

**PUBLIC UTILITIES COMMISSION  
OF GUAM**

Jeffrey C. Johnson  
Chairman

Peter Montinola  
Vice-Chairman

Commissioners

Joseph M. McDonald  
Rowena E. Perez-Camacho  
Michael A. Pangelinan  
Doris Flores Brooks  
Pedro S.N. Guerrero

Suite 207, GCIC Building  
Post Office Box 862  
Hagatna, Guam 96932  
Telephone: (671) 472-1907  
Fax: (671) 472-1917  
Email: info@guampuc.com

Lourdes R. Palomo  
Administrator

Frederick J. Horecky  
Chief Administrative Law Judge

Joseph R. Alcantara  
Administrative Law Judge

Anthony R. Camacho  
Legal Counsel

January 18, 2022

Senator Clynton E. Ridgell  
Chairperson  
Committee on Economic Development  
Agriculture, Power and Energy Utilities,  
and the Arts  
36<sup>th</sup> Guam Legislature  
238 Archbishop Flores St.  
Suite 906-DNA Building  
Hagatna, GU 96910

Re: Testimony of Acting Chairman Peter Montinola, Guam Public Utilities  
Commission, on Bill No. 213-36(COR)

Dear Chairperson Ridgell:

The Guam Public Utilities Commission ["PUC"] appreciates the opportunity to  
comment on proposed Bill No. 213-36(COR). The PUC strongly supports the Bill. Its  
passage is critical to the future of Guam's island wide power system.

I. THE CONSTRUCTION OF THE 41MW RESERVE FACILITY AT CABRAS IS AN  
INTEGRAL AND NECESSARY PART OF THE NEW UKUDU POWER PLANT  
PROJECT.

In 2015, the PUC approved GPA's plan to proceed ahead with the construction and commissioning of the new Ukudu Power Plant. On October 31, 2019, in GPA Docket 19-13, the PUC reviewed and approved the Energy Conversion Agreement between GPA and KEPCO for the construction and operation of the 198MW Power Plant.

In February of 2021, the PUC authorized certain amendments to the Energy Conversion Agreement (ECA) between GPA and KEPCO. The parties agreed to include, as a part of the new power plant project, the construction of a 41MW diesel engine reserve facility at the Cabras site near the GPA Fuel Oil Storage Facility. The construction of the 41MW facility was in lieu of the 65MW standby generator facility that had previously been a part of the Ukudu Power Plant project.

The PUC determined that it was necessary to revise the original GPA- KEPCO ECA, which provided for the construction of a 65MW standby generator facility at the Ukudu site. However, a "minor source" permitting was not feasible if the 65MW facility continued to be located at the Ukudu site. The USEPA had concerns that the plant construction would be delayed for too long if the "major source" permitting process was followed.

The 65MW reserve facility was only intended to be used for short duration outages and could only be operated when KEPCO determined. With the 41MW facility, GPA is in complete control as to when the facility is dispatched. The 41MW facility is allowed to run for a minimum 2,600 hours and likely as much as 5,000 hours per year, as opposed to the limited operating capacity of 500 hours annually of the 65MW reserve facility.

The change of location of the 41MW reserve facility to Cabras was necessary to allow the main Ukudu power generators to operate under a minor source air permit.

The rationale and necessity for the 41MW reserve generators was fully vetted by the PUC and approved in GPA Docket 21-07. A detailed explanation for the necessity of the 41MW reserve facility at Cabras, and as part of the Ukudu facility, is contained in the PUC Order in GPA Docket 21-07, which is attached hereto as Exhibit "1".

## II. THE GUAM LEGISLATURE SHOULD GRANT AN EXEMPTION TO GPA AUTHORIZING THE CONSTRUCTION OF THE 41MW RESERVE FACILITY

The Consent Decree entered between GPA and the United States Environmental Protection Agency/U.S. Department of Justice requires that the Ukudu Plant and the 41MW reserve facility be completed no later than April 2024. The "Legislative Findings and Intent", Section 1 of the Bill, correctly recognize that construction of the new 41MW diesel facility at Cabras is required by the Consent Decree. If the 41MW diesel generator facility and the Ukudu Power Plant are not completed by the April 2024 deadline, GPA will be in violation of the Consent Decree and subject to millions of dollars in fines and penalties.

12 GCA §8119 currently restricts the construction of a power generation facility, with a capacity of more than 1MW, within 1,500 feet of a school. The Legislature should take every step possible to allow GPA to comply with the Consent Decree (which is an Order of the Federal District Court of Guam) by exempting the construction of the new 41MW diesel plant from the provisions of §8119. GPA has provided a substantial justification for the exemption of the construction of the 41MW diesel plant from §8119; GPA's justification for the exemption is adopted in this Testimony and attached hereto as Exhibit "2".

Unless the Guam Legislature approves the exemption for the new 41MW reserve facility, there is a possibility that the entire power plant project could be derailed. The company constructing the plant, Guam Ukudu Power LLC (GUP), has indicated that its lenders may not finance the new power plant unless this issue regarding the

construction of the proposed 41MW reserve plant is resolved. Potentially, if the exemption is not approved, the entire Ukudu Power Plant project could fall through. This would be a disaster for the people of Guam and could prevent the achievement of the availability of sufficient power generation in the future. All the planning and hard work of GPA and the PUC to improve and modernize the power system, and to incorporate renewables, would be for nothing. Without the reliable power provided by the Ukudu Plant, it is very unlikely that GPA will be able to incorporate renewables into the system or meet the goals of incorporating as many new renewables. It is critical that the Guam Legislature approve this exemption.

