REPORT ON THE OCTOBER 2012 LEAC

TO: COMMISSIONERS, VI PUBLIC SERVICES COMMISSION

FROM: JIM MADAN, LARRY GAWLIK & ED MARGERISON

SUBJECT: REPORT ON WAPA'S LEAC RATES FOR OCTOBER 1 – DECEMBER 31, 2012

DATE: SEPTEMBER 21, 2012

CC: WATER AND POWER AUTHORITY

I. EXECUTIVE SUMMARY

This report is provided to the Public Services Commission ("PSC" or "Commission") by Georgetown Consulting Group, Inc. ("GCG" or "Georgetown") in response to the August 20, 2012 filing by the Virgin Islands Water and Power Authority ("WAPA" or "Authority") for an adjustment in both the Electric and Water Departments Levelized Energy Adjustment Clause ("LEAC") rates. Before discussing the submission and our observations concerning the data provided, it is important to understand that while we have termed the submission as a "filing," it was not a complete filing and at this time is missing several critical pieces of information and documentation, many of which have been ordered by the PSC and are known commonly as the MFRs (minimum filing requirements).[1]

In addition to the absence of MFRs there were other documents that are germane and critical to WAPA and consumers that even now have not been provided. In most jurisdictions a "filing" of this nature would have been suspended until complete documentation had been provided. Therefore, any deficiency and rate adjustments would be deferred pending the submission of required documentation.[2] We were able to "bootstrap" the filing through formal and informal discovery requests and while we have now acquired many of the supporting documents, we have not received all of the documentation required by prior PSC order, nor have we had sufficient time to review the late information.

[1] There has been continuous communication between GCG and WAPA regarding the missing information that is required to be filed.

[2] This is not a viable option for the PSC given the adverse operating and financial circumstances currently facing WAPA.

We are of the opinion that WAPA finds itself in a position of a severe cash crisis due in a significant part from its past forecasting practices[3] leading to an under-recovery of fuel expense coupled with the slow payment practices of certain governmental customers. These at least partially controllable factors have combined with uncontrollable sharp increases in the market price of fuel oil and the reduction in the subsidy previously obtained through HOVENSA, which appear to have left WAPA with a need for the timely recovery of its increased fuel expenses through a LEAC Rate adjustment and, therefore, we have prepared our report in the context of this background.

The August 20, 2012 WAPA LEAC Petition is requesting a very large increase in the LEAC rate of $0.07671 per kWh for the Electric Department consumers and a similarly large rate increase of $6.43 per kGal for the Water Department consumers. This request would be a $38.35 per month increase for a typical Electric Department residential consumer and a $15.43 per month increase for a typical residential water consumers.[4] These are increases in total bills of the Electric Department consumers and the Water Department consumers of 19% and 23%, respectively.

Specific impacts for each department are discussed in the relevant sections for the Electric and Water Departments in the remainder of the report. This report discusses the Authority's LEAC filings in detail to present the Commission with an analysis for its consideration in evaluating the requested changes to the LEAC rates and to provide alternative considerations.

The cover letter from WAPA attributes the large increase in the LEAC rate on the rising price of oil coupled with the delay in maintenance on WAPA generation units. The letter states that:

> *The (LEAC) increase is caused primarily by the recent increase in oil prices. … Specifically the current factor was based on a projected August price of $101.85 per Bbl. versus our actual current cost from Hovensa of $121.18 per Bbl. Another factor affecting the increase is the increase in the quantity of the fuel used…*

The root causes of the $ 0.07671 per kWh change in LEAC Rate from the July through September 2012 LEAC Rate will be discussed in detail later in this report. To aid the PSC in its review of WAPA's rate petition, we have provided below in Table 1 an overview identifying the key cost components contributing to this increase. As is shown, the key cost components can be segregated into three major cost components—fuel oil prices, forecast of production efficiency and impacts of deferred fuel recovery and other smaller cost components.

[3] Between the petition filed by WAPA in May 2012 for the July-September quarterly LEAC adjustment and the time of the GCG Report, the price of oil had fallen. GCG used a lower price for the oil forecast by updating the methodology used by WAPA, but did not change the assumptions therein. Although the prices and forecasts for oil markets continued to fall after the GCG report was prepared, but prior to the setting of rates, the forecast prices were not further reduced to provide a margin for error in forecasting. Unfortunately, that forecasting methodology has not proved to be accurate for this quarter, and prices are now higher than estimated previously, increasing the under-recovery.

[4] For these purposes, a "typical" residential electric customer is assumed to use 500 kWh per month (less than half the US average. A "typical" residential water customer is assumed to use 2400 gallons per month.

Table 1
Breakdown of Increased Cost

Differential Analysis-Total		% of Difference
Fuel Oil Prices	$0.0679	88.5%
Efficiency Forecast	$0.0239	31.1%
Deferred Fuel/Other	($0.0151)	-19.6%
Total	$0.0767	100.0%

By a wide margin the principal LEAC cost component contributing most to the $0.07671 per kWh rise in the Electric LEAC rate is the price of fuel, which for the period October through December 2012 WAPA has forecast to continue to increase on average to $132.19 per BBL from $100.81 per BBL in July. This increase in the market price for fuel accounts for 88% of the LEAC increase for the upcoming LEAC period.

This increase in fuel oil price is impacted both by world fuel oil market prices as well as the end of the prior HOVENSA discounts previously enjoyed by WAPA. The second major component contributing to the large increase in proposed LEAC Rate is the change in WAPA's forecast of production efficiency between the prior LEAC period and the October through December 2012 period. These changes in WAPA's forecast of its production efficiency, which now forecasts a lower efficiency than first-forecasted account for about 31% or the overall proposed increase in the upcoming LEAC rate. As will be discussed later in this report we continue to be concerned about WAPA's efficiency forecasts.

We expressed in our July through September 2012 LEAC report,[5] that the WAPA forecast of production efficiency was overly optimistic and would contribute unnecessarily to a future increase in the deferred fuel balance.

Finally, the last major cost component impacting the $0.07671 per kWh increase in the Electric LEAC rate over the current LEAC rate is the deferred fuel recovery for the October through December 2012 period and other costs (i.e., regulatory costs, debt service on GO note, regulatory asset, pilot refund, and rate financing mechanism, discussed below). This LEAC Rate cost component actually reflects a 19.6% decrease (benefit to consumers) in it contribution to the proposed LEAC Rate as compared to the current LEAC Rate.

