

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

IN THE MATTER OF:) GPA Docket 25-02
)
GUAM POWER AUTHORITY'S) ALJ REPORT
REPLACEMENT PITI SUBSTATION T-7)
POWER TRANSFORMER)
_____)

INTRODUCTION

1. This matter comes before the Guam Public Utilities Commission [“PUC”] upon the Guam Power Authority’s [“GPA”] Petition to Review and Approve GPA’s request to Procure Services to Design and Build the necessary Infrastructure for and Services to Install, Test and Commission a Piti Substation T-7 Power Transformer as part of the Replacement Project.¹

BACKGROUND

2. In January 2021, GPA was required to remove the Piti Substation T-7 Power Transformer from service after it experienced irreparable failure due to the deterioration of its mechanical parts and insulating components.²
3. In November 2021, GPA procured a replacement transformer for the Piti Substation and received parts, components and drawings between December 2022 and February 2023.³
4. In addition to installing the replacement transformer, the scope of work will require the construction of a new transformer pad with a secondary containment structure and the appurtenances for the installation as the existing pad was built in the 1950s and does not comply with current U.S. Environmental Protection Agency (EPA) Spill Prevention, Control, and Counter measures (SPCC) secondary containment requirements.⁴
5. The project further includes the design and construction of the transformer infrastructure to support the oil containment, the assembly and installation of the already acquired T-7 transformer and its electrical connections to the existing

¹ GPA Petition for Replacement of Piti Substation T-7 Power Transformer, GPA Docket 25-02, filed October 3, 2024.

² Id. at p. 1.

³ Id. at p. 2.

⁴ Id.

substation equipment, and the site acceptance testing and commissioning for the transformer.⁵

6. The Piti Substation is a “joint-use facility” used by both GPA and the United States Navy; however, as it remains the property of the Navy, the design and execution of the construction must comply with the United States Navy’s consent and approval terms and conditions.⁶
7. The replacement and commissioning of the transformer are expected to take up to 14 months to complete from the time of the award; the estimated cost is approximately \$2.8M.⁷
8. In Guam Consolidated Commission on Utilities GPA Resolution No. FY2024-31, the CCU authorized the GPA General Manager, subject to the review and approval of the PUC, to procure the services to design and build the necessary infrastructure for, and services to install, test and commission the Piti Substation T-7 Power Transformer as part of the Replacement Project.⁸

ANALYSIS

9. The CCU determined that the Piti Substation T-7 transformer serves critical distribution loads such as the Port Authority of Guam and as an emergency/maintenance source for the Navy T-8 power transformer distribution load.⁹
10. In a Request for Information dated October 24, 2024, the ALJ requested that GPA provide a more detailed description of the benefits and justifications for this transformer project. In its response dated October 25, 2024, GPA responded as follows:

“The Piti T-7 stepdown transformer is essential in that it is the power transformer for the GPA Piti Substation 13.8kV bus and feeders P3, P5 and P7. GPA 13.8kV P-3 feeder routes toward Cabras island and feeds the Port Authority of Guam. GPA 13.8kV P-5 feeder routes toward the Nimitz Hill area, the GPA fuel farm, GSA and

⁵ Id.

⁶ Id.

⁷ Id.

⁸ Guam Consolidated Commission on Utilities GPA Resolution No. FY2024-31, Relative to Approval for the Replacement of the Piti Substation T-7 Transformer, adopted and approved on September 25, 2024.

⁹ Id. at p. 1.

other GPA customers south of the Piti substation. GPA 13.8kV P7 feeder routes toward Anigua and feeds customers north of Piti Substation within the Piti and Asan villages. T7 transformer is also a backup to the Navy T8 transformer feeders where bus-tie breakers allow GPA and the Navy to provide support should one's transformer become off-line. Currently the Navy is supporting GPA temporarily through these back feed measures until GPA can install and commission the replacement T-7 transformer. These back feed conditions are accounted for in the consumption billing between GPA and the Navy. Also to be noted is the concern from the Navy as their backup/redundancy plan is strained with T-7 transformer off-line.”¹⁰

