

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION



IN THE MATTER OF: ) GPA Docket 21-06  
)  
The Application of the Guam Power )  
Authority to Approve the Piti 8 & 9 ) **ALJ REPORT**  
Contract for Conversion to ULSD with )  
Marianas Energy Company. )  
\_\_\_\_\_ )

**INTRODUCTION**

This matter comes before the Guam Public Utilities Commission ["PUC"] upon the Guam Power Authority ["GPA"] Petition to Approve the Piti 8&9 Contract for Conversion to Ultra Low Sulphur Diesel ["ULSD"] with Marianas Energy Company ["MEC"].<sup>1</sup> Ownership of the Piti 8&9 Units was transferred from MEC to GPA on January 29, 2019. MEC is currently the Performance Management Contractor for Piti 8&9 under the Energy Conversion Agreement until January 29, 2024.<sup>2</sup> GPA is required to convert the Piti 8&9 plant to ULSD by December 31, 2021, pursuant to the Consent Decree ordered by the District Court of Guam.<sup>3</sup>

**BACKGROUND**

A. Prior PUC Actions

On December 5, 2019, in GPA Docket 20-01, the PUC approved the Consent Decree between GPA and the United States Environmental Protection Agency ["USEPA"].<sup>4</sup>

The Consent Decree between GPA and USEPA sought to resolve various alleged

<sup>1</sup> GPA Petition to Approve the Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company, GPA Docket 21-06, filed February 4, 2021.

<sup>2</sup> Guam Consolidated Commission on Utilities, GPA Resolution No. 2021-01, Relative to Authorizing the Guam Power Authority to Convert the Piti 8&9 Slow-Speed Diesel Units to Burn Ultra-Low Sulfur Diesel Fuel, adopted and approved on January 26, 2021, at p. 1.

<sup>3</sup> GPA Petition to Approve the Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company, GPA Docket 21-06, filed February 4, 2021, at p. 1.

<sup>4</sup> PUC Order, GPA Docket 20-01, dated December 5, 2019, at p. 6.

environmental violations concerning air emissions of GPA's plants.<sup>5</sup> With regard to Piti Units 8&9, the Consent Decree ordered that GPA complete the installation of oxidation catalysts at Piti Units 8&9 and use only ULSD as a fuel to power said units. GPA was required to convert Piti 8&9 units to ULSD no later than December 31, 2021.<sup>6</sup>

On July 10, 2020, GPA filed a Petition with the PUC, in GPA Docket 20-16, to Retire the Piti 8&9 units.<sup>7</sup> GPA contended that it would be cost effective to retire the Piti 8&9 units upon the commissioning of the new Ukudu 198MW power plant. Other plants, such as the Aggreko Plant, and the new renewable plants which would come online were more efficient. GPA had requested that USEPA modify the consent decree to allow Piti 8&9 to be retired upon the commissioning of the new 198MW Ukudu plant.<sup>8</sup>

On April 20, 2020, the District Court of Guam issued the Consent Decree, which ordered GPA to convert the Piti 8&9 plants to ULSD.<sup>9</sup> In its Order in GPA Docket 20-16, the PUC declined to act on GPA's petition. Based upon principles of deference to the Federal Order, the PUC ordered that GPA should first seek modification of the Consent Decree to allow for the retirement of the Piti plants, including any necessary court approval of the proposed modification.<sup>10</sup>

---

<sup>5</sup> Id., at p. 2.

<sup>6</sup> GPA Summary of Proposed Settlement Agreement between Guam Power Authority and the U.S. Environmental Protection Agency to Resolve Clean Air Act Violations alleged at the Cabras and Piti Units, prepared for the Consolidated Commission on Utilities, October 2019.

<sup>7</sup> GPA Petition Requesting to Retire Piti 8&9 Units, GPA Docket 20-16, dated July 10, 2020.

<sup>8</sup> GPA Petition to Approve the Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company, GPA Docket 21-06, filed February 4, 2021, at p. 1.

<sup>9</sup> United States of America, Plaintiff v. Guam Power Authority and Marianas Energy Corporation, LLC., Defendants, Consent Decree, Case No. 1:20-cv-0007.

<sup>10</sup> PUC Order, GPA Docket 20-16, dated September 24, 2020, at p. 10.

B. GPA's Current Position on Conversion of the Piti Plants

GPA has now determined that because of the USEPA's National Ambient Air Quality Standards ["NAAQS"], which are effective April 2023, conversion to ULSD is required. It now appears that the 198MW plant will not be commissioned until April 2024. GPA never sought to retire Piti 8&9 until the new power plant was commissioned: "It is very unlikely USEPA would agree to amend the consent decree to allow retirement of Piti when conversion allows it to meet April 2023 regulations. Furthermore, to meet April 2023 standards, GPA would have to burn a substantially costlier 0.2% S RFO which would have resulted in higher fuel costs for ratepayers. The conversion of Piti to ULSD and the utilization of 0.2% S at Cabras provided the cheaper alternative."<sup>11</sup> Burning ULSD at Piti and 0.2% s at Cabras would meet the USEPA standards and would cost about \$51M less.<sup>12</sup>

C. CCU Resolution No. 2021-01

The Guam Consolidated Commission on Utilities, in Resolution No. 2021-01, approved GPA's request to contract with Marianas Energy Company for the Conversion of the Piti 8&9 plants to ULSD.<sup>13</sup> The CCU determined that the 88MW capacity provided by the Piti Plants to the island-wide power system was "crucial in ensuring that GPA is able to provide the required energy for the island between now and the commissioning of the new 198-MW Ukudu Power Plant..."<sup>14</sup> The CCU resolution stated: "...as a result of the delay of the commissioning date of the new Ukudu power plant due to

---

<sup>11</sup> GPA Responses to PUC Requests for Information, GPA Docket 21-06, dated February 15, 2021, Response No. 3.

<sup>12</sup> Id., Response No. 8, at p. 3.

<sup>13</sup> GPA Petition to Approve the Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company, GPA Docket 21-06, filed February 4, 2021.

<sup>14</sup> Guam Consolidated Commission on Utilities, GPA Resolution No. 2021-01, Relative to Authorizing the Guam Power Authority to Convert the Piti 8&9 Slow-Speed Diesel Units to Burn Ultra-Low Sulfur Diesel Fuel, adopted and approved on January 26, 2021.

COVID-19 and permitting issues, and USEPA's new National Ambient Air Quality Standards (NAAQS) effective April 2023, GPA determined that in order to comply with April 2023 NAAQS, the Piti 8&9 plant capacity burning low sulfur residual fuel oil would need to be limited by as much as 20% which would have a significant impact on system reliability..."<sup>15</sup>.

The CCU further indicated that such reduction in system capacity would negatively impact system reliability beginning in April 2023 and continuing until the Ukudu power plant was commissioned. To ensure system reliability, GPA was authorized to proceed with converting Piti 8&9 to ULSD, thereby achieving compliance with both the RICE NESHAP and April 2023 NAAQS without impacting system reliability.<sup>16</sup>

GPA was authorized to contract with MEC for the conversion of the Piti 8&9 units to burn Ultra Low Sulfur Diesel fuel at a cost of \$14,141,045.28 with a project completion date of 15 months after contract signing. GPA was required to fund the conversion with Cabras 3&4 insurance proceeds.<sup>17</sup>

#### D. 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 procurements in excess of \$1,500,000" require "prior PUC approval. . . which shall be obtained before the procurement process is begun." The cost of conversion to ULSD, \$14,141,045.28, exceeds the contract review threshold, thus requiring PUC review.