[5] Production efficiency discussion on page _4_ of our June 28, 2012 LEAC report to the PSC.

II ELECTRIC DEPARTMENT

On August 20, 2012, WAPA submitted a request for a new increased electric LEAC rate to be implemented effective October 1, 2012. WAPA states that the new Electric Department LEAC rate should be $0.383234 per kWh, which is a large increase (25%) from the current LEAC rate of $0.306524 per kWh. According to the cover letter, if this rate is approved by the PSC this new rate would result in an increase for the average residential consumer using 500 kWh of about $38.35 per month or about 19% percent of the total monthly bill.

The Fiscal 2013[6] data that is used to calculate the proposed LEAC rate is contained in an Excel™ workbook provided by WAPA. The August 20, 2012 submission did not include a similar workbook for the twelve months ending June 30, 2012, which is not only a standing requirement, but an absolute necessity for determining the LEAC rate The ending balance of deferred fuel expense for Fiscal 2012 would be the balance due to WAPA (or "starting balance") related to unrecovered deferred fuel in Fiscal 2013. We did not receive this workbook until the September 6, 2012. We further requested the workbook for Fiscal 2011 which did not arrive until September 11, 2012. Further discussion on the deferred fuel balance and recovery is included in the section labeled "under recovery amortization."

Regarding the MFRs, we have received most of these in pieces, but still do not have MFR5 which is an analysis on accounts receivable and required by PSC Order 27_2012, ¶ 5. Regarding the quarterly reports to be provided supporting the "Rate Financing Mechanism" (RFM) pursuant to PSC Order 02/2012, we have not received any of the quarterly reports required.

Table 2 summarizes the components of the proposed electric LEAC rate and compares them to the impacts of the various items of review contained in this report:

[6] WAPA's years begin July 1 and end June 30. In this instance, Fiscal 2012 is the twelve months starting July 2012 and ending June 2013)

Table 2
WAPA LEAC-Electric
($000's)

		WAPA As Filed ($000s)	GCG Review ($000s)
A	Cost of Fuel	$ 61,471	$ 61,471
B	Regulatory Costs (Dkt 289)	55	55
C	P&I on New 4-Yr GO Note	600	600
D	Regulatory Asset Costs	215	215
E	Pilot Refund	(337)	(337)
F	Rate Financing Mechanism	4,261	4,261
	Current LEAC Costs	$ 66,265	$ 66,265
G	Deferred Fuel Costs	4,732	4,732
	TOTAL Costs	$ 70,996	$ 70,996
	Total mWh	185,256	185,256
	Proposed LEAC Rate	**$ 0.383234**	**$ 0.383234**
	Current LEAC Rate	$ 0.306524	$ 0.306524
	Increase	$ 0.076710	$ 0.076710
	Average Residential Usage	500	500
	Monthly Increase	$ 38.35	$ 38.35
	Current Average Bill	$ 201.87	$ 201.87
	Percent Increase	19.0%	19.0%

Cost of Fuel:

One of the most significant assumptions used in deriving the LEAC rate is the forecast for the price of oil. In the prior LEAC filing (May 2012, for the three months ending September 2012), WAPA proposed a new algorithm in forecasting the price of fuel based upon an amended contract with Hovensa as the basis for the projection. There is no further pricing agreement currently in place for the period after December 31, 2012. Specifically the amendment states:

> *[F.O.B.] prices of supply will be based on the last weekly posting at a time of load as published in the Bloomberg's Oil Buyer's Guide (OBG). These are the same postings as have been used during Addendum 1 of the Contract. For No. 6 oil, East*

Coast Cargo Postings apply, and for No. 2 Oil, Castle Oil No. 2 postings under New York Reseller Barges section apply. These postings are discounted $2.00/bbl., resulting in a net proceed price to be further discounted per below. [¶5]

July 2012 – Additional discount of 20% off the net posting price per above.
August and September 2012 – Additional discount of 15% off the net posting price.
October 2012 – Additional discount of 10% off the net posting price
November 2012 – Additional discount of 5% off the net posting price.
December 2012 – No additional discount. [¶6]

As we indicated in our last report there is no public source of information for predicting future prices of Castle Oil No. 2, which is the pricing mechanism for diesel oil and the majority of the requirements for WAPA. For purposes of the LEAC rate determination there needs to be established a methodology to forecast the price per barrel for Number 2 (diesel) oil. WAPA has proposed a methodology in this proceeding which we have accepted; however, once WAPA later this year enters into a new contract this methodology will again need to be changed. WAPA starts with the Brent futures forecast, which is easily available and which has been the basis for prior LEAC forecasts.

To the spot market price forecast for the LEAC period under consideration WAPA adds $3 per barrel as an estimate for transportation costs from the St Croix Hovensa facility to WAPA's fuel tanks. These costs are based on an existing contract between WAPA and HOVENSA. The actual transportation cost is a fixed amount for each shipment. For St Croix this amount was $48,500 per barge and for St Thomas this amount is $62,500 per barge. Recent invoices show that the August transportation charge has risen to $69,000 per barge for St. Thomas and $55,000 for St. Croix. The increase appears to have been incurred starting in July.[7]

In presenting the forecasts of WAPA, we have termed the sum of the fuel price and transportation allowance of $3 per barrel as the "base." WAPA essentially uses this as the starting point for both price estimations for Number 6 and Number 2 oil. In its analysis, WAPA takes the widely published futures prices of Brent ("blend") futures adjusted for transportation and applies a markup factor to the sum to determine the delivered price to WAPA based on a recent analysis undertaken by WAPA. The markup was determined by comparing the posted prices listed in the Oil Buyers Guide (OBG)--less $2 per barrel–and establishing a multiplier of the net amount based upon historic differences between the posted prices and the delivery price that WAPA has paid Hovensa for the period January 2011 to March 2012. This multiplier (or "markup") varies from 121% for number 2 oil, to 103.2% for Number 6 (.3% sulfur) to 93% for Number 6 (.6% sulfur). Currently, WAPA uses predominately Number 2 oil.

