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Jeff Johnson, Chairman
Guam Public Utilities Commission
Suite 207, GCIC Building
Hagatna, Guam 96932

Re: GPA Docket 12-13 Request for LEAC Factors Effective February 1, 2013

Dear Chairman Johnson:

This report is in response to Guam Power Authority's ("GPA") request for changes in its Levelized Energy Adjustment Clause ("LEAC") rates for the six-month period commencing February 1, 2013. In addition to the request for increases in its LEAC rates, GPA has also proposed changes in the current LEAC protocol as well as an increase in the current Working Capital Fund ("WCF") surcharge, which increase would be coincident with the requested LEAC rate increases and further increase customers' bills.

GPA is requesting that the current LEAC rate of \$0.186834 per kWh for "secondary" distribution service be increased to \$0.207683 per kWh. This change represents an increase of about 8.1% on a typical residential bill (\$20.85 per month) or about 11.1% on the fuel portion of that bill. GPA is also requesting that the PUC approve quarterly changes to the LEAC rates as opposed to semi-annual changes. A complete discussion and recommendation will follow in the body of this report.

GPA has calculated modified distribution and transmission service level LEAC rates to be put into effect as of February 1, 2013. GPA's filing contains three distinct loss multipliers for these customers of 3%, 4% and 5%, depending upon the level of service delivered at 13.8kV or 34.5kV distribution and 115kV transmission, respectively. The revenues¹ from these customers due to lower LEAC rates than the secondary distribution level consumers is subtracted from the cost of

¹ There is no loss of revenues, but rather the higher voltage level distribution and transmission delivery customers are paying a rate based on their lower cost causation.

fuel that is used to determine the secondary distribution level LEAC rate. These distribution and transmission level “loss multipliers” were previously approved by the PUC effective April 1, 2012 and are currently in effect.

GPA is also proposing an increase in the working capital surcharge to also take effect as of February 1, 2013. GPA is proposing to increase the current WCF surcharge from \$0.00778 per kWh to \$0.00839 per kWh or roughly an increase of \$1 per month for the average residential customer. GPA is proposing to recover the working capital adjustment from the Navy by increasing the monthly charge of \$179,152 to \$192,309. The requested increase is solely driven by an increase in the Fiscal 2013 fuel budget. A complete discussion follows in the body of this report.

In a time period where the price of oil has remained level (and is anticipated to be fairly constant), it is important to describe the two significant issues that have arisen in the course of our investigation of the LEAC request. The increase in the proposed LEAC factor is largely attributable to the proposed revision of the fuel contract for Number 6 oil that is pending approval by the PUC at the current time.² In addition, there has been a major outage of Cabras #3, one of the more cost efficient units, which occurred during the current period and it is anticipated that this outage will continue through the six-months that comprise the upcoming LEAC period and beyond. This issue is significant and also impacts the proposed and future LEAC rates. We understand the PUC Administrative Law Judge has been provided a presentation of this failure, its costs and implications on current and future fuel costs. On January 11, 2013 GPA petitioned the PUC to approve the estimated \$6 million for the repair of Cabras #3.

Framework for Review of the Proposed LEAC Rates

Prior to the details of our analysis as normally provided in our review of LEAC rates proposed by GPA, we provide this discussion with regard to special issues we believe have arisen in this specific application. As is well known and established, the fuel costs of GPA that are passed through to consumers represent between 70% and 80% of the total charges to customers. LEAC rates are adopted, in part, by the PUC to provide reimbursement to GPA for a large and volatile component of cost over which GPA does not exercise full control. GPA is currently and has been in the past 100% dependent on fuel oil for power generation. In this proceeding the proposed change (increase) in LEAC rates is largely caused by a change in the delivered price of fuel oil based on a new contract that GPA has requested the PUC approve. While GPA issued an RFP to approximately 40 prospective bidders, responses were received from only 3 bidders of which one was determined to be non-compliant. With such a large portion of cost determined by the results of a single fuel bid, GPA and the PUC must be sure that the bid process provides consumer the best value that could be obtained from a competitive market. To this end GPA and the PUC need to have assurance on a number of key issues:

² GPA Petition for Contract Review dated January 11, 2013.

- What is the market from which the fuel oil that meets GPA’s requirement can be sourced? Are these markets well understood by GPA?
- What are the best industry practices in the procurement of a fuel oil contract including determining potential bidders; communicating and keeping the interest level high for potential bidders; determining key concerns regarding qualifications prior to the receipt of the bids; and maintaining flexibility for key elements of the procurement requirements.
- Does GPA have adequate resources for the procurement? Do GPA resources have the necessary knowledge of the fuel oil market?
- Is there a backup plan in the event the bids received are not in keeping with the expected values anticipated by GPA?

The time frame and scope of this proceeding did not allow for a review and analysis of these issues. We have not performed a detailed review of the criteria used by GPA and the Consolidated Commission on Utilities (“CCU”) for the award of the contract. It does appear that the contract has a price higher than GPA anticipated and will be in place for 2 years at a minimum. We note that GPA did provide a detailed evaluation sheet for the basis on which the decision was made.

This particular decision has been made and there seems to be no option but to accept the proposed contract that has been offered by GPA. GPA is eagerly awaiting the next delivery which is to be made by the new proposed contractor. With over \$300 million in fuel oil anticipated to be delivered annually for the next two years we recommend that the PUC satisfy itself that:

- GPA is using best practices in determining the market for its fuel oil requirement;
- GPA is investing in actively soliciting interest for its fuel oil procurement;
- GPA is using the best available resources in the procurement of its fuel oil requirement and management is satisfied that it has adequate internal resources available to execute;
- GPA, to the extent permitted by law, is working with all potential bidders prior to the receipt of bids to assure to the extent possible that all bids will be compliant.

We note that lower costs were offered by the non-compliant bidder and we are in no way suggesting that GPA should have accepted that bid. Our point is simply that GPA should do everything possible to satisfy itself that a similar cost level could not have been offered by a compliant bidder.

