BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

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Public Utilities Commission
GUAM

IN THE MATTER OF: Guam Power Authority's Request to Issue GPA 2014 Revenue Bonds and Subordinate Revenue Bond Financing	GPA Docket 14-09 **PUC COUNSEL REPORT**

INTRODUCTION

This matter comes before the Guam Public Utilities Commission ["PUC"] upon the Petition of the Guam Power Authority ["GPA"] for Approval of the Issuance of GPA 2014 Revenue Bonds and Subordinate Revenue Bond Financing.[1]

BACKGROUND

On February 11, 2014, the Guam Consolidated Commission on Utilities ["CCU"] authorized GPA to develop a financing approach with the Guam Legislature and the PUC for a bond issuance in the amount of $93,000,000.[2] The intent of the bond issuance was to provide funding for capital improvement projects including turbine and boiler overhauls for the Cabras 1&2 plants, Environmental Compliance Program for the Diesel RICE MACT, Energy Storage and Renewable Energy Mitigation, and LNG Initial Startup.[3]

On April 28, 2014, Public Law 32-140 ["P.L. 32-140"] was signed into law; the law generally authorized GPA to issue a principal amount of revenue bonds not to exceed Ninety Four Million Dollars ($94,000,000).

On May 29, 2014, GPA filed its Petition for PUC approval of the FY2014 Revenue Bonds and Subordinate Revenue Bond Financing.[4] On July 8, 2014, the Guam Consolidated Commission on Utilities ["CCU"] approved Resolution No. 2014-26,

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[1] GPA Petition for Contract Review to Authorize GPA to Issue Guam Power Authority Revenue Bonds and Subordinate Revenue Bonds Financing, GPA Docket 14-09, filed May 29, 2014.
[2] Guam Consolidated Commission on Utilities Resolution No. 2014-03, adopted February 11, 2014.
[3] 2014 Bond Project List attached to CCU Resolution No. 2014-03.
[4] GPA Petition for Contract Review to Authorize GPA to Issue Guam Power Authority Revenue Bonds and Subordinate Revenue Bonds Financing, GPA Docket 14-09, filed May 29, 2014.

which authorized the Issuance and Sale of Guam Power Authority Revenue Bonds, the Issuance and Sale of Subordinate Revenue Bonds, approved the Forms of Related Documents, Agreements and Actions, and authorized the Execution and delivery thereof.[5]

On July 21, 2014, Slater Nakamura & Co. LLC ["Slater"], the PUC's Consultants for power and water matters, filed its Report detailing its findings and recommendations with respect to the subject Petition.[6]

DISCUSSION

A. Bond Review

Pursuant to 12 G.C.A. §12004, GPA cannot enter into any contractual agreements or obligations which could increase rates and charges without the PUC's express approval. Additionally, pursuant to GPA's Contract Review Protocol, filed in the PUC Administrative Docket on February 15, 2008, all externally funded loan obligations and other financial obligations, such as lines of credit, bonds, etc., in excess of $1,500,000, and any use of such funds, must be approved by the PUC.[7]

Pursuant to 12 GCA §12005, PUC has regulatory supervision over the issuance, on behalf of the utility, of bonds and the disposition of the proceeds thereof. Finally, in Public Law 32-140, the Guam Legislature expressly required the prior approval of the Guam Public Utilities Commission before the 2014 bonds could be issued by GPA.

[5] Guam Consolidated Commission on Utilities Resolution No. 2014-26, approved July 8, 2014.
[6] Slater Nakamura & CO., LLC, Report on the Review of the Proposed Bond Financing under GPA Docket 14-09, filed July 21, 2014.
[7] See Contract Review Protocol for Guam Power Authority, Administrative Docket, p. 1 (February 15, 2008).

B. Petition

GPA's Petition seeks approval for issuance of up to $94M to pay for capital improvement projects which would include $69M of projects and $5M for a revolving loan fund for a legislatively approved demand side management program.

1. Uses

Some of the major projects to be funded include $56.47M for Generation improvement projects, with $35M for energy storage solutions, $5.58M for transmission improvement projects, $1.58M for improvement projects for distribution, $2.9M for SCADA system upgrade, and $2.45M for Cyber Security/IT upgrades.[8] A listing of the specific Capital Improvement Projects intended to be funded, and the amount for each project, is attached hereto as Exhibit "1".

