BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

PETITION TO APPROVE THE ENERGY CONVERSION AGREEMENT (ECA) AMENDMENT FOR THE UKUDU POWER PLANT BY GUAM POWER AUTHORITY

GPA DOCKET 24-16

ALJ REPORT



INTRODUCTION

This matter comes before the Guam Public Utilities Commission (the "PUC" or the "Commission") pursuant to the April 9, 2024 Petition to Approve the Energy Conversion Agreement (ECA) Amendment for the Ukudu Power Plant (the "Petition"), filed by the Guam Power Authority ("GPA").

BACKGROUND

In November 5, 2019, an ECA was entered into between GPA and Guam Ukudu Power, LLC ("GUP") for the construction, operation, and eventual transfer of the new 198MW power plant located in Ukudu, Dededo. As indicated in an Order issued in GPA Docket 19-13, "the PUC has been intricately involved in reviewing GPA's plans for generation capacity and a New Power Plant"; and that the "PUC has worked with GPA in the development of [this new plant], the procurement process, the procurement forms, the technical specifications for the Plant, the land siting of the Plant, pipeline improvements, and numerous other aspects." Indeed, "[t]he record establishes that the PUC has conducted an extensive review of GPA's plans for a New Power Plant over the last 10 years."

¹ Petition, p. 1.

² Order, GPA Docket 19-13, p. 1 (Oct. 31, 2019).

³ Order, GPA Docket 19-13, p. 2.

Part of the PUC's review included its examination of the ECA between GPA and GUP, or KEPCO at that time.⁴ The PUC therefore, through its review, approved the proposed Fixed Capacity, Fixed Operation and Maintenance, Variable Operation and Maintenance, and Fuel charges and costs.⁵

Subsequently, on February 25, 2021, GPA requested PUC approval of certain proposed amendments to the ECA. In particular, the PUC approved the elimination of a 65MW diesel reserve facility at Ukudu, replaced instead with a 41MW diesel reserve facility at Cabras; and rescheduling the Commercial Operation Date from October 31, 2022 to April 2024, with a November 30, 2023 target date.⁶

On February 23, 2023, the PUC approved the total cancelation of the Cabras 41MW Reserve Facility based on a substantial increase of the cost of such facility.⁷ The PUC further required GPA to file an amended ECA reflecting the cancelation of the Reserve Facility.⁸

DISCUSSION

A. Contract Review Protocol

Pursuant to 12 G.C.A. §12105, GPA may not enter into any contractual agreements or obligations which could increase rates and charges without the PUC's express approval. Furthermore, GPA's Contract Review Protocol requires that "[a]ll professional service

Order, GPA Docket 19-13, p. 3.

⁵ Order, GPA Docket 19-13, p. 3.

⁶ Order, GPA Docket 21-07, p. 11 (Feb. 25, 2021).

Order, GPA Docket 23-07, p. 7 (Feb. 23, 2023).

⁸ Order, GPA Docket 23-07, p. 7.

procurements in excess of \$1,500,000" require "prior PUC approval . . . which shall be obtained before the procurement process is begun."9

B. GPA's Request for Approval of Certain Amendments to the ECA

As indicated in its Petition, GPA requests approval of amendments made to the ECA. It has submitted with its Petition a proposed Third Amended and Restated Energy Conversion Agreement for PUC review.

Specifically, GPA submits that a change in law regarding the National Pollutant Discharge Elimination System ("NPDES") permit for GWA, issued by the U.S. E.P.A., now requires GWA to treat spent cooling water for phosphate removal in order for it to comply with its NPDES permit. GPA contends that it must now compensate GUP for the construction cost of \$2,732,123 and about \$100,000 annually for operation costs associated with the GUP's treatment of phosphate. 11

In addition, while GPA intended on building a diesel Reserve Facility at Cabras, instead of at Ukudu, the costs associated with constructing such facility increased from \$57 million to \$97 million. Due to this significant increase in the cost of new diesel engines, GPA requested approval to eliminate the 41MW Reserve Facility altogether, which the PUC approved in GPA Docket 23-07.

GPA submits that from a total of \$21.8 million in costs already extended to the planning and construction of the Reserve Facility as lodged by GUP, GPA has determined that it

⁹ GPA's Contract Review Protocol ("GPA CRP"), Administrative Docket 00-04, p. 1 (Feb. 15, 2008) (emphasis in original).

