to suspend compliance with RICE MACT for Cabras 3&4 and MEC 8&9 until GPA completes transition to LNG | ON TRACK<br>CONSENT DECREE |
| Procure an additional 40 MW of renewable energy under Phase II Renewable Energy Acquisition Program, if cost-effective with other available technologies, as early as 2017 to reduce present value costs. | COMPLETED PHASE II 120 MW SOLAR + BESS<br>Phase III 40MW in PROCUREMENT STAY BID CONCLUDED |
| Develop the necessary infrastructure and contracts to engender transition from RFO to LNG by 2018 or sooner. NOTE: New power plant and pipelines construction contracts issued for ULSD & natural gas | ON TRACK |
| Retire Marbo CT and Dededo Diesels 1-4 by FY 2014 | COMPLETED |
| Firm up decision to retire Cabras 1&2 and/or Tanguisson (Tango) 1&2 in 2018 concurrent with the availability of LNG. *NOTE: All steam units to be retired after completion and commissioning of new power plant* | COMPLETED<br>TANGO RETIRED 2015 |
| Based on baseload retirement decisions, construct new 60 - 120 MW gas-fired combined cycle power plant, preferably in northern Guam to reduce technical line losses, online concurrent with the availability of LNG. NOTE: Contract issued and construction underway for dual fuel plant | ON TRACK<br>198 MW UKUDU CC CT |
| If Cabras 1&2 or Tanguisson 1&2 are not retired, complete conversion of these units to burn LNG concurrent with availability of LNG in 2018 | COMPLETED<br>RETIREMENTS SCHEDULED |
| Complete repowering of Piti 7 GE Frame 6B combustion turbine generator (CTG) into a combined cycle burning LNG. NOTE: Repowering is not economically feasible | COMPLETED |
| Complete conversion of Cabras 3&4 and MEC 8&9 to burn LNG. NOTE: Cabras 3&4 retired. Conversion of MEC 8&9 after commissioning of new plant | ON TRACK |
| If economically and technically feasible, build a 10 MW geothermal unit to come online in 2019. NOTE: Result of Phase II renewable bid indicates geothermal unit is not feasible | COMPLETED |
| Work towards compliance with all new environmental standards and regulations | ON TRACK |

# CUSTOMER CONVENIENCE & VALUE-ADDED SERVICES

## TRANSPARENCY & ACCURACY

- New, easy-to-read billing statement and newsletter resulted in 25% reduction in mailing cost
- Redesigned billing statement garnered an 'Award of Merit' for Excellence in Public Power Communication from the American Public Power Association
- Successfully completed the new CC&B billing system for GPWA resulting in providing customers with ways to monitor their billings and consumption
- Robotic process automation reduced analysis of meter performance issues resulting in faster change outs and more accurate account information
- Timely and consistent outage notifications
- Enhanced website & web services
- Monthly newsletter distributed to all ratepayers to raise awareness of value-added services, initiatives and programs for all customers

## ACCOUNT SERVICES

- Expanded Customer Care Center to include phone, email, and social media interaction
- Timely onboarding of ~600 new customers per year
- Merge of CC&B information allows GPA & GWA Customer Representatives to assist customers with cross-services. Single representative serving GPWA customer closer.
- Expanded system status and customer services notifications via social media, including outage information

# CUSTOMER CONVENIENCE & VALUE-ADDED SERVICES

## CONVENIENCE

- Same day / same hour services (reconnections, disconnections) offered through advanced meter infrastructure
- Real-time monitoring and push notifications of energy consumption through www.myenergyguam.com
- Implementation of credit card payments to all customers including commercial. Cost to administer program substantially reduced while at the same time providing this ease of payment alternative to customers
- 24/7 Automated IVR Pay-By-Phone offers customers 24/7 account balance information and pay options via toll-free number phone
- Mobile APPs for ease of customer use and payments
- GPWA partnership to offer One Utility Customer Service