---

<sup>15</sup> Id., at p. 1.

<sup>16</sup> Id., at pgs. 1-2.

<sup>17</sup> Id., at p. 2.

A draft copy of the Contract for Services between GPA and MEC is attached hereto as Exhibit "1". The Proposals of Marianas Energy Company and BWSC (Burmeister & Wain Scandinavian Contractor A/S), are attached hereto collectively as Exhibit "2". BWSC was involved in the construction and operation of the Piti 8&9 plants since their inception.

### ANALYSIS

- A. The Consent Decree requires that the PUC approve the conversion of the Piti 8&9 plants to ULSD.

One could theoretically examine issues concerning the conversion of the Piti plants to ULSD, such as cost, justification, and necessity. However, the overriding consideration is that, in the Consent Decree, the District Court of Guam has ordered GPA to convert the Piti plants to ULSD. Based upon the Decree, there is no issue but that GPA must convert the Piti plants to ULSD. The PUC approved the Consent Decree in GPA Docket 20-01. As was the case in GPA Docket 20-16, it would be beyond the powers of the PUC to order a result contrary to that contained in the Consent Decree.

In GPA Docket 20-16, the ALJ Report explored various reasons why the PUC is obligated to uphold the Consent Decree. Such a Decree of a court does bind non-parties to the action. In general, a Consent Decree of a Federal Court would "prevail" over the "order of any administrative body" of the state. "Federal Preemption" bars any state or local action which is contrary to a Federal Order.<sup>18</sup>

---

<sup>18</sup> See ALJ Report, GPA Docket 20-16, dated September 18, 2020, at p. 9.

B. GPA has provided a justification for the necessity of converting the Piti Plants to ULSD.

In this Docket, the ALJ issued various Requests for Information to GPA. A copy of GPA's Responses to the RFIs are attached hereto as Exhibit "3".<sup>19</sup>

Conversion of the Piti 8&9 plants is the only means by which GPA can comply with applicable air emission standards. As indicated in the Consent Decree, conversion of such plants to ULSD was necessary to rectify violations by GPA of the National Emission Standards for Hazardous Air Pollutants (NESHAP). A particular concern with regard to GPA's plants is sulfur and carbon emissions. Piti 8&9 must comply with the requirements of both NAAQS for SO<sub>2</sub> and NESHAP for Carbon Monoxide, CO. The conversion of Piti 8&9 to ULSD will attain both SO<sub>2</sub> and CO emission requirements.<sup>20</sup>

GPA initially believed that the new 198 MW plant would be in operation by October 2022. Had that date been met, GPA could have retired the Piti Plants before the deadline for compliance with the April 2023 NAAQS standards. However, with the delays to the construction of the new power plant, it is unlikely that USEPA will consent to the retirement of the Piti 8&9 plants. USEPA is unlikely to provide further consideration on delays to meet standards beyond April 2023, particularly when the

---

<sup>19</sup> GPA's Response to PUC Requests for Information, Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company, GPA Docket 21-06, filed February 15, 2021 (Exhibit "3" hereto).

<sup>20</sup> Id., Response No. 5, at p. 2.

conversion of Piti to ULSD will allow it to meet the 2023 NAAQS.<sup>21</sup> GPA further states that “USEPA is taking a firm stance on enforcing the April 2023 standards.”<sup>22</sup>

GPA was previously required to be in compliance with the 1-hour SO<sub>2</sub> NAAQS Standard by December 31, 2017. It is now required to show compliance through modeling emissions between January 1- December 31, 2022. By April 2023, GPA must submit a Final Report to USEPA to show that Guam is in full compliance.<sup>23</sup> TRC prepared a report for GPA in January of 2021 titled “SO<sub>2</sub> State Implementation Plan (SIP), Modeling Report for the Guam Power Authority.”<sup>24</sup> TRC reviewed GPA’s plan to convert Piti Units 7, 8, and 9 to Ultra-Low Sulfur Diesel. The study found that the conversion plan of GPA results in emissions within the SO<sub>2</sub> of the NAAQS requirements.<sup>25</sup>

The likely delay in the commissioning of the new power plant until 2024 has substantially affected GPA’s position on Piti plant retirement. Retirement is not possible at the present time. Now, the USEPA April 2023 deadline to meet the NAAQS 1-hour standards for sulfur required GPA to look at an alternative to retirement. GPA has determined that burning ULSD at Piti will meet USEPA standards. If for any reason there are further delays of the operation of the Ukudu plant, Piti 8&9 would not be subject to potential penalties under the Consent Decree.<sup>26</sup>

---

<sup>21</sup> Id., Response No. 6, at p. 2.

<sup>22</sup> Id., Response No. 5, at p. 2.

<sup>23</sup> Id., Response No. 6, at p. 2.

<sup>24</sup> TRC, SO<sub>2</sub> State Implementation Plan (SIP), Modeling Report for the Guam Power Authority, January 2021.

<sup>25</sup> Id., at p. 14.

<sup>26</sup> GPA’s Response to PUC Requests for Information, Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company, GPA Docket 21-06, filed February 15, 2021 (Exhibit “3” hereto), Response No. 8, at p. 3.

As previously indicated, GPA had determined that, to comply with the April 2023 NAAQS, the Piti 8&9 plant capacity burning low sulfur residual fuel oil would need to be limited by as much as 20%.<sup>27</sup> The reduction of loss of capacity to the Piti plants would make it difficult, if not impossible, for GPA to meet its reserve requirements.<sup>28</sup>

- C. The Consent Decree requires GPA to incur the Cost of Converting Piti 8&9 to ULSD; GPA has undertaken reasonable efforts to minimize the cost of conversion.

Clearly, the cost of conversion – a \$14M price tag - is not inexpensive. However, pursuant to the Consent Decree, conversion must be accomplished. It does appear that GPA has been successful in reducing the conversion costs. When the possibility of conversion was first mentioned two or three years ago, GPA had placed a price tag of as high as \$30M upon conversion of Piti 8&9 to ULSD. More recently, in GPA Docket 20-16, GPA indicated that the total ULSD Conversion Contract Price was \$20,645,925. MEC took the position that the total ULSD Conversion Contract Price would be \$15.75M.<sup>29</sup>

Now, as a final figure, the agreed upon conversion price between GPA and MEC is \$14,141,045.28. GPA has been prudent in attempting to reduce the price of this project. The conversion costs will be paid for from the Cabras 3&4 Insurance Funds. The initial funds resulting from the Cabras 3&4 explosions was over \$125M.<sup>30</sup> It now appears that the Balance of insurance funds, \$14.474M, would be barely sufficient to pay the costs of

---

<sup>27</sup> Guam Consolidated Commission on Utilities Resolution No. 2021-01, at p. 1.

<sup>28</sup> GPA Response to PUC RFIs, Response No. 12, at p. 4.

<sup>29</sup> Piti (MEC) 8&9 ULSD Conversion (Consent Decree Requirement), prepared by GPA for CCU Commissioners, June 18, 2020.