Petition, pp. 1-2.

Petition, p. 2.

reasonably owes GUP \$6,559,205 for these costs.¹² GPA further submits that it will reimburse such costs through the adjustment of the Fixed Capacity Charge.¹³ Accordingly, this Third Amended ECA contains the broad deletion of references to a Reserve Facility.

Moreover, GPA maintains that as result of Typhoon Mawar's destructive winds in May of 2023, the Ukudu Power Plant sustained significant damage, which required demolition, repairs to, and replacement of, water and fuel tanks throughout the plant. Consequently, GPA negotiated a new Commercial Operation Date with GUP, amending this date to September 30, 2025.

Further, as an incentive for GUP to bring the plant online by that date, GPA has agreed to pay GUP \$4,000,000 as an accelerated cost payment if GUP is able to commercially operate on or before September 30, 2025. According to GPA, any such accelerated cost payment shall be funded through an adjustment of the Fixed Capacity Charge or through a Supplemental Charge. Otherwise, if the Commercial Operation Date occurs on a date after September 30, 2025, then GPA is entitled to liquidated damages, at a cost of \$240,000 per day.

Additionally, in line with accelerating this new Commercial Operation Date, the parties have agreed that GPA will provide the "First Fill" requirement, which GUP was originally

¹² Petition, pp. 2-3.

Petition, p. 3.

required to provide.¹⁹ Under this new arrangement, GUP will repay GPA the cost of this First Fill "in monthly payments over a seven-year payback period with no interest."²⁰

GPA has also agreed to fund a backup water supply pipeline, which is estimated at \$1,807,503 for the construction of the additional pipeline.²¹ This additional cost will be funded through a recalculation of the Fixed Capacity Charge.²² All other components, responsibilities, and provisions contained in the ECA remain unchanged.

1. <u>Costs Related to the New NPDES Requirement and Elimination of the Reserve Facility</u>

GPA submits that the Ukudu Power Plant is required to treat spent cooling water for phosphate removal under GWA's NPDES permit. GPA has agreed to compensate GUP the amount of \$2,732,123 for construction costs related to this NPDES requirement, as well as an estimated \$100,000 annually for the phosphate treatment system. These costs will be tied to the Fixed Capacity Charge, as well as the Fixed and Variable Operations and Maintenance costs.²³

With respect to the Reserve Facility costs, according to GPA, certain events led to the cancelation of the construction of a Reserve Facility. The most substantial event, according to GPA, was once the Reserve Facility was allowed to be constructed in Piti by the Guam Legislature, the estimate for the construction of the diesel generators for the Reserve Facility increased from \$57 million to \$97 million.²⁴ This significant increase in cost was prohibitive

¹⁹ Petition, pp. 3-4.

Petition, pp. 3-4.

Petition, p. 4.

Petition, p. 4.

See ECA "Schedule 4", pp. 9-12, attached.

²⁴ GPA Resolution No. FY2024-17, pp. 1-2 (Mar. 26, 2024).

enough for GPA to fully cancel the construction of the Reserve Facility.²⁵ Indeed, the last section of the ECA formally memorializes the parties' cancelation of the Reserve Facility. Specifically, the provision indicates that the scope of this particular project is eliminated and that all obligations of the parties as to the Reserve Facility are terminated.

Owing to costs related to the Reserve Facility, GUP submitted a claim to GPA that it incurred a total of \$2.53 million in work related to the Reserve Facility. This cost is comprised of about \$960,000.00 in legal fees; \$440,000.00 in environmental advisory fees; and \$1.12 million in land surveyor and title insurance fees. GUP submitted additional claims to GPA: such as compensation for costs related to compliance with unanticipated permitting conditions, costs related to Heavy Haul permit delays, and costs due to a pipeline construction delay. The amount for these claims totaled about \$21.76 million. After months of negotiations, GPA maintains that it has reviewed these claims and has determined that GUP is owed \$6,559,205. GPA submits that compensation for these expenses are appropriate through the Fixed Capacity Charge, which will be adjusted to account for these expenses.

2. Revised Commercial Operation Date and First Fill Payment Delay

According to GPA, the damaging winds of Typhoon Mawar in May of 2023 caused significant damage to the Ukudu Power Plant, which required some demolition and rebuilding of

²⁵ GPA Resolution No. FY2024-17, p. 2 (Mar. 26, 2024).