2. Specific Projects and GPA's Stated Justification

In a letter submitted to the PUC by GPA General Manager Joaquin Flores, GPA sets forth the justification for the bond issuance for the specific projects listed.[9] Therein, Mr. Flores indicates that the purpose of the bond financing plan is to finance certain projects through bond revenues rather than including such projects in a rate case. Based upon the assumption that certain projects could be financed through bond revenues, GPA was able to petition for a smaller base rate level for FY2014 than it otherwise would have.

If bond financing were not available to GPA, it would be forced to immediately petition for further base rate relief to pay for certain critical projects. In particular, Mr. Flores details the justification for projects such as the Environmental Compliance Program (Diesel RICE MACT), Cabras No. 2 Boiler and Turbine Overhauls, and Energy

[8] Petition, p. 1.
[9] Letter from Joaquin Flores, GPA General Manager, to Frederick J. Horecky, PUC ALJ, GPA Docket 14-09, dated May 23, 2014.

Storage and Renewable Energy Mitigation. The Justification for the projects, as provided by Mr. Flores, is attached hereto as Exhibit "2".

As Mr. Flores notes, Legislature reduced the project listing by $5M (for the Energy Storage) and added an additional $5M in borrowing for Demand Side Management and Renewable Energy projects.[10]

GPA requests that PUC approve the issuance of $94M in revenue bonds in order to pay for the capital improvement projects of $69M and $5M for the revolving loan for the legislatively approved demand side management program.[11] GPA submits that its request for $94M to pay for capital improvement projects is reasonable, prudent and necessary.[12]

C. <u>CCU Resolution</u>

Pursuant to Resolution No. 2014-26, the Guam Consolidated Commission on Utilities ["CCU"] found that a need existed "for certain additions and improvements to the electric power system of the Guam Power Authority (the "GPA") and certain other generation, transmission and distribution projects, and determined that it is in the public interest for the Authority for GPA to issue bonds pursuant to Chapter 8, Title 12, Guam Code Annotated.[13]

In addition, the CCU further found that "it is necessary and desirable to issue one series of its Guam Power Authority Subordinate Revenue Bonds (the "Subordinate Bonds"), and, together with the Senior Bonds (the "Bonds") to finance costs of

[10] Id. at p. 2.
[11] Petition, at pgs. 1-2.
[12] Id.
[13] Guam Consolidated Commission on Utilities Resolution No. 2014-26, adopted July 8, 2014, at p. 1.

[*subordinate bond projects*] (the "Subordinate Projects") and, together with the Senior Projects (the "Projects").[14]

Accordingly, the CCU authorized the "[i]ssuance and sale of additional Senior Bonds pursuant to the Act and the Senior Indenture, as amended and supplemented by the Sixth Supplemental Indenture... in an amount ... not exceeding $89 Million to finance the Senior Projects, to pay costs of issuance, to pay for credit enhancement, if any, to pay for capitalized interest, and to fund a deposit to the debt service reserve fund."[15]

Furthermore, such Senior Bonds "shall be issued in such series and amounts and at such times as the Chair of the Commission, the Vice-Chair of the Commission, or the General Manager of GPA (the "Designated Officers") deem appropriate, provided that such Senior Bonds have a final maturity not later than 31 years from their date of issuance and shall accrue interest at such rates and shall be sold at such price or prices as shall result in a net yield to the bond holders, in each case as shall not exceed the limitations provided by Chapter 8 of Title 12 of the Guam Code Annotated, as amended by Public Law 32-140, and shall otherwise be issued and sold pursuant to GPA's existing bond indenture."[16]

The CCU further authorized the issuance of Subordinate Bonds in an aggregate principal amount not to exceed $5Million to finance the cost of the Subordinate Projects, to pay for the cost of issuance, to pay for credit enhancement, if any, and to fund a deposit to a debt service reserve fund. Subordinate Bonds were to be issued "in such series and amounts and at such times as the appropriate officials of GPA deem appropriate, provided that such Subordinate Bonds... shall have a final maturity not

[14] Id. at p. 2.
[15] Id. at p. 3.
[16] Id.

later than 32 years from the date of their issuance and shall accrue interest at such rates and shall be sold for such price or prices as shall result in a net yield to the bondholders… shall not exceed the limitations provided by Chapter 8 of Title 12 of the Guam Code Annotated… and shall otherwise be issued and sold pursuant to GPA's Subordinate Indenture and the First Supplemental Subordinate Indenture."[17]

