

**BEFORE THE GUAM PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF: ) GPA Docket 16-05  
 )  
The Petition of the Guam Power Authority)  
for Approval of the Navy Lease for 45MW ) **PUC COUNSEL REPORT**  
Solar PV Development. )  
 )  
 )  
\_\_\_\_\_ )

**INTRODUCTION**

1. This matter comes before the Guam Public Utilities Commission [“PUC”] upon the Petition of the Guam Power Authority [“GPA”] for Approval of a Lease with the United States Navy [hereinafter “Navy”] for approximately 164 acres of federal land.<sup>1</sup>
2. The purpose of the Lease is to enable GPA to undertake a 37MW Solar PV Development.<sup>2</sup>
3. Because the lease payments under the proposed Lease would exceed \$1.5M over the term of the lease, GPA is required, under the Contract Review Protocol, to obtain prior PUC approval before entering into the Lease.<sup>3</sup>
4. GPA seeks to enter into a thirty-seven year lease (as Lessee) with the Navy for five parcels of land on the following areas: South Finegayan; WWTP Site; CDF Site; existing 250 KV Site; and Commissary Site.<sup>4</sup>
5. The Parties had originally planned to enter into an agreement for 192 acres and 8 sites; however 3 sites were required to be removed from the project, and the project was reduced from the 45 to 37MW.<sup>5</sup>

---

<sup>1</sup> GPA Petition for Approval of the Navy Lease for the 45MW Solar PV Development, GPA Docket 16-05, filed April 11, 2016, at p. 1.

<sup>2</sup> Id.

<sup>3</sup> Contract Review Protocol for Guam Power Authority, Administrative Docket, dated February 15, 2008, at par. 1(e).

<sup>4</sup> Proposed Lease between the United States of America and the Guam Power Authority, submitted with the Petition, Attachment A.

<sup>5</sup> SPORD Whitepaper, prepared by John J. Cruz Jr., SPORD Manager, Guam Power Authority, dated April 28, 2016, at p. 7.

6. GPA would develop a total 37MW PV Solar on the leased premises. Separate PV Solar facilities would be built on each of the five sites.
7. GPA would be the Engineering, Procurement and Construction [“EPC”] Partner for Navy on the development project. GPA would undertake the solicitation of bids from firms and the procurement to provide the following:
  - (a) Solar PV facilities at each of the leasehold sites;
  - (b) Transmission line interconnection from the nearest bulk power station;
  - (c) A substation upgrade; and
  - (d) Transmission line upgrades.<sup>6</sup>
8. GPA would also have responsibility for engineering and construction of the renewable energy power plants on the leasehold properties, including renewable integration, energy storage, and interconnection to GPA’s grid.<sup>7</sup>
9. GPA would be responsible for all project and post-project coordination between the solar PV facility owners/operators and Navy.<sup>8</sup>
10. Furthermore, GPA would perform system impact, interconnection, and renewable energy integration studies to provide guiding documents for the Phase 3 bid [this is “Phase 3” of GPA’s renewable program].<sup>9</sup>
11. Additionally, GPA would be responsible for all operations and maintenance of these new systems including resource (grid and/or microgrid/balancing, and for demolition and site restoration at the end of the lease.<sup>10</sup>

### **BACKGROUND**

12. GPA commenced discussions with Navy in 2013 regarding the use of federal lands to support GPA renewable efforts, and partnering between GPA and Navy for land use for project installation that would benefit GPA and Navy renewable goals.<sup>11</sup>

---

<sup>6</sup> Id. at p. 9.

<sup>7</sup> Id.

<sup>8</sup> Id.

<sup>9</sup> Id.

<sup>10</sup> Id.

<sup>11</sup> GPA Petition for Approval of the Navy Lease for the 45MW Solar PV Development, GPA Docket 16-05, filed April 11, 2016, at p. 1.