GUP Letter to GPA, Re: Request for Cost Compensation and Scheduling Accommodation, pp. 3-4 (Apr. 7, 2023).

GUP Letter to GPA, Re: Request for Cost Compensation and Scheduling Accommodation, pp. 3-4 (Apr. 7, 2023).

²⁸ GUP Letter to GPA, Re: Request for Cost Compensation and Scheduling Accommodation, pp. 4-8 (Apr. 7, 2023); See also GPA Resolution No. FY2024-17, p. 2 (Mar. 26, 2024).

⁹ GPA Resolution No. FY2024-17, p. 2 (Mar. 26, 2024).

³⁰ GPA Resolution No. FY2024-17, p. 2 (Mar. 26, 2024); See ECA "Schedule 4", pp. 9-12, attached.

water and fuel tanks, along with repairs to other parts of the power plant, including significant delays to the construction schedules.³¹ GUP submitted a request to GPA for additional compensation to lessen project delays. Due to these circumstances, and after a few months of negotiations, GUP and GPA agreed on a new Commercial Operation Date: September 30, 2025.³²

As part of this agreement, GPA indicates that it will compensate GUP \$4 million to essentially accelerate its completion of the power plant by September 30, 2025. If GUP completes the power plant by September 15, 2025, GPA has agreed to add an additional \$1 million, on top of the \$4 million, as part of the acceleration payment. Otherwise, the proposed amended liquidated damages provision allows GPA to immediately assess a liquidated damages fee of \$240,000 per day beyond September 30, 2025. Any applicable acceleration fees will be covered by an adjustment to the Fixed Capacity Charge, which is identified as a "Performance Incentive." GPA submits that the acceleration of operations of the Ukudu Power Plant by four (4) months would "provide the reliable power sooner but also provide a net fuel savings of approximately \$13.7 million."

With respect to the provisions regarding the procurement and delivery of fuel required for start up, testing and commissioning, under Section 3.3.2 of the ECA, the parties have agreed that GPA will pay for the cost of the "First Fill" of Ultra-low Sulfur Diesel fuel in an amount equal to

Petition, p. 3.

Petition, p. 3.

³³ GPA Resolution No. FY2024-17, p. 2.

GPA Resolution No. FY2024-17, p. 2.

³⁵ GPA Resolution No. FY2024-17, p. 2.

³⁶ See ECA "Schedule 4", pp. 9-12, attached.

GPA Resolution No. FY2024-17, p. 2.

the amount of fuel necessary to operate the plant for at least 30 days. Accordingly, the parties have agreed to modify this provision to require that GUP reimburse GPA for the cost of this "First Fill" (without markup or interest). In particular, the parties modified this provision such that GUP will reimburse GPA for this First Fill "in equal monthly installments during the first seven (7) years of the Commercial Operation Period either by making monthly payments to GPA or by deducting the monthly installment amount from monthly invoices issued to GPA." GPA submits that its provision of this First Fill is meant to further support GUP's efforts to accelerate the completion of the Ukudu Power Plant.³⁸

CONCLUSION AND RECOMMENDATION

As indicated above, "the PUC has been intricately involved in reviewing GPA's plans for generation capacity and a New Power Plant"; and "[t]he record establishes that the PUC has conducted an extensive review of GPA's plans for a New Power Plant over the last 10 years." It is clear that the PUC has supported the commissioning of the Ukudu Power Plant and that its support of this huge endeavor has never wavered. Unfortunately, with construction projects of this scale, there have been some setbacks, which were noted in the record, but most significantly, the very damaging effects of Typhoon Mawar back in May of 2023. This led to some necessary amendments to the ECA which require PUC approval. The record reflects that the parties have negotiated in good faith in settling certain differences.

The additional costs sustained as a result of the issues noted in this docket appear to pale in comparison to the cost savings that GPA estimates it will achieve once the Ukudu Power Plant is in operation. Therefore, the commissioning of the Ukudu Power Plant, sooner rather than

GPA Resolution No. FY2024-17, p. 3.