Our recommendation is that the PUC require GPA to undertake a focused management audit to review this issue in detail and to provide recommendations for future GPA actions in the fuel procurement area. We note that substantial effort is undertaken in GPA base rate cases where the impact on customers’ rates is sometimes a fraction of the impact of fuel oil cost changes.

The other issue that heavily weighs on the proposed level of the proposed LEAC is the impact of the incident with Cabras #3. We have reviewed the information provided by GPA and have had conferences with GPA management on the proposed recommended course of action and will comment on this matter further in the body of this report.

Vitol Contract for No. 6 Fuel Oil

GPA, as approved by the CCU, has accepted a bid from Vitol, which would replace the existing contract for the supply of all of its Number 6 fuel oil requirements for a period of two years. This contract, if approved by the PUC, will replace the current contract with Petrobras with a significant increase in the “premium component” of the cost of fuel to GPA and its customers—approximately \$33 million per year or slightly more than 10% of GPA’s annual fuel budget. The first delivery under the new contract with Vitol is scheduled for March 2013.

In part, the new fuel contract was driven by pressure from Petrobras, the current fuel supplier, for GPA to conform its No. 6 fuel oil characteristics to be consistent to oil industry benchmark specifications for No. 6 oil. For oil companies to meet GPA current fuel specification, it is necessary to blend substantially higher quality products to comply with GPA’s oil characteristics, which require the supply of a product with more favorable API, viscosity, and Vanadium levels. Since No. 6 oil is not readily available with the characteristics required by GPA, the only alternative for suppliers is to blend products. These blending products—higher quality fuel oil—are in high demand in the region and were driving up Petrobras’ costs and affecting its willingness to continue to supply GPA. Since Petrobras had no means to recover these blended components, few options existed. It became necessary for GPA to re-bid its oil requirements at the end of the Petrobras contract’s primary term. Following sufficient testing of No. 6 oil with more commercially available characteristics which only require a modest level of blending, GPA determined it could successfully burn No. 6 oil in its slow-speed diesel and steam units with more standard API, viscosity, and Vanadium characteristics and which are more readily available in regional oil markets. GPA subsequently accommodated Petrobras’ wishes concerning its fuel oil characteristics and issued an invitation to rebid its requirement to regional fuel suppliers.

During informal discovery GPA indicated considerable interest was expressed by regional fuel oil suppliers in bidding on its fuel oil requirements and that it sent out about 40 bid packages to fuel oil suppliers expressing an interest in its requirements. The principal concerns expressed by prospective fuel oil bidders included a preference for shorter-term contracts and a desire for shipping larger oil deliveries, not its fuel oil characteristics. Unfortunately, only three suppliers ultimately responded to GPA’s fuel oil procurement and one of those suppliers was determined to be in non-conformance with critical requirements of the bid documents. Of the two remaining bidders, Petrobras and Vitol, GPA determined that Vitol was the lowest responsive bidder. While the Vitol bid was approximately \$2 million per year less than the Petrobras bid, it was \$33 million per year greater than the current Petrobras contract. A description of the Cost of No. 6 Fuel Oil below discusses in more detail the near-term cost implications of this change in fuel oil suppliers.

Cabras 3 Extended Outage

Another significant factor impacting GPA's proposed and future LEAC rates is the result of the November 8, 2012 forced outage of the Cabras 3 slow-speed diesel unit. This unit is one of the most efficient generating units in GPA's resource portfolio, and perhaps the most efficient directly controlled by GPA. It is expected Cabras 3 will be out of service for no less than 235 days, and depending on what is found once the unit is fully inspected could be out of service for as long as 575 days. It is projected this outage is going to have a direct cost, inclusive of extra fuel oil and the cost of repairs, to consumers of somewhere between \$13 and \$23 million depending on the length of Cabras 3 unavailability.

There are other noteworthy implications beside the additional consumer cost of the protracted loss of Cabras 3 to the adequacy and reliability of GPA's power supply. Without Cabras 3 available for service, GPA's commitment of available generating units is impacted to a point that vigilant maintenance scheduling is going to be required to avoid the potential for insufficient power production capability. As an example, with recent load levels on the order of 220-240 mW and the continued necessity to schedule normal maintenance it is going to be critical to insure that the system is capable of meeting reasonable operating reserve margins (i.e., loss of the largest unit) to avoid the potential of rolling outages.

The top priority of generation operations personnel should be to minimize the impact of the Cabras 3 outage and to return the unit to serviceability at the earliest date possible. This will require a number of concurrent activities including coordination of necessary tools and dismantling resources, OEM analysis of the condition of Cabras 3 as well as retaining third-party failure analysis experts to determine the root cause(s), a determination of whether the event is insured or will be an out-of-pocket O&M expense, a rehabilitation plan, expeditor services to insure no unnecessary delays in manufacturing or delivery, examining the overall accountability for the event if it is determined to have been avoidable, and determining if the event has any implications to Cabras 4.

GPA requested the PUC for immediate authorization of the use of the working capital fund for repairs to Cabras 3 and that this document contains a detailed summary of what is known to date about the incident. We will not belabor the PUC with repeating in this report the information included in GPA's January 11, 2013 Petition to Repair Cabras 3 describing the events of November 8, 2012, descriptions and photos showing the nature of known damage, cost estimates for repairs and the schedule for repairs.

