

**BEFORE THE COMMONWEALTH PUBLIC UTILITIES COMMISSION  
COMMONWEALTH UTILITIES COMMISSION  
ELECTRIC RATE INVESTIGATION  
DOCKET 09-01**

**TESTIMONY  
OF  
GEORGETOWN CONSULTING GROUP, INC.  
CONSULTANTS FOR THE CPUC  
NOVEMBER 24, 2008**

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4                   -----  
5                   **TESTIMONY OF**  
6                   **GEORGETOWN CONSULTING GROUP, INC.**

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9                   **1. SCOPE AND PURPOSE OF TESTIMONY**

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11                   Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

12                   A. The Commonwealth Public Utilities Commission (CPUC or Commission) has been  
13                   directed by § 3 of Public Law 16-2 to review and adopt a just and reasonable rate structure  
14                   for the Commonwealth Utilities Corporation (CUC) on or before December 31, 2008. In  
15                   preparation for its discharge of these regulatory responsibilities, CPUC pursuant to its  
16                   authority under 4 CMC § 8406[a] has retained Georgetown Consulting Group, Inc  
17                   (“GCG”) as an independent regulatory consultant to the Commission. The purpose of this  
18                   testimony is to provide to the Commission GCG findings of its investigation into the rates  
19                   and rate structure of CUC.

20  
21                   **2. EXPERIENCE AND QUALIFICATIONS**

22  
23                   Q. PLEASE INDICATE WHO WILL BE PROVIDING TESTIMONY ON BEHALF OF  
24                   GCG IN SUPPORT OF ITS POSITION IN THIS PROCEEDING?

25                   A. The testimony is presented as panel testimony on behalf of several GCG witnesses. These  
26                   witnesses include:

27  
28                   Mr. Jamshed Madan will be the witness with overall responsibility for this engagement  
29                   and for the presentation of policy issue recommendations. Mr. Larry Gawlik is a co-  
30                   sponsor of this testimony with responsibility for recommendations concerning CUC’s  
31                   power plant and distribution system condition, personnel levels and expenses, operations  
32                   and maintenance (O&M) expenses and capital rehabilitation projects. Finally, Mr. Robert  
33                   Anderson assisted in the preparation of this testimony with responsibility for the review of  
34                   the sales forecast, operating revenues and expenses, revenue requirements forecast, and  
35                   the detailed schedules attached to this testimony. Mr. Anderson will be available to  
36                   respond to question in the areas mentioned, if necessary.

37  
38                   All of the individuals above have extensive experience testifying in other regulatory  
39                   jurisdictions on electric utility rate and related matters. In particular both Mr. Madan and  
40                   Mr. Gawlik have been consultants to the Guam Public Utilities Commission for 20 years  
41                   on matters related to the Guam Power Authority (GPA) and Guam Waterworks Authority.  
42                   In Appendix A is a copy of their educational, professional, and regulatory experience.

43  
44                   **3. EXECUTIVE SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

45  
46                   Q. DO YOU WISH TO MAKE INTRODUCTORY REMARKS BEFORE PRESENTING  
47                   YOUR SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS?

1 A. Yes. This is an extraordinarily unusual rate investigation and proceeding. In a traditional  
2 rate proceeding a utility like CUC would petition the CPUC for a rate modification. In  
3 this proceeding the rate review process is being driven by legislative mandate. To assist  
4 the reader appreciate key issues in this proceeding Appendix B presents rate theory,  
5 regulation, and practices applicable to this proceeding; while, Appendix C presents legal  
6 opinions concerning certain CNMI statutes, executive orders and practices applicable to  
7 this proceeding.

8  
9 Public Law 16-2, § 3 require that a CUC electric rate structure be established by CPUC by  
10 December 31, 2008 or the rates previously set forth in Public Law 15-94 shall become  
11 effective. The rates set forth in P.L. 15-94 are so low that implementation of those rates  
12 would have a disastrous impact on CUC and the citizens, businesses and the government  
13 of the CNMI. Given CUC's current financial position and short timeframe associated with  
14 the mandate in § 3 of Public Law 16-2, the Commission is taking the lead in investigating  
15 and reviewing CUC's rates and making a rate determination concerning CUC's existing  
16 rates and rate structure prior to the December 31, 2008 deadline. Such an approach places  
17 the CPUC and its staff in a difficult position since neither has direct and unabated access  
18 to all of the data and information typically required to perform a detailed cost of service  
19 analysis. Accordingly, this rate review, while not a full cost of service analysis, has been  
20 performed sufficiently to analyze CUC current rate situation and to provide the CPUC  
21 with detailed conclusions and recommendations concerning existing and future CUC  
22 electricity rates.

23  
24 Q. ARE THERE OTHER FACTORS WORTH NOTING CONCERNING YOUR REVIEW  
25 OF CUC RATES AND CHARGES?

26 A. Yes. Regulation is new to CUC and as such it is not accustomed to the type of scrutiny  
27 commonly associated with regulation, nor does it keep records in the manner typically  
28 prescribed by a regulatory agency. It has no regulatory staff to interface with the CPUC  
29 or its consultants, and it only has limited regulatory protocols in place for the timely  
30 provision of information. In addition, there has been a considerable time period between  
31 today and the last electric rate change and as a result CUC personnel are not readily  
32 familiar with issues such as regulatory accounting and rate design. Again, these are issues  
33 that we have worked around and, while significant, did not impact our ability to reach the  
34 conclusions and recommendations provided herein.

35  
36 Q. IN VIEW OF THESE SHORTCOMINGS WERE YOU ABLE TO EMPLOY  
37 TRADITIONAL RATEMAKING PRINCIPLES IN YOUR INVESTIGATION OF  
38 CUC'S ELECTRIC RATES?

39 A. For the most part our review incorporated traditional ratemaking principles; however, it  
40 was not possible in all cases to follow the strict application of traditional ratemaking  
41 principles when examining CUC rates and its rate structure. Specific weaknesses exist at  
42 CUC that must be taken into consideration. These weaknesses have put CUC into a  
43 position of instability. This instability impacts not only CUC's financial position, but also  
44 extends to the day-to-day operations of its electric system.

45  
46 Q. COULD YOU DESCRIBE THE SPECIFIC WEAKNESSES CONTRIBUTING TO THE

1 FINANCIAL AND OPERATIONAL INSTABILITY OF CUC?

2 A. Currently, a number of factors have put CUC in an extraordinarily weak financial and  
3 operational position leaving it in a day-to-day crisis mode. This day-to-day crisis mode is  
4 the result of a number of circumstances—some of which are within CUC’s control and  
5 many of which not within its control. Principal among the factors are: (i.) the  
6 unprecedented fuel price volatility experienced in world oil markets, (ii.) the tardiness of  
7 collections from the CNMI government and other CUC customers, (iii.) the loss by CUC  
8 of garment industry customers as a result of changes in the competitiveness within the  
9 markets they provide products, (iv.) the loss of retail customers who were once employed  
10 by the garment industry, (v.) an overall decline in tourism, and (vi.) the catastrophic  
11 failure of a number of CUC generating units as a result of years of neglect, a lack of  
12 appropriate maintenance, and CUC management not having the resources, in house  
13 capabilities or the management skills required to directly address all of the issues.

