



CONSOLIDATED COMMISSION ON UTILITIES

Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

GUAM POWER AUTHORITY WORK SESSION

*CCU Conference Room
4:30 p.m., Thursday, February 18, 2021*

AGENDA

1. CALL TO ORDER
2. ISSUES FOR DECISION
3. GM REPORT
 - 3.1 Updates
4. ISSUES FOR DISCUSSION
 - 4.1 Integrated Resource Plan
 - 4.2 New Power Plant Updates
5. OTHER DISCUSSION
 - 5.1 CCU Rules Update
6. DIVISION REPORTS
 - 6.1 Administration: Customer Service, HR, Procurement, Safety
 - 6.2 Communications
 - 6.3 Engineering & Technical: Engineering, IT, Planning & Regulatory, SPORD
 - 6.4 Finance
 - 6.5 Operations: Facilities, Generation, PSCC, T&D, Transportation
7. ANNOUNCEMENT
 - 7.1 Next Meeting: CCU Meeting: February 23
8. ADJOURNMENT

GM REPORT

FEBRUARY 2021



Generation Status

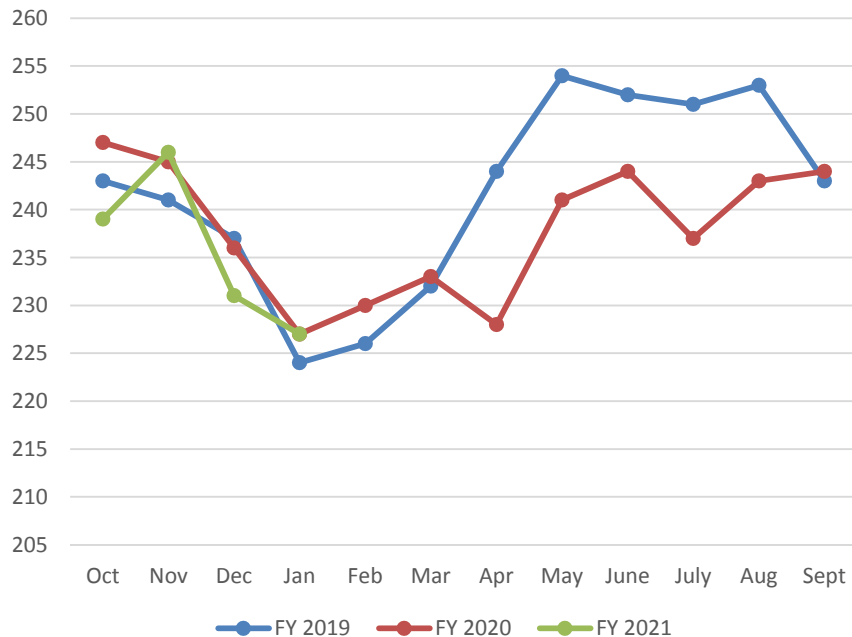
2

1. Reserve Margin Forecast for February 2021:

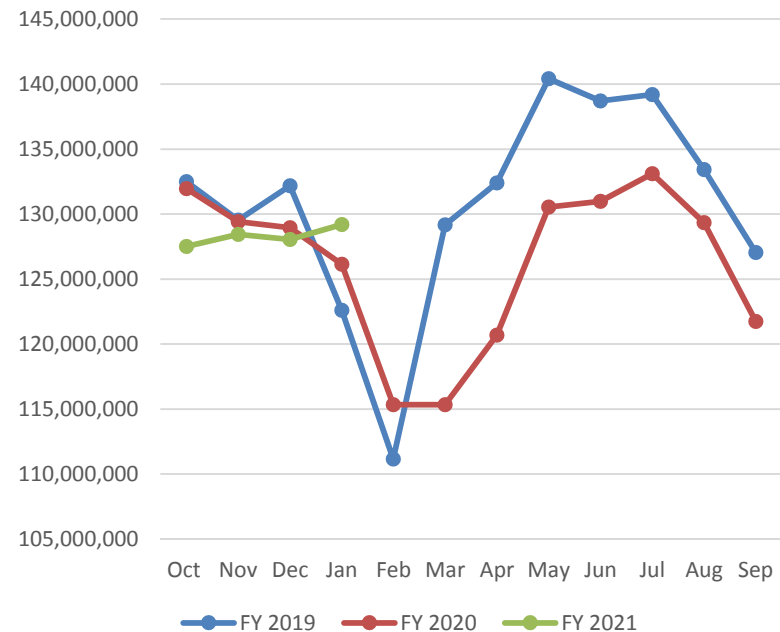
Projected Available Capacity: 354 MW
 Projected Demand: 230 MW
 Anticipated Reserve Margin: 124 MW

2. Production Characteristics Thru January 2021:

PEAK MW DEMAND



kWh Sales



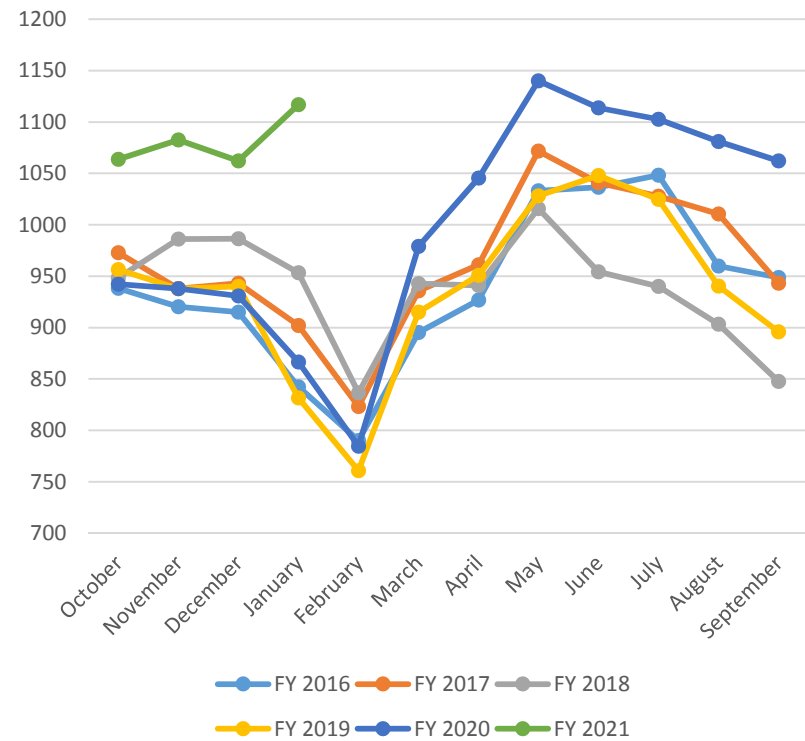
Monthly Residential Energy Consumption FY'2016 - FY'2021

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3. Average Monthly Residential Energy Consumption:

Residential Customer Monthly Average Consumption						
MONTH	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
October	938	973	948	957	942	1064
November	920	938	986	938	938	1083
December	915	943	987	940	931	1062
January	842	902	954	831	867	1117
February	790	823	837	761	785	
March	895	936	943	915	979	
April	927	961	941	951	1046	
May	1033	1072	1016	1028	1140	
June	1037	1041	954	1048	1114	
July	1048	1028	940	1025	1103	
August	960	1011	903	940	1081	
September	949	943	848	896	1062	
AVERAGE:	938	964	938	936	999	1081

Average Residential kWh Consumption



Customer Energy Consumption Demographics May 2019

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4. Customer Demographics kWh Consumption:

kWh Consumption	Residential (Post Paid)	Commercial	Government of Guam
0	358	127	48
1-350	5,554	1,085	760
351-500	3,444	288	53
501-750	6,589	410	67
751-1000	6,325	327	46
1001-1500	9,417	546	77
1501-2000	5,050	389	49
2001-3000	3,314	456	74
3001-6000	578	624	105
6000+	19	938	384
TOTAL:	40,648	5,190	1,663

Residential Post Paid Customers:

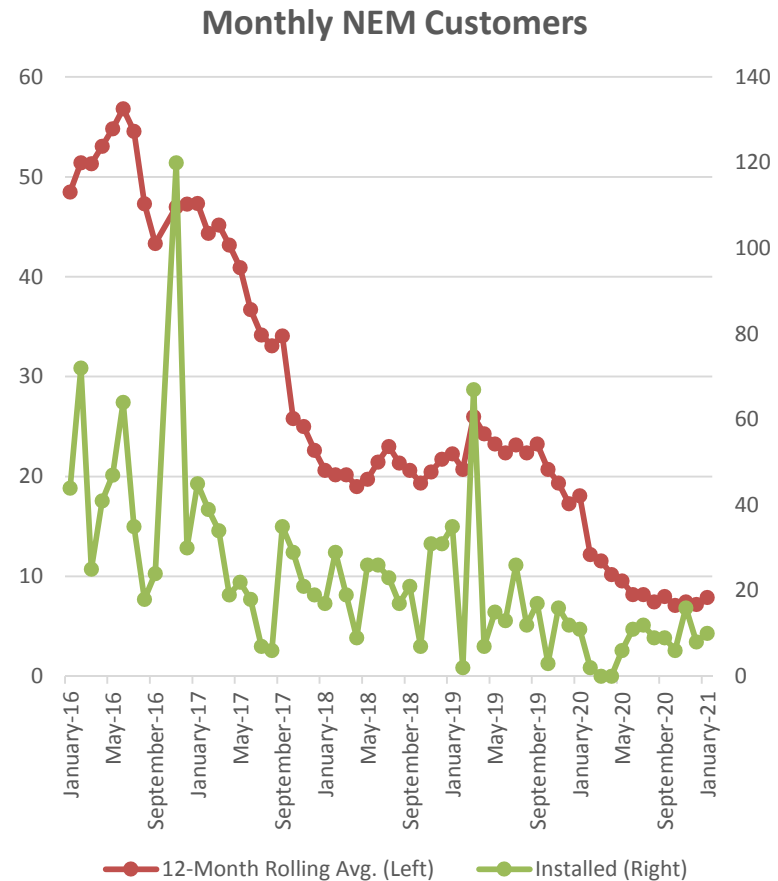
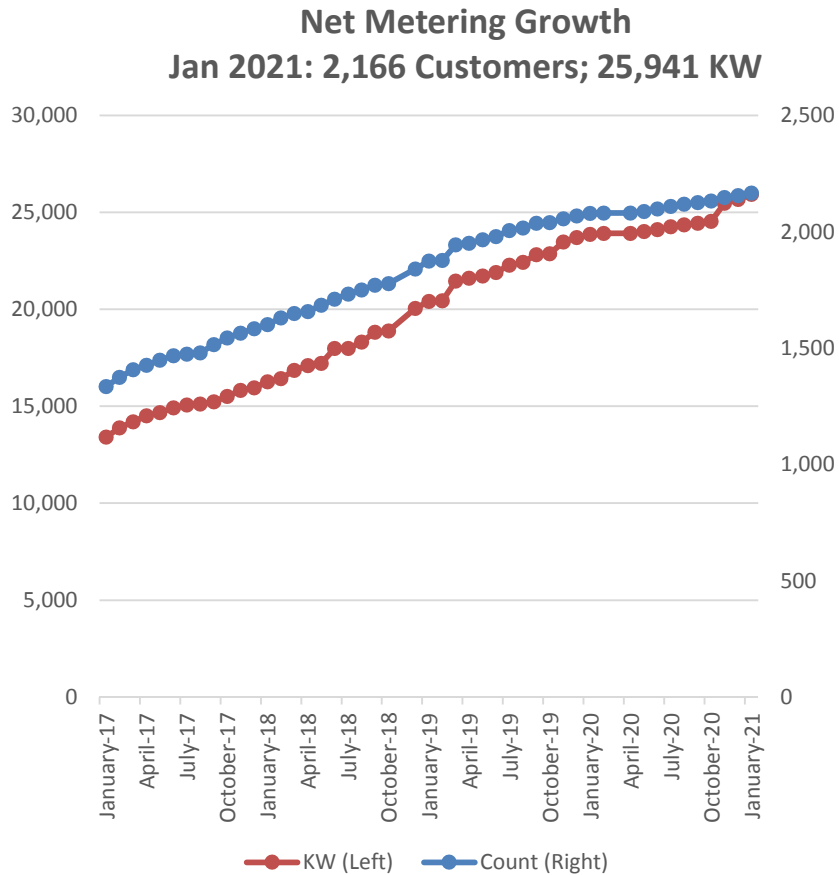
kWh Consumption	Residential	Average Rate \$0.18	Average Rate \$0.25	Cumulative	% Customers
0	358	\$0.00	\$0.00	358	0.9%
1-350	5,554	\$63.00	\$87.50	5,912	14.5%
351-500	3,444	\$90.00	\$125.00	9,356	23.0%
501-750	6,589	\$135.00	\$187.50	15,945	39.2%
751-1000	6,325	\$180.00	\$250.00	22,270	54.8%
1001-1500	9,417	\$270.00	\$375.00	31,687	78.0%
1501-2000	5,050	\$360.00	\$500.00	36,737	90.4%
2001-3000	3,314	\$540.00	\$750.00	40,051	98.5%
3001-6000	578	\$1,080.00	\$1,500.00	40,629	100.0%
Approximate LEAC Rate:		\$0.086	\$0.154		



NET METERING

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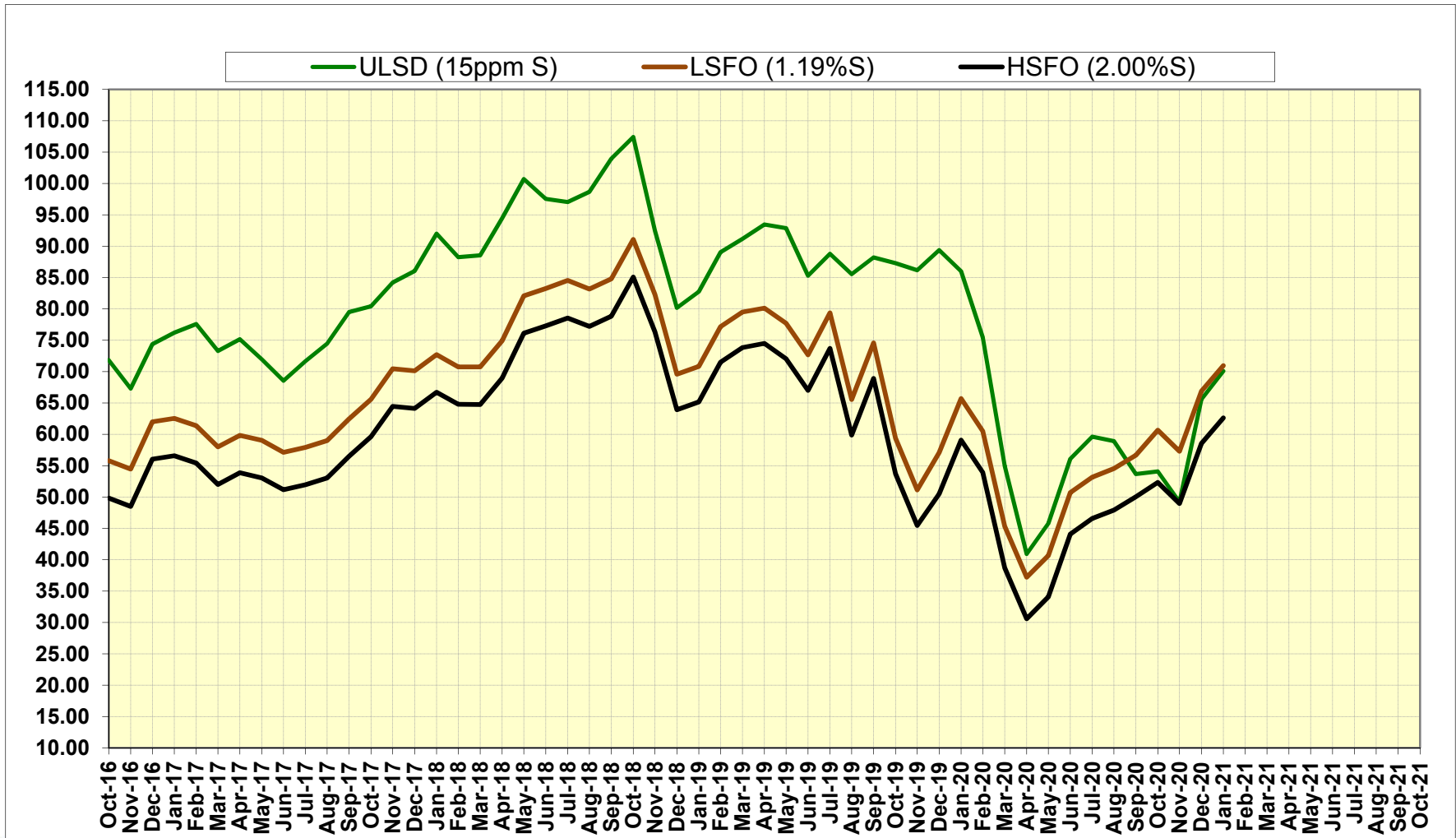
5. Net Metering (NEM) Growth Thru January 2021:



GPA Fuel Landed Cost (Per Barrel) Feb 10, 2021

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6. HSRFO-\$62.62; LSRFO-\$70.96; ULSD-\$70.10



Demand Side Management (DSM)

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7. DSM Funding:

No.	Description	Amount
1	Initial DSM Budget FY 2016	\$1,806,014.00
2	Interest Income	\$5,855.10
3	Bank Fees	\$5,367.32
4	Additional Funding Source 2017 Bond Refunding savings FY 2019 Revenue Funding FY 2020 Revenue Funding FY2020 LEAC (June to September) FY2021 LEAC (October to December)	\$1,139,189.00 \$1,031,500.00 \$348,075.00 \$1,296,397.67 \$625,329.23
5	Total Expense FY2016– FY2020 (Ending May 2020)	\$4,355,078.30
6	Total Expense FY2020 –FY2021 (June 2020 to December 2020)*	\$1,295,107.75
	DSM Ending Balance – LEAC Funds	\$596,806.63

*Preliminary Data as of 12/31/2020.

**December 2020 LEAC Revenues pending



Active DSM Application Processing Report

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8. DSM Rebate Application Report 2019 to 2021:

	2019	2020	2021	Total
Total Received	880	5830	763	7473
Total Processed (Denied or Paid with Check Date)	848	4541		5389
Total Pending	32	1289	763	2084

NOTES:

1. Table is based on Customer Services Received Date on application as log update of 2/12/21.
2. Log was generated in Jan 25, 2020 for active applications at the time and does not reflect total applications for 2019 or prior.
3. Includes checks processed on 2/12/21.
4. GPA is presently reviewing applications received in November 2020.



General Manager's Report (con't)

9. PUC Update:

- GPA Docket 20-10: Petition to Establish Condominium Rate - **Approved**
- GPA Docket 21-04: LEAC - Adjustment **Approved** for \$0.11/kWh effective Feb 1st
- GPA Docket 21-06: Petition to Approve the Piti 8&9 Contract for Conversion to ULSD - **Pending**, on PUC's Feb 25th Mtg Agenda
- GPA Docket 21-07: Petition to Approve Amendment to the Energy Conversion Agreement (ECA) with KEPCO for the 198MW Power Plant - **Pending**, on PUC's Feb 25th Mtg Agenda

10. Legislative Matters:

- No bills impacting GPA have any scheduled public hearing yet

11. Yigo Diesel Generator PMC Update:

- GPA cancelled the bid and plans to make adjustments to specifications. GPA began operating and maintaining units on January 9, 2021.

12. Phase III Renewable Project Update:

- GlidePath filed an appeal in the Superior Court of the OPA's decision which favored a GPA award to Engie for 40 MW of solar with full energy shifting ESS. A scheduling conference by the court is set for February 23, 2021.



ENERGY STORAGE SYSTEM (ESS):

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13. Energy Storage System (ESS) Update:

- LG completed commissioning tests and tuning at both the Talofofo and Agana site which was performed in December 2020/January 2021. At this time, LG technical support from construction and commissioning teams are focusing on training the O&M subcontractor who will be taking over the ESS operations upon turn-over.
- Training activities include familiarization with the project design and monitoring the battery and power management systems of the ESS. These teams are also working on finalizing commissioning documents and addressing punch list items. We are expecting the Commercial Operation date to be by **March 1, 2021**. After commercial operation, LG will continue to train their O&M team with additional onsite technical support until May 2021.



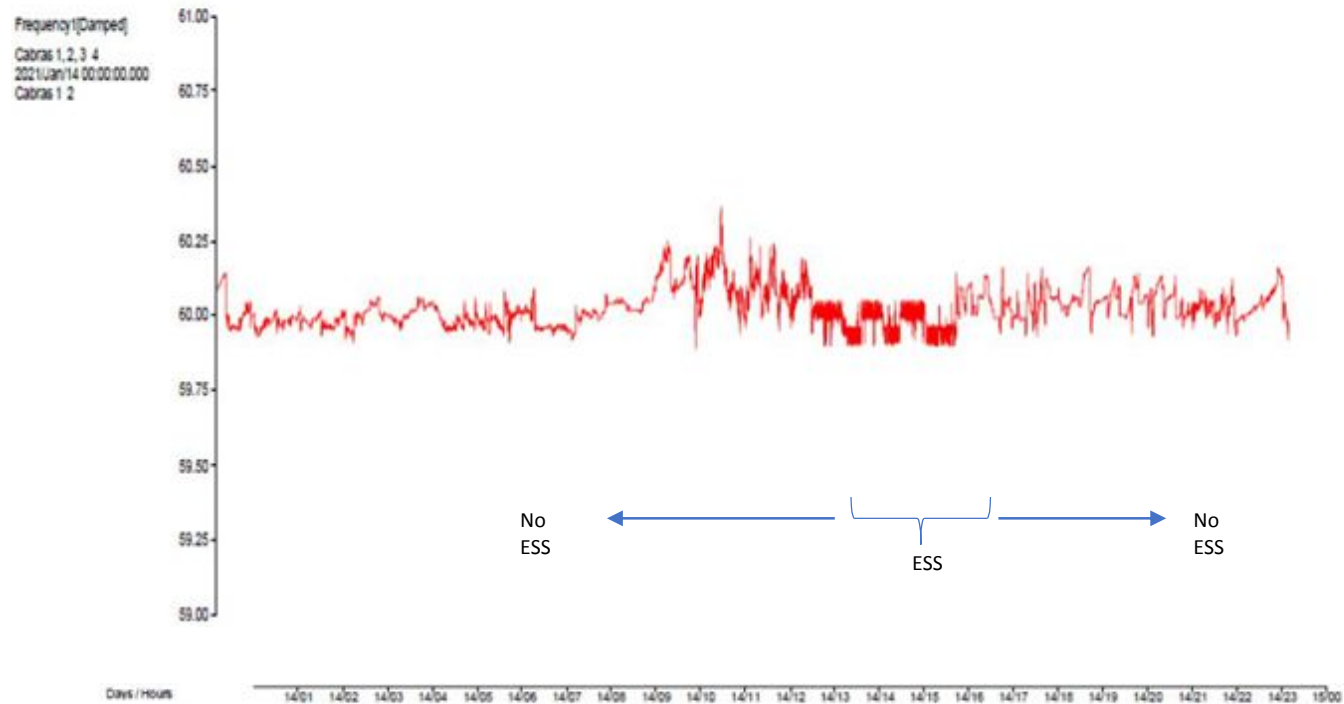
Agana ESS Testing Graphs

Jan 14 - Jan 29

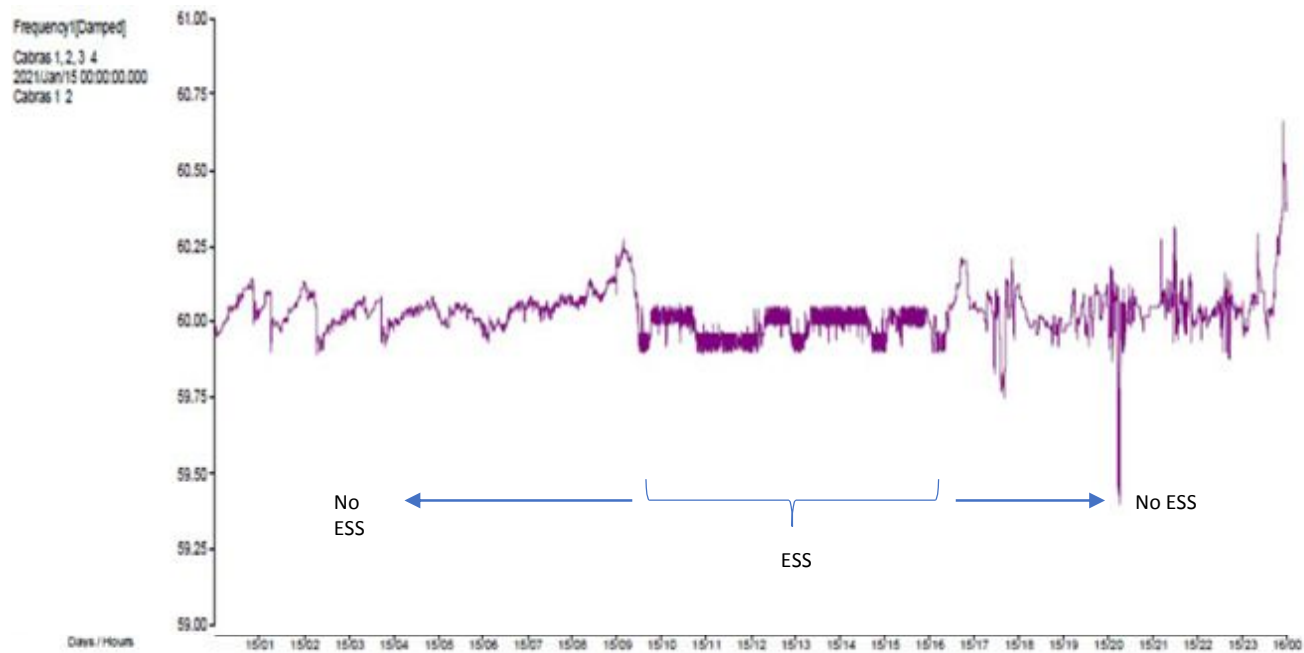
- LG CNS continued testing thru January 2021. Slides show results over a two week period.
- Graphs are from GPA Substation Tesla Recorder Data (GPA Engineering)



