



**Guam Solid Waste Authority  
Board of Director's Meeting  
Agenda**  
Wednesday, July 27, 2022, 1:00pm  
via video conference

- I. Call to order
- II. Roll Call
- III. Determination of Proof of Publication
- IV. Approval of Agenda Items
- V. Approval of Minutes
- VI. Reports
  - a. Management reports
    - i. Operational Update
  - b. Legal Counsel's Report
  - c. Committee reports
    - i. Zero Waste Bill update
- VII. Unfinished Business
  - a. Island Wide Trash Collection Initiative
  - b. Ordot Post Closure Plan update
  - c. Layon Cells 1 and 2 Closure
  - d. Rate Case with the Public Utilities Commission
- VIII. New Business
  - a. GSWA Board Resolution 2022-011 Authorizing Management to Renew Agreement to Operate the Layon Landfill
  - b. GSWA Board Resolution No. 2022-12 Relative to Approving GSWA Management to Hire One (1) Replacement Assistant General Manager for Operations Technical Support and One (1) Assistant General Manager of Administration
- IX. Communications and Correspondence
- X. Public Forum: members of the public to contact GSWA to be placed on the agenda if they wish to address the board.
  - a. Cory Hinds, Jacobs Engineering
- XI. Next meeting
- XII. Adjourn



**GUAM SOLID WASTE AUTHORITY**  
**BOARD OF DIRECTORS' MEETING MINUTES**  
**Friday, July 1, 2022**  
**2:30 pm – 3:06 pm**  
**Guam Solid Waste Authority Via Video Conference**

**I. Call to Order**

Vice Chairwoman Hemlani called the meeting to order for the Guam Solid Waste Authority (GSWA) Board of Directors' meeting at 2:34 pm.

**II. Roll Call**

**Board Members:**

Andrew Gayle	Chairman
Minakshi Hemlani	Vice Chairwoman
Cora Montellano	Member

**Management & Staff:**

Irvin Slike	General Manager
Pedro A. Leon Guerrero Jr.	Assistant General Manager
Alicia Fejeran	Chief of Administration
Roman Perez	Operations Superintendent
Keilani Mesa	Administrative Officer
Ronalene Presto	Administrative Assistant

**Guests:**

Attorney Sandra Miller	Office of the Attorney General
Jesse Chargualaf	Office of Senator Sabina Perez
Members of the Public	

**III. Determination of Proof of Publication**

1st Publication with The Guam Daily Post on Friday, June 24, 2022.  
2nd Publication with The Guam Daily Post on Wednesday, June 29, 2022.

**IV. Approval of Agenda Items**

Vice Chairwoman stated that the only items that would be discussed in the meeting would be the Approval of Minutes and New Business. All other items would be tabled until the next Board Meeting. Chairman Gayle made a motion to table all the agenda items except for New Business until the next Board meeting. Member Montellano seconded the motion. There was no further discussion. The motion passed unanimously.

**V. Approval of Minutes**

Member Montellano made a motion to approve the minutes from the meeting held on May 19, 2022. Chairman Gayle seconded the motion. There was no discussion, and the motion passed unanimously.

**VI. Reports**

Tabled for next meeting.

**VII. Unfinished Business**

Tabled for next meeting.



## **VIII. New Business**

### **a. GSWA Board Resolution No. 2022-010 – Authorizing the Guam Solid Waste Authority Management Team to Establish a Checking Account with First Hawaiian Bank, the Selected Merchant Services Provider**

General Manager Slike reported that the Board previously approved for management to work with the Guam Power Authority and Guam Waterworks Authority to allow customers to pay their solid waste bills at GPWA locations and participate with GPWA's procurement for Merchant Services. He stated that this resolution is a continuation which authorizes GSWA Management to sign financial instruments, to include checks and bank transfers. Chief of Administration, Alicia Fejeran, stated that this account would specifically be for the customers who make online payments with credit or debit cards. Chairman Gayle made a motion to approve GSWA Board Resolution No. 2022-010, Authorizing the Guam Solid Waste Authority Management Team to Establish a Checking Account with First Hawaiian Bank, the Selected Merchant Services Provider. Member Montellano seconded the motion. There was no further discussion, and the motion passed unanimously.

### **b. GSWA Board Resolution No. 2022-011 – Authorizing GSWA Management to Exercise Its Renewal Option and Negotiate New Terms of the Agreement to Operate the Layon Landfill**

General Manager Slike presented to the Board that this resolution covers the negotiation of the second renewal term for the Layon Landfill Operator Agreement between GSWA and Green Group Holdings (GGH). General Manager Slike reported that he had met with GGH in March 2022 to regarding the possible renewal of the Agreement. He stated that he and GGH discussed the elimination of the excess tonnage as the current contract states that if there are more than 80K tons received at Layon, GSWA is charged a premium rate. The second negotiation point was the 10% price increase due to the Consumer Price Index (CPI) calculations that occurred due to COVID-19. Mr. Slike asked GGH for a 5% cap on any CPI adjustments. Another negotiation point was the ability to haul final cover on Cell 3 of their operating contract, to avoid additional closure costs in the end for GSWA.

Mr. Slike reported that GGH provided an initial proposal in May 2022 with the conditions provided in the GSWA Board Resolution No. 2022-011. Amendments to the agreement include eliminating excess tonnage over 100K, resulting in a lower rate than any other previous contracts, including additional cover material on Cell 3 as well as final covers for Cells 1 and 2, allowing GGH to haul additional 6 to 12 inches of cover so that it's ready for final closure, without having to pay a contractor to move that dirt and pay a higher rate. Lastly, the term of the agreement would be amended to two (2) guaranteed years with one option to renew, instead of the guaranteed seven (7) years in the previous agreement with the Receiver. General Manager Slike shared that this contract negotiation will result in potentially \$1.4M in annual savings. Attorney Sandra Miller stated that the addition of any new services could be an issue and recommended that the AG's Office review the contract and the resolution before the Board approves the resolution. GSWA Board Resolution No. 2022-011 was tabled until the next Board meeting.

## **IX. Communications and Correspondence**

Tabled for next meeting.

## **X. Public Forum**

No discussion.

## **XI. Next meeting**

The next meeting will be via video conference on Wednesday, July 27, 2022, at 1:00 pm.

## **XII. Adjourn**



Member Montellano made a motion to adjourn the meeting, and Chairman Gayle seconded the motion. The motion passed unanimously, and the meeting adjourned at 3:06 pm.

# Extinction threat may be much greater than previously thought

By Jennifer Bjorhus  
Star Tribune

The global extinction crisis underway may be more intense than previously thought as humans continue to tear up land, overuse certain resources and heat up the planet, new research led by the University of Minnesota indicates.

Nearly one in three species of all kinds - 30% - face global extinction or have been driven to extinction since the year 1500, according to the new survey published in the journal "Frontiers in Ecology and the Environment."

That's significantly higher than prevailing global estimates and the findings surprised lead author Forest Isbell, associate professor in the university's Department of Ecology, Evolution & Behavior. He said one of the reasons is that it takes more insects and other lesser-studied species groups into account.

"I honestly figured it was much lower," Isbell said. "I would have estimated it was 20%."

Prevailing global estimates have ranged from 12.5% across all species groups to 25% of the well-studied ones, such as animals and plants, he said.

Noah Greenwald, endangered species director at the nonprofit Center for Biological Diversity, called the numbers "quite alarming."

"It took many years for climate change to become a prominent household concern," Greenwald said. "The extinction crisis is really part and



**LONG GONE:** An art handler looks at a gorgosaurus skeleton measuring 10 feet tall as it is unveiled at Sothebys in New York, on July 5.  
Angela Weiss/AFP via Getty Images

parcel of a similar scope and severity to climate change."

Healy Hamilton, chief scientist at the nonprofit research group NatureServe, said the numbers do not surprise her. She said her organization has demonstrated for years that about one-third of plants and animals in the United States are vulnerable to extinction or have already become extinct. The new survey's real power is the broad geographic and taxonomic coverage, she said.

"The majority of species on the planet are plants and insects and other invertebrate animals that we know so little about we cannot even determine the extent to which they are threatened," she said. "And yet those are the very species which help purify our air, filter our water, maintain the health of our soils, pollinate plants we need for food, fuel and fiber, and provide medicines to hundreds of millions of people."

# Europeans shocked by 'heat apocalypse' as temperatures soar

PARIS (The Washington Post) — An unforgiving heat wave in Western Europe laid bare Monday how extreme temperatures will increasingly challenge everyday life, as dozens of heat records were shattered, key sectors were hobbled, and emergency services confronted spreading wildfires and rising death tolls.

In France, officials warned of a "heat apocalypse" as the temperature soared up to 109 degrees Fahrenheit (43 Celsius). France's meteorological service placed a stretch of its Atlantic coast under the highest-possible alert level. More than 15,000 people were evacuated amid wildfires in France.

Wales reported a new all-time high, and Ireland registered its highest air temperature in more than a century, with Britain expecting on Tuesday temperatures of up to 106 degrees (41 Celsius) - far above the record of 101.7 degrees (38.7 Celsius) set in 2019.

British authorities declared a national emergency and for the first time issued a "red extreme" heat

warning for large parts of England, as the nation struggled to adapt. In London, workers wrapped the historic Hammersmith Bridge over the River Thames in silver insulation foil to protect the cast-iron spans from cracking. Transit officials advised passengers to stay away and ordered trains to slow down as maintenance crews were on the lookout for steel tracks bending and buckling. Planes were diverted from at least two airports, amid reports of melting runways and roads.

Penny Endersby, the chief operating officer of the Met Office, the United Kingdom's weather service, called the forecast temperatures "absolutely unprecedented."

"Our lifestyles and our infrastructure are not adapted to what is coming," Endersby said.

The heat has been pumped into Europe by a zone of low pressure cut off from atmospheric steering currents west of Portugal. The counterclockwise flow around this low-pressure zone has drawn hot air from northern Africa directly into Western Europe.

## Guam Solid Waste Authority Board of Directors Regular Meeting Wednesday, July 27, 2022 - 1:00 PM (ChST)



Link: <https://zoom.us/j/9140408814?pwd=TjZ3U0dHSVd0ajlKRjBhcWFrc1ZYz09>  
Meeting ID: 914 040 8814 Passcode: 777546

The Guam Solid Waste Authority Board of Directors will have a board meeting July 27, 2022 at 1:00 PM. The meeting will be conducted via Zoom.

### AGENDA

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  - a. Cory Hinds - Jacobs Engineering
- XI. Next meeting
- XII. Adjourn

Access live stream of the meeting on GSWA website:  
<https://www.guamsolidwasteauthority.com/>

For more information, please contact GSWA Chief of Administration, Alicia Fejeran, at [Alicia.Fejeran@gswa.guam.gov](mailto:Alicia.Fejeran@gswa.guam.gov) or 671-646-3111. Persons needing telecommunication device for the Hearing/Speech Impaired (TDD) may contact 671-475-8339.

This advertisement was paid for by GSWA.



**GUAM LAND USE COMMISSION**  
Department of Land Management  
ITC Building, Third Floor, Tamuning, GU  
P.O. Box 2950, Hagatna, Guam 96932  
Telephone: (671) 649-5263, Facsimile: (671) 649-5383



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**AGENDA**

A regular meeting of the Guam Land Use Commission via Zoom Virtual platform will be held on Thursday, July 28, 2022 at 1:30 p.m. Zoom ID: 671 649 5263 • Passcode: LAND. Livestreamed on YouTube, Guam Department of Land Management Channel.

- I. Notation of Attendance/Roll Call
- II. Approval of Minutes - June 23, 2022
- III. Old Business [None]
- IV. New Business [None]
- V. Administrative & Miscellaneous Matters
  - A. 2015-05B, Guahan Baptist Church submits its 5-year status report for a previously approved Conditional Use Permit, to allow for the continued operation of the Guahan Baptist Church for church services, Sunday school and related activities, Lot 2-4NEW-R6, Blk 7, T207, Talo'fo'fo.
  - B. 2020-06C, Tasi Vista Development, LLC; requests for its 2nd Extension of Time pursuant to E.O. 96-26, for a previously approved Tentative Subdivision for the development of 62 single family lots with full improvements, Tract 1333 (formerly Lot 2056NEW), Mongmong, Toto, Maite.
  - C. Formal Complaint - Dededo Firing Range
- VI. Adjournment

\*\*Funding source provided by Applicants\*\*  
Person(s) requiring special accommodations, please call (671) 649-5263, Ext. 300



# WHO chief overrules panel to call monkeypox global crisis

By Deirdre Hipwell  
and Bryce Baschuk  
Bloomberg News

The monkeypox outbreak is a public health emergency of international concern, the head of the World Health Organization said, overruling a divided expert panel to issue the group's highest alert.