11. GPA seeks to procure the services of a contractor who will develop the design and project work plan, execute the construction, and perform the installation, testing and commissioning tasks associated with the replacement of the Piti Substation T-7 power transformer.¹¹
12. Attached as Exhibit “C” to GPA’s Petition is a cost breakdown for the project described as “Piti T-7 Transformer Replacement.” A true and correct copy thereof is attached hereto. It provides a breakdown for the design and construction stages of the project, at a total installation project cost of \$2,818,440.00.
13. Although the Piti T-7 Transformer is a “joint use facility” and owned by the Navy, GPA is responsible for cost of the transformer and the entire scope of work of the project. The Piti P-7 Transformer, along with the 34.5kV and 13.8kV bus and breakers, are assets to be transferred to GPA under the Utility Services Contract. That Contract allows GPA to occupy and operate GPA infrastructure.¹²
14. The design and execution of the construction must comply with the United States Navy’s consent and approval terms and conditions as follows:

“(1) Soil testing, the management of excavated soils, and the development of an approved project work plan, in accordance with the Land Use Control Decision Document for Piti Substation dated September 2011, the Time

¹⁰ Email from Marianne Woloschuk, GPA Counsel, to Fred Horecky, PUC ALJ, re: Requests for Information, GPA Docket 25-02, Piti 7 Transformed, dated October 25, 2024, at p. 2.

¹¹ Guam Consolidated Commission on Utilities GPA Resolution No. FY2024-31, Relative to Approval for the Replacement of the Piti Substation T-7 Transformer, adopted and approved on September 25, 2024, at p. 2.

¹² Email from Marianne Woloschuk, GPA Counsel, to Fred Horecky, PUC ALJ, re: Requests for Information, GPA Docket 25-02, Piti 7 Transformed, dated October 25, 2024, at p. 1.

Critical Removal Action Various Utilities document dated December 2010, and the Final Removal Site Evaluation Various Utilities document dated January 2008;


- (2) the review and approval by NAVFAC Marianas as it relates to National Historic Preservation Act Requirements;
- (3) the compliance with real estate requirements involving Unexploded Ordinance (UXO) and munitions and Explosives of Concern (MEC) as described in the Consent and Approval for Modification – Piti Substation T-7 power transformer letter dated May 5, 2022...¹³

15. The procurement of a contractor to replace the Piti Substation T-7 power transformer is necessary for the operation of the Piti 7 unit and is essential to the island-wide power system. The procurement is reasonable, prudent and necessary.

RECOMMENDATION

- 16. The Administrative Law Judge recommends that the PUC approve GPA's request to procure contractor services to design and build the necessary infrastructure for and services to install, test and commission the Piti Substation T-7 power transformer.
- 17. GPA should be authorized to expend up to the amount of \$2,818,440.00 for such project.
- 18. A proposed Order is submitted herewith for the consideration of the Commissioners.

Dated this 28th day of October, 2024.


Frederick J. Horecky
Chief Administrative Law Judge

¹³ Guam Consolidated Commission on Utilities GPA Resolution No. FY2024-31, Relative to Approval for the Replacement of the Piti Substation T-7 Transformer, adopted and approved on September 25, 2024. at p. 1.