<sup>30</sup> Guam Consolidated Commission on Utilities Resolution No. 2021-01, at p. 2.

the conversion project. Attached hereto as Exhibit "4" is a Summary of the Balance of the Cabras 3&4 Insurance Proceeds.<sup>31</sup>

D. PUC Approval should be conditioned upon USEPA's Acceptance of Revised Timelines for such Conversion.

GPA has been unable to meet deadlines stated in the Consent Decree for conversion of the Piti 8&9 plants. The consent decree indicates that, by March 1, 2020, GPA was required to submit applications for all permits and approvals necessary to accomplish the ULSD conversion and to install oxidation catalysts. It was also required by July 1, 2020 to enter a binding contract for performance of all work necessary to accomplish the conversion and the installation of oxidation catalysts. It was unable to meet those deadlines due to reasons beyond its control. Finally, the Consent Decree still currently indicates that the installation of the oxidation catalysts at Piti 8&9, as well as the conversion to ULSD, was required to be completed by December 31, 2021.<sup>32</sup>

GPA indicates that there have been "amicable discussions" with USEPA for a change in the timelines to reflect a March 31, 2021 deadline for the completion of the contract for conversion, and for conversion to be completed by August 31, 2022. To date there has been no written approval from USEPA. Negotiations will continue on these matters. There have been delays in the fuel tank rehabilitation (for the storage of ULSD) due to COVID-19 issues. GPA will continue negotiations which may not be resolved for

---

<sup>31</sup> GPA's Response to PUC Requests for Information, Response No. 15 (RFL.15.Insurance fund balance-summary 2-11-21) at p. 5.

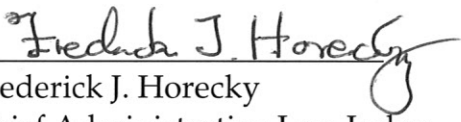
<sup>32</sup> Piti (MEC) 8&9 ULSD Conversion (Consent Decree Requirement) prepared by GPA for CCU Commissioners, June 18, 2020, at p. 9.

several more months.<sup>33</sup> PUC should condition its approval for conversion upon agreement between GPA and USEPA regarding the applicable timelines, the revision of the Consent Decree, and approval of the District Court of Guam.

### **RECOMMENDATION**

Based upon the record before the Commission, and the review conducted herein, the Administrative Law Judge recommends that the PUC approve the Piti 8&9 Contract for Conversion to ULSD with Marianas Energy Company. GPA should expeditiously work with USEPA to make the required changes in the timelines for the completion of the installation of oxidation catalysts at Piti 8&9, and the conversion of ULSD as a fuel to power said Piti Units. PUC should condition its approval for conversion upon agreement between GPA and USEPA regarding the applicable timelines, the revision of the Consent Decree, and approval of the District Court of Guam. A Proposed Order is submitted herewith for the consideration of the Commissioners.

Respectfully submitted this 22<sup>nd</sup> day of February 2021.

  
Frederick J. Horecky  
Chief Administrative Law Judge

---

<sup>33</sup> GPA Responses to PUC RFIs, Response No. 10, at p. 3.

**CONTRACT FOR SERVICES**

This CONTRACT is made and entered into as of this \_\_\_\_ day of \_\_\_\_\_, 2021 by and between GUAM POWER AUTHORITY ("GPA"), a public corporation and autonomous instrumentality of the Government of Guam, and Marianas Energy Company ("MEC") registered to do business in Guam (GPA and MEC referred to herein collectively as the "Parties").

GPA engages MEC to perform the project known and described as CONVERSION OF PITI #8 and #9 to ULSD, hereinafter called the "Project".

**RECITALS**

**WHEREAS**, the current ECA Extension MEC for the Management, Operation and Maintenance of Piti Units #8 and #9 is effective until January 28, 2024; and

**WHEREAS**, the Consent Decree between GPA and the US Environmental Protection Agency (USEPA) requires the conversion of Piti Units #8 and #9 from RFO-fired units to ULSD-fired units; and

**WHEREAS**, Amendment 4, Section 3.16 of the ECA allows for additional capital improvement projects to maintain the safety, security and operational efficiency of the power station; and

**WHEREAS**, GPA has determined, and MEC has agreed that the conversion of Piti #8 & #9 is necessary to maintain operational efficiency of the plant; and

**WHEREAS**, MEC has prepared a scope of work and request for proposal for this purpose; and

**WHEREAS**, the conversion of Piti Units #8 and #9 to ULSD will require a capital expenditure of approximately \$14M; and

**WHEREAS**, the CCU, through Resolution 2021-01, authorized GPA and MEC to enter into an agreement for the conversion of ULSD, with MEC subcontracting BWSC; and

**WHEREAS**, the PUC, through Docket 21-XX, authorized GPA and MEC to enter into an agreement for the conversion of ULSD, with a target completion date of May 2022.

**NOW, THEREFORE**, GPA, and MEC for the considerations set forth, agree as follows:

**SECTION I - SERVICES OF MEC**

MEC shall perform the following technical and professional services in accordance with the degree of care and skill like professionals would exercise under similar conditions. MEC and its prime contractor BWSC shall provide services for the Conversion of Piti Units #8 & #9 to ULSD

## SECTION II - PERIOD OF SERVICE

MEC shall complete all services within 435 calendar days or 14 ½ months of the "Notice to Proceed" date. In the event delays are experienced beyond the control of the MEC, the schedule may be revised as mutually agreed upon by GPA and MEC. MEC is responsible for advising GPA in writing explaining the cause and reason(s) for the delay.

## SECTION III - MEC'S COMPENSATION

- A. The total compensation to MEC for services in this CONTRACT is the lump sum of: Fourteen million one hundred forty one thousand forty five and twenty eight cents in U.S. dollars (\$14,141,045.28), plus approved adjustments.
- B. GPA shall pay MEC (installments based upon monthly progress reports and detailed invoices submitted by MEC. Such payments to be made to MEC within thirty (30) days after receipt of the progress report and detailed invoice) OR (one lump sum payment upon completion and within thirty (30) days after receipt of detailed invoice.)

## SECTION IV - FORCE MAJEURE

Neither party shall be liable for any delay in meeting or failure to meet its obligations under this Agreement due to a force majeure. MEC shall not be responsible for delays caused by factors beyond MEC's reasonable control, including but not limited to delays because of strikes, lockouts, work slowdowns or stoppages, accidents, acts of God, failure of any governmental or other regulatory authority to act in a timely manner, failure of GPA to furnish timely information or approve or disapprove MEC's Services or work product promptly, or delays caused by faulty performance by GPA or by contractors of any level. When such delays beyond MEC's reasonable control occur, GPA agrees that MEC shall not be responsible for any damages, nor shall MEC be deemed to be in default

of this Agreement. In the event of such delay, the Schedule shall be extended for a period of time equal to such delay.

#### SECTION V – NOTICES

Any notice, demand or other document required or permitted to be delivered hereunder shall be in writing and may be delivered personally (not to include facsimile transmission) or shall be deemed to be delivered when received through email or postage prepaid, registered or certified mail, return receipt requested, addressed to the parties at their respective address as specified herein:

TO: Marianas Energy Corporation  
ATTN: Rino Manzano, General Manager  
Address:  
PHONE: XXX-XXXX  
EMAIL: rino.t.manzano@mec-guam.com

TO: Guam Power Authority  
ATTN: Melinda Mafnas, Assistant General Manager, Operations  
P.O. Box 2977  
Hagatna, Guam 96932-2977  
PHONE: 648-3212  
EMAIL: mcamacho@gpagwa.com

#### SECTION VI – GOVERNING LAW

The validity of this Agreement and any of its terms or provisions, as well as the rights and duties of the parties to this Agreement, shall be governed by the laws of Guam.