Pursuant to the Resolution, the CCU also approved Bond Documents, which include the Preliminary Official Statement, Bond Purchase Agreement, Indenture, the Sixth Supplemental Indenture, the Supplemental Continuing Disclosure Agreement, the Subordinate Indenture, the First Supplemental Subordinate Indenture, the Subordinate Continuing Disclosure Agreement. It also and authorized GPA to execute such documents, subject to the approval of the Legislature, GEDA, and the PUC.[18]

D. <u>Public Law 32-140</u>

In P.L. 32-140, the Guam Legislature (the "Legislature") approved the terms and conditions of the issuance and sale of revenue bonds by GPA, in one or more series or issues of tax-exempt and/or taxable bonds, as senior revenue bonds in accordance with GPA's existing senior revenue bond indenture, for projects financed with taxable bonds and/or projects that do not constitute capital improvements to GPA's system, subordinate revenue bonds in accordance with the existing subordinate revenue bond indenture." The bonds were approved "for the purpose of continuing GPA's investment in the island wide power system involving generation, transmission and distribution assets to improve reliability, efficiency and power service, and to comply with environmental regulations; *provided*, that the bonds *shall* have a principal amount *not to exceed* Ninety-Four Million Dollars (**$94,000,000**), *shall* have a final maturity date

[17] Id. at p. 4.
[18] Id. at p. 7.

not later than thirty-one (31) years from the date of issuance of the bonds, *shall* accrue interest at rates that *shall not exceed* (1) seven percent (7%) with respect to tax-exempt bonds, and (2) with respect to taxable bonds, the limitation set forth in §8214(a) of Title 12 of the Guam Code Annotated, and *shall* be sold for such price or prices as *shall* result in a net yield to the bondholders *not exceeding* the rate specified by said §8214(a)."[19]

The Legislature furthered required that the sale of the bonds "*shall* be approved by the Board of Directors of the Guam Economic Development Authority (GEDA)," and that "the terms and conditions of the issuance of the bonds *shall* be approved by Guam Public Utilities Commission (GPUC)..."[20] The Legislature further provided that the proceeds of the bonds *shall* be applied to pay the cost of issuance of the bonds, to pay the cost of any credit enhancement of the bonds, and to pay the cost of projects and items specifically listed in Subsection (d) of the section of the law.[21] Therein the Legislature listed specific projects totaling $74M.

For nearly all of the projects ($69M), the Legislature authorized the proceeds of the Bonds to be used for an "up to" amount; however, for one item, the Legislature stated that "*not less than* 5 Million Dollars ($5,000,000) to be held in reserve by GPA in a fund separate and apart from any other fund for the *sole* purpose of establishing a revolving loan fund to support legislatively authorized demand-side management and/or renewable energy programs for residential and/or commercial purposes."[22] The bond projects approved by the Legislature are those set forth in GPA's bond project listing attached hereto as Exhibit "1".

[19] P.L. 32-140, p. 2.
[20] Id. at p. 3.
[21] Id. at p. 3.
[22] Id. at p. 6.

E. GEDA Authorization

Pursuant to GEDA Resolution No. 14-024, GEDA's Board of Directors found that "it is in the public interest for GPA to sell the 2014 Bonds for the purpose of financing the Projects…"[23] Accordingly, the GEDA Board of Directors approved GPA's "issuance and sale of 2014 Bonds… in an aggregate principal amount not to exceed $94,000,000…"[24] The GEDA Board further approved the Bond Purchase Agreement and the other bond documents, which made the issuance of the bonds subject to the approval of the CCU and the Public Utilities Commission of Guam.[25]

F. Bond Purchase Agreement

The proposed Bond Purchase Agreement contains reasonable terms and conditions, and provides a detailed list of the necessary documents to be submitted prior to or at the time of closing, including opinions from Bond Counsel that the Bond Documents are valid, binding and enforceable obligations of GPA, and an opinion of Counsel to GPA that GPA has the full legal right, power and authority to enter into and perform its obligations under the Senior and Subordinate Indentures.[26] The Purchase Agreement also contains a statement of conditions that will trigger the termination of the Purchase Agreement, such as local or federal action or legislation that would make the series 2014 Bond subject to federal income taxation on the interest received.[27]

[23] GEDA Resolution No. 14-024, p. 1 (June 19, 2014).
[24] Id. at p. 2.
[25] Id. at pgs. 2-4.
[26] GPA 2014 Bond Purchase Agreement, submitted July 3, 2014.
[27] Id.