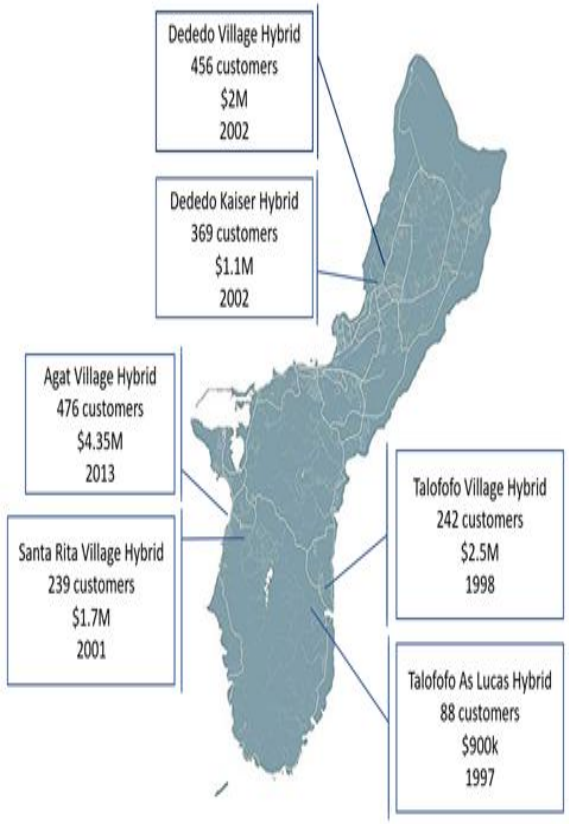
## INCENTIVES

- Sustained Growth of Energy Sense Rebate, Demand Side Management (DSM) Program
- Over $4M return to ratepayers participating in DSM program from savings of bond refinancing, and working capital
- PUC approved GPA's petition on May 28, 2020 for approval of the use of LEAC to fund an expanded DSM rebate program
- The authorized funding for DSM in every six-month LEAC period shall be $1.5M. The rate will generate $3M annually for DSM rebates and result in $21M fuel cost savings to ratepayers over 7 year period.

# SYSTEM INTEGRITY & RELIABILITY

## STRENGTHENED ISLAND-WIDE POWER SYSTEM GRID

- Completed installation of Updated and Enhanced SCADA system for GPWA
- Continued change-out of wooden poles to concrete. Greater than 90% of system hardened, Greater than 20% of system has underground secondary system.
- Continued village hybrid underground projects, the latest being for 456 ratepayers in Agat
  - **Underground Distribution Projects**
    - Completed
      - ✓ Tumon Bay Lateral Conversion
      - ✓ GHURA 501 Streetlight Reconstruction Project
      - ✓ GHURA 501 Reconstruction Project
      - ✓ GHURA 505 Reconstruction Project
      - ✓ Chandia Court Sinajana Reconstruction Project
      - ✓ Kadena Di Amor Latte Heights Reconstruction Project
      - ✓ Fern Terrace Underground Reconstruction Project
      - ✓ Tun Ramon Baza St., Baza Gardens Reconstruction
    - Ongoing – Under Construction
      - ✓ Perezville Meter Relocation and Reconstruction
      - ✓ Route 2, Agat Underground and Pole Relocation
      - ✓ Tumon Bay Lateral Underground Conversion
  - **Underground Transmission Projects**
    - Completed
      - ✓ Harmon to Anderson 34.5 KV Underground Line



## ISLANDWIDE POWER SYSTEM RECOVERY AFTER CABRAS 3&4 EXPLOSION

- Substantially minimized service interruption to less than 1% to customers following the Cabras 3&4 incident and mitigated the loss of 79MW of baseload capacity by:
  - Contracting for interruptible load with major commercial and government customers
  - Contracting for 40 MW of lease-to-own temporary power from Aggreko
  - Replacing aged Cabras 1&2 main transformers; $2M
  - Rehabilitating 40 MW Dededo power plant; $10M
  - Replacing Macheche combustion turbine; $2.7M
  - Overhauling Cabras 1&2 Steam Units $6.0M
  - Overhauling medium speed units $6M

- Unit Overhauls and rehabilitation continues on a regular basis to insure the limited capacity available does not result in rolling load shedding. GPA continues to make investments in plant in order to sustain system reliability over the next few years as the new power plant is being constructed.