14  
15 Q. COULD YOU DESCRIBE THE PRINCIPAL IMPACT RESULTING FROM THE  
16 DAY-TO-DAY WEAKNESSES IN CUC OPERATIONS?

17 A. The principal impact is a lack of liquidity which has had a negative impact on the financial  
18 condition as well as physical condition of CUC. While the world market price of fuel, a  
19 decline in tourism, and the competitiveness of the garment industry are beyond the control  
20 of CUC, the issues of customer receivables and the catastrophic failure of a number of  
21 CUC’s generating units are not beyond CUC’s control. FY 2007 accounts receivable were  
22 in excess of \$31.0 million (awaiting discovery on the current receivable balance and the  
23 balance outstanding by more than 60 days). While the majority of these amounts are  
24 expected to be paid, the lag between CUC payment for fuel and the payment from  
25 government and other customers is excessive and uncertain.

26  
27 This primary impact of these factors has created a liquidity crisis causing CUC to put in  
28 place among the most austere measures we have ever witnessed at an electric utility.  
29 Essentially all capital expenditures have ceased and only the most important O&M  
30 activities have been and are being conducted. The result is that CUC has been forced to  
31 utilize every dollar available from any source for the purpose of paying its fuel oil supplier  
32 and meeting expenses associated with payroll and other critical operating expenses. Using  
33 all the liquidity available has led to the current situation where there are no funds available  
34 for undertaking essential rehabilitation projects, normal maintenance activities, and the  
35 payment of debt service to the Commonwealth Development Authority (CDA)<sup>1</sup>. Evidence  
36 gained during discovery and in interviews with CUC representatives strongly suggest that  
37 this liquidity crisis has been ongoing for years and is a major factor in CUC’s inability to  
38 secure short-term financing and to access the long-term debt markets. As a consequence  
39 CUC has no ability to finance externally its rehabilitation projects and limited abilities to  
40 finance its working capital requirements or the most meager of capital purchases.

41  
42 Currently, CUC does not have a credit rating from any of the major credit rating agencies  
43 and it is not in a position to seek a credit rating. It will be necessary that CUC reverse the  
44 negative trends in its financial condition requiring it to solve its liquidity crisis and to have

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<sup>1</sup> It appears no principal or interest on these obligations have ever been paid.

1 put in place electric rates which will allow it to operate as a going concern with adequate  
2 operating margins that allow it to make debt service payments and internally finance a  
3 portion or all of its annual capital requirements. Only at such time will CUC be in a  
4 position to access the capital markets and remove some of the excessive burdens being  
5 placed on ratepayers (i.e. excess cost for emergency generators and the unavailability and  
6 inefficiencies associated with its existing generation). Without CUC solving its current  
7 liquidity crisis its condition will continue to spiral downward and it will continue to  
8 operate inefficiently requiring ratepayers to accept poor service and at the same time  
9 paying increased rates—significantly more than an appropriate amount—for poor service.

10  
11 Q. DO YOU BELIEVE THAT THE PRINCIPLE OF BALANCING THE  
12 AFFORDABILITY TO THE RATE PAYERS WITH THE REVENUE NEEDS OF CUC  
13 AS AN APPROPRIATE CONSIDERATION IN THIS PROCEEDING?

14 A. Yes. While this is an accepted principle for water and wastewater rates and not usually  
15 applied to electric rates, it is a principle with which we agree and in this proceeding have  
16 made several of our recommendations based on this principle. We believe that there are  
17 several areas in this proceeding and proceedings which will follow where alternate  
18 solutions need to be considered to ensure CUC services are provided more efficiently at a  
19 rate level commensurate with the level of service provided. We are recommending near-  
20 term solutions that will provide for lower rates than would be incurred by ratepayers under  
21 the current situation while providing CUC the financial relief needed. We expand on these  
22 recommendations in the text of our testimony below.

23  
24 Q. WOULD YOU PROVIDE YOUR SPECIFIC SUMMARY OF CONCLUSIONS AND  
25 RECOMMENDATIONS?

26 A. Yes. CUC derives revenue from customers through the electric rates it charges these  
27 customers. Its electric rates are set on the basis of a per unit charge for electricity  
28 consumed (i.e., cost/kWh consumed). For CUC's electric rates to fairly collect revenue it  
29 must be set on the basis of the actual electricity sales (kWh) made to customers.  
30 Typically, electricity sales for an electric utility are reasonably stable and predictable.  
31 Currently, at CUC too much uncertainty exists concerning the predictability of its future  
32 electricity sales (kWh). This directly impacts the establishment of an electric rate since  
33 the revenues produced by a given rate are not predictable with any degree of certainty or  
34 stability. What is known is that a reduction in current rates will produce less revenue for  
35 CUC than is currently produced. A lowering of rates at this time should be viewed as  
36 imprudent since it would potentially put at jeopardy the financial survival of CUC without  
37 massive subsidies from the CNMI Government. Likewise, given the instability that exists  
38 as a result of a downturn in the local economy and the uncertainty concerning future CUC  
39 electricity sales (kWh) we face a situation where the revenue to CUC produced from a rate  
40 increase at this time cannot be determined within an acceptable degree of confidence.

41  
42 The instability associated with CUC's electricity sales (kWh) leads us to a  
43 recommendation we believe to be the only practical and prudent course of current  
44 action—CPUC should set provisional electric rates for CUC that will be reviewed  
45 periodically and potentially changed over the course of the next 18 months. Under this  
46 provisional mechanism no changes would be made at this time and the current electric

1 rates would remain in effect. We further recommend that as the situation concerning CUC  
2 electricity (kWh) sales—following the recent period of extended outages—crystallizes  
3 and becomes more certain and the impacts of the ongoing downturn in the Saipan  
4 economy become less ambiguous that CUC rates continued to be reviewed. We  
5 recommend that the first review take place in June 2009 (or other appropriate date as  
6 determined by the CPUC) with subsequent reviews be conducted six months and 12  
7 months thereafter.

8  
9 Q. DO YOU HAVE ANY FURTHER RECOMMENDATIONS THAT THE CPUC  
10 SHOULD CONSIDER DURING THIS RATE REVIEW PROCEEDING?

11 A. Yes, we have two further recommendations. The first recommendation concerns the  
12 current method used to calculate and charge customers for fuel oil related to power  
13 production. The second recommendation concerns the establishment of a CPUC review  
14 protocol for divestiture and contract approval petitions filed by CUC pursuant to 4 CMC §  
15 8409[d].

16  
17 a) Fuel Cost Recovery Protocol—the current protocol used to determine the monthly  
18 Electric Fuel Charge (EFC) is a monthly adjustment. We recommend that the current  
19 EFC be replaced with a fuel related charge that would remain fixed for a six-month  
20 period. We recommend that CPUC approve the establishment of a levelized energy  
21 adjustment charge (LEAC) tariff for CUC. Under such tariff the LEAC applicable to  
22 ratepayers would be fixed for a six-month period and would be subject to CPUC  
23 review and approval prior to being applied to consumer bills. The six-month LEAC  
24 rate would be developed using an established formula and process that would be fully  
25 transparent to the CPUC as well as ratepayers. The proposed LEAC tariff structure is  
26 more fully described further in the body of this testimony. With CUC cooperation we  
27 believe that the initial LEAC factor could be established as early as January 1, 2009.  
28 This would require CUC and GCG work and cooperate closely on the establishment  
29 of the initial LEAC factor after the filing of this testimony in order to be jointly  
30 presented to the CPUC at the December 12, 2008 CPUC hearing. If not, the LEAC  
31 should be established as soon as is practical.