Proposed LEAC Factor

The following table shows the variables used in deriving the proposed LEAC factors for both the distribution and transmission level customers:³

Table 1
Derivations of the LEAC factors

	GPA Filing	GPA Amended	GCG Recommend.
	(\$000s)	(\$000s)	(\$000s)
Number 6 (HSFO/LSFO)	\$137,631	\$137,933	\$ 138,741
Number 2 (GPA)	8,056	8,056	8,056
TOTAL COST	\$145,687	\$145,989	\$ 146,797
Handling Costs	9,358	9,354	9,473
Total Current Fuel Expense	\$155,045	\$155,343	\$ 156,270
Civilian Allocation	80.86%	80.86%	80.86%
LEAC Current Fuel Expense	\$125,374	\$125,615	\$ 126,364
Deferred Fuel Expense	4,205	4,205	4,205
Total LEAC Expense	\$129,579	\$129,820	\$ 130,570
Less: Dist/Trans. Level Costs	(6,303)	(6,314)	(6,351)
Secondary Service Level Costs	\$123,276	\$123,506	\$ 124,219
Secondary Service Level Sales (mWh)	593,579	593,579	593,579
LEAC Factor – Secondary Service	0.207683	0.208070	0.209271
Current LEAC Factor –Secondary Service	0.186834	0.186834	0.186834
Increase/(Decrease)	0.020849	0.021236	0.022437
Monthly Increase - 1000 kWh	\$ 20.85	\$ 21.24	\$ 22.44
Total LEAC Expense	\$129,579	\$129,820	\$ 130,570
Total Sales (mWh)	624,617	624,617	624,617
LEAC Secondary Service	0.207454	0.207840	0.209040
Distribution 13.8 kV Discount (3%)	0.201230	0.201605	0.202769
Distribution 34.5 kV Discount (4%)	0.195193	0.195557	0.196685
Transmission 115 kV Discount (5%)	0.197081	0.197448	0.198588

³ During the discovery process, GPA noted an inconsistency in the timing of the Vitol contract. The filing assumed implementation on April 1. It is now anticipated that the new contract would take effect on March 1 and has been so adjusted in our report.

We have provided a complete workbook deriving the GCG-proposed factors to GPA management and have attached hereto “Exhibit A” which shows the details of our calculations.

Cost of Number 6 Oil

In the projected six-month period ending July 2013, GPA is forecasting that 97% of the generation will come from the more cost-effective steam units and slow speed diesels. This is a smaller percentage than GPA projected in its last LEAC filing for the six-month period ending January 2013, which was used to determine the LEAC factors currently in place. GPA had anticipated that 99% of the generation for the six-month period ending January 2013 would have come from these units. This failure to meet the projected dispatch has in part caused the under-recovery of \$4.2 million of fuel expense that is projected for January 2013 and will be recovered in the current LEAC.

In the testimony accompanying the filing, GPA indicates that a larger percentage of diesel generation than has been the case in the recent past will be required for the six month period ending July 2013 as a direct result of maintenance of Cabras 3 which is now anticipated being offline throughout the six-month period of the LEAC and beyond. On the “assumption page” of the testimony provided to GCG accompanying the LEAC petition, GPA indicates that Cabras 3 is anticipated to be offline for a total of thirteen months. This outage will be coupled with maintenance on Cabras 1, which will be out for much of May 2013 and all of June 2013. The cost of the outage is not just the \$6 million estimated for the repair of Cabras 3 but the increased cost of the replacement fuel that will be burned to replace the efficient generation. Even with the somewhat decreased reliance on these units to provide for the generation required to meet the projected sales, the assumptions regarding the efficiency dispatch of the remaining units and price per barrel of fuel required for all of the remaining cost efficient steam and slow speed diesel units are still the most significant cost items used in deriving the projected LEAC factor.

As shown in Table 1 the cost of Number 6 oil is the predominant cost of fuel used in determining the LEAC factor. In projecting the cost of Number 6 fuel in its petition, GPA used the Morgan Stanley Energy Noon Call (“MSENC”) projection of Singapore Prices dated December 6, 2012. GPA projects the delivered price of oil using the futures reports and adding the contract premiums explicit in the contract with Petrobras, its current fuel supplier for the remaining period of the Petrobras contract through February 2013. GPA currently pays a premium of \$4.499 per barrel and \$6.501 per barrel depending upon whether the delivery was low or high sulfur content for the Petrobras contract. GPA uses a weighted average premium to the spot price of \$5.20 per barrel to project the delivered price. In its petition, for the period beginning in April 2013⁴, GPA assumes a significant increase in this premium to \$14.10 and \$17.89 for high and low sulfur, respectively for a weighted average of \$15.42 per barrel for the new contract with Vitol that is before the PUC for approval.⁵ According to the assumption document, this is based upon on highest qualified bidders on the recent Request for Proposal GPA06812 as evaluated by GPA.⁶ This is an effective increase

⁴ GPA later indicated that the intended start date for the new contract is March 1, 2013.

⁵ GCG has adjusted these premiums to reflect the final bid from Vitol.

⁶ There was a lower priced bid that GPA rejected. The contract is currently before the PUC for approval.

of \$10 per barrel, or approximately \$26 million annually, and is the major reason that the LEAC request has increased. The next table shows the “delivered price” including weighted average premiums for high and low sulfur for the projected six month period.

The price that GPA actually pays its supplier is based upon an eleven day period with the shipment date as the midpoint. This causes a lag between spot price and the purchase price as recorded by GPA for delivery. Consistent with past LEAC recommendations by GCG, we have updated the MSENC to the latest available at the time of preparing our report which is the January 17, 2013 MSENC⁷ and have amended the price projections to reflect a March 1 contract implementation in our recommendation rather than the April 1, 2013 date reflected in the petition. In addition, there was a small error in the premium under the Vitol contact for HSFO which GCG has corrected. Use of the later forecast and the March 1, 2013 implementation date for the Vitol contract results in a higher cost of Number 6 fuel in the forecast as shown on Table 1. The following table shows the projected price per barrel of Number 6 fuel used by GCG:

**Table 2a- Price of Number 6 oil
\$/Bbl**

Oct-12	\$ 108.62	Actual
Nov-12	\$ 99.43	Actual
Dec-12	\$ 100.74	Forecast
Jan-13	\$ 99.89	Forecast
Feb-13	\$ 102.43	Forecast
Mar-13	\$ 112.76	Forecast
Apr-13	\$ 112.61	Forecast
May-13	\$ 112.44	Forecast
Jun-13	\$ 112.44	Forecast
Jul-13	\$ 111.88	Forecast

Cost of Number 2 Oil

For the price of Number 2 oil forecasts, GPA also uses MS Energy Noon Call as the source document. GPA used the same December 6, 2012 forecast to estimate the price for this supply. The following table shows the projection of Number 2 (diesel) prices:⁸

⁷ Use of the January 17, 2013 MSENC forecast results in higher fuel prices than filed in the petition.