Tables 3a and 3b show the pricing forecast for Number 2 oil that was used in the establishing of the current fuel factor (July through September 2012):

[7] While the invoices for July reflected the lower transportation price, a "true-up" invoice was received in August and paid by WAPA for the difference in barging costs for July.

Table 3a
Earlier Forecast of Number 2 Oil Price

	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Base	$ 99.91	$ 99.03	$ 100.55	$ 100.36	$ 100.31	$ 100.23
"Markup"	1.21	1.21	1.21	1.21	1.21	1.21
Hovensa Discount	20%	15%	15%	10%	5%	0%
Forecasted Delivery Price	$ 96.71	**$ 101.85**	**$ 103.42**	**$ 109.29**	**$ 115.31**	**$ 121.28**

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The price forecasts at the time we estimated prices in the prior LEAC proceeding for Number two oil for the LEAC period July through September 2012 LEAC period were actually dropping Due to the large under-recovery balance and other cash flow issue, we chose not to recommend the lower forecast due to the large deferred expense related to fuel that existed at that time. In July, the actual delivered price for Number 2 oil on St Thomas was $105.81 on average or about 9% above the projected price. In other words, soon after the projection was made actual fuel prices exceeded the forecast showing that in this period of oil price volatility the markups based on the January to March 2012 data was insufficient.

The following table shows the revised cost projections used in this LEAC filing. While the LEAC factor is being determined for the period October through December 2012 the costs for the months of August and September are also revised in this proceeding. The current forecasts for Number 2 oil is substantially higher than forecast in the prior LEAC proceeding:

Table 3b
Current Forecast of Number 2 Oil Price

	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Brent Futures	$ 119.35	$ 116.25	$ 114.31	$ 113.38	$ 112.78
Trans. Allowance	3.00	3.00	3.00	3.00	3.00
Base	$ 122.35	$ 119.25	$ 117.31	$ 116.38	$ 115.78
NY Harbor v Brent	1.21	1.21	1.21	1.21	1.21
Hovensa Discount	15%	15%	10%	5%	0%
Forecasted Delivery Price	**$ 125.84**	**$ 122.65**	**$ 127.75**	**$ 133.78**	**$ 140.09**

It is extremely important for the Commission to note that WAPA has effectively abandoned the hedging program which was designed to reduce the volatility of LEAC rates. While we have routinely requested responses from WAPA management regarding its intentions concerning re-instituting such a program in prior LEAC proceeds, WAPA has continuously failed to respond.[8] We continue to recommend that WAPA evaluate and implement a fuel hedging strategy to

[8] WAPA has indicated informally that they believe that the liquidity requirements of the Hedging program cannot be undertaken by WAPA at the current time.

reduce the volatility of fuel prices to which WAPA consumers are exposed. A successful program could have tempered the increase currently before the PSC.

While there have been recent changes in the Brent price projections, in this report we did not adjust the price projections made by WAPA to reflect those changes.

In addition to the projection of fuel oil pricing there are other variables that are embodied in the development of the Oct-Dec 2012 LEAC Rates. One of the principal variables is the dispatch and efficiency of WAPA's power production facilities. Along with changes in fuel oil prices, a change in the dispatch and efficiency of power production will also have an impact on the LEAC rates. In fact, any change in the efficiency of WAPA power production facilities will directly contribute to the amount of fuel which must be procured and burned, and the overall level of the LEAC Rate. The performance of WAPA's power plants is projected in each LEAC Rate filing for the purpose of deriving the cost of fuel for operations. To the extent that WAPA more optimistically estimates its power plant performance than the plants actually perform during a LEAC Rate period the mismatch between the estimates and actual performance will result in an under-recovery of its fuel expense that will be recovered as "deferred fuel expense" in future LEAC Rates. This has been a recurring problem due to a long history of continuing optimistic forecasts of power production efficiencies.

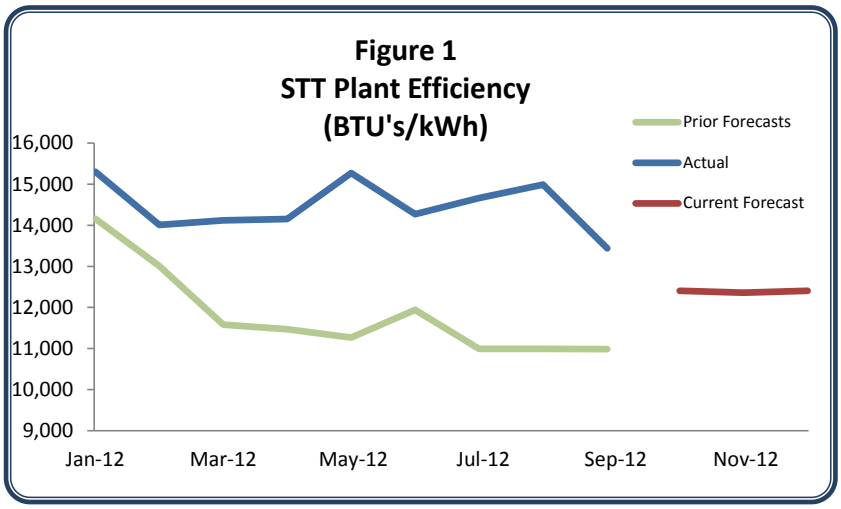
Also, to the extent that there are changes in the dispatch efficiency from one LEAC period to another, that change will impact the LEAC rates between the two periods. As an example, in the proposed LEAC rates for the period October through December 2012 we have examined the impact on the proposed rate due to changes in fuel cost, deferred fuel, and the proposed operation of WAPA power production facilities. While the impact due to changes in the price of fuel oil was discussed above and the deferred fuel impact will be discussed below we've presented in this section a detailed discussion of the forecasting of dispatch efficiency to enable the Commission to have an appreciation of the impact this variable can have on LEAC rates. To bring this matter into focus we have conducted an analysis of calendar year 2012 to specifically isolate the dispatch forecast impacts on the proposed LEAC rates in this proceeding due to projected changes in the operation of WAPA's power production facilities.