# SYSTEM INTEGRITY & RELIABILITY

## ASSET PLANNING & MANAGEMENT

- GIS Network: First electric distribution utility to migrate to a production ESRI Utility Network (ArcGIS Pro and Utility Network), providing confidence to perform switching operations and maintain service to the island wide power system
- Mobile Workforce Management System: Implementing new program which will allow real time processing, scheduling and expeditious completion of new customer and existing system maintenance Work Orders
- Vehicle and Equipment Tracking: Continued to track movement of GPA fleet to insure efficient and proper use of fleet
- Predictive Maintenance Program: Locate and fix equipment problems before they cause outages

## STORM READINESS & RECOVERY

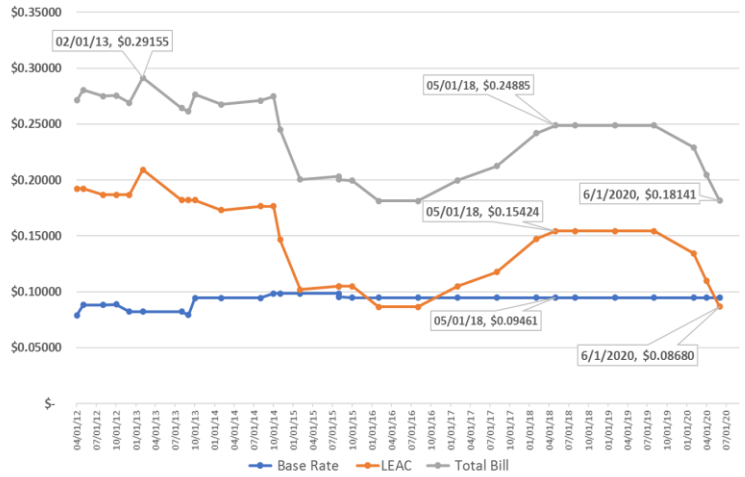
- Increased Resiliency & Restoration: Expeditious recovery from several storms over this period, including Typhoons Dolphin and Mangkhut resulting in minimal service disruption and revenue loss
- Water & Sewer Resiliency: Acquired responsibility for O&M of all GWA standby generators; GPWA Partnership enabled GWA to maintain 99% of water service to customers during the last significant storm
- FEMA Reimbursements: Successfully Received for Typhoon Dolphin $2.3M; Typhoon Mangkhut $4.3M
- System Hardening: Awarded $5.6M of new underground system for Tumon Bay to protect our valuable tourism industry.
- Material Inventory & Fleet: Maintained Over $12M in inventory and continued to replace aged equipment fleet in order to have adequate equipment needed to expedite typhoon recoveries

## NEXT GENERATION ENERGY PRODUCTION PLANTS

- Energy Conversion Agreement (ECA) between GPA and KEPCO for the new 198 MW Ukudu Power Plant sign in November 5, 2019.
- Clean, efficient, economical technology will meet /exceed environmental regulatory requirements
- Efficient technology to reduce fuel oil imports by 17 million gallons annually
- New Ukudu plant to provide for diversified fuel mix: ULSD & natural gas
- New Ukudu Plant technology to support increased penetration of renewable energy (target 50% by 2035) and result in substantial fuel cost reduction while stabilizing the LEAC rate
- New plant close to customer load centers will result in cost savings due to reduced line losses
- New plant away from the coasts and at higher altitude eliminates vulnerabilities to storm surges and tsunamis
- The new plant will feed into underground 34.5 KV transmission lines which serve 60% of the island's load thereby improving reliability and would allow some areas to receive power continuously during typhoons including the significant military loads in the north
- The 120 MW of solar PV renewables contracted in 2018 to provide significant cost savings over 20 years and most importantly stabilizes energy cost due to a low annual 1% escalator. This energy mitigates erratic LEAC rates due to erratic fuel oil prices
- The Phase III bid for solar PV renewables with full load shifting ESS batteries will shave peaks resulting in fuel and reserve capacity cost savings for ratepayers. The partnership with the military for use of military land for the project results in cost savings.
- 25 % of GPA's energy from renewables in 2023 is innovative and ahead of targeted timelines. 50% renewable energy by 2035 is achievable due to an aggressive renewables program

## LOWER FUEL & ENERGY COSTS

- No base rate increase since 2013
- Reduced the impact of increased fuel oil cost to the ratepayers through use of as much as $16M in working capital to cushion LEAC increases
- The LEAC rate has been unchanged for 1 year despite the rise in fuel prices over the period
- Three LEAC rate decreases were recommended and approved by the PUC in 2020
- The current LEAC rate of $0.086800/kWh effective June 1, 2020 to remain the same through January 31, 2021
- The LEAC rate for Feb 2021 thru July 2021 is recommended to remain at $0.0868 by use of self insurance fund.




