GPWA MEETING

Presentation To:
Consolidated Commission on Utilities
MARCH 30, 2023

ISSUES FOR DECISION

GPA Resolution No. FY2023-14

Contract Approval for Fuel Bulk Storage Facility

GPA RESOLUTION NO. FY2023-14
CONTRACT APPROVAL FOR FUEL BULK STORAGE FACILITY

What is the project's objective? Is it necessary and urgent?
The Guam Power Authority's current contract for the Management, Operation and Maintenance of GPA's Fuel Bulk Storage Facility is expiring in September 30, 2023. The objective is to commence the contract in October 31, 2023 to ensure uninterrupted, reliable fuel supply to the GPA plants.

Where is the location?
GPA Bulk Fuel Storage Facility.

How much will it cost?
The 3-year contract is estimated to cost about $2,728,321 for the required services under the IFB.

When will it be completed?
The contract is for three (3) years is anticipated to commence in October 1, 2023 and will expire in September 30, 2026 with option to extend for two (2) additional one-year terms.

What is its funding source?
Most of the services will be funded through O&M, and some through CIP if it involves procurement of equipment, construction, modification and others.

The RFP/BID responses:
There were two (2) bid submittals. Supreme Group Guam LLC has been determined to be the lowest, responsive and responsible bidder.

GPA Resolution No. FY2023-15

Request to Increase the Amount of Award for the Physical Security Proof of Concept (POC)

GPA RESOLUTION NO. FY2023-15
Request to Increase the Amount of Award for the Physical Security Proof of Concept

What is the project's objective? Is it necessary and urgent?

Request for Proposal (RFP) for a Physical Security Proof of Concept (POC) was drafted to provide services for the review, design and buildout for selected GPA and GWA sites in order to increase the Physical Security posture for such sites and to develop standardized solutions to utilize for other sites.

Delays caused by supply chain issues and global logistics challenges has increased the timeline of completion and the cost of equipment, staging resources and contractor cost.

Where is the location?

Five (5) sites were identified for GPA include the Talofofo Plant, Harmon Substation, Fadian Main Office, Umatac Substation and the Piti Substation.

How much will it cost?

Phase	Cost	Notes
Design Phase	$996,670	Initial PO
Buildout Phase	$500,000	Task Order for Buildout (CCU Approved in Feb 23, 2022)
Revised Buildout	**$350,000**	**Additional Change**
Total Amount	**$1,846,670**	

When will it be completed? Estimated new completion cost has increased by $350,000 and pushed completion date to July 2023.

Physical Security
Proof of Concept (POC)

CCU Presentation

Physical Security Proof of Concept (POC)

Physical Security is critical for GPA in order to protect physical and cyber assets at substations, generation plants and remote sites.

- A RFP for Physical Security Proof of Concept (POC) was issued in FY 2020.
- Scope of work includes the Physical Security review, design and buildout for selected GPA and GWA sites.
- Physical Security Designs will be used as a template for other GPA substations and remote sites.
- Sheffield Scientific LLC was awarded the contract for the amount $996,670 for the review and design of Physical Security controls for selected GPA and GWA sites.

Physical Security POC

- GPA sites include Harmon Substation, Talofofo Plant, Piti Substation, Umatac Substation and Fadian Main Office
- GWA sites included Ugum Treatment Plant, Y15 and F18 Deep Wells and the Barrigada Tanks.
- Final designs for GPA was completed in February 2022.
- A task order for design buildouts were issued based on the cost of approx. $70,000 to $100,000 per site.
- The additional cost for the task order was $500,000 with expected completion date of October 2022.
- CCU approved the Task Order on February 23, 2022.

Physical Security POC

The buildout includes the following:

CRITICAL SECURITY INFORMATION REMOVED

Physical Security POC

- Delays caused by supply chain issues and global logistics challenges has increased the timeline of completion and the cost of equipment, staging resources and contractor cost.
- Estimated new completion cost has increased by $350,000 and pushed completion date to July 2023.

Phase	Cost	Notes
Design Phase	$996,670	Initial PO
Buildout Phase	$500,000	Task Order for Buildout (CCU Approved in Feb 23, 2022)
Revised Buildout	$350,000	Additional Change
Total Amount	$1,846,670	

Security Operations Center

GPA Physical Security POC

CRITICAL SECURITY INFORMATION REMOVED

Intrusion Detection System

GPA Physical Security POC

CRITICAL SECURITY INFORMATION REMOVED

Video Surveillance Systems

GPA Physical Security POC

CRITICAL SECURITY INFORMATION REMOVED

Video Surveillance Systems

GPA Physical Security POC

CRITICAL SECURITY INFORMATION REMOVED

Video Surveillance Systems

GPA Physical Security POC

CRITICAL SECURITY INFORMATION REMOVED

Cast Lighting Systems

CRITICAL SECURITY INFORMATION REMOVED

IR Sensors

GPA Physical Security POC

CRITICAL SECURITY INFORMATION REMOVED

Networking Setup

CRITICAL SECURITY INFORMATION REMOVED

Questions



Joint Resolution No. 21-FY2023 (GWA) / Resolution No. FY2023-16 (GPA)

Relative To Authorization to Establish Bank Accounts with the Bank of Guam to Deposit Collections from Customers in the Cannabis Industry

Relative To Authorization to Establish Bank Accounts with the Bank of Guam to Deposit Collections from Customers in the Cannabis Industry

What is the project's objective and is it necessary and urgent?
The objective of this resolution is to authorize the Guam Power Authority and the Guam Waterworks Authority (GPWA) to each establish a separate bank account with the Bank of Guam specifically for the purpose of depositing funds paid by licensed cannabis establishments holding accounts with GPWA for fees and utility (power, water and wastewater) services. With the Guam Cannabis Board now accepting applications for licenses for cannabis-related businesses, it is necessary and urgent for GPWA to work with the banks to ensure compliance with banking regulations and accept payments from these customers in a separate account to meet banking and reporting requirements.

Where is the location?
Payments from licensed cannabis establishments will be made at GPWA locations, namely, Fadian, Julale and Upper Tumon, as GPWA's merchant services vendors will not accept debit or credit cards from these establishments.

How much will it cost?
The bank will charge the usual maintenance and analysis fees. Sweep fees are $2.50 per sweep.

When will it be completed?
Once the resolution is approved, GPWA will work with Bank of Guam to establish the bank accounts. Additionally, GPWA will develop procedures to accept and process payments from cannabis-related businesses.

What is the funding source?
The bank fees will be paid using GPWA revenues.

The RFP/BID responses (if applicable):
The Bank of Guam is the trustee and depositary for GPWA bonds. Per the bond indentures, GPWA will deposit all Revenues upon receipt into the Revenue Fund and the depositary shall maintain the Revenue Fund as long as any Bonds remain outstanding.

GM REPORT

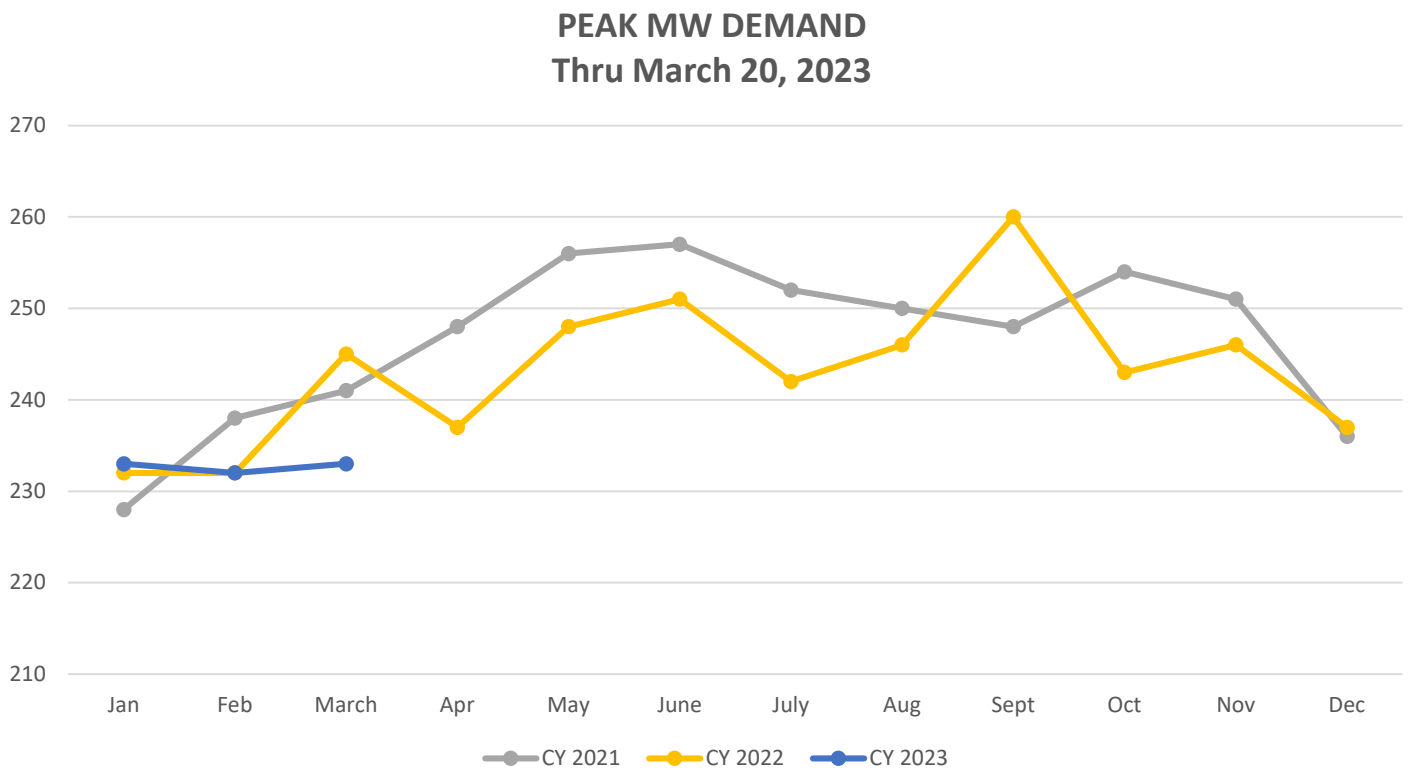
MARCH 2023

Generation Status

1. **Reserve Margin Forecast for April 2023:**

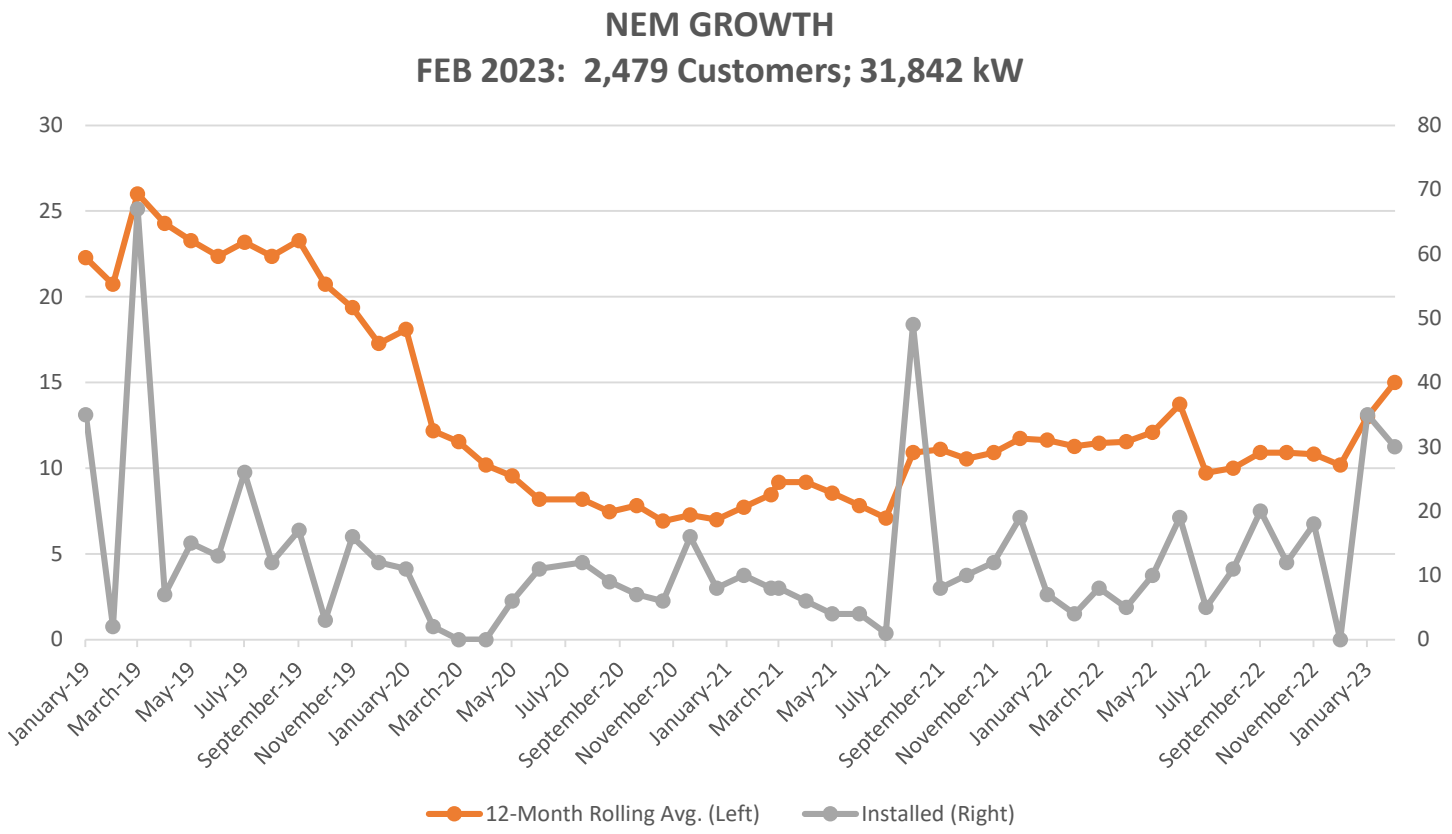
Projected Available Capacity:	322	MW
Projected Demand:	237	MW
Anticipated Reserve Margin:	85	MW