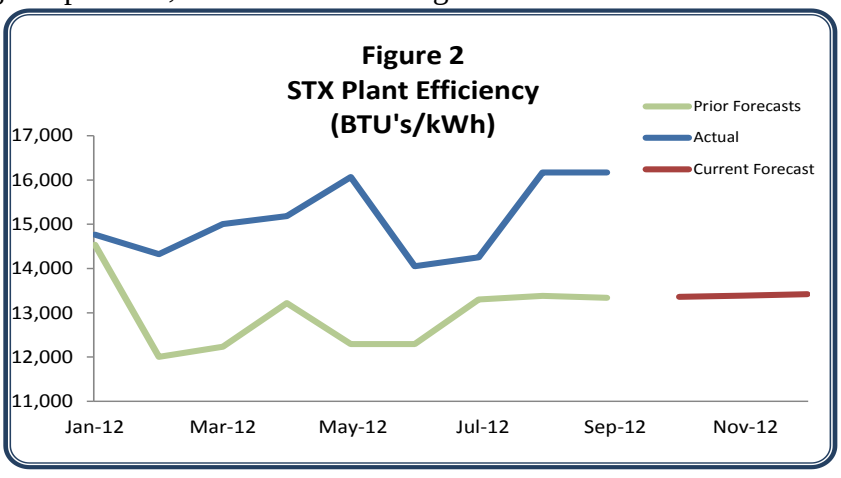
Table 4
Change in LEAC Rate due to Efficiency Forecast

	LEAC Rate Impact	1000 kWh Sales
St. Thomas	$0.0357	114,045
St. Croix	$0.0050	71,211
Weighted	$0.0239	185,256

Table 4 shows that of the $0.076710 per kWh change that WAPA proposes to the upcoming LEAC rate that $0.02388 per kWh is attributable to changes it has made in its production efficiency forecasts subsequent to the PSC approval of the July through September 2012 LEAC Rate. This means that approximately one-third of the LEAC rate change for the upcoming LEAC period is related to WAPA's projection that its power production facilities will operate less efficiently in the October through December 2012 time period as compared to the projected efficiency during the July through September 2012 period.

To further validate this relationship between the LEAC rate and dispatch efficiency, we have also included Figures 1 and 2 which show for calendar year 2012 the relationship between WAPA's forecast of production efficiency and actual efficiency achieved during the year. Figure 1 presents production efficiency data for January through December for the St. Thomas power plant. The data is divided into the four discrete LEAC periods—January through March, April through June, July through September, and October through December. There are two lines shown for the period January through September and only one single line for the period October through December 2012. For the January through September period the bottom line shows the "prior forecast" for production efficiency and the top line shows the "actual" production efficiency attained. For the period October





through December 2012 the single line simply shows the projected production efficiency for the upcoming LEAC period.

Similarly, Figure 2 shows data for January through December 2012 for the St. Croix power plant. The data also is divided into the four discrete LEAC periods for calendar year 2012. Like the earlier figure there are two lines shown for the period January through September and one line for the period October through December. Like in Figure 1 the bottom line for January through September shows the "prior forecast" for production efficiency and the top line shows the "actual" production efficiency. The single line for the period October through December 2012 simply shows the projected production efficiency for the St. Croix plant during this period.

As shown in Figures 1 and 2 the forecast of production efficiency for both the St. Thomas and St. Croix power plants, included in the three earlier LEAC Rate periods (January through September 2012) and accepted by the PSC for calendar year 2012, were more optimistic than the actual results obtained during each of the three LEAC periods resulting in a substantial under-recovery of fuel costs. Likewise, while we have accepted the WAPA production forecast for review of the proposed October through December 2012 LEAC Rates, we have concern that the forecast for both the St. Thomas and St. Croix plants may be again overly optimistic for the October through December 2012 LEAC period. As shown in both Figures 1 and 2 the forecast of production efficiency for the upcoming LEAC period is more favorable than WAPA has achieved at any time during 2012. In fact, the forecast of production efficiency for October through December 2012 indicates that WAPA will achieve efficiencies levels that it has not achieved at anytime during the last five-years. While the October through December production efficiency forecast for St. Thomas is at least closing the gap between past forecast and actual data, the forecast for St. Croix is consistent with past forecast, which have never been attained. Failure to meet these production forecasts will result in WAPA continuing to increase its deferred fuel balance during the next LEAC period in the same manner it did during the January through September period. This is not to say that the efficiencies projected are not attainable. In fact, after the plants that are currently undergoing rehabilitation are in operation the overall system efficiencies should be capable of being reached. WAPA has simply not performed at those efficiencies for a long period of time. With the spectre of the potential of a huge rate increase, we did not adjust the efficiency assumptions made in WAPA's submission. This would have increased the LEAC rate request even further.

Regulatory Costs - Docket 289

WAPA is permitted to include the regulatory costs associated with the quarterly reviews of its LEAC Rate filings, LEAC results of operations, and fuel and operational issues included within Docket 289. In its filing, WAPA included $300,000 of regulatory costs based on assessments received from the PSC for LEAC related engagements.

General Obligation Note

WAPA has included principal and interest ("P & I") in the amount of $600 thousand related to the refinanced GO Note as part of the LEAC costs for the period October through December

2012 based upon a projection of that debt service requirement under the new General Obligation Note ("GO" note). This new GO note was approved by the PSC by Order 27_2012, ¶ 7.

WAPA received funds from the Series 2012B bonds that were specifically issued to pay down the existing GO Note and eliminate the balloon payment of $18 million that was due in December 2013.[9] The schedule of payments for the bonds is through 2018. In addition to this payment, WAPA proposed refinancing the remaining outstanding balance of the note with a new GO Note through 2016. WAPA had originally assumed that the new note would be in effect in May 2012. It was not approved by the PSC until July 2012 and it is our understanding that the note went into effect in September. Until that time, WAPA continued to pay a higher amount of debt service per month.