13. In 2015, Navy issued Request for Qualifications No. LO-15149. The Request solicited the lease of approximately 192 acres of federal land for solar renewable energy development. GPA submitted its responsive proposal on July 6, 2015.<sup>12</sup>
14. The Navy issued a Notice of Award to GPA. Subsequent thereto, Navy and GPA have engaged in negotiations concerning the terms of the Lease. GPA has provided Counsel with an updated Lease copy, with attachments, as of July 5, 2016.<sup>13</sup>
15. The Lease provides a rent schedule for payments by GPA over the 37 year period. A copy of the Rent Schedule is attached hereto as Exhibit "1".<sup>14</sup>
16. The Lease includes provision of potential "In Kind Consideration (IKC)" payment by GPA, which could offset payments due under the Lease. The "In Kind Consideration" is based upon GPA's development of the solar facilities, evaluation of such facilities, grid interconnection, and the potential for Navy to have legal and physical access service during island system outages which were not previously available.<sup>15</sup>
17. If GPA makes sufficient progress during the first 3 years on the solar projects, it will not be required to pay rent during that initial 3 year period. However, such rent will become payable if the projects are not successfully completed or if GPA has not made sufficient progress on the projects.<sup>16</sup>
18. The Navy desires to increase its production of renewable energy as a result of a legal requirement that 50% of its energy be garnered with Renewables or Energy Efficiency. The Department of Defense has set a goal for production by the Navy for as much as 1-Gigawatt of renewable energy.<sup>17</sup>
19. GPA's interest in this project arises at least in part from the fact that Navy is GPA's largest customer, accounting for over 5% of its revenues. If the Navy pursued its renewable projects without the involvement of GPA, there could be large impacts to

---

<sup>12</sup> Letter from John Benavente, GPA General Manager, to John W. Baxter, Navy Renewable Energy Program Office Real Estate Lead, dated July 6, 2015, Re: GPA Proposal to Department of Navy (DON) Request for Qualifications No. LO-15149.

<sup>13</sup> Email from Jennifer Sablan, GPA Project Engineer, to PUC ALJ Frederick J. Horecky, dated July 5, 2016.

<sup>14</sup> Attachment D, Rent Schedule, attached to the SPORD Whitepaper dated April 28, 2016.

<sup>15</sup> Attachment D, Id. at p. 10.

<sup>16</sup> Lease between the United States of America and the Guam Power Authority, Section 3, Consideration, at p. 2.

<sup>17</sup> Id. at p. 8.

other customers' tariffs to make up the difference. Were the Navy to delink from the GPA island wide system, this could result in major rate increases for other customer classes.<sup>18</sup>

20. GPA believes that participation in the Navy's renewable projects will enable it to strategically preserve its revenue streams and transform GPA from a power system with no variable generation into a grid heavily dependent on renewable energy resources.<sup>19</sup>
21. GPA further believes that, if it does not adequately allocate and expend resources to shape this technological/organizational transformation, its financial health and ability to adequately provide high quality electric energy services to customers will be severely compromised.<sup>20</sup>
22. GPA and Navy have engaged in an even far more broad reaching discussion of an extensive number of renewable energy projects, including an additional 160MW of renewable energy projects, referred to as "Phase 4". Additional projects could involve microgrids for the Airforce and Navy and a biomass/Waste to Energy Plant.<sup>21</sup> These plans are not yet operational and are in the planning stage.
23. It is important for the PUC Commissioners to note that GPA has assumed, as with the prior NRG renewable energy project, that the Navy Phase 3 energy charges will be a LEAC pass-through to GPA ratepayers.<sup>22</sup>
24. In Resolution No. 2016-11, the Guam Consolidated Commission on Utilities authorized the GPA General Manager to petition the PUC for approval of the Lease with the Navy for renewable energy projects.<sup>23</sup>

### ANALYSIS

25. An initial concern of Counsel in this matter was that, before examining GPA's proposed Phase 3, the Navy Solar Project, the PUC needed a comprehensive report

---

<sup>18</sup> Id (also referenced in discussion between GPA officials and PUC Counsel Horecky at GPA on June 6, 2016).

<sup>19</sup> Id. at p. 8.

<sup>20</sup> Id. at p. 15.

<sup>21</sup> Id. at p. 6.

<sup>22</sup> Id. at p. 11.

<sup>23</sup> Guam Consolidated Commission on Utilities Resolution No. 2016-11, Relative to the Approval of Navy Lease for 45MW Solar PV Development, adopted February 23, 2016.

on the status of the Phase 2 Renewables Project. In Phase 2, GPA had originally intended to bid out 40MW of renewable energy projects. There were suggestions that GPA had cancelled Phase 2, and PUC had no indication as to the future plans of GPA regarding Phase 2.