### III. THERE IS NO EVIDENCE THAT CONSTRUCTION OF THE 41MW RESERVE FACILITY AT CABRAS PRESENTS A RISK OF HARM TO JOSE RIOS MIDDLE SCHOOL OR ITS STUDENTS.

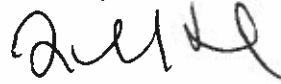
According to GPA, the 1,500-foot restriction in Public Law 22-23 was promulgated to address the Macheche Combustion Turbine, which had been constructed within 500 feet of JM Guerrero Elementary School in Harmon. The Macheche plant initially burned 0.5% sulfur diesel. However, this issue was addressed by the raising of the stack, and the changing of fuel to 0.0015% Ultra Low Sulfur Diesel. There have been no issues since PL 22-23 was enacted in June of 1993 regarding the Macheche CT and JM Guerrero Elementary School. A review of PL 22-23 does not disclose any basis or justification for the limitation of 1,500 feet. It does not appear that there is any scientific basis for the limitation. GEPA has been operating the Macheche CT on ULSD for years without issue.

The existing baseload plants, Piti 8 & 9, have been operating within 1,500 feet of Jose Rios Middle School since the 1990's. There is no indication of any adverse effect. The 41MW reserve units will consume and burn ULSD at less than 10% of the existing Piti plants' consumption. The plant will be permitted by GEPA and USEPA, ensuring compliance with current and future ambient air standards. In fact, GPA has noted that,

in compliance with the Consent Decree, over the next three years there will be a system-wide 1,859x improvement in SO2 omissions under the USEPA Air Quality Standards.

The Piti Municipal Planning Counsel has voted to support the measure (Bill No. 213-36(COR)). Legislative approval of the exemption for the 41MW reserve facility at Cabras will enable GPA to retire costly aging legacy power plants, resulting in an improved power system reliability and cost savings. On behalf of the PUC, I respectfully request that the Senators of this Committee support passage of Bill No. 213-36 (COR), and that the Guam Legislature enact the Bill into law.

Sincerely,



Peter Montinola  
Acting Chairman  
Guam Public Utilities Commission

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION



IN THE MATTER OF: ) GPA Docket 21-07  
)  
The Application of the Guam Power )  
Authority to Approve the Amendment to ) **ORDER**  
the Energy Conversion Agreement (ECA) )  
with KEPCO for the 198MW Power Plant. )  
\_\_\_\_\_ )

INTRODUCTION

This matter comes before the Guam Public Utilities Commission [“PUC”] upon the Guam Power Authority [“GPA”] Petition to Approve the Amendment to the Energy Conversion Agreement (ECA) with Korean Electric Power Company [“KEPCO”] for the 198MW Power Plant.<sup>1</sup>

The essentials of the Proposed Amendment are set forth in Exhibit “1” to the ALJ Report. Exhibit “1” is Attachment A to Guam Consolidated Commission on Utilities Resolution No. 2021-02.<sup>2</sup> GPA has also provided to the PUC five proposed Schedule Attachments to the Energy Conversion Agreement which specify the requirements for the proposed operation of a 41MW diesel facility at Cabras: Schedule 1, Functional Specifications for Reserve Facility; Schedule 2, Technical Limit and Contracted Characteristics; Schedule 3, Commissioning and Testing; Schedule 4, Determination of Tariff; and Schedule 10, ULSD and Natural Gas Metering System and Settlement.<sup>3</sup>

<sup>1</sup> GPA Petition to Approve the Amendment to the Energy Conversion Agreement (ECA) with KEPCO for the 198MW Power Plant, GPA Docket 21-07, filed February 5, 2021.

<sup>2</sup> Guam Consolidated Commission on Utilities Resolution No. 2021-02, Relative to Authorization of Ukudu Power Plant Energy Conversion Agreement (ECA) Amendment for Relocation of Emergency Diesel Units and Pursuit of Minor Source Air Permit, Attachment 1, adopted and approved on January 26, 2021; see Exhibit “1” attached hereto.

<sup>3</sup> Copies of these Schedules were provided in an email from GPA Legal Counsel Graham Botha to PUC ALJ Fred Horecky dated February 5, 2021.

The Amendment negotiated by GPA and KEPCO contains three basic aspects: (1) in the original KEPCO Proposal, KEPCO was to build a diesel facility of 65MW of standby generation capacity at the Ukudu new plant site. The parties have now agreed that, instead of the construction of a 65MW standby generator facility at the Ukudu site, 41MW of diesel engines will be installed near the GPA Cabras Fuel Oil Storage Facility<sup>4</sup>; (2) The Commercial Operation Date (COD) for the 198MW Power Plant will be changed from October 31, 2022, to April 2024<sup>5</sup>; and (3) the air permitting for the new power plant will be “minor source” rather than “major source.”

### **BACKGROUND**

#### **A. Prior PUC Actions**

On October 31, 2019, in GPA Docket 19-13, the PUC approved the Energy Conversion Agreement between GPA and KEPCO for the construction and operation of the 198MW Power Plant in Ukudu.<sup>6</sup> On December 5, 2019, the PUC approved the Consent Decree between GPA and USEPA, which constituted a final resolution of environmental violations alleged by EPA.<sup>7</sup> Both the Consent Decree and the ECA presently require the construction and operation of the new power plant burning ultra-low sulfur diesel (ULSD) by October 31, 2022.<sup>8</sup> Based upon KEPCO’s bid proposal, the parties agreed that KEPCO would construct a 65MW reserve facility that would serve as a backup in the event that the new power plant could not operate. The site of the reserve facility was at Ukudu.

---

<sup>4</sup> GPA Petition to Approve the Amendment to the Energy Conversion Agreement (ECA) with KEPCO for the 198MW Power Plant, GPA Docket 21-07, filed February 5, 2021, at p. 1.