⁸ The January 17, 2013 MSENC shows slight increases in this fuel stock. However, the change would only increase the cost of Number 2 oil over the six-month period by \$100,000 out of a total fuel cost of approximately \$150 million for the six month period total. We did not make the adjustment.

**Table 2b- Price of Number 2 oil
\$/Bbl**

Feb-13	\$	150.59	Forecast
Mar-13	\$	150.14	Forecast
Apr-13	\$	149.27	Forecast
May-13	\$	149.27	Forecast
Jun-13	\$	149.27	Forecast
Jul-13	\$	147.72	Forecast

The prices shown above are delivered prices and include an average weighted premium of \$26.96 per barrel under the terms and conditions of GPA’s contracts with its supplier(s).

Handling Costs

As we have oft-stated, the amount of “handling costs” is somewhat a misnomer, but as used in the LEAC procedure is the sum of several cost items that have in the past been permitted inclusion into the total cost of fuel to be recovered through the LEAC. The net sum of these items is approximately \$9.5 million costs:⁹

**Table 3 – Handling Costs
Six Months Ending July 31, 2013**

Total Dock Fee-Tristar (FY 13 Budget)	\$732,213
Excess Laytime/Overtime-Tristar	10,862
Storage Tank Rental-Tristar (FY 13 Budget)	693,360
Pipeline Fee-Tristar (FY 13 Budget)	<u>417,879</u>
TOTAL Tristar Costs	\$1,854,314
Tank Farm Management Fee (Based on contract with Vital)	337,637
Ship Demurrage Cost (FY 13 Budget)	80,656
Fuel Hedging loss/gain (estimated)	0
Lube Oil (FY 13 Budget)	1,067,220
Subscription Delivery fee, Vacuum Rental, Hauling (FY 13 Budget)	33,000
Sale of fuel to Matson	(439,011)
Inventory growth to be recovered this period 01/31/13 vs 07/31/13	5,676,776
SGS Inspection (FY 13 Budget)	115,388
Labor charges (FY 13 Budget)	92,885
Interest Charges/LC Charges	<u>539,057</u>
TOTAL Handling Costs	<u>\$9,357,922</u>

⁹ As can be seen in Table 1, updating the price projection and the timing of the Vitol contract changes these amounts slightly.

There are three items upon which we will focus. These are the Fuel Hedging, the fuel Inventory Cost Changes and interest on the letter of credit (“LC”).

Fuel Hedging

In its July 30, 2012 Order in Docket 12-06 the PUC ordered:

GPA should file concurrently with its next LEAC filing a report detailing the status of each of the 14 fuel hedging recommendations adopted in Docket 10-03 and the GPA modified milestone schedule contained in Appendix A. GPA should also file with its next LEAC filing a report on each of the hedging instruments used to hedge, the hedge amounts, the cost of any hedge, their expiration, and a summary of the impact of the hedge volatility.

As filed, GPA does not include any adjustment to fuel costs related to a fuel hedging program and only one contract is in place. Currently, GPA has a costless collar contract with Morgan Stanley (roughly 25% of the required supply) covered by hedging contracts which will expire on March 31, 2013. At this point, we believe that GPA has not completed the requirements of the recent stipulation regarding fuel hedging that was approved by the PUC, which authorized a comprehensive and flexible program to hedge most if not all of its requirements. GPA needs to provide a complete explanation as to the status of and compliance with the requirements of the fuel hedging program and whether it has asked the PUC for an exemption from any requirements and the reasons therefor.

As we indicated in our last report:

We have become aware of recent discussions between GPA and its consultant on fuel hedging matters. The assistant CFO had meetings with the consultant in the past week. There is no specific proposal in this LEAC filing. In December 2011, GPA requested a revision of its then-existing hedging program and a specific docket was opened for this investigation. On March 21, 2012, GCG filed a report after reviewing the proposed revised program with GPA. GCG retained its own expert to review the GPA proposal and make recommendations to GCG and ultimately the PUC. Ultimately, GCG recommended to go cautiously with the GPA proposal, but recommended certain tasks and related timeline for completion of those tasks in its report. The PUC approved GPA’s proposal and adopted the 14 steps or requirements that GCG recommended. Some of these requirements had time restrictions that have past. There were several of the proposed steps with deadlines of March, April or June 2012. We have received no petition or indication from GPA regarding these deadlines and missed targets.

At its March 26, 2012 meeting, the PUC considered revisions to GPA’s fuel oil hedging program in response to GPA’s petition to allow the creation of a more dynamic hedging environment. Following consideration the PUC approved a new GPA hedging program conditioned upon acceptance by GPA of the 14 recommendations contained in GCG’s hedging report dated March

21, 2012.¹⁰ The series of 14 recommendations, which can be found in Appendix A of the March 21, 2012 GCG report, identify milestones that require the subsequent review and consideration by the PUC based upon the timetables for milestone implementation.

More specifically, the GCG report identified a number of challenges confronting GPA in the implementation of the hedging program. The report further cautioned that it was critical GPA address each of these challenges to mitigate any adverse consequences. Principal among these challenges are the requirement to retain sufficient personnel with the requisite skill sets to operate the fuel hedging “model,” to commit appropriate human resources to day-to-day hedging program activities, to have an independent third party hedging expert “shadow” GPA hedging activities until GPA has adequate internal resources in place and to provide the PUC reporting concurrent with every LEAC filing.