The move paves the way for stepped-up global cooperation to stop the virus, which has spread to dozens of countries. The last time the WHO made a similar declaration was during the early stages of the COVID-19 outbreak in January 2020.

U.S. Health and Human Services Secretary Xavier Becerra called the WHO decision "a call to action for the global health community." President Joe Biden's administration has made

vaccines, testing and treatments available and is "determined to accelerate our response in the days ahead," he said in a statement.

WHO Director-General Tedros Adhanom Ghebreyesus personally intervened after nine members of the expert committee were against declaring the monkeypox outbreak an emergency, while six were in favor. Tedros and the health organization had faced criticism in some quarters that they acted too slowly to ratchet up the alarms on COVID.

"We have an outbreak that has spread around the world rapidly through new modes of transmission," he said during a press briefing in Geneva on Saturday.

A PHEIC - pronounced "fake" - applies to an extraordinary event that carries a public health risk via the inter-



**WHO:** World Health Organization Director-General Tedros Adhanom Ghebreyesus attends a news conference on Dec. 20, 2021, at the WHO headquarters in Geneva.

Fabrice Coffrini/AFP/Getty Images/Tribune News Service

national spread of a disease, and one that potentially requires a coordinated response. It can be used to encourage nations to cooperate on countermeasures, while letting the agency recommend steps such as travel advisories.

## US response

U.S. health officials told reporters on Friday they've been weighing a similar declaration, which would ultimately come from the Department of Health and Human Services.

"We're looking at that, looking

at what are the ways in which the response could be enhanced by declaring a public health emergency," Ashish Jha, the White House COVID response coordinator said.

Raj Panjabi, coordinator of the White House Pandemic Office, said after the WHO's decision that a coordinated international response is essential and "we must step up our work to aggressively combat this virus and protect communities" affected by monkeypox in the U.S.



## Guam Solid Waste Authority Board of Directors Regular Meeting Wednesday, July 27, 2022 - 1:00 PM (ChST)

Join Zoom Meeting:

Link: <https://zoom.us/j/9140408814?pwd=TjZ3U0dHSVd0ajlKRjBhcWFrc1ZYZz09>  
Meeting ID: 914 040 8814 Passcode: 777546

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This advertisement was paid for by GSWA.



## GUAM PAROLE BOARD

Government of Guam  
P.O. Box 3236 Hagatna, Guam 96932  
Tel: 671-735-4132/33  
Fax: 671-734-4051  
Email: [guamparoleboard@doc.guam.gov](mailto:guamparoleboard@doc.guam.gov)

Stephen J. Guerrero  
Chairman  
Lina N.B. McDaniel  
Member  
Jane G. Borja  
Member  
John Q. Lizama  
Member

Guam Parole Board's regular meeting will be on **Thursday, July 28, 2022, 9:00 a.m.**, at the Parole Services Division Office #203 Aspinall Avenue Hagatna, Guam.

### AGENDA

- I. Call to Order
- II. Roll Call
- III. Old Business (Parole Desirability cases)
- IV. New Business (Parole Desirability & Preliminary Revocation cases)
- V. Deliberation
- VI. Adjourn

Zoom Meeting: <https://us06web.zoom.us/j/85688771596?pwd=Y0ZMRUtuOWTcxM3pxZ0hzWGMQOxOZz09>  
Meeting ID: 856 8877 1596 Passcode: 556746.

To attend the hearing, we ask that you register via [guamparoleboard@doc.guam.gov](mailto:guamparoleboard@doc.guam.gov). For individuals requiring special accommodations, please contact the Parole Services Division at 671-735-4132/33 for assistance.

This ad was paid for by the Corrections Revolving Fund.



## YIGO MUNICIPAL PLANNING COUNCIL PUBLIC HEARING NOTICE

### 2ND PUBLIC HEARING NOTICE ANNOUNCEMENT

The Yigo Municipal Planning Council will hold a public hearing on July 27, 2022 beginning at 6:00 pm, in person at the Yigo Senior Citizens Center. Application for Zone Change from "A" to "R-2" on Lots 7024-4-2B, 7024-4-2C, 7024-4-3A, and 7024-4-3B.

In compliance with the American with Disabilities Act, individuals requiring special accommodations may contact Mayor Tony Sanchez via email at [ymayortony@gmail.com](mailto:yamayortony@gmail.com) or call 653-5248/653-9446.



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ADVERTISE@POSTGUAM.COM**

**Operating Budget Revenues, Expenditures, Reserves  
As of May 31, 2022**

Unaudited	Annual Budget Operations	ARPA	Equipment Replacement/ Layon Cell Closure	Reimbursement Preconstruction Cell 3 Costs	Total Budget	Allocated Budget	ACTUALS	Variance
<b>Revenues:</b>								
Commercial Fees (Large)	9,117,496	0		0	9,117,496	6,070,004	5,912,624	(157,380) -2.6%
Others - Government/Commercial Fees	1,253,410	0		0	1,253,410	834,462	547,528	(286,934) -34.4%
Residential Collection Fees	8,050,308	0		0	8,050,308	5,359,520	5,348,949	(10,571) -0.2%
Host Community Fees	336,624	0		0	336,624	224,108	211,394	(12,715) -5.7%
Other Revenues	487,857	0		0	487,857	324,792	318,808	(5,984) -1.8%
Interest Income	0	0		0	0	0	1,215	1,215 n/a
Prior Year Revenues	0	0		0	0	0	0	0 n/a
<b>Total revenues</b>	<b>19,245,695</b>	<b>0</b>		<b>0</b>	<b>19,245,695</b>	<b>12,812,887</b>	<b>12,340,518</b>	<b>(472,369) -3.69%</b>
A/R Adjustment 3% of Residential Revenues	-241,509	0		0	(241,509)	(160,786)	(160,468)	316 -0.20%
<b>Net Revenues</b>	<b>19,004,186</b>	<b>0</b>		<b>0</b>	<b>19,004,186</b>	<b>12,652,101</b>	<b>12,180,048</b>	<b>(472,054) -3.73%</b>
ARPA Budget Allocation	0	10,374,267		0	10,374,267	1,570,313	1,570,313	0 0.00%
<b>Total Revenues/ARPA Allocation</b>	<b>19,004,186</b>	<b>10,374,267</b>		<b>0</b>	<b>29,378,453</b>	<b>14,222,414</b>	<b>13,750,360</b>	<b>(472,054) -3.32%</b>
Transfers In - Reimb. From Cell 3	0	0	0	850,193	850,193	40,416	850,193	809,777 n/a
Transfers In - Reimb. From OPCC					0	0	98,486	98,486
Fund Balance - Cell Closure Reserves	0	0	165,000	0	165,000	0	-	0 n/a
Fund Balance - Equipment Replacement			1,100,000		1,100,000			0
<b>TOTAL REVENUES/FUNDS:</b>	<b>19,004,186</b>	<b>10,374,267</b>	<b>1,265,000</b>	<b>850,193</b>	<b>31,493,646</b>	<b>14,262,830</b>	<b>14,699,039</b>	<b>436,208 3.06%</b>
<b>Expenditures by Object:</b>								
Salaries and wages	2,611,533	0		0	2,611,533	1,718,157	1,525,880	(192,277) -11.2%
<b>Contractual services:</b>								
Layon Operator	3,559,073	504,000		58,553	4,121,626	2,497,906	2,497,205	(701) 0.0%
Layon Operations	572,184	40,000	165,000	0	777,184	411,244	339,132	(72,112) -17.5%
Harmon Hauler Station Operations	3,156,933	77,000		84,132	3,318,065	2,252,043	2,219,253	(32,790) -1.5%
Closure & postclosure care	2,000,000	0		0	2,000,000	1,333,333	1,333,336	3 0.0%
Recycling Programs	966,755	0		70,880	1,037,635	691,757	724,410	32,653 4.7%
GEPA Appropriation	202,992	0		0	202,992	93,384	93,384	0 n/a
Contractual Employees	260,000	960,000		132,088	1,352,088	928,059	923,697	(4,362) -0.5%
Vehicle Maintenance	255,650	685,064		0	940,714	627,143	650,639	23,496 3.7%
PUC/Legal Expenses	80,000	152,000		0	232,000	161,666	161,666	0 0.0%
Others	270,952	36,204		35,000	342,156	201,438	187,473	(13,965) -6.9%
<b>Total contractual services:</b>	<b>11,324,539</b>	<b>2,454,268</b>	<b>165,000</b>	<b>380,653</b>	<b>14,324,460</b>	<b>9,197,973</b>	<b>9,130,195</b>	<b>(67,778) -0.7%</b>
Receiver	0	0	0	0	0	0	212,931	212,931 n/a
Travel	24,000	0		0	24,000	11,421	11,421	0 0.0%
Supplies	307,943	0		102,213	410,156	273,437	301,142	27,705 10.1%
Worker's compensation	4,000	0		0	4,000	2,667	0	(2,667) n/a
Drug testing	1,000	0		0	1,000	667	346	(321) -48.1%
Equipment	20,394	0		10,000	30,394	16,368	16,368	0 n/a
Utilities - power	71,775	0		21,000	92,775	61,850	64,525	2,675 4.3%
Utilities - water	18,000	0		0	18,000	12,000	7,121	(4,879) -40.7%
Communications	61,490	0		0	61,490	40,993	34,549	(6,444) -15.7%
Capital outlays	680,635	7,920,000	1,100,000	319,328	10,019,963	453,760	453,760	0 0.0%
Miscellaneous	343,626	0		17,000	360,626	267,084	264,573	(2,511) -0.9%
Reserves - Layon Landfill	200,000	0		0	200,000	133,333	133,333	0 n/a
Transfers to Host Community Fund	336,624	0		0	336,624	224,416	211,394	(13,022) -5.8%
Transfer out to General Fund (Debt Service), Ce	2,998,625	0		0	2,998,625	1,999,083	2,029,396	30,313 1.5%
Other Expenditures	5,068,113	7,920,000	1,100,000	469,541	14,557,653	3,497,079	3,527,928	30,849 0.9%
<b>TOTAL EXPENDITURES:</b>	<b>19,004,184</b>	<b>10,374,268</b>	<b>1,265,000</b>	<b>850,194</b>	<b>31,493,646</b>	<b>14,413,209</b>	<b>14,396,935</b>	<b>(16,275) -0.1%</b>
Excess (deficiency) of revenues over (under expenditures)							<b>302,101</b>	

**Note:**

This report is based on preliminary month end numbers and is subject to change based on DOA updates and accounting adjustments.

ARPA Funds revenues are allocated based on when they are expended.

Bad debt expense was based on FY2021 write off approximately 3% of Residential Revenues.

**FUND BALANCE as of May 31, 2022**

	Operational	Ordot Post Closure	Total
	Fund	Fund	
Fund Balance, September 30, 2021	5,837,353	4,150,133	9,987,486
Operating Budget, net change			
Revenues/Other Sources:	14,698,463	1,333,915	16,032,378
Expenditures/Reserves:	14,396,935	1,547,667	15,944,602
Net Operating Budget	301,528	-213,752	87,776
Add back:			
Capital Outlay - Equipment Replacement reserves set asides	407,777	0	407,777
Layon Reserves	133,333		
<b>Total Net change in Fund Balance</b>	<b>842,638</b>	<b>-213,752</b>	<b>628,886</b>
Ending Fund Balance, May 31, 2022	6,679,991	3,936,381	10,616,372

## Note:

Carts and flatbed expected to be expended this fiscal year, total \$188,760.