- 120 MW solar PV plants commissioning in 2022 will save millions annually in fuel cost for all ratepayers.
- 40 MW solar PV when awarded to Engie is expected to save ratepayers about $5M annually. The two projects totaling 40MW with storage batteries are priced at $0.11/kWh.
- Phase IV Renewables (equivalent to at least 60 MW) solicitation is being prepared for early 2021
- In regional rate comparisons, GPA maintains the lowest rates per kWh compared to other island power utilities including the Hawaiian Islands, US Virgin Islands and the CNMI
- T&D has installed over 10K LED streetlights throughout the island, replacing the vintage High Pressure Sodium (HPS) yellowish-color lights with new energy saving LED streetlights. 250W lights are installed along main routes throughout the island and 150W lights are installed along village streets
- The streetlight changeout to LED will yield over $1M in savings annually

## FINANCIAL SOLVENCY

- Maintenance and improvements of credit ratings despite challenges and negative impacts resulting from the Cabras 3&4 explosion, higher fuel prices, Typhoons, President Trump Tax Reform and the COVID-19 Pandemic.

## COST SAVINGS – O&M

- Consistently below the annual O&M budget
- Received ownership from Independent Power Producer for TEMES 7 plant and the GPA takeover of O&M resulted in >$4M annual savings
- Received ownership of the MEC 88 MW power plant and renegotiated the MEC contract for 5 years, resulting in >$15M annual cost reductions
- The consolidation of GPA & GWA operations into a single location at the Gloria B Nelson Public Service Building resulted in substantial direct and indirect savings due to co-locating operating efficiencies
- Robotic Process Automation (RPA) implemented to automate manual and time-consuming service order and work order process thus improving accuracies and saving significant manhours
- Labor FTE has decreased from 512 in FY2014 to the current manning of 445 FTE; annual savings about $3M (including benefits)

# COST SAVINGS – O&M

- Network Infrastructure Consolidation
  - Project Presented to GPA/GWA IT Divisions on One Network – One Customer Initiative
  - Project Kicked off July 2020
  - Project to assess and implement merging GPA and GWA separate networks and infrastructure into one environment
  - Includes both agencies current network, infrastructure, applications, resources, policies, security stance and organization
  - Assesses both tangible and intangible benefits for having one network and infrastructure

## COST SAVINGS - CIP

- Purchased and rezoned 60 acres of R1-zone property for new power plant at $10M. M1-zone (industrial use) land alternatives could have cost $18M thereby resulting in cost savings of about $8M. Optimal location of property (less than one mile from Harmon substation) resulted in $15M-$22M infrastructure savings
- 198 MW duel-fired combined cycle combustion turbine contracted and project working through permitting
- Millions of dollars in potential millions of fines from USEPA averted (Only $400,000 Fine Paid)
- Supports achieving 50% renewable energy penetration by 2035 resulting in lower fuel and stable LEAC costs
- Reduces system losses

## FINANCING & INSURANCE

- Successful bond refinancing to reduce annual payments by $500K at 4.12%. $1M in savings returned to ratepayers through the funding of the DSM program (Energy Sense Rebate) Savings of $500K was dedicated to assist GDOE reduce its annual utilities cost.
- Reduction in cost of annual insurance premium by $2M
- Settlement of Cabras 3 & 4 Insurance Claim at $125.8M. $72M to be applied to new power plant to reduce annual capacity fee. This reduction in annual capacity fee will save ratepayers about $5M per year over the next 25 years

# INVESTING IN PEOPLE

## SUCCESSION PLANNING

- Identified, planned, and continue to implement programs to address the major issue that 57% of the GPA workforce could retire within the next 10 years

## TALENT DEVELOPMENT & MANAGEMENT

- Annual employee evaluations completed, and adjustments implemented per pay-for-performance program
- Organizing comprehensive employee training program to enhance employee capabilities, present upward opportunities and career development
- Increasing intranet services allowing employees convenient self-service options
- Continuing successful Apprenticeship program to train future skilled force for difficult to hire skill sets
- Continuing seasonal internship program to attract future utility engineers, accountants and other professionals
- Working with Guam Department of Education to help prepare high school students for apprenticeship programs and career paths in the utility
- Promotes GPA & energy careers at outreach events
- Engineers - there are forty-five (45) Engineers throughout the organization performing electrical, civil, mechanical, and environmental/regulatory work.
  - Professional Engineer (PE) Certification
    - Fourteen (14) Engineers are licensed Professional Engineer (PE)
- Global Industrial Cyber Security Professional (GICSP) & Certified Information Security Auditor (CISA); Three (3) GICSP Certified ; One (1) CISA Certified