2. **System Peak Demand:**



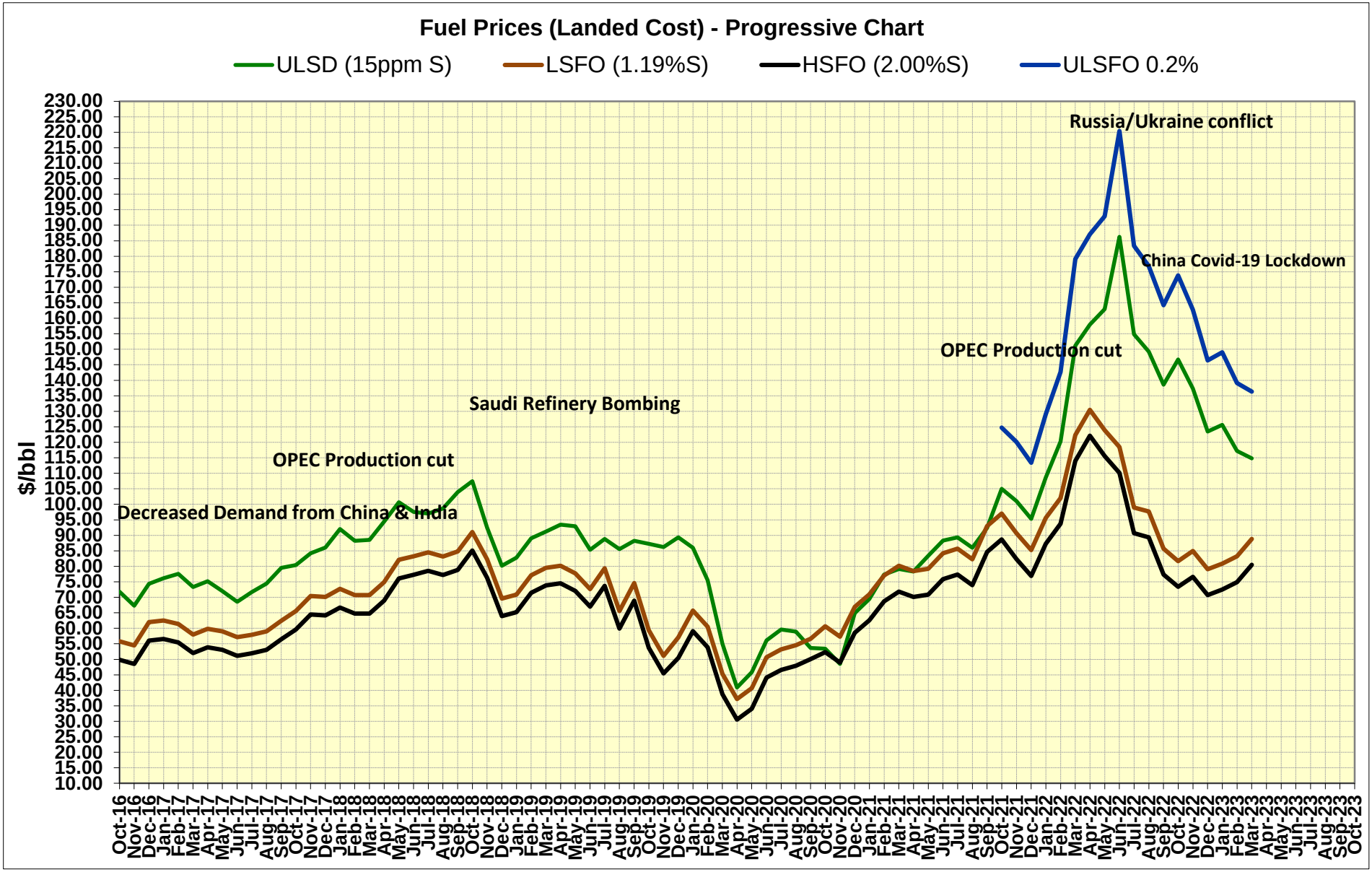
Net Metering (NEM)

3. Net Metering (NEM) Growth Thru February 2023



GPA Fuel Landed Cost (Per Barrel) Thru March 17, 2023

4. 0.2% LSRFO $136.33 ; ULSD $114.85



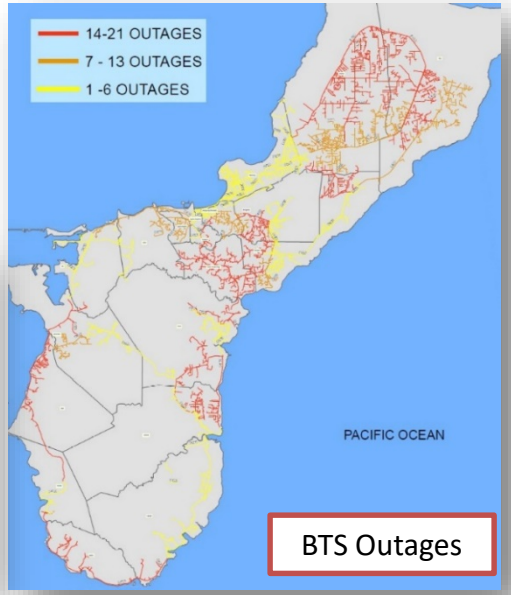
General Manager's Report (cont'd)

5. Mitigating Brown Treesnake (BTS) Outages:

- Outages caused by the brown treesnake (BTS) are burdensome to GPA customers, erodes the customer satisfaction, damages grid infrastructure, increases operating costs, reduces revenues, and negatively impacts the island's economy.
- GPA experienced 716 snake caused outages in the 38-month period between Jan 2018 - Feb 2021: an annual average of 226, or approximately 19 per month.
- GPA continues to mitigate against BTS-caused outages through numerous approaches:
  - Robust vegetation trimming along all circuits using dedicated operator crews, and substations through contractual services
  - Debris removal, including bird nests, at power poles, substations, etc.
  - Placing over 255 USDA snake traps and snake barriers at critical areas, including substations; conducting nighttime fence searches; and installing toxicant bait stations in various areas.
- Although helpful, these efforts have not reduced BTS-caused outages to levels acceptable to GPA.
- In 2021, GPA was awarded a Dept of Interior grant to collect data, analyze, and propose alternate mitigation solutions in collaboration with the US Geological Service (USGS). The efforts to mitigate BTS-outages is now identified as a priority effort by DOI for current and future grant projects. GPA has received additional grant award to continue this important project.
- The collaboration between GPA T&D division and USGS scientists has yielded sub-projects targeted at specific mitigation efforts.



Spotting snakes on power line hardware over 20' above ground is a difficult task, day or night.



BTS Outages



Snake specimens found at GPA assets are logged and submitted to USGS for further study



GPA linemen and operators discuss field investigation findings with USGS scientists.

General Manager's Report (cont'd)

6. PUC Update:

GPA Docket - Thursday, February 23, 2023 Meeting:

- GPA Docket 23-07, Petition for Contract Review for the Cancellation of the Cabras 41MW Reserve Facility and Modification of the Energy Conversion Agreement – Approved
- GPA Docket 23-10 Petition for Contract Review, Request for approval of the procurement of Property Insurance including Boiler and Machinery Coverage and Terrorism Coverage - Approved

GPA Docket - Thursday, March 30, 2023 Meeting:

- GPA Docket 23-12, Petition for Review and Approval of GPA's Request for Procurement of the Bulk Supply of Diesel Fuel Oil
- GPA Docket 23-11, Petition for Review and Approval of the Piti 8 & 9 Contract Extension with Marianas Energy Company
- GPA Docket 23-13, Petition to Approve the Month-Month Extension for Professional Printing, Mailing, and Processing Services

7. Upcoming UOG Conference on Island Sustainability (CIS) - Guam Clean Energy Transition Track – Preconference at Hyatt Regency Guam on April 10th & April 11th

GPA will be sponsoring and leading a Guam Clean Energy Transition Track as part of a **pre-conference** with the University of Guam's Conference on Island Sustainability (CIS). The reasons for GPA's involvement in the UOG CIS includes but not limited to:

- Clean Energy Master Plan Public Outreach;
- Showcasing that GPA's Strategy includes a balanced approach of Renewable Energy, Energy Efficiency, Demand Response, Energy Storage, Artificial Intelligence, and emerging technologies;
- Showcasing GPA's Energy Sense Program as a large part of the Clean Energy Transition with PUC mandated programs for energy efficiency, customer outreach, demand response, and EV charging;
- Showcasing GPA's growing partnerships with the National Laboratories (PNNL, ANL, Sandia, LBNL, LLNL, NREL);
- Educating the Guam Public that GPA has been at the forefront of the renewable energy transition, far beyond the efforts of all other parties, and will be leading it over the next two decades;
- Educating key stakeholders on Battery Energy Storage System (BESS) technology state of the art and policy with Pacific Northwest National Laboratories (PNNL), including statements of GPA's policies;
- Showcasing, GPA's active involvement in the Guam Community, especially with Guam Public Schools;
- Getting a head start on GPA's Community Benefits Plan;
- Introducing the Guam Energy Security Plan Project to key stakeholders and policy makers;
- Getting a head start on a Guam100 with GPA partnering with NREL to drive a stakeholder based process for moving towards 100% clean energy.

The Guam Clean Energy Transition Track will have over 25+ on-island and off-island speakers presenting topics in the areas of *Laying out issues for a Clean Energy Transition*, *Transportation Electrification*, *Balance approach to Guam's Green Energy*, *Digital Transformation* and *Deeper Dive into policy and energy security*.

General Manager's Report (cont'd)

8. Customer Assistance
   - *Prugråman Ayuda Para I Taotao-ta Energy Credit*
     - $26,286,700 was credited to qualified ratepayers from July 2022 through November 2022 (PL 36-106). $94,300 in unused credit will be returned to the Department of Administration.
     - $15.81M has been received and credited to qualified ratepayer accounts from Dec 2022 through Feb 2023, under the extended Energy Credit Program (PL 36-123) program, which will end April 2023.
   - $1.84M (45 batches) has been applied to qualified ratepayer accounts from the **Guam Homeowner Assistance Fund Program (HAF)**.
   - $4.42M (85 batches) has been applied to qualified ratepayer accounts from the **Emergency Rental Assistance Program (ERA)**.
9. Customer Engagement & Community Outreach
   - Latest GPA news and updates on projects, energy-savings tips, assistance, Clean Energy Master Plan, etc. is broadcasted through printed and e-newsletters, social media, advertisements, website, and outreach events.
   - Generation capacity and potential load shedding schedules (week of March 6th) effectively shared with customers and residents using SMS, direct email, website, media release, social media, village mayors and chat groups.
   - School Outreach Highlights: P.C. Lujan Elementary School Career Day - **February 24th**
   - An electric bucket truck and personal protective equipment (PPE) were displayed at the career day fair.
   - T&D crew, Kyle Siguenza, Gary Flores, and Zachery Santos, demonstrated how the bucket truck is used in their line of work.
   - Human Resources personnel discussed various GPA careers.
   - Communications personnel discussed energy conservation and efficiency at school and home.





10. DSM Online Report – FEBRUARY 2023

APPLICATIONS

Month	Applications	Commercial	Residential
Aug-22	217	-	217
Sep-22	479	7	472
Oct-22	474	4	470
Nov-22	514	10	504
Dec-22	480	5	475
Jan-23	398	1	397
Feb-23	385	7	378
TOTAL	2,947	34	2,913

REBATES

Month	Rebate	Commercial	Residential
Aug-22	$ 61,375.00	$ -	$ 61,375.00
Sep-22	$134,700.00	$ 1,950.00	$132,750.00
Oct-22	$140,100.00	$ 1,450.00	$138,650.00
Nov-22	$139,950.00	$ 1,500.00	$138,450.00
Dec-22	$131,450.00	$ 950.00	$130,500.00
Jan-23	$105,550.00	$ 150.00	$105,400.00
Feb-23	$110,075.00	$ 1,400.00	$108,675.00
TOTAL	$823,200.00	$ 7,400.00	$815,800.00

EQUIPMENT

Month	Equipment	Commercial	Residential
Aug-22	315	-	315
Sep-22	666	12	654
Oct-22	691	9	682
Nov-22	698	14	684
Dec-22	647	5	642
Jan-23	535	1	534
Feb-23	566	9	557
TOTAL	4,118	50	4,068

AVERAGE REBATE PER APPLICATION

Commercial	Residential
$ 218	$ 280

AVERAGE REBATE PER EQUIPMENT

Commercial	Residential
$ 148	$ 201

Energy Sense Rebate Program (ESRP) Online Application (cont'd)

10. DSM Online Report – FEBRUARY 2023

REBATES PER PROGRAM

Month	Rebate	Commercial				Residential			
		Split A/C Units	Central A/C Units	VRF A/C Units	Rooftop A/C Units	Split A/C Units	Central A/C Units	Window A/C Units	Washer/Dryer
Aug-22	$ 61,375.00	$ -	$ -	$ -	$ -	$ 57,375.00	$ -	$ 1,600.00	$ 2,400.00
Sep-22	$ 134,700.00	$ 1,950.00	$ -	$ -	$ -	$ 120,350.00	$ -	$ 3,400.00	$ 9,000.00
Oct-22	$ 140,100.00	$ 1,450.00	$ -	$ -	$ -	$ 127,350.00	$ -	$ 1,900.00	$ 9,400.00
Nov-22	$ 139,950.00	$ 1,500.00	$ -	$ -	$ -	$ 123,250.00	$ -	$ 1,800.00	$ 13,400.00
Dec-22	$ 131,450.00	$ 950.00	$ -	$ -	$ -	$ 116,600.00	$ 500.00	$ 2,600.00	$ 10,800.00
Jan-23	$ 105,550.00	$ 150.00	$ -	$ -	$ -	$ 96,400.00	$ -	$ 1,200.00	$ 7,800.00
Feb-23	$ 110,075.00	$ 1,400.00	$ -	$ -	$ -	$ 98,275.00	$ 500.00	$ 1,900.00	$ 8,000.00
TOTAL	$ 823,200.00	$ 7,400.00	$ -	$ -	$ -	$ 739,600.00	$ 1,000.00	$ 14,400.00	$ 60,800.00

EQUIPMENT COUNTS PER PROGRAM

Month	Equipment	Commercial				Residential			
		Split A/C Units	Central A/C Units	VRF A/C Units	Rooftop A/C Units	Split A/C Units	Central A/C Units	Window A/C Units	Washer/Dryer
Aug-22	315	-	-	-	-	287	-	16	12
Sep-22	666	12	-	-	-	575	-	34	45
Oct-22	691	9	-	-	-	616	-	19	47
Nov-22	698	14	-	-	-	600	-	17	67
Dec-22	647	5	-	-	-	561	1	26	54
Jan-23	535	1	-	-	-	482	-	13	39
Feb-23	566	9	-	-	-	497	1	19	40
TOTAL	4118	50	-	-	-	3,618	2	144	304

General Manager's Report (cont'd)

11. New Power Plant Update: GPA Activities

Completed:

- ECA Amendment: Signed on March 17, 2021.
- Resolution on Section 106 process between Navy/SHPO/GPA (cultural process)
- Archaeological Inventory Survey of Ukudu Site
- Cultural Survey for boring scope fuel/water/power project areas (outside of plant)
- Baseline noise study for Piti 41 MW diesel generator plant site.
- Water Supply and Discharge Agreement signed.
- Approval of research design for boring of proposed site in Piti for diesel generator relocation
- Approval of Archaeological Monitoring & Discovery Plan for pipeline construction
- Public Law 36-91 was signed on 4/11/22 for exemption of construction of Reserve Facility in Piti.
- GHPO Concurrence of Section 106 of the bull cart trails
- Land Lease Agreement was signed by Governor, Lt. Governor and Attorney General on July 6, 2022
- Geotechnical boring test report at the Piti site completed.
- GPA approves remaining Phase 5 & 6 construction permits.
- GPA obtains MEC specialist for construction support at Nimitz allowing excavation to resume on Nov. 1, 2022
- GPA obtains easement to avoid Chaot river area near Route 4 in Sinajana for pipeline construction.
- GPA provides notice to Navy of work starting on the bullcart trails along the pipeline route after Navy NEPA process.
- GPA obtains signage requirements for bullcart trails from Navy.
- CCU officially approves cancellation of Reserve Facility.
- Governor visits plant site on Feb. 2, 2023
- GPA obtains GEPA approval for Land Use Control Work Plan.
- GPA met with Mayor Paco and Mayor Sarvares to coordinate bullcart excavation in Harmon and Mongmong-Toto-Maite.
- PUC officially approves cancellation of Reserve Facility.