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

<sup>6</sup> PUC Order, GPA Docket 19-13, dated October 31, 2019, at p. 19.

<sup>7</sup> PUC Order, GPA Docket 20-01, dated December 5, 2019, at p. 6.

<sup>8</sup> GPA Petition to Approve the Consent Decree with the United States Environmental Protection Agency (EPA), GPA Docket 20-01, filed November 12, 2019, at p. 1.

B. GPA's Stated Justification for the Relocation of the Reserve Facility

GPA's justification for the relocation of the Reserve Facility is set forth in a Letter from GPA General Manager John Benavente to CCU Commissioners, dated December 14, 2020, which is attached to the ALJ Report as Exhibit "2".<sup>9</sup> The reason for relocation of the diesel standby generator facility from Ukudu to Cabras relates in part to the permitting process for the new power plant. KEPCO originally pursued "Major Source Permitting" to meet its performance obligations for the new power plant. USEPA expressed concerns that major source permitting would result in substantial delays in the construction of the new power plant. Subsequently, KEPCO and GPA agreed on a minor source permit process and the relocation of the diesel standby engine plant to a Cabras site directly adjacent to the GPA Bulk Fuel Oil Storage Tank Facility.<sup>10</sup>

A "minor source" permitting was not feasible if the 65MW facility continued to be located at the Ukudu site. With minor source, there is a 100 ton per year limitation on emissions. With the combination of both the 198MW combined cycle and the 65 MW diesels at Ukudu, the production capability of the Ukudu plant would have been significantly limited when the steam turbine is overhauled every four years.<sup>11</sup> The 65MW reserve facility was only intended to be used for short duration outages and was only capable of operating for 300 hours continuously.<sup>12</sup> The 65MW reserve facility could only operate at a maximum of 500 hours per year.<sup>13</sup>

---

<sup>9</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, attached hereto as Exhibit "2".

<sup>10</sup> Id. at p. 2.

<sup>11</sup> GPA Responses to PUC Requests for Information, GPA Docket 21-07, dated February 16, 2021, Response No. 5.

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

<sup>13</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, at p. 2.



C. CCU Resolution No. 2021-02

On January 26, 2021, the Guam Consolidated Commission on Utilities, in Resolution No. 2021-02, authorized the Amendment of the Ukudu Power Plant Energy Conversion Agreement for relocation of the emergency diesel units and pursuit of minor source air permit.<sup>14</sup> The CCU recognized that the USEPA had expressed concerns that the local company constructing the plant, Guam Ukudu Power ["GUP"] LLC, intended to pursue a major source air permit path, which would result in significant delays because of the lengthy air monitoring requirements before a major source permit could be issued. This delay could extend the Commercial Operation Date past 2025.

The USEPA encouraged GPA to work out an alternative which would permit the plant under minor source permitting.<sup>15</sup> The CCU recognized that GPA and GUP LLC had reached an agreement to permit the Ukudu Combined Cycle Plant as a minor source air permit, to install a 41MW plant of diesel engines in Cabras, and to agree to fixed and variable O&M rates to compensate for the operation and maintenance of the new diesel plant.

The CCU also authorized GPA to amend the Ukudu Power Plant Energy Conversion Agreement for the relocation and operation of a 41MW diesel unit facility at Cabras, and to require GUP LLC to pursue a minor source air permit, with the new Commercial Operation Date of the Ukudu plant to be no later than April 2024. The parties also agreed to "best efforts" to achieve a target COD of November

---

<sup>14</sup> Guam Consolidated Commission on Utilities Resolution No. 2021-02, Relative to Authorization of Ukudu Power Plant Energy Conversion Agreement (ECA) Amendment for Relocation of Emergency Diesel Units and Pursuit of Minor Source Air Permit, adopted and approved on January 26, 2021.

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

2023.<sup>16</sup> The proposed diesel plant at Cabras would consist of 15 units of 2.75MW capacity each available for continuous operations.<sup>17</sup> In accordance with the agreement between GPA and GUP LLC, GPA would pay a fixed O&M of \$2M annually, and a variable O&M of \$0.025/kWh. GPA would provide the ULSD for the diesel units.<sup>18</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 annual fixed management fees of \$2M for the 41MW plant alone will exceed the contract review threshold, thus requiring PUC review.

The Administrative Law Judge filed his Report herein dated February 22, 2021. The PUC adopts the conclusions and recommendations in the Report.<sup>19</sup>

### **DETERMINATIONS**

A. The 41MW Diesel Plant at Cabras provides significant advantages to GPA over the previously proposed 65MW facility at Ukudu.

---

<sup>16</sup> Id., at pgs. 2-3.

<sup>17</sup> Proposed Amendment of the Ukudu Power Plant Energy Conversion Agreement, January 21, 2021, at p. 6.

<sup>18</sup> Id.

<sup>19</sup> ALJ Report, GPA Docket 21-06, dated February 22, 2021.

41MW of continuous operating diesel units would be installed on GPA property next to the GPA Bulk Fuel Oil Storage Facility. The original KEPCO proposal was for 65MW of standby generators at the Ukudu site.<sup>20</sup> The Reserve Facility at Ukudu was a 65MW power generation plant consisting of twenty-six (26) high speed reciprocating engines operating on ULSD. However, the diesel units at Ukudu were “designed for operation of no more than 500 hours per year and of no more than 300 hours of continuous operation.”<sup>21</sup>

The 65MW reserve facility had an extremely limited operating capacity of 500 hours annually. Only KEPCO, and not GPA, could dispatch the unit. The only purpose of the 65MW reserve facility was to provide backup to KEPCO when it was not meeting availability guarantees with the new power plant. GPA had absolutely no say as to when the facility would be run, and GPA could not use the 65MW facility for grid support.<sup>22</sup>

With the change to minor source permitting, the 41MW facility at Cabras would be permitted to run for a minimum of 2,600 hours and likely as much 5,000 hours.<sup>23</sup> With the 41MW facility, GPA is in complete control as to when the facility is dispatched. The facility is continuously dispatchable throughout the year. It will provide generation capacity and grid support to the island-wide power system. The change in the proposed site of the diesel units to Cabras is clearly advantageous to

---

<sup>20</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, at pgs. 1-2.