³⁹ Order, GPA Docket 19-13, p. 2.

later, will indeed benefit ratepayers long-term. Further, the impact of such costs is reflected in

the proposed amended "Schedule 4, Determination of Tariff" to the ECA. As shown in Schedule

4, the yearly Fixed Capacity Charge will be reduced by 4.348% owing to the elimination of the

Reserve Facility.

Accordingly, based on the documentation provided by GPA in this docket, and for the

other reasons set forth herein, the ALJ recommends that the PUC approve GPA's Petition. GPA

should be authorized to amend the ECA, which should include adjusting the Fixed Capacity

Charge and Fixed and Variable O&M Charges to compensate GUP for the claims raised, and

resolved between the parties, related to additional work and to accelerate the operation date of

the Ukudu Power Plant. Accordingly, the proposed Third Amended ECA between GPA and

GUP should be approved. A proposed Order for the PUC is attached hereto for the PUC's

consideration.

Dated this 23rd day of July, 2024.

JOEPHET R. ALCANTARA

Administrative Law Judge

P243013.JRA

SCHEDULE 4

DETERMINATION OF TARIFF

1 Introduction and Definitions

- 1 This Schedule 4 shall be read in conjunction with, and is subject to, the provisions of the ECA of which this Schedule 4 is a part. To the extent that any provision of this Schedule 4 is inconsistent with any provision of the ECA, the provision of the ECA shall prevail. References to Articles and Sections are to Articles and Sections of this Schedule 4 unless indicated otherwise. References to Tables and Annexes are to the Tables and Annexes to this Schedule 4.
- 2 Payments to be made under the ECA shall be calculated in accordance with this Schedule 4 and adjusted as provided herein.
- 3 The procedures for the presentation and payment of invoices as set out in Article 13 of the ECA shall apply to all invoices referred to in this Schedule 4.

1.1 Definitions -

Capitalized terms used and not defined herein shall have the meaning set forth in the ECA. Without prejudice to the generality of Section 1.1, for the purposes of this Schedule 4 the following words and phrases shall bear the meanings ascribed thereto:

"Capacity Charge" has the meaning set forth in Section 3 below.

"Energy Charge" has the meaning set forth in Section 4 below.

"Fixed Capacity Charge" means the charge in respect of the Facility calculated in accordance with paragraph 3.1 of Section 3 below

"Fixed Operations and Maintenance Charge"_means the charge in respect of the Facility described in Section 3.2 below.

"Fixed Operations and Maintenance Charge Reserve Facility" means the charge in respect of the Reserve Facility calculated in accordance with Section 3.3 below.

"Fuel Charge" means the charge calculated in accordance with paragraph 4.2 of Section 4 below.

"Variable Operations and Maintenance Charge" means the charge calculated in accordance with paragraph 4.1 of Section 4 below.

"Variable Operations and Maintenance Charge Reserve Facility" means the charge in respect of the Reserve Facility calculated in accordance with Section 4.1 below.

"Supplemental Charge" has the meaning set forth in Section 5 below.

"Index"_means the US Bureau of Labor Statistics, Current Employment Statistics, transportation and public utilities, average hourly wages of production workers, CES4422000008. The index to be used for preparing invoices in accordance with Article 13 of the ECA in any Contract Year shall be the index published closest to the date preceding third month.

"Index on Reference Date" means 36.84.

"Reference Date" - is the Bid Date which is April 2nd 2019.

5 Supplemental Charges

- (a) Supplemental Charges include any costs due under Article 16 of the ECA.
- (b) The Supplemental Charge (i) below that will beis applicable in respect of the installation of the phosphate removal facility resulting from a Change in Law.
- (c) The Supplemental Charges (ii) through (v) below are for costs associated with the cancellation of the Reserve Facility and delays in permitting, the installation of the back-up potable waterline, and the addition of performance incentives is are as follows:
- (b)(d) For the avoidance of doubt, the Supplemental Charges (i) through (v) listed in this Section 5 shall be based on 198,000kW for the calculation of total payment of Capex(FCC) and Opex(FOMC) in the monthly invoice.