As we advised in our earlier report, the success of the hedging program will be dependent upon providing adequate resources (personnel, training, succession planning, hedging tools, models and reporting) to execute the various internal requirements for operating the hedging program on a day-to-day basis. While it has been over 10-months since the new hedging program was approved and six-months since we last commented on the GPA hedging program, we offer the following observations about the program:

1. Subsequent to our last report GPA has not executed any new hedging contracts and the one hedge still in place is a costless collar—the same hedging instrument used by GPA before the PUC authorization of new hedging instruments.
2. We reiterate recommendation #1 in our March 21, 2012 hedging report that GPA hedge 100% of its fuel requirement for the LEAC period with price “caps” to the extent practicable. This will meet the goal of providing maximum price protection to consumers and prevent margin calls on GPA - something that may not be accomplished with collars.
3. Most importantly, we reiterate recommendation #5 contained in our March 21, 2012 report which was to create new positions for the hedging function and to retain the requisite personnel needed to execute GPA’s hedging needs. We view this as the most critical of our earlier recommendations. The significance of the hedging responsibility to consumers is such that persons assigned this role need to devote 100% of their time to fuel oil hedge planning and implementation including: transaction execution, management and administration; documentation (base contracts and confirmation); and management reporting. As previously stated, Guam consumers should not be short-changed by having the duties to effect the multi-million dollar negotiation and administration of transactions and to understand margin provisions, if any, to someone not having the necessary time to properly devote to the requirements of the role. Suitable qualified additional personnel are critical and fuel continues to represent approximately 70% to 80% of total expense to consumers. This is not an area where false economies in personnel saving make much sense.
4. GPA had earlier initiated training on the use of the hedging model and available hedging instruments (recommendation #6). Such training needs to be further emphasized and GPA should expand on the “train the trainer” approach to cross train personnel.

¹⁰ GPA Docket 10-03 approved the recommendations and reasoning contained in the GCG Hedging Report on March 26, 2012.

5. It is critical that an independent party should be retained to "shadow" GPA activities during the first 12 months of actual hedging operations, and such activity should continue until GPA demonstrates it has adequate internal resources in place and has mastered the hedging model.
6. Reporting to the PUC is critical of the fuel hedging program. Reports should be filed on fuel hedging along with the existing regulatory reporting with every LEAC filing which should include a calculation of Value at Risk (VaR).

As mentioned above, GPA needs to provide a complete explanation as to the status of and compliance with the requirements of the fuel hedging program and whether it has asked the PUC for exemptions from any requirements and the reasons therefor. Such report should be provided to the PUC no later than the next LEAC filing.

Fuel Inventory

Another significant item that increases the LEAC costs and factor is the inventory valuation costs. For the six-month period ending July 31, 2013 GPA is charging to the cost of fuel the anticipated increase in the inventory valuation between February 1, 2013 and July 31, 2013. The total estimated impact of this adjustment to fuel expense is \$5.7 million. The derivation of the amount debited to the fuel expense (increases) for the six month period ending July 31, 2013 is shown in the following table:

Table 4
Inventory Adjustments
Six months ending July 2013¹¹

<u>Description</u>	<u>Barrels</u>	<u>Unit cost</u>	<u>Amount</u>
Estimated ending inventory as of 07/31/13	489,199	\$ 111.919	\$ 54,750,815
Estimated ending inventory as of 01/31/13	489,199	\$ 100.315	\$ 49,074,039
Change in fuel inventory	-	\$ 11.604	\$ 5,676,776
Amount recoverable for 6 months			\$ 5,676,776
Divided by 6 months-to recover every month			\$ 946,129

The increase in the unit cost of fuel of \$11.60 per barrel above is almost entirely made up of the increased premium of the Vitol contract of approximately \$10 per barrel.

Interest Charges LC

Under the current fuel contract with Petrobras (as amended), the vendor has agreed to provide a Letter of Credit ("LC") for the shipments of fuel. Prior to the amended contract, GPA had secured this letter from ANZ Bank. GPA paid interest and related charge to ANZ. Under the amended Petrobras contract, GPA paid no interest or charges. With the new Vitol contract, GPA anticipates

¹¹ Update in prices would increase this amount slightly.

that it will get a new LC as required, and will charge these costs through the LEAC. In the forecast, GPA has included an estimate of \$540 thousand in the cost of fuel to be recovered during this upcoming period. Since this is fuel related we have not taken exception to the inclusion.

Unaccounted for Energy

The PUC Order of January 2009 set an interim standard of 7% for unaccounted for energy (sometimes referred to as line losses), but does not establish the method for measurement. The 7% unaccounted for energy standard is the benchmark that defines the maximum allowable level that can be prudently included in the LEAC rate and passed onto consumers. In this filing, GPA has provided a separate analysis which is not integrated with its LEAC analysis that shows it is achieving an unaccounted for energy ratio of 6.6% based upon a rolling average 24 months ending September 2012. This unaccounted for energy percentage level is based upon the ratio of sales to consumers to net plant output less company use. GPA has also provided a list of task and revenue enhancements resulting from GPA's internal loss detection and correction program. GPA has provided the quarterly management report on unaccounted for energy as Attachment C of the filing.

As described in a prior LEAC report,¹ unaccounted for energy is anticipated to be subject to substantial change over the course of the next 12 to 24 months as the various subcomponents of the Smart-Grid project are completed. It is the monetization (reduction in unaccounted for energy) of the consumer benefits from the various Smart-Grid projects that was used as the justification of the capital financing of the Smart-Grid project. As the level of unaccounted for energy declines as a result of the deployment of various Smart-Grid projects, the PUC should establish corresponding changes to the 7% interim standard adopted for unaccounted for energy and used by GPA in the calculation of LEAC rates. The PUC should monitor the impacts from Smart-Grid implementation on future unaccounted for energy. As savings are achieved changes should be made to the 7% benchmark currently used by the PUC as an interim standard.