<sup>21</sup> GPA Workpaper on Proposed Amendment of the Ukudu Power Plant Energy Conversion Agreement, January 21, 2021, at p. 4.

<sup>22</sup> Phone Conference between ALJ Horecky, Graham Botha, and Jennifer Sablan on February 17, 2021.

<sup>23</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, at p.2.

GPA. Such change would allow the 41MW to be run continuously, as opposed to the limitation on the Ukudu site to 500 hours.<sup>24</sup>

This advantageous change is premised upon KEPCO's agreement to proceed with a minor source air permit application process rather than the major source permitting. GPA provided KEPCO the alternative of relocating the diesel generator facility to Cabras and making "adjustments to the capacity factor of the combined cycle during the steam turbine overhaul years."<sup>25</sup> GPA agreed to adjust the new plant availability from 85% to 66% during steam turbine overhaul once every 4 years.<sup>26</sup> The PUC should approve the change in location of the diesel units, the minor source permitting process, and the adjustments to the capacity factor of the combined cycle during the steam turbine overhaul years. USEPA has indicated that it is not opposed to change the diesel location, and the permitting process to minor source. It believes that the amendment would address the avoiding of delays in the permitting process.<sup>27</sup>

- B. Although there are additional Costs resulting from placing the 41MW plant at Cabras, there does not appear to be any viable alternative; the relocation of the 41 MW facility to Cabras also will result in savings that will offset the costs.

According to GPA, there was simply no way that the proposal for the 65MW reserve facility could be worked out. It was not cost effective for KEPCO to proceed with it

---

<sup>24</sup> Phone Conference between ALJ Horecky, Graham Botha, and Jennifer Sablan on February 17, 2021.

<sup>25</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, at p.2.

<sup>26</sup> GPA Workpaper on Proposed Amendment of the Ukudu Power Plant Energy Conversion Agreement, January 21, 2021, at p. 6.

<sup>27</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, at p.2.

under minor source permitting. GPA was concerned that, without a resolution to these issues, KEPCO may well have declined to proceed with the ECA.<sup>28</sup> Placing the 65MW facility at Ukudu is no longer realistic. Therefore, there is no alternative to location of the 41MW facility at Cabras.

As with the prior proposal for a 65MW facility, the 41MW facility will be constructed by KEPCO. GPA does not pay any additional amount for the construction of the plant.<sup>29</sup> GPA will pay a fixed annual fee to KEPCO of \$2M to operate and maintain the plant. KEPCO will need about 35 personnel to operate and maintain the plant including overhauls throughout the plant life, which are funded from fixed cost.<sup>30</sup> Fixed O&M covers personnel costs for manning the plant, and other costs such as administration, permitting, licensing, etc. Variable O&M include such consumable items as oil, filters, equipment replacements, and other operation items.<sup>31</sup> GPA estimates that variable costs will be \$2.425M annually.<sup>32</sup> The variable O&M will be \$0.025/kWh.<sup>33</sup> There will likely be additional costs of \$4.425M annually for the operation of the 41 MW plant.<sup>34</sup> The annual cost for the 41MW facility is over \$400,000 less than that for the Aggreko plant.<sup>35</sup>

The 41MW plant would result in cost savings, although it is difficult to quantify those at the present time. The 41MW plant would allow GPA to retire units which

---

<sup>28</sup> Id. at p. 1.

<sup>29</sup> Phone Conference between ALJ Horecky, Graham Botha, and Jennifer Sablan on February 17, 2021.

<sup>30</sup> GPA Responses to PUC Requests for Information, GPA Docket 21-07, dated February 16, 2021, Response No. 9.

<sup>31</sup> Phone Conference between ALJ Horecky, Graham Botha, and Jennifer Sablan on February 17, 2021.

<sup>32</sup> GPA Responses to PUC Requests for Information, GPA Docket 21-07, dated February 16, 2021, Response No.11.

<sup>33</sup> GPA Workpaper on Proposed Amendment of the Ukudu Power Plant Energy Conversion Agreement, January 21, 2021, at p. 6.

<sup>34</sup> Id.

<sup>35</sup> Id.

are already 30 years old.<sup>36</sup> Possible candidates include the Tenjo diesels, the Talofofa diesels, the Yigo CT, and Piti 8 & 9.<sup>37</sup> Savings would include the operation costs of such older plants. The 41MW plant would provide fuel saving and would be more efficient than the older plants. GPA has provided calculations showing that the 41MW plant is less expensive to run than the Aggreko plant, which both have similar energy production. Since the 41MW plant is close to the ULSD storage facility at Cabras, tanker transportation required to other plants (\$9.24/Bbl. Delivery costs) will be avoided.<sup>38</sup>

- C. The Amendment to Change Commercial Operation Date to April 2024 is justified by several Factors.

The parties have targeted a COD date as April 2024, although they have also agreed to “make all best efforts to reduce the COD to November 30, 2023.”<sup>39</sup>

There are many factors that justify the amendment of the ECA to change the Commercial Operation Date. There had been several delays caused by the negotiations on major source/minor source permitting. Minor source permitting does result in a shorter commissioning period but is potentially not economically feasible to KEPCO due to higher capital investment requirements to meet contract performance.<sup>40</sup>

---

<sup>36</sup> GPA Responses to PUC Requests for Information, GPA Docket 21-07, dated February 16, 2021, Response No. 5.