The debt service under the terms and provisions of the new GO note is $200 thousand per month for the Electric Department and $75 thousand per month for the Water Department (see Workbook-Schedule 6b). Under the old GO note the debt service for the Electric Department was $759 thousand per month and $82 thousand per month for the Water Department. In the August 20th submission, WAPA assumed that the new GO note would go into effect on July 1, 2012 with a higher debt service for both departments. While a correction to the debt service of the new note issued in September and the actual payments for the months of July through September 2012 should be made to the work book, we do not believe that any material change in the recommended factors would occur if these corrections were made. In future filings, programming the projected debt service and actual payments of that debt service should recognize the debt service as it truly exists. While there is a positive benefit to consumers in the LEAC, the total impact of the refinancing and new bonds with debt service in base rates may not be beneficial.[10]

Regulatory Asset and PILOT

Both of these items are fixed amounts and each has been approved by the PSC for inclusion in all prior LEAC computations. We have accepted the costs incurred and the projection of these costs as in prior LEACs. However, we note that WAPA has changed the monthly credit for PILOT from $124 thousand per month to $112 thousand per month, without explanation. The difference is small and we have ignored the difference; however, WAPA should provide some explanation.

Rate Financing Mechanism

A Rate Financing Mechanism (RFM)(a temporary funding allowance)was agreed upon by prior Stipulation between WAPA and the PSC Staff on September 27, 2011 and subsequently approved by the PSC Order.[11] It was estimated that at the time of PSC approval of the RFM mechanism that consumers would obtain an economic benefit of no less than $50 million annually through more efficient operation of WAPA generating units. The RFM we recommend the PSC include in the October through December 2012 LEAC Rate is $4.3 million. We have included this amount as a recommended LEAC Rate component for the quarter ending

[9] WAPA Petition in Docket 605, June 1 2012.
[10] See the June 2012 LEAC report, pages 9-11.
[11] PSC Order 02/2012, dated October 25, 2011.

December 31, 2012. Pursuant to PSC Order the RFM funds collected from consumers by WAPA can only be used to pay the leasing, operating and maintenance costs of the leased GE trailer mounted (TM 2500) emergency generating unit, the systematic completion of the rehabilitation and chronic deferred maintenance of certain WAPA generating units, the acquisition of spare parts, and the services of an Independent Advisory Contractor (IAC), an expert in the maintenance and efficient operation of generating units. The total RFM revenue component approved in the PSC order accepting the Stipulation was based on the product of 2.3 cents per kWh times the then current kWh sales forecast. An RFM component of the LEAC has been included in all LEAC Rates since April 1, 2012.

The leased unit (also referred as "Unit 25")—one of the authorized uses—has been in operation since late May 2012 and has been operating at an efficiency level of approximately 11,900 BTU/kWh and operating at a 78% utilization factor since that time. Unit 25 operates more efficiently than any of WAPA's other combustion turbines and is contributing to improving performance of St. Thomas power production, and is a significant factor in the abrupt improvement in the St. Thomas plant's fuel efficiency, shown in Figure 1 above. Also, the emergency leased unit allows WAPA to have available the capacity to perform vital and crucial maintenance on its other St. Thomas facilities—the primary purpose of WAPA acquiring the emergency unit.

The September 27, 2011 Stipulation and subsequent Commission Order approved the RFM as a temporary "supplemental" financing source. The RFM was approved to provide WAPA a source of funding so that consumers could be assured of near- and long-term benefits. These consumer benefits are to be measured by the PSC using metrics that target improvements to WAPA production efficiencies and improvements to allow its facilities to provide a continuous and uninterrupted supply of electricity. The Order requires that WAPA timely provide certain information concurrent with its quarterly LEAC Rate filings to the PSC. The RFM component included as part of any LEAC rate is to be specifically ordered quarterly by the PSC. The amount of the RFM authorized by the PSC for inclusion in the LEAC rate shall only be used for specifically "authorized" emergency power, generation maintenance management activities, performance improvements, and spare parts. The authorized uses of these RFM funds may be amended by the PSC at any time—ideally concurrent with the setting of a new LEAC Rate.

As an accountability measure the PSC, concurrent with each future quarterly LEAC rate filing, has the rate setting responsibility to review the status of RFM activities, their prudence and applicability to the FMP funding mechanism. For the PSC to meet its obligation authorizing the amount of the RFM in each LEAC Rate cycle, WAPA is required to provide the PSC certain quarterly RFM information which the PSC will consider in its LEAC rate deliberations. Specifically, the following information, pursuant to Commission order approving the Stipulation, is required concurrent with each LEAC filing to support the PSC's inclusion of a RFM amount in the LEAC Rate:

1. An 18-month forward look at WAPA demand and resource balance which will identify WAPA's projected available generating capacity and surpluses or (deficits) for St. Thomas/John district.

2. An 18-month forward look at the estimated expenditures that WAPA request be approved by the PSC for funding with the RFM supplemental financing component included in the LEAC Rate. The 18-month forward looking list of expenditures is to include the proposed activities that WAPA proposes the PSC approve funding in the current LEAC rate as related to emergency generation, performance and capital improvement projects, deferred preventative maintenance, purchasing spare parts, and the IAC.
3. A detailed financial report providing the PSC monthly derived RFM revenues, a summary of all authorized Commission expenditures incurred, and the monthly ending balances in the RFM fund. All financial activities are to be held in a separate account—we understand this is being done, but no financial reports have been provided to the PSC to date.
4. A detailed analysis of the economic and other benefits to be derived by residential, business, and government consumers as a result of the proposed emergency generation, performance of critical deferred maintenance, and the inclusion of the RFM in LEAC Rates. The analysis is to show for each facility its estimated operating hours, available capacity, power production, unit efficiency, fuel use and fuel costs. This analysis was originally to be provided to the PSC in November 2011—it was not—and is to be updated with each quarterly LEAC Rate filing.
5. Status of the implementation of a comprehensive and sustainable maintenance management protocol (MMP) which is to be completed no later than December 31, 2012.

As noted above, WAPA has failed to provide any of the information and reports required by the PSC to support the PSC continuing to fund the RFM component of the LEAC Rate. This is the fourth LEAC Rate proceeding since the Stipulation was approved by the PSC and the second LEAC Rate proceeding since the PSC authorized WAPA to begin collecting RFM revenues as part of the LEAC rate. The PSC should consider the failure of WAPA to comply with conditions of its previous Order when deliberating on its LEAC Rate request for the October through December 2012 period and whether or not to include the $0.023 per kWh in the rates of the consumers.