# INVESTING IN PEOPLE

## COMPENSATION STRATEGY

- Continue to migrate employee compensation to the 50th percentile salary market level in order to attract and retain employees. GPA currently at the 20th percentile and implementing a moderate and reasonable migration

## AWARDS & RECOGNITION

- Board member, American Public Power Association, for the past 5 years. One of 20 board members serving about 2,000 public power utilities.
- Consecutive 1st through 3rd place annual awards from American Public Power Association for safety excellence. Practicing and promoting safe practices and workplaces is our utmost priority. Receiving this award annually provides a benchmark of achievement of this goal. GPA received the First-Place honor for 2018 safety performance
- SAG award issued to GPA for being first electric distribution utility to migrate to a production ESRI Utility Network
- Mutual Aid Commendation received from American Public Power Association for assistance to CNMI Typhoon Yutu recovery
- APPA designates GPA as Smart Energy Provider (SEP)
  - This is the first year APPA has offered the SEP designation
  - The SEP designation recognizes public power utilities for demonstrating leading practices in four key disciplines: smart energy program structure; energy efficiency and distributed energy programs; environmental and sustainability initiatives; and the customer experience
- Federal Energy Management Program recognizes GPA as one of its Utility Partnership Program utility partners (2020) (https://www.energy.gov/eere/femp/utility-program-utility-partners)

## ENERGY INNOVATION

- Integrated three Nissan Leaf Electric Vehicles (EV) into Authority's fleet & business operations, with two charging stations. GPA to continue to replace aged fleet with EV most especially as more original equipment manufacturers reduce EV prices
- Bringing Energy Savings to (BEST) Schools Projects funded federal EIC grants ($2,359,387)
  - LED lighting retrofit (FY 2019 EIC Grant)
    - Southern High School ($954,685)
    - George Washington High School ($295,315)
  - LED lighting retrofit (FY 2020 EIC Grant)
    - Agueda I. Johnston Middle School ($586,771)
    - Maria A. Ulloa Elementary School ($522,616)
- Bringing Energy Savings to (BEST) Schools Projects funded by GPA ($500,000)
  - BEST Schools Program Audit Report: A preliminary feasibility assessment for Guam Department of Education (GDOE)
  - Carbullido Elementary School energy efficiency retrofit pilot project
- 40 megawatts of utility scale battery storage in Commissioning Testing to mitigate short duration outages caused by baseload unit trips and Solar PV intermittencies (January 2021 Commercial Operation Date)

## CLEANER AIR & WATER

- New 198 MW Plant, Conversion to Ultra Low Sulfur Diesel or retirement of Piti 8&9, decommissioning of Cabras 1&2, and GPA's Renewable Energy and Energy Efficiency Programs will significantly improve the air quality throughout Guam as well as significantly reduce GPA's carbon footprint

- The new power plant will use wastewater from the Northern Wastewater Treatment Plant as its cooling source instead of fresh water from the island aquifer and thereby helping the island have sustainable fresh water for years.

- Decommissioning of Cabras 1&2 and 3&4 promotes healthier harbor ecosystem and eliminates thermal pollution effects on the reef because these plants utilize sea water to cool their condensers resulting in their releasing higher temperature effluent into Apra Harbor.

## DEVELOPING RENEWABLE ENERGY

- Installed 25 MW of solar PV renewables (Dandan) accounting for 3% of total energy sales
- Awarded 120 MW of solar PV renewables contracts at about $0.085/kWh with the expected commissioning by 2022, which will account for 18% of total energy sales and the reduction of fuel oil Imports by 18.5 million gallons annually
- Bid Award under protest for 40 MW of renewables on land leased from the US Navy. This project will capture energy during the day and utilize all energy to offset higher peak energy production cost, which will account for 5.5% of total energy sales and the reduction of fuel oil imports by 5.5 million gallons annually
- New power plant project awarded allowing GPA to target 50% renewables by 2035 resulting in substantial reduction of fuel cost and furthermore the stabilization of LEAC rate
- Facilitated the expansion of the Net Metering Program to ~2,100 customers (estimated 24.1 MW in total connected systems)
- Completed Renewable Integration Study (2018) to determine necessary investments for increasing renewable penetration above 25% into the GPA grid
- Updated Integrated Resource Plan nearing completion. Roadmap to 50% renewables by 2035 to be presented for CCU approval by mid-2021.