Operating Budget Revenues, Expenditures, Reserves

As of May 31, 2022

Unaudited	FY2022 Actuals to Date	FY2021 Actuals to Date	Variance	% Increase (Decrease)
<b>Revenues:</b>				
Commercial Fees (Large)	5,912,624	5,290,011	622,613	11.8%
Others - Government/Commercial Fees	547,528	1,153,591	-606,063	-52.5%
Residential Collection Fees	5,348,949	5,023,761	325,188	6.5%
Host Community Fees	211,394	207,420	3,974	1.9%
Other Revenues	318,809	355,744	-36,935	-10.4%
Interest Income	1,215	2,122	-907	-42.7%
Prior Year Revenues		16,610		
Total Revenues before A/R adjustment	<b>12,340,519</b>	<b>12,049,259</b>	<b>307,870</b>	<b>2.6%</b>
A/R Adjustment	<b>-160,468</b>	<b>-150,713</b>	<b>-9,756</b>	6.5%
Net: revenues	12,180,051	11,898,546	298,114	2.5%
ARPA Budget Allocation	1,570,313	0	1,570,313	n/a
Total Revenues/ARPA Allocation	13,750,364	11,898,546	1,868,427	15.7%
Transfers In - Reimb. From Cell 3	850,193	0	850,193	n/a
Transfers In - Reimb. From OPCC	98,486		98,486	
Fund Balance - Cell Closure Reserves	0	0	0	n/a
Total Revenues/Transfers In:	<b>14,699,042</b>	<b>11,898,546</b>	<b>2,800,496</b>	<b>23.5%</b>
<b>Expenditures by Object:</b>				
Salaries and wages - regular	990,850	1,064,114	-73,264	-6.9%
Salaries and wages - overtime	115,568	65,734	49,834	75.8%
Salaries and wages - fringe benefits	419,462	418,526	936	0.2%
	1,525,880	1,548,374	-22,494	-1.5%
<b>Contractual services:</b>				
Layon Operations	2,497,205	2,133,157	364,048	17.1%
Layon Others	339,132	289,115	50,017	17.3%
Harmon Hauler Station Operations	2,219,253	1,983,527	235,726	11.9%
Closure & postclosure care (OPCC)	1,547,667	1,333,336	214,331	16.1%
Recycling/Other Programs	724,410	650,320	74,090	11.4%
GEPA Appropriation	93,384	168,605	-75,221	-44.6%
Contractual Employees	923,697	768,226	155,471	20.2%
Vehicle Maintenance	650,639	732,607	-81,968	-11.2%
PUC/Legal Expenses	161,666	124,073	37,593	30.3%
Other Contractual	187,473	153,520	33,953	22.1%
Total Contractual	9,344,526	8,336,486	1,008,041	12.1%
Receiver	212,931	134,253	78,678	58.6%
Travel	11,421	0	11,421	n/a
Supplies	301,142	221,012	80,130	36.3%
Worker's compensation	0	0	0	n/a
Drug testing	346	368	-22	-6.0%
Equipment	16,368	628	15,740	2506.4%
Utilities - power	64,525	42,454	22,071	52.0%
Utilities - water	7,121	13,702	-6,581	-48.0%
Communications	34,549	39,669	-5,120	-12.9%
Capital outlays	45,980	45,980	0	n/a
Miscellaneous	264,573	190,527	74,046	38.9%
Reserves	0	0	0	n/a
Transfers to Host Community Fund	211,394	207,420	3,974	1.9%
Transfer out to General Fund (Debt Service), Cell 3 Expen	2,029,396	2,028,187	1,209	0.1%
Other Expenditures	2,986,815	2,789,947	196,868	7.1%
<b>TOTAL EXPENDITURES:</b>	<b>14,070,154</b>	<b>12,809,060</b>	<b>1,261,093</b>	<b>9.8%</b>
Excess (deficiency) of revenues over (under expenditures)	628,886	-910,514	1,539,400	-169.1%
Other financing sources (uses),				
Transfers in from other funds	0	0	0	
Transfers out to other funds	0	0	0	
Total other financing sources (uses), net	0	0	0	
Net Change in Fund Balance:	<b>628,886</b>	<b>-910,514</b>	<b>1,539,400</b>	
Beginning Fund Balance, 09-30	9,987,486	11,066,473	-1,078,987	-9.8%
Ending Fund Balance, May	10,616,372	10,155,959	460,413	4.5%

Note:

This report is based on preliminary month end numbers and is subject to change based on DOA updates and accounting adjustments.

Solid Waste Operations Fund  
 Operating Balance Sheet  
 As of May 31, 2022 and September 30, 2021  
 (Unaudited)

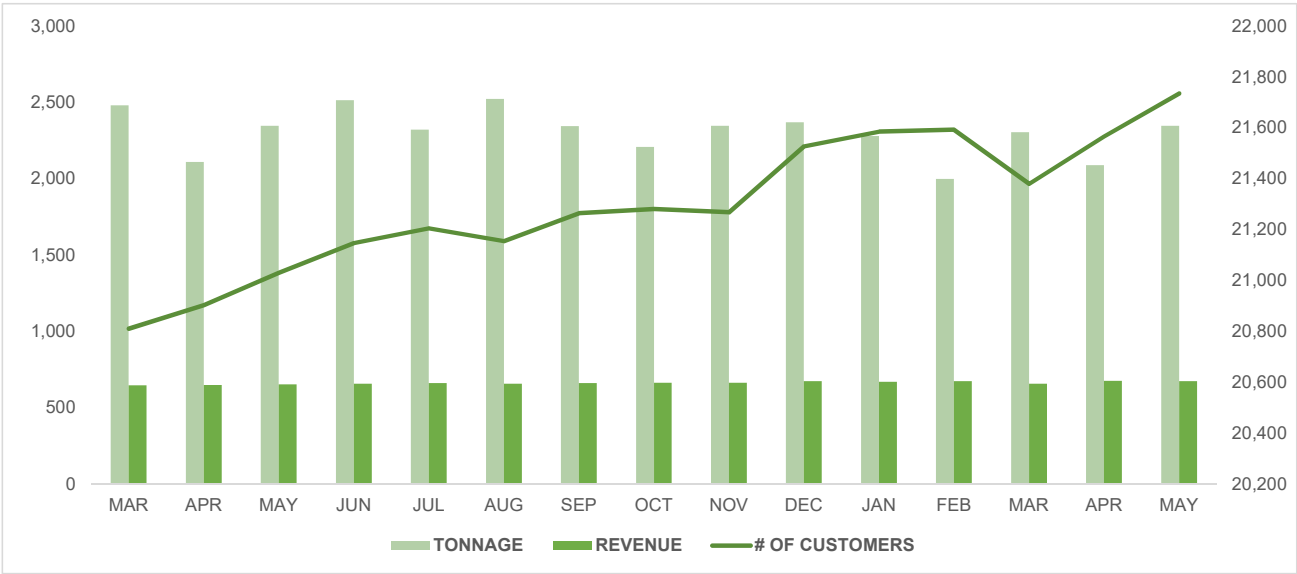
	As of 31-May-22	As of 30-Sep-20	Change	% Change
<b>ASSETS</b>				
Cash and cash equivalents, unrestricted	6,050,066	4,947,806	1,102,260	22%
Cash and cash equivalents, restricted	4,913,405	5,056,015	-142,610	-3%
Receivables, net:				
Tipping Fees	2,798,475	2,889,404	-90,929	-3%
Due from other funds				
Due from component units				
Deposits and other assets				
Total assets	<u>13,761,946</u>	<u>12,893,225</u>	<u>868,721</u>	7%
<b>LIABILITIES AND FUND BALANCES (DEFICIT)</b>				
Liabilities:				
Accounts payable	0	0	0	
Accrued payroll and other	1,517,511	1,213,291	304,220	25%
Due to component units				
Due to other funds	1,628,063	1,692,448	-64,385	-4%
Deferred revenue			0	
Deposits and other liabilities			0	
Total liabilities	<u>3,145,574</u>	<u>2,905,739</u>	<u>239,835</u>	8%
Fund balance (deficit):				
Non-spendable				
Restricted	3,936,381	4,150,133	-213,752	-5%
Committed	0		0	
Assigned	6,679,991	5,837,353	842,638	14%
Unassigned	0		0	
Total fund balance (deficit)	<u>10,616,372</u>	<u>9,987,486</u>	<u>628,886</u>	6%
Total liabilities and fund balances (deficit)	<u>13,761,946</u>	<u>12,893,225</u>	<u>868,721</u>	7%

**Residential Revenue & Tonnage**

**MARCH 2021 - MAY 2022**

**FIFTEEN (15) MONTHS**

	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
TONNAGE	2,482	2,110	2,346	2,515	2,323	2,523	2,344	2,207	2,347	2,370	2,281	1,998	2,304	2,088	2,347
REVENUE	\$ 646	\$ 649	\$ 652	\$ 657	\$ 661	\$ 656	\$ 661	\$ 663	\$ 663	\$ 674	\$ 668	\$ 674	\$ 657	\$ 676	\$ 673
# OF CUSTOMERS	20,811	20,904	21,031	21,148	21,205	21,155	21,264	21,281	21,268	21,528	21,585	21,593	21,380	21,566	21,736

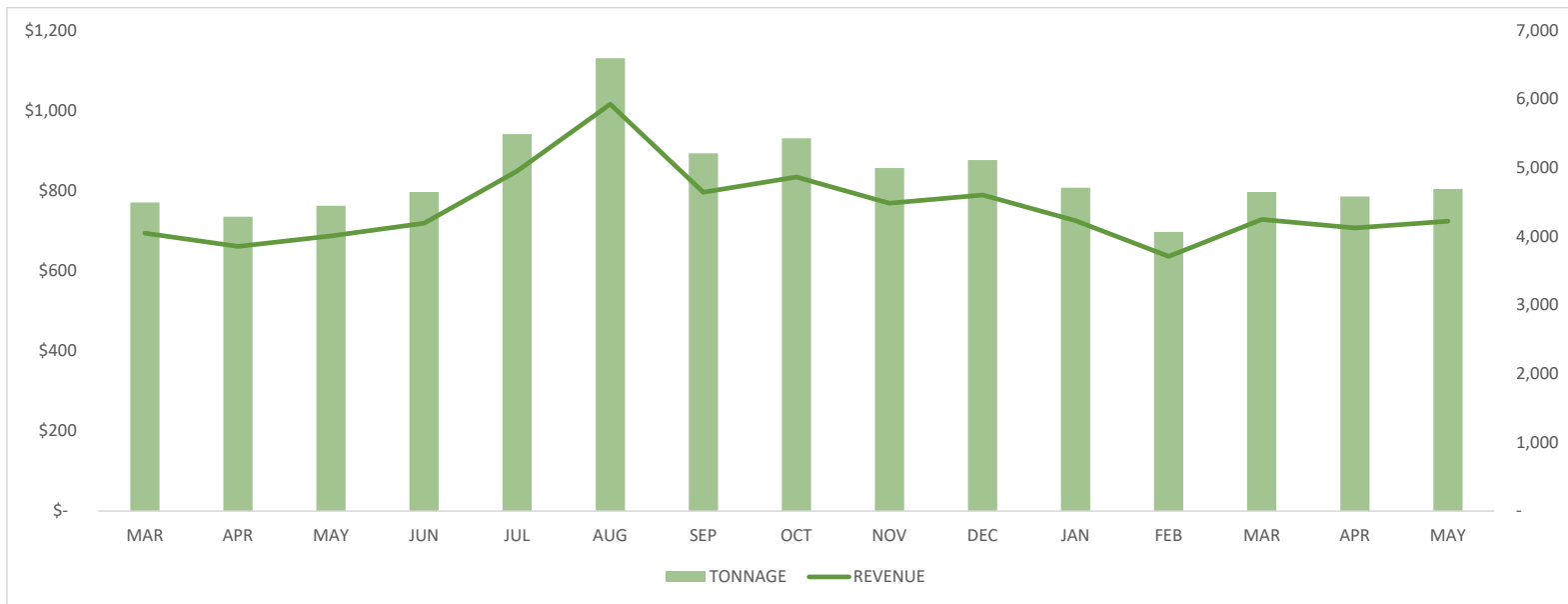


Compared to same period last fiscal year, May 2022 revenues higher by 3.3%.