#### SECTION VII – INDEMNIFICATION

MEC shall indemnify and hold GPA harmless from any claim, liability or product liability, loss, damage, demand, cause of action or suit, expense or reasonable fee of legal counsel arising out of or in connection with the negligent performance or nonperformance of services which MEC provides. Neither MEC nor GPA nor either party's suppliers, agents, officers and directors shall have any liability to the other party or any other person or entity for any indirect, incidental, special, or consequential damages whatsoever, including but not limited to loss of revenues or profit, loss of use, failure to realize anticipated profits or savings, loss of or damage to data or other commercial or economic

loss, even if they have been advised of the possibility of such damages, such damages are foreseeable, or of potential claims by third party.

#### SECTION VIII – RELEASE OF INFORMATION

The MEC shall not release any information, including the contract price, concerning this project or any part thereof in any form, including advertising, news releases, or professional articles, without written permission from GPA.

#### SECTION IX – GPA/MEC ENERGY CONVERSION AGREEMENT

- A. Except as otherwise expressly provided above, the terms and conditions of the ECA and its Extension shall remain in full force and effect and shall remain unaffected and unimpaired.
- B. The ECA is hereby amended to include the Conversion to ULSD as an additional CIP pursuant to clause 3.16 of Amendment No.4. The agreement between GPA and MEC for this additional CIP shall include, at a minimum:
- The agreement between GPA and MEC, and MEC's agreement with OEM and subcontractors; and
  - The project cost, and payment terms; and
  - The project schedule

IN WITNESS WHEREOF, the parties hereto have executed this CONTRACT this day \_\_\_\_\_. MEC warrants that the person who is signing this CONTRACT on behalf of MEC is authorized to do so and to execute all other documents necessary to carry out the terms of this CONTRACT.

MEC:

\_\_\_\_\_  
Rino T. Manzano  
General Manager

\_\_\_\_\_  
Date

**GUAM POWER AUTHORITY:**

\_\_\_\_\_  
John M. Benavente, P.E.  
General Manager

\_\_\_\_\_  
Date

**APPROVED AS TO FORM**

\_\_\_\_\_  
D. Graham Botha, Esq.  
Legal Counsel, GPA

\_\_\_\_\_  
Date

DRAFT

January 20, 2021

Melinda C. Mafnas  
Assistant General Manager of Operations  
Guam Power Authority  
P.O. Box 2977  
Hagatna, Guam 96932

**Subject: Proposal for the Conversion of Piti Power Plant Engine #8 and #9 from HFO to ULSD**

Dear Melinda:

We are pleased to provide our current proposal for the ULSD Conversion in coordination with BWSC. Notwithstanding the final details, we further commit to the following:

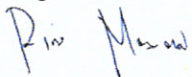
1. Subject to the final terms and conditions based on industry standards and in accordance with the existing GPA-MEC contract for operations of Piti 8&9, including acceptable force majeure and COVID-19 clauses, MEC (The Contractor) is committed to a delivery time not later than 14.5 months after effective date of the contract.
2. If the Contractor fails to comply with the Time for Completion, the Contractor shall, subject to not being entitled to an extension of time, pay delay damages to GPA for this default. These delay damages shall be in the amount of one-fourth of one percent (1%) of the outstanding order for every day which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due shall not exceed 5% of the whole outstanding order."

The BWSC proposal submitted earlier defines the work scope and the description of the technical solution, which is the basis for MEC's proposal. The proposed price breakdown is as follows:

DESCRIPTION	PROPOSAL (USD Currency)
<b>PITI UNITS 8 &amp; 9 (2 Units)</b>	
ULSD Conversion all-in price proposal	\$ 12,150,600.00
Add: 30% Withholding tax on Foreign Labor (\$486,016 X 30%)	\$ 145,804.80
Add: 5% GRT on Local Labor (\$2,000,000 X 5%)	\$ 100,000.00
<b>Subtotal</b>	<b>\$ 12,396,404.80</b>
Add: 10% MEC EPC Fee	\$ 1,239,640.48
<b>Sub Total</b>	<b>\$ 13,636,045.28</b>
Add: MEC Projects (as requested by GPA)	
1. Boiler Effluent Tanks cleaning	\$ 30,000.00
2. Fuel pipeline flushing	\$ 25,000.00
3. Tank Cleaning Projects	\$ 450,000.00
--- HS HFO & LS HFO Storage Tank (120,000/ea)	240,000.00
--- HS HFO & LS HFO Service Tank (80,000/ea)	160,000.00
--- HFO Buffer Tank	50,000.00
<b>Over-All Total Proposal</b>	<b>\$ 14,141,045.28</b>

Thank you for the opportunity to submit our proposal and I look forward to meeting with your team to address any concerns you may have.

Regards,



Rino T. Manzano  
General Manager



**Burmeister & Wain Scandinavian Contractor A/S**

Gydevang 35

3450 Allerød

Denmark

VAT no.: DK 87929116

bwsc@bwsc.dk • bwsc.com

T: +45 4814 0022 • F: +45 4814 0150

Marianas Energy Co. (MEC)

180 Cabras Highway

Piti, Guam 96915

Att.: Mr. Rino T. Manzano (RTM)

Mr. Rene Acaín (RA)

10 December 2020

Your ref. RTM & RA

Our ref. 22296-B\_V10/TEAJ

**Subject: Proposal for the Conversion of Piti Power Plant Engine #8 and #9 from HFO to ULSD**

Dear Sirs,

Based on your meeting and correspondence with our Mr. Brian Jensen in December 2020, we are pleased to submit our BEST AND FINAL Proposal for the required job scope of converting from HFO to Ultra Low Sulphur Diesel Oil (ULSD) operation.

Despite the very limited time available, we have managed to succeed with a full round with all our major sub-suppliers and negotiated all possible discounts, including a full cost review of our own internal costs to meet your request for best and final price.

The price reduction on BWSC scope of supply is more than 5%, although we in order to achieve that were met with sub-suppliers' requirements for orders in the near future, which is reflected in the new validity of our proposal, cf. section 14.

We do hope that we have met your expectations and we are looking forward to discuss how to proceed.

**1 Brief Description of the BWSC Proposal**

This Proposal contains a technical solution and a concept that will fulfil the requirements to eliminate the sulphur oxide emissions and comply with EPA MACT rules in relation to SO<sub>x</sub> & CO emissions.

The proposal also contains some operational benefits when converting the engines to operate on ULSD, incl.:

- Integration of a Fuel Filtration System for the ULSD,
- Blind flange system in the exhaust line to facilitate the replacement of the catalysator boxes by reducing the outage time during replacement.

To minimize the outage during the works, maintain availability high and reduce the costs, the demolition works as well as the mechanical and electrical installation part of the conversion project for engine unit #8 and #9, is planned executed in succession of each other.

In order to accommodate MEC's wish to utilize local labour and ensure financial spin-off to the local community, we have included the cost from Local contractor, Guam, which has been facilitated by MEC. The

Local sub-contractor supplies all labour for the proposed demolition and installation of the equipment, mobile cranes, trucks, welding tools, scaffolding etc. ref section 3.3 under MEC's responsibility.

## **2 The description of the BWSC Technical Solution**

The conversion work from HFO operation to ULSD is for the two Mitsui B&W 10K90MC-S low speed diesel engines unit DE#8 and DE#9 at the Piti Power Plant, where BWSC proposes a solution for reduction of the CO emission from the current level of around 80 ppm to below 23 ppm by installing CO oxidation catalysts in the exhaust ducts, one unit for each engine DE#8 and DE#9.

The reduction of SO<sub>2</sub> emission will be achieved by operating the engines with an ULSD fuel that complies with the EPA MACT rules.

The conversion to ULSD eliminates the requirement for steam and allows a decommissioning of the waste heat recovery system, including boilers, its auxiliary equipment and steam turbine.