32  
33 b) Divestiture and Contract Approval Protocol—4 CMC § 8409[d] provides that CPUC  
34 shall review and approve or disapprove any divestiture of capital or contractual  
35 agreement, which may increase rates and charges to customers. Currently no protocol  
36 exists for how this legislative requirement should occur. We have addressed this issue  
37 later in this testimony and propose the implementation of an appropriate protocol very  
38 similar to a protocol that has been in effect for many years in Guam that has a similar  
39 legal requirement. We recommend CPUC adopt and implement a divestiture and  
40 contract approval protocol in a form proposed in this testimony. This protocol will  
41 provide a transparent and predictable process to deal with the issues.

42  
43 Q. DO YOU HAVE FURTHER CONCLUSIONS AND RECOMMENDATIONS  
44 RELATED TO WHAT THE CPUC SHOULD CONSIDER DURING FY 2009 AS PART  
45 OF A CUC PROVISIONAL RATE REVIEW PROCESS?

46 A. Yes. We recommend that during the June 2009 regulatory session the CPUC review and

1 potentially change the provisional electric rates set for CUC at its December 2008  
2 meeting. In addition, we have several other recommendations that should be considered  
3 during your 2009 regulatory sessions. Each of these is important to implementing existing  
4 CNMI statutory provisions or improving the financial health and operations of CUC.  
5 They are as follows:  
6

7 a) Rate review—pursuant to the adoption of our recommendation—to put in place prior  
8 to December 31, 2008 a provisional rate protocol—the June 2009 CPUC hearings  
9 shall consider revision to the current electric rates. In considering a potential change  
10 to the current electric rate CUC shall work in collaboration with GCG to prepare a  
11 review of CUC revenues and expenses which then shall be filed with the CPUC no  
12 later than April 15, 2009. This filing shall include consideration of the following:  
13

- 14 i. **Sales Forecast**—recent reductions in number of CUC customers, the loss of  
15 garment industry customers, and lower kWh sales have impacted CUC revenues.  
16 We recommend that CUC and CPUC consultants collaboratively develop a  
17 reliable sales forecast for review of the provisional rates.
- 18 ii. **Service Rules and Regulations**—should be reviewed and made consistent with  
19 current industry practices.
- 20 iii. **Life line rates**—should be considered and potentially established pursuant to  
21 provisions of Public Law 16-17<sup>2</sup>.  
22

23 b) Business Plan—pursuant to Public Law 16-17:2 and 4 CMC § 8122[b] CUC should  
24 be in the process of developing, adopting, and implementing a Business Plan for the  
25 purposes of delivering quality utility service at reasonable rates. There is also a  
26 requirement through implementation of its Business Plan that CUC achieve financial  
27 independence by October 1, 2009 or as soon thereafter as is reasonably possible.  
28 Currently, there is no evidence or statement from CUC that the Business Plan will be  
29 implemented by December 31, 2008. CUC in discovery has indicated it has not yet  
30 initiated the development of a Business Plan and cannot provide a completion date.  
31 We recommend CUC be required to complete the anticipated Business Plan at the  
32 earliest possible date so that the CPUC can consider the Business Plan at its June 2009  
33 regulatory meeting. Specifically, the Business Plan should set as an objective the  
34 identification of tactical and logistical strategies that if implemented by CUC would  
35 lead to its financial independence from the CNMI government and access to credit  
36 markets. In meeting this objective the Business Plan should at a minimum address the  
37 following critical matters currently facing CUC that are viewed as tactically important  
38 if CUC is to meet its strategic objective of becoming financially independent of the  
39 CNMI government:  
40

41 **Power Plant Rehabilitation Program**—a viable, physically and fiscally doable and  
42 cost justified program of rehabilitation must be identified, scheduled, resourced, and

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<sup>2</sup> Allows the board to provide life-line utility services at lower rates for the benefit of low income consumers (P.L. 16-17 at p. 22).

1 funded as part of the Business Plan. This element of the Business Plan is critical to  
2 CUC's financial independence. Currently, the power plant facilities of CUC are in  
3 horrendous condition—exception being those power plants under the day-to-day  
4 management of private parties under contract to CUC—and are in various states of  
5 disrepair. Very few facilities are operating and all facilities are well past the  
6 recommended OEM (original equipment manufacturer) maintenance schedules—  
7 some units have had major maintenance deferred by over 3-4 years. This situation is  
8 totally intolerable and demonstrates a level of past management neglect that we've  
9 never before witnessed by an electric utility. It is this "single" systemic failure that  
10 has led to the prolonged outages experienced by consumers and the resultant financial  
11 impact upon businesses, tourism, and the local economy. We are very concerned with  
12 the success possibility of the current strategy to hire an individual who is not yet on  
13 Island to oversee the overall rehabilitation and to use in-house personnel to undertake  
14 and implement the rehabilitation. We expand on this discussion in the text of our  
15 testimony below.

16  
17 **Emergency Generation**—the Business Plan will need to identify for what term the  
18 existing Aggreko contract may need to be extended. Currently, the Aggreko  
19 emergency generation is providing a large share of the electricity being produced on  
20 Saipan. Given the staggering scope associated with the rehabilitation of existing  
21 power plants and the lack of CUC resources there is almost a 100 percent chance that  
22 the Aggreko contract will need to be extended. The Business Plan should identify the  
23 extension strategy to be employed by CUC and presented to the CPUC well before the  
24 June 2009 regulatory session.

25  
26 **Private Sector Assistance Agreements**—Public Law 16-17 Section 3 (c)  
27 contemplates and authorizes CUC procurement of private sector assistance ("PSAA")  
28 under literally every private sector vehicle employed within the electric power  
29 industry today. This legislation represents a powerful tool for CUC to deploy in  
30 achieving its strategic mission to become financially independent. Critical in using  
31 these vehicles is the identification of definitive strategies. The Business Plan should  
32 identify preferred strategies to be employed by CUC.

33  
34 **Debt Restructuring**—at September 31, 2007 CUC had \$70 million of outstanding  
35 debt with approximately \$61.5 million owed to the Commonwealth Development  
36 Authority (CDA). A proposal is pending whereby the CDA and CUC would agree to  
37 a preferred stock transaction, which is authorized by 4 CMC § 8123[p] and requires  
38 CPUC approval pursuant to 4 CMC §§ 8123[r] and 8409[d]. Under the terms of this  
39 proposal the CDA debt would be reduced by an amount of \$45 million and converted  
40 to preferred stock. CUC's Business Plan should identify the rate and other  
41 implications of resolving the CDA dispute. CUC should at the earliest date possible  
42 petition the CPUC for review and approval of this transaction pursuant to the protocol  
43 recommended in the divestiture and contract approval protocol discussion below  
44 (assuming this protocol is approved in this proceeding by the CPUC)<sup>3</sup>.