Critical Path & Risk Items

Delays on Permit Approvals

- Construction Permits
- NPDES Permit

Construction Mitigation

- For any wetland, biological, cultural or other findings during construction (unknowns)

General Manager's Report (cont'd)

11. New Power Plant Update: GPA Activities *(continued)*

Ongoing / Pending:

- Archaeological & Cultural Requirements:
  - ✓ Archaeological monitoring for pipeline construction work (Chaot & Nimitz areas). Contractor has requested for additional archaeologist to support several ongoing excavations areas for the pipeline. In addition, archaeological monitoring is required for the new pole and transmission line foundations in the Harmon Substation. This is a limited resource and contractor has indicated difficulty in acquiring additional resources.
- Water & Wastewater Requirements:
  - ✓ Change of Law issues due to update GWA NPDES permit affecting discharge of wastewater from cooling system. Follow-up with GWA on the NPDES permit modification.
- Construction Permit & Drawing Reviews:
  - ✓ Interconnection and pipeline design documents are being reviewed for approval.
- Reserve Facility:
  - ✓ Review of draft ECA amendment by GUP
- Other:
  - ✓ Monthly project reviews including Project Schedule.
  - ✓ Weekly meetings on contract items and ongoing construction activities and pending issues
  - ✓ Coordination with Navy on excavation activities for pipeline construction
  - ✓ Bullcart trail sign placement around Cesario Road and Harmon Substation (Navy-owned properties) required for Navy properties during excavation

General Manager's Report (cont'd)

11. New Power Plant Update: GUP Activities (Contractor)

Completed:

- EPC Contract – Doosan
- Height Variance for Ukudu Site
- Financing Contracts Signed – Equity Bridge Loan in place. Senior loan requires air permit and land lease legislation for funds drawdown.
- Down payment to Siemens to secure Turbine Order (long lead item)
- Survey Maps for land lease recorded at Dept. of Land Management
- Phase I for Ukudu Plant construction permit approved. Foundation work is ongoing.
- GUP issues Notice to Proceed to EPC on May 31, 2022.
- Land Lease Agreement was signed by Governor, Lt. Governor and Attorney General on July 6, 2022
- GEPA approves and issues Ukudu Air Permit on 7/20/22 during construction ground breaking ceremony.
- KEPCO/GUP achieves financial close on September 30, 2022.
- Obtained DPW heavy haul permit on Feb. 3, 2023

Ongoing / Pending:

- Construction
  - Power Plant – Continued construction on the fuel tanks, treated water tanks, control electrical building, HRSG buildings, Gas Turbine Buildings, Steam Turbine Buildings, fuel and water treatment buildings, and Ukudu switchyard.
  - Pipeline –
    - Excavation and pipeline installation continues at Nimitz, within Tiyan along Route 8 towards airport, Cesario Street, Chaot/Sinajana areas near Route 4 and on Route 6.
    - Encroachment permit compliance
  - Transmission Line – Initiated construction on Harmon Substation.
- Procurement – continues with other equipment procurement
- Reserve Facility – ECA amendment addressing removal of Reserve Facility
- Schedule Update – Plant and fuel pipeline continue to progress with concerns on potential schedule impact due to pipeline progress.

General Manager's Report (cont'd)

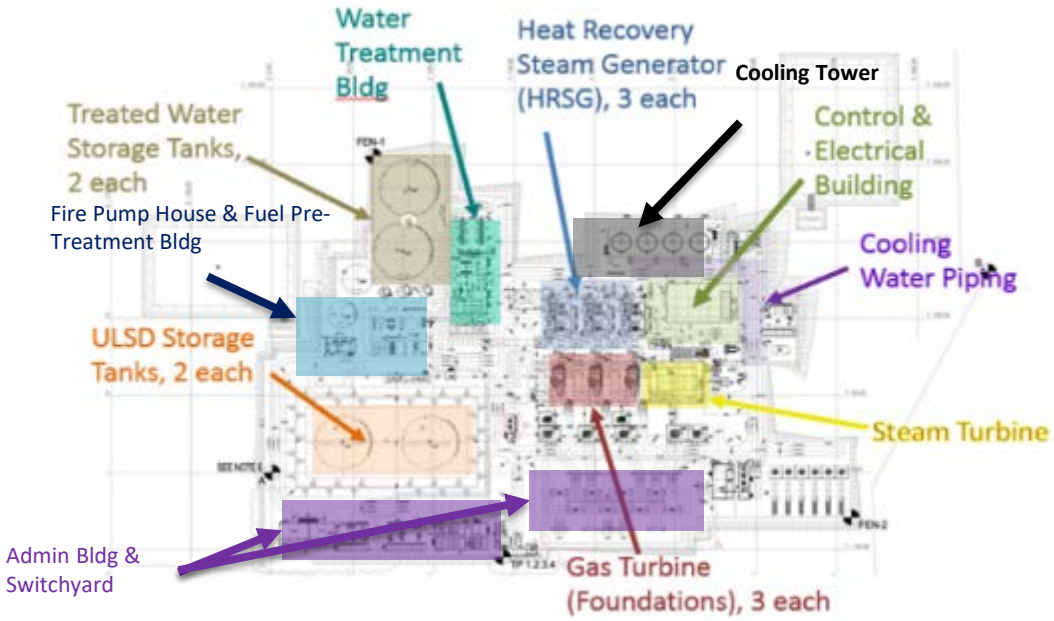
11. New Power Plant Update: GUP Activities (Contractor) *continued*

Ongoing / Pending: *(continued)*

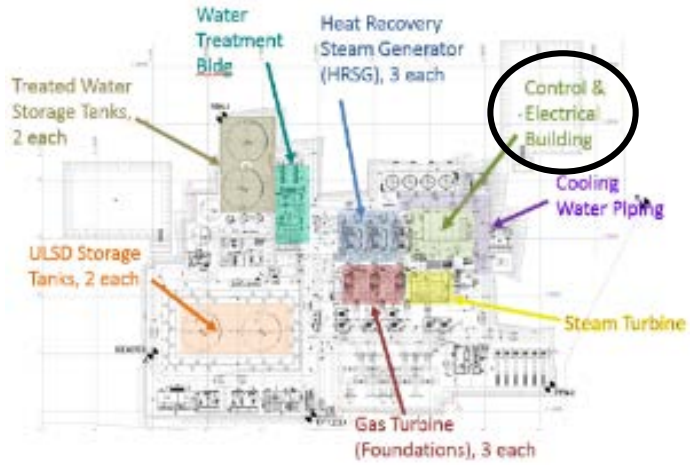
- Transportation Logistics – EPC continues to work with DPW on transport plan from Port to Ukudu site.
  - Bridge analysis dictating required transport equipment.
  - Temporary bridge delivered as required by DPW as backup for any bridge damage due to limited alternate routes in some areas.
  - Transportation will take several hours over several days to move HRSG modules and will affect traffic during movement.
  - Weekly meetings being held to discuss plans and requirements.
  - 25 heavy cargo movements expected thru April 2023
  - Demonstration of the Self-Propelled Modular Transporter (SPMT) was provided to DPW, GUP, DUP and GPA representatives on Oct. 27 at the Port.
  - First heavy cargo shipment arrived on Guam on Nov. 2, containing the 12 HRSG modules. It is being stored at the Port.
  - Doosan team has hired media group to provide public outreach.
  - Heavy haul transportation ongoing. First transport began Feb 4th.
  - Completed transportation and installation of all 4 modules for HRSG Unit 1 and HRSG Unit 3. HRSG Unit 2 has 2 of 4 modules in place.
  - Completed transportation and installation of GTG #1.
  - GTG 2 transported to site and awaiting installation.
  - GTG #3 and the Steam Turbine Generator pending shipment

Ukudu Power Plant Construction Status

Construction work ongoing with Control & Electric Building, Heat Recovery Steam Generator Module Installation, Fuel Storage Tanks, Fire Water Tank, Fuel Pre-Treatment Area, Water Treatment Tanks, Gas Turbine Building, Steam Turbine Foundations, and Water Treatment Building. Further progress made on Cooling Tower Foundation and Switchyard Foundations. Currently receiving HRSG modules and GTG units at site.



Ukudu Power Plant Construction Status



2nd Floor



Control & Electrical Building – 3rd floor concrete pour and brick laying in progress

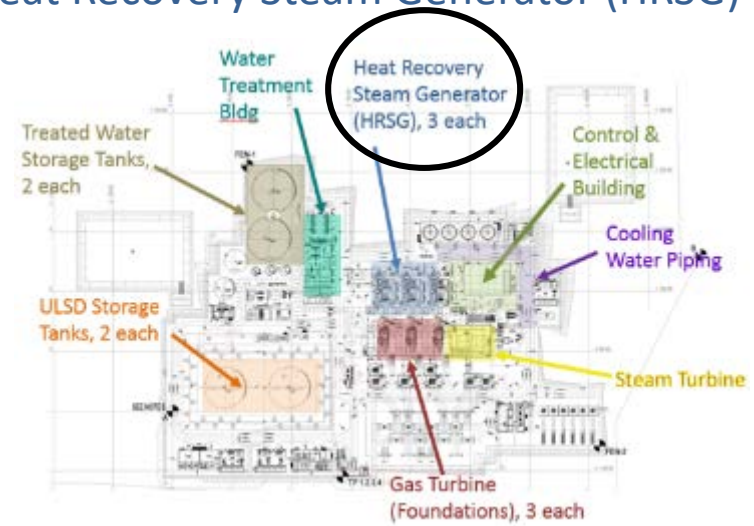


3rd Floor



Ukudu Power Plant Construction Status

Heat Recovery Steam Generator (HRSG) – Module Installation Ongoing



HRSG (#1 of 3): All 4 modules installed



HRSG (#2 of 3): 2 of 4 modules installed

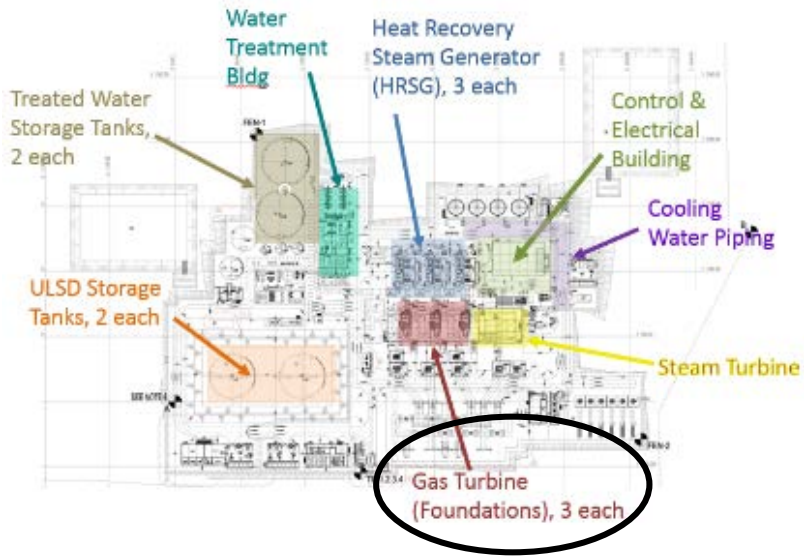


HRSG (#3 of 3): All 4 modules installed



Ukudu Power Plant Construction Status

Gas Turbines & Generators



GTG #1 – GTG and control building in place



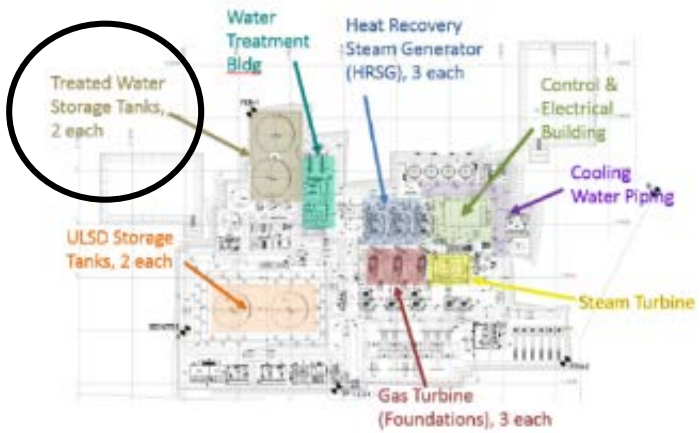
GTG #2 – GTG and control container in place



GTG #3 - Foundation work ongoing



Ukudu Power Plant Construction Status



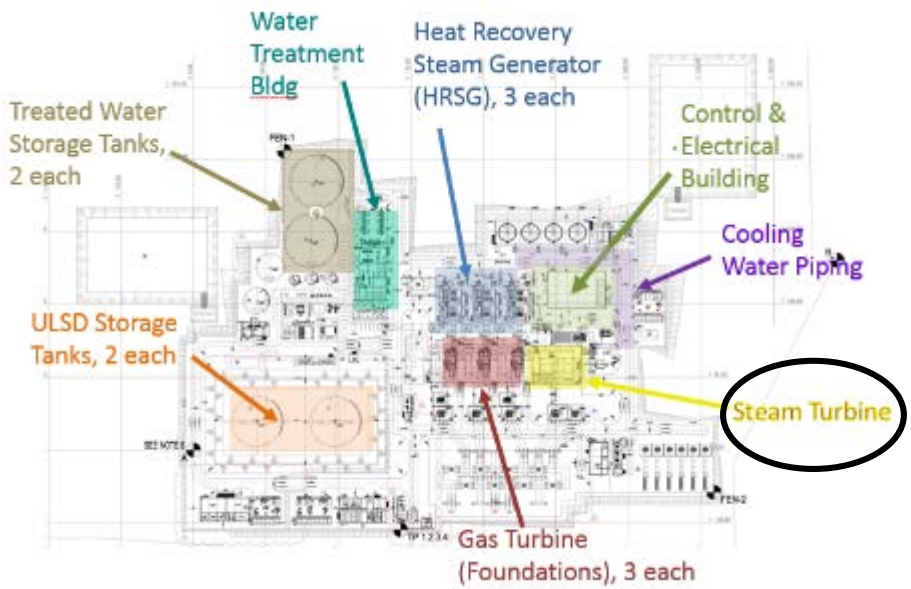
Treated Water Storage Tank 1 – 4th Row of Steel Plates Currently Being Welded