26. In Requests for Information, Counsel asked GPA whether Phase 2 had been cancelled, and if so, what plans GPA had to reissue the bid for Phase 2.<sup>24</sup>
27. GPA, through its responses, has satisfied Counsel that Phase 2 of the Renewables Project is back on track. GPA did cancel its original Phase 2 Renewable Acquisition for several reasons: it has experienced intermittency of power supply from the NRG 26.5MW solar PV power plant as well as from the aggregation of customer net meter distributed solar PV.<sup>25</sup>
28. In addition, GPA modified its Energy Storage System Phase 1 bid to accommodate an Energy Storage System (ESS) specifically for NRG's facility to provide frequency regulation offsetting the solar PV plant's power delivery swings and deleterious effects on grid operations.<sup>26</sup> GPA decided to cancel Phase 2 Renewables bid and rebid with the addition of renewable integration and energy storage to ameliorate these impacts upon GPA's power system.
29. GPA cancelled Phase 2 after a bid protest had been filed.<sup>27</sup>
30. GPA now plans to reissue the Phase 2 Renewables bid. It has increased the amount of renewable capacity it would consider awarding from 40MW to 60MW. GPA, in such rebid, will also require renewable integration and energy storage systems concurrently with intermittent renewable resources.<sup>28</sup> Counsel is satisfied that GPA has developed sufficient proposals to proceed ahead with the Phase 2 renewable projects. It is now appropriate for the PUC to consider GPA's request for approval of the Phase 3 Lease with Navy.
31. GPA primary justification for this project rests upon the need to maintain Navy revenues and to avoid the potential adverse rate impacts to other classes of customer if GPA were not a part of the Navy renewables project. In the longer

---

<sup>24</sup> PUC Requests for Information, GPA Docket 16-05, dated April 19, 2016.

<sup>25</sup> Id.

<sup>26</sup> SPORD Whitepaper, prepared by John J. Cruz Jr., SPORD Manager, Guam Power Authority, dated April 28, 2016, at p. 2.

<sup>27</sup> Id. at Appendix A: Notice of Cancellation to Bidders on March 25, 2016.

<sup>28</sup> Id. at p. 4.

term, GPA believes that it must be a part of the coming transformation that will result when Navy implements its long term renewables project.

32. GPA's justification for adding this new generation capacity does not address the usual rationale for the development of such capacity, which is a demonstrated need for such capacity. Ordinarily, GPA would provide a load forecast showing that current capacity is not sufficient to meet customer load. This would be done by the offer of a new load forecast showing that present capacity is insufficient.
33. GPA has not addressed the issues of load or capacity at all; it has not demonstrated that there is a need in the system for the additional capacity represented by the 37MW of additional energy. No analysis has been provided on this issue.
34. There are other viewpoints for analyzing GPA's justification for the 37MW project: that potential loss of revenue is a principal reason for undertaking the project. Ordinarily, in the private sector when businesses are faced with declining revenues or a loss of customers, the response would be to reduce expenses and the scope of operations. Assuming that GPA did not participate in the Navy renewable projects, it could cut costs by reducing employees and the scope of its operations. If GPA did not need to maintain the same level of load as a result of loss of the Navy customer, it could mothball additional generation resources.
35. Downsizing is not necessarily the worst alternative.
36. The renewable projects sought by the Navy could be provided by the private sector and do not necessarily require participation by GPA. If GPA were not a part of the Navy renewables project, this perhaps could provide an opportunity for GPA to downsize functions to save money, and accept a future in which it will not be principally responsible for new generation.
37. The CCU has at least to some extent already discussed a future in which GPA will not own generation plants and will not primarily be responsible for operating generation plants itself. The preferred method for future generation may be outsourcing through Power Purchase Agreements. Such a vision could be of a leaner, meaner GPA, with reductions of employees and operating budgets.
38. At present GPA has not provided a complete or accurate picture of how much this project will cost. In carrying out its EPC functions, GPA will be expending considerable resources and personnel. At one point GPA even suggested that, after

the first five years, it might itself consider taking over O & M functions for the renewable facilities. What will the cost be?