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<sup>3</sup> Further discussion of this issue is also contained in Appendix C.

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**Investment Capital for Rehabilitation**—the key objective of the CUC Business Plan is to identify and implement those tactical strategies that will enable it to become financially independent from the CNMI government. To accomplish this CUC must identify the sources of near- and long-term capital that it will be able to access and the minimum standards and/or qualifications necessary to borrow both short term lines of credit and debt as well as long-term debt. The Business Plan should fully outline its plans to meet these borrowing standards allowing it to then access the capital markets necessary for it to rehabilitate its existing power plants. This will require as a minimum that electric rates be set to cover all required operating expenses and provide for the internal generation of capital to undertake capital rehabilitation and expansion projects. Receivables from customers, including government, will also need to be brought current.

**Environmental Compliance and Operating Permits**—currently CUC has a number of environmental issues that need to be resolved. The Business Plan will need to identify a strategy for resolution if CUC is to meet its objective of financial independence and more importantly to remove the regulatory risk that will be perceived by the financial community. For instance, CUC’s electric system has compliance issues associated with the operation of a fuel pipeline and the storage of hazardous waste products in tank 104 and at Power Plant 1. Finally, with the exception of the power plant managed by Telesource on Tinian, CUC does not have a single operating permit for any of its generating plants. It is going to be necessary to do baseline and emissions testing as well as develop an implementation strategy and budget to meet ambient and stack emission standards in order to obtain an operating permit.

**Renewable Energy and Fuel Diversification**—all of CUC’s power plants burn No. 2 fuel oil, literally the most expensive fuel that can be burned at a power plant. The Business Plan must address fuel diversification alternatives available to CUC in the near- and long-term. In addition, Public Law 15-88 § 8622 (a) specifies a renewable energy portfolio standard that CUC is to meet. The current standard requires CUC to supply ten percent of its electricity sales from renewable energy by December 31, 2008. Currently, CUC does not produce or receive from customers any renewable energy and will not meet the requirements of Public Law 15-87 by December 31, 2008. It may be desirable for CPUC to exercise its authority under section 8623 to provisionally relieve CUC of its duty under section 8622, pending further CPUC review.

Chapter 6, Article 3, § 8632 requires CUC to offer “net metering” services to eligible customers. Enactment of a “net metering” tariff would encourage retail customers to install renewable energy resources and would contribute to CUC meeting the portfolio standards established by Public Law 15-86. The Business Plan should outline the strategy CUC will pursue to meet its renewable energy portfolio requirements.

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**Accounts Receivable**—the accounts receivable balance for FY 2007 equaled approximately \$31.2 million (\$9.6 million was from governmental accounts) and represented approximately 115 days outstanding—a factor significantly higher than the industry average. In addition, for FY 2007 CUC’s external auditor reserved as an allowance for uncollectible an amount of \$12.7 million and wrote-off as bad debt an amount of \$2.4 million—an amount in excess of ten times the average write-off for a utility the size of CUC. The FY 2007 audit does not indicate the amount of the allowance for uncollectible attributable to government accounts. Clearly, CUC has a significant accounts receivable problem—one that if corrected would provide most of the needed cash for rehabilitation projects. The Business Plan must address the steps CUC will take to bring its accounts receivable balance into line so that it can achieve its strategic objective to become financially independent.

**O&M Staffing Levels**—CUC has seen its staffing levels decrease from approximately 390 FTE’s (full-time equivalents) just twenty-four months ago to approximately 270 FTE’s today. While no opinion can be provided about the reasonableness of the staffing level at this time it is clear that acute staffing shortages exists at CUC. For instance, many key back-office positions are unfilled and the maintenance staff at Power Plant 1 is clearly insufficient to provide the level of maintenance recommended by OEM’s. The Business Plan should identify the base staffing level necessary for CUC to deliver reliable power at reasonable prices and the revenues necessary to support this staffing level or the process by which a reasonable staffing level can be established.

**Other Business Planning Issues**—there are a number of other important issues which are more logistical in nature that must be addressed in CUC’s Business Plan. Each of these has either an impact on CUC’s customer service level or its cost structure and should be addressed. Included should be the following:

- i. **Fleet Management Inventory and Maintenance**—the impacts that an aging and poorly maintained fleet is having on customer service
- ii. **Maintenance Practices**—the implementation of a computerized maintenance management system to ensure power plant and distribution system maintenance is performed in accordance with OEM recommendations.
- iii. **Unaccounted for Energy**—while our discovery requests remain unanswered, it appears that a high percentage of the energy produced at CUC plants is unaccounted for. While approximately 6 percent (based upon proper energy accounting for legally non-metered services such as street-lighting) would be reasonable, any amount in excess of this represents an inefficiency that is paid for by all consumers.
- iv. **Subsidization & Cost Recovery**—it appears that CUC’s Water and Wastewater Systems are receiving a subsidy from its Electric System—no payments for electricity used at their facilities. In addition, the water and wastewater system are not recovering their costs. The exact impact of

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these two issues is unknown at this time, but a review of recent financials and our experience would indicate the values could approach \$4-6 million/year.

- v. **CNMI Legislation, Executive Orders, and Policies**—to the extent that unfunded mandates impacting CUC exists they should be made transparent and quantified.
- vi. **Conversion to No. 6 oil**—a conversion would represent an approximate 30 percent reduction in the price of fuel oil. Partially offsetting this amount would be an increase in the cost of maintenance. Other considerations would include the likelihood of being reasonably able to obtain an operating permit from the EPA.
- vii. **Outage Management System (OMS)**—the current reporting protocols do not allow one to accurately determine the level of customer outages or the impact of customer outages. The industry has well established protocols for tracking outages. These should be considered in the Business Plan.
- viii. **Power Plant Availability**—similar to the OMS is the issue of reporting protocols for power plant availability. Again the industry has well established protocols for tracking availability.

c) Net Metering—Chapter 6, Article 3, § 8632 requires CUC to offer “net metering” services to eligible customers. CUC is required to offer a “net metering” tariff and to offer service to all eligible customers. To date CUC has not developed such tariff and is not currently offering “net metering” services as required. A “net metering” tariff would encourage retail customers to install renewable energy resources and would contribute to CUC meeting the portfolio standards established by Public Law 15-86. This tariff can be developed by CUC or failing that by CPUC staff. It is recommended that the CPUC put in place a “net metering” tariff at its April 2009 regulatory session.

d) CPUC Administrative and Regulatory Expenses—in most regulatory jurisdictions administrative and regulatory expenses are funded by the utilities regulated and not from general government appropriations. Examples of this exist in the CNMI. Public Law 9-66 requires agencies, such as CUC, to pay the CNMI Treasurer an amount approximating one-percent of its total operating budget (over \$1 million/annually) from sources other than legislative appropriations to fund the Office of Public Auditor. If the CPUC is to undertake all of the responsibilities outlined in various CNMI statutes and executive orders it is going to be essential that some funding vehicle be created such as amending 4 CMC § 8441[d] to provide that CUC shall be subject to CPUC’s authority to assess regulatory and administrative expenses pursuant to 4 CMC § 8421.