Treated Water Storage Tank 2 – 5th Row of Steel Plates Welding Ongoing



Ukudu Power Plant Construction Status

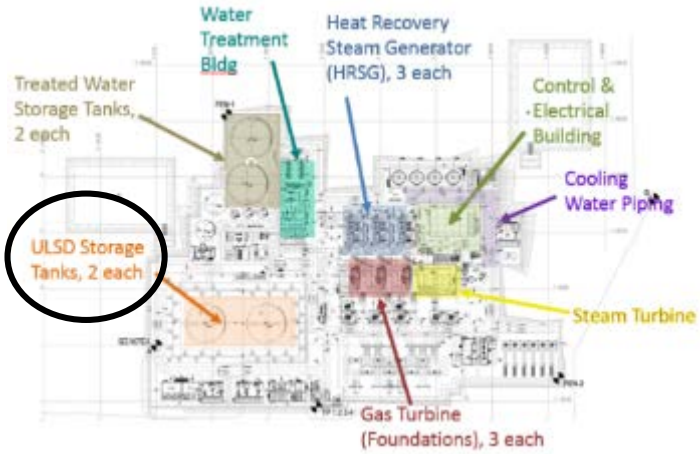




Steam Turbine Generator - Foundation concrete pour ongoing



Ukudu Power Plant Construction Status



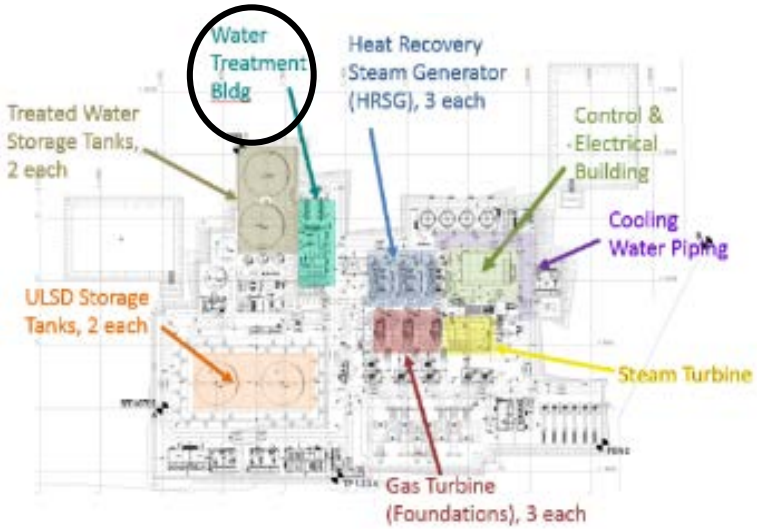
ULSD Storage Tank A– 2nd Row of Steel Plates Currently Being Welded



ULSD Storage Tank B– 2nd Row of Steel Plates Currently Being Welded



Ukudu Power Plant Construction Status

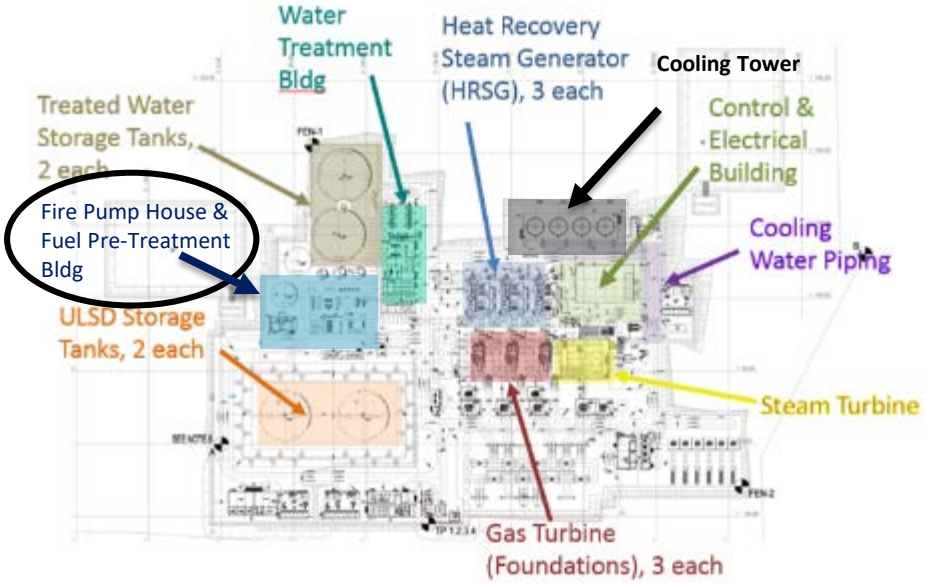


Water Treatment Building – Side section concrete pour in progress





Ukudu Power Plant Construction Status



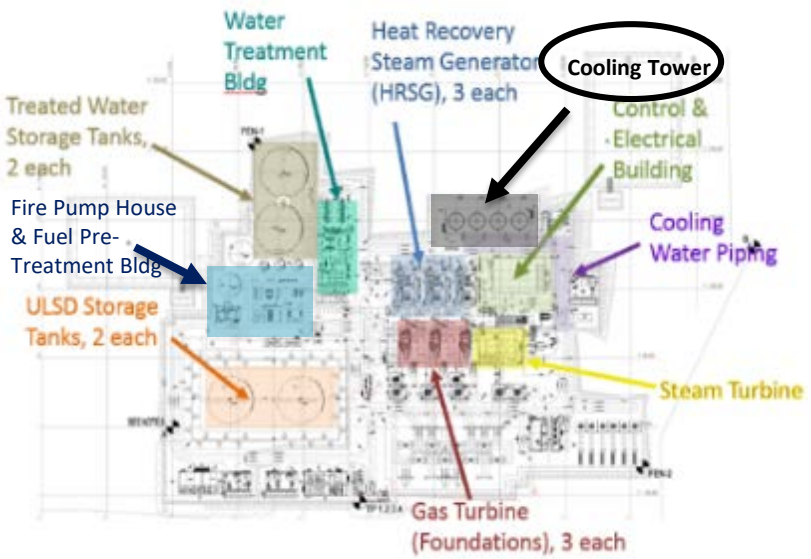
Fuel Pre-Treatment Bldg– Forms Being Installed



Fire Pump House – Rebar Work Ongoing



Ukudu Power Plant Construction Status

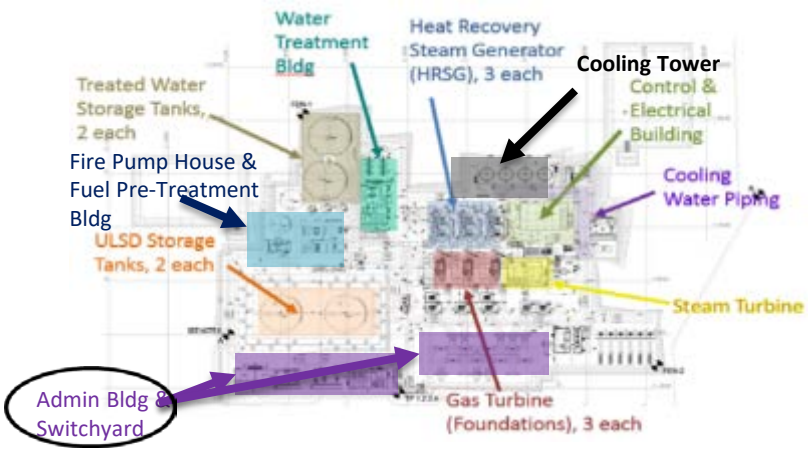




Cooling Tower & Basin Rebar Work Ongoing



Ukudu Power Plant Construction Status



Switchyard – Foundation work ongoing



Admin Building – Foundation Work Ongoing



Off Shore Progress

Major equipment updates include shipment of Gas Turbine Unit #3, HRSG insulation material, and STG package (turbine, generator). Additional progress is shown below:



Steam Turbine and generator loaded into vessel



STG – condenser manufacturing in progress



Local box - enclosure production completed



Water/Waster Water Treatment System – pressure vessel structure manufacturing in progress

Transportation

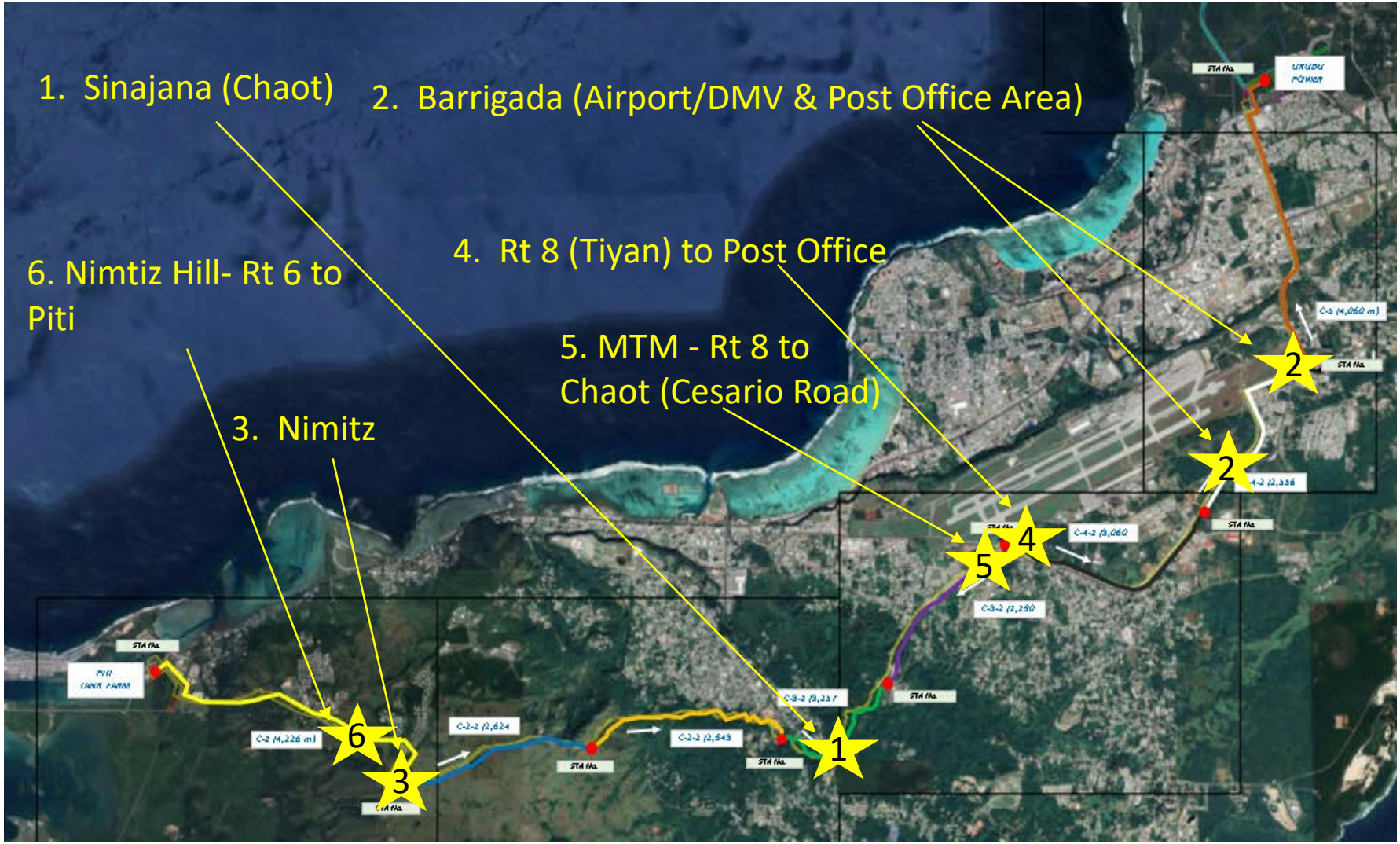
Four shipments of heavy cargo requiring the self-propelled modular transport and DPW permit for the heavy haul are listed below:

No.	Heavy Cargo Description	Status/ETA
1	Heat Recovery Steam Generator (HRSG) Modules (3 units x 4 modules = 12 pieces)	Currently being transported to Ukudu. 10 of 12 currently at site as of 3/16/23
	Gas Turbine #1 , GT #1 Generator, Gas Turbine #2, GT #2 Generator	Transported and installed at site.
	Gas Turbine Generator Transformer for GTG #1 & GTG#2	Transported and installed at site.
2	Gas Turbine #3, GT #3 Generator	ETA 3/29
3	GTG #3 Generator Transformer, STG Generator Transformer	ETA Mid of Apr
4	Assembled Steam Turbine IP/LP, Hydraulic Power Unit, Condenser	ETA End of April 2023

GUP obtained heavy haul transportation permit from DPW. First transport took place February 4th. Due to traffic concerns, some heavy haul transports have been split into 2 days to get from the port to Ukudu Plant (1st leg – PAG to ITC building ; 2nd leg – ITC building to plant site)



Fuel Pipeline Construction Status



Fuel Pipeline Construction Status

1. Sinajana/Chaot area

Excavation and pipe installation ongoing.







2. Barrigada

Site restoration in progress.





Fuel Pipeline Construction Status

3. Nimitz

Pipe installation, fiber optic cable installation and backfilling ongoing





4. Rt 8 (Tiyan) to Post Office

Pipeline installation and backfilling ongoing.





Fuel Pipeline Construction Status

5. MTM - Rt 8 to Chaot (Cesario St.)

Excavation, pipe installation, and backfilling in progress from Rt 8 to Sgt. Roy T. Damien Street. Excavation preparation in progress from Sgt. Roy T. Damien Street to Chaot area.





6. Nimtiz Hill- Rt 6 to Piti

Excavation and pipeline installation ongoing.





Harmon Substation Construction Status

Work in the Harmon Substation for the transmission line interconnection started on Feb. 28, 2023