<sup>37</sup> Phone Conference between ALJ Horecky, Graham Botha, and Jennifer Sablan on February 17, 2021.

<sup>38</sup> GPA Responses to PUC Requests for Information, GPA Docket 21-07, dated February 16, 2021, Response No. 5.

<sup>39</sup> Conditions for DG Plant relocation and Minor Air Permit Acquisition for Ukudu Project, dated December 11, 2020 and signed by GPA/Guam Ukudu Power, LLC, at p. 3 (Exhibit “1” hereto).

<sup>40</sup> Proposed Amendment of the Ukudu Power Plant Energy Conversion Agreement, January 21, 2021, at p. 5.

According to GM Benavente, these economic feasibility issues had even led to a possibility of contract termination. However, the parties were able to work out an appropriate compromise. The environmental and construction permitting has presented challenges. This is the first new power plant construction in 23 years. The resources of applicable local permitting agencies have been taxed. There has been substantially increased scrutiny on historical preservation and environmental permitting due to the military build-up and other community concerns.<sup>41</sup>

On top of the foregoing challenges, there have been delays related to the COVID-19 pandemic. The relevant local government permitting agencies have had reduced availability during the pandemic due to closures. Quarantine requirements and other travel restrictions made it difficult for KEPCO personnel to travel to Guam. There have been work inefficiencies resulting from the changes in the operating mode.<sup>42</sup> KEPCO was unable to contract with its originally selected Engineering, Procurement, and Construction Contractor, Hyundai, because of the delays and uncertain schedules for the plant causing the contract cost to increase. KEPCO issued a new tender for its EPC, and is engaging a new EPC, Doosan Industries.<sup>43</sup>

Therefore, the proposed change in the Commercial Operation Date is justified due to the legitimate delays that have occurred, which delays were beyond the ability of the parties to avoid.

---

<sup>41</sup> Id.

<sup>42</sup> Id.

<sup>43</sup> Letter from General Manager John Benavente to CCU Commissioners, Subject: Update on New Power Plant and USEPA Negotiations, dated December 14, 2020, at p.2.

**ORDERING PROVISIONS**

After review of the record herein, including GPA's Petition and the Proposed Amendments to the Energy Conversion Agreement between GPA and KEPCO, GPA's Responses to PUC's Requests for Information, and the ALJ Report, for good cause shown, on motion duly made, seconded and carried by the undersigned Commissioners, the Guam Public Utilities Commission **HEREBY ORDERS** that:

1. GPA' proposed Amendments to the Energy Conversion Agreement between GPA and KEPCO are approved. The changes which PUC approves include:
  - (a) Removal from KEPCO's proposal of the construction of a 65MW diesel reserve facility at Ukudu, and location of a 41MW diesel engine reserve facility at the Cabras site, and the agreement by the parties for Minor Source permitting for such facility and the new power plant; and
  - (2) a change in the Commercial Operation Date from October 31, 2022, to April 2024, with the agreement by the parties to use best efforts to meet a November 30, 2023 target.
2. GPA is authorized to pay to KEPCO a fixed annual fee of \$2M and a variable O&M fee of \$0.025/kWh to operate and maintain the 41MW diesel plant.
3. GPA shall continue to work with USEPA to expeditiously approve the changes to the ECA reflected in paragraph 1 above. GPA shall provide quarterly reports to the PUC concerning the status of its negotiations with USEPA.
4. GPA is ordered to pay the Commission's regulatory fees and expenses,



Order  
Approval for Amendment  
to the ECA with KEPCO for 198MW Power Plant  
GPA Docket 21-07  
February 25, 2021

---

including, without limitation, consulting and counsel fees and the fees and expenses of conducting the hearing proceedings. Assessment of PUC's regulatory fees and expenses is authorized pursuant to 12 GCA §§12103(b) and 12125(b), and Rule 40 of the Rules of Practice and Procedure before the Public Utilities Commission.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

Order  
Approval for Amendment  
to the ECA with KEPCO for 198MW Power Plant  
GPA Docket 21-07  
February 25, 2021

---

Dated this 25th day of February 2021.