G. Preliminary Official Statement

As described in the Preliminary Official Statement ("POS"), "the 2014A Senior Bonds are being issued for the purposes of (i) paying or reimbursing the Authority for the payment of, costs of the 2014 Senior Projects… (ii) funding a deposit to the Senior Bond Reserve Fund; (iii) funding capitalized interest with respect to all of a portion of the 2014A Senior Bonds…; and (iv) paying expenses incurred in connection with the issuance of the 2014A Senior Bonds."[28] The 2014A Subordinate Bonds are being issued for the purpose of (i) paying, or reimbursing the Authority for the payment of, costs of the 2014 Subordinate Projects; (ii) funding a deposit to the Subordinate Bond Reserve Fund; (iii) funding capitalized interest with respect to all or a portion of the 2014A Subordinate Bonds…; and (iv) paying expenses incurred in connection with the issuance of the 2014A Subordinate Bonds.[29] The POS indicates that the capital improvements are to be funded by the proceeds of the subject bonds.

1. Consulting Engineer's Report

In the report by Leidos Engineering, LLC, attached as Appendix A to the POS, GPA's Engineering Consultants identified the following as the purposes for the 2014 Bond Proceeds:

Uses:	Senior	Subordinate	Total
Project Fund	$69,000,000	$5,000,000	$74,000,000
Capitalized Interest Fund Through 2016	8,365,079	619,378	8,894,457
Senior Bond Reserve Fund	5,821,900		5,821,900
Subordinate Bond Reserve Fund		639,000	639,000
Estimated Cost of Issuance	1,604,142	131,621	1,735,764
Total	$84,791,121	$6,390,000	$91,181,121

[28] Preliminary Official Statement, p. 2.
[29] Id.

In its findings, GPA's engineering consultants state that: "[T]he projection of operating results shown herein forms a reasonable basis for GPA's planning purposes and to implement its capital improvement plan. To achieve the projection shown, GPA and its governing and regulatory bodies must approve and implement future rate increases, incurring additional debt or a combination of the two."[30] Furthermore, Leidos concluded: "Revenues that GPA can expect to derive from its operations, with the anticipated rate adjustments identified herein are projected to be adequate to: (i) provide for estimated operation and maintenance expenses, (ii) enable GPA to meet its covenants as to rates set forth in both Indentures, (iii) provide for a recommended increase in working capital reserves, and (iv) provide for deposits to fund capital additions (or to meet the tests for the issuance of additional revenue bonds under the Indentures whose proceeds will fund such additions) as estimated in this report."[31]

2. Provisions of the General Indenture

According to the POS, the 2014A Senior Bonds are being issued pursuant to an Indenture, dated as of December 1, 1992, as subsequently amended and supplanted by Supplemental Indentures. The 2014A Subordinate Bonds would be issued pursuant to a Subordinate Indenture, dated as of June 1, 2010, as subsequently supplemented.[32]

3. Proposed Form of Opinion of Bond Counsel

In the proposed Opinion, the Orrick Herrington & Sutcliffe LLP firm provides the following opinions: ______________________________.

[30] Id. at Appendix A, p. A46.
[31] Id.
[32] POS, p. 6.

4. Proposed Supplemental Indenture

The proposed Sixth Supplemental Indenture is relatively similar in form to the Supplemental Indenture executed for the 2010 Series Bonds.

5. Supplemental Continuing Disclosure Statement

Pursuant to the Supplemental Continuing Disclosure Agreement, also appended to the POS, GPA is further required to provide an Annual Report, which includes the submission of audited financial statements and other operating reports, to each Repository each fiscal year. There is also a Supplemental Indenture and Continuing Disclosure Statement for the Subordinate Bonds. [33]

H. Slater Nakamura Report

In its Report, SNC detailed its findings concerning the proposed senior and subordinate bond issues by GPA.[34] GPA plans to use the bond proceeds from the $94 Million to support up to $69Million in projects, including generation projects, transmission improvement projects, distribution improvement projects, SCADA upgrades, and Cyber Security/IT upgrades.[35] GPA also sought authority to issue $5 million in subordinate revenue bonds which would be used to create a revolving loan fund supporting a legislatively approved demand side management ("DSM") and renewable energy program for residential and commercial customers.[36] An "important point" indicated by the Report is that "to fund $74 million in projects, GPA customers will need to provide $163.1 Million in revenues over a 30 year period."[37]

[33] POS, Appendix F, Proposed Form of Continuing Disclosure Agreement
[34] Slater Nakamura & CO., LLC, Report on the Review of the Proposed Bond Financing under GPA Docket 14-09, filed July 27, 2014.
[35] Id. at p. 4.
[36] Id.
[37] Id. at p. 6.