The Steam Turbine Generator (STG) will be decommissioned, but not removed, and this will result in a reduction in the net production from the Piti Plant of two (2) MWe.

The proposal includes removal of the exhaust gas boilers in order to create the necessary space between the powerhouse and stack for the installation of a CO oxidation catalyst and at the same time reuse existing structural steel without major alterations.

The exhaust gas duct systems will be adapted for the new components e.g. the existing inlet and outlet hood for the boiler will be replaced and modified to the new catalyst unit. Two blind flange systems will be integrated to facilitate future maintenance work on the catalysts as well as supporting the shortest possible outage time of the engines during the installation.

ULSD operation will no longer require heat tracing of fuel lines and preheating before injection and the only remaining heat consumers will be preheating of lube oil before separation, heating of sludge oil and jacket water heating at engine standstill. Further, the jacket water heating will during plant stand-still need an alternative heat source and therefore this proposal contains the installation of one (1) 450kW electrical jacket water preheater common for both engines.

The conversion will not have an impact on the gross (Generator terminal output) and the NO<sub>x</sub> emissions – it will remain unchanged. Please refer to the separate attached Performance Data document for CO-emission figures after the retrofitting of the Oxidation catalysts.

During most of the project period the loading bay between the Waste Heat Recovery system for Engine DE#8 and DE#9 will be occupied by mobile cranes & trucks and its work.

The proposal includes the engineering from BWSC and the provision of a team of BWSC Supervisors/Superintendents to manage the variety of manpower with different professions such as structural steel workers, pipe fitters, mechanics, welders, electricians, crane & truck operators, insulators etc.

The "Technical File" (enclosure 004 with this proposal) will provide further description of the conversion from HFO to Ultra Low Sulphur Diesel Oil (ULSD).

The necessary manpower as structural steel workers, pipe fitters, mechanics, welders, electricians, crane & truck operators, insulators etc. and cranes & trucks, waste removal, cleaning of fuel tanks, administration work related to work permit/visa for BWSC staff plus DPW permitting is provided by MEC through Local sub-contractors as described in section 3.3.

### **3 Scope of supply**

#### **3.1 BWSC Engineering, supplied equipment & BWSC manpower**

- 3.1.1 Project Management, engineering, configuration and documentation at BWSC head office
- 3.1.2 General support from BWSC head office
- 3.1.3 Mobilisation of Supervisors/Superintendents from BWSC. For cost saving reasons, the number of Supervisors/Superintendents on site will vary during the different stages of the project.
- 3.1.4 Preparation, mobilization (incl. airfare and travel time), board & lodging for the BWSC Supervisors/Superintendents while in Guam.
- 3.1.5 The duration of the work on site is estimated to 6 ½ months, based on ten (10) hours work on site during Monday to Saturday, with manpower proficient in mechanical and electrical installation works for the power plant industry as well as maintenance works of mechanical equipment and engines.
- 3.1.6 The report and As Build documentation will be issued soonest possible after TOC at site.
- 3.1.7 A pre-Survey of the plant by BWSC would be required before the final design of the installation is completed.
- 3.1.8 Coordination of installation works with MEC/Local sub-contractor

#### **3.2 BWSC Option for selected spare parts & consumables**

- 3.2.1 2 layers oxidation catalyst, each containing 143 cassettes (no modules). The cassettes can be put on stock without affecting the lifetime, however the cassettes must be kept dry and protected from rain (and high humidity). Please refer to the Technical File.
- 3.2.2 For the Fuel filter system, it is expected for 2 years of operation to replace on yearly basis one set of inserts on each PTU3 unit and one set of inserts on each HDU unit. The system has 4 PTU3 units each containing 4 pcs inserts = 16 pcs inserts per year to be replaced. The 3 HDU units contains each 16 pcs inserts = 48 pcs inserts per year to be replaced. Additional 3 pcs set of sealings for HDU units and 4 pcs of sealings for PTU3 units to be included (not necessary to replace every year).
- 3.2.3 Emulsifier is not a spare part but a consumable which is dependable of the running hours and operation load. The proposed yearly consumption is based on following calculation:  
One engine with 100% load consume approximately 8.5 ton ULSD plus 35% process water (approx. 3.0 ton) = 11.5 ton per hour -> 23 ton per hour for two engines. With a blend of 0.2% emulsifier the consumption for two engines will be 1.1 ton per 24h/running hours and with 8000 running hours/year the total consumption will be 368 ton/year.  
The emulsifier can be delivered from factory in 20" containers in a plastic bag with an approx. amount of 20 ton.

#### **3.3 MEC & Local subcontractors' scope of supply**

- 3.3.1 Local Engineering and Permitting:  
Provide required local engineers to review and certify plans and drawings by BWSC, and complete the erection plans to comply with DPW permitting requirements  
Obtain necessary clearances from different government agencies, and especially building permit from Department of Public Works

- 3.3.2 Manpower: Provide all needed manpower and skilled workers to support BWSC's requirement to complete the project.
- 3.3.3 Equipment: Provide required equipment such as cranes, scaffolding, trucks, forklift, etc.
- 3.3.4 Balance of Materials: Provide balance of materials and tools as specified in BWSC's Scope of Supply.
- 3.3.5 Waste Removal, Cleaning & Safety: Maintain jobsite cleanliness and safety at all times.
- 3.3.6 Fuel Tanks & System: Clean all five fuel tanks (HS & LS HFO Storage Tanks, HS & LS HFO Service Tanks, and HFO Buffer Tank), and flush out fuel piping system as required.
- 3.3.7 U.S. Visa/Work Permit: Provide assistance to BWSC in obtaining proper U.S. Visa for its personnel (maximum of 12), as per U.S. Immigration requirements.
- 3.3.8 Insurance: Provide all necessary insurance as required by GPA, MEC or BWSC
- 3.3.9 The scope includes basic day, payroll burden, site overhead, taxes, insurances, mobilization, demobilization, tools (not special plant & equipment) and site office
- 3.3.10 All mechanical, electrical and erection works shall be executed to meet or exceed standard industry practices and in compliance with applicable federal and local laws and regulations.
- 3.3.11 Work Hours: 6 days a week, 10 hours a day or as per agreement by both parties.

#### 3.4 Division List

The "Division List" is part of this proposal letter (enclosure 006) and highlights the projects and the significant scope of jobs, interfaces and boundaries between BWSC and MEC/local subcontractor(s) for the conversion project.

### 4 Terms of delivery and time of delivery

#### 4.1 Terms of Delivery

The equipment and material will be delivered by ship CIF (Incoterms 2010) by sea-freight to the port of Guam. The majority of the supply will be shipped in containers.

#### 4.2 Time of Delivery

BWSC estimates the complete project including shipping can be executed within 14 ½ months from date of effective order subject to availability of manpower. The exact implementation schedule will have to be agreed upon Order between MEC and BWSC.

### 5 Prices

#### 5.1 Price for the BWSC scope

The price in accordance with scope of supply as specified in section 2 & 3.1 and shipping ref. 4.1 of the proposal amounts to:

**EUR 7.880.000, -**

(Say, EUR Seven Million Eight Hundred Eighty Thousand only)

The price is contingent upon MEC via Local sub-contractor provide the scope ref 3.2 and enclosure 006. BWSC manpower at site will be invoiced according to the enclosed pricelists for the BWSC Superintendents. The additional working days will be invoiced at bi-monthly intervals or when job is completed, whichever occurs first.