The first potential opportunity for the PUC to consider changes to the Unaccounted for Energy ratio will likely take place during the course of the next LEAC cycle (Aug 2013f-Jan 2014). To date GPA has deployed 18,000 Smart Meters across the residential customer class and has initiated the deployment of Smart Meters across the commercial customer class. GPA currently projects full deployment of the Smart Meter component of its Smart-Grid project sometime in the May 2013 timeframe. As a part of this deployment GPA is testing the calibration of 5000 of its "legacy" meters replaced with Smart Meters to determine the anticipated change it should expect in energy (kWh) sales as a result of the deployment of the higher accuracy Smart Meters. This testing will allow GPA to determine the "a priori" condition or accuracy of its metering program and is well underway with only 1200 meters left to be tested. GPA is testing a very large sample of its legacy meters. Once this testing is completed GPA will be able to develop a reasonable estimate of the improvement in meter accuracy it can expect from the deployment of its Smart Meter program—this incremental improvement in meter accuracy will translate into a reduction in Unaccounted for Energy. This information should be available to the PUC in time for GPA's next LEAC rate filing and should be incorporated into the filing as appropriate.

Other aspects involving the deployment of Smart-Grid projects are also in various stages of completion or initiation. These projects also have the potential to impact the level of Unaccounted

for Energy and the costs borne by consumers. Principal among these are AMI (advanced metering infrastructure) systems that support two-way communications with consumers while allowing secure and reliable system-wide communication—full rollout is anticipated to occur with the completion of the Smart Meter deployment. While not expected to be completed during the next LEAC rate cycle, GPA will also be rolling out as part of its Smart-Grid project a distribution management system (DMS) and distribution and substation automation (DA/SA) subcomponents of the overall program. These programs will allow GPA to respond in real-time to adverse system conditions and to optimize and better control its electric system resulting in improved customer service and lower consumer costs. A large part of these lower consumer costs will result from a further reduction in GPA’s Unaccounted for Energy level. When combined with the incremental meter accuracy resulting from Smart Meter deployment Unaccounted for Energy will be reduced from the 7% interim level to a lower level. Since GPA’s Unaccounted for Energy level is expected to be favorably impacted by the Smart-Grid investments currently being deployed, the PUC should continue to monitor and keep abreast of individual deployment of Smart-Grid project elements and the level of Unaccounted for Energy level achieved and the attendant cost savings to consumers. Such monitoring will help insure that GPA uses actual Unaccounted for Energy values so that consumers are properly charged on a current basis the impact of Unaccounted for energy.

Distribution and Transmission Service Loss Multipliers

As is customary in the industry, GPA recommends loss multipliers to be applied to its LEAC rate to reflect the lower cost of unaccounted for energy for consumers receiving electricity at distribution or transmission service voltage levels. As we said in our August 2011 report to the PUC:

Another line loss consideration, also discussed in our July 15, 2010 Report on GPA’s Request for a LEAC Factor Effective August 1, 2010, is the need to differentiate line losses for LEAC rate purposes among customers served at different voltage levels. These differentiated LEAC recovery rates are consistent with standard regulatory practices and are a standard operating practice in the electric utility industry. In fact, differentiated LEAC recovery rates exist within every regulatory jurisdiction in the U.S. The Commission can refer to the more detailed discussion of this matter as contained in our July 15, 2010 Report on GPA’s Request for a LEAC Factor Effective August 1, 2010. While it probably wasn’t in this earlier report, not only do LEAC rates differentiated by voltage class ensure the delivery by regulators of “just and reasonable” rate, but such rates have zero revenue impact on GPA. These differentiated LEAC rates are “revenue neutral” to GPA as simply are a re-allocation amongst customer classes.

In its February 6, 2012 LEAC Rate Order in Docket 11-16 the PUC ordered:

*... With its next LEAC filing, GPA shall use **actual loss multipliers (emphasis added)** to determine the appropriate LEAC Factor for each transmission level customer; if the use of actual loss multipliers is not appropriate, GPA shall explain why such use is not appropriate in its filing.*

Subsequently, in the PUC July 30, 2012 LEAC Rate Order in Docket 12-06 it ordered:

*In the PUC Order dated February 6, 2012, in this LEAC Filing, GPA was required to use **actual loss multipliers (emphasis added)** to determine the appropriate LEAC Factors for each transmission level customer, or explain why it was not able to do so. GPA has not complied with the February 6, 2012 Order. In its next LEAC Filing on or before December 15, 2012, GPA should properly charge customers in the different delivery voltage classes with the loss multipliers from the recently completed rate proceeding.*

GPA in the past has proposed adjustments or discounts of 3, 4 and 5% dependent on the voltage level to those consumers receiving electricity at distribution or transmission service voltage levels. When first proposed we accepted the proposed loss multipliers since the principle of loss multipliers is consistent with standard industry practice. At the time GPA had not completed its base rate proceeding or transmission loss study. However, we suggested in future LEAC rate filings GPA apply its “**actual loss multipliers**” to the LEAC rate for each applicable voltage level in lieu of the 3, 4, and 5% simplifying approximation. For instance, it is somewhat illogical to calculate a LEAC rate to six (6) significant decimal places and then use a whole number (integer) for the purpose of assigning a loss multiplier when the recently developed loss multipliers from the transmission loss study and used in the most recent base rate proceeding are known and available for use. Our request in the past three LEAC rate proceedings has been consistent and that once the overall LEAC rate is determined the appropriate loss multipliers should be applied to the LEAC rate based upon electric service being taken at (i) one of the multiple secondary voltage levels, (ii) the two different distribution voltage levels, and finally (iii) transmission voltage level.