Jeffrey C. Johnson  
Chairman

---

Rowena E. Perez-Camacho  
Commissioner



Joseph M. McDonald  
Commissioner

---

Michael A. Pangelinan  
Commissioner



Peter Montinola  
Commissioner

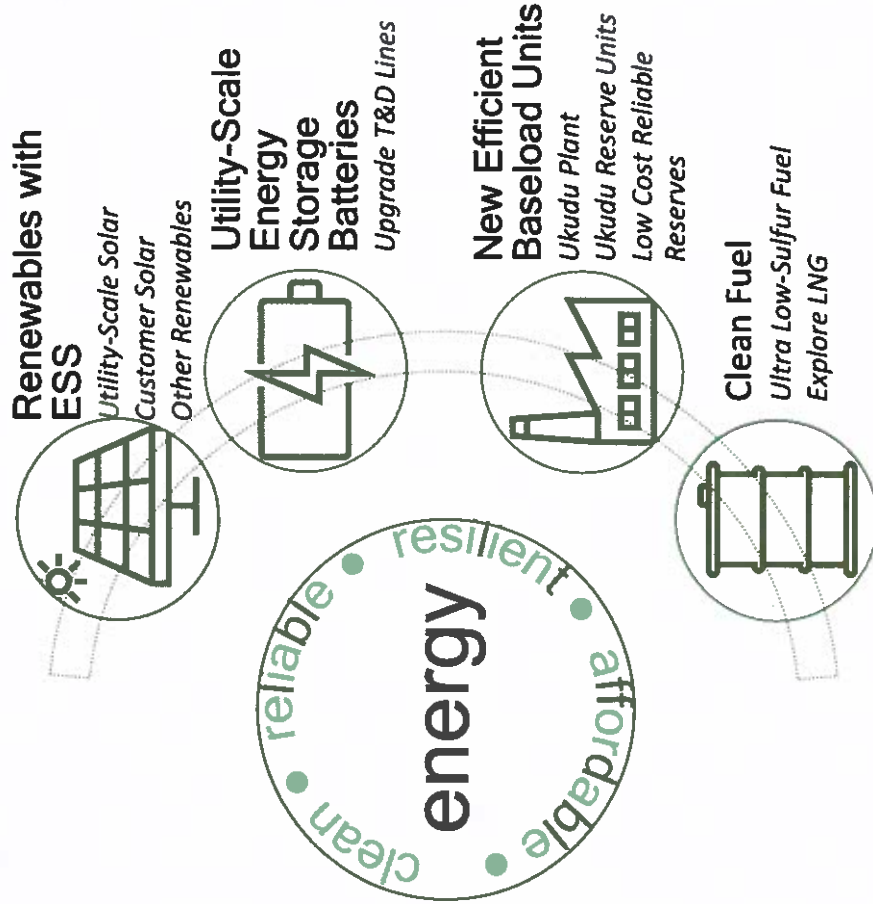


Doris Flores Brooks  
Commissioner



Pedro S.N. Guerrero  
Commissioner

# Guam's Roadmap to Clean, Reliable, Resilient, Affordable Energy



## 2025 PROJECTED ACHIEVEMENTS

**25.30%** Renewable Energy Generation

**(49,152,752)** million gallons reduced oil imports

**COMPLIANCE**  
Consent Decree  
USEPA Air Quality Standards

**1,859x IMPROVEMENT** SO<sub>2</sub> emissions  
↓ **1 million** gallons reduced wastewater outfall

**LOWER BILLS**  
Est. \$0.1162 LEAC gives ratepayers sustainable, affordable rates



Prepared for Gov. Leon Guerrero & Lt. Tenorio | January 10, 2022



EXHIBIT "2"

# Ukudu Power Plant - Project Permitting

## ZONE VARIANCE FOR HEIGHT (Ukudu Primary Site)

- PL 34-102 rezoned the GPA-owned Ukudu lots specifically for the construction and operation of a power plant.
  - Some buildings, stacks, tanks, and other structures will exceed 30' height.
  - Department of Land Management required Guam Ukudu Power, LLC (GUP) to apply for a zone variance for height.
  - Guam Hybrid Land Use Commission (GHLUC) granted GUP the variance on October 14, 2021, subject to ARC position statements
    - BSP position statement included requirements outside the scope and control of GUP including:
      - Placing 115kV transmission lines underground
      - Converting decommissioned transmission lines outside of this project to conservation easements or greenspaces
    - GUP and GPA representatives have discussed the unreasonable scope of the conditions directly with BSP Coastal Zone Management Program, resulting in BSP issuing a revised position statement.
  - The additional zone variance required requirements, albeit debatable because of the legislative rezoning, delayed the timely acquisition of GovGuam building permits.

## USE EXEMPTION (Cabras Reserve Site)

- The siting of 41MW of reserve standby generators is planned for GPA-owned lot adjacent to the old Navy Piti plants.
  - Lots turned over to GPA by Military for Power Generation related use.
  - However, GPA is seeking an exemption from PL 22-23 which restricts construction and operation of any fossil fuel generators over 1MW within 1,500 feet of a school.
    - The lot is within 1,500 feet of a school

# Bill 213-36 (COR) Exemption to Site New Reserve Units at GPA-Owned Cabras Property



The Cabras-area air environment will be substantially clean after over 50 years of burning cheap but high sulfur content fuel

GPA proposes siting the 41MW reserve units (a part of the new Ukudu power plant) adjacent to other existing power generating facilities to allow the main Ukudu power generators to operate under a minor source air permit, thus meeting the Consent Decree deadlines.

- The availability of existing fuel sources, major transmission lines and other power infrastructure makes this an ideal location for the reserve units.



- GUP lenders concerned and may not finance the new power plant project due to perceived legal issue:
  - Rios School approximately 1,000 feet from proposed 41MW Reserve Project causing concern about PL 22-23's 1,500-foot restriction
  - Department of Land Management has opined that the Cabras site was transferred to GPA and is unzoned Federal property turned over for power plant use by GPA. However, KEPCO concerned conflict between special use designation and PL 22-23 which may not make project financeable
  - GUP requires GPA to remedy
- GUP lenders require assurance that no cost lease of GPA land to GUP for purpose of construction Ukudu and Cabras Reserve Diesel is authorized by law and is requiring that legislation to address PL 22-23 include specific authorization
- PL 22-23 which restricts construction and operation of any fossil fuel generators over 1MW within 1,500 feet of a school.
- The subject lots are within 1,500 feet of Jose Rios Middle School, as are existing baseload plants Piti 8&9.
  - The school's potential impact from plant emissions occurred less than 3% of plant operations over the past 5 years (2016-2020).
  - The 41MW reserve units will consume burn ULSD and fuel consumption will be less than 10% of the existing Piti plants' consumption.
  - The plant will be permitted by GEPA and USEPA ensuring compliance with current and future ambient air standards.