SNC found that the 26 projects proposed under the senior bond issuance "are capital-related and qualify for bond financing."[38] SNC further indicated that, in a bond issuance review docket, the Commission does not assess the prudence of proposed projects, but its primary concern about projects is whether they are capital-related and consistent with long-term borrowing requirements. SNC concludes that the projects listed are related to capital improvement and therefore qualify for bond financing.[39]

However, with regard to "useful life" of some of the 26 CIPs, SNC concluded that there is some risk that GPA will need to replace some of the facilities before their financing has been repaid.[40] One project, the energy storage project, is responsible for $35 Million, nearly half the cost of the $69 Million in the 26 CIPs to be funded. GPA will need to tightly manage that project to maintain costs within budget if installation does not occur earlier than expected.[41] Based on the review, it concludes that the proceeds of the bond issuance earmarked for energy storage will not be sufficient to fully fund the 40 mW included in the petition.[42]

With regard to the major O&M deferrals, including the Cabras Unit 2 overhaul, SNC indicated that GPA deferred these projects in the rate case, totaling nearly $12 million, due to inadequate revenues from tariffs. This was confirmed with GPA in correspondence.[43]

Regarding the subordinate bond issuance, SNC felt that "the lack of clarity around the intended use or recovery of the funds makes it difficult to assess the benefits of the subordinate revenue bond… transaction costs associated with the Subordinate Revenue

[38] Id. at p. 7.
[39] Id.
[40] Id. at p. 8.
[41] Id. at p. 9.
[42] Id. at p. 10.
[43] Id.

Bonds cause the net present value of the repayment stream… to exceed the construction fund by 28%... while we understand that the Commission is conceptually supportive of DSM and renewable energy, this bond issuance does not appear to be the most desirable method for delivering these programs to customers. <u>Lack of specificity regarding the DSM and renewable energy program is a major concern that does not appear to be solvable by the time the bond is issued.</u> Because transaction costs cause the net present value of the bond repayment schedule to exceed the value of the proceeds, bond financing is less attractive than other regulatory recovery mechanisms paying for comparable short-term programs… it is clear that rate recovery mechanisms would return more benefit to ratepayers than bond financing. This is especially true for a smaller expenditure such as the $5 million contemplated in the subordinate bond issuance."[44]

SNC found that no firm estimates for interest rates, premiums, or debt service levels will be available until the bonds are issued.[45] SNC found that GPA's request to issue $69Million in senior revenue bonds is supported by a definite listing of 26 CIPs. Senior revenue bond issue is a reasonable alternative to funding the 26 CIPs on a pay-as-you-go basis through rate recovery. However, GPA will need to replace some facilities before their financing has been repaid.[46] Upon its investigation, given the justification for CIPs included in GPA's filing, SNC concludes that the senior bond issuance should be approved as requested.[47] However, with regard to the subordinate bond issuance, SNC found that "given the lack of specificity about how funds will be used and recovered, interest rate, amount and maturity of subordinate revenue bonds, it appears

[44] Id. at p. 12.
[45] Id.
[46] Id. at p. 14.
[47] Id. at p. 17.

that the ratepayers may be better off with a pay-as-you-go approach using rate recovery options."[48]

CONCLUSION

A. Approval of Senior Bond Issuance

Counsel has reviewed the documents itemized in this Report and the other materials referenced, and the Slater Nakamura Report. Based upon such review of the record in this Docket, and for the reasons set forth herein, Counsel recommends that the PUC approve GPA's request to issue 2014 Senior Revenue Bonds up to an amount of $89 Million. The PUC has been aware, for some time, back to the 2014 rate proceeding, that there were certain capital improvement projects and maintenance/overhauls that GPA was unable to include in base rate funding.

In the rate case, GPA had proposed a short term commercial paper financing for such CIPs and overhauls/maintenance in the range of $30 million. GPA initially intended to issue bonds in 2015. However, upon review, the Guam Legislature, during a Committee hearing, suggested that GPA should just do one bond financing. GPA then proposed the current bond financing that was subsequently approved by the Legislature. Counsel concurs with the Slater Nakamura finding that GPA has set forth sufficient justification to include the 26 CIPs in the bond financing, and that the senior bond issuance should be approved as requested.