39. Also, GPA has engaged a number of consultants to investigate the costs of integrating the Navy renewables into the IWPS, interconnection costs and substation upgrade costs. There are issues concerning ESS and who will bear the costs.
40. GPA has not presented any clear picture of how costs will be shared between it and Navy. Since Navy will own the facilities, it is logical that costs for the system should be borne by Navy and its facility developers/operators. Yet a complicating factor is that these renewable facilities will actually become a part of the island wide power system, run and managed by GPA.
41. Counsel is also concerned about the daunting number of issues that GPA faces at the present time, such as the Cabras explosion, replacement of generation capacity, insurance reimbursement, procurement of new generation etc. Operationally, the Navy Renewable Project, as well as the potential 160MW of projects down the road, will place substantial burdens on the resources of GPA. Foregoing the Navy project might enable GPA to focus more on the serious, core issues that it already faces.
42. For various reasons, however, notwithstanding the above weighty concerns, Counsel has concluded that GPA's participation in this 37MW Navy renewables project may be advantageous to Guam and in the best interest of the ratepayers. GPA has justified an opportunity to bid such projects and determine whether they can be incorporated into the power system.
43. GPA has a legitimate concern that the loss of its biggest customer would require other rate classes to be burdened in terms of increased rates. Many of GPA's costs, particularly bond principal and interest payment, are fixed. Loss of its largest customer would likely mean that other rate classes would have to bear a larger proportion of the costs.
44. A major factor toward convincing Counsel that this project should be approved is that the 37MW Navy Renewables project is already a part of the 120MW of renewables which GPA has contemplated incorporating into the IWPS for a number of years.

45. GPA has clarified that the 37MW Phase 3 Renewable Project with the Navy is part and parcel of the 120MW projects that GPA intends to introduce into the island wide power system. The 37MW Navy Renewable Project is not a new venture or endeavor, but a part of the original renewables plan proposed by GPA.<sup>29</sup>
46. As indicated, the power produced by the Navy Renewables Project in the 37MW will be fed into the GPA island wide power system. It will not be used solely for Navy power needs. Thus, there will be additional power generated for the benefit of the IWPS. Navy will benefit because there will be additional power to meet its needs during times of outage, and it will make progress toward meeting its renewable goals.
47. Other GPA ratepayers will also benefit by the addition of renewable energy into the system. Of course, such ratepayers will bear the cost of the energy through LEAC, as well as GPA's costs in participating in the project.
48. There are also distinct advantages in having GPA control the development of the new renewables and their integration into the IWPS. If a private developer were developing the Navy renewable systems, without GPA participation, the issue of integrating such power into the IWPS would present complex issues and potential problems.
49. There would be no assurance that the private developer would provide for adequate battery storage. From the perspective of integrating the entire island wide power system, it does make sense for GPA to be responsible for the overall coordination and integration of the Navy renewables into the island wide power system.
50. In its Response to the Navy, GPA indicated that Phase 2 of its Energy Storage Program would investigate the feasibility for energy storage supporting load leveling and peak shifting objectives. GPA indicated a belief that using energy storage systems that charge during the day using renewable production and discharge during the GPA night system peak "will enable it to reduce conventional generation reserve requirements".<sup>30</sup> (emphasis added).

---

<sup>29</sup> Id; Discussion between GPA officials and PUC Counsel Horecky at GPA on June 6, 2016.

<sup>30</sup> Attachment I to SPORD Whitepaper, prepared by John J. Cruz Jr., SPORD Manager, Guam Power Authority, dated April 28, 2016