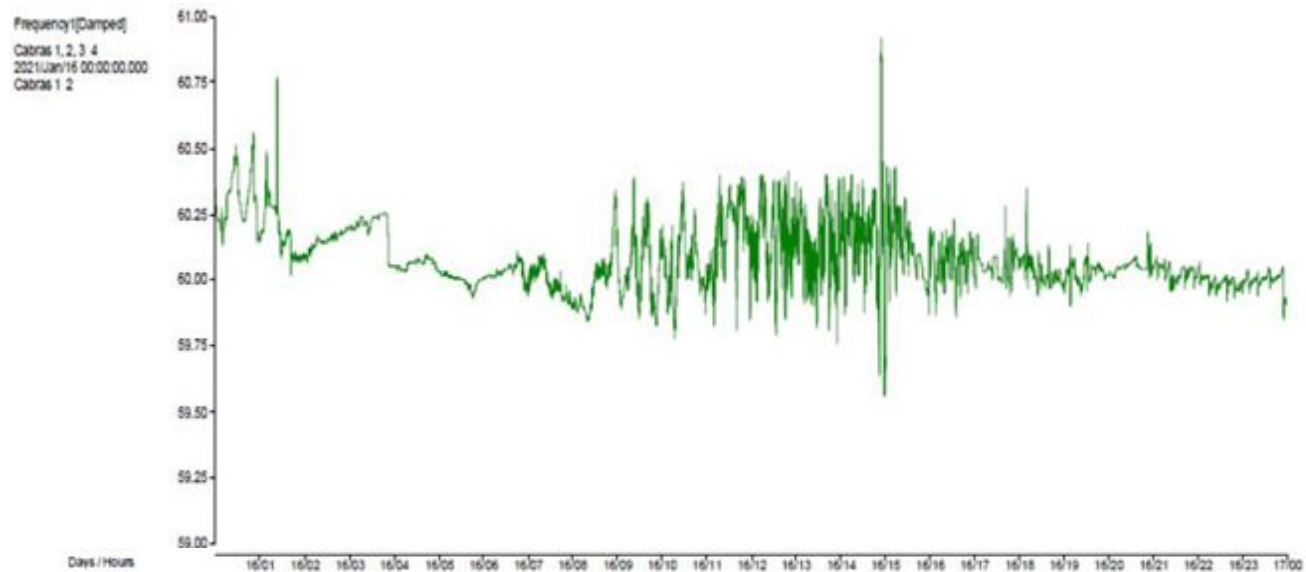
Agana ESS ACTIVATED - January 14, 2021



Agana ESS ACTIVATED - January 15, 2021

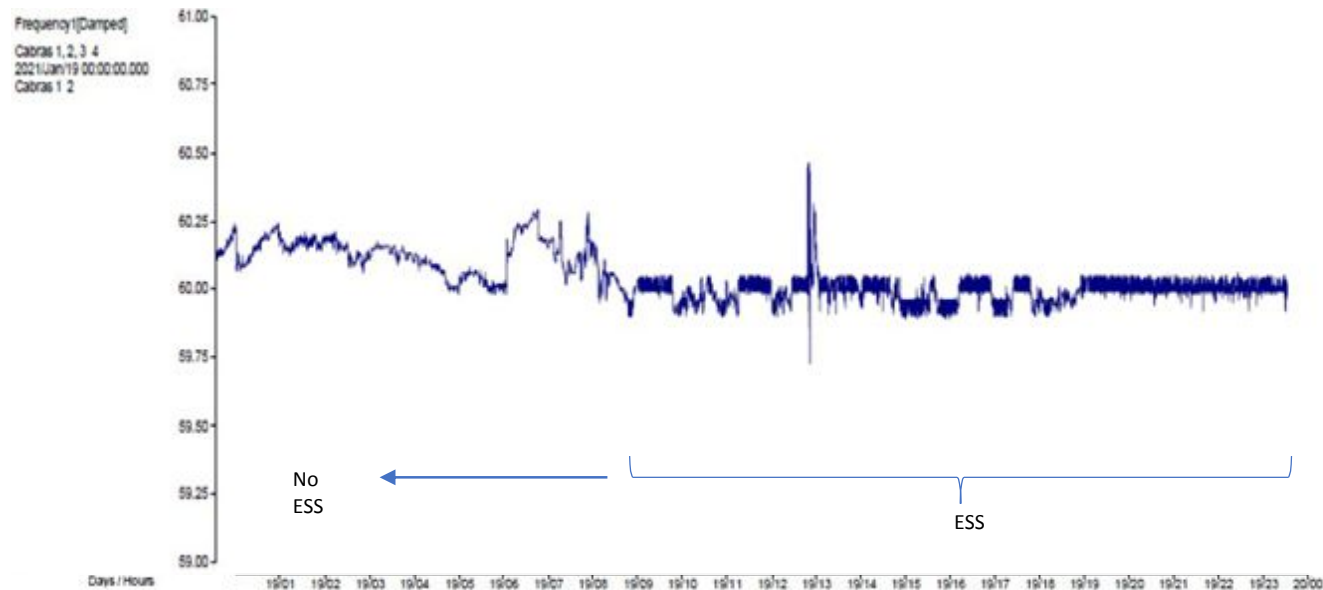


Agana ESS **DEACTIVATED** - January 16, 2021

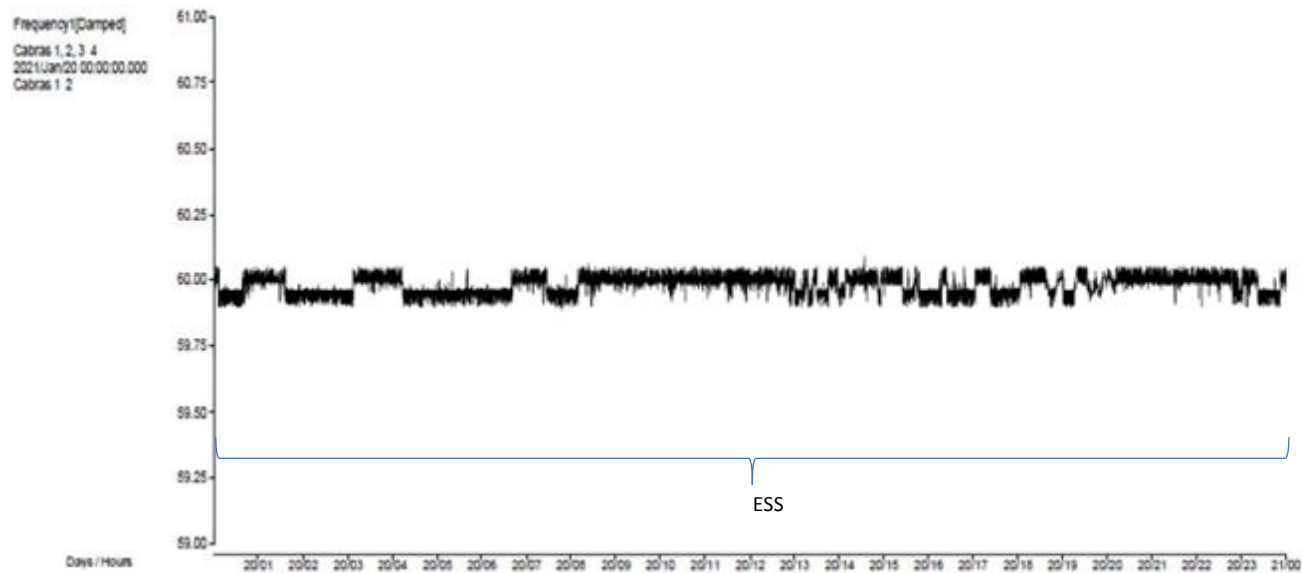


ESS was deactivated Jan. 17th – 18th

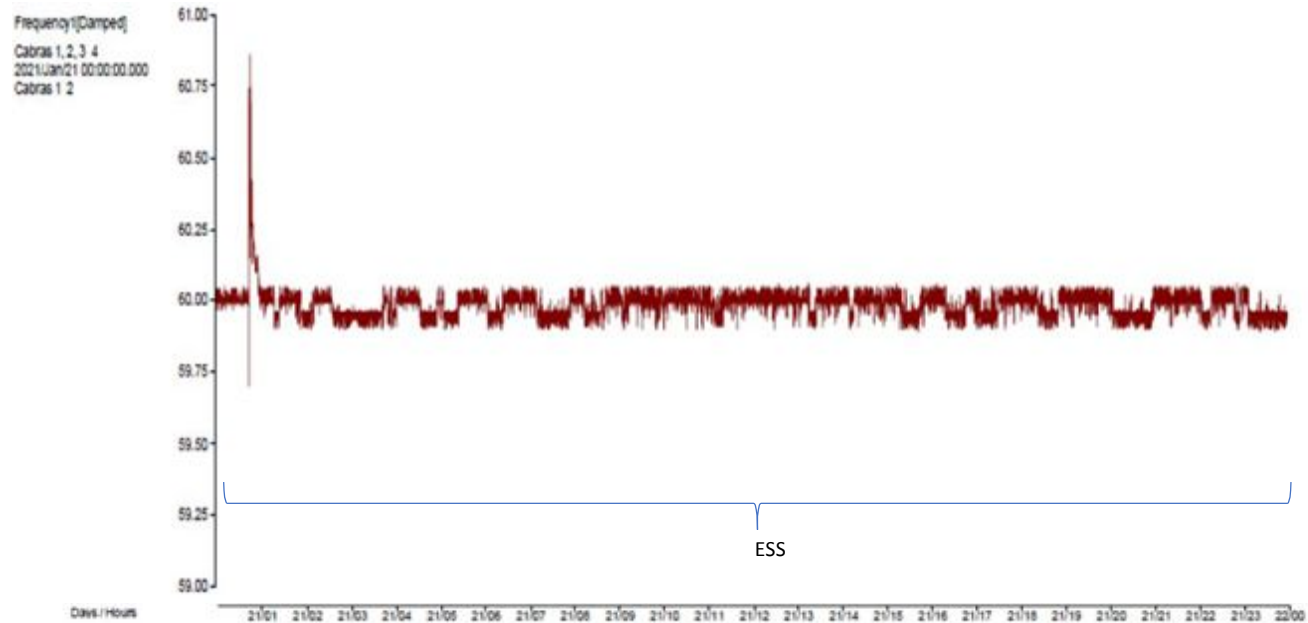
Agana ESS ACTIVATED - January 19, 2021



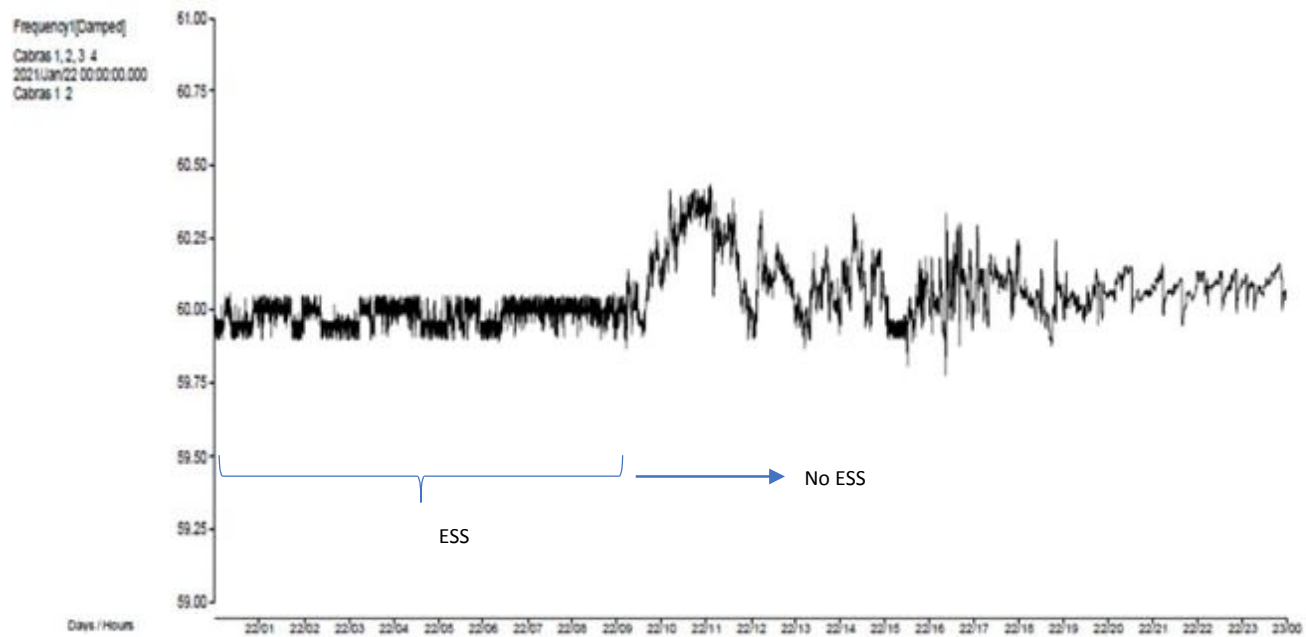
Agana ESS ACTIVATED - January 20, 2021



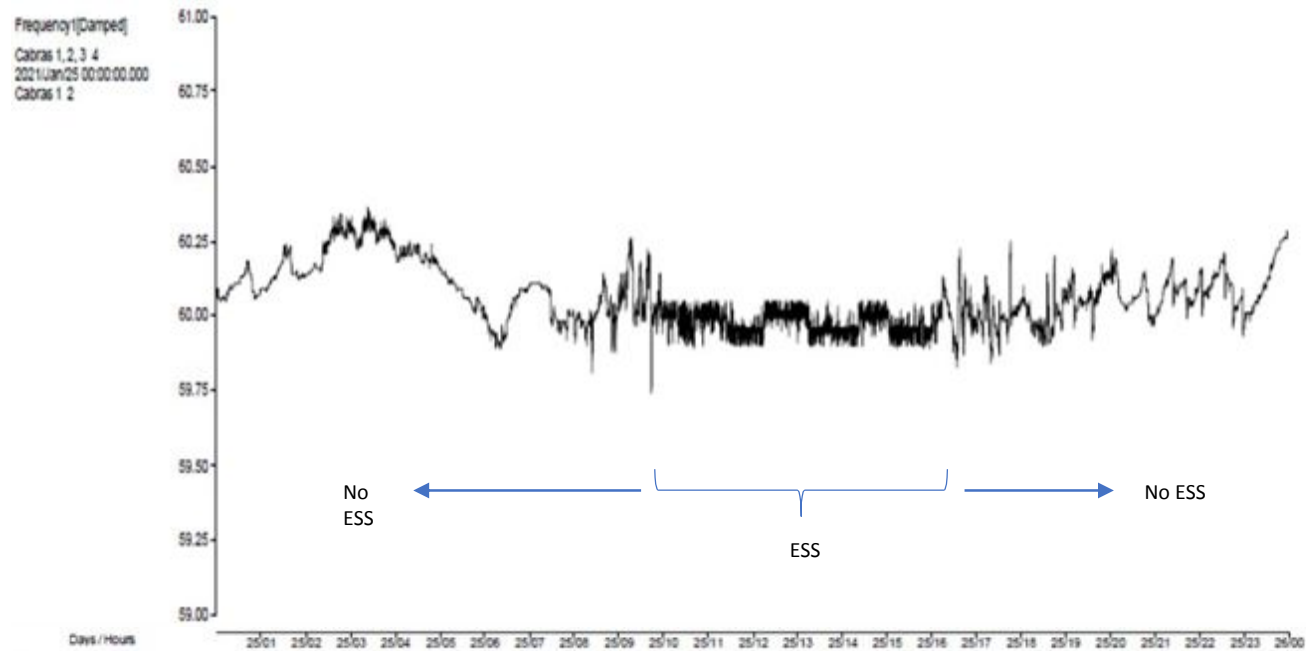
Agana ESS ACTIVATED - January 21, 2021



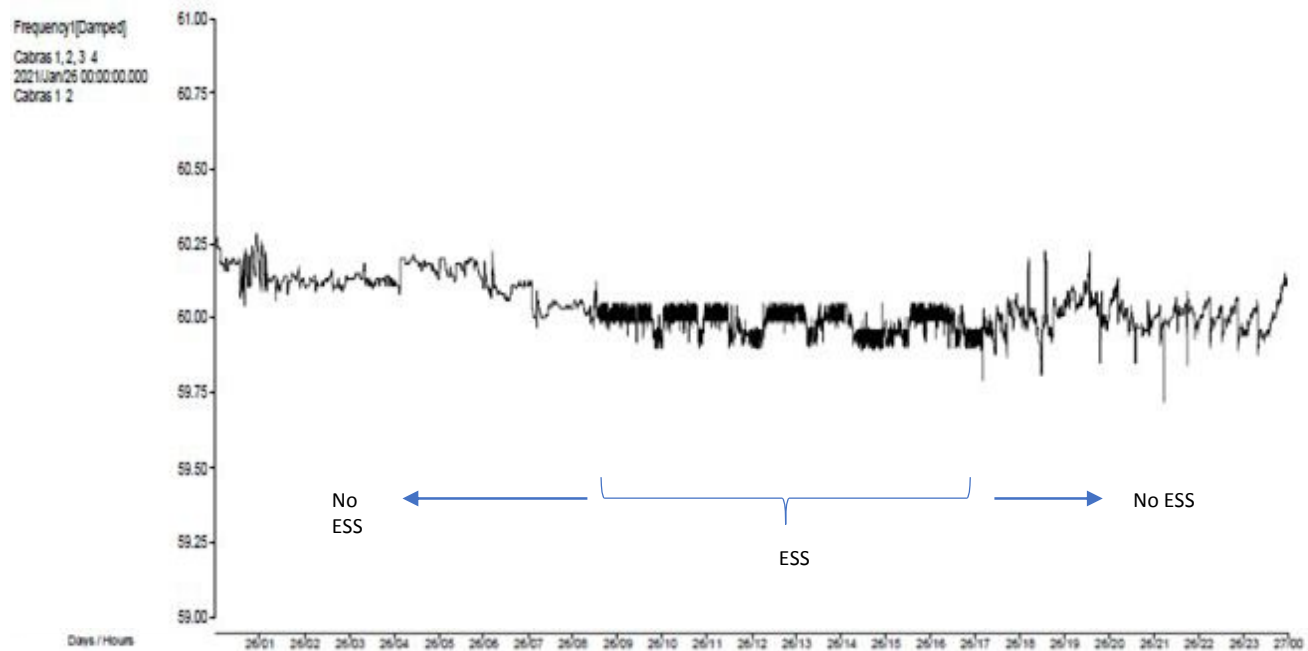
Agana ESS ACTIVATED - January 22, 2021



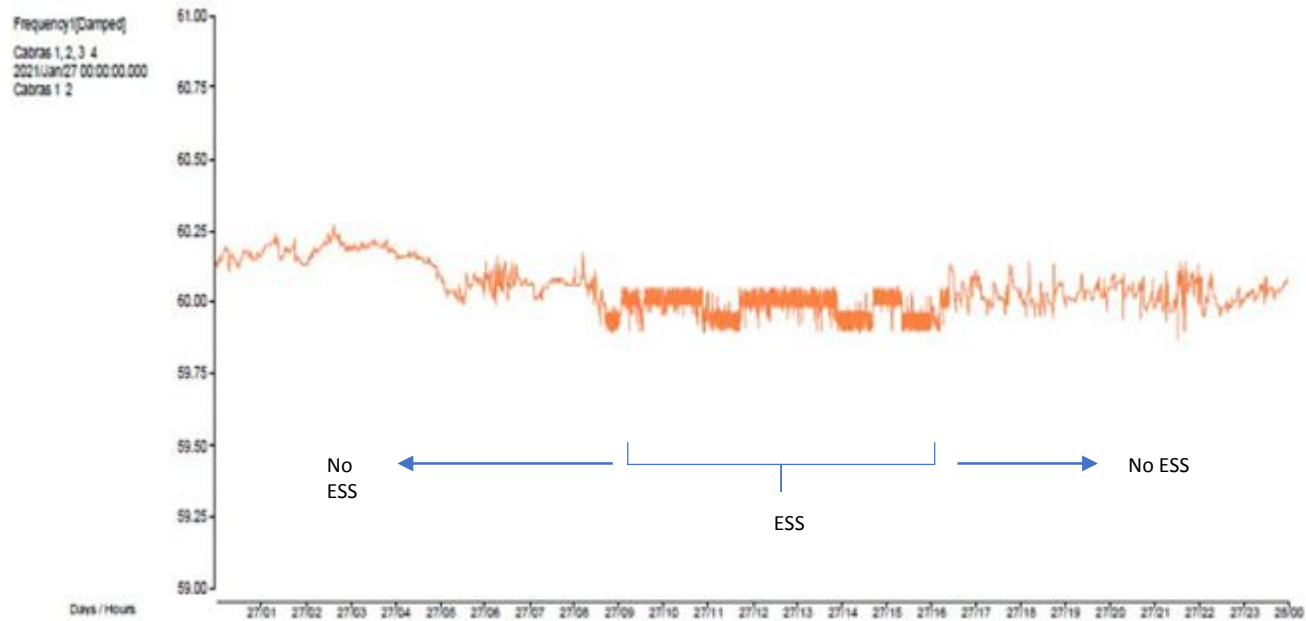
Agana ESS ACTIVATED - January 25, 2021



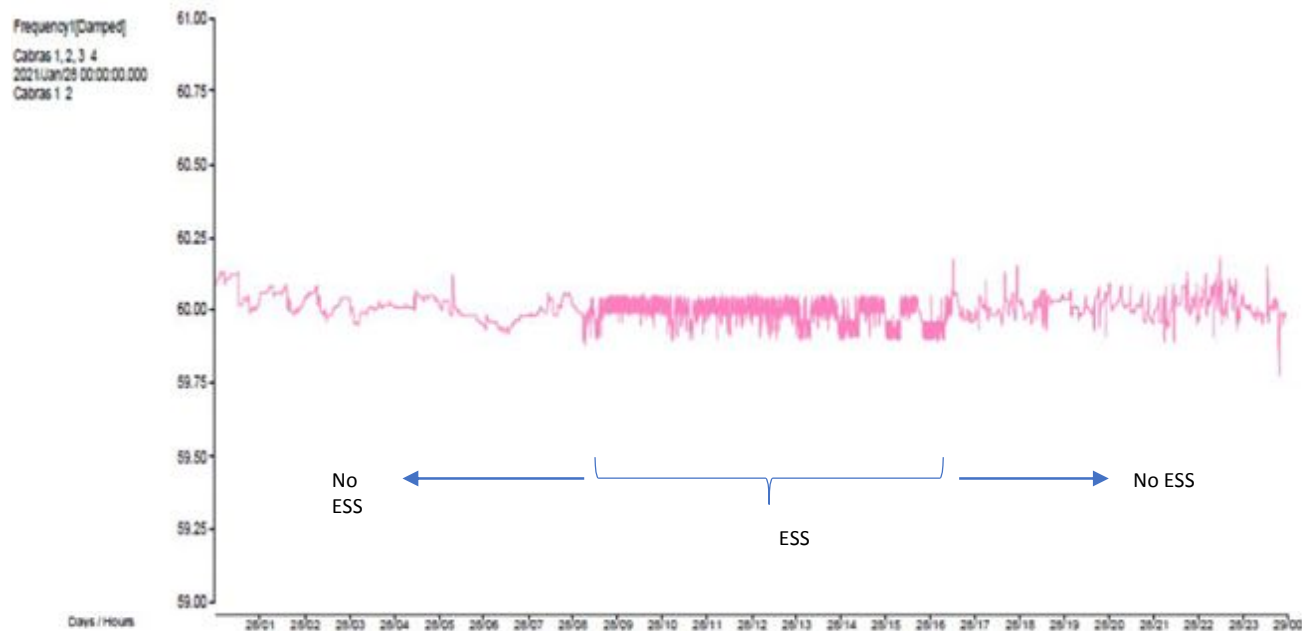
Agana ESS ACTIVATED - January 26, 2021



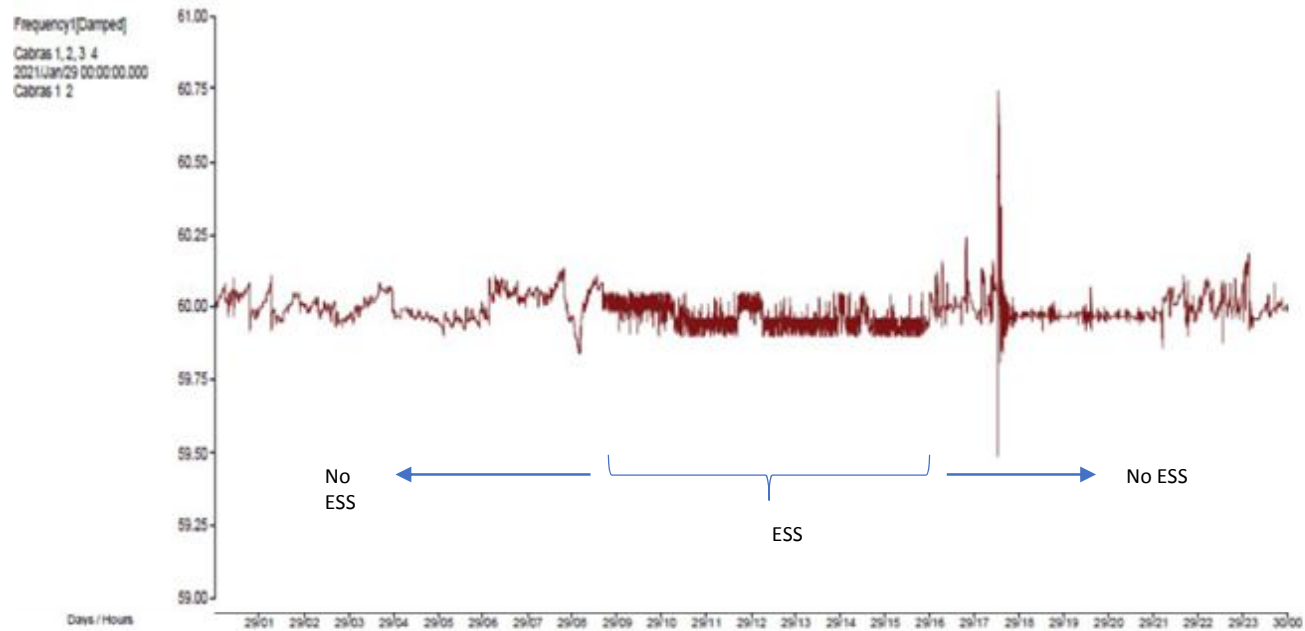
Agana ESS ACTIVATED - January 27, 2021



Agana ESS ACTIVATED - January 28, 2021



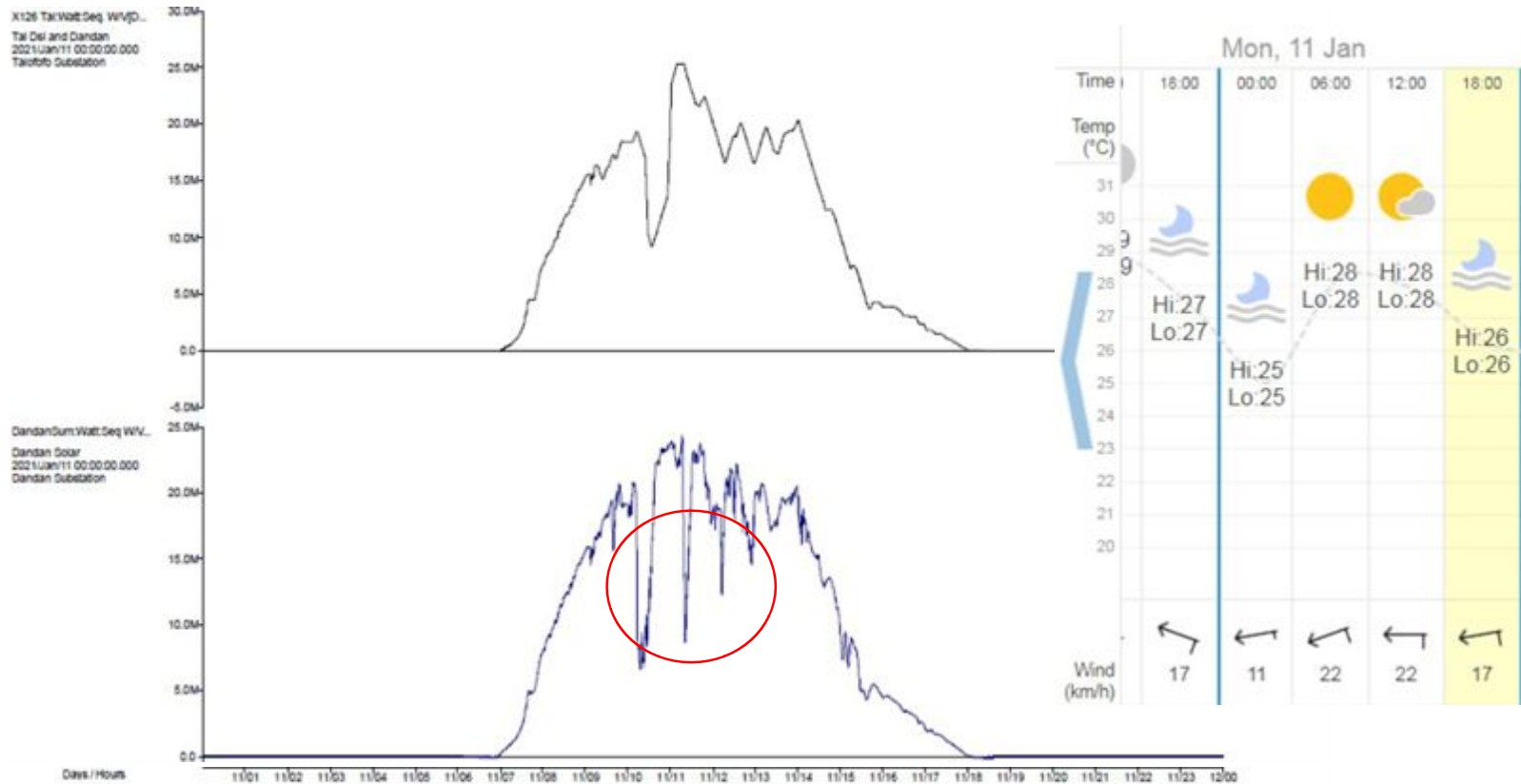
Agana ESS ACTIVATED - January 29, 2021



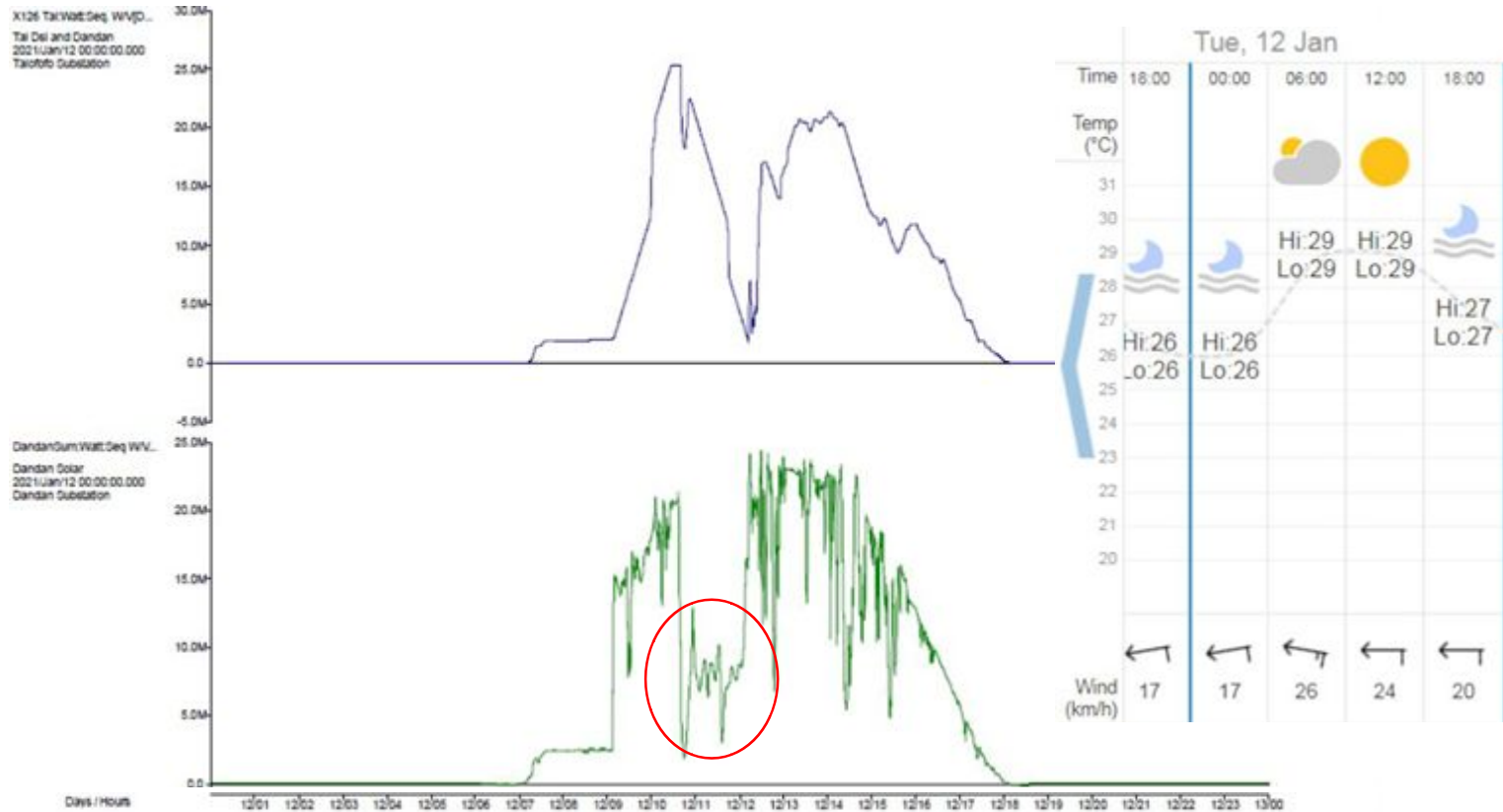
Talofofo ESS Testing Graphs Jan 11 - Jan 22

- LG CNS continued testing thru January 2021. Attached are results over a two week period.
- Graphs are from GPA Substation Tesla Recorder Data (GPA Engineering)
- Weather information is from timeanddate.com
(<https://www.timeanddate.com/weather/usa/guam-hagatna/historic>)

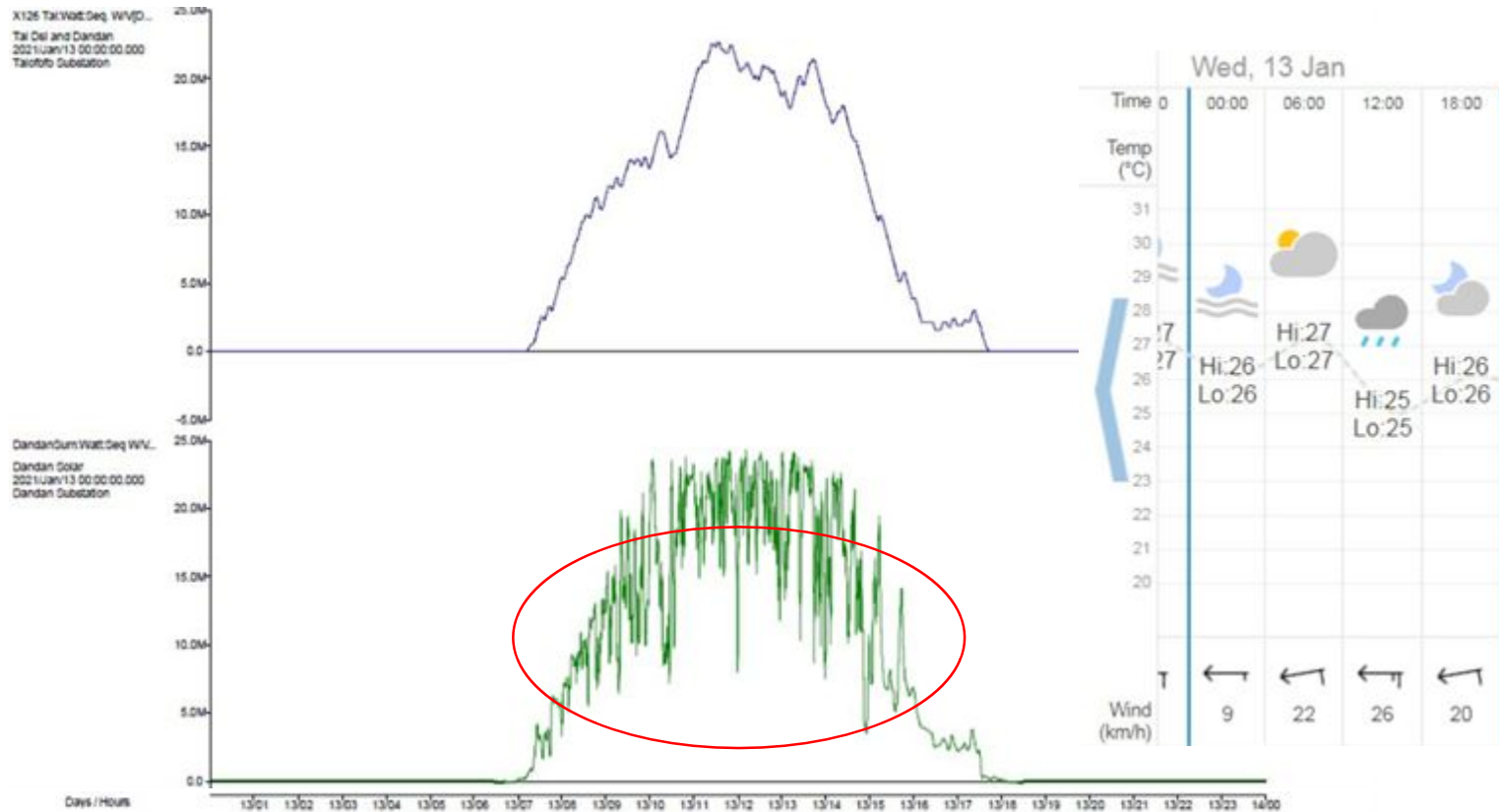
Talofofo ESS ACTIVATED - January 11, 2021