GPA has presented a sufficient justification to issue the Senior Bonds; it appears that the issuance of the subject bonds is reasonable, necessary, and in the interest of ratepayers. GPA has adequately set forth the specific projects which will require bond funding as "Exhibit A" to its proposed Order submitted to the PUC. However, at this juncture, the Commission need not specifically approve each project funded by the

[48] Id. at p. 15.

revenue bonds. The proposed Order submitted herewith requires GPA to obtain prior approval of these projects scheduled on "Exhibit A" to the Debt Order before any bond proceeds can be expended or committed on them. At present, it is sufficient for the PUC to authorize the issuance on the subject bonds and to subsequently review the bond funded projects prior to procurement under the Contract Review Protocol.

Approximately one-half of the senior bond issuance, or $35 million, is for energy storage of 40mW. GPA has made a *prima facie* showing that such storage will assist in the reduction of unscheduled system outages and improve system reliability. However, SNC has raised the concern that the proceeds of the bond issuance earmarked for energy storage will not be sufficient to fully fund the 40 mW included in the Petition. These issues can be examined in more detail when GPA seeks PUC review and approval of the energy storage project in the Contract Review Protocol process.

GPA also seeks to fund $3 million for "LNG Initial Startup. Counsel is informed that GPA intends to use such funds for payment of fees to its PMO. The use of such funds will also be examined in more detail during the Contract Review proceeding involving such amounts.

B. <u>Disapproval of Subordinate Bond Issuance</u>

In accordance with the SNC recommendation, Counsel recommends that the Commission disapprove the Subordinate Bond Issuance in the amount of $5 Million. The major problem with the subordinate bond issuance is, at present, that there is absolutely no indication of what specific DSM and renewable projects are intended to be funded. No project listing or details have been submitted to the PUC. Public Law 32-140 anticipates that there will be a "legislatively authorized demand-side management and/or renewable energy programs for residential and/or commercial purposes." However, GPA indicated, in discussions with Counsel, that there is no pending legislation regarding proposed DSM or renewable programs nor has the Legislature given an indication of what such programs would be.

The PUC cannot, in the exercise of due diligence, approve the issuance of bonds for programs that are presently unknown and completely unidentified. There is presently no information as to what the DSM/renewable projects would be or when they would be implemented. In addition, Counsel supports SNC's finding that the transaction costs associated with the subordinate revenue bonds will cause the net present value of the debt service repayments to exceed net proceeds for the revolving fund by 28%. Because transaction costs cause the net present value of the bond repayment schedule to exceed the value of the proceeds, bond financing is less attractive than other regulatory recovery mechanisms repaying for comparable short-term programs.

The Subordinate Bond issuance, including capitalized interest, reserve fund requirements, and issuance/underwriting costs, involves net debt service in the amount of $6,539,951 (for a $5 Million dollar bond issuance).[49] This would be an expensive undertaking for ratepayers. The interest rate for such bonds will likely be higher than for the Senior Bonds.

Another issue is the uncertainty of when any DSM or renewable programs would commence operation, in that such programs are unknown at present. It is not likely that DSM would be fully implemented at once but could take years to place into effect. Ratepayers would be paying principal and interest on an amount ($5 million) that might not even be used, in whole or part, for years into the future. Counsel is informed that it is highly unusual for a municipality to issue a bond in the relatively small amount of $5 million. The reason that Bond Counsel recommended issuance of a

[49] Slater & Nakamura Co. LLC, GPA Docket 14-09, Report on the Review of the Proposed Bond Financing under GPA Docket 14-09, p. 5.

subordinate bond for DSM/renewable is that such projects are not capital improvement projects of GPA and cannot be funded through the senior bonds.

Counsel notes that the PUC already has a pending docket, GPA Docket 13-14, which is addressing the need for Demand Side Management programs. The PUC will, through its Administrative Law Judge, engage its Consultant to work with GPA to implement a viable DSM program. Given the monetary amounts involved for DSM, there may be more prudent methods than bond issuance for the funding of such a program, as through base rates or a customer surcharge. Such payment methods could also be better placed in sync with the actual implementation schedule for DSM projects.

C. <u>Approval of Bond Indenture</u>

The PUC has previously approved the General Indenture in 1992. In addition, the proposed Sixth Supplemental Indenture for the senior revenue bonds is similar in form to the Supplemental Indenture executed for the 2010 Series Bonds. Accordingly, Counsel recommends that the Commission approve the issuance, terms and conditions of the 2014 Senior Revenue Bonds, 1992 Indenture, and the proposed Sixth Supplemental Indenture.