**Commercial/Military Revenue & Tonnage  
Period March 2021 - May 2022**

**FIFTEEN (15) MONTHS**

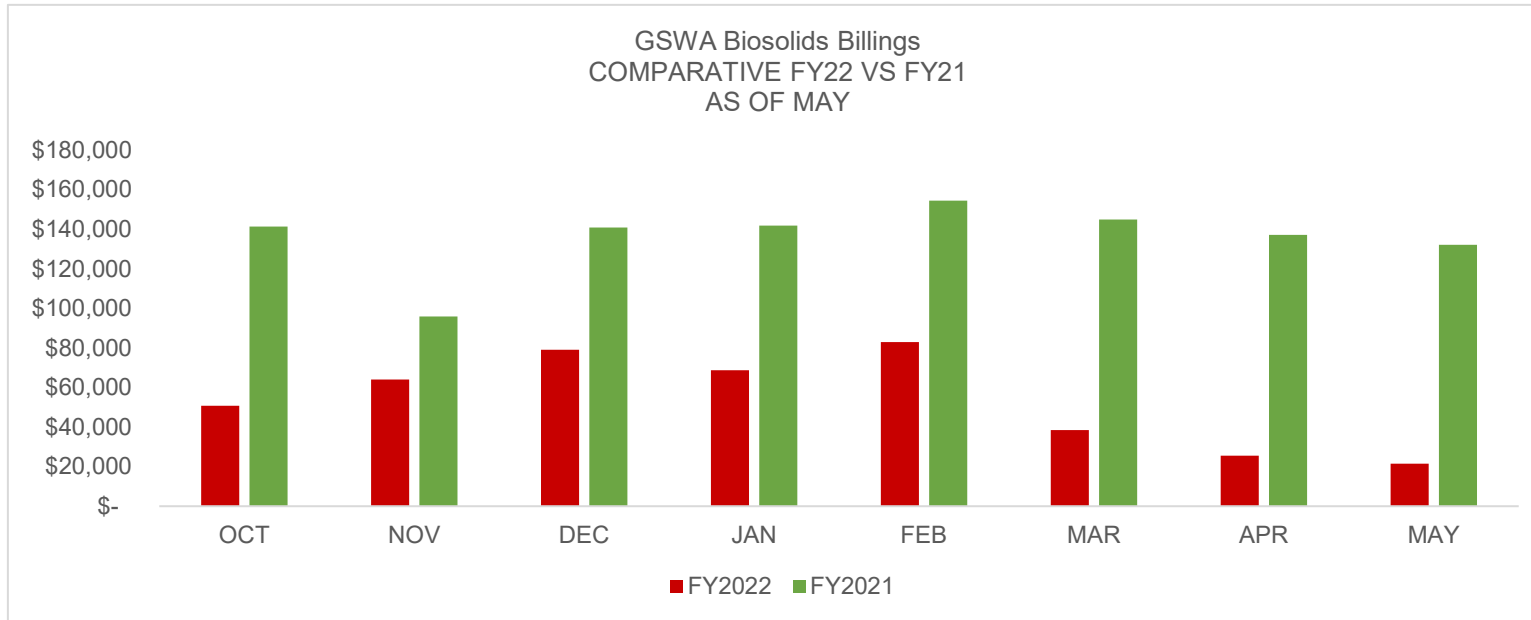
	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
TONNAGE	4,496	4,288	4,448	4,646	5,491	6,597	5,210	5,430	4,997	5,113	4,709	4,065	4,646	4,583	4,693
REVENUE	\$ 694	\$ 661	\$ 687	\$ 719	\$ 849	\$ 1,016	\$ 796	\$ 834	\$ 769	\$ 789	\$ 725	\$ 636	\$ 728	\$ 707	\$ 724



Compared to same period last fiscal year, May 2022 revenues higher by 5.3%.

**Guam WaterWorks Authority Biosolids  
Billings Comparative  
FY2022 vs FY2021 as of May**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL
FY2022	\$ 50,803	\$ 64,098	\$ 79,087	\$ 68,668	\$ 82,964	\$ 38,424	\$ 25,468	\$ 21,457	\$ 430,969
FY2021	\$ 141,445	\$ 95,844	\$ 140,966	\$ 141,856	\$ 154,538	\$ 144,941	\$ 137,254	\$ 132,140	\$ 1,088,985
									-60%



**KEY INDICATORS**  
**As of May 31, 2022**

Indicators	Target	22-Mar	Apr-22	May-22
Days in Cash	90	70	67	68.43
Collection Ratio				
* Month to Date	98%	110%	98	102
* Year to Date	98%	103%	102	102
Account Receivable Days	60	55	55.4	55.07
Account Payable Days	40 days	33	34	35
Residential Customers	20,537	21,380	21566	21736
Trucks Purchased - FY2020	4	0		
Trucks Purchased - FY2021	2	0		
Trucks Purchased - FY2022	4	0	3	3
Contamination Rate	25.0%	54%	69%	67%





# GUAM SOLID WASTE AUTHORITY

LOURDES A. LEON GUERRERO  
Governor of Guam

JOSHUA F. TENORIO  
Lt. Governor of Guam

IRVIN L. SLIKE  
General Manager



GSWA BOARD RESOLUTION NO.2022-011

**GSWA Board Resolution No. 2022-011**  
**AUTHORIZING GSWA MANAGEMENT TO EXERCISE ITS RENEWAL OPTION AND**  
**NEGOTIATE NEW TERMS OF THE AGREEMENT TO OPERATE THE LAYON LANDFILL**

**WHEREAS**, Gershman, Brickner & Bratton Inc. (GBB), in its capacity as Receiver for GSWA, entered into a contract with GGH Guam, LLC under SWD 001-10 for the Operation of the Layon Landfill; and

**WHEREAS**, the Assignment Agreement was entered between GBB and GSWA and took effect upon termination of the Receivership; and

**WHEREAS**, GSWA's contract with GGH was awarded in 2011 with a term of seven (7) years with two (2) options to renew for an additional five (5) year period; and

**WHEREAS**, current Layon Operator contract's first renewal term is set to expire in September 2023; and

**WHEREAS**, GSWA has until September 2022 to inform GGH in writing if GSWA will exercise its second renewal option; and

**WHEREAS**, recent inflation has drastically impacted pricing under the current contract terms beginning FY2022; and

**WHEREAS**, GSWA General Manager has begun discussions with GGH to negotiate contract terms should GSWA enter into the second renewal term; and

**WHEREAS**, GSWA is seeking Board Approval to renew and amend the current contract to allow significant savings and to include additional necessary requirements for a successful operation of the Layon Landfill; and

**WHEREAS**, the parties have agreed to the following amendments:

- a. SECTION 2.02 Renewal Term. is amended to now reflect a minimum continuous contract period through September 2026 with a potential renewal period extending through September 2027. The terms of the renewal period shall be agreed upon before January 31, 2026 before or by 11:59pm.
- b. SECTION 3.01 (B) The Base Operating Fee is amended to now read Green Group is agreeable to immediately roll back the current Base Operating Fee by 7.323% (one-half of the most recent CPI adjustment) for the remaining unbilled months for the current contract year and cap any future adjustment thereafter during the extension term to no more than 5%.



# GUAM SOLID WASTE AUTHORITY

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Governor of Guam

JOSHUA F. TENORIO  
Lt. Governor of Guam

IRVIN L. SLIKE  
General Manager



## GSWA BOARD RESOLUTION NO.2022-011

The following formula shall be used to determine if an additional annual CPI adjustment over the 5% maximum would be warranted:

- 0% to 5% annual CPI increase – the annual CPI rate increase would be according to the contract terms.
- 5% to 10% annual CPI increase – the annual CPI rate increase would be capped at 5%.
- 10% and higher annual CPI increase – the annual CPI rate increase would be 50% of the calculated rate increase according to the contract terms.

The index is weighted with equipment, labor, and fuel. The percentages that determine the annual CPI rate increase according to the contract is illustrated in the table below:

Base Operating Fee:

Fixed Component (no adjustment applied) 18%  
Construction Machinery & Equipment 30%  
Employment Cost Index 37%  
Diesel Fuel 15%

- c. SECTION 3.01 (C) Excess Operating fee is amended to now read Green Group is agreeable to accept 100,000 tons per contract year under the Base Operating Fee and be entitled to receive additional compensation of \$25.00 for tonnages exceeding this level. This per ton rate would not be applicable to future pricing adjustments.
- d. SECTION 4.01 Onsite Excavation Areas and Stockpiles is amended to now include ***Additional Cover Soil Placement on Cell 3.*** At no additional cost to GSWA, Green Group agrees to putting an additional twenty-four (24) inches of final cover material on the exterior slopes of Cell 3 as the cell is constructed.
- e. SECTION 4.03 Final Cover Construction is amended to include that Green Group agrees that the placement of final cover (Cell 1 and Cell 2) other than cell 3 should be at a maximum of \$5.00 per cubic yard. The exact costs are to be determined later in the contract upon further evaluation by both parties.
- f. SECTION 13.04 Convenience Termination Election in Certain Circumstances is amended to now include that this section of the contract shall not be effective until September 2026.

**WHEREAS**, the amount required for the renewal term is estimated at \$11.7 million dollars; and

**WHEREAS**, the funding for the renewal term will derive from GSWA's Operating Fund; and



# GUAM SOLID WASTE AUTHORITY

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Governor of Guam

**JOSHUA F. TENORIO**  
Lt. Governor of Guam

**IRVIN L. SLIKE**  
General Manager



GSWA BOARD RESOLUTION NO.2022-011

**THEREFORE, BE IT HEREBY RESOLVED** by the Board of Directors as the Governing Body of the Guam Solid Waste Authority approves GSWA’s management team’s request, subject to the approval of the Guam Public Utilities Commission, as follows:

1. The GSWA management team is authorized to negotiate, accept, and amend the terms of the contract with the current vendor on behalf of the Authority.

**BE IT FURTHER RESOLVED** that the Board of Guam Solid Waste Authority does hereby authorize the management team to submit the renewal contract to the Public Utilities Commission, as required.

Ayes: 0

Nays: 0

Absent: 0

Abstain: 0

Upon said roll call, the text of the foregoing was duly enacted as a Resolution of the Board of Guam Solid Waste Authority, Guam, on the 22<sup>nd</sup> day of June 2022.

**GUAM SOLID WASTE AUTHORITY  
BOARD OF DIRECTORS**

**ATTEST:  
ALICIA FEJERAN, CLERK**

\_\_\_\_\_  
**Andrew Gayle, Chairman**

**BY:** \_\_\_\_\_

\_\_\_\_\_  
**Margaret Denney, Secretary**



# GUAM SOLID WASTE AUTHORITY

**LOURDES A. LEON GUERRERO**  
Governor of Guam

**JOSHUA F. TENORIO**  
Lt. Governor of Guam

**IRVIN L. SLIKE**  
General Manager



GSWA Board Resolution 2022-012

## **GSWA Board Resolution No. 2022-012 RELATIVE TO APPROVING GSWA MANAGEMENT TO HIRE REPLACEMENT ASSISTANT GENERAL MANAGER FOR OPERATIONS AND TECHNICAL SUPPORT AND ASSISTANT GENERAL MANAGER OF ADMINISTRATION**

**WHEREAS**, Public Law 31-20 established the Guam Solid Waste Authority as an autonomous agency from the Government of Guam, whose mission is to provide to provide a safe and healthy environment for the people of Guam through proper, timely, and efficient collections of refuse materials throughout the villages and urban areas and to assure their proper disposal in legally permitted facilities; and

**WHEREAS**, 10 GCA 51A107 reads, “The General Manager, with the consent of the Board, may appoint an Assistant General Manager for Operations and Technical Support, who shall serve at the pleasure of the General Manager”; and

**WHEREAS**, 10 GCA 51A108 reads, “The General Manager, with the consent of the Board, may appoint an Assistant General Manager for Administration, who shall serve at the pleasure of the General Manager”; and

**WHEREAS**, the GSWA General Manager is seeking Board approval to proceed with the recruitment of the two (2) Assistant General Manager positions as a part of succession planning for the agency; and

**THEREFORE, BE IT HEREBY RESOLVED** the Board of Directors approves and authorizes GSWA General Manager to proceed with the recruitment process of the Assistant General Manager for Operations and Technical Support and Assistant General Manager for Administration for GSWA;

Ayes: 0

Nays: 0

Absent: 0

Abstain: 0

Upon said roll call, the text of the foregoing was duly enacted as a Resolution of the Board of Guam Solid Waste Authority, Guam, on the 28<sup>th</sup> day of July 2022.