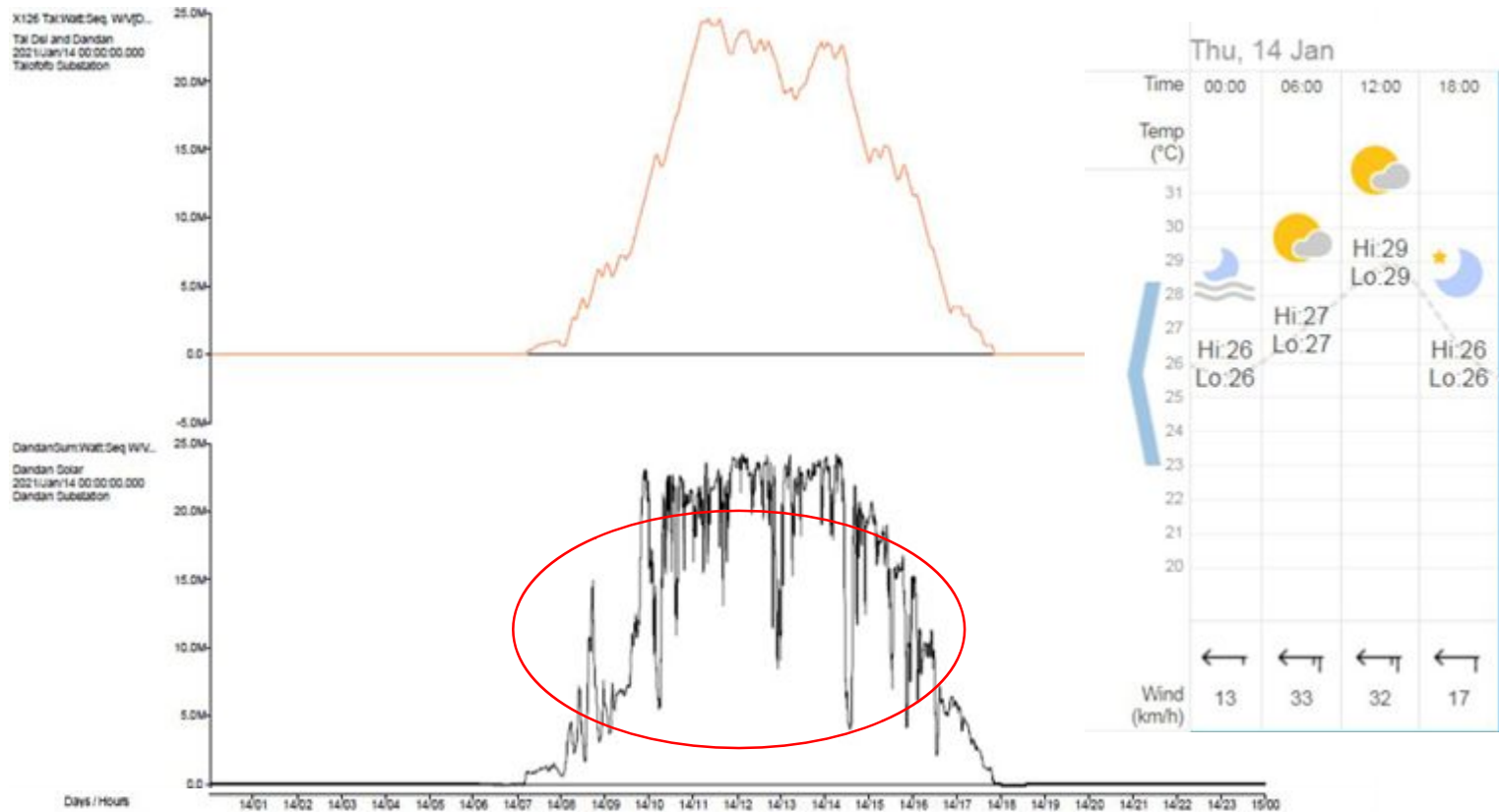
Talofofo ESS ACTIVATED - January 12, 2021



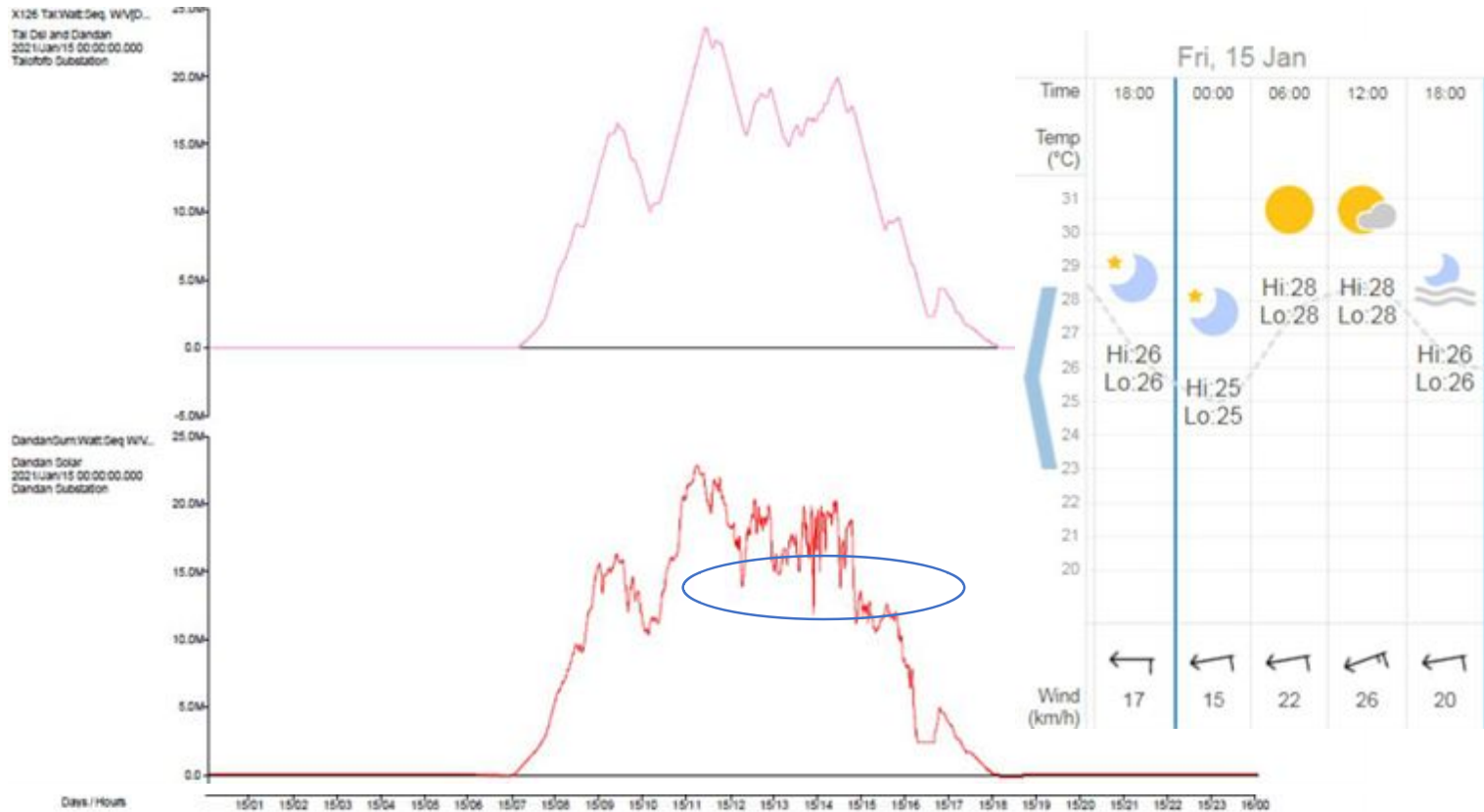
Talofofo ESS ACTIVATED - January 13, 2021



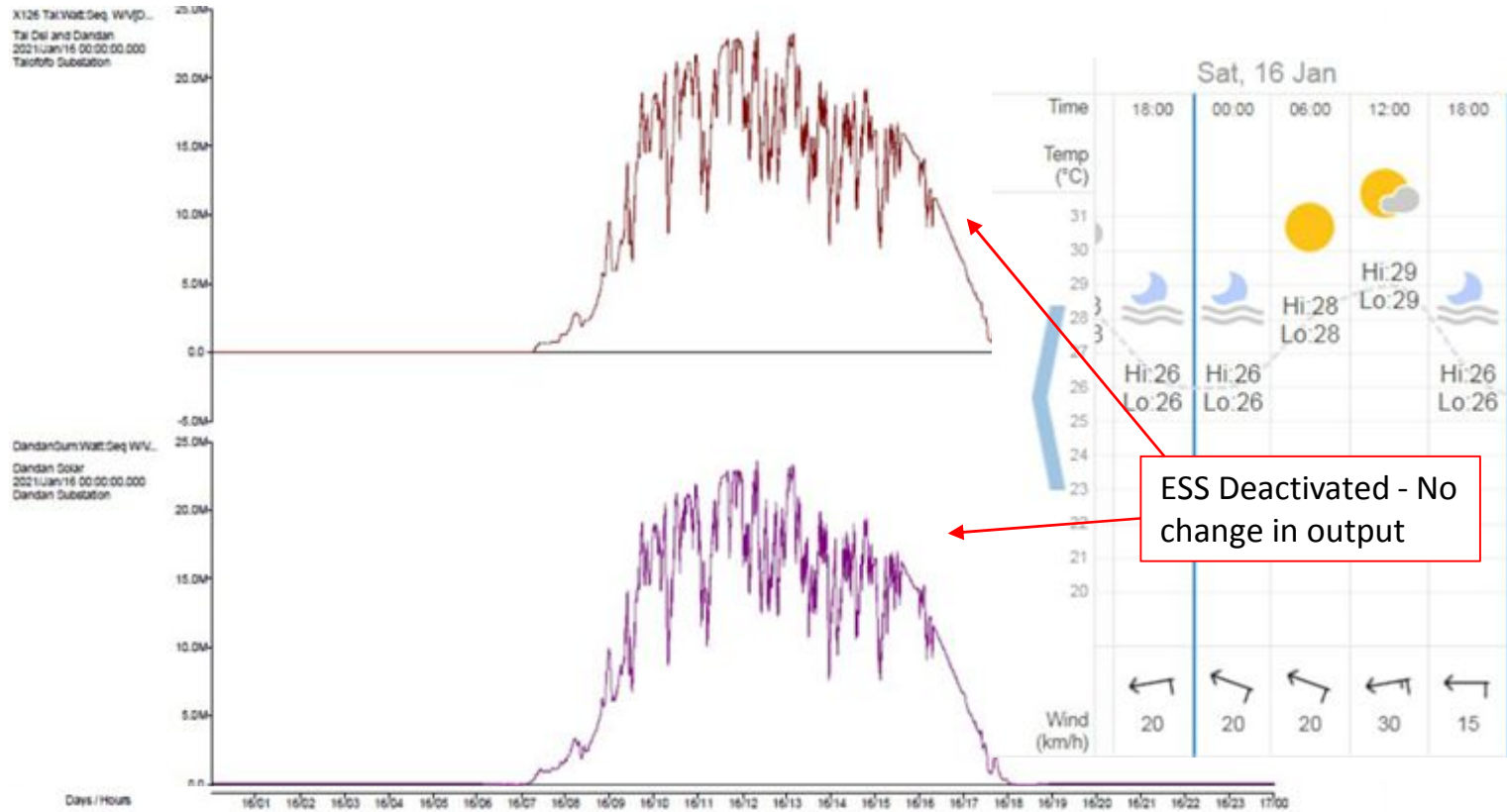
Talofofo ESS ACTIVATED - January 14, 2021



Talofofo ESS ACTIVATED - January 15, 2021



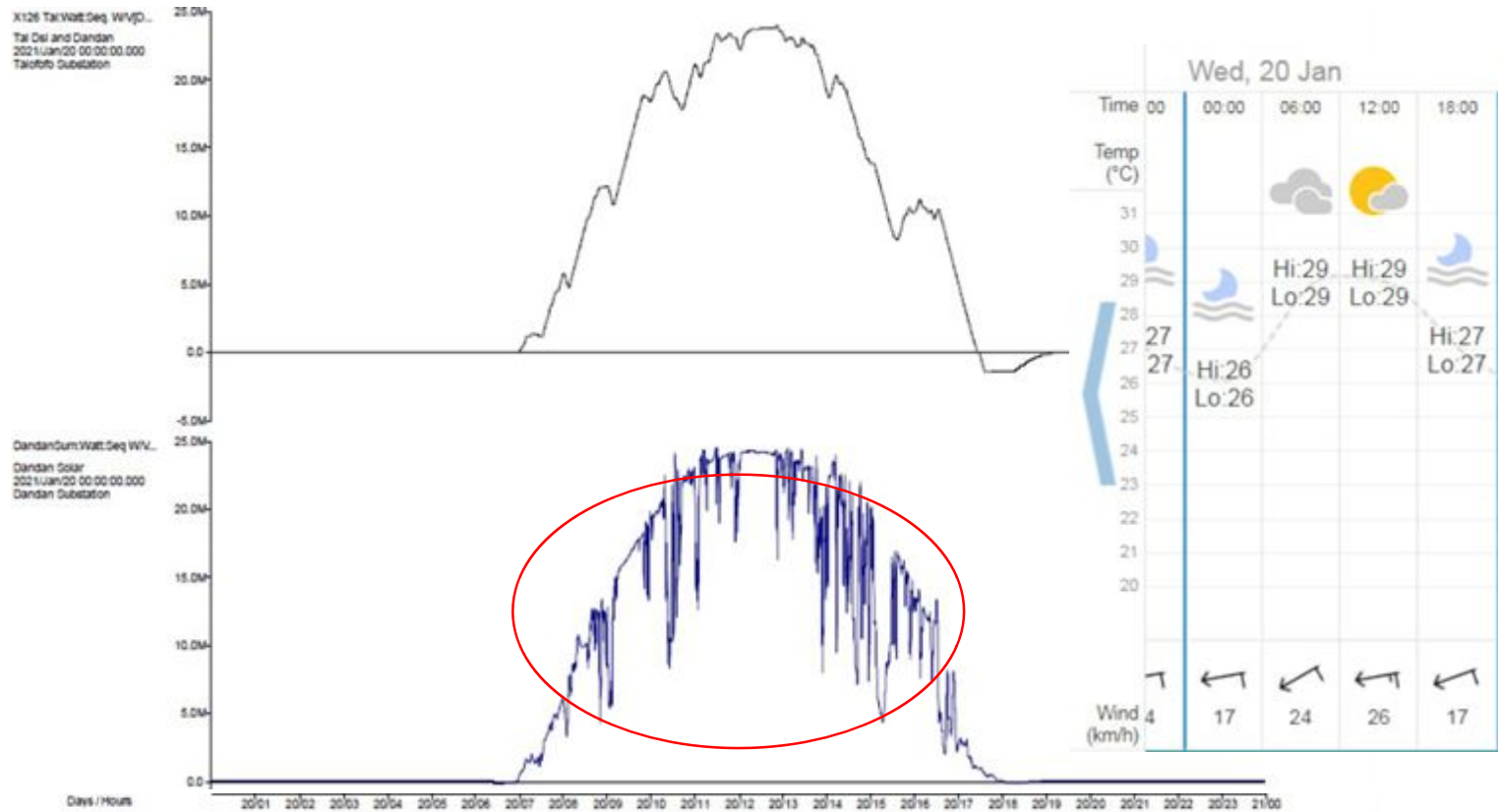
Talofofo ESS **DEACTIVATED** - January 16, 2021



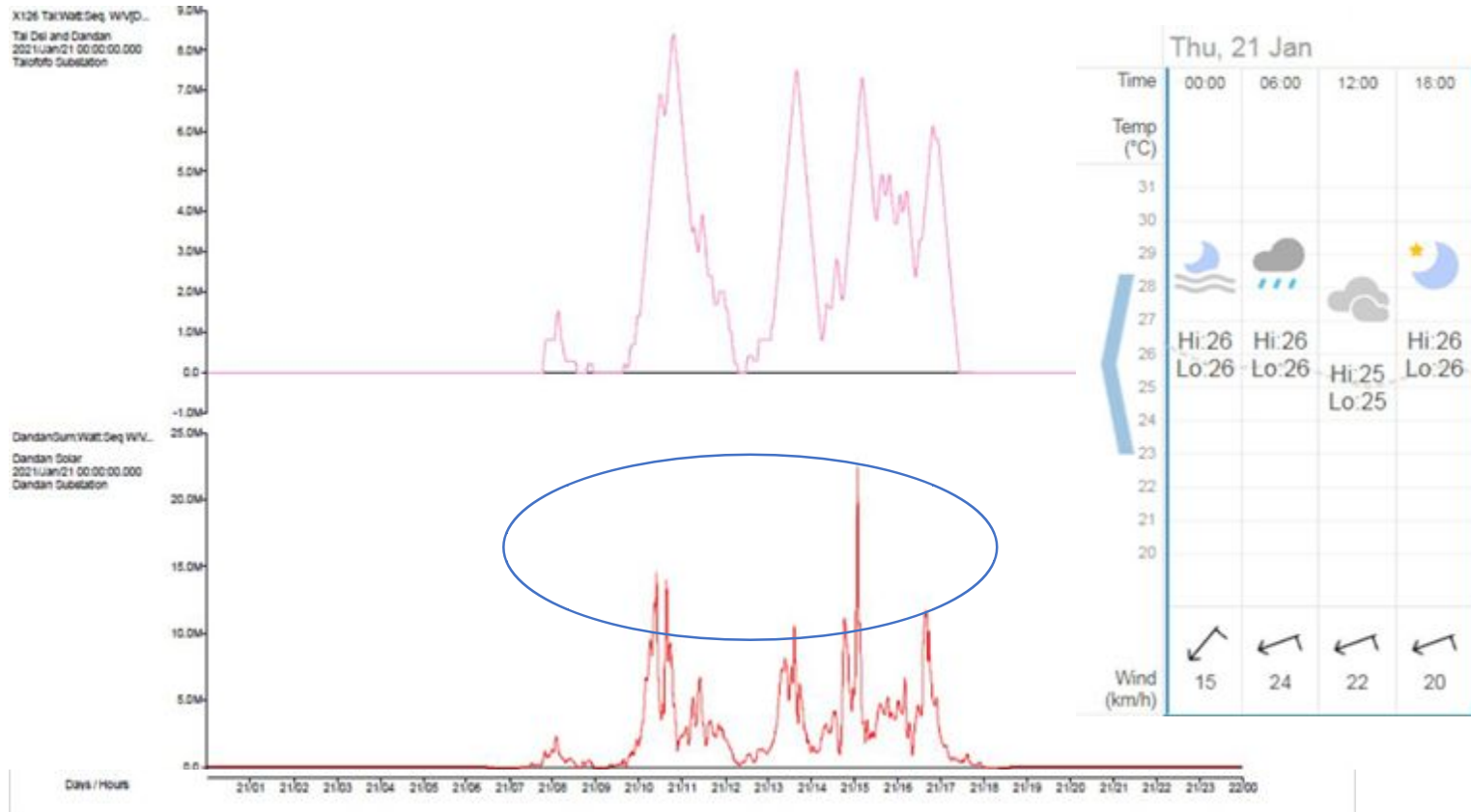
ESS was deactivated from January 16th -18th



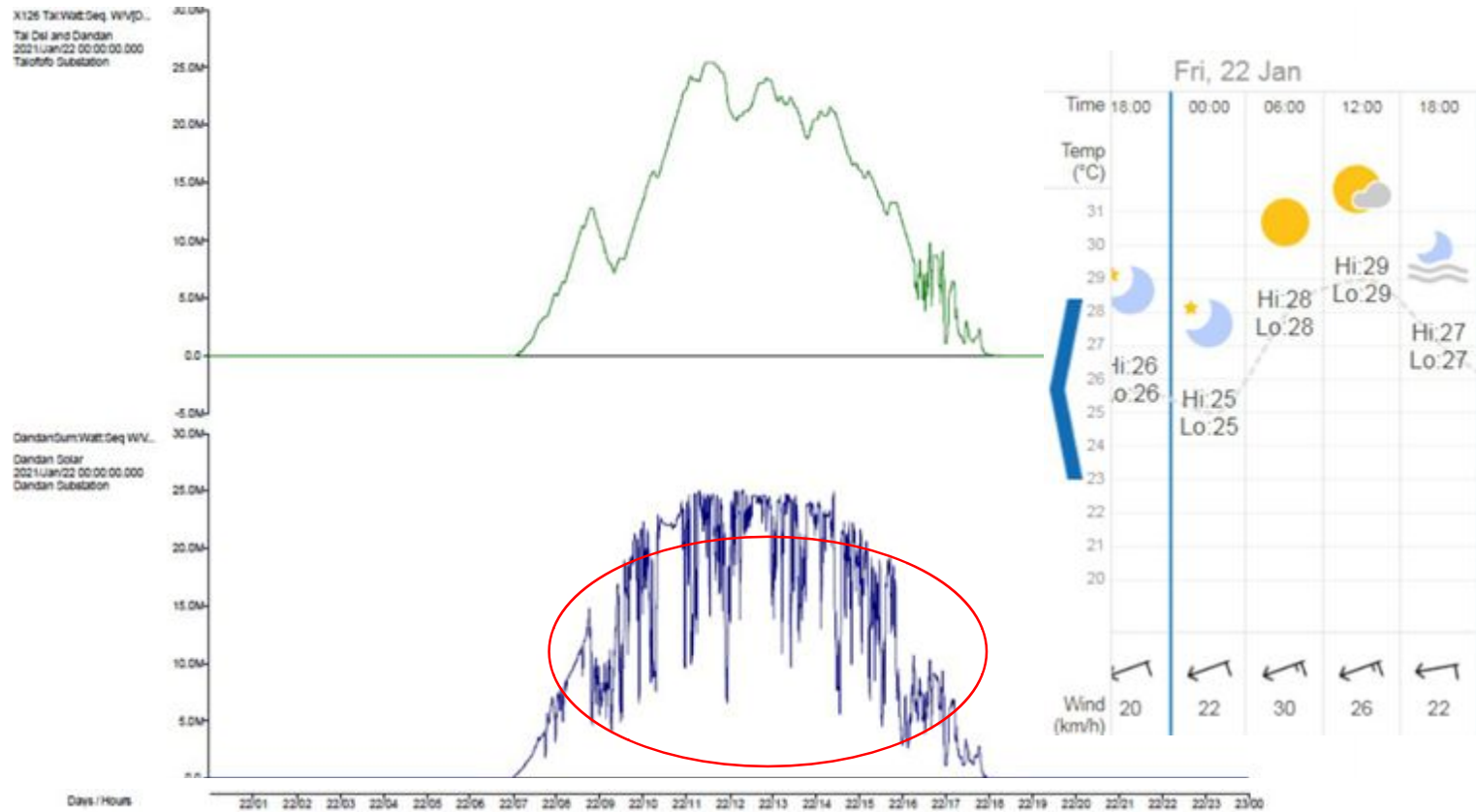
Talofofo ESS ACTIVATED - January 20, 2021



Talofofo ESS ACTIVATED - January 21, 2021



Talofofo ESS ACTIVATED - January 22, 2021

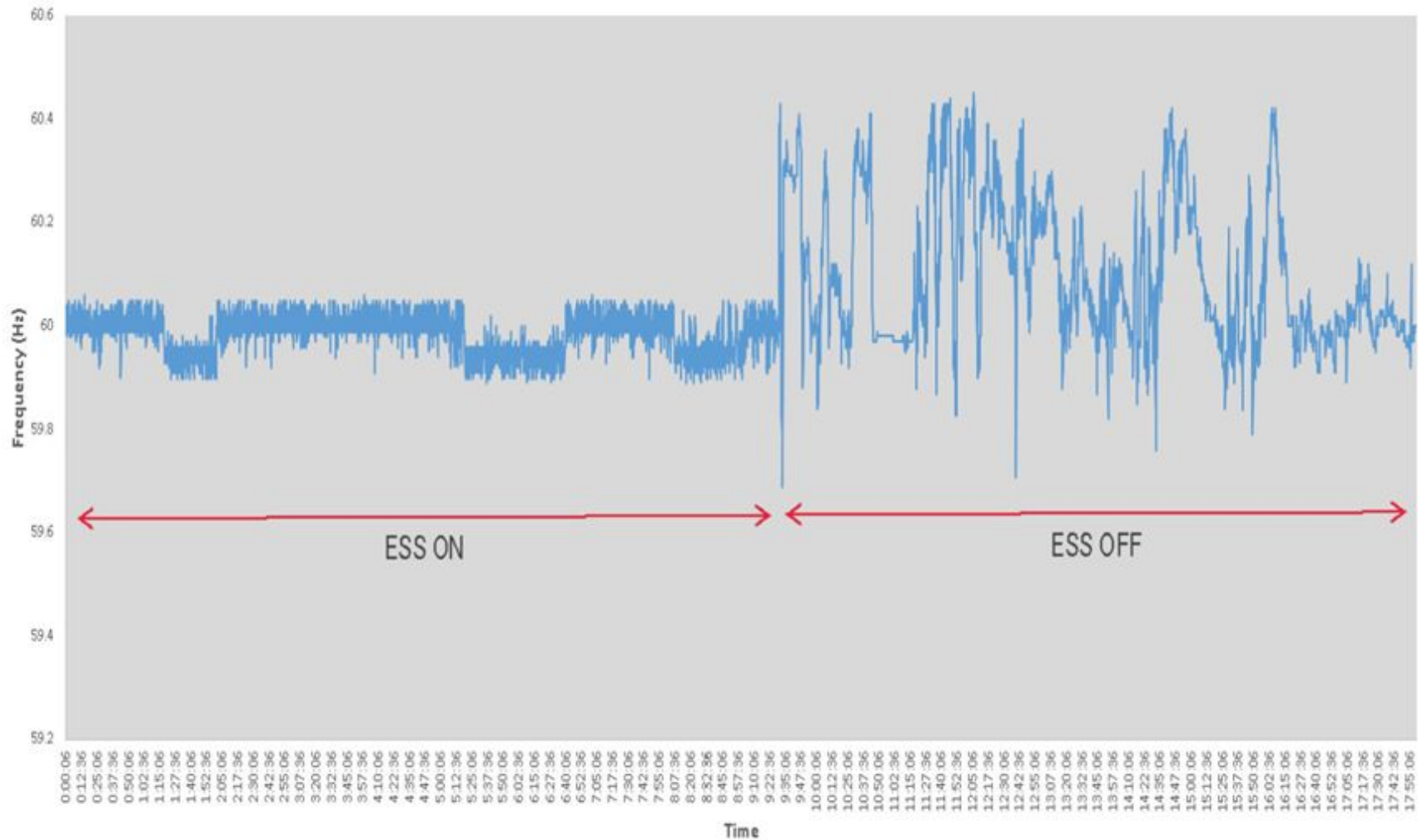


ESS Frequency Regulation Performance

Hagåtña ESS Online; Talofofo ESS Offline

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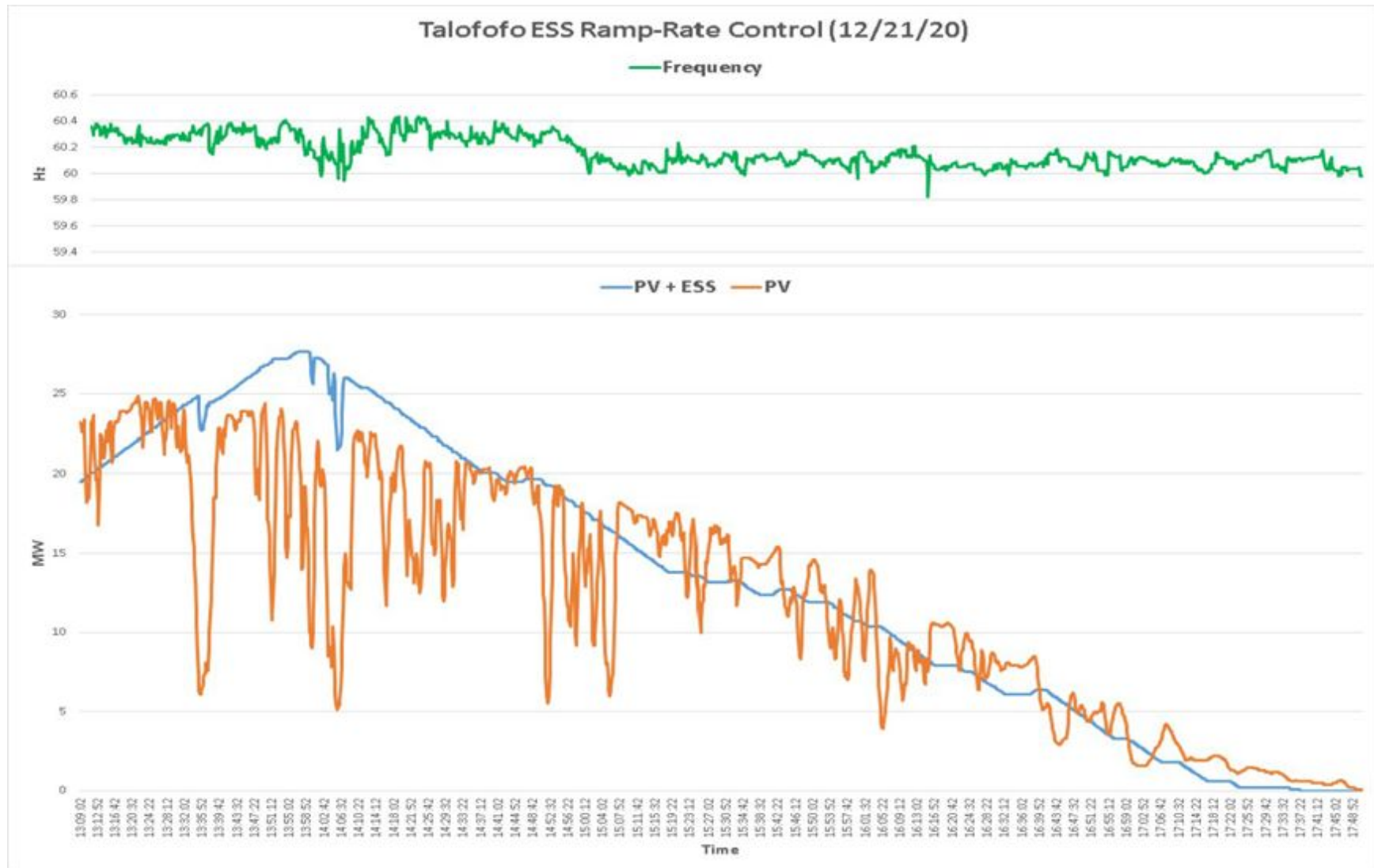
Agana ESS Frequency Regulation (12/31/20)



ESS Frequency Regulation Performance

Talofofo ESS Online; Hagåtña ESS Offline

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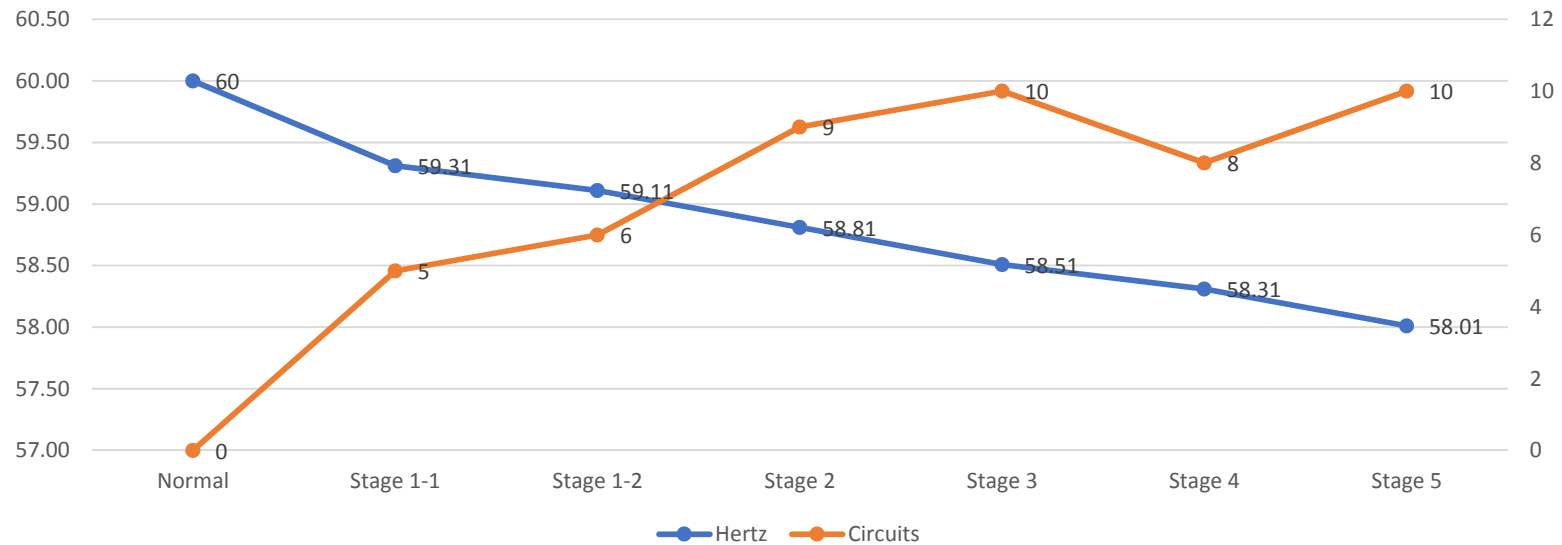
Underfrequency Load Shedding to Avoid Island-Wide Blackout

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14. System Underfrequency Load Shedding Info:

Frequency	Hertz	Circuits	Min MW	Max MW	Min Cumulative MW	Max Cumulative MW	% of Peak MW
Normal	60	0	0		0	0	0.0%
Stage 1-1	59.31	5	8.17	11.48	8.17	11.48	4.5%
Stage 1-2	59.11	6	8.75	25.08	16.92	36.56	14.3%
Stage 2	58.81	9	17.28	23.78	34.2	60.34	23.6%
Stage 3	58.51	10	18.83	23.07	53.03	83.41	32.6%
Stage 4	58.31	8	16.09	23	69.12	106.41	41.6%
Stage 5	58.01	10	16.36	23.65	85.48	130.06	50.8%

System Underfrequency Load Shedding



General Manager's Report (con't)

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15. Moody's and S&P Global Ratings:

- On January 25, 2021 *Moody's Investors Service* has completed a periodic review on the rating of GPA's revenue bonds. They maintained GPA's **Baa2** senior lien revenue bonds rating because of GPA's solid projected fixed charge coverage ratios and liquidity levels in fiscal year ending September 30, 2020, despite the impact on operating revenue from the Coronavirus-induced slowdown.
- On February 1, 2021 S&P Global Ratings released its crediting rating on GPA's revenue bonds. S&P Global Ratings' long-term rating and underlying rating on GPA's senior-lien revenue bonds outstanding are 'BBB'. The outlook is stable. In the credit rating agency's opinion, GPA's Enterprise Risk Profile and Financial Risk Profile were rated adequate.