51. Thus, an additional benefit of GPA's Navy Solar Project is that it will enable it to reduce conventional generation reserve requirements. GPA should indicate how this project and other solar projects will reduce its current requests for 180MW of new conventional generation capacity. GPA is indicating a path forward for adding up to an additional 160MW of solar. There is a need for GPA to clarify its total system needs and the appropriate balance between solar and conventional generation.
52. There are also potential issues concerning the cost of the annual lease payments due under the proposed Lease, which range from \$1,205,000 in the first year up to \$2,039,000 in the 37<sup>th</sup> year of the lease. However, the Lease does provide for potential payment abatement during the first 3 years of the term based upon GPA's progress towards successful completion of the projects.
53. Under Section 3.2.1 of the Lease, it is also possible that GPA can satisfy rent payments throughout the full term of the lease based upon "in-kind consideration", which includes GPA performance of its duties and obligations under the lease and actions as the EPC.
54. In the Requests for Information, GPA was asked by PUC Counsel to explain the risks that ratepayers could face in non-performance by GPA of either the initial project completion requirements for 3 years, or for completing the tasks of the 37 year term. If GPA was unable to complete the projects or otherwise incapable of performing its duties during the term of the Lease, GPA ratepayers could have to pay the bill for the lease payments.
55. GPA has pointed out that it will ameliorate these risks in Phase 3 by using certain contracting mechanisms with the private parties that construct the solar projects. GPA will require bid and performance bonds, and will include liquidated damage provisions in the contracts with the private developers.
56. Under the circumstances, it appears that GPA has thought out the nature of the risks involved to ratepayers and is taking prudent steps to ameliorate such risks. GPA correctly points out that it's customers always bear some or all of the risk for GPA and its contractors' non-performance.<sup>31</sup>
57. There is a substantial issue concerning the funding of the Phase 3 Navy 37MW Renewable Projects. As indicated, GPA intends to fund the Phase 3 energy charges

---

<sup>31</sup> Id. at p. 11.

from the Navy renewable facilities through a LEAC “pass-through” to GPA customers. Navy does not pay the LEAC charges.

58. The PUC did approve such a pass-through in LEAC of the energy charges resulting from the Phase 1 NRG solar project in Dandan. The original PUC decision was likely made in an effort to encourage the development of renewables and to provide an expeditious method of paying for such project without necessitating a base rate increase.
59. The current monthly cost of the energy produced by the NRG solar plant is between \$800,000 and \$1M plus per month. The costs for the energy produced by the NRG plant are running to approximately \$11M per year.<sup>32</sup> The amounts due to NRG escalate every year.
60. Therefore, it could be expected that the monthly payments for the power generated by the Navy 37MW renewable facilities will be well in excess of \$1 million per month and could mount to \$1.3-\$1.5M per month. The development of the Navy 37MW renewable facilities will conceivably add \$18M annually to the cost of LEAC, a cost that will be borne by the ratepayers of Guam.
61. It can be argued that the cost of renewable energy is not even properly included within LEAC, as it is not a fuel cost at all. It is a cost of power production. Similar cost of energy production, such as those for the Piti 8 and 9 plants, are paid for in base rates and not through LEAC.
62. However, there will obviously need to be some method of payment by ratepayers for renewable energy produced, whether through LEAC or otherwise. Other methods could include requiring payment through base rates, surcharges, or other assessments. But the net effect is the same: the ratepayers must pay.
63. For the purpose of this particular Navy 37MW renewable project, it is likely as feasible as any other method to course payment through the LEAC. GPA has suggested that since renewable power production in effect reduces fuel cost, it is a charge appropriately placed in LEAC.
64. Counsel concludes that it is appropriate to place the costs of power produced by the Navy renewable solar facilities in LEAC. However, it must be clarified that such conclusion in no manner requires that the same result would occur with regard to

---

<sup>32</sup> GPA LEAC Filing, GPA Docket 16-10, Schedule 12, filed June 20, 2016.

future renewable projects. GPA has indicated that Navy could potentially have an additional 160MW of renewable projects. To place the cost of all such projects within LEAC would tremendously increase the overall LEAC costs to ratepayers.

65. For the Navy 37MW renewables projects, it is appropriate to pay the energy costs through LEAC.

### **RECOMMENDATION**

66. Counsel recommends that the PUC approve GPA's petition to enter into the Navy Lease for 37MW Solar PV Development.
67. However, such approval should not constitute or provide an actual PUC consent for the development of any other Navy PV solar project.
68. Authorization to fund Phase 3 energy charges through LEAC as a pass-through to ratepayers should not be deemed as approval for the funding of energy charges for any other Navy or other solar project.
69. GPA should file its final Lease Agreement with Navy for this project, along with all attachments, with the PUC.
70. GPA must obtain prior approval for each procurement of a solar plant under Phase 3 in accordance with the Contract Review Protocol.
71. A Proposed Order is submitted herewith for the consideration of the Commissioners

Dated this 11<sup>th</sup> day of July, 2016.

---

Frederick J. Horecky  
PUC Legal Counsel