Lastly, the RFM temporary funding mechanism established by the PSC requires for accountability, public transparency, and assessment purposes that WAPA retain an IAC specializing in power generation who shall provide technical expertise in the oversight, review and reporting on critically deferred maintenance, performance and capital improvement projects, and the overall efficiency and reliability of power plant facilities. It is understood by all that the IAC shall have no operating responsibilities. The obligations, duties, and reporting responsibilities of the IAC were outlined in Attachment 6 of the Stipulation approved by PSC Order.

The parties have held numerous discussions and at WAPA's request on July 17, 2012 we provided WAPA with a detailed IAC work scope for use in the IAC procurement process. Subsequently, an extended conference call was held to walk through the draft work scope at which time WAPA indicated it would respond with its comments in writing within a brief period of time. No comments have yet been received. Meanwhile, the original date for implementation

of the IAC has come and gone as well as subsequent agreed dates for IAC implementation. At the present time we are unaware of WAPA intentions. In simple terms, is WAPA going to provide comments on the "draft" work scope or do they intend to ignore this requirement of the previous order of the Commission that granted the temporary RFM funding mechanism contained in the within the LEAC rate? This matter needs to be resolved at the earliest date since currently the PSC has no independent means by which it can assure consumers the accountability, public transparency and assessment that the funds collected are be used for the purposes granted. We recommend that no later than October 31, 2012 that WAPA provide all of the information required (as identified above) by previous PSC Order and that WAPA clarify its position on the IAC.

Under-Recovery Amortization

WAPA incorrectly estimated that there will be an under-recovered Electric Department fuel expense balance ("deferred fuel") as of September 30, 2012 of $17.6 million, including the principal balance of the refinanced GO Note of $8.1 million. When the amount is reduced for the principal balance the result is a request for an additional $9.5 million. WAPA is requesting that the entire amount be recovered from consumers over a period of six months (ending March 2013). This results in an additional fuel cost of $4.7 million for each of the next LEAC periods.[12]

In an informal conversation with WAPA management, it was indicated that there was a serious error made by WAPA in the submission of August 20, 2012. WAPA management used what it thought was the book balance of deferred fuel ($12.2 million) and adjusted for what it believed was the book balance of the GO note $8.5 million for a net due to WAPA of $4 million. After repeated requests we received the June 2012 financial statements and have been unable to figure out how WAPA determined the opening balance from that information. The reconciliation of Fiscal 2012 LEAC will result in a better estimate of the deferred fuel balance at the beginning of Fiscal 2013. We are still uncomfortable amount the amount of deferred fuel expenses until we get a full reconciliation and auditor statements through June 2012.

Although a requirement of a complete LEAC filing, we only recently received a reconciliation of Fiscal 2012 LEAC results. According to WAPA's estimate, the revised deferred fuel balance for the Electric Department is $26.5 million, which when net of the outstanding GO note balance of $8.5 million results in a fuel expense recovery deficit of $18 million. This is much larger than the $4 million assumed by WAPA in its submission.

At first glance, WAPA has not accounted for about $14 million of fuel costs assuming that the Fiscal 2012 reconciliation is correct. However, we have serious doubts regarding that balance shown on the Fiscal 2012 reconciliation as well. We cannot at this time check the spreadsheets against the internal books as we now know that there have been errors in the account for the LEAC revenues and fuel expenses for nearly four years. The deferred fuel expense balance shown on the LEAC schedules should be identical to the deferred fuel balance shown on its

[12] There was an error in the programming of the six months of recovery. The error does not impact WAPA's position, but WAPA had no recovery of deferred fuel in January 2013 and instead had the three months of February through April as recovering the deferred fuel balance. This has been corrected in the GCG exhibit.

internal reports (or at least reconcilable). This gives the Commission and its consultants a "double check" against possible programming errors in the workbook used to determine the LEAC rates.

After many failed attempts by the PSC consultants, there was finally an agreement by WAPA in August of last year that the books were wrong and the auditor was going to correct the error with a journal entry in Fiscal 2010 to correct both Fiscal 2009 and 2010 year-end balances. Repeated attempts to get this journal entry from WAPA or an agreement from WAPA on the appropriate totals have continuously failed. In the last LEAC proceeding, WAPA was required by PSC order to provide such reconciliation. Specifically, the PSC required:

> *[T]hat WAPA should provide no later than May 1, 2012 a complete reconciliation and explanation of any differences in the deferred fuel balances appearing in its accounting records with the deferred fuel balances being used by WAPA in the calculation of its LEAC rates.*[13]

WAPA continued to be in non-compliance with the PSC requirement on this matter. During informal conferences with WAPA management, we again tried to obtain confirmation that the auditor did indeed adjust the deferred fuel balance and questioned again why the problem continues and have not received an appropriate response.

We again pointed to the Commission that the error was continuing and growing. Specifically we stated:

> *This problem persists today and makes double-checking the deferred fuel balance against the accounting department impossible. As of March 2012, WAPA shows a deferred fuel expense balance of $53 million on its electric department books. The ending balance for March 2012 per the LEAC schedule is $42.4 million. It is not clear whether any adjustment has ever been made to the deferred fuel balance as stated by WAPA management and it certainly is clear that there still exists a huge discrepancy. The difference between these two amounts is about $10 million.*[14] *While a full explanation is still pending, a correction would require either a large write-off against earnings (affecting coverage calculations) or seeking additional recovery of $10 million through the LEAC.*

Once again the PSC ordered a complete reconciliation of this issue in Order 27_2012 (¶ 6) by which it required a full reconciliation and confirmation by the auditors. WAPA continues to be in non-compliance with a PSC Order, but information we are now receiving informally indicates that adjustments for Fiscal 2009 and Fiscal 2010 were made by the auditor to reflect the incorrect recording of fuel revenues and expenses.

Before the Fiscal 2010 books were "closed" the auditor made two adjustments to deferred fuel expenses related to this issue. Both adjustments were "booked" in Fiscal 2010. A $1.7 million reduction in deferred fuel expense for the Electric Department was recorded for the cumulative

[13] PSC Order 16/2012, ¶ 9
[14] There also exists the same discrepancy for the Water Department

error in FY2009 and $2.7 million for FY2010. The reduction of deferred fuel expense resulted in lower earnings of $4.4 million for fiscal 2010, which decreased the debt service coverage ratio.[15] A similar adjustment was made in for the Water Department for a total reduction of somewhat less than one million dollars.