16. Generation KPIs:

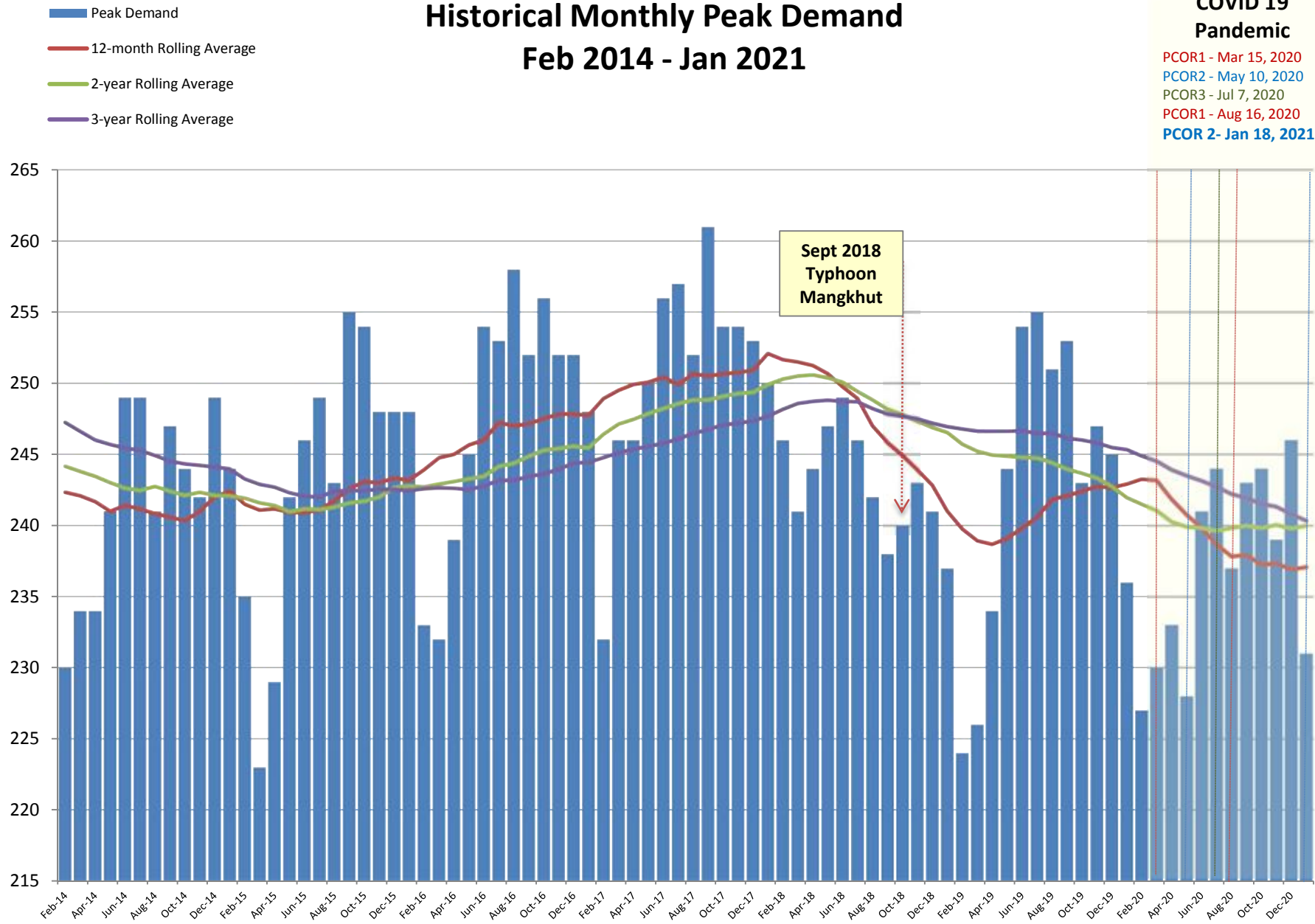
- The following graphs show updated information through January 2021:

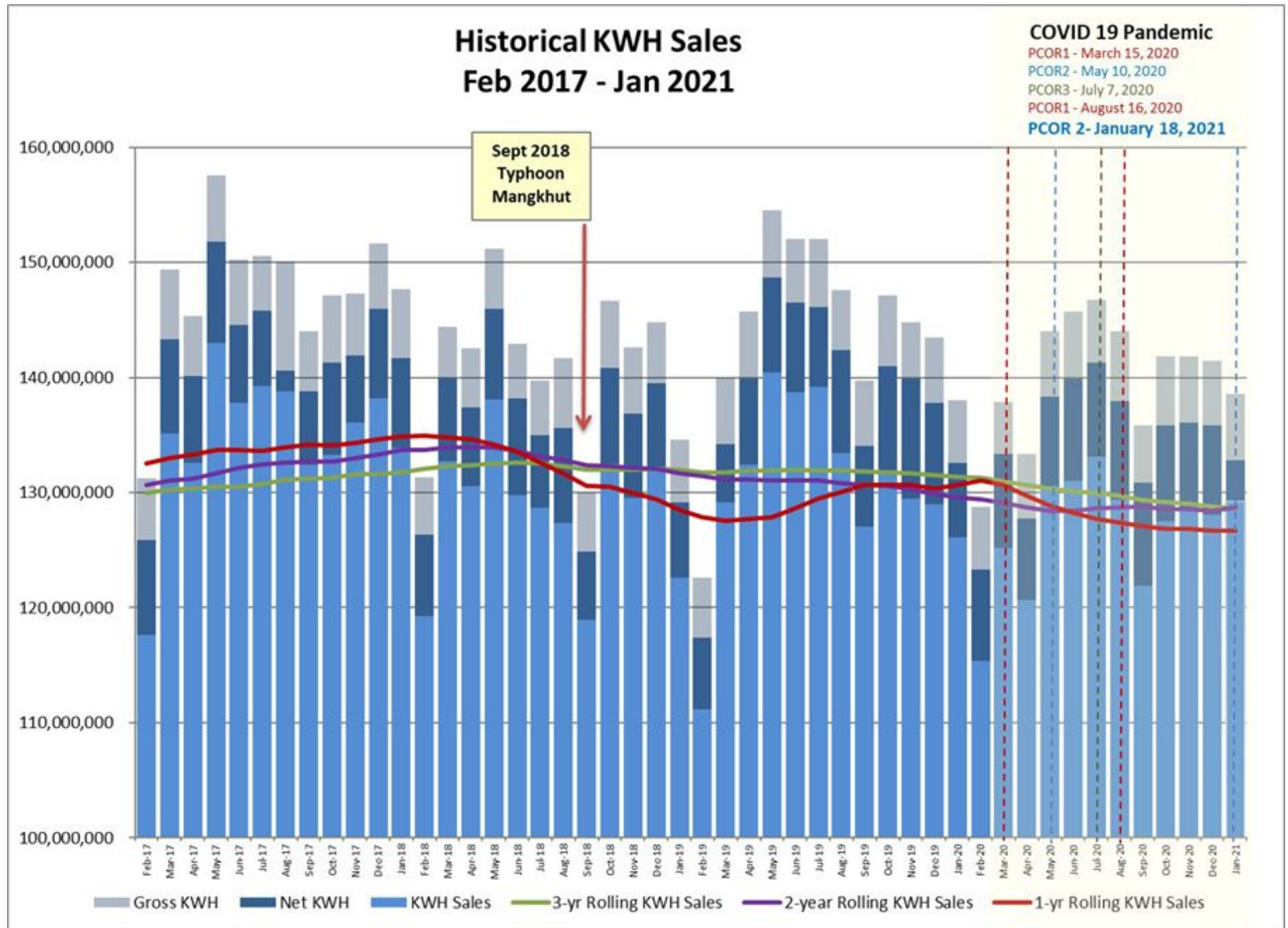


Historical Monthly Peak Demand Feb 2014 - Jan 2021

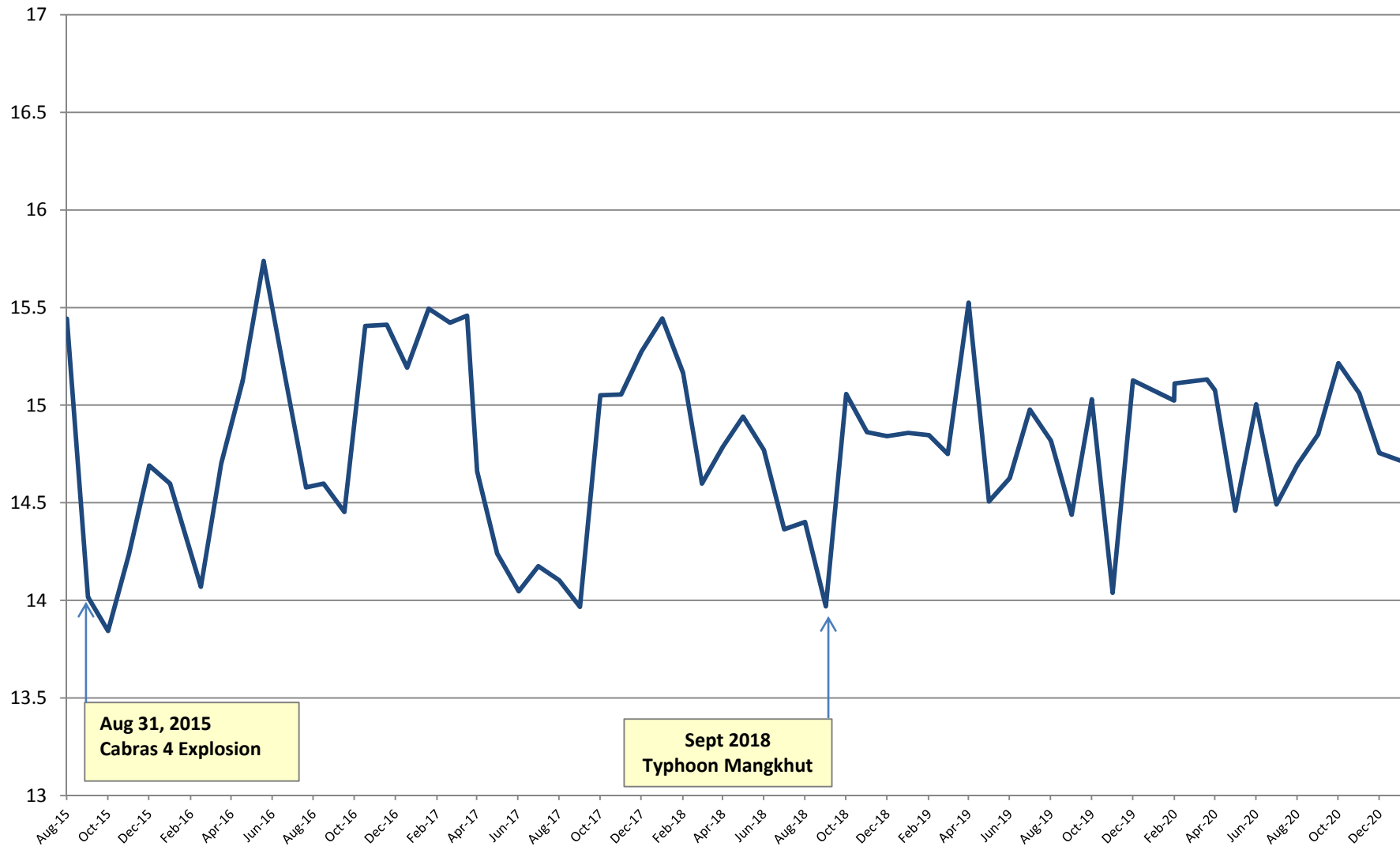
COVID 19 Pandemic

PCOR1 - Mar 15, 2020
PCOR2 - May 10, 2020
PCOR3 - Jul 7, 2020
PCOR1 - Aug 16, 2020
PCOR 2- Jan 18, 2021

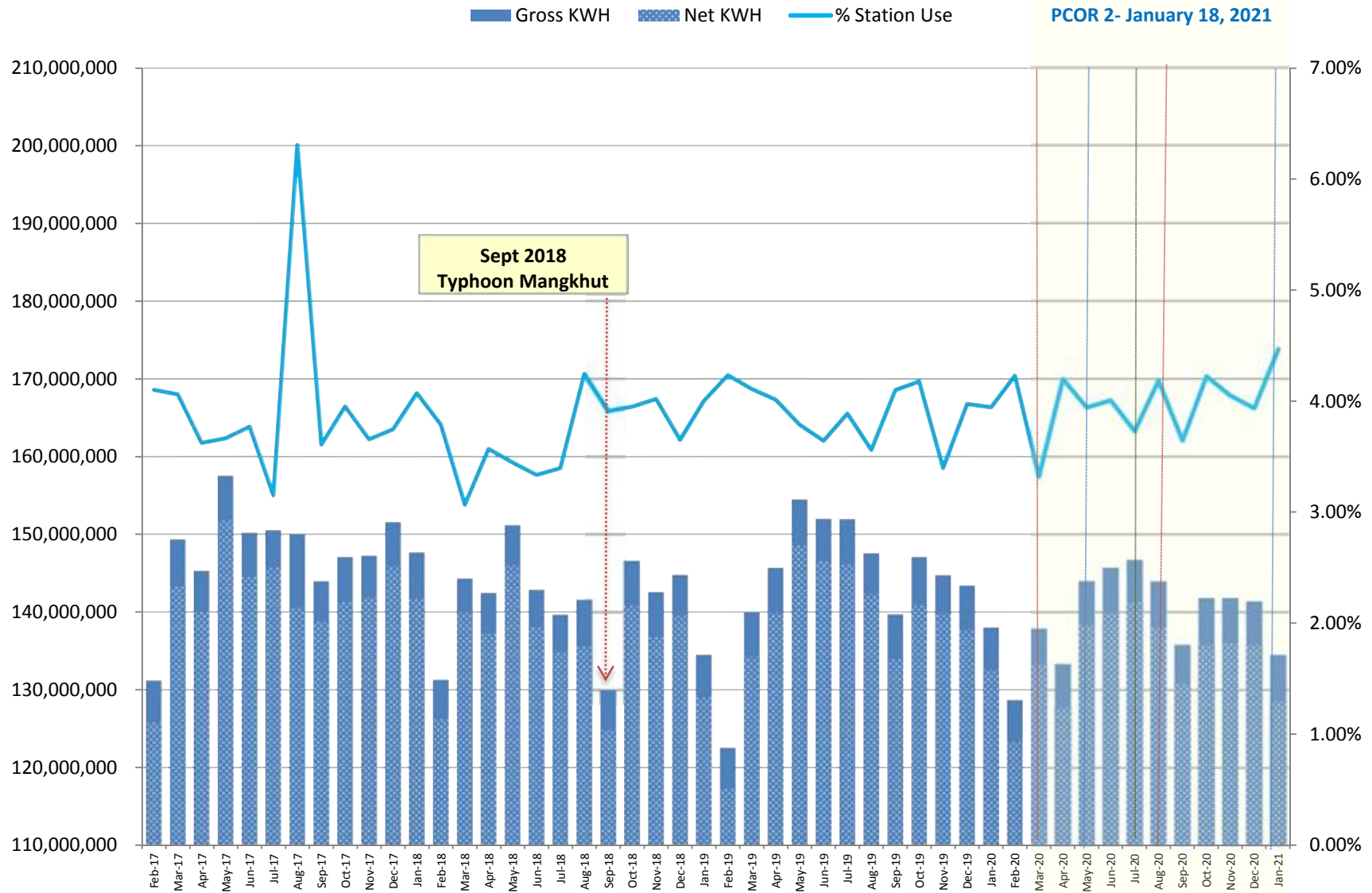




SYSTEM GROSS HEAT RATE (KWH/Gal) Aug 2015 - Jan 2021

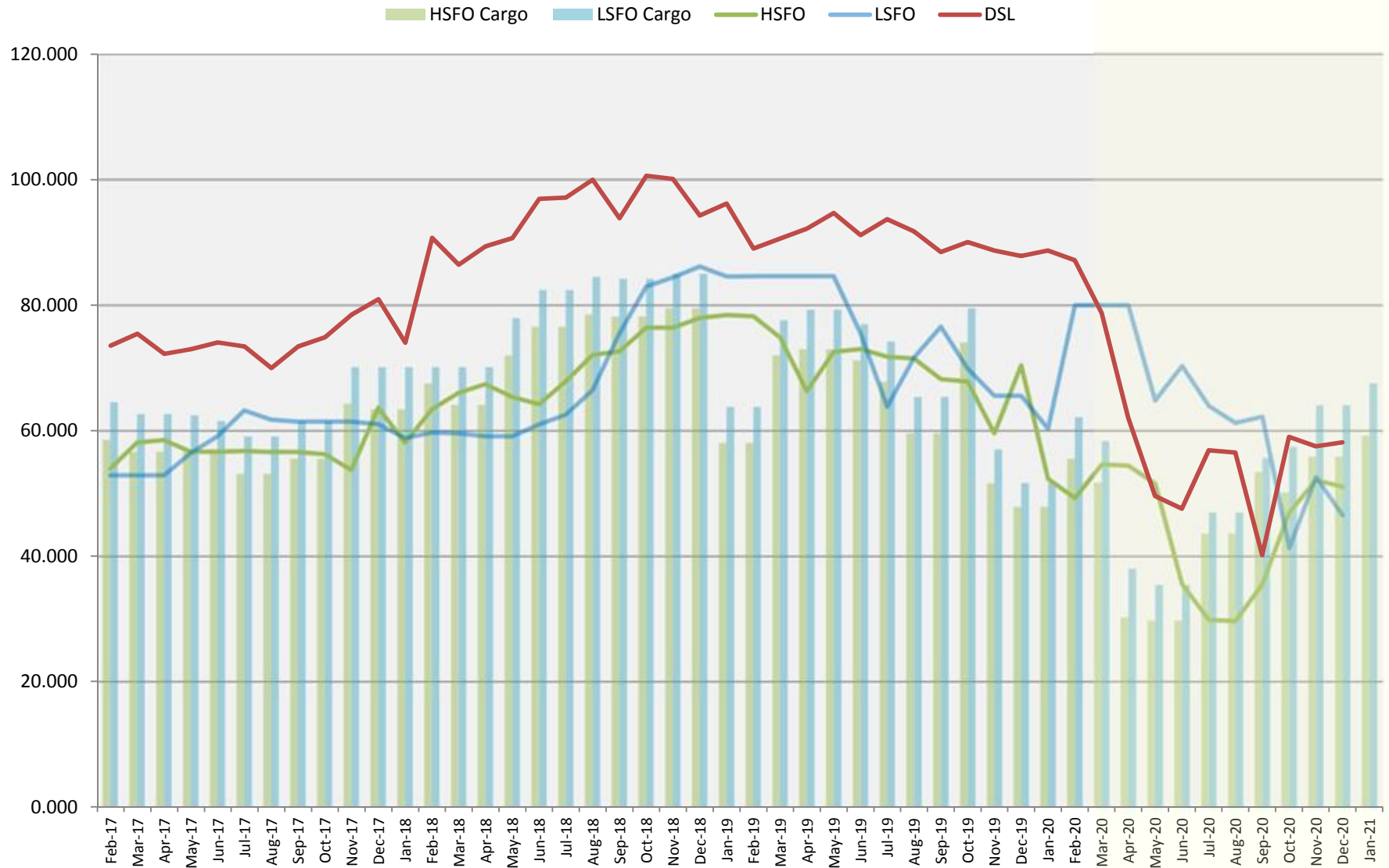


Gross and Net Generation (KWH) Feb 2017 - Jan 2021



Fuel Cargo and Fuel Consumption Costs (\$/bbl) Feb 2017 - Jan 2021

COVID 19 Pandemic



2021 Integrated Resource Plan (IRP)

Stakeholder Panel Meetings

- GPA held its Stakeholder meeting kickoff on Jan. 29
 - Attendees included UOG, Navy, Red Cross, and Mayor's Council
 - Presentations and audio files will be provided on website once completed.
 - Meeting dates and times:

Meetings	Date	Topics
1	Friday, January 29, 2021 8:30AM – 11:30AM	KICKOFF Meeting Introduction & Assumptions
2	Friday, March 26, 2021 8:30AM – 11:30AM 1:30PM – 3:30PM	Preliminary Results & Discussions
3	Friday, May 21, 2021 8:30AM – 11:30AM 1:30PM – 3:30PM	Final Results and Conclusions
4	TBD – June Meeting	Final Report Summary

Integrated Resource Plan

- Plan will include the following main topics:

Volume	IRP Scope
1	Generation Expansion Plan
2	Long-Range Transmission Plan
3	Medium Range Distribution Plan
4	Demand-Side Management Plan
5	Environmental Strategic Plan
6	Resiliency Plan (FRONTIER Project)
7	IT Strategic Plan
8	GPA Strategic Plan

Generation Expansion Plan

- Plan will focus on the following areas regarding generation resources:

Task Items	Section	Status	Preliminary Results	Pre-Final Results & Conclusions	Final Document
1	Demand, Energy, and Sales Forecast	UFS Forecast	X	21-May-21	22-Jun-21
2	Fuels Forecast	In Progress (LEIDOS)	26-Mar-21	21-May-21	22-Jun-21
3	Supply-Side Technology Candidates	LEIDOS Report	X	21-May-21	22-Jun-21
4	Existing Unit Characterization (2021 Generation Resource Handbook)	75% Formatted, March 26, 2021	X	21-May-21	22-Jun-21
5	Generation Adequacy Analysis	85%, Rework for new developments	X	21-May-21	22-Jun-21
6	Least-Cost Expansion Plans	In Progress	26-Mar-21	21-May-21	22-Jun-21
7	Conclusions	In Progress	26-Mar-21	21-May-21	22-Jun-21
8	Recommendations	In Progress	26-Mar-21	21-May-21	22-Jun-21

Scenario No.	Scenario	Peak Load Carrying Capability (PLCC) @ one day in 4.5 years LOLE (MW)	Implications Related to Forecast with Datacenter (High Load Case)
1	Phase III Solar PV + ES BESS; Ukudu Diesels Not Relocated	320.20	Meets LOLE standard until 2028 (2034 for Low Load Case)
2	Phase III Solar PV + ES BESS; Ukudu Diesels Relocated	>340.00	Supports System beyond FY 2041; LOLE better than one day in ten years
3	60 MW Solar PV + ES BESS; Phase III; Ukudu Diesels Not Relocated	>340.00	LOLE in 2040 is one day in 6.9 years
4	60 MW Solar PV + ES BESS; Phase III; Ukudu Diesels Relocated	>340.00	Supports System beyond FY 2041; LOLE better than one day in ten years
5	150 MW Solar PV + ES BESS; Phase III; Ukudu Diesels Not Relocated	>340.00	Supports System beyond FY 2041; LOLE better than one day in ten years
6	150 MW Solar PV + ES BESS; Phase III; Ukudu Diesels Relocated	>340.00	Supports System beyond FY 2041; LOLE better than one day in ten years

Results

- Modeling will evaluate various scenarios
- Generation Mix Changes Common to All Scenarios
 - Piti 8&9 Retired
 - Cabras 1&2 Retired
 - Ukudu CC CT online

Long Range Transmission Plan

- Plan will focus on the following studies and their recommendations:

Sections	Section	Status	Final Document
1	Renewable Integration Plan: System Improvement Plan	AEB/EPS Report	June 2018
2	Ukudu CC CT System Impact Study	Stanley/EPS Report	Jan 2020

Medium Range Distribution Plan

- PUC Order Mapping

Sections/ Tasks	Tasks	May 30, 2019 PUC Order Item			
		Item #6	Item #7	Item #8	Item #9
1	One (1) AGA System Assessment	x			
2	Distribution Model Corrections Study (via AGA Network Model Validator)	x			
3	Load Flow Studies (via AGA Asset Loading)	x	x		x
4	Distributed Renewable Energy Intermittency and Voltage Issue Elimination/Management Study (via AGA Planning Case Studies)	x	x		x
5	System Wide Voltage Analysis Study (via AGA Voltage Visualization)	x	x		x
6	Volt/VAR Optimization Study (via AGA Planning Case Studies)	x			x
7	Conservation Voltage Reduction Study (via AGA Capacity Contribution as well as Voltage Visualization and Planning Case Studies)	x			x
8	Demand Response Study (via AGA Capacity Contribution and Planning Case Studies)	x	x	x	x
9	Automated Switching and Communicating Fault Circuit Indicator Study (via GIS model analysis)				x
10	One (1) electronic document that catalogs all distribution design studies that were completed for this SOW and for future reference.	x	x	x	x

Medium Range Distribution Plan

- Initial Batch of Substations to be Analyzed

Substations	Apra	Pagat	Dededo *	San Vitores	Yigo*
Feeders	P-220	P-321	P-87	P-400	P-330
	P-221	P-322	P-88	P-401	P-331
	P-222	P-323	P-89	P-402	P-332
	P-223			P-403	

* Dededo & Yigo Feeders are the fastest NEM growth feeders.

RED Text Feeders chosen specifically for NEM Rate Study

- Project Completion is Five Months
 - Preliminary Results, March 21, 2021
 - Pre-Final Results, May 25, 2021
 - Final Document, June 22, 2021

Demand-Side Management

- IRP will evaluate DSM impact on load and resource requirements

Section Title	Scope	Deliverables	Preliminary Results	Pre-Final Results & Conclusions	Final Document
DSM Program Situation Analysis	Summarizes Current Status and Direction of DSM Programs: Energy Sense Appliance Rebate Program, Utility Energy Services Contracting Program, BEST Schools Program.	Demand-Side Management Situation Analysis Final Draft	26-Mar-21	21-May-21	22-Jun-21
Updated Energy Sense Program Rebate Levels	Review and evaluate Energy Sense Rebate Program. Reset the current rebates levels. Recommend Roadmap for Energy Sense Rebate Program Digital Transformation: Rebate Application Process, Trade Ally Information Management System, and Customer Relationship Management. Create DSM Handbook (May 28, 2020 PUC Order, Docket 20-05, GPA Demand-Side Management, item 8 of Ordering Provisions)	Updated Energy Program Rebate Incentive Levels. DMS Handbook.	26-Mar-21	21-May-21	22-Jun-21
Electric Vehicle Plan	Develop GPA's Guam Transportation Electrification Plan: Light Duty Vehicles, School Buses, Commercial Buses.	GPA Guam Transportation Electrification Plan	26-Mar-21	21-May-21	22-Jun-21
LED Street Light Pilot Program Plan	Develop LED Streetlight Control programs for large Customers (Government of Guam, Navy, AAFB, Marine Base Guam).	LED Streetlight Control Program.	26-Mar-21	21-May-21	22-Jun-21

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Environmental Strategic Plan

- 2019 Environmental Strategic Plan is being updated to reflect updates on:
 - Consent Decree with USEPA
 - State Implementation Plan with GEPA
- Emissions calculations for compliance performed by TRC and P&R considers
 - Retirements
 - Fuel Conversion
 - New Units

FRONTIER Project

- FRONTIER Stands for Framework for Overcoming Natural Threats to Islanded Energy Resilience
- Building Resilient Power for the GPA Grid
- Goals:
 1. Support U.S. Department of Energy and partner-led stakeholder engagement for tool design, testing, and initial deployment
 2. Develop a repeatable, flexible, and scalable method for assessing natural hazard impacts and restoration pathways for island(ed) communities
 3. Simulate direct (damage to electricity systems) and indirect (disruptions resulting from supply chain and interdependency conditions) impacts to utility service territories
 4. Develop methods to estimate the direct and indirect economic and community resilience impacts from power interruptions that will serve as the basis for assessing the costs and benefits of proactive decisions
 5. Building Resilient Power for the GPA Grid
- Two-Year Project
- 100% Federally Funded

FRONTIER Team Composition

- Argonne National Laboratory (ANL)
- Lawrence Berkeley National Laboratory (LBNL)
- Carnegie Mellon University (CMU)
- Northern Arizona University (NAU)
- Guam Power Authority (GPA)
- Alaska Power and Telephone (AP&T)
- University of Guam (UOG)

FRONTIER Local Advisory Group (FLAG)

Name	Title	Organization
Arlene M. Aromin, P.E.	Utilities Director	Naval Facilities Engineering Command, Marianas
Victoria K. Zialcita, P.E.	One-Guam Electric Program Coordinator	Naval Facilities Engineering Command, Marianas
Allison R. Rutter, P.E., C.E.M., C.M.V.P., LEED AP	Regional Energy Program Manager	ARE Department, J4; Joint Region Marianas
Warren White	Installation Energy Manager (IEM)	Naval Base Guam
Donald Tilton, PhD	Installation Energy Manager (IEM)	Anderson Air Force Base
Catherine S. Castro	President	Guam Chamber of Commerce
Mary Rhodes	President	Guam Hotel & Restaurant Association (GHRA)
J. Austin Shelton III, PhD	Executive Director	UOG Center for Island Sustainability Office of Research & Sponsored Programs
Annette T. Santos, DBA	Dean / Associate Professor of Management	School of Business & Public Administration, University of Guam
Rebecca J. Respicio	Director	Guam Energy Office
Mayor Melissa B. Savares	President	Mayors Council of Guam
Ambrosio Constantino,	Disaster Program Manager	American Red Cross Guam Chapter

FRONTIER Project Timeline

Project Milestones	Dates
Establish Project Management	Summer 2020
Initial Stakeholder Engagement	Fall 2020
Data Gathering and Scenario Design	Fall 2020
Electric Grid Disruption Modeling	Fall 2020 / Winter 2021
Power Restoration Modeling	Winter 2021 / Spring 2021
Customer Surveys to Estimate Direct Costs of Power Outages	Summer / Fall 2021
Model Supply Chain Interdependencies and Ancillary Information	Summer / Fall 2021
Create Database of Resilience Options (Costs and Benefits)	Summer / Fall 2021
Develop Community Support Index	Fall 2021
Release of Alpha-version of FRONTIER Tool	Summer 2022

IT Strategic Plan

- Scope
 - Develop an IT Strategic Plan
 - Develop a GPWA IT Integration Plan
 - Analyze and build a framework for Digital Transformation
- Core Team
 - John J. Cruz Jr. , PE, GPA AGMETS
 - Chris Budasi,, GWA AGMA
 - Melvyn Kwek, GCISP/CISP, GPA CITO
 - Manny Apuron, CPM, GWA IT Manager

IT Strategic Plan

Task Items	Section	Status	Preliminary Results	Pre-Final Results & Conclusions	Final Document
1	Interviews with Top Management	Completed	X	X	22-Jun-21
2	Analysis of GPA's Digital Transformation Activities	Completed	X	X	22-Jun-21
3	GWA & GPA IT Integration Plan	Pre-Final Report	X	X	22-Jun-21
4	Plan Socialization	In Progress	26-Mar-21	26-Mar-21	22-Jun-21
5	CCU Review and Approvals	To Be Scheduled	26-Mar-21	26-Mar-21	22-Jun-21

GPA Strategic Plan

Task Items	Section	Status	Preliminary Results	Pre-Final Results & Conclusions	Final Document
1	GPA Draft Strategic Plan	In Review	X	26-Mar-21	22-Jun-21
2	Capital Budget	Dependent on Rest of IRP Studies	X	26-Mar-21	22-Jun-21
3	Final GPA Strategic Plan	In Progress	X	26-Mar-21	22-Jun-21

New Power Plant Update

FEBRUARY 18, 2021



Project Status

2

- **Doosan Heavy Industries and Construction - Engineering & Procurement Contractor (EPC)**
 - Limited Notice to Proceed (LNTP) issued on Jan 8, 2021.
- **Permit Process Ongoing**
 - Air Permit (Minor Source) - Submitted technical data towards minor source application in December to GEPA
 - Environmental Impact Assessment - Draft submitted to GEPA on Dec. 18, 2020
 - Biological Survey - Completed and submitted to USFWS on Feb. 4, 2021. Initial comments received and being addressed by KEPCO team.
 - Wetland Survey - Survey completed and circulated for Guam EPA, Dept. of Agriculture and Army Corps of Engineers (ACOE) review.
 - Cultural Survey (GPA Scope) - Fuel Pipeline, Waterline & Transmission Line Boring Scope Research Design submitted to GHPO on 1/19/21 is pending review and approval.
- **ECA Amendment - Relocation of Emergency Diesel Units/Minor Source Air Permitting**
 - CCU Resolution 2021-02 approves ECA amendment and petition for PUC approval on Jan. 26, 2021
 - PUC issued Request for Information on Feb. 11, 2021 on petition for ECA Amendment Approval.