Initiating removal of existing foundation



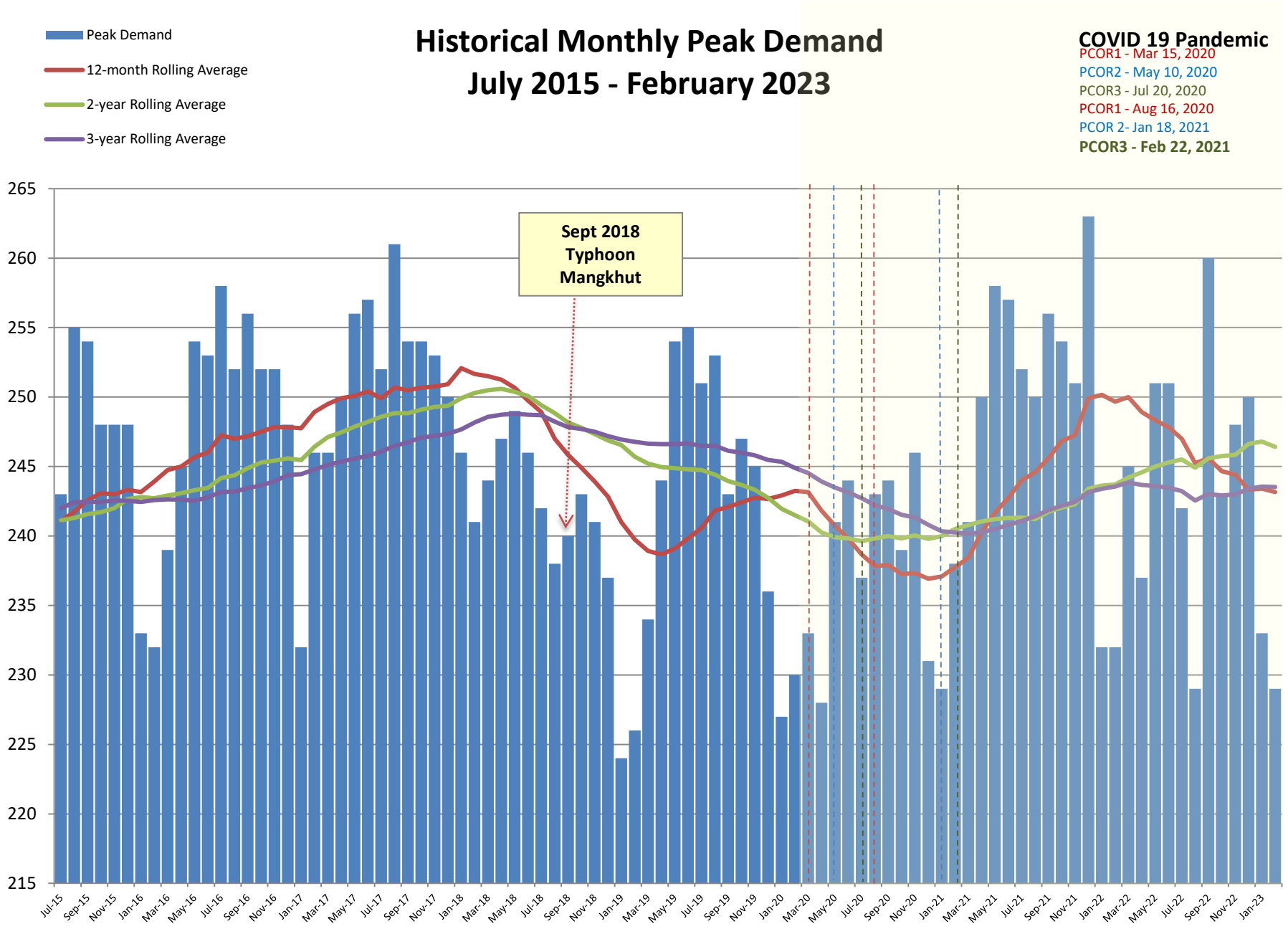
Removed existing foundations



Measurement/layout of new switchyard expansion

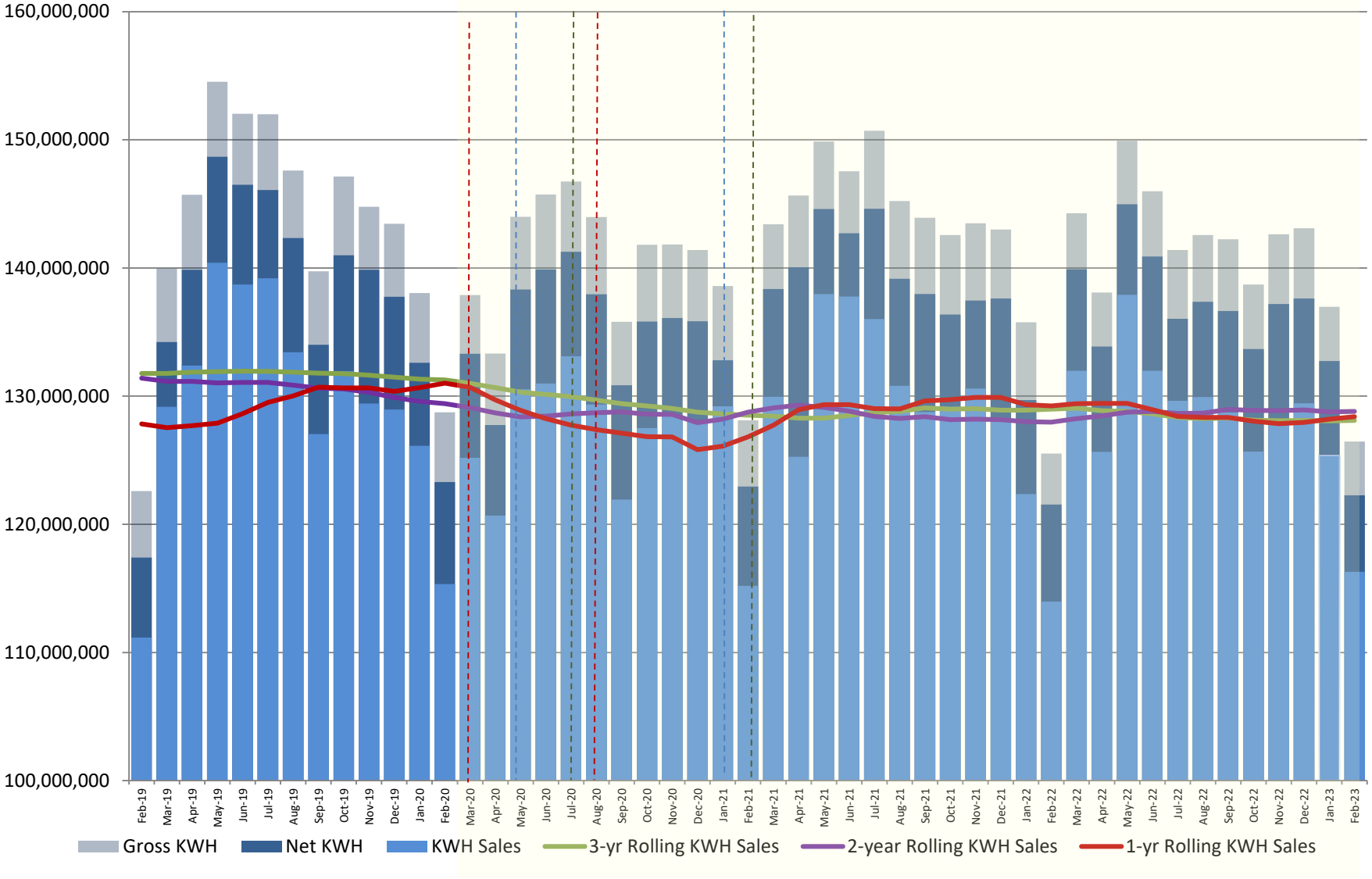
12. Generation KPIs Update FEBRUARY 2023

Historical Monthly Peak Demand
July 2015 - February 2023



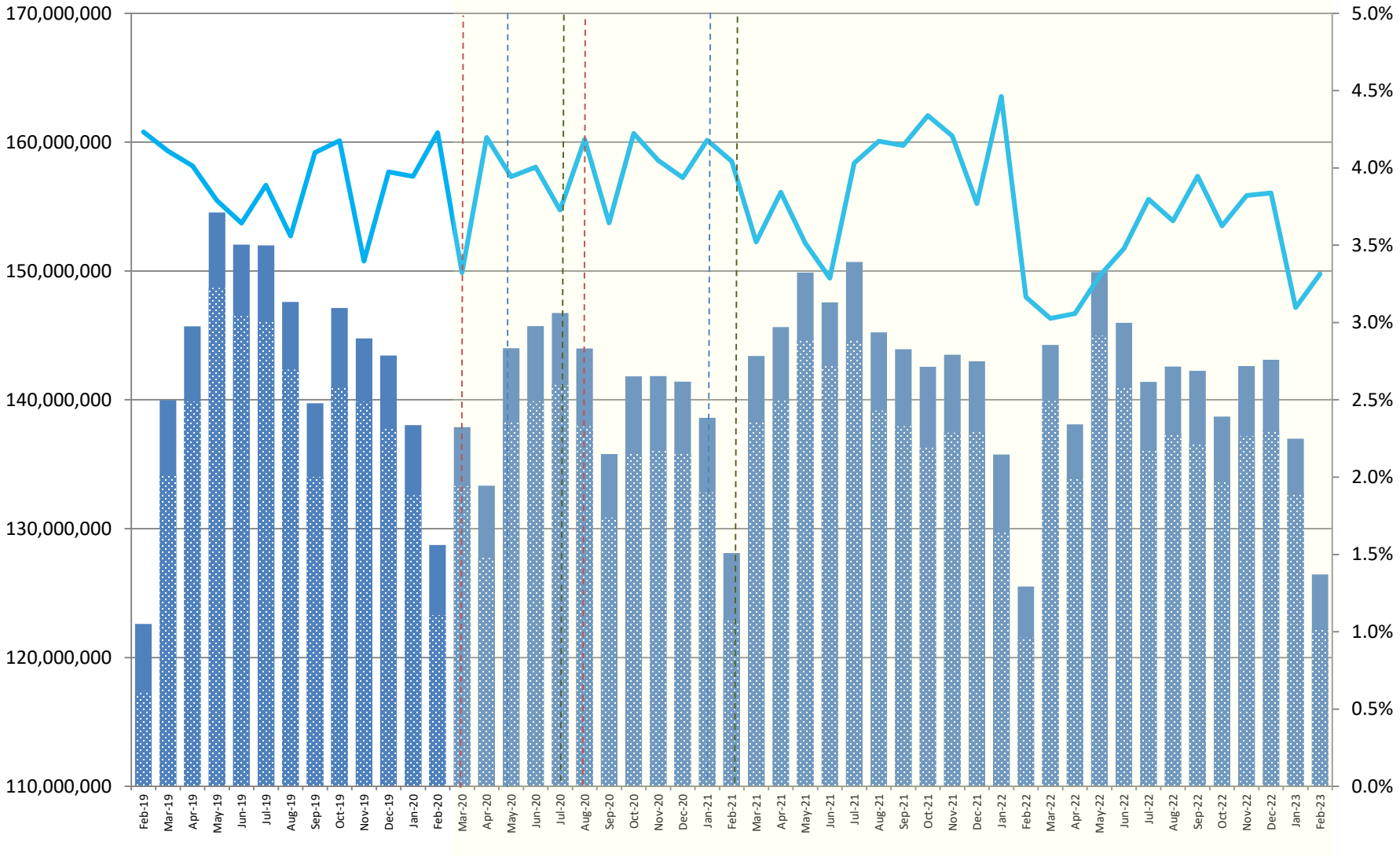
Historical KWH Sales
February 2019 - February 2023

COVID 19 Pandemic
PCOR1 - Mar 15, 2020
PCOR2 - May 10, 2020
PCOR3 - Jul 20, 2020
PCOR1 - Aug 16, 2020
PCOR 2- Jan 18, 2021
PCOR3 - Feb 22, 2021

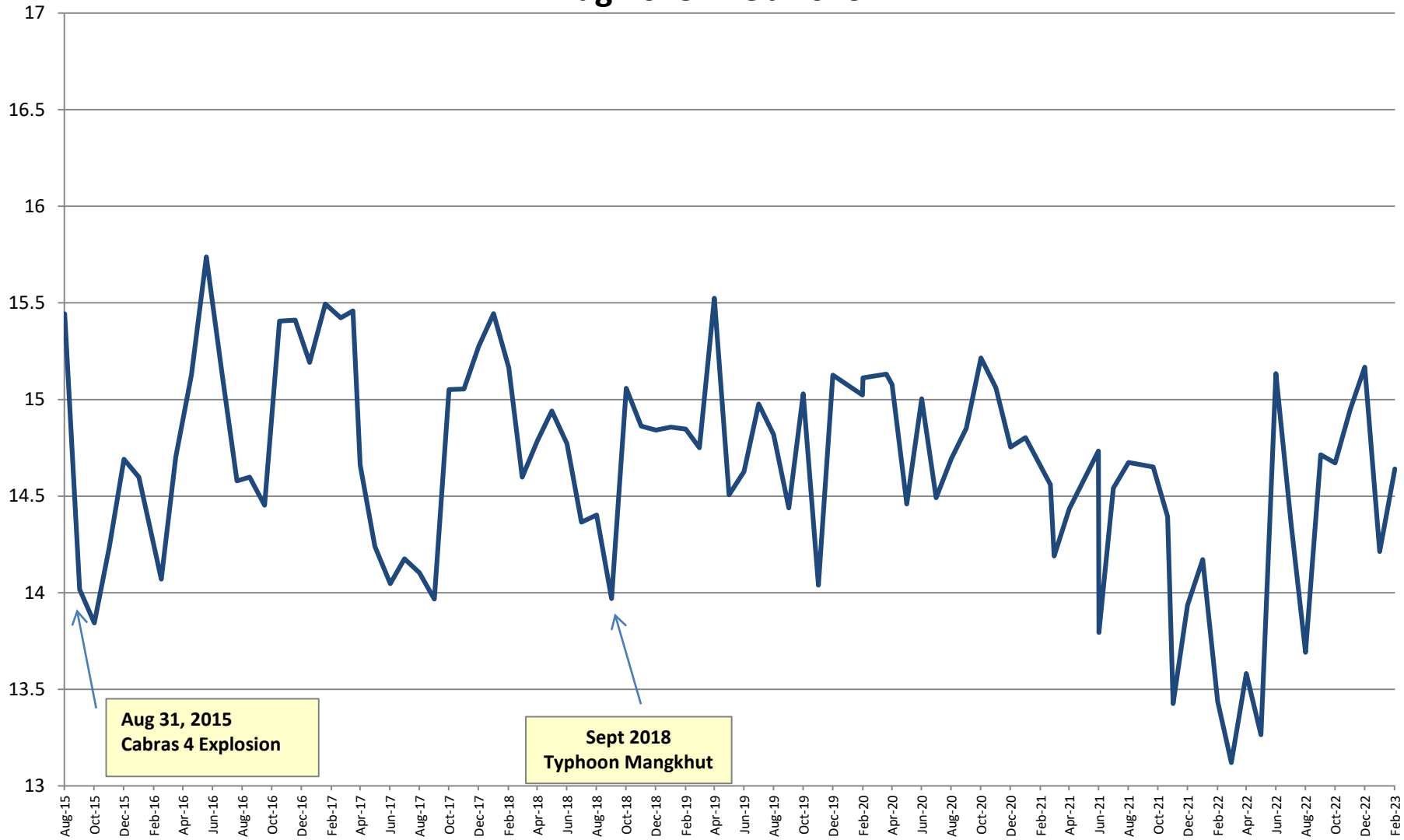


Gross and Net Generation (KWH)
February 2019 - February 2023

COVID 19 Pandemic
PCOR1 - Mar 15, 2020
PCOR2 - May 10, 2020
PCOR3 - Jul 20, 2020
PCOR1 - Aug 16, 2020
PCOR 2- Jan 18, 2021
PCOR3 - Feb 22, 2021