## 5.2 OPTIONAL Price for the BWSC spare part scope and consumables

The price in accordance with scope of supply as specified (option) in section 3.2 and shipping ref. 4.1 of the proposal amounts to:

5.2.1 2 layers oxidation catalyst, each containing 143 cassettes (no modules).

**USD 1,290.000, -**  
(Say, USD One million Two Hundred Ninety Thousand only)

The price is conditioned upon the cassettes are ordered and delivered together with the 2 Oxidation catalyst systems.

5.2.2 128 Filter inserts total for the HDU and PTU3 units & 3 sets of sealings for HDU units and 4 sets of sealings for PTU3 units amounts to:

**USD 28.000, -**  
(Say, USD Twenty-Eight Thousand only)

The price is conditioned upon the filter segments and the set of sealings are ordered and delivered together with the CJC fuel filter system.

5.2.3 Emulsifier ref 3.2.3 for two engines excluding packaging and EXW (supplier in Far East) amounts to:

**USD 4.530, -/ton**  
(Say, USD Four Thousand Five Hundred Thirty only)

*With a yearly approximately consumption of 368-ton ref 3.2.3 the price will amount to USD 1.667.040.*

This price for the OPTIONS is based on the exchange rate 1 EUR = 1,12 USD, and will be adjusted if the exchange rate changes more than +/- 2%:

The payment ref 5.1 & 5.2 shall be remitted to a bank account specified by BWSC.

## 5.3 Price for the Local sub-contractor's scope (MEC supply)

The price in accordance with the scope of supply as specified in section 2 and 3.3 amounts to:

**USD 3.325.000, -**  
(Say, USD Three million Three Hundred Twenty-Five Thousand only)

The above price is not a BWSC quotation, but MEC's price to conduct the works specified in 2 and 3.3. and is only included to illustrate the overall project costs.

**5.4 The total price (not including options in 5.2) for the BWSC and MEC/Local sub-contractor scope expressed in USD**

EUR 7.880.000 converted to USD according rate 1 EURO = 1.12 USD = USD 8.825.600

TOTAL Price expressed in USD 3.325.000 + USD 8.825.600 =

**USD 12.150.600, -**

**(Say, USD Twelve Million one Hundred and Fifty Thousand six hundred only)**

**6 Terms of Payment**

The below payments are based on BWSC's total order & scope (i.e. incl. any OPTIONS, if applicable):

- 15 % Down payment at order
- 20 % 60 days after confirmed order
- 25 % at shipment of Oxidation Catalysts
- 10 % by mobilisation at site
- 10% by First engine start
- 10% by Second engine start
- 10 % Upon completion of Test and Commissioning

We have assumed that 85% of the contract sum will be covered by an irrevocable Letter of Credit with a wording acceptable by the Contractor and issued in a bank of the Contractor's country.

Down payment is due immediately and other milestone payments are due 30 days net against submission of the original invoice.

**7 Date of Effective Order**

Date of Effective Order is when BWSC has received a signed order from MEC and the applicable down payment has been received in BWSC's bank account.

**8 Additional Services and Supplies**

Any additional days or assistance agreed upon between MEC and BWSC will be invoiced separately according to *"BWSC Price list for Manpower in force at the time of confirmed order (2020 enclosed for reference – enclosure 003)*.

**9 Interruption of Work**

If any interruption of work occurs caused by circumstances beyond the control of BWSC, such as, but not limited to, non-availability of mobile crane, truck assistance etc., waiting time will be separately charged in accordance with *"BWSC Price list for Manpower in force at the time of confirmed order (2020 enclosed for reference – enclosure 003)*.

**10 Taxes, Duties, Permits and Other Charges**

The offer does not include payment of any additional charges in Guam, such as, but not limited to, VAT, taxes, withholding taxes, fees, levies, custom duties, permits and the like, which are levied out of, or in connection with, this Proposal.

## **11 Work Permits**

If required, MEC will arrange necessary Work Permits for the BWSC personnel. Cost for work permits, if any, will be for the account of MEC.

## **12 Occupational Safety and Health**

MEC shall be responsible for the safety of its own employees and shall comply with all applicable provisions of local laws, regulations and orders affecting safety and health. MEC shall expressly be responsible for the ensuring that all plant equipment and tools that are necessary for completion of the works are in good working order and certified as such when required.

BWSC shall abide by all health, safety and environmental policies and procedures of MEC while working on site.

## **13 General Conditions of Contract**

Unless otherwise specified in this proposal the "*General Terms and Condition for Sale of Parts March 2020*" & "*General Terms and Conditions for Service Work March 2020*" are valid and apply (enclosed).

BWSC retains the right to assume TOC of services & works rendered, but not completed, due to sudden demobilization resulting from any interruptions to works caused by circumstances beyond the control of BWSC excluding mutually accepted Force Major conditions. If MEC is unable to allow BWSC to resume work within three (3) months of demobilization, against a Variation Order, the value which BWSC has spent in anticipation of the completion of the project will be invoiced to MEC in accordance with BWSC's GTC.

## **14 Validity**

This proposal is valid until 16 February 2021.

## **15 Preconditions & Assumptions**

We have made the following assumptions, when preparing this proposal:

- This proposal letter takes precedence over the balance of documents in this proposal
- Our proposal is given and valid as a whole and is subject to agreement on final contract conditions and the approval by the Board of Directors of BWSC.
- BWSC's supply is based on designing and delivering the scope of works according to EN, ISO, IEC and other relevant European standards and documentation in accordance with the KKS system.
- We reserve our rights to assign the Contract, in part or entirely, to a local company established by BWSC for tax, VAT or withholding tax purposes.
- This proposal includes support and assistance, as needed, for MEC in obtaining necessary permits for the project. It is, however, MEC via Local sub-contractor who shall obtain all such permits.
- Testing is done according to our Master Schedule on the assumption that the Employer provides fuels and electric loads for the duration of the 3-day reliability tests.

- We have assumed that the project will not experience any delays in equipment deliveries, shipping to Guam, mobilization of personnel or illness of personnel related to epidemics such as, but not limited to, the Corona virus. Delays as a result of virus events shall result in extension of time and related extra costs shall be reimbursed by the client.

## **16 MEC scope of supply via Local sub-contractor**

Further, we assume that MEC can provide the following scope/supply for their own costs (this chapter is a supplement to point 3.2:

- A contact person from the power plant management for daily communication & coordination during the whole project period.
- Temporary offices and other facilities (kitchen, toilet and bath).
- Any import duties, taxes etc. to be paid in Guam.
- The necessary mobile cranes with operators and "flat truck" for the duration of the project
- Containers (dumpsters) for waste (metal/iron – wood – paper – plastic – insulation material – housekeeping – cable – electric components/equipment)
- The necessary scaffolding incl. all necessary alterations
- All consumables and utilities necessary for this conversion project including, but not limited to, diesel oil, chemicals, lubricating oil, water, electricity etc.
- All permits and approvals including, but not limited to, work permits and visa for expatriates required for this project.
- Full and unrestricted accessibility to the site areas of Piti Power Plant.
- Sufficient lay-down area for all the "waste" intended for all decommissioned parts from the removed Waste Heat Recovery system and other parts related to this project. The area should be situated either in the Piti Power Plant area or close to the property and easily accessible with a 30-ton mobile crane and a 30 ton "flatbed truck".
- Supply of ULSD, emulsifier, and Cylinder Lubrication oil with slightly reduced TBN as required.
- The sequence of installation will assume that one HFO tank is cleaned for ULSD storage prior to the conversion of the first units and the other HFO storage tank cleaned for ULSD storage subsequent to the conversion of the second unit.
- MEC Operation staff for the outage and testing.
- The disposal of all type of waste created from and related to the conversion project.
- MEC/Local sub-contractor is responsible for customs clearance and transportation from point of entry (port or airport) to the Guam Piti Plant and that this is performed swiftly and without BWSC incurring port storage and demurrage costs of any kind.