Item	Capex(FCC)	Opex(FOMC)	Opex(VOMC)
(i)_Phosphate removal system	\$0.0994/kW-Month	\$0.009816/kW- Month	\$0.000056/kWh
(ii) Cost associated with the cancellation of the Reserve Facility and delays in permitting	\$ 0.2386 0.2320/kW- Month	*	
(iii)Back-up Potable Waterline	\$0.06580.0639/kW- Month	- **	
(iv)Performance Incentive, if COD is on or before September 30, 2025 the Required Commercial Operation Date	\$0.14560.1244/kW- Month		
(v) Additional Performance Incentive, if COD is on or before 15 days prior to the Required Commercial Operation DateSeptember 15, 2025	\$0.03640.0311/kW- Month		

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Agreement Period	Annual Availability (秀)	Guaranteed Maximum Total Outage Hours (h)
Contract Year 24	93.40	578.35
Contract Year 25	95.03	435.35
Average	94.00	525.27

*Note: This Table A.2 above is calculated based on the diesel engine unit of the Reserve Facility operating for 2,600 hours per year. If the annual operating hours are increased, a formula for the impact of the availability due to the increase in operating hour shall be developed in consultation with GPA and adjusted accordingly according to the maintenance intervals and periods recommended by the manufacturer.

The unavailability of Dependable Capacity in respect of the Reserve Facility in whole or in-part due to compliance with Emission Limits shall not be considered as Outage Hours.

A.1 Capacity Charge

A.1.1 Fixed Capacity Charge

Table A.3: Fixed Capacity Charge

Agreement Period	Fixed Capacity Charge (USD/kW/month)
Contract Year 1	<u>16.0265</u> 16.7550
Contract Year 2	<u>16.0265</u> 16.7550
Contract Year 3	<u>16.0265</u> 1 6.7550
Contract Year 4	<u>16.0265</u> 16.7550
Contract Year 5	<u>16.0265</u> 1 6.7550
Contract Year 6	<u>16.0265</u> 1 6.7550
Contract Year 7	<u>16.0265</u> 16.7550
Contract Year 8	<u>16.0265</u> 16.7550
Contract Year 9	17.1659 16.4195
Contract Year 10	18.8825 <u>18.0615</u>
Contract Year 11	20.7707 19.8676
Contract Year 12	22.8478 21.8544
Contract Year 13	25.1325 24.0397
Contract Year 14	<u>24.0397</u> 25.1325
Contract Year 15	<u>24.0397</u> 25.1325
Contract Year 16	<u>24.039725.1325</u>
Contract Year 17	24.0397 _{25.1325}
Contract Year 18	24.0397 <u>25.1325</u>
Contract Year 19	<u>24.0397</u> 25.1325
Contract Year 20	24.0397 25.1325
Contract Year 21	24.0397 <u>25.1325</u>
Contract Year 22	24.0397 <u>25.1325</u>

Comment [SS1]: Reduced by 4.348% as per the side letter dated January 31, 2023

Agreement Period	Fixed Capacity Charge (USD/kW/month)	
Contract Year 23	24.0397 25.1325	
Contract Year 24	24.0397 <u>25.1325</u>	
Contract Year 25	24.0397 <u>25.1325</u>	

A.1.2 Fixed Operation and Maintenance Charge

Table A.4: Fixed Operation and Maintenance Charge

Table A.T. Tixes operation and maintenance charge		
Agreement Period	FOMC on ULSD (USD/kW/Month)	FOMC on Natural Gas (USD/kW/Month)
Commercial Operation Date through end of the Term (Facility)	11.5246	7.5735

Table A.5: Fixed Operation and Maintenance Charge Reserve Facility

Commercial Operation Date	166,667	N/A	
through end of the Term			

A.2 Energy Charge

A.2.1 Variable Operation and Maintenance Charge

Table A.6: Variable Operation and Maintenance Charge and Variable Operation and Maintenance Charge Reserve Facility

Agreement Period	VOMC on ULSD (USD/kWh)	VOMC on Natural Gas (USD/kWh)
Commercial Operation Date through end of the Term (Facility)(VOMC)	0.0016	0.0015
Commercial Operation Date Reserve Facility through end of the Term (Reserve Facility)(Variable Operation and Maintenance Charge Reserve Facility)	0.025	N/A

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A.2.2 Fuel Charge for Simple Cycle Operation Mode

A.2.2.1 Guaranteed Heat Rates for Simple Cycle Operation on USLD

Table A.7: Guaranteed Heat Rate for Simple Cycle Operation on ULSD at Site Reference Conditions

Percent of Dependable Capacity Guaranteed Heat Rate (HHV) (Btu/kWh)