**4. EXISTING CUC CONDITION**

**FINANCIAL AND OPERATING**

Q. AS PART OF YOUR RATE REVIEW DID YOU HAVE THE OPPORTUNITY TO

1 REVIEW THE FINANCIAL AND OPERATING CONDITION OF CUC?

2 A. Yes, during the course of our rate investigation we've had the opportunity to review the  
3 various laws, executive orders, and other regulations governing CUC. We also prepared a  
4 comprehensive set of information requests designed to solicit specific information  
5 concerning CUC's financial condition and its operations. For the most part, CUC has  
6 been responsive to these information requests. In addition, CUC was gracious enough to  
7 make available to office space at their headquarters where we were allowed to visit at  
8 length with key financial and operation managers. Finally, we had the opportunity to visit  
9 and investigate the condition of CUC power plants, distribution, and related facilities.

10  
11 Q. COULD YOU BRIEFLY DESCRIBE THE CURRENT TREND IN THE FINANCIAL  
12 CONDITION OF CUC?

13 A. Yes, but we must express certain caveats. CUC has demonstrated it has limited ability to  
14 break down its financials into the three utility services it provides—most reports are  
15 presented on a consolidated basis. This severely hampers reaching definitive conclusions  
16 concerning the rate adequacy and financial condition of the electric system. With that  
17 understanding, the current financial condition and trend of CUC and its electric system  
18 was examined.

19  
20 CUC's FY 2007 preliminary consolidated financials indicate that CUC is for all practical  
21 purposes "insolvent"—liabilities exceeding assets by an amount in excess of \$73 million.  
22 This deficiency is principally related to CUC's default of repayment terms for its loans  
23 payable to CDA. The terms of the associated loan agreements provide, in the event of  
24 default, that CDA may accelerate all remaining amounts due. Thus, \$61.6 million in  
25 principal due (the vast majority—\$45.5 million is related to water and wastewater debt  
26 and not electric system debt) and interest payable on these notes of \$115.9 million have  
27 been accelerated resulting in a total current obligation of \$177.5 million for principal and  
28 accrued interest. This default is a major financial event and until cured will prevent CUC  
29 access to traditional short- and long-term credit markets.

30  
31 While there exists a proposal for the settlement of issues between CDA and CUC  
32 concerning the payment of all the outstanding debt (the portion related to the water and  
33 wastewater system debt would be restructured to preferred stock) and interest payments  
34 payable to CDA, that agreement has not yet been executed and this matter remains  
35 outstanding. Pursuant to 4 CMC § 8123(r) and 8409(d) CPUC approval is required.

36  
37 The balance sheet also indicates that the accounts receivable balance for FY 2007 equaled  
38 approximately \$31.2 million (\$9.6 million was from governmental accounts) and  
39 represented approximately 115 days outstanding—a factor significantly higher than the  
40 industry average. In addition, for FY 2007 CUC's external auditor reserved as an  
41 allowance for uncollectible an amount of \$12.7 million and wrote-off as bad debt an  
42 amount of \$2.4 million—an amount in excess of ten times the average write-off found at a  
43 utility the size of CUC. The FY 2007 audit does not indicate the amount of the allowance  
44 for uncollectible attributable to government accounts or allocatable to the water and  
45 wastewater systems. CUC significant accounts receivable problem if corrected would  
46 provide a considerable amount of the cash needed for rehabilitation projects.

1  
2 The balance sheet indicates extremely high levels of non-fuel inventory—approximately  
3 \$7.5 million. Based upon average stores drawn from inventory CUC appears to have had  
4 a inventory turn-over ratio of less than 0.5—this is about one-fourth the average inventory  
5 turn-over ratio for an electric utility and indicates CUC inventory is either overstocked or  
6 contains items that are obsolete or items that are very slow moving (overstocked  
7 individual items).

8  
9 Finally, the CUC FY 2007 income statement demonstrates that on a cash basis CUC  
10 operated at or slightly below a breakeven position. The Electric Fuel Charge collected  
11 slightly over \$2.0 more than CUC actually spent in fuel expenses. However, the income  
12 statement is adversely impacted by a very large write-off for bad debt and an  
13 extraordinarily high interest expense on debt of \$11.4 million. This high level of interest  
14 expense is driven by the CDA default and the interest charge associated with the  
15 acceleration \$177.5 million of principal and interest of all of the CDA loans. In addition,  
16 supplemental information provided indicates that at a minimum there exists at least \$4.0  
17 million of water and wastewater systems costs that are not currently being covered by  
18 water and wastewater rates—this amount is exclusive of the cost of power which is a  
19 subsidy currently provided by the electric system without charge. If these amounts were  
20 normalized and allocated correctly to the electric system there would appear to have been  
21 a moderate margin during FY 2007 for the electric system. It seems clear and evident that  
22 the electric system is limiting expenses and payments to the cash available in a way that is  
23 not to the benefit of its ratepayers.

#### 24 25 **EXISTING POWER PLANT PERFORMANCE**

26  
27 Q. DID YOU HAVE AN OPPORTUNITY TO EXAMINE THE AVAILABILITY AND  
28 EFFICIENCY OF CUC'S POWER PLANT FACILITIES?

29 A. Yes, however, this examination was hampered by a lack of commonly available reporting  
30 statistics for power plant operations which are not complied by CUC. CUC does not keep  
31 records that report key operational statistics associated with power plant availability,  
32 reliability, efficiency, or production costs. A lack of these common reports limits the  
33 ability to compile trends in availability; however, it is clear from examining current unit  
34 availability that CUC has a long history of poor unit availability leading to a lack of  
35 required generation and blackouts. Also, although somewhat anecdotal in nature by  
36 observation we did note on our trip during the week of November 10<sup>th</sup> that of the 14 units  
37 at Power Plants 1 & 2 that only three units were operational and all three of those units  
38 were operating at limited output due to vibration or other restrictions. At Power Plant 4  
39 and at the Aggreko Emergency Plant all but one unit was in operation at each location  
40 (those units were down for scheduled maintenance and were back on line in a day or two).

41  
42 It is clear that the recommended maintenance schedules for every generating unit have  
43 been ignored and in some cases major maintenance is well overdue—in some cases by 4  
44 to 5 years. This has lead to the majority of CUC's (exception being Plant 4 on Saipan and  
45 the plant on Tinian) generating units being unavailable for dependable service. In  
46 addition, the performance of generating units when operating does not appear to be

1 optimal—as a result these inefficiencies have led to higher costs to ratepayers.  
2

3 The existing generating unit operating and maintenance practices applied by CUC have  
4 directly led to near-term failures of many of the existing diesel engines. More distressing  
5 is the fact that the failure to properly maintain these large engines has shortened the  
6 expected life of assets which cost in some cases tens of millions of dollars. The common  
7 excuse given for these events is that maintenance was not performed because of a lack of  
8 funds, a lack of spare parts, or a limited supply or qualified maintenance personnel. While  
9 these sound like acceptable excuses the fact remains that CUC’s diesel engines require  
10 maintenance in accordance with OEM recommendations and any failure to purchase spare  
11 parts or deferral of maintenance does not eliminate the need for maintenance—it only  
12 subjects ratepayers to outages and puts at jeopardy the integrity of CUC’s diesel engines.  
13

14 Q. HOW DO YOU ANTICIPATE THAT THE EXISTING CONDITION OF CUC’S  
15 EXISTING POWER PLANTS WILL IMPACT ITS PROVISIONAL AND  
16 PERMANENT ELECTRIC RATES?