Under-Recovery

GPA is projecting an under-recovery balance of \$4.2 million as of January 31, 2013. GPA has included this amount in the cost of fuel for the six months ending July 31, 2013. As we stated above, this under-recovery has largely resulted due to the actual performance of GPA generating units for the six month period through January 2013 being less efficient than was projected when the current LEAC was put into place in August 2012.

Change in the working capital surcharge

Changes in the fuel component of the Working Capital Fund (WCF) are made during LEAC proceedings. GPA has proposed an increase to the working capital surcharge described earlier. This proposal is driven by GPA’s revised estimate of fuel costs compared to the estimate it used in the recent rate case. The PUC approved a revised WCF surcharge based upon a stipulation between GPA and GCG regarding the requirement for the WCF and a revised surcharge based upon that estimate of costs including fuel. The current bond covenant requires that one month of operating expense be reserved by GPA in a WCF. Operating expenses are defined as O&M non-fuel (net of capital), Fuel Expense and Independent Power Production (“IPP”) expense net of capital costs.

The proposed change in the surcharge for civilian and navy customers is based upon a revised projection of fuel costs. In the base rate case, annual (FY12) costs for the WCF were estimated to

be \$305,450,000, which was a significant increases above the fuel expense level upon which the initial WCF and related surcharges was calculated. When the surcharges were first calculated the basis for the fuel expense portion of the WCF requirement was \$247,191,000. In the base rate case (Docket 11-09), the surcharge was adjusted to reflect this projected increase and new surcharges were approved at the conclusion of the Phase 1 of the rate case docket. As of May 1, 2012 the Navy was paying a fixed monthly charge of \$179,152 and the civilians were paying \$0.00778 per kWh. In the prior LEAC filing (six month period ending January 31, 2013), GPA proposed a reduction in the surcharge based upon a somewhat lower projection of the annual cost of fuel. GCG recommended that the surcharge remain as calculated in the rate case until such time that the fund was nearing the required reserve. The PUC agreed with this position.

In this LEAC filing, GPA has a revised annual estimate for fuel expense of \$316,505,000 or an increase of \$11,145,000 for “Fiscal 2013.” The difference between the FY12 and FY13 is the basis for the recommended increases proposed by GPA as shown in the following table:

**Table 5
Working Capital Surcharge Adjustment**

	<u>Additional FY 2013</u>	<u>Total WCF Surcharge Off 5/1/12</u>	<u>Total WCF Surcharge Eff 2/1/13</u>
A Current Year Fuel Costs Budget	\$ 316,595,000		
B Prior Year Fuel Costs Budget	<u>\$ 305,450,000</u>		
C Increase in Fuel Costs	\$ 11,145,000		
D Working Capital Fund Requirement (1/12 of Line C Increase In Fuel Costs)	\$ 928,750		
E Navy Share ⁽¹⁾	17.0%		
F Civilian Share ⁽¹⁾	83.0%		
G Navy Additional WCF Surcharge Share (Line D x Line E)	\$ 157,888		
H Navy WCF Surcharge (Line G / 12)	\$ 13,157	\$ 179,152	\$ 192,309
I Civilian Additional WCF Surcharge Share (Line D x Line F)	\$ 770,863		
J Kwh Sales Forecast (May 2012 through April 2013)			
J1 Kwh Sales Forecast (Feb 2013 through Jan 2014)	1,264,016,864		
K Civilian WCF Surcharge (Line I / Line J)	\$ 0.00061	\$ 0.00778	\$ 0.00839

According to GPA with the revised fuel budget based upon the new contract with Vitol, it will require a total of \$34.5 million to fill the WCF to the level required by its bond covenant. The following table shows the components and computation of that requirement:

Table 6
Working Capital Fund Requirement

	FY 13
O&M Budget	\$ 76,795
Fuel Budget	\$ 316,595
IPP Costs	\$ 20,031
 Total Budget	 \$ 413,421
 WC Fund Requirement	 \$ 34,452

As of December, 31 2012, GPA had a total of \$32.5 million in the WCF. Therefore, GPA would require an additional requirement of approximately \$2 million to fully fund the reserve. GPA is currently collecting (and depositing into the fund) about \$375 thousand per month at the current surcharge rate. At this monthly rate of increase in the reserve, GPA will be able to fund the reserve fully before the end of the LEAC period (July 31, 2013). Therefore we would recommend that the PUC not adjust the current surcharge and not accept GPA’s proposal for the increase.

In the next LEAC filing (June 15, 2013), GPA should update the actual level of the reserve and make recommendations as to any additional requirements or suspend the surcharge altogether, pending a review in the upcoming rate case.

Quarterly LEAC Filings

GPA has again proposed a quarterly LEAC filing scenario, using the Liquidity Study attached to this filing as support therefor. GPA has modified its previous proposal for quarterly filings and is proposing that it continue to file the semi-annual filings with all of the supporting data that the PUC has required. These would be filed on December 15 and June 15 of each year for implementation on February 1 and July 1 of each year. GPA proposes to file two other abbreviated (“interim”) filings during the year at the midpoint of each of the LEAC periods (March 15 and September 15). In those interim filings, the data provided in the semi-annual filings will remain constant, but GPA will adjust only for updates to actual results in the months that were projected in the semi-annual filings and update for revised fuel price forecasts.

GCG does not believe that the quarterly proposal is necessary. We would remind the PUC that the LEAC protocol has an option that GPA may file interim rate increase requests once the level of under-recovery exceeds \$2 million. GPA has opted for this exception twice over the past decade. There have been times that GPA has greatly exceeded this level and has ignored this option. There have also been times that GPA has over-recovered its fuel costs, as well. The re-filing option was set to allow a current response to large changes in oil prices over which GPA does not have control

and the current protocol does provide. The current under-recovery in this proceeding is largely driven from performance of GPA's generating units over which GPA has control.