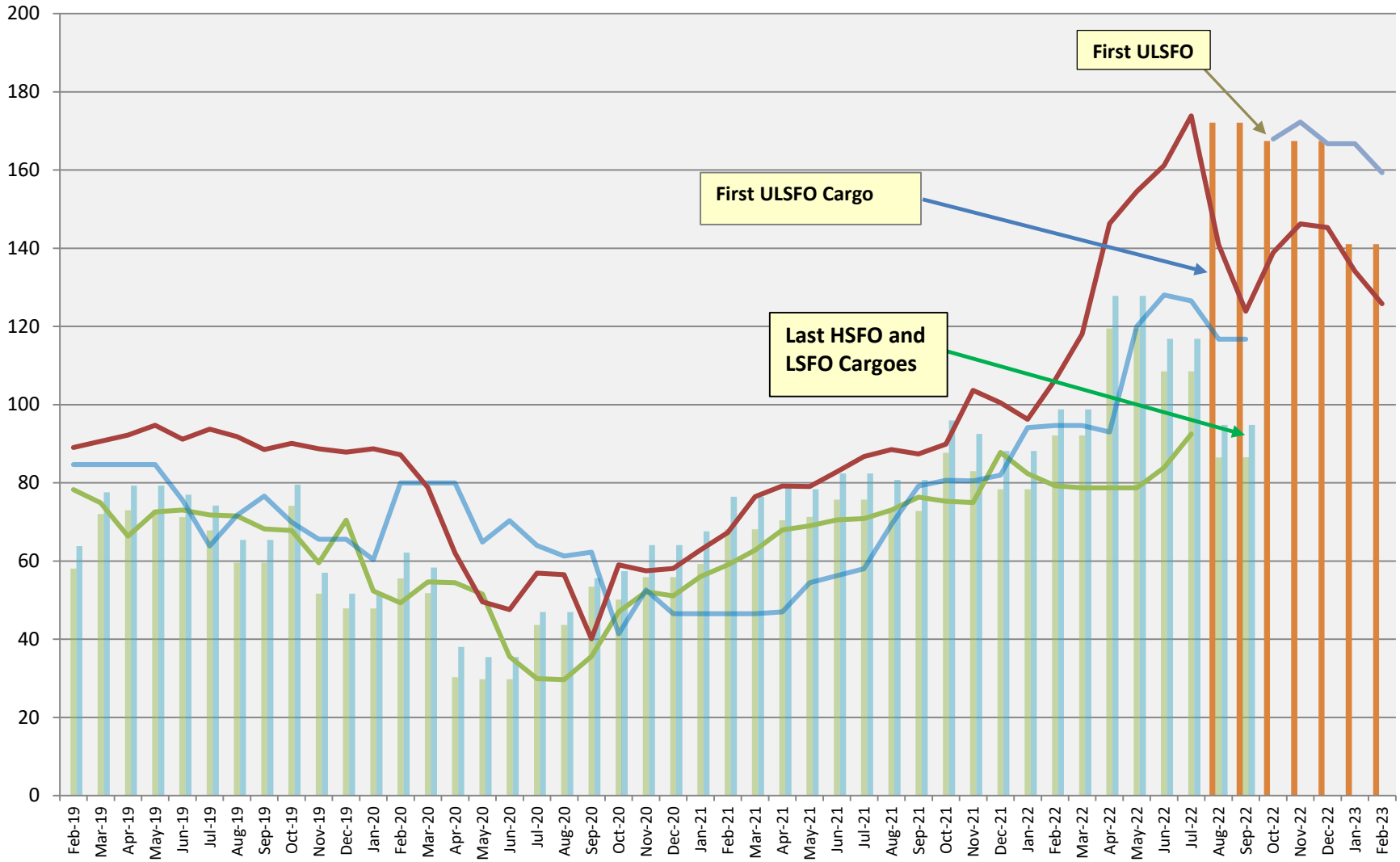


SYSTEM GROSS HEAT RATE
(KWH/Gal)
Aug 2015 - Feb 2023



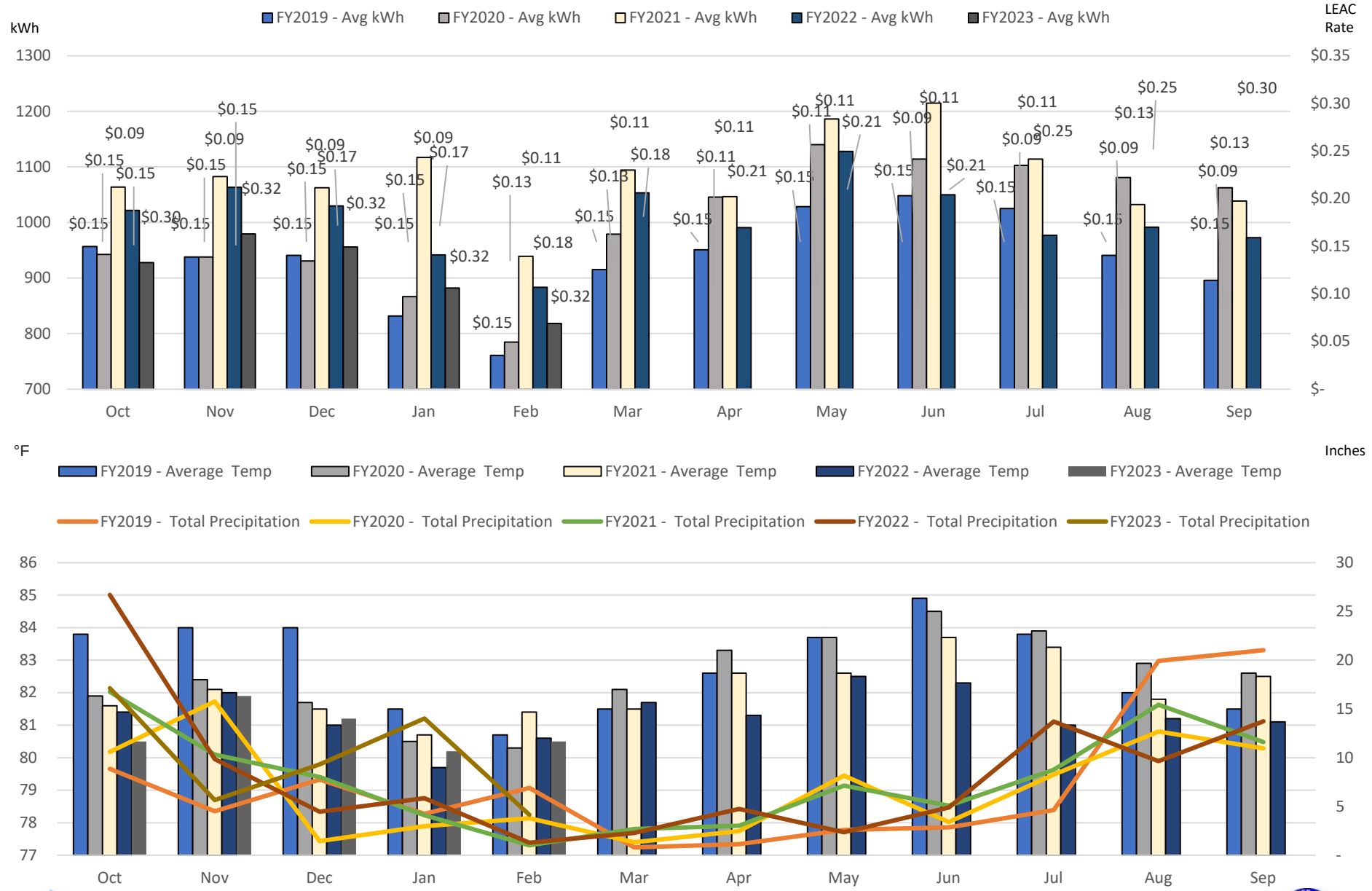
Fuel Cargo and Fuel Consumption Costs ($/bbl)
February 2019 - February 2023

PCOR1 - Mar 15, 2020
PCOR2 - May 10, 2020
PCOR3 - Jul 20, 2020
PCOR1 - Aug 16, 2020
PCOR 2- Jan 18, 2021
PCOR3 - Feb 22, 2021



CFO
FINANCIAL HIGHLIGHTS
February 2023

Residential average kWh & Weather Chart



Residential average kWh & LEAC Rate

Avg kWh	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FY 2019	957	938	940	831	761	915	951	1,028	1,048	1,025	940	896
FY2020	942	938	931	867	785	979	1,046	1,140	1,114	1,103	1,081	1,062
FY2021	1,064	1,083	1,062	1,117	939	1,094	1,046	1,186	1,215	1,114	1,032	1,038
FY2022	1,021	1,063	1,030	942	883	1,053	991	1,128	1,050	977	992	972
FY2023	928	979	956	882	818							
Average	982	1,000	984	939	842	1,010	1,008	1,121	1,107	1,055	1,011	992

LEAC Rate	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FY 2019	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542
FY2020	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1542	$ 0.1345	$ 0.1345	$ 0.1100	$ 0.1100	$ 0.0868	$ 0.0868	$ 0.0868	$ 0.0868
FY2021	$ 0.0868	$ 0.0868	$ 0.0868	$ 0.0868	$ 0.1100	$ 0.1100	$ 0.1100	$ 0.1100	$ 0.1100	$ 0.1100	$ 0.1304	$ 0.1304
FY2022	$ 0.1508	$ 0.1508	$ 0.1715	$ 0.1715	$ 0.1808	$ 0.1808	$ 0.2095	$ 0.2095	$ 0.2095	$ 0.2516	$ 0.2516	$ 0.2960
FY2023	$ 0.2960	$ 0.3186	$ 0.3186	$ 0.3186	$ 0.3186							

Hotel kWh & Occupancy Rate

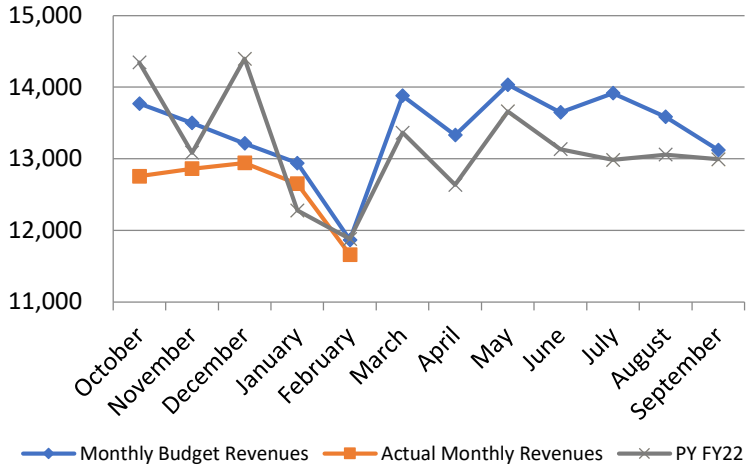
mWh Hotels	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FY2019	10,826	10,628	10,494	10,175	8,965	9,443	10,565	10,741	10,066	11,494	10,170	10,397
FY2020	10,316	9,801	10,508	9,848	9,627	8,319	7,044	6,826	7,309	7,645	7,520	7,063
FY2021	7,045	7,379	7,596	6,973	6,270	6,863	7,326	7,152	7,521	7,841	7,906	7,560
FY2022	6,973	7,346	7,041	6,921	6,419	6,964	6,850	7,451	7,683	7,959	8,071	7,821
FY2023	7,802	7,921	8,251	8,031	7,542							

Occupancy Rate	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FY2019	85.9	85.9	85.9	91.4	91.4	91.4	84.8	84.8	84.8	92.0	92.0	92.0
FY2020	89.9	89.9	89.9	73.7	73.7	73.7	34.7	34.7	34.7	27.1	27.1	27.1
FY2021	38.7	38.7	38.7	51.4	51.4	51.4	41.3	41.3	41.3	52.4	52.4	52.4
FY2022	45.9	45.9	45.9	56.0	56.0	56.0	54.0	54.0	54.0	66.8	66.8	66.8
FY2023	59.7	59.7	59.7									

Note: Data from 22 hotels in schedule P. 1 hotel closed its doors on Oct. 2021. Occupancy rate from GVB Visitor Arrival Statistic.

February 2023 Monthly Financial Highlights

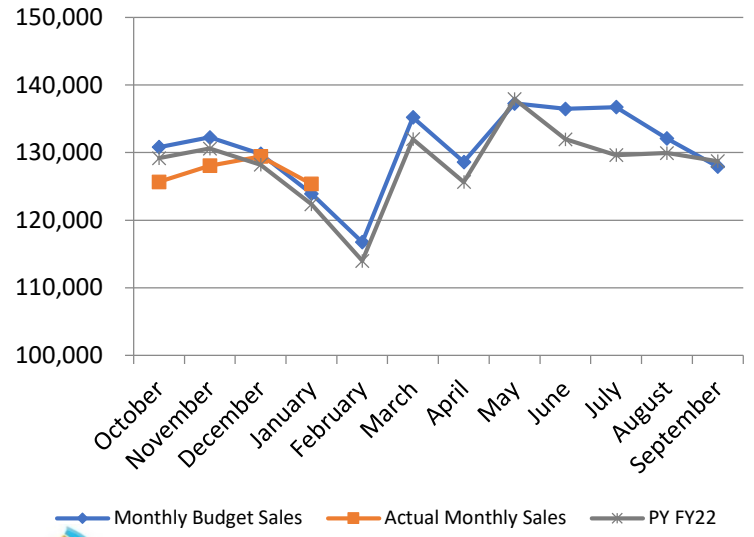
Base Rate Revenue (in '000)



Through February 28, 2023

$000	Monthly Budget Revenues	Actual Monthly Revenues	Variance		PY FY22	CY vs PY Variance	
October	13,769	$ 12,757	$ (1,013)	↓	$ 14,345	$ (1,589)	↓
November	13,500	12,861	$ (638)	↓	13,085	$ (223)	↓
December	13,214	12,940	$ (274)	↓	14,396	$ (1,456)	↓
January	12,939	12,651	$ (288)	↓	12,278	$ 374	↑
February	11,866	11,660	$ (206)	↓	11,879	$ (219)	↓
March	13,880				13,364		
April	13,329				12,636		
May	14,033				13,661		
June	13,646				13,134		
July	13,916				12,983		
August	13,585				13,056		
September	13,122				12,992		
Total	**$ 160,800**	**$ 62,869**	**$ (2,418)**		**$ 157,808**	**$ (3,114)**	

MWH Sales (in 'mWh)

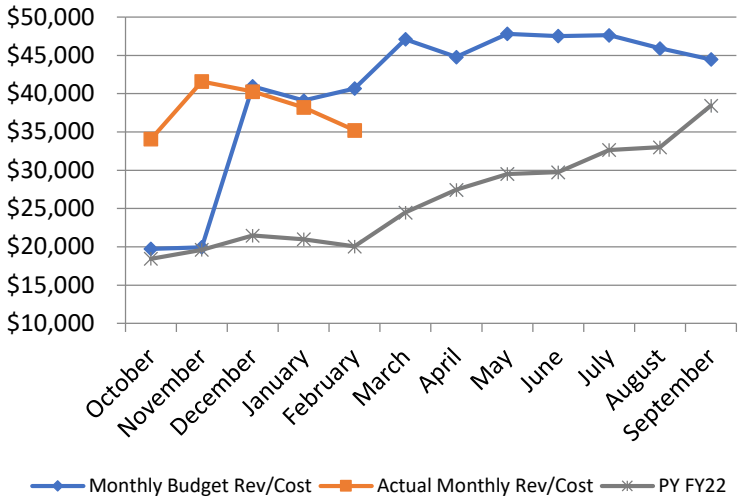


Through February 28, 2023

mwh	Monthly Budget Sales	Actual Monthly Sales	Variance		PY FY22	CY vs PY Variance	
October	130,810	125,672	(5,138)	↓	129,175	(3,502)	↓
November	132,251	128,077	(4,174)	↓	130,597	(2,520)	↓
December	129,828	129,439	(389)	↓	128,204	1,235	↑
January	123,917	125,368	1,451	↑	122,367	3,001	↑
February	116,767	116,289	(477)	↓	113,980	2,310	↑
March	135,211				131,984		
April	128,610				125,661		
May	137,272				137,915		
June	136,470				131,980		
July	136,715				129,637		
August	132,084				129,938		
September	127,916				128,721		
Total	**1,567,850**	**624,846**	**(8,727)**		**1,540,160**	**523**	

February 2023 Monthly Financial Highlights (Continued)

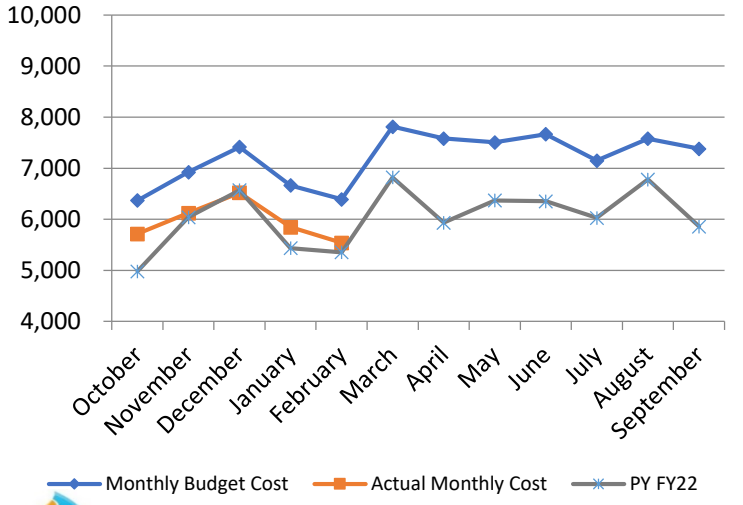
Fuel Revenues (in '000)