## ISLAND PARTNERSHIPS

- Kicked off a sustainable tree trimming and pole painting program including a pilot partnership with nine (9) village Mayors
- Successful Bond refinancing to reduce annual payments by $500K; $1 MM return to ratepayers participating in DSM program. $500K contributed to assist GDOE reduce its annual utilities cost via BEST Schools Program
- Obtained and assisted GovGuam agencies in obtaining grants $2.1 MM GPA Wind Turbine Project; $500K for DPW Solar PV System; $2.359 MM for GDOE Lighting retrofits via BEST Schools Program); These grants result in savings to ratepayers and these customers
- Assisting Guam Energy Office on $64K for Energy Audits and creating Energy plans for individual schools
- Assisted UOG in renovating an existing building energy with efficient equipment resulting in 50% to 75% savings from similar UOG buildings
- Assisted Guam Memorial Hospital Authority by conducting preventive maintenance of their electrical system in order to avoid imminent electrical system failures which would impact patient care
- Assisted the Department of Corrections in addressing their standby generators issues which when not available creates prison safety issues
- Promote energy solutions and sustainable practices through participation and sponsorship community programs such as the annual University of Guam's Island Sustainability Conference
- Promote utility initiatives and careers through school outreach program
- Educates and promotes benefits of a publicly-owned utility through community outreach events such as annual Public Power Week
- Developing Energy-Efficiency & Renewable Energy Projects for Navy & AAFB via GPA's Utility Energy Services Contracting (UESC) Program

# COMMUNITY PARTNERSHIPS

## INDUSTRY PARTNERSHIPS

- Active membership & participation with the American Public Power Association
- GPA General Manager serves as APPA Region 10 Director, representing members from Guam, Commonwealth of the Northern Mariana Islands, American Samoa, Puerto Rico, US Virgin Islands, & Canada
- Federal Energy Management Program recognizes GPA's UESC Program as one of its Utility Partnership Program utility partners (2020) (https://www.energy.gov/eere/femp/utility-program-utility-partners)
- GPA has established ETI Partnership with U.S. Department of Energy, Lawrence Berkeley National Laboratory, Argonne National Laboratory, Carnegie Mellon University, and Northern Arizona University on FRONTIER Project to determine investments for building greater resiliency and renewable energy use for the GPA system. (2020)
- Provided significant assistance to the CNMI CUC Utility in restoring power to Saipan and Tinian after Typhoon Yutu in Oct 2018. Provided labor, equipment and materials totaling over $6M over a 4-month period. Received complete reimbursement for the assistance resulting in labor savings to our ratepayers.

# 2020 FORWARD

## KEY INITIATIVES FOR 2020

| 2020 + Initiatives |
|---|
| **Update Strategic Plan** |
| **Update Integrated Resource Plan** |
| Integration of Additional Renewables |
| Develop Diversified Fuel Mix |
| Optimize Reserve Margin Requirements |
| Improving Power System Resiliency |
| Reducing Customer Outages |
| Investigate the Feasibility for a T&D Underground Conversion Program |
| Digital Utility Transformation |
| Enhancing Physical and Cybersecurity |
| **Implement Workforce Development & Sustainability Policy** |
| Implement Strategic & Sustainable Training & Compensation Programs |
| **Develop & Implement Disaster & Typhoon Resiliency Policy** |
| Continue Concrete Pole Hardening |
| Continue Underground Hardening Progress |
| Maintain Target Equipment & Material Availability |
| **Continue Customer Satisfaction Improvements** |
| Conduct Statistically Valid Customer Surveys to Address Customer Needs & Satisfaction |
| Conduct Polls & Focus Groups to Canvass Ideas for Customer Surveys and Further Exploration |
| **Continue Reliability Improvement Plan** |
| Vegetation Management Program |
| Grid Controller |
| Hardening Changeouts to Composite Materials |
| Predictive Maintenance Programs |
| **Continue & Expand Energy Affordability Initiatives** |
| Energy Sense Program (Doubled Program Size with LEAC Funding) |
| Utility Energy Services Contracting (UESC) (Renewed BOA for up to $50 MM project cap) |
| BEST Schools Program (Provided $2,859,387 in grant & GPA funding) |
| Energy Audits |
| Revolving Loans |
| Lifeline Rates |