D. <u>All Other Authorizations for the Issuance Have Been Given</u>

The issuance of the subject senior bonds, as shown above, has been authorized by the Legislature, GEDA, and the CCU. Therefore, all required authorizations, other than that of the PUC, have been given.

E. <u>Capitalized Interest</u>

With respect to capitalized interest, P.L. 32-140 authorized the amounts of the bond to be capitalized and paid from bond proceeds interest on the bonds due accruing or required to be set aside for a period ending "*not later than* twenty-four (24) months after issuance."[50]

F. Impact on Ratepayers

GPA believes that its five year plan to model cash requirements over the coming years will soften the impact of the debt service requirements from the bond issuance on ratepayer budgets.[51] GPA's current debt service will fall after the FY14 peak payments of $64 Million, and that the additional debt caused by this bond issuance will not cause GPA's total debt service cost to increase but can be absorbed by the declining debt service profile of the Authority. Slater & Nakamura is not quite as certain as to how the capital improvement projects will be funded in the future and the impact upon ratepayers. SNC is concerned that, if GPA's service life estimates on the 26 CIPs are funded by the Senior Bond Issuance are accurate, GPA will need to replace some of the CIP facilities before their financing has been repaid. This could cause the need for rate increases and the risk could be acute if GPA does not request timely rate relief when projects are completed.[52]

RECOMMENDATION

Based on the forgoing, PUC Counsel recommends that the PUC approve the issuance, terms and conditions of the 2014 Senior Revenue Bonds in an amount up to $89 million. Counsel has reviewed the proposed Order, and Order Approving Long

[50] P.L. 32-140, p. 6.
[51] Letter from Joaquin C. Flores, General Manager of GPA, to Frederick J. Horecky, ALJ of the PUC, re: Commercial Paper Program Petition filed under Docket No. 13-07, dated May 23, 2014, at pgs. 4-5.
[52] Slater & Nakamura Co. LLC, GPA Docket 14-09, Report on the Review of the Proposed Bond Financing under GPA Docket 14-09, p. 14.

Term Debt, submitted by GPA, which have been revised and are attached hereto for the Commissioners' consideration.

Dated this 29th day of July, 2014.

Frederick J. Horecky
Frederick J. Horecky
PUC Legal Counsel

GPA
CIP List
2014 Revenue Bond

ATTACHMENT C

Item #	Capital Improvement Project Name	Amount ($000)
1	**Generation Improvements**	
2	Cabras 1 - Major Boiler Overhaul	1,460
3	Cabras 3 & 4 Major O & M	2,100
4	Environmental Compliance Program (Diesel Rice MACT)	4,220
5	Energy Storage and Renewable Energy Mitigation	35,000
6	Cabras 2- Turbine and Boiler Overhauls	5,683
7	Dededo CT Return to Service Inclusive of Stator/Rotor Repair	2,943
8	Cabras Compound Employee and Visitor Parking Lot	400
9	Diesel Plant MOMs and Fuel Oil Tank Repairs	1,091
10	Generator Protection Upgrade with Fault Recorders	580
11	LNG Initial Startup	3,000
12	**Totals**	**56,477**
13	**Transmission System Improvements**	
14	Piti 115kV GIS Major Maintenance	700
15	Substation Major Refurbishment - San Vitores T-122, Harmon T500 and T501, Macheche T90	540
16	34.5 kV Breaker Upgrades - Phase I	355
17	13.8 kV Breaker Upgrades - Phase I	400
18	Substation Battery Banks / Chargers Upgrade	400
19	Agat Shoreline Pole Restoration Project	384
20	System Protection Improvement & Cap Bank Controllers - Phase II	1,312
21	Dededo Substation Capacitor Bank	165
22	Harmon X82 to Yigo X160 Overhead Line Upgrade - Phase I	1,330
23	**Totals**	**5,586**
24	**Distribution System Improvements**	
25	Mobile Workforce Management	500
26	Distribution Improvements	457
27	SGIG (not covered by grant)	630
28	**Totals**	**1,587**
29	**SCADA System Upgrade**	
30	Network Communication - Fiber to Fadian Complex	1,100
31	Fadian SCADA System	1,800
32	**Totals**	**2,900**
33	**Cyber Security/IT Upgrades**	
34	Facilities Physical Security	1,350
35	Information Technology (IT) Upgrades	1,100
36	**Totals**	**2,450**
37	**Grant Total**	69,000

EXHIBIT "1"

The Projects

The initial financing plan grew out two significant competing interests: 1) GPA's desire to continue without further rate increases for the near future, and 2) the need to complete some very high priority projects. This financing plan was at the heart of GPA's recent base rate petition and allowed GPA to petition for a much smaller base rate level than otherwise would have been acceptable. GPA was very clear in its base rate petition that if the financing plan were not approved, GPA would be forced to immediately petition for further base rate relief to pay for the critical projects.