We just received a copy of this 2010 entry and have not had a chance to fully review it. Moreover, we believe that a similar and perhaps larger reduction may be warranted on the current deferred fuel balances for both department related to bookkeeping errors made in Fiscal 2011 and Fiscal 2012.

In past proceedings, GCG has recommended correcting filing errors no matter how these may affect the factors. Ignoring errors merely exacerbates future filings. If we were to make an adjustment to the current filing for this error and correct the opening balance of deferred fuel for the Electric Department, the impact on the LEAC rate for the Electric Department is very significant. Even if we were to amortize the deferred fuel balance over a period of nine months (through the end of the year) rather than six months as proposed by WAPA and make the necessary corrections the electric LEAC rate would increase to $0.397239 as shown in Table 5 below:

Table 5

		WAPA As Filed ($000s)	Corrected Deferred Fuel ($000s)
A	Cost of Fuel	$ 61,471	$ 61,471
B	Regulatory Costs (Dkt 289)	55	55
C	P&I on New 4-Yr GO Note	600	600
D	Regulatory Asset Costs	215	215
E	Pilot Refund	(337)	(337)
F	Rate Financing Mechanism	4,261	4,261
	Current LEAC Costs	$ 66,265	$ 66,265
G	Deferred Fuel Costs	4,732	7,326
	TOTAL Costs	$ 70,996	$ 73,591
	Total mWh	185,256	185,256
	Proposed LEAC Rate $/kWh	**$ 0.383234**	**$ 0.397239**
	Current LEAC Rate $/kWh	$ 0.306524	$ 0.306524
	Increase	$ 0.076710	$ 0.090715
		500	500

[15] We have asked for and not received the Fiscal 2010 audit for both departments.

Average Residential Usage		
Monthly Increase	$ 38.35	$ 45.36
Current Average Bill	$ 201.87	$ 201.87
Percent Increase	19.0%	22.5%

Sales, Losses and Uses

The projection of sales, losses and uses are provided in the LEAC Schedule 4.1 workbook. For the Electric Department WAPA projects a line loss percent of 8.3% on St Thomas and 7.6% on St Croix. We suggested that it might be more appropriate to use recent information regarding line losses and plant use. WAPA provides MFR1 which contains internal monthly reports on sales, losses and generation. We suggested that the information in MFR1 be used to forecast future losses and uses. In the last forecast we used the twelve months ending March 2012 to use as a forecast for Fiscal 2013. While the running average has changed if we use the twelve months ending June 2012, we did not adjust to reflect this change due to time constraints in preparing this Report.

An issue we raised in our last report is the Line Loss Reduction Program and the base rate surcharge that was established in Docket 575. In that docket, the PSC awarded WAPA a specific surcharge for a program to reduce line losses of $0.00291 per kWh. This surcharge went into effect on July 1, 2009 and has continued in place since that time. The cash from this surcharge was to be used solely for projects designed to reduce the level of line loss which would in turn reduce the level of oil required to produce enough generation to meet demand. The level of the surcharge was to be reviewed and changed during the duration of the program; to date has not been reviewed.

In our last report we stated that:

> *…recent information from WAPA concerning the revenues and expenses related to the Line Loss Reduction Program and discovered that through May 2012, WAPA has accrued total revenues of $4.3 million, while incurring expenses of less than $2 million. Therefore, WAPA has a reserve for this program of about $2.3 million which it indicates has been invested mostly in Certificates of Deposits. For Fiscal 2010 and Fiscal 2011, WAPA spent slightly less than $1 million per year on the Line Loss Reduction Program. For Fiscal 2012, WAPA has spent a mere $56 thousand. We would therefore suggest that as a first step, the surcharge be discontinued as of July 1, 2012. For an average residential customer, this would reduce the monthly bill (assuming 500 kWh per month) $1.45 per month.*
>
> *The excess cash should continue to be reserved and any further use should require specific approval. WAPA should make recommendations on the best use of these funds including whether they should be used to moderate future fuel cost increases, no later than the next LEAC filing (August 15, 2012).*

During the two months of July and August 2012, WAPA has accrued additional revenues of $251,000 and expended only $63,000.[16] The fund continues to grow and as of August 2012, the amount of cash on hand is $2.7 million. We received this information on September 18, 2012. Regarding possible uses for this balance and future revenues, WAPA provide the PSC with a line loss reduction program that was prepared on July 2, 2012 and hand-delivered to the PSC on August 31, 2012. We have had enough time to analyze the proposed projects to see if the base rate surcharge should be adjusted. We again request a complete reconciliation of the revenues and reserves from the Line Loss Reduction Surcharge and the intended use of those funds.

[16] See Exhibit A1, Schedule 8.

III. WATER DEPARTMENT

WAPA also filed for a large increase in its WLEAC for water customers. WAPA assumptions deriving the WLEAC concludes that water LEAC rates should be increased from $8.29 per kGal to $14.72 per kGal for an overall bill increase for a residential customer using 2400 kGal per month of $15.43 per month or about 23.1% of average monthly bill. Table 6 presents the computation of the WLEAC Rate:

Table 6
WAPA LEAC – Water

		WAPA As Filed ($000s)	GCG Review ($000s)	
A	Cost of Fuel	$ 2,663	$ 2,663	
B	P&I on New GO Note	224	224	
C	RO Lease Costs	1,239	1,239	
D	Docket 289 Costs	20	20	
E	Sub-Total	$ 4,146	$ 4,146	
	Base Rate Recovery	(934)	(934)	
	Current LEAC Costs	$ 3,213	$ 3,213	
F	Deferred Fuel Costs	1,560	399	
	TOTAL Costs	$ 4,772	$ 3,612	
	Total kGal (000)	324,201	324,201	
	Proposed WLEAC Rate	**$ 14.72**	**$ 11.14**	/kGal
	Current WLEAC Rate	$ 8.29	$ 8.29	/kGal
	Monthly Increase	$ 6.43	$ 2.85	/kGal
	Average Residential Usage	2,400	2,400	Gal
	Monthly Increase	$ 15.43	$ 6.84	
	Current Average Bill	$ 66.90	$ 66.90	
	Percent Increase	23.1%	10.2%	

Cost of Fuel

The cost of fuel for the three month period ending December 2012 is estimated to be $2.6 million, which is twice the amount that was estimated for establishing the current WLEAC for the period July through September 2012. For accounting purposes (actual results), the cost of fuel is allocated from the Electric Department using an algorithm established decades earlier.