We would point out that if GPA's approved hedging program were fully operational the ability for GPA to manage its working capital requirements is a seminal characteristic of the hedging program. The fundamental principle of such a program would allow GPA to reduce financial risks as well as political and public relations risks. Lastly, frequently changing LEAC rates in most jurisdictions are deemed by consumers to be confusing and to create volatility in their household and business budgeting if rates are allowed to change widely and too frequently. Additionally, overly frequent changes put consumers in a position of having no easy way to understand the relationship between fuel costs and their electricity usage. Then from the PUC perspective more frequent regulatory proceedings may not give it adequate time to fully investigate the charges to understand with reasonable certainty the compelling reasons supporting a change in LEAC rates while balancing this responsibility with the managing of consumer expectations.

RECOMMENDATIONS

As a result of our review of the December 2012 request by GPA for new LEAC factors to be effective February 1, 2013 and in consideration of the updated fuel price forecasts, we recommend:

1. The current singular LEAC factors should be adjusted effective February 1, 2013 as shown in the following table:

Delivery Classification	LEAC \$ per kWh
Secondary -	\$ 0.209271
Primary - 13.8 KV	\$ 0.202769
Primary - 34.5 KV	\$ 0.196685
Transmission - 115 KV	\$ 0.198588

2. GPA should file for a change in the LEAC factors to be effective August 1, 2013 on or before June 15, 2013.
3. The current WCF surcharges of \$0.00778 per kWh for civilian customers and monthly fixed charge of \$179,852 should remain in effect until the WCF is filled. Changes in the fuel component of the WCF may be changed with the next LEAC filing as envisioned by the protocol in future LEAC proceedings unless fund is at the required level of reserve.
4. The PUC should authorize, direct, and undertake a focused management audit evaluating the operational and managerial aspects of the fuel oil procurement functions of GPA beginning in January 2010 to the present to determine whether fuel transactions have been conducted in a manner consistent with best industry practices. Specifically, the PUC should retain an auditing firm specializing in fuel procurement and require:
 - a) Review the process used by GPA to garner interest in its fuel requirements including the identification of parameters that serve to limit competitive bids. Identify measures that GPA should take to stimulate vendor interest in supplying its requirements.
 - b) Review GPA's fuel oil specifications to determine if there are physical, delivery, storage or other characteristics in the specification that serve to limit GPA securing broader interest in supplying its fuel oil at competitive pricing.
 - c) Review the bid solicitation and evaluation process to ensure a low cost and reliable fuel oil.

- d) Review the fuel vendor evaluation process to assure continued supplier quality and reliability to the maximum extent possible.
 - e) Review the reasonableness of fuel transportation and storage limitations and inventory levels and fuel inventory targets for each generating station.
 - f) The audit should be overseen and directed by the PUC's legal counsel.
 - g) The management auditor should file a report with its findings and recommendations with the PUC no later August 1, 2013.
5. GPA should keep the PUC fully apprised as information becomes available concerning the extent of the Cabras 3 outage, damages to the unit, and implications on consumers. Specifically, GPA should timely: (i.) provide the PUC with the OEM analysis of the condition of Cabras 3 once the unit is dismantled, (ii.) retain a third-party failure analysis expert who once it has determined the root cause(s) of the outage should provide the PUC with a report on its findings, (iii.) provide the PUC with a summary of the rehabilitation plan, cost and schedule for bringing Cabras 3 back to service, (iv.) determine the implications to Cabras 4, if any, and (v.) provide the PUC with the final estimated cost and periodic updates of the schedule and costs incurred to bring Cabras 3 back to service.
6. GPA should file no later than the date of the next LEAC filing a report detailing the implementation of the new fuel oil hedging program approved by the PUC in March 2012. GPA should demonstrate its progress in providing the key resources necessary to implement the PUC approved fuel hedging program and the 14 earlier fuel hedging recommendations adopted in Docket 10-03. Specifically, GPA should address the actions it has taken to: (i.) to provide the required and appropriate human resources needed to execute GPA's hedging needs, (ii.) demonstrate that its hedging personnel are properly trained on the use its hedging model and hedging instruments available in the market, (iii.) the retaining of an independent party to "shadow" GPA activities until GPA demonstrates it has adequate internal resources in place and has mastered the hedging model, (iv.) inclusion in its hedging program the option for GPA to hedge 100% of its fuel requirement to maximize price protection to consumers and prevent margin calls on GPA, and (v.) file fuel hedging reports with the PUC with the existing LEAC regulatory reporting which should include a calculation of Value at Risk (VaR).
7. GPA should provide the PUC a detailed analysis of the calibration testing of the accuracy of the 5000 "legacy" meters it is testing for the purpose of comparing their "a priori" accuracy of its "legacy" with the new Smart Meters. This analysis will allow the PUC to determine the impact of the new Smart Meters on the Unaccounted for Energy interim standard previously established. This information should be provided to the PUC no later than GPA's next LEAC rate filing and incorporated as appropriate.

8. GPA shall provide the PUC no later than the filing of its next LEAC rate filing with a status report on the deployment of various Smart-Grid projects including AMI systems, distribution management system (DMS), and the distribution and substation automation (DA/SA) subcomponents of the overall Smart-Grid program. The filing should be in sufficient detail to allow the PUC to monitor and keep abreast of individual deployment of Smart-Grid project elements, the potential impact on the level of Unaccounted for Energy, when available, and should provide to the PUC any concerns expressed in communications from the Grantor concerning the implementation schedule of the Smart-Grid project.
9. GPA should be required to adopt the more accurate loss multipliers developed in its transmission loss study and used in the most recent base rate proceeding for the purpose of determining the secondary, two primary, and transmission service classification loss multipliers in lieu of the use of the integer values it has included in this LEAC filing. Alternatively it should explain why the integer values used are more appropriate from a cost causation perspective and should be found to be just and reasonable.

This concludes our report. If we can be of further assistance, please do not hesitate to contact Jim Madan, Larry Gawlik or myself.

Yours truly,

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ⁱ See GCG's July 15, 2010 Report on GPA's Request for a LEAC Factor Effective August 1, 2010.