PHI T-7 Transformer Replacement

	DESCRIPTION OF WORK	APPROVED BUDGET	LATEST ENG'G ESTIMATE	COMMITMENT TO DATE	ACTUAL EXPENDITURE	BALANCE OF APPRD BUDGET	REMARKS (STATUS OF ACTIVITY)
	Design						
1	A/E Design Development	\$300,000.00	\$300,000.00				
2	In-House Engineering	\$20,000.00	\$20,000.00				
3	EIA	\$20,000.00	\$20,000.00				
4	Advertise/Bid/Award	\$5,000.00	\$5,000.00				
	Total Design Cost	\$345,000.00	\$345,000.00				
	Owner-Furnished Equipment						
5	Power Transformer	\$1,034,968.00	\$1,034,968.00				
	Total OFE Cost	\$1,034,968.00	\$1,034,968.00				
	Construction Management						
6	Construction Engineering	\$80,000.00	\$80,000.00				
7	On-site Construction Management	\$80,000.00	\$80,000.00				
8	GPA Testing/ T&D Field Work	\$40,000.00	\$40,000.00				
9	Advertise/Bid/Award						
	Total CM Cost	\$160,000.00	\$160,000.00				
	Construction						
10	Mobilization/Demobilization	\$80,200.00	\$80,200.00				
	Site Civil Works:						
11	6" Crush Rock Surface	\$32,400.00	\$32,400.00				
12	Earthwork and Civil Improvements						
	Equipment Foundation						
13	Steel Structure	\$20,000.00	\$20,000.00				
14	Equipment Foundation	\$27,200.00	\$27,200.00				
15	Transformer Pad and Oil Containment	\$470,000.00	\$470,000.00				
	Conduit Systems / Risers						
16	34.5 kV Underground Conduits	\$102,800.00	\$102,800.00				
17	34.5 kV Riser Structure	\$87,200.00	\$87,200.00				
18	34.5 kV Riser Pole						
19	13.8 kV Underground Conduits	\$111,140.00	\$111,140.00				
20	13.8 kV Riser Structure	\$87,200.00	\$87,200.00				
21	Control and Communication Underground Conduits	\$83,300.00	\$83,300.00				
	Electrical Structure / Miscellaneous						
22	Outdoor Aluminum Tubular Bus	\$41,400.00	\$41,400.00				
	Cables and Terminations						
23	Power Cables 34.5 kV	\$82,400.00	\$82,400.00				
24	Power Cables 13.8 kV	\$158,800.00	\$158,800.00				
25	Cable Terminations 34.5kV & 13.8kV	\$29,400.00	\$29,400.00				
26	Low Voltage Control and Power Cables	\$29,400.00	\$29,400.00				
	Grounding						
27	Grounding grid and Equipment Ground	\$11,400.00	\$11,400.00				
	Switchgear Upgrades						
28	Busbars, CTe, Terminal Blocks, Test Switches, etc	\$40,000.00	\$40,000.00				
	Control Building						
29	Electrical	\$48,400.00	\$48,400.00				
30	Mechanical						
31	Structural/Civil	\$23,800.00	\$23,800.00				
32	Architectural						
	Installation of Owner-Furnished Equipment						
33	Install Power Transformer	\$121,000.00	\$121,000.00				
	Testing / Commissioning						
34	Site Acceptance Testing - Equipment	\$55,000.00	\$55,000.00				
35	Commissioning / Energization	\$10,000.00	\$10,000.00				
	Soil Mitigation / MISC / Archaeological						
36	Monitor and Test - Contaminated Soil & Resistivity	\$115,000.00	\$115,000.00				
37	Handling and Disposal of Contaminated Soil	\$400,000.00	\$400,000.00				
38	MEC	\$27,960.00	\$27,960.00				
39	Archaeological	\$32,250.00	\$32,250.00				
	Total Construction Cost	\$2,223,448.00	\$2,223,448.00				
	Training and Maintenance Equipment						
40	Transformer Maintenance Training and Certifications	\$80,000.00	\$80,000.00				
41	Phase Detection Equipment	\$10,000.00	\$10,000.00				
	Total Training and Equipment Cost	\$90,000.00	\$90,000.00				
	SUMMARY						
42	TOTAL DESIGN	\$345,000.00	\$345,000.00				
43	TOTAL OFE	\$1,034,968.00	\$1,034,968.00				
44	TOTAL CONSTRUCTION MGMT	\$160,000.00	\$160,000.00				
45	TOTAL CONSTRUCTION	\$2,223,448.00	\$2,223,448.00				
46	TOTAL MISCELLANEOUS COST	\$90,000.00	\$90,000.00				
47	TOTAL PROJECT INSTALLATION COST	\$2,818,448.00	\$2,818,448.00				

TOTAL INSTALLATION PROJECT COST	\$2,818,440.00
ALLOWED 20% OFFSET	\$563,688.00
TOTAL PROJECT COST + ALLOWED 20% OFFSET	\$3,382,128.00