17 A. In a traditional ratemaking environment these past actions by CUC would be deemed  
18 imprudent and CUC would be held accountable. However, in the current situation—  
19 unavailable generating units and rolling blackouts—it is going to be necessary for the  
20 CPUC work with CUC to create the financial platform from which CUC will be able to  
21 fund the rehabilitation of its various power plants.  
22

#### 23 **EMERGENCY POWER UNITS**

24

25 Q. DID YOU HAVE A CHANCE TO REVIEW THE EMERGENCY AGGREKO UNITS  
26 AND THE CONTRACT WITH CUC?

27 A. Yes. We’ve had a chance to both review the existing Aggreko contract as well as tour the  
28 Lower Base site where the Aggreko Emergency Generators are located. The Aggreko  
29 units appear to be well managed, operated, and maintained. While on site Aggreko was  
30 performing preventative maintenance on one of the units. Interviews with onsite  
31 personnel demonstrate an awareness of the key mission of Aggreko. The control room as  
32 well as all physical facilities are well maintained. Operating records indicate that the units  
33 are performing at or near the efficiency standards set forth in the contract. The Aggreko  
34 Emergency Generators and Power Plant 4 (both of which are not under CUC’s direct  
35 control) are currently providing the majority of CUC’s electricity production. Both  
36 facilities are critical to meet customer demand if CUC is to avoid further rolling blackouts.  
37

38 The Aggreko contract is for a period of one year. Shortly CUC will be three months into  
39 that contract with nine months on the base term remaining. The existing contract has a  
40 provision for the extension of the contract for an additional six month term. Given the  
41 state of rehabilitation of the existing Power Plant 1 & 2 units, CUC should plan on  
42 exercising the six month extension period contained in the contract. Further, contract  
43 modifications may be necessary in the event the pace of CUC’s rehabilitation of Power  
44 Plant 1 & 2 is not improved.  
45

46 Q. WHAT ACTIONS SHOULD CUC TAKE NOW TO PREPARE THEM FOR MAKING

1 A DECISION ABOUT THE EXTENSION OF THE EXISTING AGGREKO  
2 CONTRACT?

- 3 A. A potential contract extension should be one of the key issues explored in the CUC  
4 Business Plan that we have recommended. Time is critical and this issue should be  
5 addressed before CUC finds itself facing a self-imposed emergency.  
6

7 **POWER PLANT REHABILITATION PLAN**  
8

9 Q. HOW WOULD YOU CHARACTERIZE THE STATUS OF CUC'S CURRENT PLAN  
10 TO REHABILITATE POWER PLANT 1 AND COMPLETE THE REHABILITATION  
11 OF POWER PLANT 2?

- 12 A. Power Plant 1 is CUC's workhorse. It has installed capacity rating of 81 mW and is  
13 currently limited to only 8 mW—far below its capability. Major maintenance on every  
14 unit at Power Plant 1 is well overdue—anywhere from one to seven years beyond OEM  
15 recommendations. This is a horrendous situation and CUC has not demonstrated that it  
16 has a comprehensive plan to bring the plant back to an acceptable operating standard.  
17 While CUC has recently purchase \$6.5 million of parts to overhaul units 5 and 7, it does  
18 not currently have a viable plan for undertaking such overhaul (it recently rejected all bids  
19 for undertaking this work). Meanwhile, in addition to the need to overhaul these two units  
20 there are six other generating units in need of similar maintenance. The situation remains  
21 critical and must be addressed; otherwise, ratepayers will continue to be needlessly  
22 exposed to endless outages, poor availability, and the high cost of the inefficiencies  
23 introduced by operating the electric system sub-optimally.  
24

25 The program for rehabilitation of Power Plant 2 is well behind schedule. CUC previously  
26 retained a firm specializing in the maintenance of diesel engines to bring Plant 2 up to an  
27 operating level that would assure a minimum capacity of 10 mW's (plant is rated at 15  
28 mW). That work has been substantially performed; however, the plant has limited  
29 capability and CUC is involved in a dispute with the vendor. It would appear that the  
30 contract with the vendor did not contain adequate performance guarantees to hold the  
31 vendor responsible and CUC is now attempting to negotiate with the vendor to bring the  
32 plant into compliance with the stated goal of 10 mW's. Meanwhile, the plant is only  
33 operating at 2 mW and ratepayers are not receiving the benefits of this asset.  
34

35 These issues at Power Plant 1&2 are not new to CUC. Our research indicates that these  
36 are chronic problems that have existed for over 20-years. It is incumbent upon the CUC  
37 and the CPUC to determine the systemic issues causing poor generating plant availability.  
38 Once the systemic issues are determined corrective actions should be taken including  
39 instilling a new culture of performance and accountability—no longer should ratepayers  
40 be expected to accept excuses such as a lack of spare parts, money, or human resources.  
41 CUC will fail in meeting its strategic objective of financial independence if it is unable to  
42 simply "keep the lights on."  
43

44 Q. WHAT COURSE OF ACTION SHOULD CUC TAKE TO ENSURE THAT EXISTING  
45 POWER PLANTS ARE PROPERLY REHABILITATED?

- 46 A. As part of the business planning process CUC should make a determination about the

1 strategies to be undertaken to insure all units are properly maintained and their availability  
2 consistent with industry standards. Special consideration should be given to obtaining a  
3 Performance Management Contractor (PMC) to oversee maintenance and the undertaking  
4 of required capital improvement projects (CIP) or exercising one of the other alternatives  
5 allowed pursuant to Public Law 16-17 Section 3(c)—authorizing CUC procurement of  
6 private sector assistance under a wide range of private sector vehicles. The Business Plan  
7 recommended herein should be presented to the CPUC prior to its June regulatory session.  
8

#### 9 **CUC STAFFING LEVEL**

10  
11 Q. HOW DOES CUC STAFFING IMPACT THE REVIEW OF ITS ELECTRIC RATES?