# GUAM SOLID WASTE AUTHORITY

**LOURDES A. LEON GUERRERO**  
Governor of Guam

**JOSHUA F. TENORIO**  
Lt. Governor of Guam

**IRVIN L. SLIKE**  
General Manager



GSWA Board Resolution 2022-012

**GUAM SOLID WASTE AUTHORITY**  
**BOARD OF DIRECTORS**

**ATTEST:**  
**ALICIA FEJERAN, CLERK**

\_\_\_\_\_  
**Andrew Gayle, Chairman**

**BY:** \_\_\_\_\_

\_\_\_\_\_  
**Margaret Denney, Secretary**

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# **Creating Synergies for Reducing Renewable Energy Project Land Siting Costs**

A Grant Proposal submitted by the

**Guam Power Authority**



To the US Department of the Interior  
OFFICE OF INSULAR AFFAIRS

FY2022 Energizing Insular Communities Program (EIC)

June 2022

Topic Area 1



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## 1.0 Introduction

Guam imports all its fuel, almost all its food, and almost all commercial and residential trade goods through its deep water port (Apra Harbor) and the Guam International Airport. Guam's geographic isolation greatly challenges affordability of goods and services for its population of approximately 170,000 residents. Over 23% of Guam households fall below the poverty line. Guam is an environmental justice (EJ) community with a greater than 90% non-white population. GPA's small customer base already pays some of the highest electricity rates in the United States.

This grant application is submitted as a partnership between Guam Power Authority and the Guam Solid Waste Authority.

On April 18, 2011, Guam Public Law 31-20 established the Guam Solid Waste Authority as an autonomous public corporation with the mission to provide efficient trash disposal services for paying customers. GSWA management is faced with financial challenges regarding the closure of existing landfill cells (Cells #1 & #2) and future opening and closing of 11 additional landfill cells.

The Guam Power Authority ("GPA" or "the Authority") was established in 1968 as a public corporation, autonomous instrumentality, and enterprise fund of the Government of Guam. GPA is a publicly owned, retail electric utility that provides electric generation and transmission and distribution services throughout Guam and is the sole provider of such services.

GPA's mission is to provide reliable, efficient, effective, environmentally sound, affordable, reliable, and accountable, leading energy solutions. Serving Guam for more than 50 years, GPA owns all power generation, transmission, and distribution assets outside of Guam's U.S. military bases. GPA provides transmission-level electric service to the U.S. military bases.

GPA plans continuously to meet future loads and improve its affordability, reliability, and resilience. GPA's Clean Energy Master Plan (aka GPA 2022 Integrated Resource Plan) and the current territorial Renewable Portfolio Standards. The Clean Energy Master Plan provides a roadmap to achieve 50% Renewable penetration by 2030 and 100% by 2040. GPA is aggressive in evaluating ways to reduce its heavy dependence on fossil fuels especially renewable energy and improve the affordability of electricity.

To date, GPA has completed the following projects towards its Clean Energy Goals:

- 25 MW GlidePath Solar PV Facility (PPA);
- 275 KW Wind Turbine Generator at Cotal;
- 60 MW KEPCO Mangilao Solar, LLC (KMS) Solar PV Facility (PPA) with shaping and firming BESS;
- 24 MW/6 MWH Hagatna BESS for frequency regulation and rapid reserve;
- 16 MW/16 MWH Talofofa shaping and firming BESS for the Glidepath Solar PV facility.

GPA projects in progress include the Hanwha (Global 174) 60 MW Solar PV Facility (PPA) with shaping and firming BESS. Additionally, there are about 30 MW of net metering rooftop systems interconnected into GPA's distribution system. GPA is very experienced in procuring and executing

renewable energy and battery energy storage projects.

GPA is working out the details for its Phase III 50 MW Solar PV with 100% energy shifting BESS project with Engie. This project is challenged to overcome a several years' delay procurement protest and must deal with changes in the Navy lease. Furthermore, GPA is working with a large customer on a potential solar PV, BESS, and diesel genset microgrid at the customer facility.

## 2.0 Project Narrative

### 2.1 Project Description

Guam Power Authority (GPA) and the Guam Solid Waste Authority (GSWA) submit this renewable generation project called **“Creating Synergies for Reducing Renewable Energy Project Land Siting Costs”** under Topic Area 1: Power Generation. The focus of the subject application is development of Renewable Energy Projects. This project seeks funding for capping the Layon landfill cells #1 and #2. GSWA would make the site available for future Solar PV PPA bid on the capped landfill cells.

This grant application is submitted as a partnership between Guam Power Authority and the Guam Solid Waste Authority. It is the lynchpin for initiating a potential future decades long partnership to use available GWSA property for the siting of future solar PV facilities on capped landfills, battery energy storage systems (BESS), electric vehicle charging systems, synchronous condensers, and other renewable energy technologies as determined to be economically feasible for both parties.

Impediments for this partnership are the initial funding for the landfill capping and solar PV facility construction at Layon Cell Sites 1 and 2. GSWA simply does not have the funding to complete this.

#### 2.1.1 GPA-GSWA Partnership Opportunities

The opportunities opened by funding this grant proposal enabling the GPA-GSWA partnership include:

- 11 Landfill Cells to be opened and closed over 60 years;
- Land area available supports up to 23 MW assuming projects are recapitalized after contract expirations (GPA can only contract for up to 30 years on power generation projects);
- Use of GSWA Agat and Malojloj Transfer Station property for GPA siting of battery energy storage systems (BESS), electric vehicle charging systems, and synchronous condensers.

The proposed GSWA Partnership simply put entails the following:

- GSWA provides expiring landfill property for Utility Scale Solar PV bids.
- GPA conducts the procurement including landfill capping as part of Solar PV PPA Bids.
- GSWA provides use of GSWA property for GPA Renewable Integration Asset Siting at its Transfer Station locations at Agat and Malojloj.

Table 1 shows the potential for siting for battery energy storage systems (BESS), electric vehicle charging systems, and synchronous condensers at the Agat and Malojloj Transfer Stations.

Table 1 – Potential Siting for BESS, Synchronous Condensers, and EV Charging Systems

Parameter	Agat Transfer Station	Malojloj Transfer Station	Stand-Alone Synchronous Condenser	Battery Energy Storage System (BESS)	EV Charging Station Solar Canopy
Footprint (acres)	4.33	1.68	0.5	0.5	0.17
Size (MW)				5	0.068
Size (SC MVA)			600-2000		
Potential MW at Agat Transfer Station				85/170 MWH	0.612

Assumption: Stand-alone synchronous condenser installed within 500 ft of a 34.5 kV substation (per Leidos).

The scope of work for this project is briefly described below:

- Planning & Mobilization
- Landfill Capping
- Solar PV Facility Installation and Commissioning.

### 2.1.2 Solar PV Project on Capped Layon Landfill Cells #1 and #2

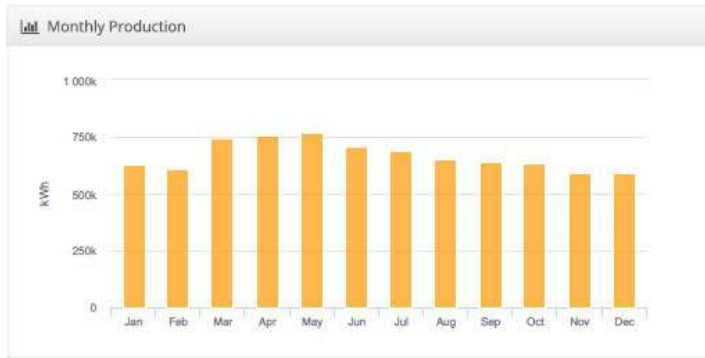
Exhibit 1 provides details for the Solar PV System conceptual design:

- Estimated size of the proposed system including DC and AC power;
- Annual energy production projections;
- Weather and irradiation models;
- Location of proposed system;
- Available land area: 1,009,200 square feet (23.2 acres);
- Demonstrated site control: Land is owned by GSWA.

# Exhibit 1 – Layon Landfill Cell #1 & #2 Sited Solar PV System Conceptual Draft

Report	
Project Name	Guam_Layon Landfill
Project Description	All tilt and azimuth angles are approximated and should be confirmed based on final site conditions. Two layouts were created: (1) Cells 1&2 and (2) Cell 3 with a proposed typical landfill shape (i.e., 3% top deck and four 3H:1V side slopes).
Project Address	7PWM+64X, Inarajan, Guam
Prepared For	CONCEPTUAL DRAFT – Not for Design Purposes
Prepared By	Thomas Orzech torzech@watershedgeo.com

System Metrics	
Design	Cells 1 & 2 Layout_28JAN2022
Module DC Nameplate	5.60 MW
Inverter AC Nameplate	4.13 MW Load Ratio: 1.36
Annual Production	7,994 GWh
Performance Ratio	78.1%
kWh/kWp	1,425.6
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	eF3c23320e-77af84459e-c8e27dd908-02088fae94



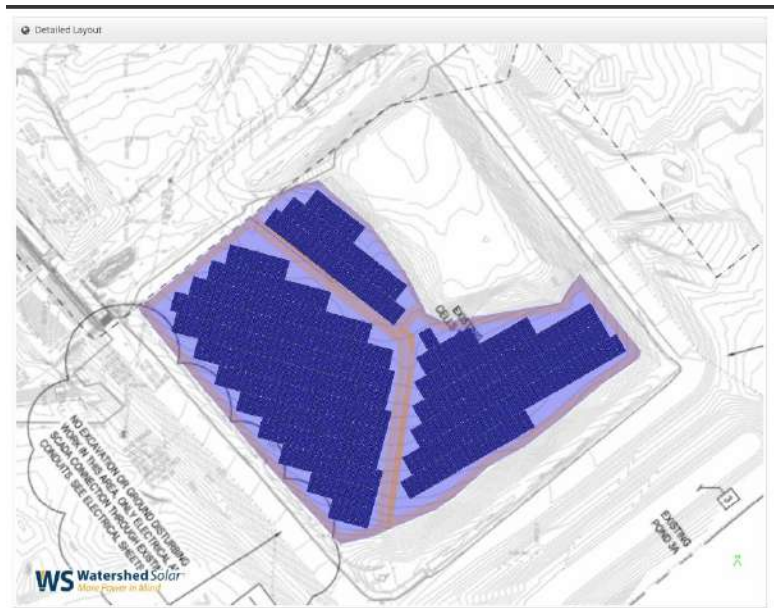
Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m <sup>2</sup> )	Annual Global Horizontal Irradiance	1,813.7	
	POA Irradiance	1,827.0	0.7%
	Shaded Irradiance	1,826.8	0.0%
	Irradiance after Reflection	1,761.4	-3.6%
	Irradiance after Soiling	1,726.2	-2.0%
	<b>Total Collector Irradiance</b>	<b>1,726.2</b>	<b>0.0%</b>
Energy (kWh)	Nameplate	9,673,809.4	
	Output at Irradiance Levels	9,632,635.8	-0.4%
	Output at Cell Temperature Derate	8,541,671.6	-11.3%
	Output After Mismatch	8,207,118.8	-3.9%
	Optimal DC Output	8,176,644.0	-0.4%
	Constrained DC Output	8,159,232.9	-0.2%
	Inverter Output	8,034,260.0	-1.5%
	<b>Energy to Grid</b>	<b>7,994,088.4</b>	<b>-0.5%</b>
Temperature Metrics			
	Avg. Operating Ambient Temp		28.2 °C
	Avg. Operating Cell Temp		46.3 °C
Simulation Metrics			
	Operating Hours		4598
	Solved Hours		4598

Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module	Uploaded By								Characterization		
	Q.Peak DUO XL-G10.3/BFG 480 (Hanwha Q Cells)	Folsom Labs								Spec Sheet Characterization, PAN		
Component Characterizations	Device	Uploaded By								Characterization		
	CSI-125KTL-GS (Canadian Solar)	Folsom Labs								Default Characterization		

Components		
Component	Name	Count
Inverters	CSI-125KTL-GS (Canadian Solar)	33 (4.13 MW)
Strings	10 AWG (Copper)	462 (115,670.3 ft)
Module	Hanwha Q Cells, Q.Peak DUO XL-G10.3/BFG 480 (480W)	11,674 (5.60 MW)

Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	20-27	Along Racking

Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Top Deck 1	Flush Mount	Landscape (Horizontal)	3.03°	218°	2.0 ft	13x2	54	1,404	673.9 kW
Top Deck 2	Flush Mount	Landscape (Horizontal)	3.03°	195°	2.0 ft	13x2	246	6,396	3.07 MW
Top Deck 3	Flush Mount	Landscape (Horizontal)	1.66°	150°	2.0 ft	13x2	149	3,874	1.86 MW



Solar PV System Layout

### 2.1.3 Other Required Information for Solar PV Project

**Load Served:** All Solar PV System energy production will be fed into GPA’s grid serving all of GPA customers.

**Insurance:** GSWA will provide insurance coverage for the landfill capping construction under its insurance policies. GPA will provide insurance coverage for the Solar PV System under its existing insurance policies.