Ongoing / Completed Activities

3

KEPCO-EWP/Doosan

- Negotiations underway with KEPCO-EWP team for LTP (long-term program) contract with Siemens for gas turbine maintenance.
- Water Supply and Discharge Agreement draft being reviewed by GPA.
- Completed ECA Amendment Draft
- Air Permit modeling ongoing
- Submitted biological assessment survey and mitigation measures for review to USFWS
- Submitted wetland survey for review to GEPA, Dept. of Agriculture, Army Corps of Engineers (ACOE)
- Finance planning and discussions ongoing with potential lenders



Upcoming Activities

4

KEPCO-EWP/Doosan

- Complete Siemens negotiations and finalize contract
- Continue with air permit modeling and permit submission to GEPA
- Address any USFWS concerns and mitigation measures on biological survey
- Address any concerns with ACOE on wetland mitigation measures
- Initiate EIA/Permit for new Diesel Generator Plant (Piti)
- Address phosphate treatment proposal from GPA/Stanley for pretreatment of wastewater discharged to GWA.
- Discuss Water Supply and Discharge Agreement



GPA Activities

5

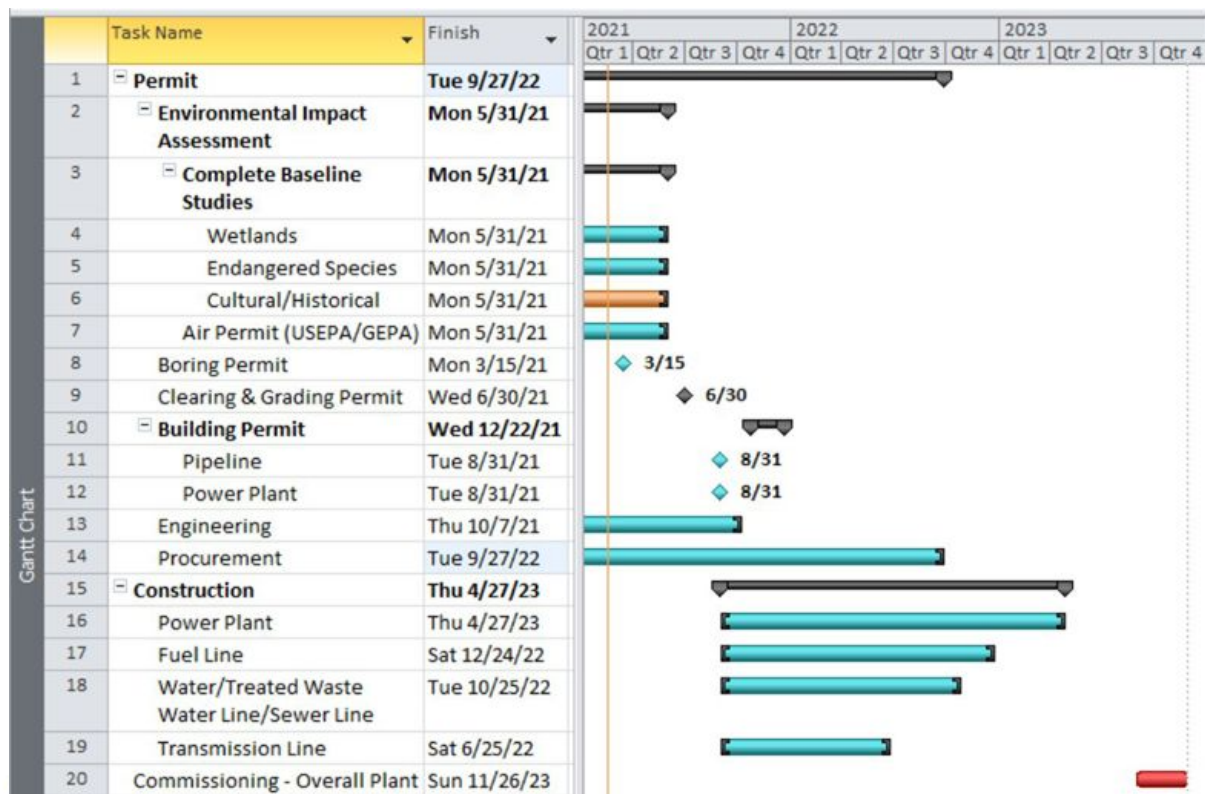
- **Completed**
 - Submitted Research Design for boring scope submitted to GHPO on 1/19/21.
 - ECA amendment review and submittal for approval
- **Ongoing / Pending**
 - Project Status
 - Water Supply and Discharge Agreement Review
 - Section 106 Process for cultural survey on Navy Properties (bull cart trails along pipeline route and Harmon Substation)
 - Cultural Survey for boring scope for all project areas outside the plant site boundary
 - Cultural Survey for construction area. Pending Section 106 process resolution
 - Coordinate with GWA on Change of Law issues due to update NPDES permit affecting discharge of wastewater from cooling system
 - Follow-up with KEPCO-EWP/Doosan on phosphate treatment proposal to address change in law issue.
 - Cultural survey and boring for proposed site in Piti for diesel generator relocation



Project Schedule

6

Major Milestones for Target Completion of November 2023



Notes:

1. Summary of 1/1/21 Project Schedule from Doosan.
2. Assumptions on completion of cultural survey need to be addressed with GHPO.
3. All construction activities shown assume start upon permit issue
4. Pre-commissioning activities for each CT, ST, and other Balance of Plant Equipment are done prior to Overall Plant Commissioning.

Critical Path & Risk Items

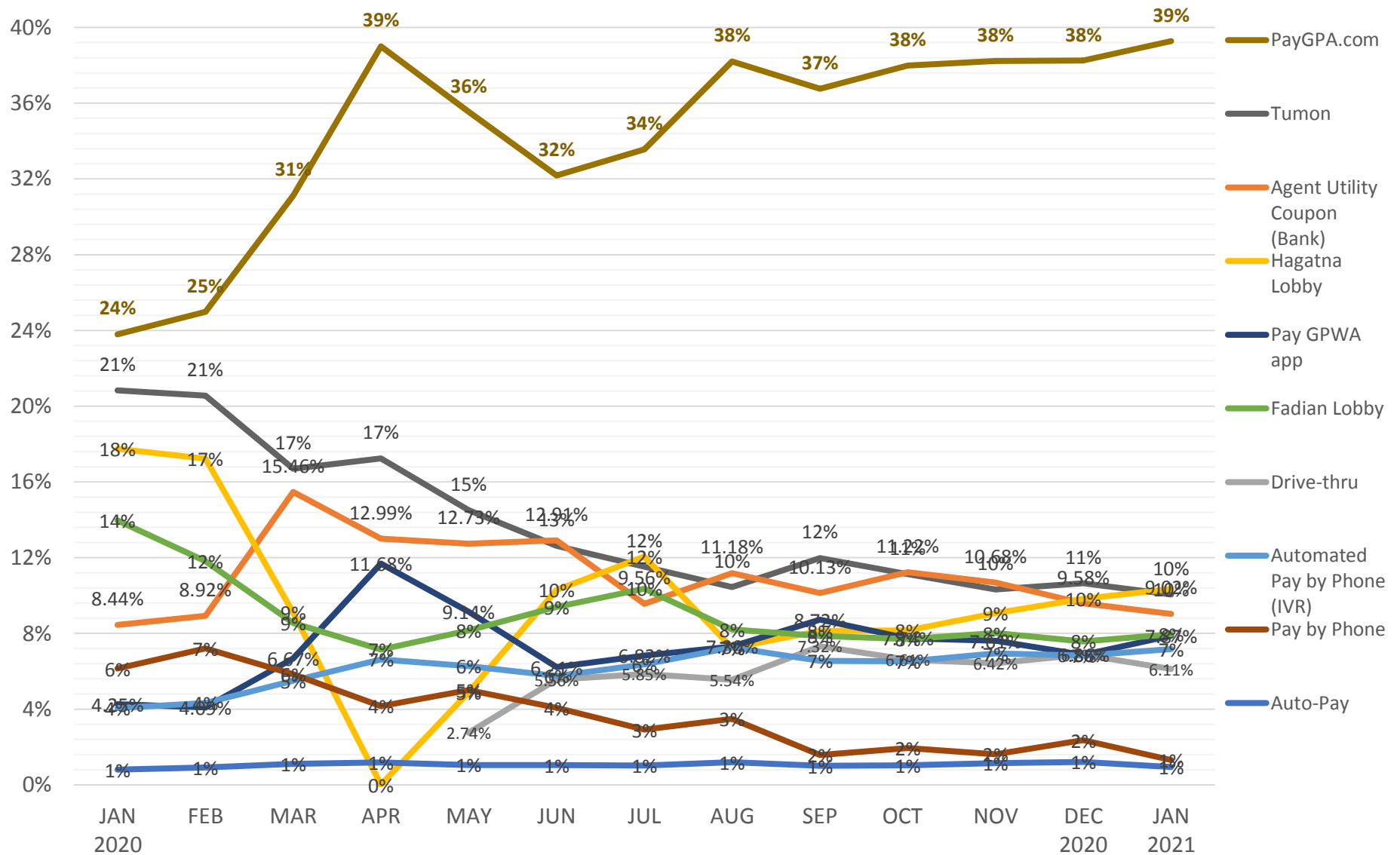
7

- Cultural Survey
 - ~ 17 Mile of pipeline will requires approval for boring and construction excavation.
 - Navy properties requiring Section 106 process
- Delays on permit approvals
- Mitigation for any wetland, biological, cultural or other findings during construction (unknowns)



Customer Service

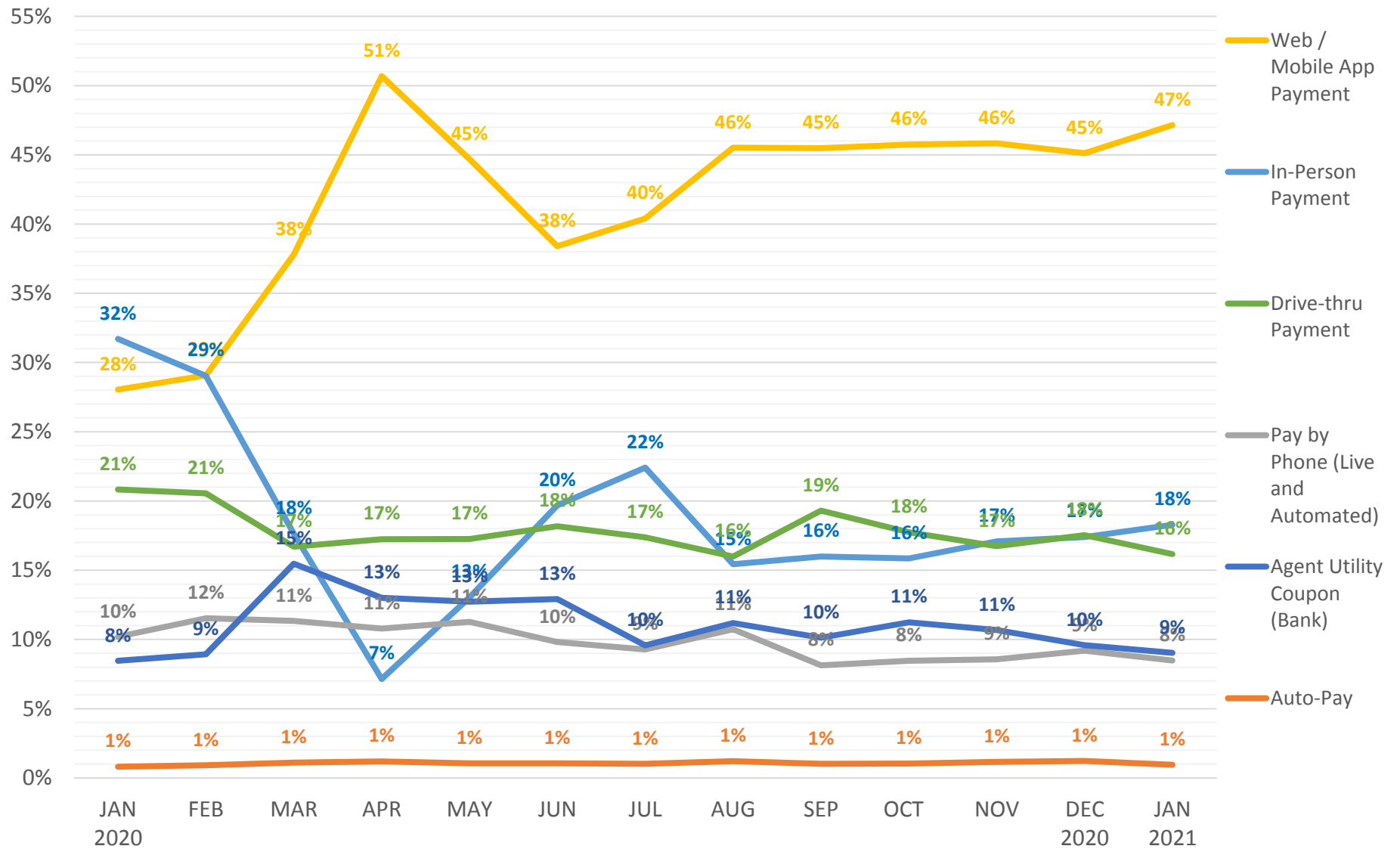
Percentage (%) of Payments made by Collection Point
January 2020 - January 2021



Customer Service (Administration Division)

Payment Collection by Platform (KPI 1.2.4 – Increase web, pay-by-phone, and prepay payments)

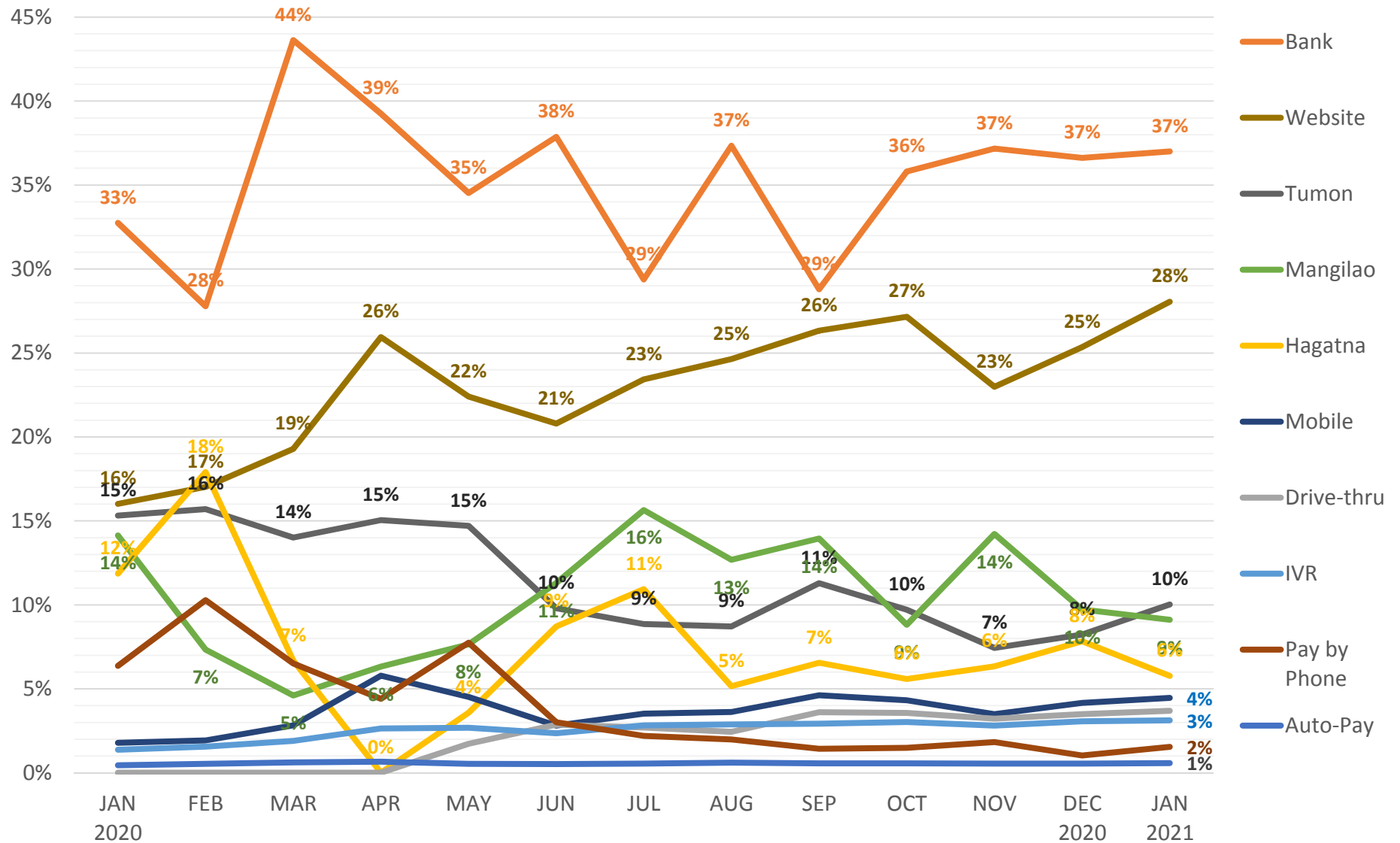
January 2020 - January 2021



Customer Service (Administration Division)

Percentage (%) of Total Amount (\$) by Collection Point

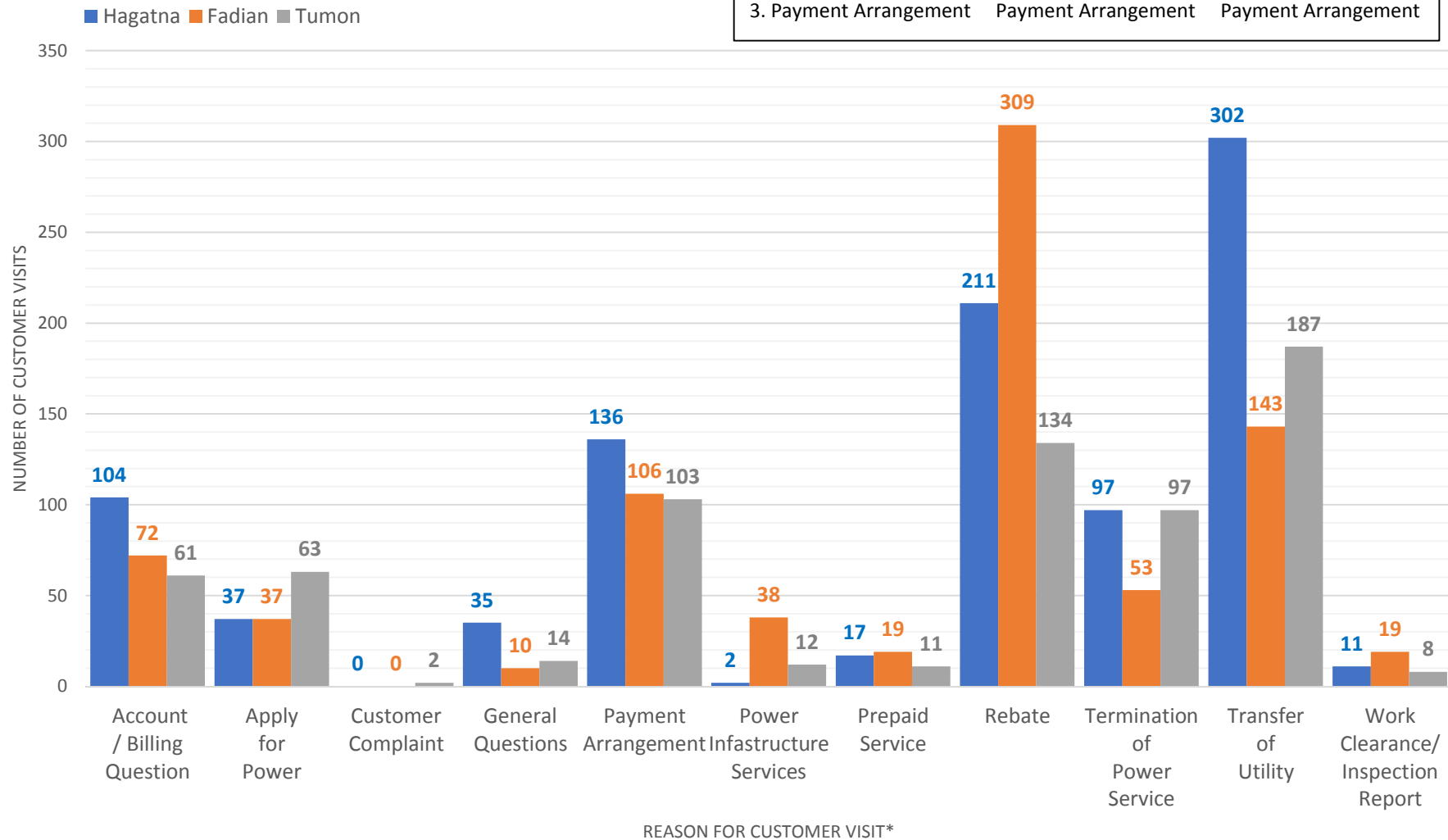
January 2020 - January 2021



Customer Service (Administration Division)

Reason for Visit by Location

January 2021

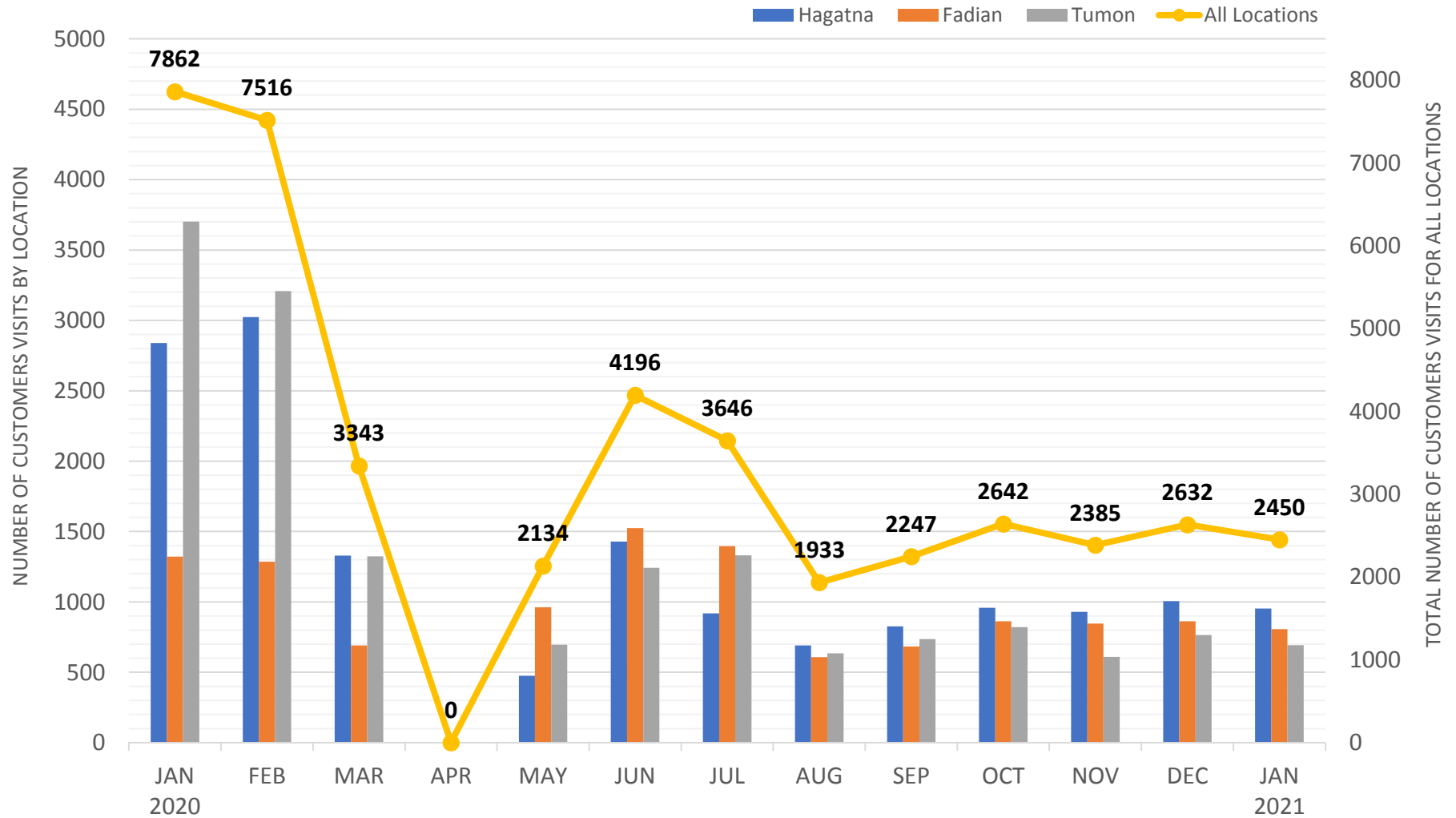


*Each count per **Reason for Customer Visit** represents a customer who visits one of our lobbies. During their visit, the customer will only be counted once, regardless of the number of services provided to the customer. Their reason for visit will be coded based on their initial or primary reason for visit. Each reason for customer visit option shall include but not be limited to, an inquiry of service, submission of an application, submission of multiple applications, submission of supporting documents, customer question regarding the service, customer follow-up, etc.

Customer Service (Administration Division)

Lobby Traffic by Location (KPI 1.2.3. Reduce Service Center Traffic)

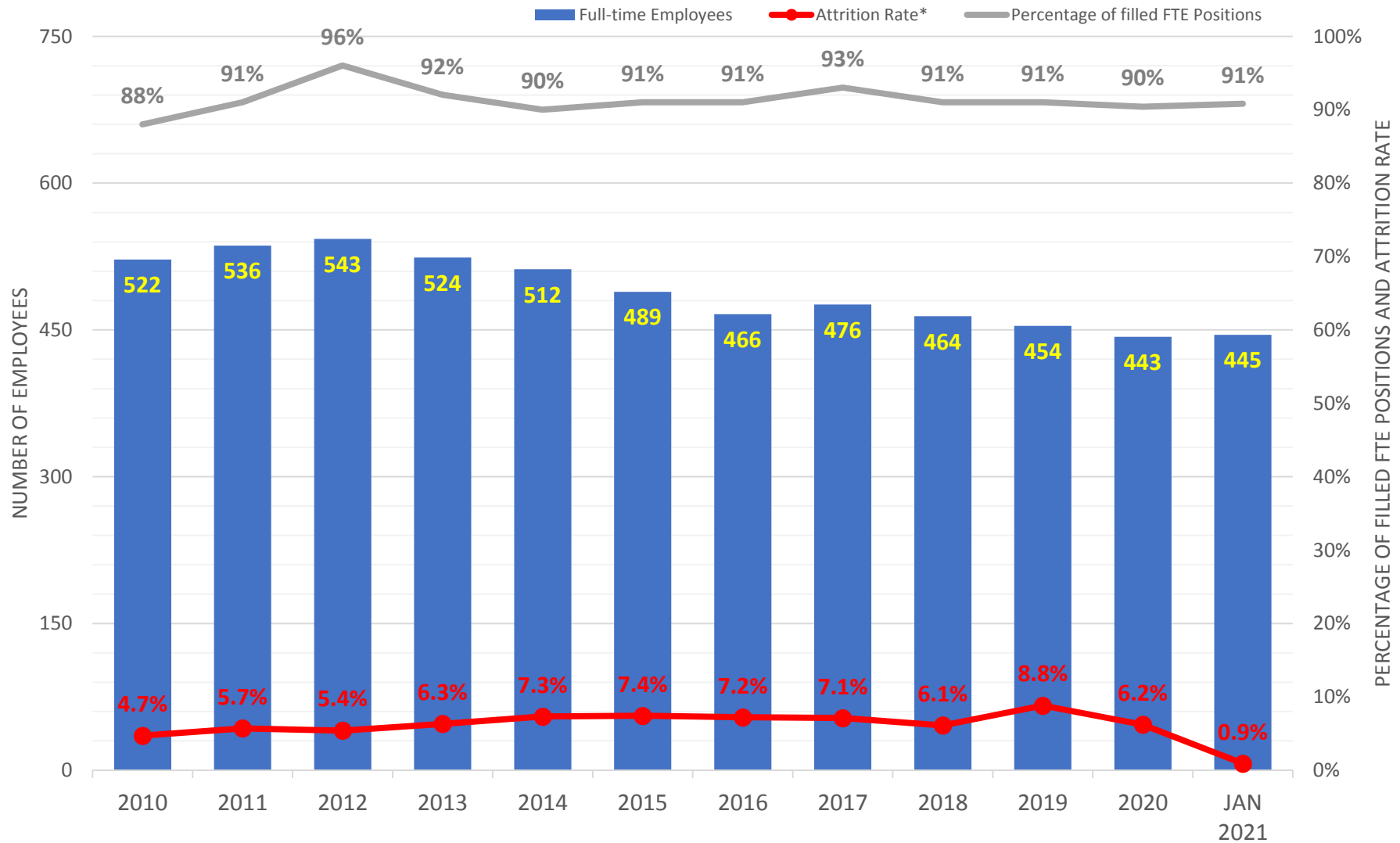
January 2021



Human Resources (Administration Division)

Recruitment Analysis

January 2021



*Attrition rate is calculated by dividing the sum of resignations, retirements, deaths, and terminations by the total filled FTE positions.