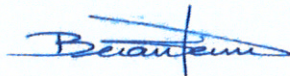
**17 Closing remarks**

We trust that this proposal for a technical solution meets your expectations and look forward to assisting you.

Please do not hesitate to contact us, should questions arise or further information be needed.

Yours faithfully,

**Burmeister & Wain Scandinavian Contractor A/S**



Brian Jensen  
Senior Sales Manager  
Service Sales  
D: +45 88160489  
M: +1 832 709 9974  
[brje@bwsc.dk](mailto:brje@bwsc.dk)



Jon Ploug  
General Manager  
Service Sales

Enclosures:

- 001 - "General Terms and Condition for Sale of Parts, March 2020"
- 002 - "General Terms and Conditions for Service Work, March 2020"
- 003 - "BWSC Price list for Manpower 2020"
- 004 - "BWSC Technical File – rev5"
- 005 - "SGS & Intertek Certificates of Analysis"
- 006 - "BWSC Division List"
- 007 - "BWSC Performance Data and Guarantee"
- 008 - "BWSC Preliminary Project Plan rev 6"
- 009 - "BWSC diagram of the Fuel Oil Storage Treatment System 2891-M2-F05-001"
- 010 - "BWSC Waste Heat Recovery Boilers General Arrangement Drawing Section Boiler HE-S8 2891-M5-S25-006"



# GUAM POWER AUTHORITY

ATURIDÁT ILEKTRESEDÁT GUAHAN  
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

February 15, 2021

Public Utilities Commission  
Suite 207, GCIC Building  
414 West Soledad Avenue  
Hagatna, Guam 96910

Attention: Atty. Fred Horecky  
Administrative Law Judge

Subject: GPA Response to RFIs – Piti 8&9 Contract for Conversion to ULSD with  
Marianas Energy Company

Dear ALJ Horecky:

The Guam Power Authority provides the following responses to your Requests for Information:

1. Please provide a copy of the MEC Proposal that is referred to as "Appendix A" in GPA Resolution No. 2021-01.

Please see attached file: [RFL1. MEC BWSC ULSD Proposal](#)

2. Provide a copy of the NAAQS Standards which are referred to in the GPA Petition which are stated to be effective in April 2023.

Please see attached file: [RFL2. Exhibit 1 - NAAQS Table Criteria Air Pollutants](#) for the NAAQS – National Ambient Air Quality Standard

3. In GPA Docket 20-16, GPA requested that PUC authorize the retirement of the Piti 8&9 plants. GPA took the position that these plants would be unnecessary after the development of the new power plant, and that the Aggreko 40MW plants provided a more efficient and less costly alternative to the Piti plants. Please explain in detail the reasons why GPA has now, in this Docket, abandoned its prior plan to retire the Piti 8&9 plants, and why is now believes that it is crucial to maintain the Piti plants.

As noted in the resolution, delays of the new power plant and other projects due to COVID 19 and other challenging issues resulted in commissioning of Ukudu beyond April 2023. It is very unlikely USEPA would agree to amend the consent decree to allow retirement of Piti when conversion of Piti allows it to meet April 2023 regulations. Furthermore, to meet April 2023 standards, GPA would have to burn a substantially costlier 0.2% S RFO which would have resulted in higher fuel cost for ratepayers. The conversion of Piti to ULSD and the utilization of 0.2%S at Cabras provided the cheaper alternative.

4. Provide copies of any and all documents, records or other materials which support GPA's decision not to retire the Piti 8&9 plants. GPA should also provide any analysis, explanation or other written justification for GPA's decision not to retire the Piti 8&9 plants.
5. In its Petition, GPA has now referenced the April 2023 NAAQS Standards as justification for conversion of the Piti plants to ULSD. Explain how and why such standards require the conversion of Piti 8&9 to ULSD.

USEPA is taking a firm stance on enforcing the April 2023 standards, we believe due to a suit by environmental groups. The Guam State Implementation Plan is to promulgate those rules. Conversion of Piti to ULSD provides the best alternative considering all the delays and changes which has occurred.

Piti 8&9 must comply with the requirements of both

- NAAQS for SO<sub>2</sub> and
- National Emission Standards for Hazardous Air Pollutants (NESHAP) for the reciprocating internal combustion engine emissions for Carbon Monoxide, CO. This is also referred to as RICE MACT (Reciprocating Internal Combustion Engine Maximum Achievable Control Technology). To meet CO reduction requirements, an oxidation catalyst must be installed which in turn requires the use of ULSD.

The conversion of existing Piti 8&9 to ULSD will attain both SO<sub>2</sub> and CO emission requirements.

6. When were the April 2023 NAAQS Standards enacted? When did GPA become aware of such standards? Was GPA not aware of such standards when it requested the PUC to retire the Piti plants in GPA Docket 20-16?

The standards would not have entered into play if the commissioning of the new plant was on schedule and USEPA was not taken to court by the environmental groups. The standards would have been addressed in the State Implementation Plan (SIP) by requiring what was agreed in the consent decree as the conditions of the SIP. Unfortunately, circumstances are that USEPA is unlikely to provide further consideration on delays to meet standards beyond April 2023.

The 1-hour SO<sub>2</sub> NAAQS Standard was finalized in 2010. States were given different effective dates and deadlines for submitting Compliance Documents. Guam's effective date was Dec. 31, 2017. We must show compliance through modeling emissions between Jan. 1 - Dec. 31, 2022. By April 2023, a Final Report must be submitted to EPA to show that Guam is in compliance

7. Please provide a copy of the referenced "contract" between GPA and MEC for the conversion of the Piti 8&9 plants to ULSD.

Please see attached draft file: [RFL7. DRAFT CONTRACT](#)

8. Why do GPA and the CCU now believe that Piti 8&9 are “crucial” to provide required energy for the island between now and the commissioning of the new 198-MW Ukudu Power Plant?. In GPA Docket 20-16, GPA took the position that the Piti 8&9 plants are not needed and that Aggreko plants (40MW) could provide necessary energy instead. What is the basis for GPA’s change in position?

GPA’s position is that all power plants including Piti 8&9 are needed until the new power plant is commissioned. Piti 8&9 was considered for retirement only after the new power plant is commissioned.

The USEPA April 2023 deadline to meet the NAAQS 1-hour standards required GPA to look at alternatives including burning lower sulfur RFO. GPA investigated using a standard fuel, Marpol which is 0.5%S. However, NAAQS could not be met without limiting capacity at both Piti and Cabras which made this alternative unacceptable.

GPA determined burning ULSD at Piti and 0.2%S at Cabras would meet the USEPA standards and would cost about \$51M less in cost for the period. In addition, if there were any further delays of UKUDU for whatever reason, the Piti plant under the consent decree would not be subjected to any potential penalties USEPA could impose. With the conversion of Piti 8&9, GPA can retire Piti on its own timeline without tying retirement to Ukudu.

9. A Consent Decree entered between USEPA and GPA provide existing deadlines for the conversion of the Piti plants to ULSD: GPA is required to enter a Contract for conversion by July 1, 2020, and to provide for full conversion to ULSD-firing by December 31, 2021. Is it correct that GPA did not meet the deadline for July 1, 2020?