Through February 28, 2023

$000	Monthly Budget Rev/Cost	Actual Monthly Rev/Cost	Variance		PY FY22	CY vs PY Variance	
October	$ 19,726	$ 34,062	14,336	↑	$ 18,431	15,631	↑
November	19,943	41,593	21,650	↑	19,600	21,993	↑
December	40,967	40,281	(686)	↓	21,475	18,806	↑
January	39,102	38,205	(897)	↓	20,978	17,227	↑
February	40,669	35,217	(5,453)	↓	20,043	15,173	↑
March	47,094				24,465		
April	44,794				27,433		
May	47,811				29,517		
June	47,532				29,731		
July	47,617				32,646		
August	45,916				32,999		
September	44,467				38,433		
Total	**$ 485,639**	**$ 189,358**	**$ 28,950**		**$ 315,753**	**$ 88,830**	

O&M Costs (in '000)



Through February 28, 2023

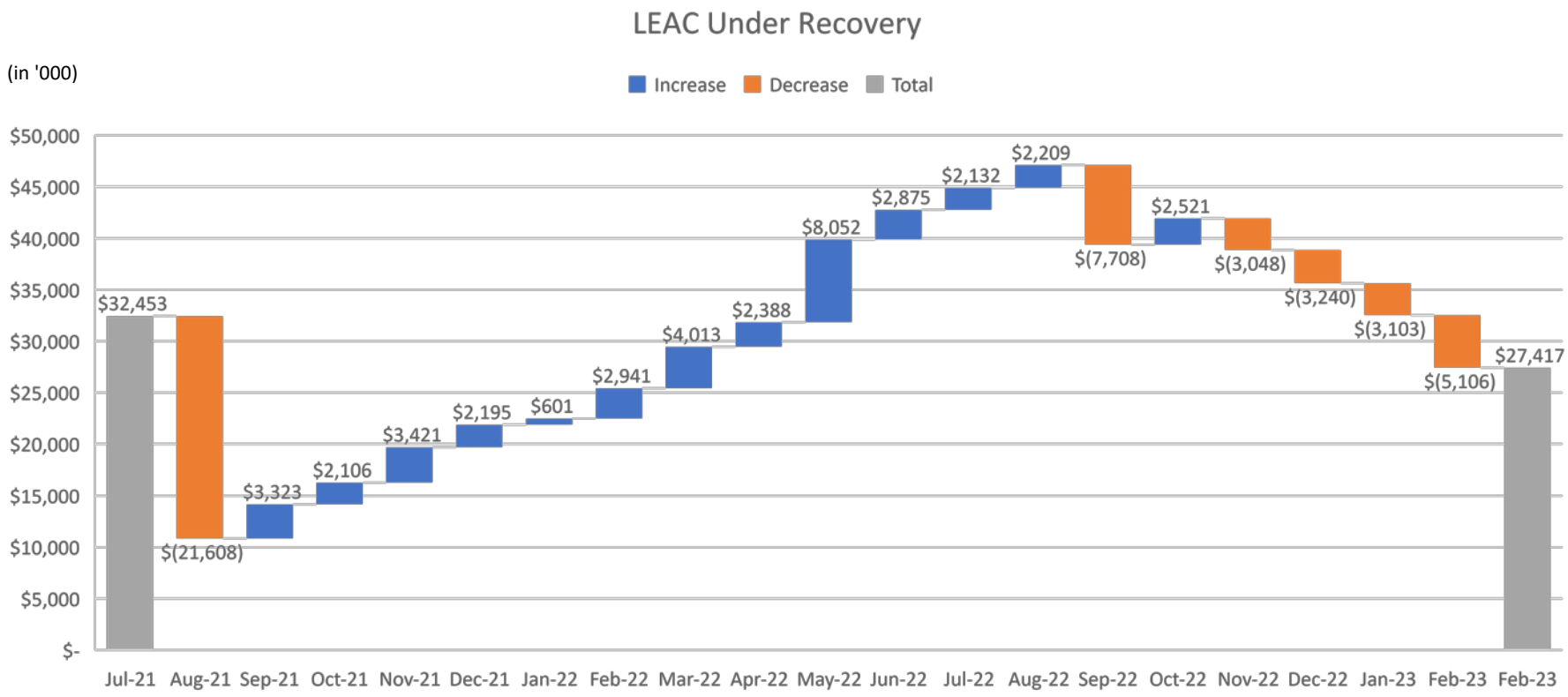
$000	Monthly Budget Cost	Actual Monthly Cost	Variance		PY FY22	CY vs PY Variance	
October	6,367	5,712	(655)	↑	4,979	733	↓
November	6,923	6,120	(802)	↑	6,039	82	↓
December	7,415	6,518	(898)	↑	6,569	(52)	↑
January	6,663	5,846	(817)	↑	5,434	412	↓
February	6,392	5,537	(855)	↑	5,353	184	↓
March	7,814				6,818		
April	7,582				5,931		
May	7,508				6,369		
June	7,665				6,353		
July	7,148				6,028		
August	7,578				6,779		
September	7,380				5,859		
Total	**$ 86,435**	**$ 29,733**	**$ (4,026)**		**$ 72,512**	**$ 1,359**	

February 2023 Monthly Financial Highlights (Continued)

Through February 2023												
	3Q2020	4Q2020	1Q2021	2Q2021	3Q2021	4Q2021	1Q2022	2Q2022	3Q2022	4Q2022	1Q2023	2Q2023
Residential	45,069	44,191	44,503	44,575	45,247	45,229	45,224	45,283	45,261	45,315	45,370	45,466
Commercial	5,309	5,366	5,301	5,307	5,330	5,336	5,349	5,367	5,368	5,373	5,425	5,411
Government	1,061	1,081	1,063	1,060	1,049	1,056	1,069	1,077	1,079	1,087	1,088	1,104
Streetlights	1,139	1,132	1,133	1,132	1,132	1,131	1,160	1,158	1,156	1,163	1,167	1,167
Navy	1	1	1	1	1	1	1	1	1	1	1	1
Total	**52,579**	**51,771**	**52,001**	**52,075**	**52,759**	**52,753**	**52,803**	**52,886**	**52,865**	**52,939**	**53,051**	**53,149**

Debt service coverage (DSC) calculation-indenture	2018	2019	2020	2021	2022	2023
Senior lien coverage	2.53	1.78	1.42	1.54	1.87	1.59
Debt service coverage (DSC) calculation-IPP as O&M						
Senior lien coverage	1.65	1.46	1.23	1.49	1.87	1.59

February 2023 Monthly Financial Highlights (Continued)





CTP 2023 Market Transition Strategy

CTP Market Transition Strategies & Efforts

2006

- Legislation introduced and passed to address the Authority's inability to attract and retain highly-skilled personnel due to insufficient salaries and compensation.
  - PL 28-113 & PL 28-159: mandated implementation of new market-based compensation model that would aid the attraction and attention of certified, technical, and professional (CTP) personnel.

2007

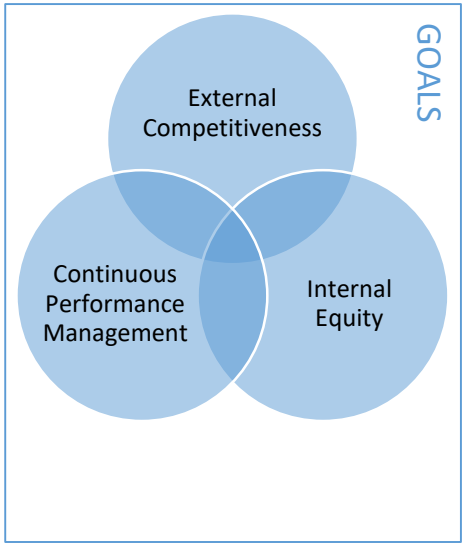
- Market study completed. GPA below 5th percentile of the 2008 market.
- New salary schedule implemented to update and support gradual market transition and pay-for-performance program.
- CCU passed Resolution 01-FY2008 to migrate all CTP positions to a more competitive market position, approving a 5-year phased-in approach to reach the 50th market percentile.

2017

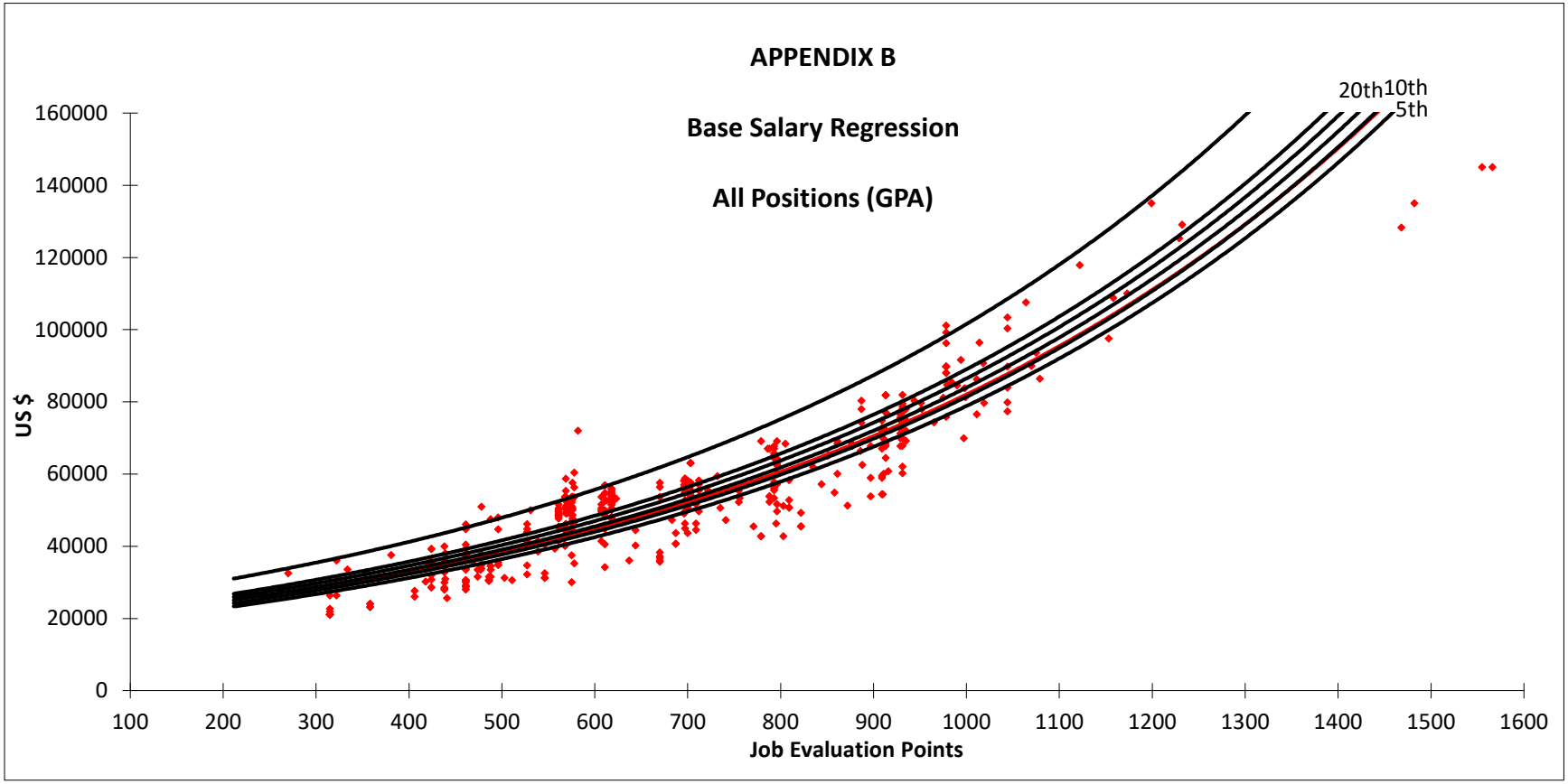
- Market update concluded GPA salaries were not competitive at the 10th market percentile, showing nearly half of current salaries below 5th percentile.
- All positions now CTP, as all deemed critical in providing the Authority's services, resulting in single compensation model.
- 2018 - Completed an initial structural adjustment, transitioning employees to the 15th percentile of the 2017 market.
- 2019 – Completed structural adjustment, transitioning employees to the 20th percentile of the 2017 market.

2022

- Conduct market update (2023)



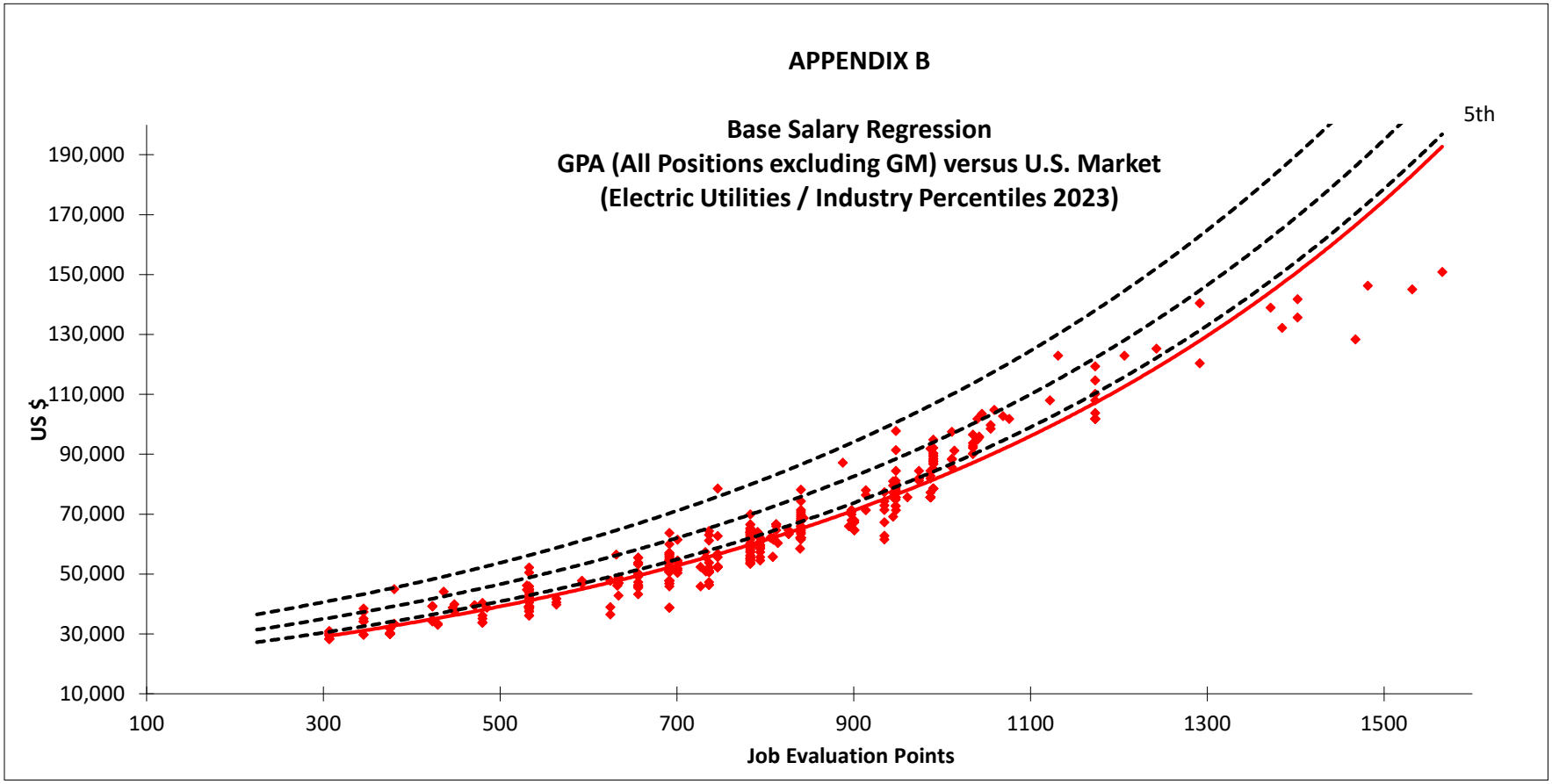
2017 Regression



Guam Power Authority (GPA) - solid red line & red spots for individual employees

U.S. Market (5th, 25th and 50th electric utilities / industry percentiles - dashed black lines)