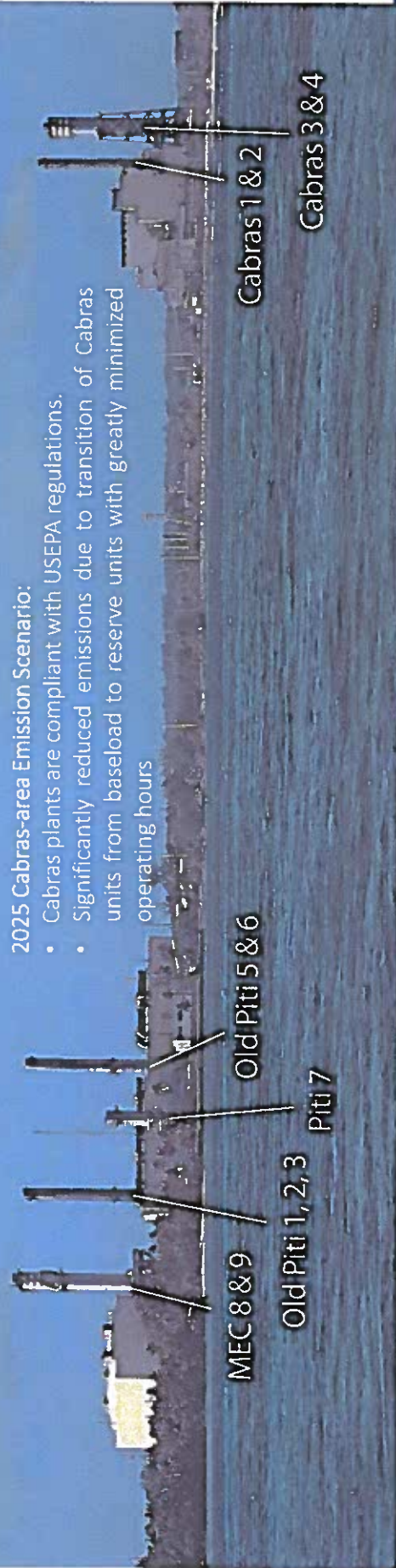
# Cabras 41MW Reserve Units Siting at Cabras

## Cabras area properties transferred to GPA from Navy for power generation and related facilities

Scenario	CABRAS 1&2	PITI 8&9	PITI 7	NEW RESERVE UNITS
<b>Current</b>	HSRFO & LSRFO ~1M bbls/yr	HSRFO & LSRFO ~960k bbls/yr	ULSD	-
<b>Consent Decree Compliance</b>	Transition to 0.2% LSRFO by 31-Dec-2022 Retire late 2024	Transition to 0.0015% ULSD by 31-Jul-2022	Compliant	Constructed as Ukudu Plant reserve units, burning clean 0.0015% ULSD
<b>2025</b>	Retired	Reserve Unit ULSD	Reserve Unit ULSD	Reserve Unit ULSD

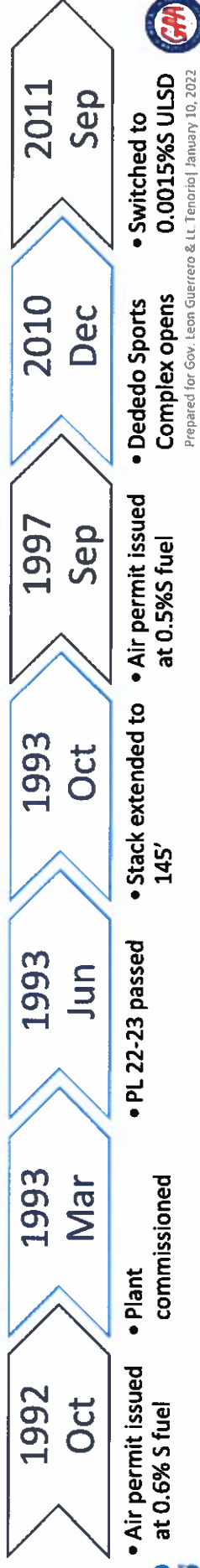
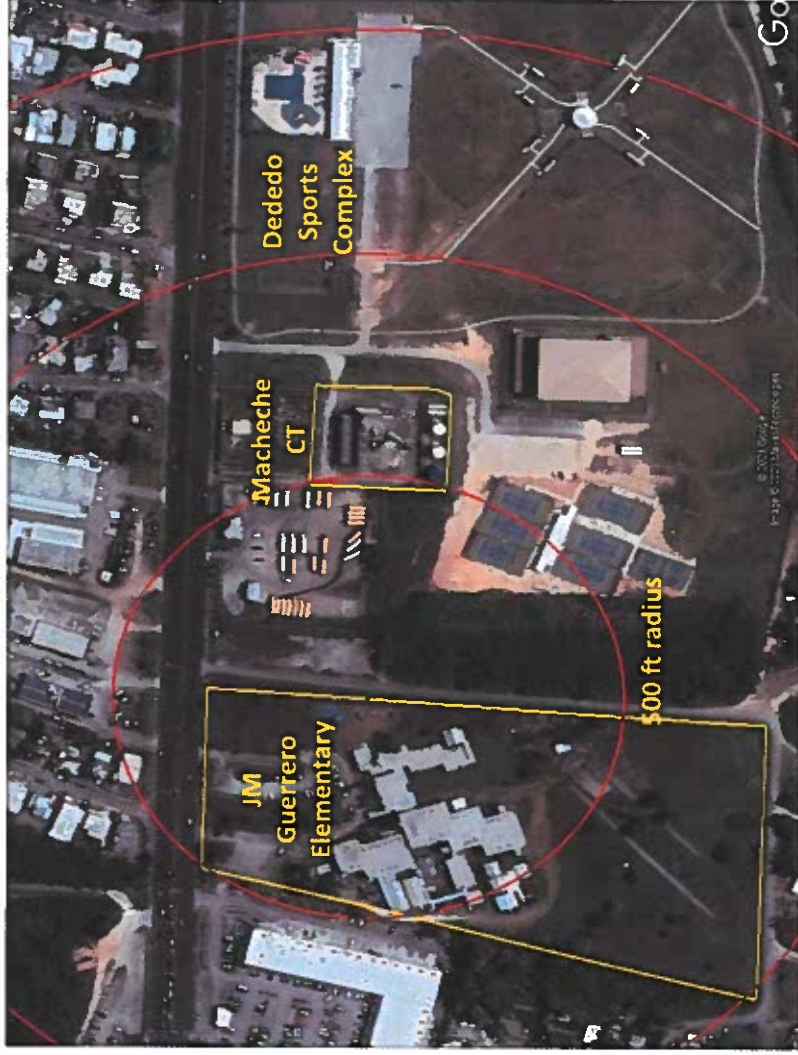
### 2025 Cabras-area Emission Scenario:

- Cabras plants are compliant with USEPA regulations.
- Significantly reduced emissions due to transition of Cabras units from baseload to reserve units with greatly minimized operating hours



## PL 22-23 Promulgated to Address Macheche CT/JM Guerrero Radius

- Macheche CT constructed within 500 feet of JM Guerrero Elementary School in Harmon
- Plant initially burned 0.5%S Diesel
- Issue addressed by raising stack. Furthermore, GPA changed fuel to 0.0015%S ULSD. No issues since then.
- Macheche operates regularly to support intermittency and spinning reserve
- Basis for PL 22-23 limitation of 1,500 feet not found. It appears there is no scientific basis for limitation.
- Macheche is permitted by GEPA and has been operating on clean ULSD for years without any issues



Prepared for Gov. Leon Guerrero & Lt. Tenorio | January 10, 2022

# Improved Air Quality

## Juan M. Guerrero Elementary School

### Macheche Power Plant

- Within 500 feet of JGES
- Within 500 feet of Dededo Sports complex
- Consistent, usual operations
- Uses ultra-low sulfur diesel (ULSD)

No adverse air quality issues



## Jose Rios Middle School

### Piti Units 8 & 9

- Within 1,500 feet of JRMS
- Consistent, usual operations
  - **2025: Reduced operations**
- Uses residual fuel oil (RFO)
  - **2022: ULSD**

### New Cabras Reserve Units

- Within 1,500 feet of JRMS
- Reserve operations
- Will use ULSD



Photo: Guam Pacific Daily News, July 28, 2021



# Legislation

## 212-36 (COR)

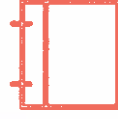
### 2012A Bond Refunding

- Bill 212-36 will allow GPA to refund its 2012 Series A bonds at a lower interest rate, resulting in ratepayer savings.
- Market interest rates are at historic low levels.
- Upon passage into law, GPA will petition the PUC for approval.
- GPA will work with GEDA, bond underwriters and bond counsel on the refunding project.

## 213-36 (COR)

### Exemption for Reserve Generators

- Bill 213-36 will allow GPA to relocate a new reserve clean-fueled generator at Piti.
- GPA will retire costlier aging legacy power plants resulting in improved power system reliability and cost savings.
- The new power reserve unit will make our power system more reliable as we add more renewables.
- The Piti/Cabras area air quality will be substantially improved.



Public hearings on both bills is scheduled for January 20, 2022. We respectfully request for your support.

# AVOID: Federal Court Receivership, Rotating Blackouts, Higher Rates and Uninterested Investors!

Plant Nameplate MW	CY 2022 Derated MW Capacity	1/5/2022 Actuals	CY 2025 with Ukudu
Cabras 1	50	46	-
Cabras 2	50	42	-
Piti 8	42	43	42
Piti 9	42	42	42
Piti 7	33	26	33
Macheche CT	20	20	20
Yigo CT	20	20	20
Dededo CT1	20	16	20
Dededo CT2	20	20	20
Yigo Diesels	33	26	35
Tenjo Diesels	12	12	0
Talofofo Diesels	8	8	8
Pulantat Diesels	8	8	8
<b>Ukudu Combined Cycle</b>			<b>198</b>
Ukudu Reserve Diesels			41
<b>TOTAL</b>	<b>420</b>	<b>329</b>	<b>487</b>
<b>CY 2021 Peak MW Demand:</b>	<b>257</b>	<b>257</b>	<b>278</b>
Current Reserve	101	72	209
<b>MINIMUM RESERVE REQUIREMENT</b>			
Largest Reserve Requirement	-50	-46	-63
Reserve Balance (subtotal):	51	26	146
2nd Largest Reserve Requirement	-50	-43	-63
Forced Outage			
<b>Reserve Balance:</b>	<b>1</b>	<b>-17</b>	<b>83</b>

- The New Ukudu Power Plant is Critical:**
- ✓ **Comply with USEPA Regulations enforceable by Federal Government and by Federal court under the 2020 Consent Decree.**
  - ✓ **To facilitate adding more renewables into the system and achieving 100% renewable energy by 2045.**
    - Plant provides low-cost reserve including during natural disasters and rainy days
  - ✓ **To meet load growth including the military buildup and all ancillary civilian loads. Load growth is occurring including low-cost housing programs.**
    - If Ukudu plant does not proceed, a moratorium will be placed on future building projects
  - ✓ **To retire aged conventional generation which are now 25 to 47 years old. 100% Renewables by 2045 is 23 years away.**

- It takes many years to commission a power plant facility:
- Planning for new plant began in 2012.
  - PUC approval obtained in 2016.
  - Contract signed in 2019.
  - Commissioning delayed until 2024.
  - Investors not seeing Guam as good investment center

**Put fãbot ayuda-ham para I minaolek todou taotao Guam!**