**Design Criteria:** As with all GPA solar PV projects, the proposed systems must meet Guam’s building code structural requirements for seismic zone 4 and 170 mph winds. Guam’s building code promotes building survivability for category 5 typhoons and high damage risk area earthquakes.



Technology risk:

Guam is a mature solar PV market with approximately 30 MW of net metering rooftop systems installed. Additionally, GPA has 85 MW of utility scale solar PV systems in operation. GPA utility scale and BESS projects are warranted for the contract life, between 20 to 25 years. GPA utility scale projects are owned and operated by large private firms (KEPCO and GlidePath) showing that private sector capital is available for these projects.

Coordination: GPA is the local utility. GPA provides and enforces the interconnection requirements for these projects. GPA will execute this grant project.

Resilience: This project will interconnect through the Dandan Substation and through the Talofofu Substation where there are two 4.4 MW diesel generators. These generators can be used to support a southern Guam microgrid by providing the synchronizing frequency and voltage for the grid tied inverters used by the project and the GlidePath Solar PV Facility.

Non-Energy Benefits:

Uses land that would otherwise remain unused freeing up other private property for non-renewable energy use.

Procurement: GPA will use the Multi-Step bid Process to prequalify proponents for the Bid proposal stage and a design – build scope. GPA has used this model for past renewable energy acquisition bids.

2.1.4 Estimated Energy Savings

Energy savings for the project depend on the LEAC fuel charge. Renewable energy costs (\$/MWH) are included in the LEAC as they displace fuel oil expenses. However, the LEAC rate is volatile number directly tied to the price of fuel. For this analysis, we assume the proposed Nov 1, 2022 LEAC rate held constant for a 20-year period. The Solar PV PPA includes O&M. GPA would pay PPA costs.

Table 2 – Estimated Solar PV System Cost Savings

Item	Parameter	Value
A	Annual Energy Production (MWH)	7,994.00
B	Proposed November 1, 2022 LEAC (\$/MWH)	\$ 296.20
C	Solar PPA Cost (\$/MWH)	\$ 150.00
	Reduction in First Year LEAC Charges (\$) = (B - C) X A	\$ 1,168,722.80
	Cumulative Nominal LEAC Charges Reduction, 20 years. 0.7% Annual Production Degradation, 2% O&M Escalation	\$ 21,883,440.06

## 2.2 Project Budget

The budget for a total of \$3,421,712 below was developed based on a preliminary contractor cost proposal provided to GSWA.

Table 3 – Layon Landfill Cell #1 & #2 Closure Capping

Description	Quantity	Unit	Unit Price (USD\$)	Total Price (USD\$)
<b>ClosureTurf Final Cover System</b> Engineered Synthetic Turf (ClosureTurf CT) - MC270-306 Color: 100% Green (Olive 06) Square Feet: 1,111,500 Roll Size: 15' x 300' Number of Rolls: 247 Waste and Overlap: 10.00 % Super Gripnet - SGN-LL-50 mil - 500' Thickness: 50-mil Polyethylene Type: LLDPE Square Feet: 494,500 Roll Size: 23' x 500' Number of Rolls: 43 Waste and Overlap: 10.00 % MicroSpike DS - MS-LL-40 mil -500' Thickness: 40-mil Polyethylene Type: LLDPE Square Feet: 632,500 Roll Size: 23' x 500' Number of Rolls: 55 Waste and Overlap: 10.00 % Pressure Relief Vents # of Units: 24 Welding Rod # of Units: 46	1,009,200	Sq. Ft.	\$2.26	\$2,280,792.00
<b>Sand Infill (To Be Sourced Locally)</b>	2,662	Ton	\$50.00	\$133,100.00
<b>MATERIAL SUBTOTAL</b>				<b>\$2,413,892.00</b>
<b>Geomembrane Freight (Estimate Only)</b> Type of Truck: 40-ft High Cube Container Rolls per Truck: 4	11	Truck	\$5000.00	\$55,000.00
<b>Geomembrane Freight (Estimate Only)</b> Type of Truck: 40-ft High Cube Container Rolls per Truck: 12	5	Truck	\$5000.00	\$25,000.00
<b>Engineered Turf Freight (Estimate Only)</b> Type of Truck: 40-ft High Cube Container Rolls per Truck: 18	14	Truck	\$5000.00	\$70,000.00
<b>FREIGHT SUBTOTAL</b>				<b>\$150,000.00</b>
<b>Estimated Installation: Labor and Equipment Cost</b> (Installation for above Components - Excludes Sub-Grade, Anchor Trench Preparation and Union/Prevailing Wage)	1,009,200	Sq. Ft.	\$0.85	\$857,820.00
<b>INSTALLATION SUBTOTAL</b>				<b>\$857,820.00</b>
<b>Sales Tax (Estimate)</b> Sales Tax will not be Charged if Provided a Tax Exemption Form (Please Provide Tax Exemption Form with Purchase Order)	Percent		0%	\$0.00
<b>TOTAL w/ SALES TAX</b>				<b>\$3,421,712.00</b>

## 2.3 Project Timeline, Activities, and Schedule

Table 4 – Project Timelines, Activities, and Schedules

### Landfill Capping Project Timeline

<b>Project Milestones Description</b>	<b>From</b>	<b>To</b>
Multistep Bid Drafting & Contract Drafting	7/17/2022	11/15/2022
Advertisement of Bid	11/21/2022	
Bid Submittal Due Date	1/16/2023	
Bid Reviews	1/16/2023	1/30/2023
Bid Selection & Contract Award	2/13/2023	
Planning and Mobilization	2/13/2023	3/17/2023
Construction	3/17/2023	3/16/2024
Project Completion	3/23/2024	

Development of Layon landfill cell #1 and #2 closure and capping bid documents. bid process execution, contractor selection and award process execution. and construction project execution.

### Solar PV PPA Project Timeline

<b>Project Milestones Description</b>	<b>From</b>	<b>To</b>
Multistep Bid Drafting & Contract Drafting	7/17/2022	11/15/2022
Advertisement of Bid	11/21/2022	
Bid Submittal Due Date	5/20/2023	
Bid Reviews	5/20/2023	6/03/2023
Bid Selection & Contract Award	6/17/2023	
Planning & Mobilization	6/17/2023	7/19/2023
Construction	7/19/2023	1/16/2025
Project Completion	1/23/2025	

Development of bid documents for Solar PV PPA using capped Layon landfill cell #1 and #2 for siting. Bid process execution, contractor selection & award process execution, and construction project execution.

## Memorandum of Agreement Project Timeline

Project Milestones Description	From	To
Memorandum of Agreement Drafting and Negotiations	5/16/2022	10/3/2022
Approval by Respective GPA and GSWA Board of Directors	10/3/2022	11/4/2022

Development and approval of a Memorandum of Agreement (MOA) between the Guam Power Authority and the Guam Solid Waste Authority reserving the use of capped and landfill cells for renewable energy projects and for the use of portions of the GSWA Agat and Malojloj Transfer Stations for siting GPA battery energy storage systems (BESS), electric vehicle charging systems, and synchronous condensers

### 2.4 Statement of Need

According to the U.S. Energy Information Administration (EIA), the territory of Guam’s residential electricity costs, including fuel surcharges, are two times higher than the U.S. average. Guam’s geographic isolation greatly challenges affordability of goods and services for its population of approximately 170,000 residents. Over 23% of Guam households fall below the poverty line. Furthermore, Guam is an environmental justice (EJ) community with a greater than 90% non-white population.

The largest line item in people’s bills is the fuel recovery charge. It can account for more than two-thirds of the bill. This charge is tied to the price of oil and is a pass-through cost. In 1999, GPA adopted a Levelized Energy Adjustment Clause (LEAC) to enable fuel costs in power bills to be set on a bi-annual basis. The LEAC allows sharp market price fluctuations to be spread over a six-month period. It also provides increased consistency to customer bills. Figure 1 shows GPA’s historical landed fuel costs as trending steeply upwards since early 2020. A continued upward trend of fuel will result in higher LEAC rates and ultimately, higher power costs.

Every six months a schedule of fuel costs is provided to the Public Utilities Commission to enable the LEAC rate to be reset. Any under recovery or over recovery is trued up during the review process. In the event that GPA's fuel forecasts indicate an under recovery exceeding \$2 million, it is allowed to petition for an adjustment before the expiration of the six-month LEAC period.

Due to the current run-up on fuel oil prices, GPA and PUC has proposed an increase in the LEAC from the current 20.9 cents per kilowatt-hour to 29.62 cents per kilowatt-hour on November 1, 2022.

As a matter of perspective, the new solar farm in Mangilao is in acceptance test and recently produced as much as 35 megawatts of electricity. The solar farm, owned by Korea Electric Power Company LLC, is scheduled to start providing power to GPA beginning June 18, 2022. It will provide enough energy to power about 14,000 residential customers, saving about \$1.5 million per month in fuel costs, he said. The solar power will cost 8.5 cents per kilowatt-hour, which is equivalent to paying \$52 per barrel of fuel. **Affordability is the biggest driver towards GPA’s renewable energy goals.**

Figure 2 illustrates that the economic pressure leading to higher electricity rates is the price for fuel. Base rates have remained the same. The increases in electricity costs have been driven solely by fuel price increases.