For forecasting purposes, the spreadsheets used to project fuel costs for the Water Department is basically a "black box." Our understanding is that WAPA generally applies experienced fuel allocation from historic periods for forecasting purposes. There is no specific methodology within the LEAC spreadsheets that could be easily adjusted for differing forecast techniques. For projection purposes, WAPA assumes that 5% of total fuel expense will be allocated to water on St Thomas while 3% will be allocated on St Croix. The St Thomas percentage (5%) is much higher than was assumed in the prior LEAC (2%) and may be part of the reason why there is a large under-recovery and an increase in total fuel for the three months ending December 2012. According to information provided by WAPA for the year ending June 2012, WAPA allocated a cumulative 2.9% of fuel expense on St Thomas to the Water Department. The only actual month we have is the month of July which shows of 4.8% of fuel costs for St Thomas were allocated to water. We did not make an adjustment to the percentage used in allocating fuel expense, but suspect that there are some accounting issues.[17]

P & I on New GO Note

The debt service for the Water Department is the allocated portion of the total debt service related to the refinanced GO Note as discussed in detail in the Electric Department discussion. The same timing error and impact on cash flow that affected the Electric Department also affected the Water Department. We have made no changes.

RO Lease Costs

WAPA is currently producing water by reverse osmosis on both Islands under contracts with Seven Seas. For forecasting purposes, WAPA is assuming that the RO production per day on St Thomas will be 2,000 kGal and on St Croix the production total will be 1,000 kGal per day based on current equipment and capacity and recent production rates. The derivations of the costs per month using the current rates and these production assumptions are shown in the Attachment A workbook on Schedule 7. Reviewing Schedule 7 of Attachment A1, we note that the unit price on St Thomas ($4.77 per kGal) is constant throughout the period and is consistent with the information obtained in MFR3. However the price on St Croix in July shows a price of $3.43 per kGal and then increased to $3.55 per kGal. We were unable to verify this with the copy of the contract, but the $0.12 difference is not material and we will pursue this in the next proceeding.

Docket 289 Costs

WAPA has included a small amount of regulatory expense into the WLEAC. Since Docket 289 applies to both the electric and Water Departments, some allocation to the Water Department is warranted. We have accepted the allocation of $20,000 into the calculation of the LEAC rate.

[17] It should be noted that correcting the cost of fuel for mis-allocation would reduce the WLEAC rate, but WAPA is seriously under-recovered for its fuel expense. The rate will be reconciled in three months and error would only accelerate recovery (all else being equal).

Deferred Fuel Costs

In its August 20, 2012 submission, WAPA estimates that at the end of September 2012 the total deferred fuel balance for the Water Department will be $7,650,000 offset by the GO note principal of $2,971,000 for a net balance to be recovered from water consumers of $4,679,000. WAPA is proposing to amortize this balance over a period of nine (9) months, unlike the Electric Department where it requested recovery over six months.

The same issues that plague the ability to reconcile the deferred fuel balance for the Electric Department are also present for the Water Department. As with the Electric Department, WAPA has been misreporting the deferred fuel balance on its internal financial statements. At the end of Fiscal 2010, the auditor in preparing the financial statements for the year ending June 2010 made a journal entry that reduced the balance due from the customers of the Water Department (deferred fuel) by $934 thousand to adjustment both the Fiscal Year 2009 and Fiscal 2010 balance.

As indicated in the discussion of deferred fuel expense for the Electric Department, continued errors in Fiscal 2011 and Fiscal 2012 will also need to be adjusted. WAPA's regulatory department has been correctly tracking the correct amount and started with the audited balance of deferred fuel expense for Fiscal 2010 and brought this balance forward to June 2012 by doing the monthly presentations in the LEAC format. WAPA's Fiscal 2012 ending balance of deferred fuel expense was estimated to be $3,924,000, which should be the opening balance for Fiscal 2013 and not the $7,650,000 as presented in the August 20, 2012 submission. Adjusting the opening balance will decrease the WLEAC rate significantly.

We have corrected the deferred fuel opening balance for Fiscal 2013 to "tie" to the ending balance of Fiscal 2012. We have accepted WAPA's proposed amortization of the deferred fuel balance as of October 31, 2012 of nine months. This is the only adjustment we have made to WAPA's proposed rate for the Water Department.

IV. SUMMARY POINTS OF GCG REVIEW

As a result of our investigation into this filing and for reasons presented herein, our recommendations are that:

1. A LEAC rate of $0.383234 per kWh should be set for the Electric Department beginning on October 1, 2012.
2. A WLEAC rate of $11.14 per KGal ($3.58 less than requested) should be set for the Water Department beginning on October 1, 2012.
3. WAPA should provide all MFR requirements for future quarterly LEAC filings including the expanded requirement to provide information regarding billing and collection activity and outstanding balances for the previous two quarters for all accounts government and non-government by customer class (MFR5);
4. WAPA should provide by October 31, 2012 a report reconciling the deferred fuel balances on its books with the deferred fuel balances used for LEAC purposes with appropriate confirmation from WAPA's auditors through September 2012. The reconciliation should demonstrate that the deferred fuel expense balances for both departments shown on the LEAC schedules and on the internal financial statements are identical for both departments.
5. WAPA should provide the PSC no later than October 31, 2012 the information required to support the continued funding of the RFM component of the LEAC Rate. If all of the information is not provided and, if WAPA is not in compliance with conditions of the stipulation by October 31, 2012 the PSC should require a reduction of the LEAC rate by $0.023 per kWh effective November 1, 2012.
6. WAPA should provide the PSC no later than October 31, 2012 clarification of its position concerning the implementation of IAC and indicate a date certain by which it will mobilize the services of an IAC.
7. WAPA should continue and reserve the revenues from the Line Loss reduction surcharge, but by October 31, 2012 provide a plan of projects, costs and benefits from the programs that will use the funds currently reserved and future revenues.

This concludes our report.

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