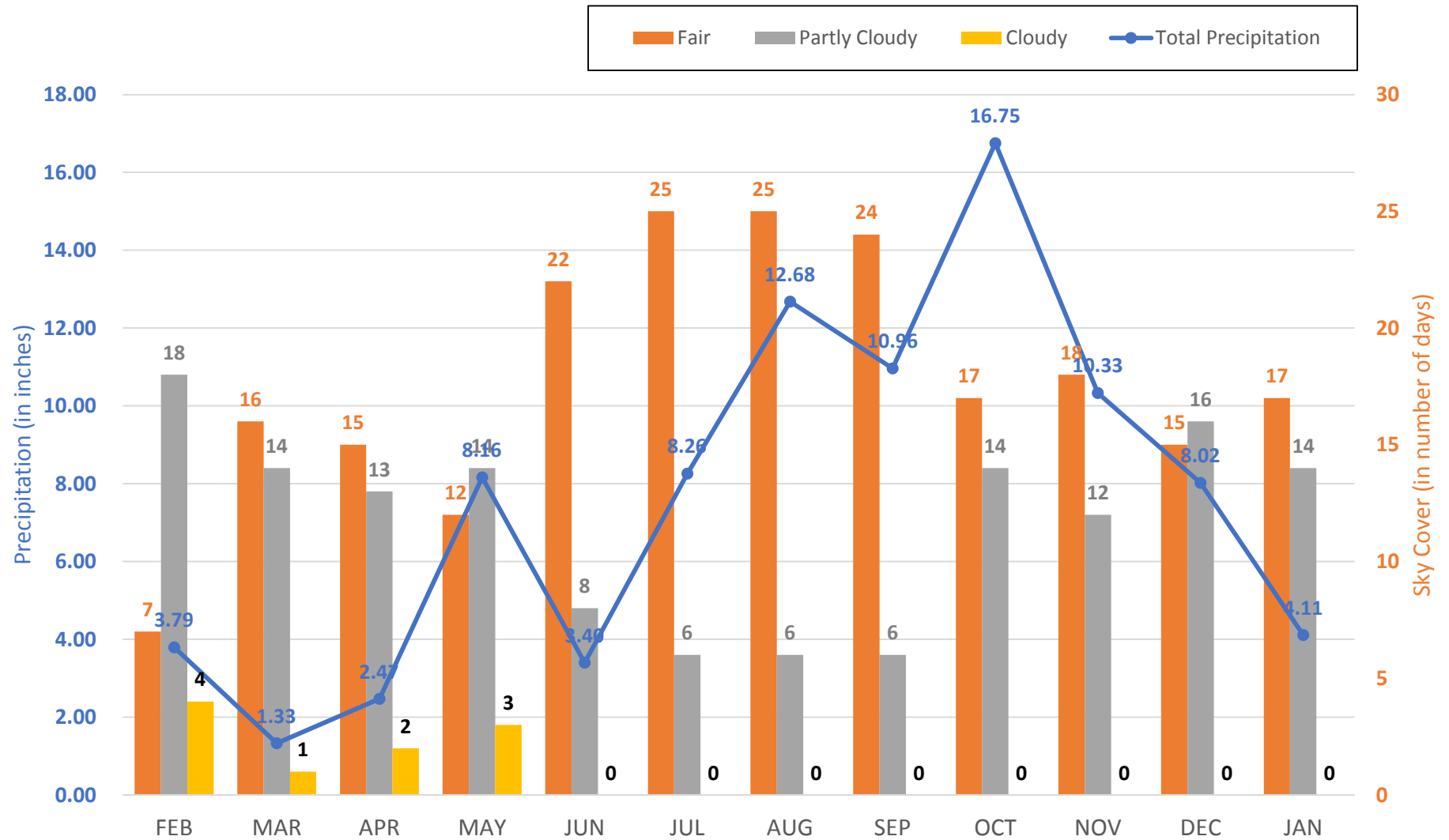
Procurement (Administration Division)**Notable BID (IFB & RFP) Monthly Status Update
January 2021**

BID / RFP NO.	DESCRIPTION	DATE ADVERTISTED	BID OPENING	STATUS (as of 2/16/2021)
GPA-007-18	Renewable Energy Resource Phase III	11/16/2017	9/10/2019	Pending appeal filed with Superior Court of Guam
GPA-027-20	Services for the Transfer and Hauling of Used Oil form Tanks Located at the Old Piti Power Plant to Guam Port	1/23/2020	3/10/2020	Pending additional documents from vendor
RE-BID GPA-072-19	Dededo Main Supply Warehouse Office Building Repairs	11/10/2020	12/3/2020	Cancellation memo received, change scope of work per end user
GPA-021-20	New 2020 55 Foot 4x4 Bucket Trucks	1/28/2020	6/17/2020	PO issued
RE-BID GPA-044-20	New 2021 Pressure Digger	1/14/2021	2/3/2021	Pending committee review
GPA-049-20	Generator Protection Relays	7/28/2020	8/12/2020	PO issued
GPA-053-20	New 2020 Heavy Duty Tractor Truck	6/18/2020	7/16/2020	14 Day Protest Period (ends on 02/25/2021)
GPA-014-21	Potential Transformers	1/7/2021	1/26/2021	Under evaluation
GPA-017-21	Wires	1/12/2021	1/27/2021	Pending evaluation
GPA-019-21	Pole Mounted Transformers (15kVA, 50 kVA & 75 kVA)	1/12/2021	1/28/2021	Under evaluation
GPA-020-21	Pad Mounted Transformers (75 kVA & 100 kVA)	1/7/2021	1/26/2021	Under evaluation
GPA-021-21	Pad Mounted Transformers (300 kVA & 500 kVA)	1/12/2021	1/27/2021	Finalizing contract
GPA-022-21	Pad Mounted Transformers (1500 kVA)	1/14/2021	02/02/202	Pending evaluation
GPA-024-21	Fleet & Fuel Management Software Services for the Authority's Fleet	1/7/2021	1/21/2021	Pending evaluation
GPA-RFP-20-006	Network Vulnerability Assessment	3/5/2020	Pending	Pending end user memo to cancel
GPA-RFP-20-007	GPWA Physical Security Services Proof of Concept (POC)	3/10/2020	8/21/2020	Committee to review price proposal
GPA-RFP-20-008	Fiber Swap Services	6/19/2019	8/23/2019	Pending finalization of draft contract for proponents
GPA-RFP-21-001	Robotic Process Automation Solution Support Services	10/13/2020 & 10/20/2020	11/6/2020	Budget review
GPA-RFP-21-002	Professional Printing, Mailing and Processing Services Relating to Utility Customer Billing	12/29/2020	2/10/2021	Under evaluation

Guam Climate Summary

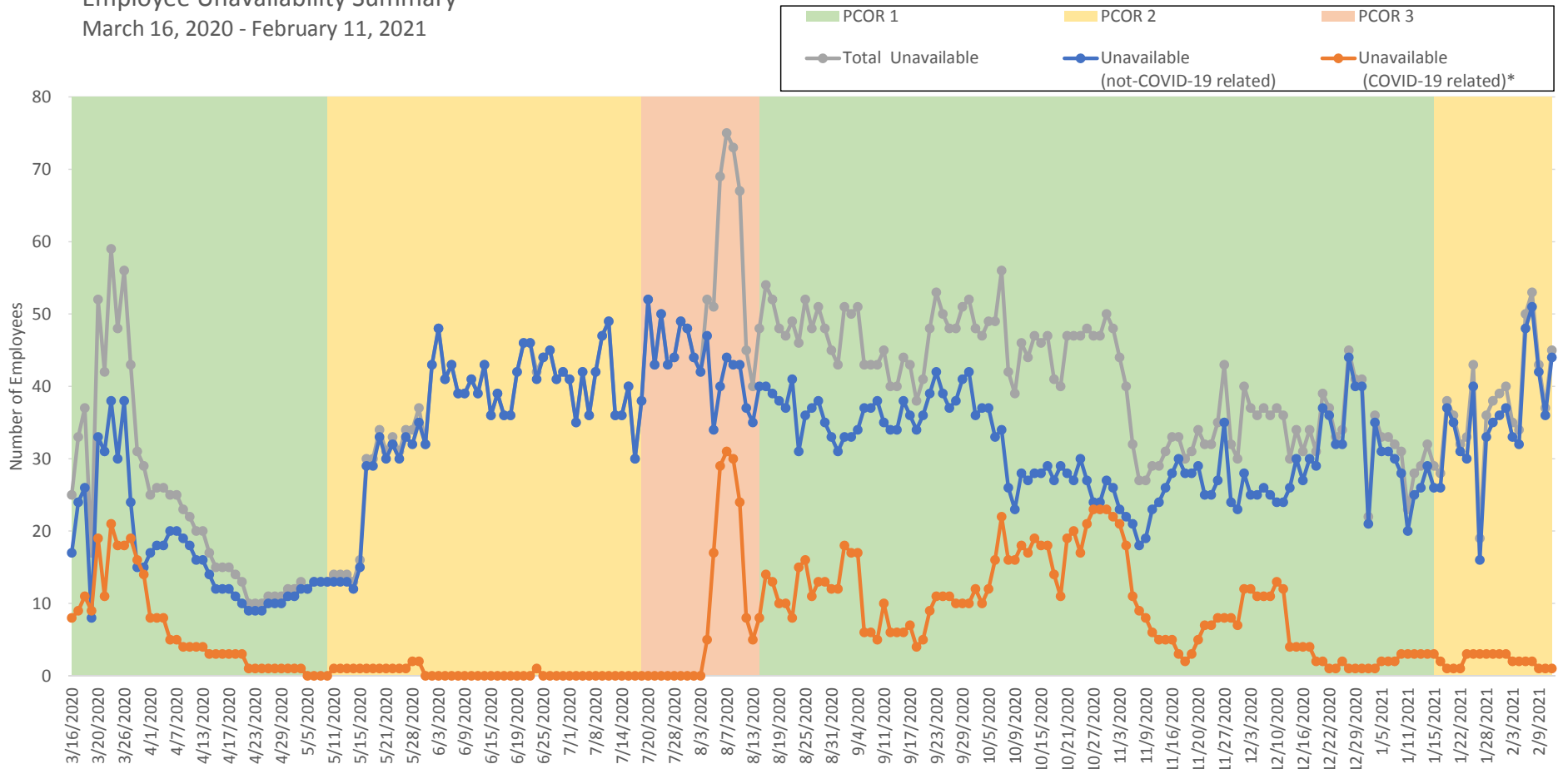
Sky Cover and Precipitation

Febuary 2020 - January 2021



Employee Unavailability Summary

March 16, 2020 - February 11, 2021



*Unavailable (COVID-19 related) includes employees who tested positive for COVID-19, tested negative but instructed to isolate, in home quarantine due to possible contact with a positive case, in travel quarantine, etc.

PLANNING & REGULATORY DIVISION REPORT

The following summarizes P&R's activities for the month of January 2021

INSPECTIONS/MONITORING

- Best Management Practices (BMP) Weekly Inspection/Report – Cabras Power Plant
- Monthly Spill Prevention, Control and Countermeasures (SPCC) Inspection/Report – Cabras Power Plant, Macheche, Dededo, Yigo CT, Talofoto, MDI, Tenjo Diesel, Piti 7 Power Plants, IP&E fuel Farm.
- Reviews monthly Continuous Emissions Monitoring System (CEMS) report and monitors TRC's O & M for Tenjo Diesel. Coordinates Operations and Maintenance with TRC.
- Emissions and Limits Tracking for GPA and Aggreko Power Plants
 - Monitoring CO and NOx emissions of the Aggreko generators not to exceed the allowable limit.
 - GPA Plants Limits based on Hours and/or Fuel Use
- Monitoring of the catalyst replacement at Tenjo power plant Coordination in the relocation of the Miratech RICE MACT monitors in Tenjo PP

CONSENT DECREE

- Provided updates relevant to the timeline of key obligations under the consent decree.
- Submitted the following Reports to US EPA and DOJ:
 - Semi-Annual Report
 - Engineering Report for the Ukudu Power Plant
- Provided updated modeling report for the Cabras Piti Non-Attainment Area

EMISSIONS TESTING

- Emissions testing coordination with Generation. Emission test date to start on March 1st 2021

ENVIRONMENTAL DISPOSAL & MITIGATION

- Used oil hauling coordination and site inspection with Nexus Energy and EFR Environmental in Piti Tanks 1, 2, & 3

ENVIRONMENTAL RESPONSE

- Cabras Tank 4 pipeline leak
- Yigo CT diesel spill

NEW UKKUDU POWER PLANT

- Weekly update conference calls:
 - Air Permitting with contractors
 - All other Permitting with contractors
 - GPA Internal discussions with Stanley
 - Discussion on GWA Permit: Water quality and discharge
- Other:

- “Sat” in with Stanley on ConCall between B&V, Guam EPA and US EPA regarding Air Permit Application for Guam Ukudu Power

NPDES, Virtual Inspection

- Areas of Concern – responded to questions from US EPA in regards to the Virtual Inspection conducted at Cabras Power Plant in November

PROCUREMENT

Coordination with procurement on the following bids:

- OR#33750 – Environmental Emergency Response Contractor- Bid is on going
- OR#33816 – Transfer of Used Oil from Piti Power Plant- Waiting release of purchase order
- OR 34384 - Service to pick up, process, transport and dispose – Waiting release of purchase order
- RFQ 34377 – Contractual services for vacuum truck – Waiting release of purchase order
- OR# 34870 - RFQ for Marbo Soil sampling and testing. SOW, QA and QC outlined.

REPORTING

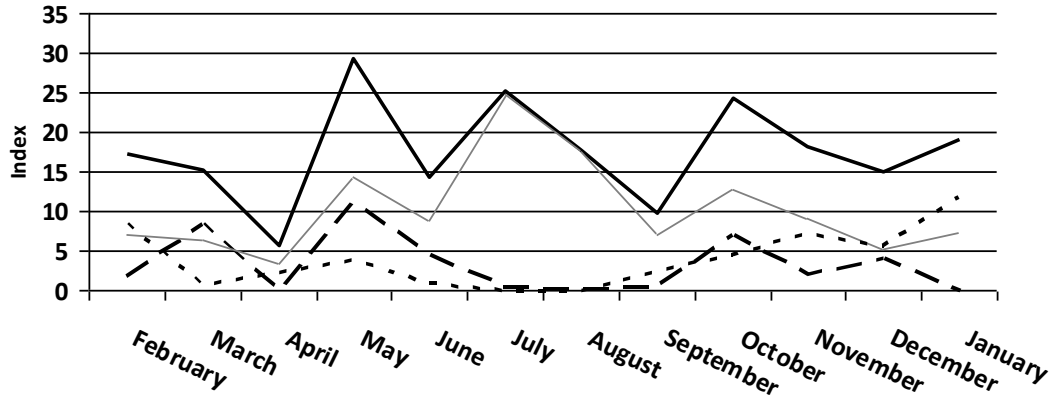
- Monthly NSPS reporting for Cabras, CT's and Diesel plants submitted to GEPA
- Prepared quarterly and annual Net DMR reporting submitted to USEPA
- Prepared quarterly fuel switching reporting submitted to USEPA
- Prepared Annual Hazwaste report to GEPA

OTHERS

- Prepared SPCC Plans for Talofofo and Agana ESS
- Guam AST rule: coordinated with Piti 8 & 9 (formerly MEC), clarifications regarding the facilities AST required to be registered under the rule.
- Response to Leidos Report Findings for Piti Bulk Storage Tank Farm
- GPA ENVIRONMENTAL LIABILITY POLICY – Assisted Tami in filling out Application Forms and providing data for the Power Plants and other facilities
- NAVFAC IWPS Quitclaim Deed – Provided JR Information on the cleanup and PCB mitigation performed at the Apra Sub-station
- Attended ConCall for Coast Guard's Mariana Islands Area Contingency Plan (MIACP) Committee meeting
- MET Tower Audit – AMS Tech completed first Semi-Annual Audit



(Item 1.1,1.2,1.5) January 2021 SAIDI = 211.38 ↑ (199.70)



ALL

GEN=47.85

(38.30) ↑

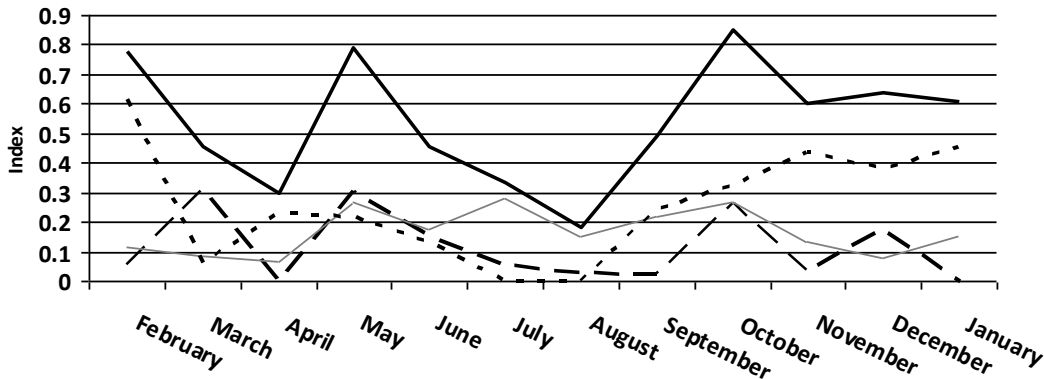
TRANS=39.99

(41.87) ↓

DIST=123.54

(119.52) ↑

(Item 1.1,1.2,1.5) January 2021 SAIFI = 6.50 ↑ (6.30)



ALL

GEN=3.11

(2.88) ↑

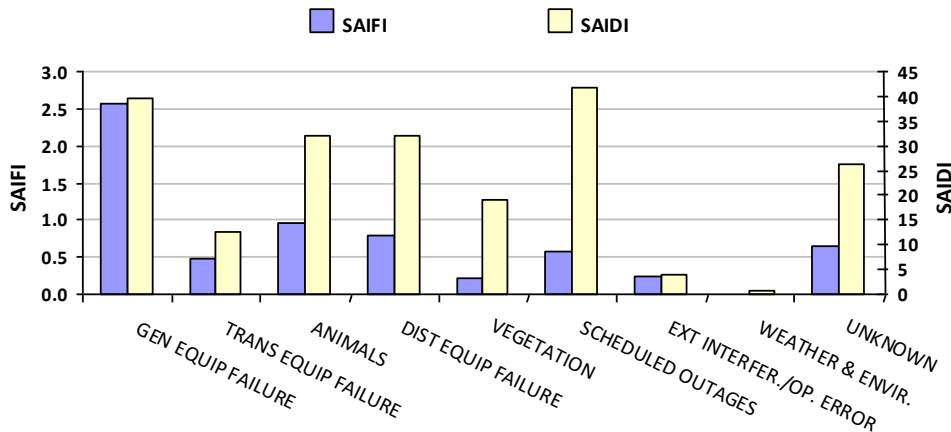
TRANS=1.39

(1.44) ↓

DIST=2.00

(1.98) ↑

(Item 1.9) 12-Month Cause Contributions to Reliability



GEN EQUIP FAILURE

F:36.1% D:19.1%

TRANS EQUIP FAILURE

F:5.5% D:6.0%

ANIMALS

F:12.4% D:15.4%

DIST EQUIP FAILURE

F:12.0% D:15.4%

VEGETATION

F:3.8% D:9.1%

SCHEDULED OUTAGES

F:15.8% D:20.1%

EXT INTERFER./OP.

ERROR

F:5.1% D:2.0%

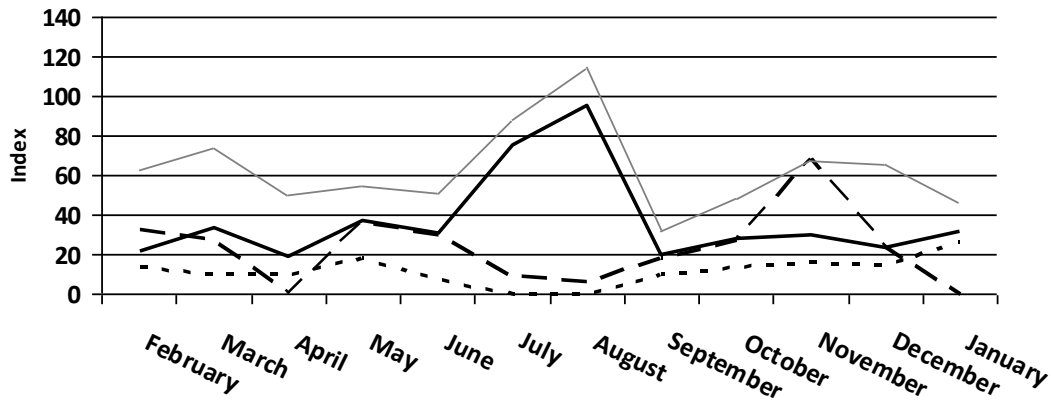
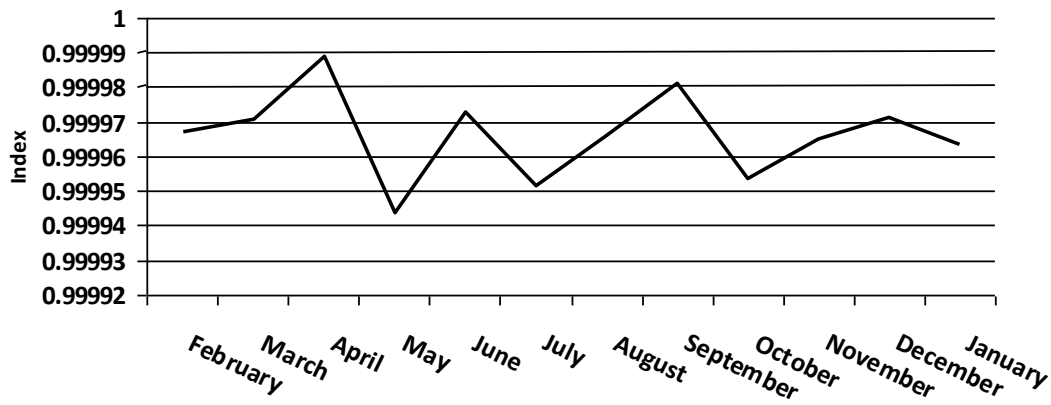
WEATHER & ENVIR.

F:0.2% D:0.3%

UNKNOWN

F:9.1% D:12.7%

As of January 31, 2021

(Item 1.1,1.2,1.5) January 2021 CAIDI = 32.54 ↑ (31.68)**(Item 1.1,1.2,1.5) January 2021 ASAI = 0.9996 ↓ (0.9996)****(Item 1.4) Top 5 Worst Feeders Distribution Causes**

#	Feeder	Outage Count
1	P340	15
2	P003	4
3	P111	4
4	P283	4
5	P223	4

(Item 1.3) Outage Count

TOTAL	UFLS	Non-UFLS
476	236	240

(Item 1.4) Top 5 Distribution Outage Causes

#	Outage Cause	Count
1	Overhead Equipment	50
2	Vegetation	17
3	Snakes	14
4	Underground Equipment	5
5	Substation Equipment	2

(Item 1.3) UFLS Contribution to Reliability

SAIDI	SAIFI	CAIDI
57.30	3.60	15.91

As of January 31, 2021

E&TS Divisional Report Summary

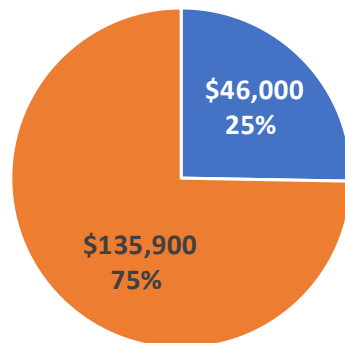
January 31, 2021

Contents

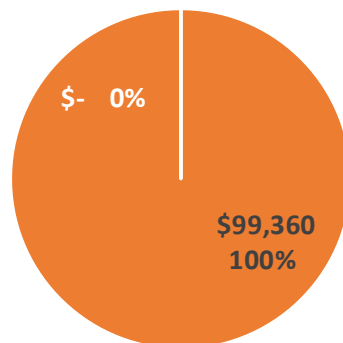
- E&TS Budget Execution Performance
 - O&M Contract Budget
 - CIP Budget
 - DSM Budget
- Environmental Compliance (SPCC and BMP Inspections)

E&TS Budget Execution Performance

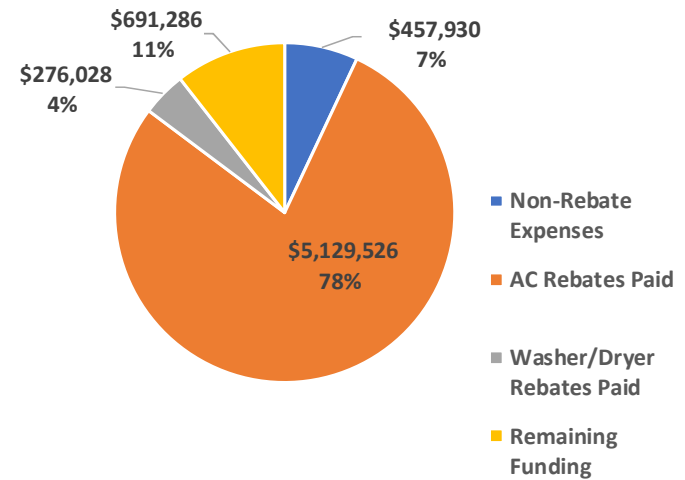
E&TS O&M Contract Budget



E&TS CIP Budget



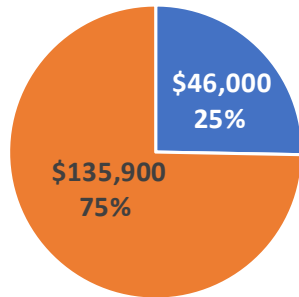
OCT 2016 to JAN 2021 DSM EXPENSE SUMMARY



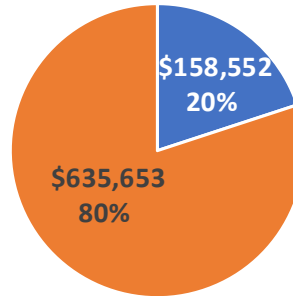
■ Obligated/Spent
■ Remaining Balance

■ Non-Rebate Expenses
■ AC Rebates Paid
■ Washer/Dryer Rebates Paid
■ Remaining Funding

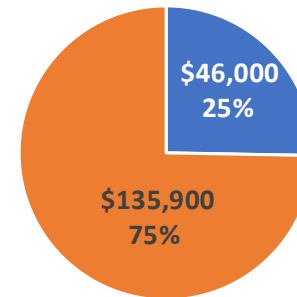
ENG O&M Contract Budget



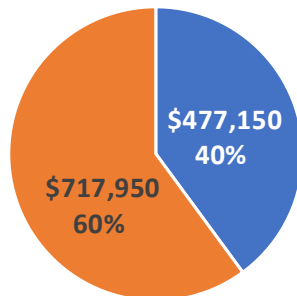
SPORD O&M Contract Budget



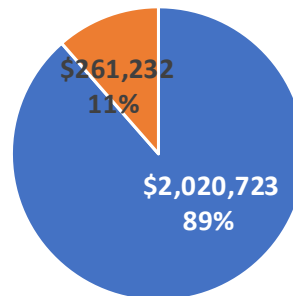
E&TS O&M Contract Budget



P&R O&M Contract Budget

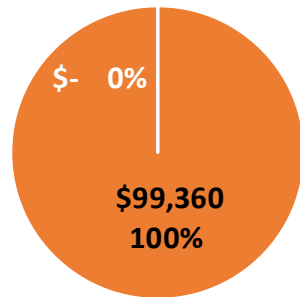


IT O&M Contract Budget

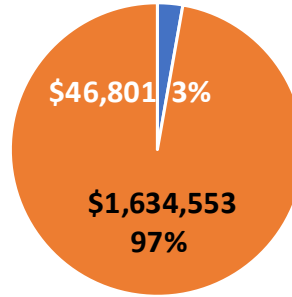


■ Obligated/Spent
■ Remaining Balance

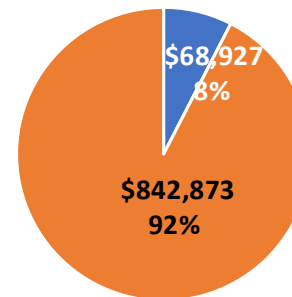
ENG CIP Contract Budget



SPORD CIP Budget



IT CIP Budget



■ Obligated/Spent
■ Remaining Balance

FY 2021 Procurement Status

Business Unit	Current Type					Current Status			Planned			
	RFP	Bid	Multistep Bid	Total	Resolicited	QBL Established	Evaluation Completed	Award/NTP	RFP	Bid	Multistep Bid	Total
SPORD			1	1			6	2	2		6	8
Engineering	3	24		27			7	7	2	10		12
SPORD/Engineering				0			0					0
IT	1	3	1	5								0
P&R		2	1	3			1		1	1		2
Total	4	29	3	36	0	0	14	9	5	11	6	22

Environmental Compliance

P&R Inspections Status Ending January 31, 2021

Inspection Type	Organization Responsibility	Violations Not Remediated	Number
Spill Prevention, Control, and Countermeasure (SPCC)	Generation	New Violation Notifications Issued	7
		Remediations Past Due	11
		Remediations Not Past Due	0
	T&D	New Violation Notifications Issued	1
		Remediations Past Due	1
		Remediations Not Past Due	0
Best Management Practices (BMPs)	Generation	New Violation Notifications Issued	0
		Remediations Past Due	8
		Remediations Not Past Due	0

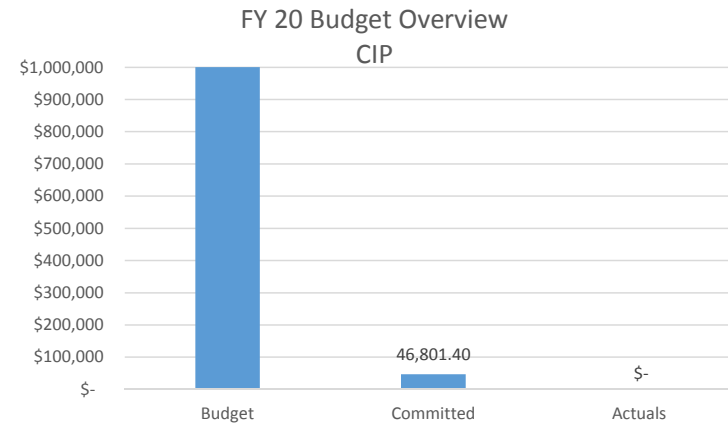
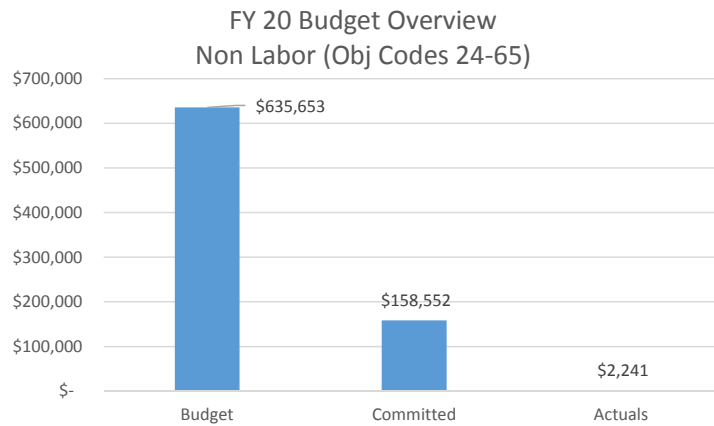
- SPCC rule purpose is to help facilities prevent oil discharges into navigable waters or adjoining shorelines
- BMP refers to a type of auxiliary pollution controls in the fields of industrial wastewater control and municipal sewage control, storm water management, and wetland management

SPORD CCU Report

Update thru January 31, 2021

SPORD FY 2020 Budget Status

thru January 31, 2021



**Excludes DSM & Major Contracts (IPP, PPA, Fuel)*

SPORD FY 2020 Budget Status

- Major Contracts (Non-O&M) thru January 2021

Contract Description	Budgeted Amount	Committed Amount	Actuals	PO Balance
Aggreko Contract	\$ 3,461,541	\$ 3,461,541	\$ 2,199,123	\$ 1,262,418
Fuel Contracts	\$ 172,702,457	\$ 167,378,781	\$ 35,081,710	\$ 132,297,071
MEC IPP (Piti 8&9)	\$ 18,764,855	\$ 16,955,569	\$ 4,758,523	\$ 12,197,046
Glidepath Contract (Renewable)	\$ 10,190,073	\$ 10,190,073	\$ 3,215,239	\$ 6,974,834

SPORD FY 2020 Budget Status

Demand Side Management

Description	FY16	FY17	FY18	FY19	FY20	FY21	Total to Date
						Posting Thru 1/31/21	
Regular/OT Pay	\$11,348.80	\$22,256.00	\$26,121.83	\$50,715.19	\$47,402.18	\$60,852.21	\$218,696.21
Other Contractual	\$28,278.50	\$85,550.05	\$116,977.50	\$3,025.00	-		\$233,831.05
Ads & Radio Announcements	-	-	-	\$9,000.00	-		\$9,000.00
Paid Rebates- Split AC	\$154,700.00	\$557,275.00	\$1,349,825.00	\$1,374,650.00	\$1,468,001.00	\$200,175.00	\$5,104,626.00
Paid Rebates- Central AC	\$3,400.00	\$8,200.00	\$4,400.00	\$6,500.00	\$2,400.00		\$24,900.00
Paid Rebates- Washer/Dryer	\$2,800.00	\$7,425.00	\$57,200.00	\$110,800.00	\$91,003.00	\$6,800.00	\$276,028.00
Total Expenses	\$200,527.30	\$680,706.05	\$1,554,524.33	\$1,554,690.19	\$1,608,806.18	\$267,827.21	\$5,867,081.26
Bank Interest (+)	\$1,676.42	\$1,722.74	\$1,222.29	\$730.05	\$439.12	\$92.25	\$5,882.87
Bank Fees	\$155.00	\$1,032.06	\$1,085.08	\$1,247.54	\$1,702.64	\$180.00	\$5,402.32

**Preliminary Data as of 1/31/21*

DSM Ending Balance – LEAC Funds	\$691,285.57
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Ongoing Activities

- Contract Performance Management (IPP, Aggreko)
- Generation Fuel Supply & Fuel Farm Management
- DSM Rebate Processing & UESC Program
- Renewables (DOAg MOA, Phase I, II & III Projects)
- Energy Storage System
- New Power Plant Procurement
- Smart Grid/Network Support
- Project Management
 - Procurement
 - *January Project Activities*

PROCUREMENT ACTIVITIES**PENDING AWARD / NTP**

Responsible	PROJECT	Description	CCU Date Approved (Resolution No.)	PUC Date Approved (Docket No.)	Projected Start*	Projected Completion	Status
NO AWARDS PENDING							

ONGOING PROCUREMENT

Responsible	PROJECT	Description	Bid or RFP	Bid/RFP No	Announced	Bid Opening / Due	Notes
SPORD (RAC)	SCADA	DNP3 SA training			TBD	TBD	Vendor decline to provide price proposal - Re-Bid Plan
SPORD (MAT)	RENEWABLES	Renewable Energy Resource Phase III	MS Bid	GPA-007-18	11/16/2017	9/12/2019 (Price)	OPA Released decision in favor of GPA. Protest filed to Supreme Court as of Oct 2020.
SPORD (MAT)	SPORD Software	Utility Resource Planning Software	RFP	GPA-RFP-20-003	Jan-20	Jun-20	Currently under protest, Legal Counsel and Procurement reviewing & addressing protest.
SPORD (MAT)	PMC	PMC for Yigo Diesel Generators (currently Aggreko Diesel Units)	IFB	GPA-061-20	Jul-20	Sep-20	Bid is cancelled. Review of Scope of Work and potential re-bid scheduled for 1st or 2nd Quarter 2021.

DEVELOPING PROCUREMENT

Responsible	PROJECT	Description	Bid or RFP	Projected Start	Projected Completion	Status
SPORD (RAC)	ELECTRIC VEHICLE	Electric Vehicle Infrastructure	RFP	Oct-19	Jun-21	Developing Requirements (hold)
SPORD (ANF/MAT)	FUEL	GPA Bulk Fuel Storage Facility PMC	Bid	FY2021	Sep-21	Developing Specifications to convert to PMC
SPORD (ANF)	FUEL	Bulk ULSD Supply	MS Bid	FY2021	Aug-21	Bid Package Prepared. Pending upper management advise on issuance date for the solicitation.
SPORD (ANF)	FUEL	Diesel Supply to WSD	MS Bid	FY2021	TBD	Bid Package Preparation In Progress.
SPORD (MAT)	RENEWABLES	Phase IV Renewable Resource Acquisition	(TBD)	Jan-20	Jun-21	Scope of Work & Bid Documents currently under management review.
SPORD (RAC)	SCADA	Replicated Database	RFP	TBD	TBD	Developing Scope of Work & RFP Documents
SPORD (JTL)	ESS	Standby Generator & Automatic Transfer Switch for Talofofo ESS	RFP	FY 2021	FY 2022	Bid Package Prepared. Plan procurement document submitted to PMM & drafted bid routed for upper management approval.
SPORD (JTL)	RENEWABLES	Installation of Solar Canopy at Fadian Public Parking Area	(TBD)	FY 2021	FY 2022	Bid Package Prepared. Pending upper management review & amendment of Bid Package to add verbiage for solar Electric Vehicle (EV) charger compatibility or to add additive bid item for solar EV chargers. Plan procurement documentation pending.