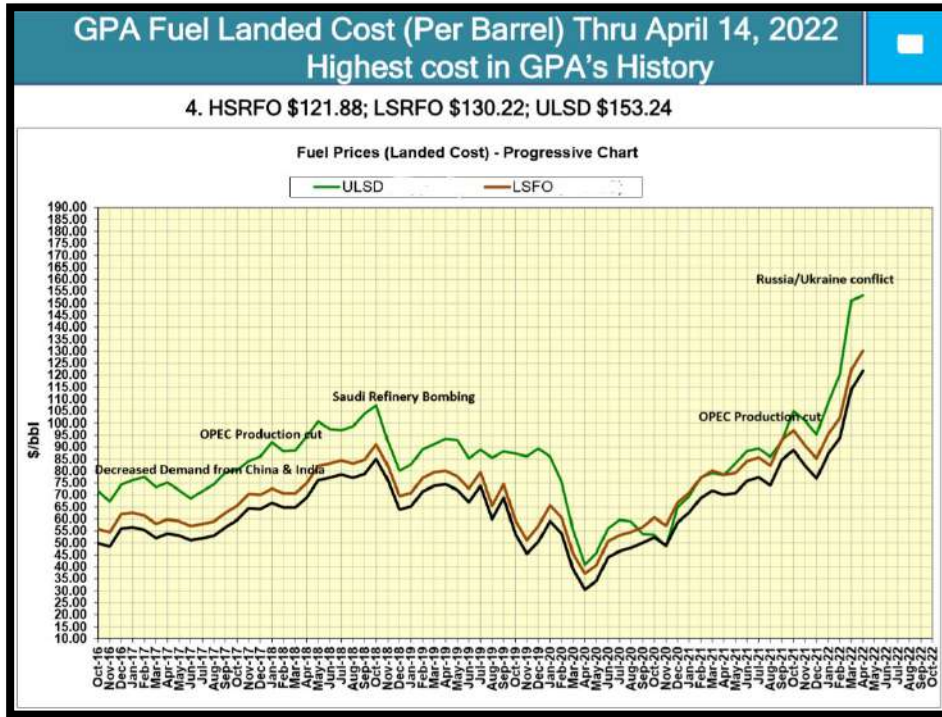


Figure 1: Fuel Landed Cost Trend from October 2016 through April 2022

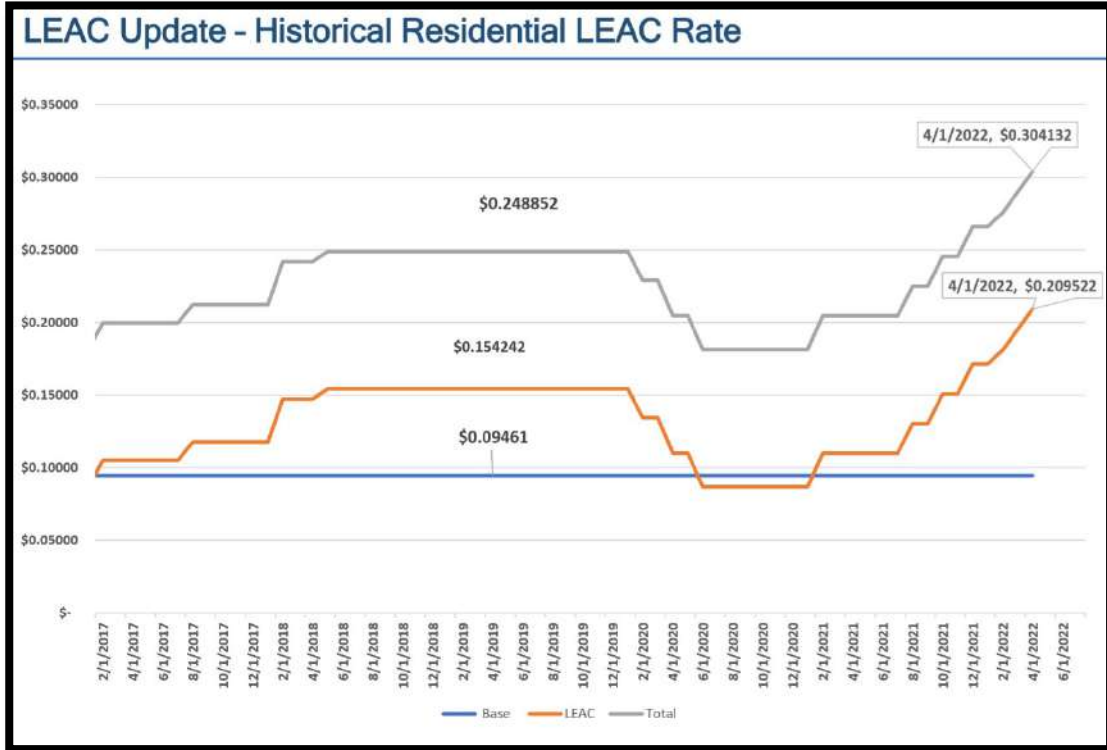


Figure 2: Historical Residential Energy Rates (Base Rate and LEAC Rate) from February 2017 through April 2022

### Power Affordability

According to the EIA, Guam’s residential electricity rates are typically the lowest among the nearby Pacific Islands (see Figure 3); however, it does not reflect the affordability for the community GPA serves. Bureau of Labor Statistic data has shown that approximately one in every four Guam households has an income less than \$20,000 per annum. Figure 3 shows comparisons of kWh energy price on Guam versus other Pacific islands. This proposed project is needed for Guam to be able to improve energy affordability for the island community. With limited land area, it is reasonable to develop renewable energy on capped landfills.

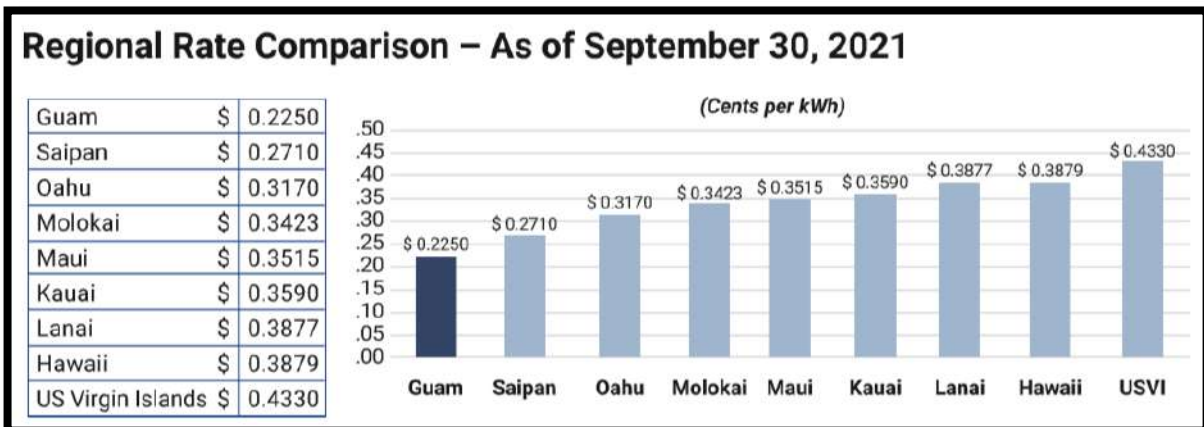


Figure 3: Regional Rate Comparison – Costs in Cents per kWh

Land in southern Guam is much less expensive than in central and northern Guam. This is illustrated in the lower bids for the Hanwha project (6.5 cents/KWH) sited in southern Guam and located near the GlidePath facility versus the KEPCO project (8.5 cents/KWH) in central Guam. Using capped landfills for renewable energy projects will reduce future renewable energy project land costs and siting for renewable integration and EV charging assets. It will make available GSWA property for renewable energy development that would otherwise lay fallow and underutilized. The Dandan-Malajloj area supports two of GPA Utility Scale Solar PV Projects, the GlidePath 25 MW and Hanwha 60 MW projects. There is diminishing available land in that area for additional renewable energy project development. Using capped landfills will augment the supply of inexpensive land for future renewable energy projects. The Layon Landfill, Hanwha Solar PV Project and the GlidePath Solar PV Facility are in close proximity of each other. This results in opportunities for optimizing and sharing transmission and BESS resources and assets for projects at the Layon Landfill.

### **Previous and Ongoing Efforts**

GPA plans continuously to meet future loads and improve its affordability, reliability, and resilience. GPA's Clean Energy Master Plan (aka GPA 2022 Integrated Resource Plan) and the current Guam Renewable Portfolio Standards. The Clean Energy Master Plan provides a roadmap to achieve 50% Renewable penetration by 2030 and 100% by 2040. GPA is aggressive in evaluating ways to reduce its heavy dependence on fossil fuels especially renewable energy and improve the affordability of electricity.

To date, GPA has completed the following projects towards its Clean Energy Goals:

- 25 MW GlidePath Solar PV Facility (PPA);
- 275 KW Wind Turbine Generator at Cotal;
- 60 MW KEPCO Mangilao Solar, LLC (KMS) Solar PV Facility (PPA) with shaping and firming BESS;
- 24 MW/6 MWH Hagatna BESS for frequency regulation and rapid reserve;
- 16 MW/16 MWH Talofofo shaping and firming BESS for the Glidepath Solar PV facility.

GPA projects in progress include the Hanwha (Global 174) 60 MW Solar PV Facility (PPA) with shaping and firming BESS. Additionally, there are about 30 MW of net metering rooftop systems interconnected into GPA's distribution system. GPA is very experienced in procuring and executing renewable energy and battery energy storage projects.

### **Supporting the Guam Vision**

This project supports the goals and objectives found in the GPA Clean Energy Master Plan, also known as the GPA 2022 Integrated Resource Plan. It has been approved by the five-member elected Guam Consolidated Commission on Utilities (CCU) that serves as GPA's board of directors. It has also been approved by the Guam Public Utilities Commission. The Clean Energy Master Plan consists of the following volumes:

- Volume I: Generation System Reliability, Adequacy, and Resiliency;



- Volume II: Generation Expansion Plan;
- Volume III: Environmental Strategic Plan (ESP);
- Volume IV: Demand-Side Management Plan (Energy Efficiency);
- Volume V: Medium Range Distribution Plan;
- Volume VI: Information/Operational Technology Plan;
- Volume VII: Strategic Plan;
- Volume VIII: Electric Vehicle Roadmap;
- Volume IX: Net Metering Plan (DER).

GPA’s renewable energy goals improve energy resilience in the following ways:

- Reduce Guam’s reliance on imported fossil fuels.
- Improve energy affordability. Residential electric bills are the second largest expense after mortgage or rental payments. Improving energy affordability improves economic resiliency.
- Improve economic resiliency by replacing electric power production tied to the volatility of fuel oil prices with nearly fixed renewable energy prices.

The GPA Clean Master Plan supports the following Government of Guam and GPA plans and documents:

- The Guam Strategic Energy Plan (2010, NREL);
- Guam Transportation Petroleum-Use Reduction Plan (2013, NREL);
- The GPA Integrated Resource Plan (IRP) (2008, 2012, 2016, 2022);
- The GPA Strategic Plan;
- Public Law 35-46, The Guam Renewable Portfolio Standard.

Additionally, the GPA Clean Master plan adopts the United Nations Sustainable Development Goals 7 and 13 as does the Government of Guam.

Guam’s Renewable Portfolio Standard (Guam public law 35-46) mandates that GPA provide 50% of its electricity from renewable energy by 2035 and 100% of its energy by 2045. GPA is committed to achieving those goals by 2030 and 2040, respectively. GPA will achieve over 25% of its energy production from renewable energy by 2024, eleven years earlier than mandated by Guam public law 29-62, the original Guam RPS.

## 2.5 Project Goals and Objectives

GPA’s long-term goal is to achieve 50% energy supply to customers from renewable sources by 2030 and 100% renewable energy supply capability by 2040.

Currently, Renewable Energy Proponents bidding on GPA bids must find and provide their own land. GPA would like to partner with federal and local government agencies to identify government property that will be reserved for renewable energy bids. Over the last six months the Guam Power Authority and the Guam Solid Waste Authority have discussed such an arrangement or partnership.



Our objective is to develop this partnership by executing and completing a proof of concept pilot funded by this EIC grant for using capped land fill cells as sites for small utility scale solar PV systems beginning with the Layon landfill cells #1 & #2 within the three-year grant performance period.

The key performance indicators for this grant project include:

- Development and approval of a Memorandum of Agreement (MOA) between the Guam Power Authority and the Guam Solid Waste Authority reserving the use of capped and landfill cells for renewable energy projects and for the use of portions of the GSWA Agat and Malojloj Transfer Stations for siting GPA battery energy storage systems (BESS), electric vehicle charging systems, and synchronous condensers;
- The closure and capping of Layon landfill cells #1 and #2;
- The awarding of a 20-year renewable energy power purchase agreement for delivery of approximately 8 GWH of renewable energy annually to the GPA grid in the first year of operation.

## 2.6 Environmental Permitting and Considerations

TBD – Reaching out to GEPA and GPA Planning & Regulatory Division. Describe what will be required to comply with the National Environmental Policy Act and how long it will take to acquire the necessary permits.

### 2.6.1 NEPA Compliance

The proposed action would take place in existing disturbed areas currently serving as a landfill and is not expected to cause a threat of significant individual or cumulative environmental effects. The proposed action is not expected to disturb sites that provide a natural habitat for threatened or endangered animal or plant species. No wetland disturbance would take place, and the proposed action would not take place within the 100-year floodplain of any surface water body.

The described action is not connected to other actions with potentially significant impacts and is not part of a proposed action that is or may be the subject of an Environmental Assessment or an Environmental Impact Statement. There are no extraordinary circumstances related to this action, and the proposal is not connected to other actions with potentially significant impacts.