2023 Regression



Human Resource Challenges

Current Market Assessment:

ISSUE: **GPA's competitive market position has eroded. The Authority is encountering difficulty attracting and retaining CTP employees, specifically for high-demand positions and job groupings.**

Current Contributing Factors:

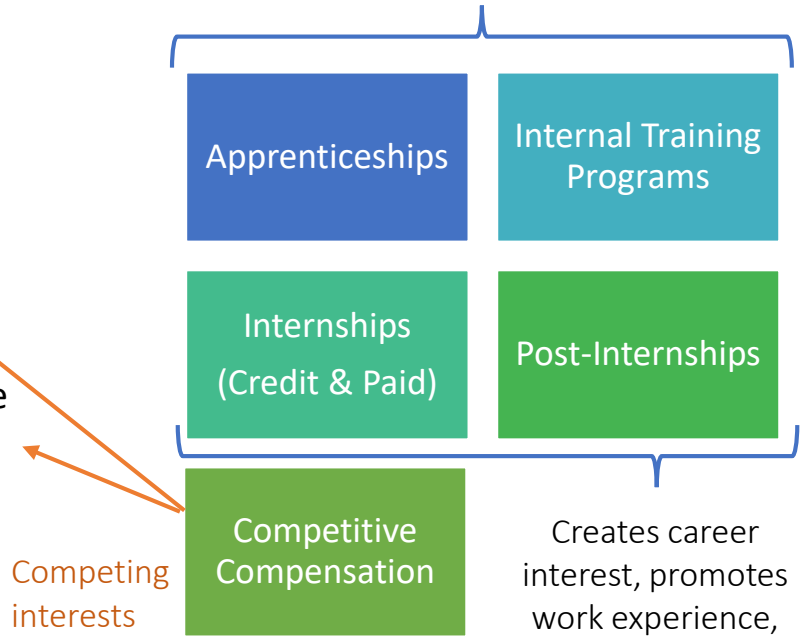
- High retirement eligibility (50-60% of workforce may retire under Defined Benefit plan) through 2028
- Military build-up activity supports hiring of civilian workforce with highly competitive salaries, including up to 12% COLA and other benefits
- GovGuam may implement a 22% salary increase

Recurring Contributing Factors:

- Structural migration every 4-6 years is insufficient to meet 50th percentile goal (CCU Resolution 01-FY2008)

Current Solutions:

Addresses applicant void by creating potential skilled, experienced applicant pool



Restating Compensation Strategy & Goals

PROPOSED STRATEGIC GOALS

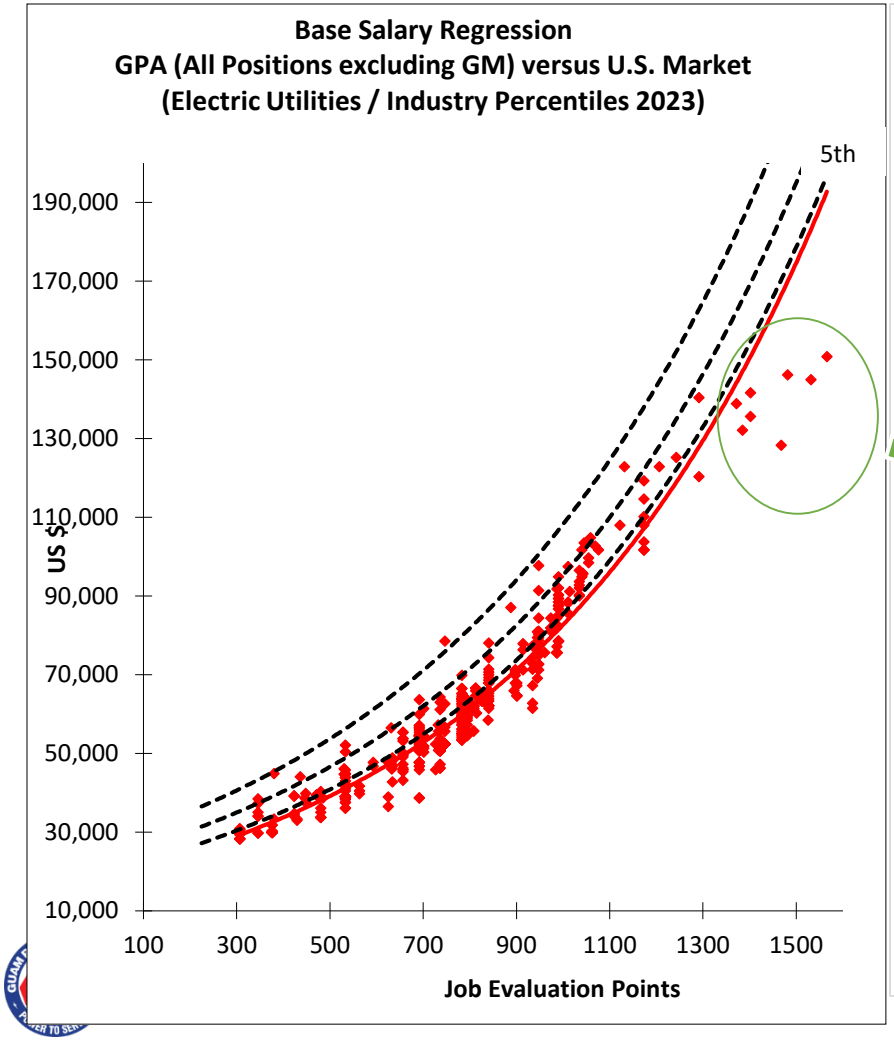
1. Determine base salary **target market percentiles**
2. Conduct **market studies** every 2 years
3. Perform **structural adjustments** every 2 years, or retain market positions, at minimum, with aim to gradually achieve market percentile goal
4. Continue annual **Pay-For-Performance**
5. Provide tools/framework for General Manager to **address retention and/or recruitment** efforts for specific positions or position groups

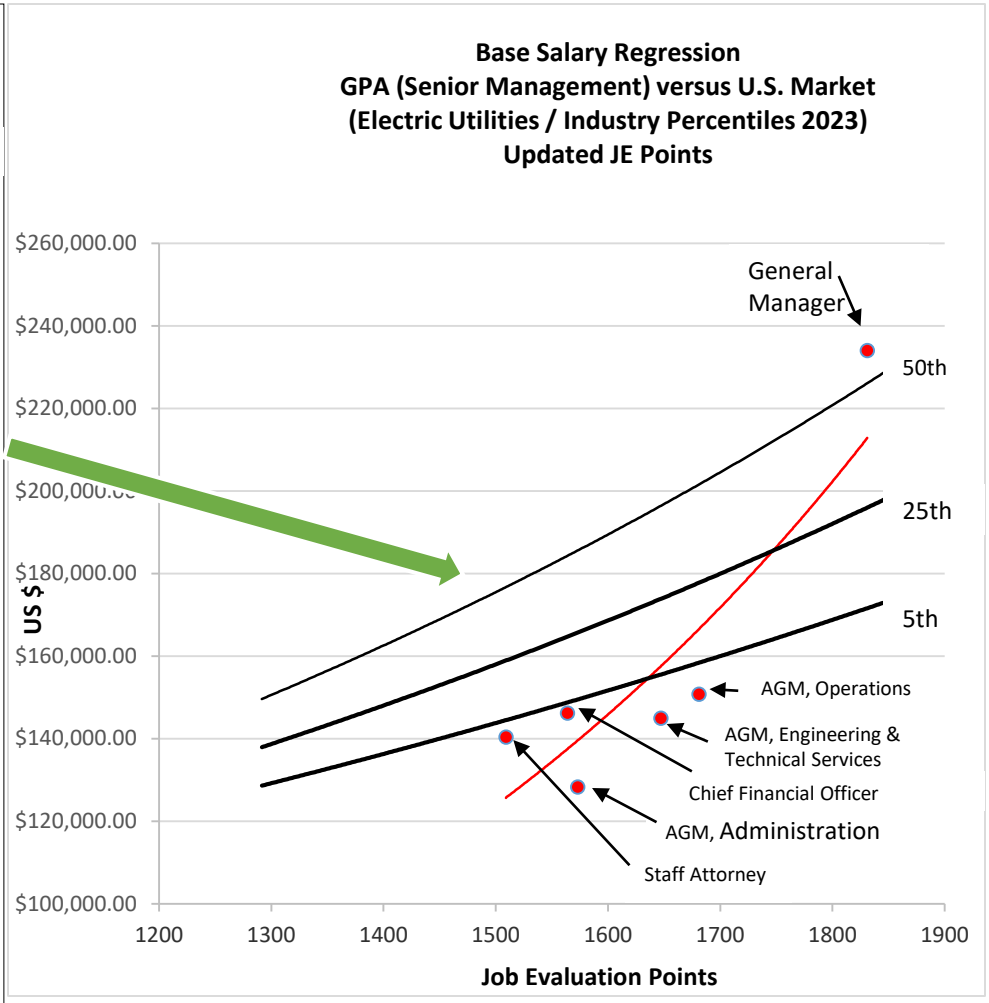
Percentile of Current Market

50th	65th	75th
• All employees, except executive management • *Market average*	• Highly-sought specific positions or groupings (e.g., cybersecurity specialists, engineers, etc.). • Determined annually based on market demands to allow discretionary flexibility • *Above market average*	• Executive management • *Mid-percentile between market avg and market max within US utilities market*

**Proposed 2018 Compensation Strategy (Searle & Associates) identified 50th & 75th percentile goals*

Restating Compensation Strategy & Goals





Restating Compensation Strategy & Goals

PROPOSED STRATEGIC GOALS

1. Determine base salary **target market percentiles**
2. Conduct **market studies** every 2 years
3. Perform **structural adjustments** every 2 years, or retain market positions, at minimum, with aim to gradually achieve market percentile goal
4. Continue annual **Pay-For-Performance**
5. Provide tools/framework for General Manager to **address retention and/or recruitment** efforts for specific positions or position groups

Market studies and structural adjustments help GPA stay competitive to recruit and retain *certified, professional, technical employees*, which create the momentum driving GPA's modern power utility transformation.

				If GovGuam Increase = 22%	If GPA Ann PFP = 3%	
	POSITION	GRADE	ANNUAL			
DOA	Cashier	G-01	$ 24,728.00	$ 30,168.16		
GPA	*Utility Cashier I*	*C-04D*	*$ 28,277.00*		*$ 29,125.31*	↓
DOA	Cashier	G-06	$ 29,782.00	$ 36,334.04		
GPA	*Utility Cashier I*	*C-06D*	*$ 30,620.00*		*$ 31,538.60*	↓
DOA	Cashier	G-09	$ 32,903.00	$ 40,141.66		
GPA	*Utility Cashier II*	*E-07A*	*$ 34,083.00*		*$ 35,105.49*	↓
DOA	Buyer II	H-01	$ 26,520.00	$ 32,354.40		
GPA	*Buyer II*	*H-06B*	*$ 40,515.00*		*$ 41,730.45*	↑
DOA	Buyer II	I-05	$ 33,181.00	$ 40,480.82		
GPA	*Buyer II*	*H-07D*	*$ 43,007.00*		*$ 44,297.21*	↑
DOA	Accountant I	L-01	$ 37,100.00	$ 45,262.00		
GPA	*Accountant I*	*J-06A*	*$ 50,319.00*		*$ 51,828.57*	↑
DOA	Accountant II	M-07	$ 50,953.00	$ 62,162.66		
GPA	*Accountant II*	*K-06C*	*$ 62,109.00*		*$ 63,972.27*	↑
GDOE	Warehouse Sup II	I-HP-8	$ 47,846.00	$ 58,372.12		
GPA	*Warehouse Sup II*	*K-03D*	*$ 55,670.00*		*$ 57,340.10*	↓
GDOE	Storekeeper II	I-HP-1	$ 28,595.00	$ 34,885.90		
GPA	*Storekeeper II*	*F-05B*	*$ 33,697.00*		*$ 34,707.91*	↓

Restating Compensation Strategy & Goals

PROPOSED STRATEGIC GOALS

1. Determine base salary **target market percentiles**
2. Conduct **market studies** every 2 years
3. Perform **structural adjustments** every 2 years, or retain market positions, at minimum, with aim to gradually achieve market percentile goal
4. Continue annual **Pay-For-Performance**
5. Provide tools/framework for General Manager to **address retention and/or recruitment** efforts for specific positions or position groups

The Pay-For-Performance program recognizes high-performing employees and promotes internal equity. Rewarding high-performing employees allows advancement through the pay scales based on performance, rather than mere longevity. The program encourages talent identification and development as a natural succession planning approach.

PFP should not be used as a substitute for regular structural adjustments. It is evident that applying annual PFPs did not assist GPA at retaining its market position between the 2017 and 2023 studies.

Restating Compensation Strategy & Goals

PROPOSED STRATEGIC GOALS

1. Determine base salary **target market percentiles**
2. Conduct **market studies** every 2 years
3. Perform **structural adjustments** every 2 years, or retain market positions, at minimum, with aim to gradually achieve market percentile goal
4. Continue annual **Pay-For-Performance**
5. Provide tools/framework for General Manager to **address retention and/or recruitment** efforts for specific positions or position groups

Critical Positions, individual positions or job groupings, should be identified and reviewed by the Human Resources division and General Manager no later than 4Q of the current fiscal year, determined by market demand and other factors relevant to the Authority. The designation will be effective at the beginning of the subsequent fiscal year. Such designation provides the General Manager discretion to exercise specific pay authority proactively.

Example:

- Internal committee identify certain IT and SCADA positions as "critical positions" due to market demand, evident by attrition and exit interviews.
- A 4-substep structural adjustment (representing 4% increase)is scheduled for all employees the following fiscal year.
- GM may exercise his discretionary authority to grant 2 additional substeps for some or all of those critical positions.



Considerations & Next Steps

- GPA has made and continues to make incredible progress toward:
  - Consent Decree projects
  - Clean Energy Master Plan projects
  - Industry transformation
- The creation and implementation of the initial CTP pay scale and market transition boosted GPA's ability to attract and retain top CTP employees.
- To maintain its current momentum and ensure proper succession, GPA must restore and retain its competitive edge as a local employer, including mitigating the threats of employee attrition to other local employers.
- Policies allowing the General Manager discretion and flexibility are critical, especially in the current job market.
- The CCU has a vital role in determining caliber of employees GPA maintains.

SCHEDULE

- End March 2023:
  - Final report due from consultant, Alan Searle & Associates
  - Review by utility management
- April 2023:
  - Formal presentation of findings and recommendation to CCU