GPA Work Session - February 18, 2021 - DIVISION REPORTS

No.	Project Description	January 2021 Activities	Status / Est. Completion	RFP/Bid No
1	Energy Storage System (Phase I)	Construction is 100% completed. ESS commissioning, stabilization and tuning completed in Jan 2021.	Feb-21	MS Bid GPA-082-15
2	Renewable Energy Resource Phase II	KEPCO is continuing with construction - civil work, transmission line work and solar panel installation. Submittals of construction material and equipment for GPA's review and approval are ongoing. Hanwha's design is ongoing.	KEPCO PV plant COD is extended to January 21, 2022. Hanwha's COD is extended from Aug 22, 2022 to Dec 22,	MS Bid GPA-070-16
3	New Power Plant Bid (EPCM)	Draft of biological assessment is under development pending new EPC's review. KEPCO has awarded the new EPC contract to Doosan. GPA/Stamley submitted the Research Design to SHPO. EPA's review of draft EIA and technical documents for minor source permit is ongoing. Water agreement discussions are ongoing. Completed ECA negotiations for relocating of diesel units for minor source permit path and initiated ECA amendment approvals.	ECA Project COD - Oct. 31, 2022	MS GPA-034-18
4	DSM Marketing	No additional activities funded for remaining of the year.	Continuous	
5	DSM Rebate Program	Processed 340 applications for rebates totaling \$89k	Continuous	
6	Wireless Network Expansion	Commenced Southern Expansion Dandan Substation Installation Design Apra Heights Installation Design	Feb-21 April 2021	GPA-RFP-19-010
7	Smartworks MDM and Eportal	E-PORTAL training scheduled for April 2021 Data Migration from Oracle to Postgres Plan (Upgrade to latest version pre-requisite) Backup ongoing Upgrade on Existing Test and Production System Planning	Feb-21 Mar-21	GPA-RFP-19-007
8	GDOE BEST Schools	FY 20 DOI Award Projects: 1. Agueda Johnston Middle School LED Lighting Retrofit (\$586,771) 2. Maria Ulloa Elementary School LED Lighting Retrofit (\$522,616) GPA received Authorization to Proceed from DOI on 9/11/20. Coordinating with GDOE on Memorandum of Agreement and projected start schedule.	Estimated Start: May 2021 Est. Completion: August 2021	GPA-RFP-16-013

GPA Work Session - February 18, 2021 - DIVISION REPORTS

No.	Project Description	January 2021 Activities	Status / Est. Completion	RFP/Bid No
9	Supervisory Control and Data Acquisition (SCADA) System	Project Substantially completed Completed OMS and Scada Integration Testing - IT reviewing Network integration requirements(Delayed due to CoVid - Need to meet with Siemens Germany)	Feb 2019 (Punchlist items by Marchr 2021 due to COVID)	GPA-066-16
10	Mobile Workforce Management System	Completed Workbook Final UAT and User Training on Jan 2021	March '21 (due to COVID delay)	GPA-RFP-18-013
11	Consulting Services for Smart Grid Analytics Enabled Distribution System Planning, Technical, and Economic Feasibility Studies	Vendor PO acknowleged, Kick-off meeting completed, Systems Checks Ongoing	Continuous	RE-SOLICITATION GPA-RFP-19-002
12	MEC Piti &8 and #9 - ECA Extension	Contract Extension commenced 12:00 Noon January 29, 2019. (No issues) Review and adjustment of Recapitalization Projects in-progress. (No issues) MEC /BWSC Proposal for ULSD Conversion under Review and approval.	IN PROGRESS	(N/A)
13	Cabars 1&2 PMC	New contract commenced. Will assist Generation with contract matters and performance evaluation.	COMPLETED	GPA-035-20
14	EV Infrastructure	Fast charge station scope for Mangilao offices. Developing fast charge station scope for Mangilao offices.	On-Hold	
15	Renewable Energy Resource Phase III	OPA released decision 9/2020. Protest filed to Superior Court in October 2020. Schedule conference hearing set for 2/23/21 to set hearing dates.	TBD	GPA-007-18
16	Utility Energy Services Contract (UESC)	Continued work with GDOE on Best Schools Program (Grant & Pilot). GPA awarded first task at AAFB to upgrade parking lot lighting (~\$198K). GPA and Anderson have approved material submittals.	Ongoing	
17	GPA Fuel Farm RFO Pipeline Repair & Upgrade	c/o Engineering Project Mgt. Repairs completed.	COMPLETED	IFB GPA-047-18
18	GPA Fuel Farm ULSD Pipeline Upgrade	c/o Engineering Project Mgt. Design in progress. Delays due to COVID will move project completion into Summer 2021.	Project Timeline: Estimated Start: Jan 2020 Est. Completion: Summer 2021	IFB GPA-027-19
19	Tk 1934 & Tk1935 API 653 Internal Inspection	c/o Engineering Project Mgt. Implementation in progress. Delays were experienced for Tank 1935 due to COVID however the total project schedule may still be within the projection completion date.	Project Timeline: Estimated Start: Feb 2020 Est. Completion: Dec 2022	IFB GPA-028-19

GPA Work Session - February 18, 2021 - DIVISION REPORTS

No.	Project Description	January 2021 Activities	Status / Est. Completion	RFP/Bid No
20	Milsoft Systems Software Services	Test to Clevest Integration Completed, Upgrade of OMS production planned	Continuous	GPA-RFP-18-003
21	MV90 Integration Services	Server and software Installation Completed, Configuration Ongoing	Feb-21	GPA-RFP-18-001
22	Grant Support	Continued grant development and execution. 1. Guam Energy Office EnergySmart School Grant (~\$64K) - GPA working with Siemens to schedule audit of 4 schools under this grant. 2. On-site Energy Audits conducted January 25 - 30, 2021. 3. Analysis and final report in progress	GEO MOA Finalize: Sept '19 Grant Scope Completion: Dec. '21	
23	Redesignation of Cabras-Piti / Guam	Re-designation received 12/2018. SIP Draft sent to Guam EPA week of 10/21/2019. Final clarifications and changes made to Control Strategy and SIP Modeling Protocol and submitted by GPA Guam EPA via email and hand delivery of printed copy, week of February 10, 2020. Awaiting final decision on AAQM. *AAQM Plan submitted to EPA week of originally submitted on Oct. 21, 2019, and acknowledged by USEPA/Guam EPA. Final clarifications and changes made to Control Strategy and SIP Modeling Protocol and submitted by GPA Guam EPA via email and hand delivery of printed copy, week of February 10, 2020. Awaiting final decision on proceeding (or not) w/ AAQM. SIP original completion date was April 2020, but awaiting P&R advise on new deadline from USEPA and Guam EPA.	Start: October 2011 Est. Completion: TBD	RFP-11-001
24	GPA Fuel Farm- OWS Upgrading	c/o Engineering Project Mgt. Scope included in Tk 1934 & Tk1935 API 653 Internal Inspection and repair. Implementation in progress	Project Timeline: Estimated Start: Feb 2020 Est. Completion: Dec 2022	IFB GPA-028-19
25	GPA Fuel Farm- LD System Upgrading	c/o Engineering Project Mgt. Scope included in Tk 1934 & Tk1935 API 653 Internal Inspection and repair. Implementation in progress	Project Timeline: Estimated Start: Feb 2020 Est. Completion: Dec 2022	IFB GPA-028-19
27	Integrated Resource Plan	Gathering data & establishing baselines. Planning in progress.	TBD	GPA-RFP-17-002 / UFS / S&P
28	Energy Storage Development Support	Consultant providing support for third-party commissioning services	Jan 2021	GPA-RFP-13-007
29	Utility Resource Planning Software RFP.	RFP cancelled. A new RFP is being developed and scheduled for announcement later this FY.	Planned Completion: 3/31/2022	TBD

GPA Work Session - February 18, 2021 - DIVISION REPORTS

No.	Project Description	January 2021 Activities	Status / Est. Completion	RFP/Bid No
30	Power System Analyses and Studies	Signed contract and PO Acknowledgement received from S&C. System impact studies for Phase III are on hold due to Phase III Protest.	Estimated Start: Nov 2019 Est. Completion: TBD	
31	CT PMC Extension	Contract expires February 28, 2021. CCU and PUC approvals received. Amendment 1 signed by both parties.	Start Date: Mar 2020 Completion Date: Jan 15 2021	GPA-001-16
35	Diesel Supply to Tenjo Vista	Bid Package prepared. Approved by CCU (Resolution 2020-02) and PUC (Docket 20-07). For solicitation	Project Timeline: Estimated Start: TBD Est. Completion: TBD	TBD
36	GPA Fuel Farm Mgt Contract	2nd & 3rd Year Contract Extension (10/01/20-09/30/22) approved by CCU (Resolution 2020-03) and PUC (Docket 20-08).	2-year base period: Completed 09/30/19 1st Year Extn: Completed 09/30/20 2nd & 3rd Yr Extn: 10/01/20 to 09/30/22	MS IFB GPA-014-17
37	RFO Supply to Baseload Plants	Contract awarded to Hyundai Corporation ContractTerm: 3-year base period: 09/01/20 to 08/31/23 w/ 2 Year Extn Option	3-year base period: 9/1/2020-8/31/2023	MS IFB GPA-050-20
38	Reliability Studies	Completed evaluation and set-up of initial scenarios to determine options for maintaining reliability standard, after new power plant commences operation. Initial analysis focused on determining if Piti 8&9 can be retired.	Est. Completion:TBD (same as IRP)	(No consultant)
39	RFO Testing Services Contract	Contract awarded to SGS Guam ContractTerm: 2-year base period: 10/01/20 to 09/30/22 w/ 3 Year Extn Option	COMPLETED	MS IFB GPA-013-20
40	PMC for Yigo Diesel Units (currently Aggreko Diesel Units)	Bid was cancelled. Bid documents to be evaluated and scope to be updated before resolicitation.	Project Start: July 2020 (procurement) Est. Completion: TBD	GPA-061-20
41	DSM Digitization	Development environments are expected to be completed by end of February. User Acceptance Testing is targeted to begin on early March. Database storage and on-premise servers are currently in planning.	Project Start: Sep 2020 Est. Completion: TBD	TBD

CCU Report- DSM

As of January 31, 2021

All Expenses – Fiscal Year

Description	FY16	FY17	FY18	FY19	FY20	FY21	Total to Date
						Posting Thru 1/31/21	
Regular/OT Pay	\$11,348.80	\$22,256.00	\$26,121.83	\$50,715.19	\$47,402.18	\$60,852.21	\$218,696.21
Other Contractual	\$28,278.50	\$85,550.05	\$116,977.50	\$3,025.00	-		\$233,831.05
Ads & Radio Announcements	-	-	-	\$9,000.00	-		\$9,000.00
Paid Rebates– Split AC	\$154,700.00	\$557,275.00	\$1,349,825.00	\$1,374,650.00	\$1,468,001.00	\$200,175.00	\$5,104,626.00
Paid Rebates– Central AC	\$3,400.00	\$8,200.00	\$4,400.00	\$6,500.00	\$2,400.00		\$24,900.00
Paid Rebates– Washer/Dryer	\$2,800.00	\$7,425.00	\$57,200.00	\$110,800.00	\$91,003.00	\$6,800.00	\$276,028.00
Total Expenses	\$200,527.30	\$680,706.05	\$1,554,524.33	\$1,554,690.19	\$1,608,806.18	\$267,827.21	\$5,867,081.26
Bank Interest (+)	\$1,676.42	\$1,722.74	\$1,222.29	\$730.05	\$439.12	\$92.25	\$5,882.87
Bank Fees	\$155.00	\$1,032.06	\$1,085.08	\$1,247.54	\$1,702.64	\$180.00	\$5,402.32

**Preliminary Data as of 1/31/21*

DSM Funding

No.	Description	Amount
1	Initial DSM Budget FY 2016	\$1,806,014.00
2	Interest Income	\$5,882.87
3	Bank Fees	\$5,402.32
4	Additional Funding Source	
	2017 Bond Refunding savings	\$1,139,189.00
	FY 2019 Revenue Funding	\$1,031,500.00
	FY 2020 Revenue Funding	\$348,075.00
	FY2020 LEAC (June to September)	\$1,296,397.67
	FY2021 LEAC (October to December)	\$936,710.61
5	Total Expense FY2016– FY2020 (Ending May 2020)	\$4,355,078.30
6	Total Expense FY2020 –FY2021 (June 2020 to December 2020)*	\$1,512,002.96
	DSM Ending Balance – LEAC Funds	\$691,285.57

*Preliminary Data as of 1/31/21

FY 2020- Rebate Amount Paid Monthly

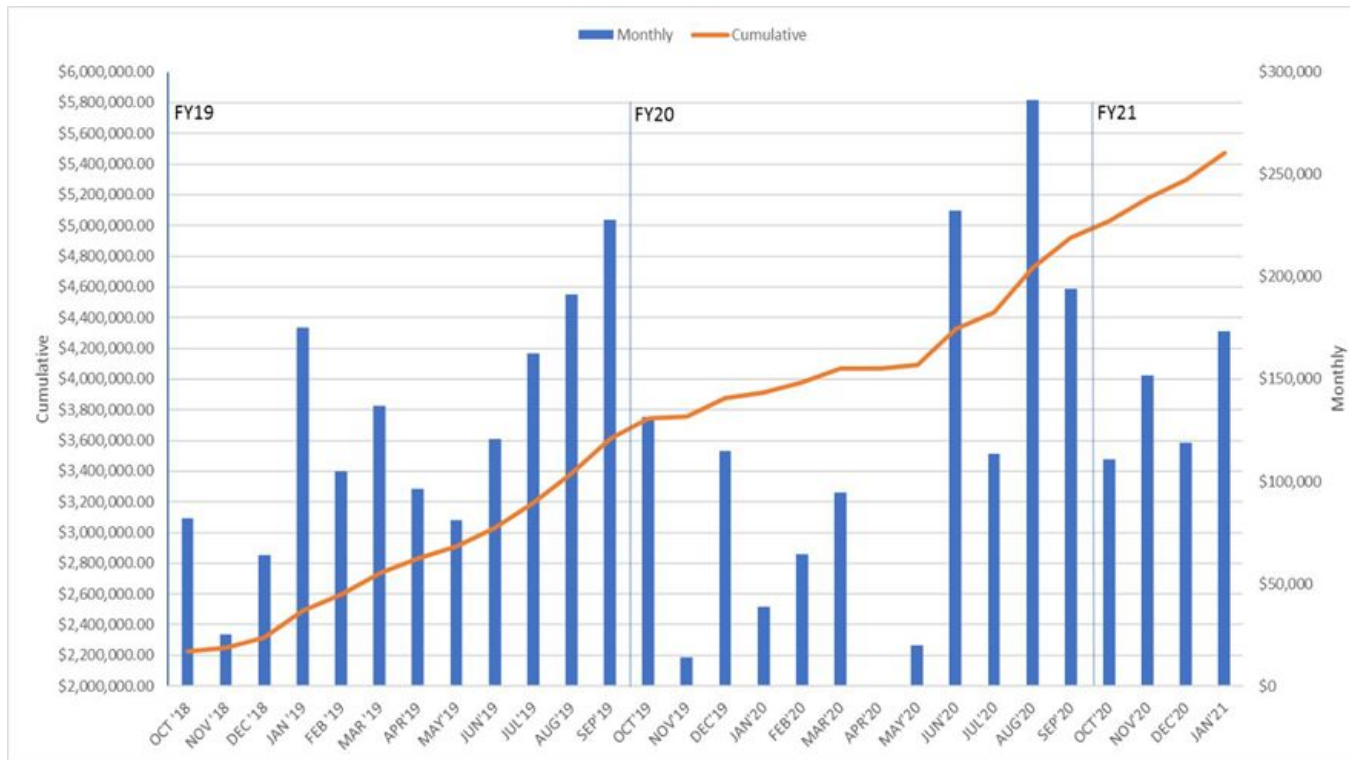
Month	Total	Split A/C Units	Central A/C Units	Washers/ Dryers
OCT '19	\$131,400.00	\$120,100.00	\$500.00	\$10,800.00
NOV '19	\$14,050.00	\$13,650.00	\$0.00	\$400.00
DEC '19	\$114,775.00	\$104,275.00	\$500.00	\$10,000.00
JAN '20	\$38,650.00	\$36,650.00	\$0.00	\$2,000.00
FEB '20	\$64,450.00	\$59,850.00	\$0.00	\$4,600.00
MAR '20	\$94,475.00	\$84,875.00	–	\$9,600.00
APR '20	–	–	–	–
MAY '20	\$20,075.00	\$18,275.00	–	\$1,800.00
JUN '20	\$232,300.00	\$219,100.00	–	\$13,200.00
JUL '20	\$113,575.00	\$101,275.00	\$500.00	\$11,800.00
AUG '20	\$286,100.00	\$270,700.00	–	\$15,400.00
SEP '20	\$194,250.00	\$182,050.00	\$0.00	\$12,200.00
TOTALS	\$1,304,100.00	\$1,210,800.00	\$1,500.00	\$91,800.00

FY 2021- Rebate Amount Paid Monthly

Month	Total	Split A/C Units	Central A/C Units	Washers/ Dryers
OCT '20*	\$ 110,825.00	\$ 110,325.00	\$ 500.00	–
NOV '20*	\$ 151,925.00	\$ 142,425.00	\$ 500.00	\$ 9,000.00
DEC '20*	\$ 119,100.00	\$ 113,500.00		\$ 5,600.00
JAN '21	\$ 173,150.00	\$ 167,350.00		\$ 5,800.00
FEB '21				
MAR '21				
APR '21				
MAY '21				
JUN '21				
JUL '21				
AUG '21				
SEP '21				
TOTALS	\$ 555,000.00	\$ 533,600.00	\$ 1,000.00	\$ 20,400.00

* Accrued in FY2020

FY'19- FY'21 Rebate Amount Paid



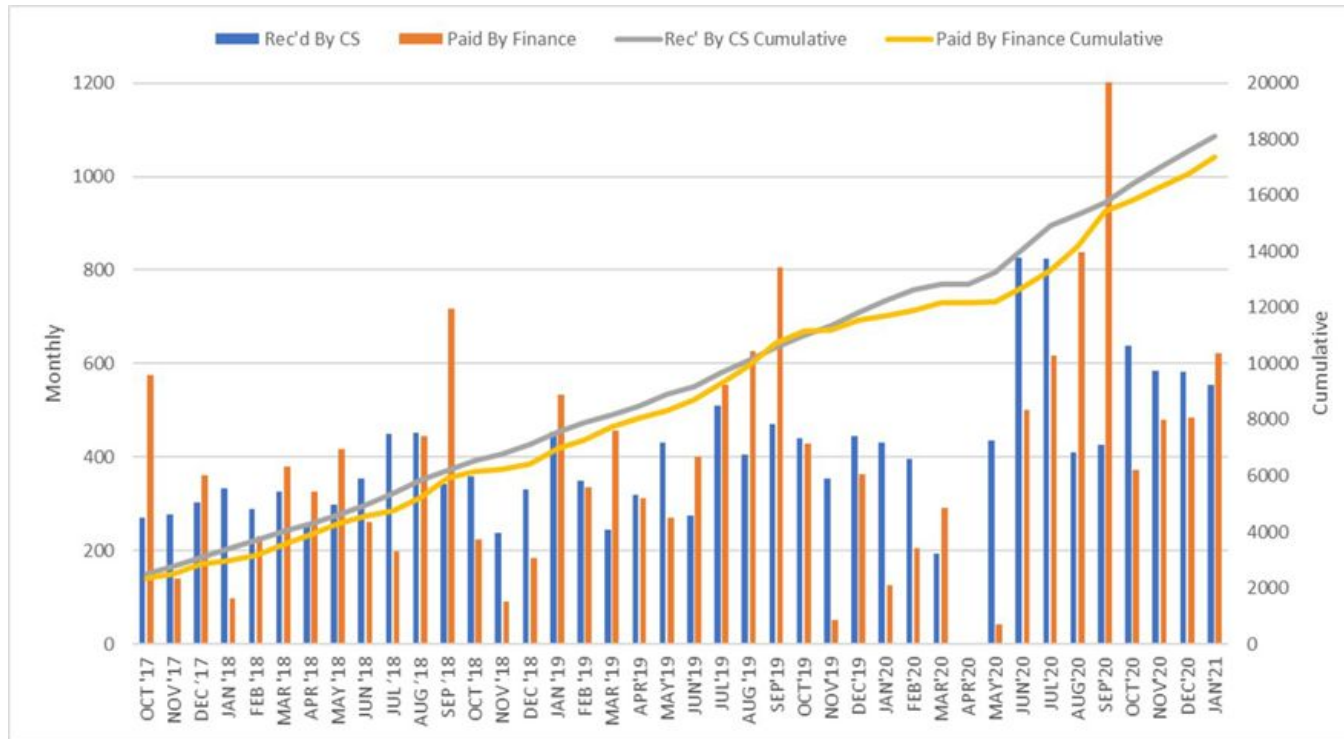
FY 2020 Number of Applications Received By Customer Service and Paid Monthly

Month	Rec'd By CS	Paid By Finance
OCT '19	440	428
NOV '19	353	51
DEC '19	445	363
JAN'20	431	126
FEB '20	396	205
MAR '20	194	292
APR '20	-	-
MAY '20	435	41
JUN '20	826	501
JUL '20	824	618
AUG '20	410	838
SEP '20	426	500

FY 2021 Number of Applications Received By Customer Service and Paid Monthly

Month	Rec'd By CS	Paid By Finance
OCT '20	637	373
NOV '20	585	480
DEC '20	582	484
JAN'21	555	621
FEB '21		
MAR '21		
APR '21		
MAY '21		
JUN '21		
JUL '21		
AUG '21		
SEP '21		

FY'18 - FY'21 Number of Applications Received By Customer Service and Paid

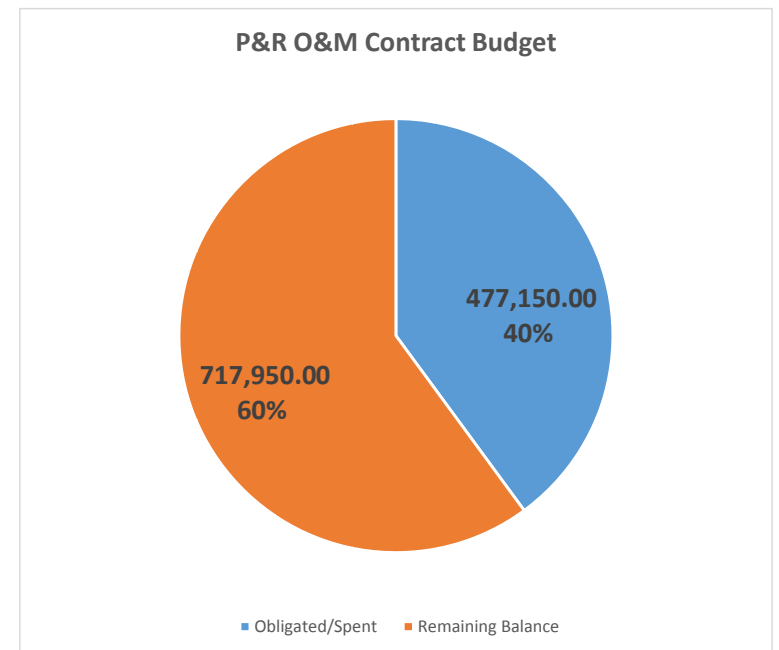


Planning & Regulatory CCU Report

January 31, 2021

Planning & Regulatory O&M Contract Budget

- Revenue Funded
- Target
 - 38.0% O&M Obligation as of October 31, 2020 (Actual)
 - 40.0% O&M Obligation as of November 30, 2020 (Actual)
 - 40.0% O&M Obligation as of December 31, 2020 (Actual)
 - 40.0% O&M Obligation as of January 31, 2021 (Actual)



P&R Weekly & Monthly Inspection Reports

- Best Management Practices (BMP) Report Summary [Weekly]
- Generation Spill Prevention, Control, and Countermeasures (SPCC) Report Summary [Monthly]
- T&D Spill Prevention, Control, and Countermeasures (SPCC) Report Summary [Monthly]
- GPA is responsible to employees, the island environment, and the community to take all reasonable steps necessary to prevent spills from its facilities in order to protect human health and the environment

P&R Inspection Report Purpose

- The purpose of these inspections is to catch discrepancies and violations internally and correct them before inspections by Guam EPA and US EPA
- Regulatory Agencies can conduct scheduled or un-scheduled (surprise) inspections any time
- Any major discrepancies or violations cited can lead to issuance of a Notice of Violation (NOV), possible fines, and/or other enforcement action
- P&R conducts routine SPCC inspections in compliance with the requirements of 40CFR 112.7(a)(3)(ii), Discharge Prevention Measures

Weekly BMP Report

WEEKLY BMP REPORT SUMMARY CABRAS POWER PLANT MONTH OF JANUARY 2021									
<div> <div>LEGEND OF TRACKING</div> <div> <div>Notification Date</div> <div>Completed</div> <div>Within Scheduled Remediation</div> <div>Deadline is Past Due</div> </div> </div>									
LOCATION	WE 01/08/21 FINDINGS	WE 01/15/21 FINDINGS	WE 01/22/21 FINDINGS	WE 01/29/21 FINDINGS	RECOMMENDATION/ REMARKS	INITIAL FINDINGS DATE	DUE DATE	DATE COMPLETED	RESPONSE
CABRAS FACILITY	Standing oily water at engine bay, Cabras 3 area	Standing oily water at engine bay, Cabras 3 area	Standing oily water at engine bay, Cabras 3 area	Standing oily water at engine bay, Cabras 3 area	Conduct cleanup	8/28/2020	ASAP		
	Metal debris from Cabras 3&4 near the outfall	Metal debris from Cabras 3&4 near the outfall	Metal debris from Cabras 3&4 near the outfall	Metal debris from Cabras 3&4 near the outfall	Dispose metal structure and debris	2/7/2020	ASAP		
	Oil in sump pit, Cabras 3&4	Oil in sump pit, Cabras 3&4	Oil in sump pit, Cabras 3&4	Oil in sump pit, Cabras 3&4	Remaining oil must be pumped out to prevent accidental overflow due to rainwater accumulation	6/12/2020	ASAP		
	Accumulation of waste absorbent pads/booms and other debris inside C3&4 generator bldg.	Accumulation of waste absorbent pads/booms and other debris inside C3&4 generator bldg.	Accumulation of waste absorbent pads/booms and other debris inside C3&4 generator bldg.	Accumulation of waste absorbent pads/booms and other debris inside C3&4 generator bldg.	Dispose used absorbent pads/booms and other debris	1/6/2021	ASAP		
	Heavy corrosion on tank cover at C1&2 oil/sludge tank	Heavy corrosion on tank cover at C1&2 oil/sludge tank	Heavy corrosion on tank cover at C1&2 oil/sludge tank	Heavy corrosion on tank cover at C1&2 oil/sludge tank	Replace tank cover	1/6/2021	ASAP		

Weekly BMP Report

**WEEKLY BMP REPORT SUMMARY
CABRAS POWER PLANT
MONTH OF JANUARY 2021**

LEGEND OF TRACKING



Notification Date



Completed



Within Scheduled Remediation



Deadline is Past Due

LOCATION	WE 01/08/21 FINDINGS	WE 01/15/21 FINDINGS	WE 01/22/21 FINDINGS	WE 01/29/21 FINDINGS	RECOMMENDATION/ REMARKS	INITIAL FINDINGS DATE	DUE DATE	DATE COMPLETED	RESPONSE
CABRAS FACILITY	Fuel line corrosion at refilling valve pit	Fuel line corrosion at refilling valve pit	Fuel line corrosion at refilling valve pit	Fuel line corrosion at refilling valve pit	Remove rust/repair rusted pipe.	8/14/2020	ASAP		
	Standing water inside refilling valve pit	Standing water inside refilling valve pit	Standing water inside refilling valve pit	Standing water inside refilling valve pit	Pump out water inside valve pit	8/28/2020	ASAP		
	Rusted top railings at used oil tank (WOT)	Rusted top railings at used oil tank (WOT)	Rusted top railings at used oil tank (WOT)	Rusted top railings at used oil tank (WOT)	Replace railings, conduct integrity testing for tank shell	12/22/2020	ASAP		

T&D SPCC Inspection Report

SUMMARY OF SPCC MONTHLY INSPECTION REPORT

MONTH OF JANUARY 2021

LEGEND OF TRACKING

Notification Date

Completed





Within Scheduled Remediation

Deadline is Past Due

SUBSTATIONS

LOCATIONS	FINDINGS		RECOMMENDATION/REMARKS	STATUS	RESPONSIBLE	COMPLETION DATE	DUE DATE	INITIAL FINDINGS DATE
DEDEDO SUBSTATION	T-191 & T-192	NO CORRECTIVE ACTION						
DEDEDO SUBSTATION WAREHOUSE	Transformer Storage Area	Large accumulation of used transformers and scrap metal in yard for salvage	Schedule disposal ASAP				ASAP	December 2019
	Used Transformer Oil Tank Storage Area	Access to oil tank blocked by used transformers	Provide access to storage tank; relocate used transformers to storage area				ASA[January 2021
MACHECHE SUBSTATION	Secondary Containment	NO CORRECTIVE ACTION						
TALOFOFO SUBSTATION	Secondary Containment	NO CORRECTIVE ACTION						
TENJO SUBSTATION	Facility Area	NO CORRECTIVE ACTION						
YIGO SUBSTATION	Secondary Containment	NO CORRECTIVE ACTION						

Generation SPCC Inspection Report

SUMMARY OF SPCC MONTHLY INSPECTION REPORT MONTH OF JANUARY 2021								
LEGEND OF TRACKING								
 Notification Date				 Completed				
 Within Scheduled Remediation				 Deadline is Past Due				
POWER PLANT								
LOCATIONS	FINDINGS		RECOMMENDATION/REMARKS	STATUS	RESPONSIBLE	COMPLETION DATE	DUE DATE	INITIAL FINDINGS DATE
CABRAS POWER PLANT	Supply line 8" from the tank farm	No secondary containment	Regular monitoring is required				ASAP	September 2019
	Cylinder and Lube Oil Storage Tanks	Corroded supply pipe lines	Repair				ASAP	November 2019
	Used Oil Transfer Area	Tank covers and pipe flange of sludge tanks - heavily corroded	Replace sludge tank covers				ASAP	February 2020
	LS Pipe Flange and HS-LS Diesel Service Tanks Secondary Containment	Leaking pipe flange and corroded pipeline	Conduct repair and clean up				ASAP	May 2020
	Tank No. 2 Bypass Pipe on Supply Line	Heavily corroded bypass pipe	Replace pass pipe				ASAP	May 2020
	Tank No. 2 Return Line	Corroded return line	Replace pipeline				ASAP	May 2020
	Used Oil Tank (WOT)	Heavy corrosion at tank railing; Reconditioning and repainting of exterior tank not completed	Complete reconditioning of WOT and tank railing/ladder				ASAP	December 2020
DEDED0 CT	Tank 1&2 Secondary Containment	Water accumulation	Drain water				ASAP	January 2021

Generation SPCC Inspection Report (cont.)

SUMMARY OF SPCC MONTHLY INSPECTION REPORT

MONTH OF JANUARY 2021

LEGEND OF TRACKING

Notification Date

Completed

Within Scheduled Remediation

Deadline is Past Due

POWER PLANT

LOCATIONS	FINDINGS		RECOMMENDATION/REMARKS	STATUS	RESPONSIBLE	COMPLETION DATE	DUE DATE	INITIAL FINDINGS DATE
MACHECHE CT	Tanks No. 130 & 140	Corroded tank shells	Chip corrosion and recoat	50% completed			ASAP	August 2020
	In front of Tanks No. 130 & 140	Corroded loading & unloading pipeline	Chip corrosion and recoat				ASAP	December 2020
	Tank No. 140	Corrosion on tank wall	Remove rust and repaint				ASAP	January 2021
	Foundation Tank Metal Support	Rust buildup on support (several locations)	Remove rust, repaint				ASAP	January 2021
YIGO CT	Tank 140	Corroded tank shell	Chip corrosion and recoat				ASAP	October 2020
MANENGGON DIESEL		NO CORRECTIVE ACTION						
TALOFOFO DIESEL		NO CORRECTIVE ACTION						

Generation SPCC Inspection Report (cont.)