During the FY14 budget development process, GPA became aware that there were several projects for which a significant delay could pose long term problems for the Authority. One of the projects is the need to retrofit smokestacks from some of our diesel burning plants with stack emission equipment. The project is driven by the United States Environmental Protection Agency (USEPA) regulations for Reciprocating Internal Combustion Engines Maximum Achievable Control Technology (RICE MACT). GPA was initially facing a deadline of May 2013 to have the equipment installed. GPA applied for and received an extension until May 3, 2014 to have the equipment installed. The fines for running the plants in a non-compliant manner is $37,500 per day per unit. GPA could not allow itself to fall into non-compliance with the regulations so GPA certified funding for the project from the proceeds of the bond issuance. A backup certification was made from GPA's Working Capital Fund. The projects are nearing completion and funds have been drawn from the Working Capital Fund in order to make the payments, however, these funds need to be reimbursed to the Fund. If the financing

EXHIBIT "2"

plan had not been developed, and if it was known that funds would be withdrawn from the Working Capital Fund during the recently completed rate case proceedings, the outcome of the proceedings would have been very different.

Another project is the Cabras No. 2 Boiler and Turbine Overhauls. These overhauls were scheduled in prior years, however, they were deferred for various reasons including the Cabras No. 3 rotor repair project. If the Cabras No. 2 unit had not been run during the time the Cabras No. 3 unit was down for repair, the cost of fuel passed on to ratepayers would have been much greater. However, when the projects were included in the Fiscal Year 2014 budget submission, they could not be funded without impacting other previously scheduled maintenance. There is a significant amount of risk that is undertaken when an overhaul is deferred. GPA determined the level of risk was acceptable until Cabras No. 3 could be returned to service. However, the longer these overhauls are deferred, the greater the risk becomes. GPA believes the funding of these overhauls is urgent.

The most significant item in the project list is the item for Energy Storage. GPA has determined that most of its outages are caused by generator trips. When a unit trips off-line, GPA's other generators have not been able to react quickly enough to pick up the lost load. This has been a significant nuisance for GPA customers that are on the early phases of its under-frequency load shedding scheme. These outages have consistently been noted as one of the most significant reasons for dissatisfaction with GPA in our customer surveys. GPA has worked on improving the responsiveness of its units and to maintain additional spinning reserve to avoid these outages, but to no significant success. No level of spinning reserve or the addition of units on line has help to avoid the outages. However, recently, there have been some significant reductions in the cost of energy storage as well as increases in the ability to manufacture a large energy storage device. GPA has commissioned a study to examine the feasibility of energy storage. The first phase of the study has been completed and has indicated an energy storage solution can solve the problem of generation related outages much more cost effectively than GPA's plan to improve the tuning of its generators and increase its spinning reserve levels.

In the event of a generator trip, the energy storage device would be able to immediately inject stored power into the system and make up the difference for the loss of the load. The battery would be able to provide power for approximately 15-30 minutes. The battery power will help avoid over two third of the outages and that should be long enough to allow GPA to bring other units on line in order to replace the lost generation source.

GPA looked at storage sizes of 25 mW, 40 mW, and 80 mW. Our analysis showed that the 25 mW size did not have the size to address many of the outages. The 80 mW unit would address all of the outages but the cost was so high that most of the net present value benefit was removed. We found that the 40 mW size would be able to cover most of the outages and yet the cost was low enough so as to preserve significant net present value benefit by reducing the amount of under frequency event outages by about 77%.

As we mentioned, this is a new project for GPA and many of the details of the project are still being assembled. However, based on the work that has been completed to date, there are significant benefits to the system as a result of the addition of energy storage to the system to mitigate outages from generation trips. An ancillary benefit of the storage is that it may be able to help ameliorate the effects on the grid from intermittency from increasing penetration of renewable energy. The cost of this project has been estimated to be approximately $40 million.