12 A. Other than fuel oil, direct labor and labor related expenses typically account for the next  
13 largest portion of an electric utilities' O&M budget. The principle factors effecting labor  
14 related expenses include wages and the number of full-time equivalent (FTE) personnel.  
15

16 Q. HAVE YOU REVIEWED THE STAFFING LEVEL AT CUC?

17 A. Based upon discovery request and interviews with CUC personnel, FTE's at CUC totaled  
18 approximately 387 in 2004 and is currently at 272. The FY 2009 budget request includes  
19 339 FTE's—and increase of 67 FTE's over today's level. For the purpose of our review  
20 we have assumed the addition of these additional FTE's, but have some reservations about  
21 the ability to fill this large number of positions with qualified personnel in such a short  
22 period of time. Our experience working in Guam would lead us to believe that this would  
23 be a difficult and challenging recruitment task to accomplish in one-year period.  
24

25 Q. WOULD YOU ELABORATE ON WHY THIS WOULD BE A CHALLENGING  
26 RECRUITMENT PROBLEM?

27 A. In addition, in actually netting new FTE's it will be necessary for CUC to hire employees  
28 for the purpose of replacing those who retire and normal attrition associated with those  
29 who leave the employ of CUC. Also, significant difficulties will be encountered due to  
30 the unique nature of the experience and qualifications required for CUC positions. For  
31 these reasons we believe CUC will face a sizeable recruitment problem. We are aware  
32 that on Guam GPA has indicated that they have encountered substantial difficulties in  
33 finding qualified applicants and that compensation, while an important tool, has not totally  
34 solved its recruitment and retention problem.  
35

36 Q. DO YOU HAVE ANY FURTHER THOUGHTS CONCERNING CUC'S STAFFING  
37 FOR THE PURPOSE OF THIS RATE REVIEW?

38 A. Yes, while we are recommending in this proceeding that the CPUC approve leaving  
39 CUC's existing electric rates in place and set its rates as provisional rates, subject to  
40 review and potential adjustment in June 2009 and then every six months thereafter, we  
41 caution the CPUC that we are not recommending or indicating agreement with the staffing  
42 plan in the FY 2009 CUC budget at this time.  
43

44 Q. DO YOU ANTICIPATE RECOMMENDING A SPECIFIC STAFFING LEVEL FOR  
45 DEVELOPMENT OF CUC'S ELECTRIC RATES?

46 A. Not at this time; however, during the June 2009 regulatory session we will present a

1 detailed analysis of CUC staffing patterns and recommend a specific staffing plan for  
2 inclusion in electric base rates. In addition, we bring to the CPUC attention that:

- 3  
4 a) At some point in the future it would be prudent for CUC to undertake a detailed  
5 staffing and compensation study. This should be done sometime before CUC electric  
6 rates are converted from provisional status to permanent rates.  
7 b) It would also be prudent for CPUC to review the previously completed management  
8 audit<sup>4</sup> for recommendations related to staffing and human resources.  
9 c) CPUC should monitor the number of FTE's actually hired by CUC and their efforts  
10 made to absorb a portion of any staffing increase through productivity.  
11

12 We recommended that CUC consider phasing in the increased number of personnel in is  
13 preliminary FY 2009 budget submission over a two to three year term. For the last couple  
14 of years CUC has operated with lower than budgeted personnel level and an overall lower  
15 number of personnel than it believes desirable. While operating the utility in this fashion  
16 has helped CUC meet its stringent budgetary requirements CUC has indicated that service  
17 has suffered over the years for ratepayers. In its FY 2009 budget request CUC wants to  
18 increase revenue requirements for 80 new positions. We believe that it may not be  
19 appropriate to correct a personnel level deficiency that has existed for several years in a  
20 single year.  
21

## 22 **FLEET MANAGEMENT**

23  
24 Q. DID YOU HAVE THE OPPORTUNITY TO REVIEW CUC EXISTING FLEET AND  
25 MAINTENANCE PROCEDURES?

26 A. Yes. The inventory of service trucks, aerial trucks, diggers, pick-ups and automobiles is  
27 in a poor state of repair. Many of the vehicles in the fleet are obsolete and most have far  
28 outlived their economic life. As a result down-time limits their serviceability and  
29 maintenance expenses are excessive. Maintenance is outsourced to private sector firms  
30 specializing in vehicle maintenance. This arrangement appears to be working. Finally,  
31 CUC service vehicles are not appropriately stored or secured during the evenings. This  
32 represents an unreasonable risk.  
33

34 Q. DO YOU HAVE OTHER CONCERNS ABOUT CUC'S FLEET?

35 A. Yes, we are concerned that CUC does not have adequate equipment to provide the level of  
36 service required for day-to-day operations. In addition, in the event of a major storm  
37 customers would find themselves significant disadvantaged since CUC restoration time  
38 would be adversely impacted due to limitation of CUC equipment and vehicles.  
39

40 Q. WHAT ACTION SHOULD CUC TAKE TO IMPROVE ITS FLEET?

41 A. There are a number of actions that CUC should consider. Until that time they are in a  
42 position to financially purchase new vehicles they should consider purchasing or leasing

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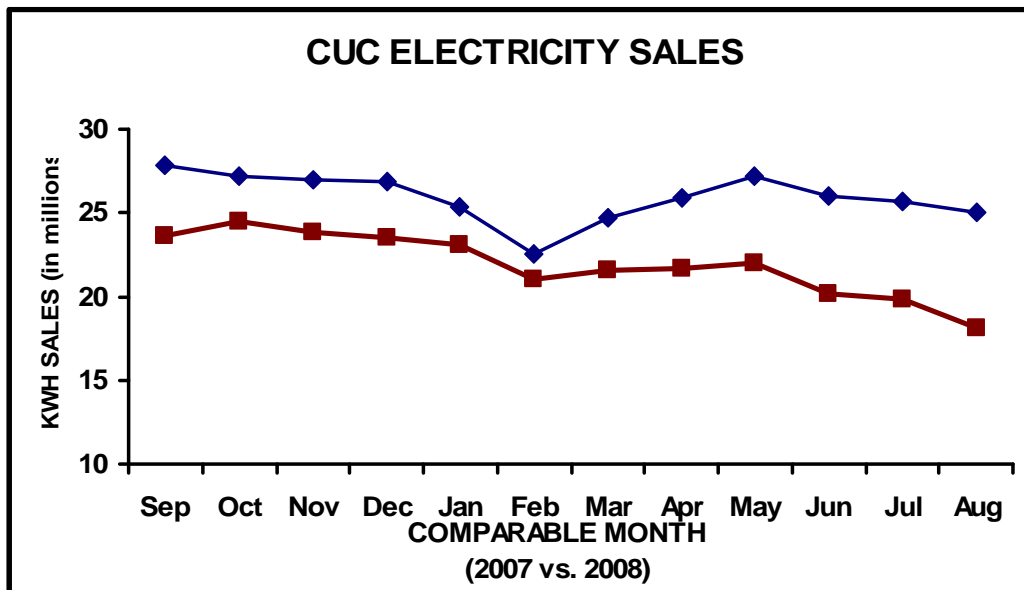
<sup>4</sup> Although this Management audit was undertaken in 1994 an initial review indicates that many of the recommendations still appear to be relevant and could have application today.

1 used vehicles from utilities or others in the region (i.e. GPA may be a good source).  
2 Further, in the development of their Business Plan they should develop a long-term  
3 solution to the existing situation.  
4

### 5 CUC ELECTRICITY SALES

7 Q. DID YOU REVIEW THE RECENT REDUCTIONS THAT HAVE TAKEN PLACE IN  
8 TERMS OF THE NUMBER OF CUC CUSTOMERS AND KWH SALES MADE BY  
9 CUC TO CUSTOMERS?