SUMMARY OF SPCC MONTHLY INSPECTION REPORT
MONTH OF JANUARY 2021

LEGEND OF TRACKING

Notification Date

Completed

Within Scheduled Remediation

Deadline is Past Due

POWER PLANT

LOCATIONS	FINDINGS		RECOMMENDATION/REMARKS	STATUS	RESPONSIBLE	COMPLETION DATE	DUE DATE	INITIAL FINDINGS DATE
TENJO DIESEL	Tank No. 2	Corroded tank shell	Chip corrosion and recoat					January 2021
YIGO DIESEL	Generator No. 13	Day tank is leaking and oil found inside the storage container	Clean up oil spill				ASAP	January 2021
PITI #7 POWER PLANT	Main Fuel Tank	No integrity testing	Integrity testing is required				ASAP	January 2018
	Old Piti Power Plant Area	Improper storage of drums and wood pallets	Move or dispose drums and wood pallets	CORRECTIVE ACTION COMPLETED		January 2021	ASAP	February 2020
		Improper storage of empty oil drums	Dispose old drums	CORRECTIVE ACTION COMPLETED		January 2021	ASAP	October 2020
	Day Tank Pump	Oil sheen found in secondary containment	Clean up oil sheen	CORRECTIVE ACTION COMPLETED		January 2021	ASAP	December 2020
	Main Fuel Tank Pump	Oil sheen found in secondary containment	Clean up oil sheen	CORRECTIVE ACTION COMPLETED		January 2021	ASAP	December 2020
	Facility Structure	Improper storage of drum full of contaminated soil from spill	Properly dispose of drum					January 2021
	Main Fuel Tank Pump	Ball valve is in need of repair to prevent further oil leaks	Repair ball valve			January 2021	ASAP	January 2021

GPA Work Session - February 18, 2021 - DIVISION REPORTS

ENGINEERING WORK ORDERS

Engineering Work Order Summary - January 2021	
Work Orders Received from CSR	65
Work Orders Processed & Released to T&D	43
Work Orders Processed & Released to CSR	12
Work Orders Cancelled	6
Work Orders Pending Survey	26
Total Pending WO at Engineering	359

Engineering Large Customer, GPI and Net Metering Tracking						
Date Received	Customer Name	Work Order Numbers	Location	KVA	Meter Qty	Status
12/20/2013	CoreTech International	Multiple	Dededo	300	48	Lada Estates, 450 kVA, Phase I, II and III are 100% Completed - 308 units energized. Phase IV currently in Construction phase, 100% completed, pending completion of easements.
1/27/2015	TG Engineers	422182-85, 90-93, 96-98	Agana Heights	100	11	10 Unit Apartment, 100 kVA, 80% Completed. Work currently on hold.
6/1/2017	New Underground Line (P-047)	466064	Tumon	1,500	1	New Underground line 99% completed, Riser terminated. Mandrelling completed on completed sections. T&D started pulling wire and installing splices in August 2019. Pending final outage at SV1A and SV1B and repair of existng arms and metal brackets.
3/1/2018	Docomo Pacific Inc., New Data Center	Pending Application	Talofofo	3,000	1	New Data Center. Planned to come off P-260 and P-262. 0% Completed. Still in Design Phase.
10/10/18	Don Sadwahni	465341	Harmon	2,000	1	New Industrial Subdivision, Inspection of civil work only, Proposed 12 Pad Mounted Xfmrs 97% Completed. Pending completion of switch redesign.
05/14/19	Joyrich Group LLC	Multiple	Tamuning	150	17	New 17 Unit Apartments, 50% completed, 150 kVA.
10/01/19	Don Don Donkey "Don Quijote" Shopping Center	Pending Application	Tamuning	2,000	1	New Shopping Center at the intersection of Route 1 and 10A. Permitting phase.
12/01/19	Pacific Unlimited Inc. (Cold Storage)	471784	Tiyan	1,500	1	New Cold Storage, 75% Completed, Temp Power installed, 1500kVA, Pending Easment and Pole Stakeout
12/01/19	Ironwood Villa Del Mar Phase II	Multiple Applications	Toto	440	88	New 88 Unit Apartment complex, 75% Completed, multiple xfmrs.
02/25/20	Yang, Kexin	Multiple	Mangilao	100	12	New 12 Unit Subdivision (4 applications submitted and permitted), 25% completed.
02/25/20	The Church of Jesus Christ LDS	474921	Yigo	750	1	New Church across Yigo Substation, 100% completed, 750 kVA. Released to T&D.
03/11/20	Citi Development & Construction	478020-23, 25, 27-30	Tamuning	60	10	New 10 Unit Town Homes, 75% completed, 100 kVA.
07/07/20	Guam Waterworks Authority New Northern Wastewater Plant	479663	Dededo	3000	1	New Northern Wastewater Plant, 12% completed, 3000kVA.
08/04/20	Guam Waterworks Authority Southern Link Pump Station Upgrade	Pending Application	Dededo		1	Southern Link Pump Station Upgrades, 100% completed, released to T&D.
10/06/20	GCA Trades Academy	481587	Tiyan	500	1	New Trades Academy Classrooms, 100% Completed, 500 kVA, Released to T&D.
11/19/20	Paradise Subdivision	Pending Applications	Mangilao	170	17	17 unit subdivision, pending submission of plans and permitting.
11/01/20	Agat Pole Relocation GPI	Pending	Agat			5 Pole Relocation due to easement issues.
11/01/20	Barrigada Pole Relocation GPI	Pending	Barrigada			Pole Relocation due to easement issues.
11/01/20	Agat/Ocean View Service Relocation GPI	Pending	Agat			Overhead and underground line relocation due to easement and access issues.
11/01/20	Mataguac Pole Relocation	Pending	Dededo			Overhead line relocation due to easement and access issues.
12/30/20	Huang, Long	483772-483780	Tamuning	90	9	New 9 unit Apartment
01/12/21	New Space Development, LLC	483832-9	Dededo	225	8	New 7 unit commercial development, 5% completed, 225 kVA.
01/31/21	Songsong Hills Subdivision	484158	Yigo	160	1	New 16 Unit Subdivision, 50% completed, multiple xfmrs.
01/31/21	GWA - Kaiser Reservoir	484070	Dededo	225	1	New GWA Reservoir, pending final design drawings.
Varies	Pending Net Metering Customers	Varies	Various Locations Islandwide		1	Pending Net Metering Customers as of December 31, 2020.
Total				16,270	232	

NET METERING

January 2021

	<u>Quantity</u>	<u>Connected kVA</u>
Completed	2,166	25,941
Pending	1	7
Grand Total	2,167	25,949

Rate Class and Technology			
Technology	Schedule	Customer Count	Total kW
Solar Energy	R - Residential	2,026	19,334.10
	J - Gen Service Dmd	57	3,460.05
	K - Small Gov Dmd	9	317.80
	L - Large Government	2	122.80
	P - Large Power	12	1,140.70
	G - Gen Serv Non-Dmd	51	1,483.62
	S - Sm Gov Non-Dmd	7	78.80
Wind Turbine	R - Residential	2	3.60
Grand Total		2,166	25,941.47

Projection Date Ending 12/31/2020				
Customer Rate Class	Sum of Size (kW)	*Annual Projected kWh Generated	Non-Fuel Yield \$/kWh	Estimated Annual Revenue Loss
R	19,337.70	31,005,502	0.087492	\$ 2,712,734.25
J	3,460.05	4,679,605	0.125682	\$ 588,142.22
K	317.80	518,889	0.133883	\$ 69,470.44
L	122.80	203,743	0.129809	\$ 26,447.73
P	1,140.70	1,083,575	0.109950	\$ 119,139.05
G	1,483.62	2,368,889	0.145397	\$ 344,429.39
S	78.80	125,245	0.147902	\$ 18,524.03
Grand Total	25,941.47	39,985,448		\$ 3,878,887.12

*Estimated number of hours from NREL for Guam (13.4 degrees North and 144 degrees East).

Estimated Annual Revenue Loss		
Year	Estimated kWh	*Total Estimated Cost
2020	39,941,816	\$ 3,874,385.68
2019	36,806,287	\$ 3,546,649.04
2018	34,981,036	\$ 3,521,130.12
2017	28,242,917	\$ 2,828,834.71
2016	21,867,383	\$ 2,200,794.56
2015	7,383,621	\$ 856,921.27
2014	3,137,212	\$ 410,558.94
2013	1,556,949	\$ 178,996.00
2012	494,672	\$ 58,545.89
2011	170,070	\$ 18,177.13
2010	98,830	\$ 8,483.27
2009	23,912	\$ 1,656.87

*Source for effective yield rate from the Year End Revenue Reports (12 month Average Yield)

NET METERING

January 2021

Customer Count and Connected kW by Feeder					
Status	Feeder	Net Metering Connected kW	Customer Count	% of Feeder Maximum kW	% of Feeder Minimum Daytime kW
Completed	P-005	315.23	28	18.3%	36.7%
	P-046	300.29	36	7.1%	10.8%
	P-088	762.98	81	12.7%	20.1%
	P-089	638.51	78	14.3%	34.4%
	P-111	211.00	4	3.9%	6.9%
	P-203	664.09	44	8.9%	25.2%
	P-204	150.38	17	3.2%	6.6%
	P-205	44.00	5	0.9%	1.6%
	P-210	749.74	62	19.5%	26.5%
	P-212	1,098.52	106	26.6%	68.7%
	P-213	337.73	15	12.9%	17.3%
	P-220	210.41	23	34.6%	108.5%
	P-221	612.80	63	13.9%	27.7%
	P-223	690.15	65	29.0%	41.4%
	P-240	58.55	2	0.9%	7.9%
	P-245	259.60	7	5.2%	11.1%
	P-250	1,425.85	131	21.9%	38.5%
	P-251	160.50	8	6.5%	10.0%
	P-253	725.75	64	16.1%	25.5%
	P-262	1,176.14	118	30.9%	74.1%
	P-270	562.21	44	11.0%	22.3%
	P-271	333.37	19	5.7%	12.0%
	P-272	280.91	20	11.0%	24.9%
	P-280	540.45	33	30.1%	55.9%
	P-281	204.90	5	7.3%	20.4%
	P-282	231.75	6	6.2%	18.7%
	P-283	666.95	59	18.4%	31.6%
	P-294	1,359.82	127	31.4%	62.2%
	P-301	233.76	24	16.5%	29.4%
	P-311	1,350.59	70	33.9%	57.9%
	P-322	2,124.18	119	28.0%	55.6%
	P-323	316.52	21	6.7%	20.8%
	P-330	722.51	89	13.3%	26.7%
	P-331	834.73	92	13.2%	21.4%
	P-332	849.18	79	15.1%	22.0%
	P-340	589.49	51	32.5%	71.5%
	P-087	1,563.18	153	39.8%	62.4%
	P-252	646.73	37	15.3%	31.3%
	P-321	389.86	36	7.0%	7.8%
	P-260	99.76	10	14.5%	49.9%
	P-067	86.20	10	1.0%	1.3%
	P-312	82.24	5	4.9%	5.7%
	P-206	26.08	3	2.7%	4.8%
	P-242	23.75	2	0.4%	1.1%
	P-310	181.57	8	6.6%	12.1%
	P-261	510.06	54	18.4%	31.6%
	P-201	115.86	10	3.3%	5.8%
	P-007	85.86	8	11.9%	25.3%
	P-244	86.56	3	4.9%	5.0%
	P-202	39.50	3	1.2%	2.9%
	P-341	4.30	1	0.4%	1.6%
	P-401	117.00	2	10.3%	17.3%
	P-400	58.34	4	6.1%	6.2%
	P-211	11.40	1	0.9%	1.2%
	P-241	19.72	1	0.5%	0.7%
Completed Total		25,941.47	2,166		
pending	Pending	7.31	1	0.0%	0.0%
pending Total		7.31	1	0.0%	0.0%
Grand Total		25,948.78	2,167		
Feeders highlighted in yellow indicates renewable energy capacity has reached 25% of minimum daytime load.					
Feeders highlighted in red indicates renewable energy capacity has reached 75% of minimum daytime load.					

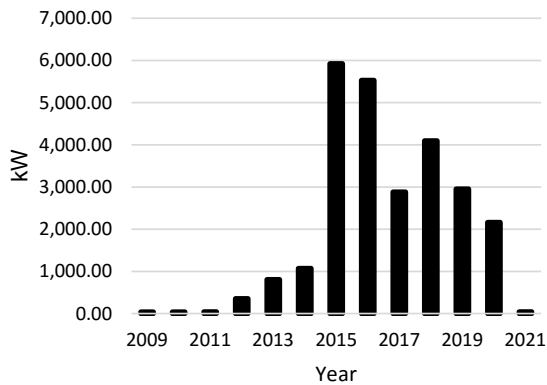
NET METERING

January 2021

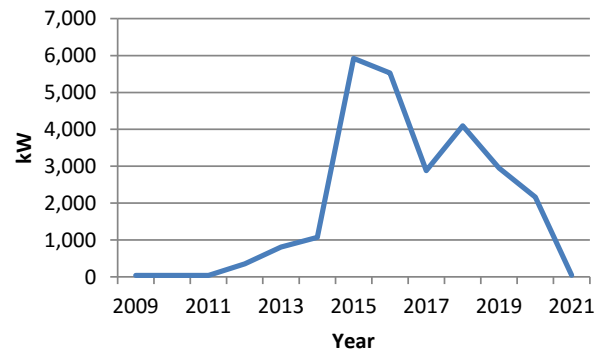
Installed kW by Year		
Year	Total	Cumulative
2009	39.46	39.46
2010	39.20	78.66
2011	41.61	120.27
2012	354.61	474.88
2013	808.15	1,283.03
2014	1,072.04	2,355.07
2015	5,923.43	8,278.50
2016	5,527.93	13,806.42
2017	2,881.10	16,687.52
2018	4,095.63	20,783.15
2019	2,952.84	23,735.99
2020	2,161.36	25,897.35
2021	44.12	25,941.47
Grand Total	25,941.47	

Customer Count by Year		
Year	Total	Cumulative
2009	7	7
2010	2	9
2011	6	15
2012	27	42
2013	66	108
2014	94	202
2015	562	764
2016	530	1,294
2017	297	1,591
2018	291	1,882
2019	186	2,068
2020	93	2,161
2021	5	2,166
Grand Total	2,166	

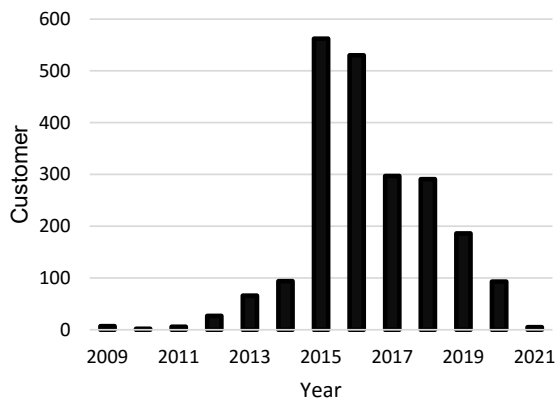
Yearly Installed kW



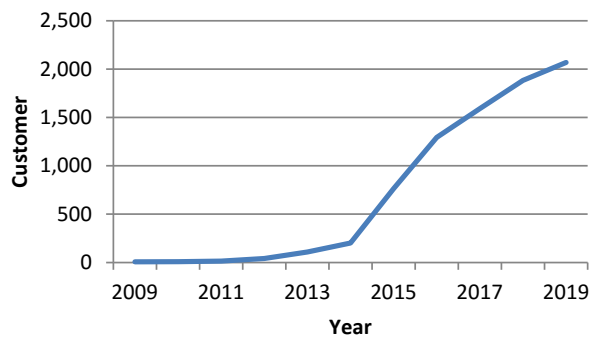
Cumulative Installed kW



Yearly Connected Customer Count



Cumulative Connected Customer Count





Production Data
31-Jan-21

SYSTEM											
YEAR	MONTH	# of DAYS	GROSS GENERATION	FUEL CONSUMPTION		GROSS FUEL EFFICIENCY (Target ≥ 15.99 kWh/gal)	COST per GROSS kWh	GROSS HEAT RATE (Baseloads) PUC Target less than 9,600	GROSS HEAT RATE (Peaking) PUC Target less than 13,600	Ave. MW	Peak MW
				(gal)	(bbl)						
2018	Sept	30	129,965,486	9,303,709	221,517	13.97	\$ 0.1526	9,383.54	13,625.29	181	240
	Oct	31	149,090,501	10,752,842	256,020	13.87	\$ 0.1592	9,870.49	12,783.94	200	243
	Nov	30	139,840,706	9,348,494	222,583	14.96	\$ 0.1446	9,772.22	12,091.07	194	241
	Dec	31	144,799,157	9,756,460	232,297	14.84	\$ 0.1497	9,443.41	11,943.41	195	237
2019	Jan	31	134,551,799	9,056,271	215,626	14.86	\$ 0.1172	9,677.80	11,506.72	181	224
	Feb	28	122,596,954	8,257,791	196,614	14.85	\$ 0.1152	9,592.63	11,923.40	182	226
	Mar	31	139,964,506	9,489,626	225,943	14.75	\$ 0.1309	9,586.39	12,331.54	188	234
	Apr	30	143,583,892	9,385,611	223,467	15.30	\$ 0.1249	9,597.50	11,794.45	199	244
	May	31	154,541,037	10,653,233	253,648	14.51	\$ 0.1378	9,854.93	12,008.47	208	254
	June	30	152,035,851	10,394,927	247,498	14.63	\$ 0.1378	9,756.34	11,985.93	211	255
	July	31	151,991,559	10,148,056	241,620	14.98	\$ 0.1230	9,789.72	11,505.06	204	251
	Aug	31	147,598,476	9,960,397	237,152	14.82	\$ 0.1259	9,622.68	11,430.55	198	253
	Sept	30	139,744,390	9,678,417	230,438	14.44	\$ 0.1259	10,019.86	11,676.24	194	243
	Oct	31	147,131,892	9,789,114	233,074	15.03	\$ 0.1294	9,742.17	12,670.15	198	247
	Nov	30	144,772,854	10,312,356	245,532	14.04	\$ 0.1437	9,631.16	12,353.82	201	245
	Dec	31	143,448,641	9,483,024	225,786	15.13	\$ 0.0993	9,649.19	11,794.69	193	236
2020	Jan	31	138,041,863	9,188,575	218,776	15.02	\$ 0.1286	9,706.87	11,592.61	186	227
	Feb	29	128,740,982	8,519,225	202,839	15.11	\$ 0.1226	9,833.72	11,408.84	192	230
	Mar	31	137,889,276	9,112,959	216,975	15.13	\$ 0.1034	9,421.93	11,671.89	185	233
	Apr	30	133,331,694	8,843,365	210,556	15.08	\$ 0.0847	9,991.96	11,780.63	185	228
	May	31	143,999,526	9,958,957	237,118	14.46	\$ 0.0623	10,067.47	12,493.35	194	241
	June	30	145,724,133	9,712,001	231,238	15.00	\$ 0.0566	9,939.81	11,940.43	202	244
	July	31	146,742,897	10,126,538	241,108	14.49	\$ 0.0628	9,981.69	12,019.94	197	240
	Aug	31	143,983,197	9,799,046	233,311	14.69	\$ 0.0637	10,056.45	11,585.62	194	243
	Sept	30	135,803,486	9,144,712	217,731	14.85	\$ 0.0699	9,634.17	11,744.73	189	244
	Oct	31	141,816,663	9,320,961	221,928	15.21	\$ 0.0908	9,702.37	11,532.45	191	239
	Nov	30	137,435,116	9,072,447	216,011	15.15	\$ 0.0906	9,388.94	11,791.83	191	246
	Dec	31	137,424,058	9,347,419	222,558	14.70	\$ 0.0926	9,336.23	12,638.32	185	231
2021	Jan	31	134,520,350	9,140,730	217,636	14.72	*	9,548.72	12,081.37	181	228

*Cost per Gross kWh is not available at this time

GPA Work Session - February 18, 2021 - DIVISION REPORTS

GUAM POWER AUTHORITY
GOVERNMENT ACCOUNTS RECEIVABLE
Billing up to JANUARY 31, 2021 and payments as of 02/15/2021

Current (01/31/21 Billing due 02/28/2021)
31 days Afters 12/31/20 due 01/31/21
61 days and over Afters (1/30/20 billing due 12/31/20)

CCAB New Act Number	DEPARTMENT	CCAB BALANCE 12/31/2020	CANCEL/REBL/ SPEC CHARGE 6289/0021	BILLING 01/31/2021	PAYMENT UP TO 02/09/2021	CCAB BALANCE 02/15/2021
Line Agencies						
004311949	LINE AGENCIES	Guam Environmental Protect	5,185.58	-	5,185.58	-
45488900	LINE AGENCIES	Newsroom Library	8,483.79	-	8,483.79	-
009461950	LINE AGENCIES	Dept of Youth Affairs (Federal)	327.00	-	327.00	-
029341000	LINE AGENCIES	Office of the Governor	15,955.97	-	15,955.97	-
004100463	LINE AGENCIES	Guam Behavioral Health & Wellness	5,559.26	-	5,559.26	-
722924534	LINE AGENCIES	Guam Veterans Bureau	1,156.03	-	1,156.03	-
322779982	LINE AGENCIES	Mental Health/Subst.	34,977.61	-	34,977.61	-
701316805	LINE AGENCIES	Pacific Energy Resource Center	714.15	-	714.15	-
031346133	LINE AGENCIES	Dept of Youth Affairs (Local)	8,837.17	-	8,837.17	-
107343038	LINE AGENCIES	Dept. of Corrections	114,938.87	904.01	55,754.67	(115,842.88)
3558731700	LINE AGENCIES	Dept of Chamorro Affairs/Chamorro Village (N	42.48	-	14.16	56.64
109951447	LINE AGENCIES	Dept of Chamorro Affairs/Repository	720.33	-	720.33	-
004109130	LINE AGENCIES	General Services Agency	720.97	-	235.75	(478.36)
706370671	LINE AGENCIES	Yona Senior Citizen Center	1,535.19	-	544.38	2,079.57
054646794	LINE AGENCIES	DOA Supply/Mgmt (NET METERED)	2,760.14	-	503.05	(1,852.33)
070861777	LINE AGENCIES	Veteran Affairs	6,931.21	-	1,608.96	5,322.25
324721000	LINE AGENCIES	Mayor's Council	5,524.14	12,102.53	1,880.89	15,507.56
412994531	LINE AGENCIES	Dept of Chamorro Affairs/Chamorro Village	1,982.20	-	2,552.44	(2,552.44)
441387326	LINE AGENCIES	Dept. of Administration	7,635.05	-	2,545.04	(5,089.83)
1021790133	LINE AGENCIES	DOA-Data Processing	22,299.21	-	6,987.55	(21,299.21)
1351518600	LINE AGENCIES	Dept of Agriculture	23,079.51	-	8,130.63	(9,079.02)
630043573	LINE AGENCIES	Civil Defense (Military Affairs)	28,889.79	-	9,095.51	(28,889.79)
0453117019	LINE AGENCIES	Guam Fire Department	40,698.52	-	13,072.23	(40,698.52)
051584830	LINE AGENCIES	Dept of Agriculture	49,714.33	50.00	14,728.62	(45,778.62)
106167753	LINE AGENCIES	Dept. of PH&S	92,454.03	-	29,137.10	(121,591.13)
0400515913	LINE AGENCIES	Dept. of Parks & Rec.	29,069.24	-	9,335.45	(29,069.24)
215550008	LINE AGENCIES	Guam Police Department	71,982.26	-	23,976.52	(48,005.74)
7252821074	LINE AGENCIES	Dept. of Education	1,900,386.08	-	714,246.59	(884,988.83)
006000082	LINE AGENCIES	Guam Police Department	148,385.79	-	38,844.59	(178,833.69)
Sub-total		2,530,659.87	13,056.54	1,007,656.68	(1,138,755.58)	2,512,817.59

Mayors

009350237	MAYORS	Haginta Mayor	1,711.58	-	528.28	-
046957998	MAYORS	Moriton Mayor	2,331.03	-	759.85	-
388029763	MAYORS	Talofa Mayor	2,300.50	-	851.69	-
049214486	MAYORS	Atan Mayor/Adelp Mayor	2,464.25	-	720.00	-
121380894	MAYORS	Piti Mayor	2,430.09	-	843.27	-
720206287	MAYORS	Umatia Mayor	2,434.04	-	573.72	-
181725565	MAYORS	Yona Mayor	2,801.77	-	886.10	-
176110741	MAYORS	Barangay Mayor's Office	4,139.98	-	1,505.63	-
071501293	MAYORS	Mongmong/Toto/Mate Mayor	5,282.87	-	1,636.33	-
701792424	MAYORS	Tigo Mayor	6,574.47	-	2,244.48	-
041392024	MAYORS	Agaña Mayor	6,479.75	-	2,275.96	-
0472200165	MAYORS	Agaña Vets. Mayor	7,557.47	-	2,398.29	-
303217736	MAYORS	Santa Rita Mayor	7,955.67	-	2,581.90	-
031617995	MAYORS	Mangilao Mayor	8,220.61	-	1,442.72	-
0041715847	MAYORS	Decedea Mayor	12,148.41	-	3,869.05	-
0057205325	MAYORS	Tamuning Mayor	12,729.96	-	4,022.67	-
0078244037	MAYORS	Isopon Mayor	5,990.28	-	2,335.22	-
724791682	MAYORS	Agat Mayor	7,266.52	-	2,245.52	-
2351070242	MAYORS	Ordoz/Chalan Pago Mayor	2,531.22	-	822.53	-
Sub-total		102,147.45	-	32,680.81	-	134,836.46

DPW Accounts

001208062	DPW ACCOUNT	DPW-Signal Lights	25,245.78	-	8,260.43	-
001090964	DPW ACCOUNT	DPW-Primary St. Lights	379,033.10	-	66,837.59	-
004541860	DPW ACCOUNT	DPW-Village St. Lights	1,278,343.90	(1,431.32)	299,144.24	-
100804052	DPW ACCOUNT	DPW-Mid-Cut St. Lights	82,025.75	-	18,294.03	-
Sub-total		1,764,628.53	(1,431.32)	392,727.87	(16,904.67)	2,139,020.41

Autonomous/Public Corp

003849599	AUTONOMOUS	Guam Waterworks Authority	1,000,523.63	100.00	906,236.04	(1,002,523.63)
14062988	AUTONOMOUS	Retirement Fund	5,129.50	-	5,247.10	(10,021.26)
407591489	AUTONOMOUS	GA	71,152.38	-	71,152.38	-
035751000	AUTONOMOUS	University of Guam (NET METERED)	52,309.30	-	52,309.30	-
0018220019	AUTONOMOUS	Guam Community College	34,079.80	125.00	33,891.58	(34,079.80)
1776362694	AUTONOMOUS	Guam Airport Authority	338,978.56	-	325,369.30	(338,978.56)
002321726	AUTONOMOUS	Guam Memorial Hospital	27,129.54	-	27,129.54	-
001861606	AUTONOMOUS	Guam Memorial Hospital (NET METERED)	119,791.44	-	119,791.44	-
031751000	AUTONOMOUS	Guam Community College (NET METERED)	23,638.59	-	22,909.70	(23,638.59)
0063872807	AUTONOMOUS	Guam Housing Corp Rental Division	880.82	50.00	843.04	-
017321000	AUTONOMOUS	Guam Solid Waste Authority	4,944.63	-	4,944.63	-
040381703	AUTONOMOUS	University of Guam	117,614.54	-	117,614.54	-
009497798	AUTONOMOUS	Guam Power Authority	7,760.34	-	7,760.34	-
007430814	AUTONOMOUS	Power Authority of Guam	46,327.51	-	46,327.51	-
009497798	AUTONOMOUS	GUAM POWER AUTHORITY - WAKE ST LT	221.44	-	221.44	-
Sub-total		1,912,051.23	(84,611.41)	1,743,350.11	(1,915,148.19)	1,655,641.74

Others

009463043	OTHERS	Dept. of Military Affairs (NET METERED)	12,078.46	-	10,925.11	-
450370744	OTHERS	U.S. Post Office	26,502.73	-	34,590.41	-
000070569	OTHERS	WET	15,002.50	-	5,477.10	-
0002566745	OTHERS	Tamuning Post Office	4,776.71	-	4,576.81	-
724192873	OTHERS	Guam Legislature	341.80	-	333.64	-
0108458169	OTHERS	Guam Post Office (Agana)	5,137.49	-	4,865.56	-
0053274954	OTHERS	Superior Court of Guam	43,776.08	25.00	43,783.83	-
000746612	OTHERS	Dept. of Military Affairs	64,901.36	-	63,014.63	-
007226705	OTHERS	Customs & Quarantine Agency	2,031.48	-	625.34	-
000114359	OTHERS	Guam Legislature (NET METERED)	7,385.25	-	6,643.54	-
Sub-total		192,295.34	25.00	172,836.95	(110,719.12)	254,438.17

Grand Total 6,601,782.42 (72,961.19) 3,349,260.62 (3,181,527.48) 6,696,554.37

AGING

	0-30 Days	31-60 Days	61-90 Days	91-120 Days	>120 Days	Total
5,185.58	5,185.05	-	-	-	0.00	10,367.63
8,483.79	8,483.79	-	-	-	-	17,425.57
327.00	327.00	-	-	-	-	654.83
15,955.97	15,955.97	-	-	-	-	15,955.97
5,559.26	5,559.26	-	-	-	-	5,559.26
1,156.03	1,156.03	-	-	-	-	1,156.03
34,977.61	34,977.61	-	-	-	-	34,977.61
714.15	714.15	-	-	-	-	714.15
8,837.17	8,837.17	-	-	-	-	8,837.17
114,938.87	114,938.87	-	-	-	-	114,938.87
42.48	42.48	-	-	-	-	42.48
720.33	720.33	-	-	-	-	720.33
720.97	720.97	-	-	-	-	720.97
1,535.19	1,535.19	-	-	-	-	1,535.19
2,760.14	2,760.14	-	-	-	-	2,760.14
6,931.21	6,931.21	-	-	-	-	6,931.21
5,524.14	5,524.14	-	-	-	-	5,524.14
1,982.20	1,982.20	-	-	-	-	1,982.20
7,635.05	7,635.05	-	-	-	-	7,635.05
22,299.21	22,299.21	-	-	-	-	22,299.21
23,079.51	23,079.51	-	-	-	-	23,079.51
28,889.79	28,889.79	-	-	-	-	28,889.79
40,698.52	40,698.52	-	-	-	-	40,698.52
49,714.33	49,714.33	-	-	-	-	49,714.33
92,454.03	92,454.03	-	-	-	-	92,454.03
29,069.24	29,069.24	-	-	-	-	29,069.24
71,982.26	71,982.26	-	-	-	-	71,982.26
1,900,386.08	1,900,386.08	-	-	-	-	1,900,386.08
148,385.79	148,385.79	-	-	-	-	148,385.79
Sub-total		1,004,443.80	843,094.45	624,949.53	40,125.41	2,512,817.59

1,711.58	1,711.58	-	-	-	-	1,711.58
2,331.03	2,331.03	-	-	-	-	2,331.03
2,300.50	2,300.50	-	-	-	-	2,300.50
2,464.25	2,464.25	-	-	-	-	2,464.25
2,430.09	2,430.09	-	-	-	-	2,430.09
2,434.04	2,434.04	-	-	-	-	2,434.04
2,801.77	2,801.77	-	-	-	-	2,801.77
4,139.98	4,139.98	-	-	-	-	4,139.98
5,282.87	5,282.87	-	-	-	-	5,282.87
6,574.47	6,574.47	-	-	-	-	6,574.47
6,479.75	6,479.75	-	-	-	-	6,479.75
7,557.47	7,557.47	-	-	-	-	7,557.47
7,955.67	7,955.67	-	-	-	-	7,955.67
8,220.61	8,220.61	-	-	-	-	8,220.61
12,148.41	12,148.41	-	-	-	-	12,148.41
12,729.96	12,729.96	-	-	-	-	12,729.96
5,990.28	5,990.28	-	-	-	-	5,990.28
7,266.52	7,266.52	-	-	-	-	7,266.52
2,531.22	2,531.22	-	-	-	-	2,531.22
Sub-total		32,557.32	34,506.80	33,251.33	33,751.51	134,836.46

25,245.78	25,245.78	-	-	-	-	25,245.78
379,033.10	379,033.10	-	-	-	-	379,033.10
1,278,343.90	1,278,343.90	-	-	-	-	1,278,343.90
82,025.75	82,025.75	-	-	-	-	82,025.75
Sub-total		1,764,628.53	(1,431.32)	392,727.87	(16,904.67)	2,139,020.41

10,925.11	10,925.11	-	-	-	-	22,003.57
34,591.41	-	-	-	-	-	34,591.41
5,477.10	5,596.40	-	-	-	-	11,073.50
4,576.81	-	-	-	-	-	4,576.81
333.64	-	-	-	-	-	333.64
4,805.56	-	-	-	-	-	4,805.56
41,783.83	25.00	-	-	-	-	41,808.83
61,034.61	64,903.36	-	-	0.00	-	125,937.97
625.34	-	-	-	-	-	625.34
6,643.14	-	-	-	-	-	6,643.14
172,836.66	81,661.22	-	-	0.00	-	254,497.88