That is correct. GPA pursued the possibility of the PITI retirement with USEPA and waited instead of contracting by July 2020 for the plant which meant GPA would immediately have to pay mobilization cost with the signing of a contract.

10. GPA indicates there have been “amicable discussions” between GPA and USEPA for change in the timelines to reflect a March 31, 2021 deadline for completion of the contract for conversion, and for conversion to be completed by August 31, 2022. Has USEPA approved the new deadlines? Has the consent order been amended to incorporate the new timelines? Are there any written approvals for the new timelines? If so, please provide such approvals.

There is no written approval from USEPA. Negotiations continue on these matters which will most likely not result in a settlement and amendment for several months more. GPA has advised USEPA of the changes and the new dates which it has been pursuing. The main reason for delays on this part of the consent decree are delays in fuel tank rehabilitation due to COVID-19 issues and availability of storage to ensure adequate, uninterrupted service while changing from RFO to eventually all ULSD.

11. GPA has determined that, to comply with the April 2023 NAAQS, the Piti 8&9 plant capacity for burning low sulfur residual fuel oil would need to be limited by as much as 20%, which would have a negative impact on system reliability. What is the basis for GPA's determination that the Piti plant capacity burning low sulfur residual fuel oil would need to be limited by 20%? Does GPA have any written analysis or explanation to support this conclusion?

Please see attached files:

[RFL11. Final SIP Modeling Report \(01-22-21\)](#)

and

[RFL11. Modeling Report Figures \(Jan 2021 update\)](#)

NAAQS SO<sub>2</sub> 1-Hour standard is 75 ppb which converts to 196 ug/m<sup>3</sup>

The projected emissions scenario for the Piti Cabras area is reported as 104 ug/m<sup>3</sup> which is well below the limit.

12. If the Piti 8&9 plants could still operate at 80% capacity, why would that level not provide sufficient capacity?

As the table below illustrates, GPA is not already meeting reserve requirements and is doing all it can to keep all machines operating until the new power plant is commissioned. The reduction of any more capacity would be unacceptable. In addition, reducing efficient base load generation would require inefficient machines to operate more resulting in substantial increases in fuel cost which is also unacceptable.

<b>IWPS Maximum Capacity:</b>	<b>Current MW</b>	<b>Reduced MW</b>
Cabras 1/2	110	88
Piti 8/9	88	70
Aggreko	40	40
Piti 7	33	33
DededoCT	40	40
Macheche CT	20	20
Yigo CT	20	20
Tenjo	24	24
Talofofo/Manengon	16	16
<b>Sub Total:</b>	<b>391</b>	<b>351</b>

<b>Less Two Largest Unit</b>	<b>281</b>	<b>263.4</b>
<b>Less next Largest Unit</b>	<b>237</b>	<b>228.2</b>
<b>Less Projected Peak Demand (260 MW)</b>	<b>(23.00)</b>	<b>(31.80)</b>

13. Aside from the issues of the April 2023 NAAQS, isn't GPA still required to convert the Piti plants to ULSD under the USEPA Rules relating to SOx and CO emissions?

If GPA and USEPA agreed to retire Piti and Cabras thru an amendment of the Consent Decree, it would not have been necessary. However, because USEPA was sued in relation to the Guam State Implementation Plan, USEPA is not agreeable to an amendment which does not at least comply with the April 2023 NAAQS.

The conversion of the Piti plant to ULSD will attain both SO<sub>2</sub> and CO emission requirements.

14. In addition to the \$14M cost of converting the Piti plants to ULSD, the CCU indicates that the fuel supply system would be separately funded and handled by GPA. What would be the cost of funding and handling of a Fuel Supply System for the Piti plants? Please provide any prepared budget.

The fuel supply system funding consisted of those previously approved by the PUC including the new fuel supply pipeline from the Navy tie in to the GPA storage tanks and the rehabilitation of the storage tanks themselves. These are funded with the Cabras 3/4 insurance proceeds. The current costs for these existing contracts are as follows:

NEW ULSD Pipeline System – \$3,495,944.00

Out of Service Inspection and Refurbishment of GPA Bulk Storage Fuel Tanks - \$9,543,160.00.

15. GPA indicates that the funding for the conversion will be paid for from the Cabras 3&4 insurance proceeds. Please state the present balance of unexpended Cabras 3&4 insurance proceeds. Also, provide a complete accounting of all expenditures that have been made from the Cabras 3&4 insurance proceeds.

Please see attached file: [RFI.15. Insurance fund balance -summary 2-11-21](#)

Thank you for the opportunity to provide this information for PUC review. Please let us know if you have further questions or concerns.

Sincerely,



JOHN M. BENAVENTE, P.E.  
General Manager

Attachments

## Insurance Summary

### Claims:

Property Claim	\$ 125,000,000
Environmental Claim	884,342
<b>Total</b>	<b>125,884,342</b>

### Expenditures:

Temporary Generator-Agrekko	13,176,941
Unit 4 Engine removal	5,877,909
Decontamination	4,935,804
Roof Demolition	4,747,888
Fuel	4,600,000
Insurance Adjuster	4,378,776
Temporary Generator-Emission Control	3,000,000
Environmental clean-up	1,163,047
Legal Services	239,905
Land Purchase	10,813,325
Miscellaneous	1,986,135
<b>Total expenditures</b>	<b>54,919,730</b>

Interest Income	3,198,770
-----------------	-----------

<b>Balance as of Jan. 31, 2021</b>	<b>\$ 74,163,382</b>
------------------------------------	----------------------

Fund Balance	\$ 74,163,382
--------------	---------------

### Allotted:

Refurbishment of Fuel Tanks	(9,542,711)
New Generation Pipeline	(40,000,000)
Stanley Consultants	(4,650,000)
New ULSD Pipeline System	(3,495,944)
Reserve for Environment	(2,000,000)

<b>Balance</b>	<b>\$ 14,474,727</b>
----------------	----------------------

### Receipt Details

#### Legal Services Detail

##### Kerr & Wagstaffe

Invoice Number	
12981	\$ (20,694)
12634	14,405
12566	2,875
12756	2,535
12821	15,896
12920	20,694
12981	53,978
13037	17,737
13128	21,037
13237	18,067
13338	18,713
13423	7,735
13525	5,200
13635	17,680
13727	35,467
13835	8,580

<b>Total Legal Services</b>	<b>\$ 239,905</b>
-----------------------------	-------------------

#### Miscellaneous Expenses Detail

3ea 40' Steel Storage Container	\$ 10,800
Local Control Panel for the 4.16KV Breaker at Cabras #3	97,795
Services for Architectural, Engineering & Construction of Cabras 3&4 Temporary Roc	207,548
Repair and Maintenance of TARP COVER for Cabras #3	53,235
Station Power Energizing & Water Content Control in Lube Oil for Cabras #3 Preserv	713,112
Inspection of Engine Spare Parts for Cabras 3&4	99,500
Asbestos & Lead Paint Inspection	2,000
Crane & Scaffolding Rental for Forensic Engr	119,645
Temporary Roof Design	160,000
Testing & Charging of Battery Banks	14,906
Clean Up & Testing of Cabras3 Alternator Excitation Panel	46,000
Electrical Equipmant Clean-up, Testing Cables & Motors	240,000
Concrete Coring Test, Demolition Design, CM Engine Room Structure	171,223
Retrieval of Governor Control Data for Cabras 3&4	15,000
Structural Eval, Historian System Technical Engr Services, Misc Materials	12,270
Sampling, Analysis, Misc Supplies	22,408
FTP site, document mail, external drive	693
	<b>\$ 1,986,135</b>