### 2.6.2 National Historic Preservation Act Section 106

The site indicated for this grant project are all real property assets of the Guam Solid Waste Authority. None of these locations are identified as a site with historical significance. Since all work under this project are within a currently existing landfill, GSWA is confident that the Guam State Historic Preservation Office will be able to confidently deem that the project does not impact any historic properties upon Section 106 review.

### 3.0 Roles, Responsibilities, Resources, and Capabilities

The Guam Power Authority has the experience, know-how, and organizational infrastructure needed to execute this project. The Engineering & Technical Services Department consists of the following GPA Divisions:

- Engineering;
- Strategic Planning & Operations Division (SPORD);
- Planning & Regulatory (Environmental Compliance);
- Information/Operations Technology (IT/OT).

Sections under the Engineering Division assigned to the grant project include the Project Management and Substation Engineering Section.

The Engineering Project Management Section executes construction projects. They will execute the Landfill Capping Project.

The Engineering Substation Section is responsible for system protection design and studies, transmission line and substation design, execution of transmission and substation construction projects including design reviews. They will perform the review of the awarded Solar PV PPA contractor transmission interconnection design. They will also be responsible for the inspection and approval of the contractor's construction work.

SPORD holds the charter for renewable energy. They have bid and awarded three utility scale solar PV PPA contracts. They will be responsible for bidding the solar PV portion of this project.

Planning and Regulatory will provide oversight on the project environmental issues.

The IT/OT Division will be responsible for communications infrastructure and cybersecurity for the project.

The Guam Solid Waste Authority will be responsible for the landfill cell closure and capping specifications.

The GPA Assistant General Manager of Engineering & Technical Services will develop the strawman draft for the memorandum of agreement (MOA) between the Guam Power Authority and the Guam Solid Waste Authority for reserving the use of capped and landfill cells for renewable energy projects and for the use of portions of the GSWA Agat and Malojloj Transfer Stations for siting GPA battery energy storage systems (BESS), electric vehicle charging systems, and synchronous condensers. He and the GSWA General Manager will refine, socialize, and finalize this draft for approval and signature by GPA and GSWA's respective board of directors.

### 4.0 Location & Safety Control

Location of the proposed project will be on the island of Guam, a U.S. territory that is located in the Western North Pacific region of the Pacific Ocean. Guam is the largest and southernmost island of

the Mariana Islands. The U.S. Census Bureau recognizes Guam as a single territory with 19 municipalities as legal subdivisions. Guam has a total area of 209 square miles and a population of 153,836 according to U.S. Census Bureau 2020 (the most recent year for which data was available at the time of writing).

State:	Guam
County:	Inarajan
Congressional District:	90
Zipcode:	96915

For safety control of sites with energized assets, GPA follows the OSHA standard for The Control of Hazardous Energy (Lockout/Tagout [LOTO]) ([29 CFR 1910.147](#)). LOTO standard establishes the employer's responsibility to protect workers from hazardous energy. Employers are also required to train each worker to ensure that they know, understand, and are able to follow the applicable provisions of the hazardous energy control procedures:

- Proper lockout/tagout (LOTO) practices and procedures safeguard workers from the release of hazardous energy. The OSHA standard for The Control of Hazardous Energy (Lockout/Tagout) ([29 CFR 1910.147](#)) for general industry, outlines specific action and procedures for addressing and controlling hazardous energy during servicing and maintenance of machines and equipment. Employers are also required to train each worker to ensure that they know, understand, and are able to follow the applicable provisions of the hazardous energy control procedures. Workers must be trained in the purpose and function of the energy control program and have the knowledge and skills required for the safe application, usage and removal of the energy control devices.
- All employees who work in an area where energy control procedure(s) are utilized need to be instructed in the purpose and use of the energy control procedure(s), especially prohibition against attempting to restart or reenergize machines or other equipment that are locked or tagged out.
- All employees who are authorized to lockout machines or equipment and perform the service and maintenance operations need to be trained in recognition of applicable hazardous energy sources in the workplace, the type and magnitude of energy found in the workplace, and the means and methods of isolating and/or controlling the energy.
- Specific procedures and limitations relating to tagout systems where they are allowed.
- Retraining of all employees to maintain proficiency or introduce new or changed control methods.



GPA also has a Safety Division with staff that is dedicated to monitoring the proper use of Personal Protective Equipment, adherence to safety protocols, and administrating periodic training and

training refreshers to its staff that may be exposed to general construction and electrical hazards.

## 5.0 Conflict of Interest Disclosure

Regarding the proposed actions in the funding opportunity application, there are no existing conflicts of interests to disclose at this time. GPA agrees to disclose in writing information should there be any instances of conflict of interest during the project execution to the DOI awarding agency as soon as it is known.

We understand that failure to resolve conflicts of interest in a manner that satisfies the government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR §200.339, Remedies for noncompliance, including suspension or debarment

## 6.0 Uniform Audit Reporting Statement

Since this project asks for a funding of \$3,421,712 for the execution of this project, the GPA acknowledges that we are expending more than \$750,000 USD in Federal award funds in the applicant's fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System, in accordance with 2 CFR 200 subpart F.

GPA was not required to submit a Single Audit report for the most recently closed fiscal year.

## 7.0 Certification Regarding Lobbying

GPA certifies the statements in 43 CFR Part 18 Appendix A – Certification Regarding Lobbying:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

## 8.0 Disclosure of Lobbying Activities

GPA understands that applicants and recipients must not use any federally appropriated funds (annually appropriated or continuing appropriations) or matching funds under a Federal award to pay any person for lobbying in connection with the award. At this time, there are not lobbying activities to disclose.

### 9.0 Overlap or Duplication of Effort Statement

There are no overlaps or duplication between this application and any of our other Federal applications or funded projects, including in regards to activities, costs, or time commitment of key personnel

### 10.0 Indirect Cost Statement

GPA is a government utility under a U.S. territory that will charge all costs directly.

### 11.0 Project Support

The following contributed Letters of Support for this grant application:

- Walter Leon Guerrero, Guam Environmental Protection Agency
- Rebecca Respicio, Director, Guam Energy Office
- John M. Benavente, Guam Power Authority General Manager
- Irvin Slike, Guam Solid Waste Authority General Manager.

### 12.0 Priority Listing

	<b>Project Name</b>	<b>Requested Amount</b>
1	Reducing Negative System Impact of Solar PV to Guam's Grid: Relay Upgrade Project	\$ 4,147,019
2	Creating Synergies for Reducing Renewable Energy Project Land Siting Costs	\$3,421,712
3	Integration of Grid Controller with Automatic Generation Control to Support High Penetration of Renewable Energy	\$2,070,000
4	BEST Schools Program: University of Guam School of Business & Public Admin.	\$2,262,943
5	BEST Schools Program: Ordot Chalan Pago Elementary School	\$700,841
6	BEST Schools Program: Machananao Elementary School	\$780,161
7	BEST Schools Program: Wettengel Elementary School	\$707,902
8	BEST Schools Program: M.U. Lujan Elementary School	\$759,563

13.0 Grant Recipient

<b>Name</b>	John M. Benavente, PE
<b>Title</b>	General Manager
<b>Mailing Address</b>	Gloria B. Nelson Public Service Building 688 Route 15 Mangilao, Guam 96913-1255
<b>Phone Number</b>	(671) 648-3201
<b>Fax Number</b>	(671) 648-3167
<b>Email Address</b>	<a href="mailto:jbenavente@gpagwa.com">jbenavente@gpagwa.com</a>

#### 14.0 Recipient Grant Manager

Provided below are the day-to-day Grant Managers

<b>Name</b>	John J. Cruz Jr., PE
<b>Title</b>	Assistant General Manager
<b>Mailing Address</b>	Gloria B. Nelson Public Service Building 688 Route 15 Mangilao, Guam 96913-1255
<b>Phone Number</b>	(671) 648-3206
<b>Fax Number</b>	(671) 648-3167
<b>Email Address</b>	<a href="mailto:jcruz@gpagwa.com">jcruz@gpagwa.com</a>
<b>Name</b>	Jennifer G. Sablan, PE, CEA, CEM
<b>Title</b>	Strategic Planning & Operations Research Division (SPORD) Manager
<b>Mailing Address</b>	Gloria B. Nelson Public Service Building 688 Route 15 Mangilao, Guam 96913-1255
<b>Phone Number</b>	(671) 648-3101
<b>Fax Number</b>	(671) 648-3167
<b>Email Address</b>	<a href="mailto:jsablan@gpagwa.com">jsablan@gpagwa.com</a>
<b>Name</b>	TBD
<b>Title</b>	Manager of Engineering
	Gloria B. Nelson Public Service Building 688 Route 15 Mangilao,
<b>Phone Number</b>	(671) 648-3214
<b>Fax Number</b>	(671) 648-3167
<b>Email Address</b>	TBD

#### 15.0 Applicant Status with OIA

GPA has a long history of successful execution of federally funded assistance agreements. Notable agencies include the U.S. Department of Interior, U.S. Department of Energy. The table below summarizes the most relevant assistance agreements performed by GPA.

No.	Project Title	Agreement No.	Funding Agency and CFDA	Total Budget	Federal Share
1	Guam Power Authority - Fadian Public-Access Lot Solar PV Canopy System.	D19AP00168	Dept. of Interior 15.875	\$620,428	(Reimbursable cost) Ongoing, Expected Completion by December, 2023
2	Maria Ulloa Elementary School LED Retrofit	D19AP00169	Dept. of Interior 15.875	\$522,616	(Reimbursable cost) Completed
3	Agueda Johnston Middle School LED Retrofit	D19AP00170	Dept. of Interior 15.875	\$586,771	(Reimbursable cost) Ongoing, Expected Completion by December, 2022
4	University of Guam LED	D21AP10226-00	Dept. of	\$1,291,938	(Reimbursable cost) Ongoing, Expected

	Lighting Retrofit, HVAC Control, & Solar PV Renewable Energy Generation		Interior 15.875		Completion by December, 2023
5	Tamuning Elementary School LED Lighting Upgrades	D21AP10231-00	Dept. of Interior 15.875	\$154,526.85	(Reimbursable cost) Ongoing Expected Completion by December, 2023
6	Bucket Truck PTO Retrofit	D	US EPA 66.039		
7	Energy Engineering Training & Certification Program	D21AP10128	Dept. of Interior 15.875	\$49,550	Ongoing, Expected Project Completion December 2022
8	Brown Tree Snake Impact Research and Discovery Project	D21AP10170	Dept. of Interior 15.875	\$70,389	Ongoing, Expected Project Completion September 2023
9	Comprehensive Security Plan for Guam's Critical Energy Infrastructure	D21AP10129	Dept. of Interior 15.875	\$159,200	Ongoing, Expected Project Completion September 2023
1	Smart Grid Investment	SGID DE-OE0000252	Dept. of Energy 81.122	\$ 33,213,756	\$ 16,603,507
2	Wind Turbine Pilot	GUAM-EIC-2015-1 D15AP00028	Dept. of Interior 15.875	\$ 2,102,000	\$ 2,102,000 (Reimbursed cost) Project Completed 2017
3	Southern High School LED Retrofit	D18AP00208	Dept. of Interior 15.875	\$954,685.00	\$954,685.00 (Reimbursed cost) Project Completed August 2019
4	George Washington High School LED Retrofit	D18AP00209	Dept. of Interior 15.875	\$295,315.00	\$295,315.00 (Reimbursed cost) Project Completed August 2019



## 16.0 ASAP Identification Number

The Guam Power Authority ASAP Number: 6653012

## 17.0 Federal Assistance Standard Forms



SF424\_2\_1-V2.1.pdf



SF424A-V1.0.pdf



SF424B-V1.1.pdf

## 18.0 Appendices

<b><i>Appendix A</i></b>	<i>Guam Power Authority 2022 Integrated Resource Plan</i>
<b><i>Appendix B</i></b>	<i>Guam Public Law No.29-62 (Bill No. 166 EC)</i>
<b><i>Appendix C</i></b>	<i>Guam Public Law No.35-46 (Bill No. 80-35 COR)</i>
<b><i>Appendix D</i></b>	<i>Guam Transportation Petroleum-Use Reduction Plan (2013, NREL)</i>
<b><i>Appendix E</i></b>	<i>Guam Consolidated Commission on Utilities Resolution Approving GPA's Clean Energy Master Plan</i>