10 A. Yes. Data from CUC indicates that over the course of the 24-month period (Sep 06-Aug  
11 08) electricity sales have decreased during the past twelve-months by 15.5 percent over a  
12 comparable period. More disturbing the fact that electricity sales for the twelve-month  
13 period ending August 2008 are down a total of 39.3 percent from the sales level ending in  
14 FY 2006. Principal among the factors contributing to these sharp decreases in sales are:  
15 (i.) the unprecedented fuel price volatility experienced in world oil markets has  
16 unquestionably caused consumers to conserve and simply use less electricity, (ii.) the loss  
17 of garment industry customers, (iii.) the loss of retail customers once employed by the  
18 garment industry, and (iv.) the catastrophic failure of a number of CUC generating units  
19 has resulted in a number of customers self-generating and going off-system—many of  
20 these customers have expressed no desire to come back to CUC yet.  
21



40 Q. WHAT IS THE SIGNIFICANCE OF THIS REDUCTION IN ELECTRICITY SALES?

41 A. This issue is very significant since CUC electric revenue is derived from electricity (kWh)  
42 purchased by customers. Base rate revenues will be lower if the trend is not reversed.  
43 Also, any new CUC electric rate will be set on the basis of a per unit charge for electricity  
44 consumed (i.e., cost/kWh consumed). Typically, electricity sales for an electric utility are  
45 reasonably stable and predictable. For CUC's electric rates to reasonably and fairly collect  
46 the revenue necessary to meet all required expenditures the rate must be developed on the

1 basis of the actual electricity sales (kWh) made to customers. This is not a simple  
2 undertaking when sales are decreasing. At CUC much uncertainty exists concerning its  
3 current and future electricity sales (kWh). Given the instability that exists as a result of a  
4 downturn in the local economy CUC faces a continuing situation where much uncertainty  
5 exist concerning future CUC electricity sales (kWh).  
6

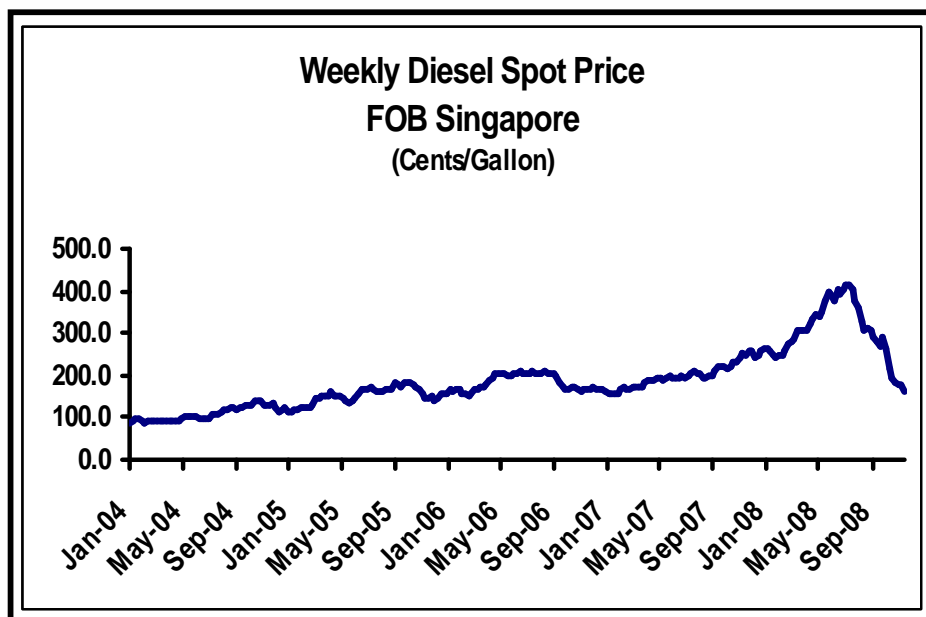
7 Q. HOW DO YOU ANTICIPATE THAT THE EXISTING SITUATION CONCERNING  
8 ELECTRICITY SALES WILL IMPACT ITS PROVISIONAL AND PERMANENT  
9 ELECTRIC RATES?

10 A. It is going to be important that between this proceeding and the June 2009 regulatory  
11 session that CUC gain a better understanding of the trend in electricity sales and do  
12 everything within is control to stabilize and improve electricity sales. Only when these  
13 recent trends are understood will it be possible to move from provisional rates to  
14 permanent rates. CUC in the development of its Business Plan should expend the required  
15 effort to analyze current electricity sales trends. In addition, CUC should approach those  
16 entities that have become self-generators to see if and when they may come back to CUC.  
17

#### 18 FUEL COSTS AND USE

19  
20 Q. WHAT ARE FUEL COST AND USE CONSIDERATIONS THE CPUC MUST  
21 CONSIDER IN ITS DEBILITATIONS CONCERNING CUC RATES?

22 A. Fuel is the single largest expense CUC must consider in the management of its limited  
23 financial resources. For that reason the cost of fuel oil is critically important to CUC and  
24 its customers. Since 2004, the price of No. 2 fuel oil (diesel) has risen from  
25 approximately \$1.00 per gallon to a peak of over \$4.00 per gallon and today is  
26 approximately \$1.60 per gallon<sup>5</sup>. The price to CUC is even higher reflecting  
27 transportation and handling costs. As can be seen, considerable volatility exists in the  
28 price of fuel as is demonstrated below.  
29



<sup>5</sup> Weekly Singapore Spot Price (FOB Singapore)

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The cause of this volatility can be traced to recent increases in the world-wide demand (while production levels remained relatively flat) followed by the global financial crisis and consumer reaction to the earlier price increases. These latter events have caused the price of oil (the primary feedstock for diesel fuel) to collapse sharply. Today, oil is in the range of \$48-55 per barrel compared with a peak price a few months ago of \$147 per barrel.

**Q. WHAT ARE THE NEAR-TERM RAMIFICATIONS TO CUC CONSUMERS?**

A. The price of fuel oil represents somewhere between 65 to 75 percent of the cost of CUC electricity. The relationship between the price of fuel oil and the cost paid by CUC customers is a direct one—for a 5 percent change in the price of fuel oil CUC customers will see their electric bill change by approximately 3.5 percent. In the near-term customers will be seeing a relief to the high EFC rate that have been experienced in recent months. With fuel oil cost today in the range of that experienced in from the period 2005 to early 2007 CUC consumers should expect a significant near-term moderation in the level of the EFC rate. While no one has a crystal ball or is capable of accurately predicting future oil prices with certainty, industry experts predict that the price of oil will remain at current levels or decrease modestly thru 2015<sup>6</sup>. While these predications may sound positive, we only have to look at recent volatility to recognize the global market conditions can change the price of fuel significantly in a short period of time.

**Q. WHAT ARE THE OBJECTIVES OF A FUEL OIL RECOVERY MECHANISM SUCH AS THE EFC RATE APPLIED BY CUC TO MONTHLY CUSTOMER BILLS?**

A. The principal purpose is to make CUC whole with respect to the fuel it purchases. In other words, fuel revenues recovered from the recovery mechanism should be equal to fuel expenses for any given period (subject to true-up provisions). For FY 2007 preliminary CUC audit data indicates that EFC revenues were \$64.7 million and fuel expenses were \$62.7 million—reasonably in balance.

**Q. ARE THERE ISSUES WITH THE CURRENT EFC THAT THE CPUC SHOULD CONSIDER?**

A. Yes. These will be addressed in detail later in our testimony.

**Q. ARE THERE ISSUES WITH RESPECT TO CUC’S FUEL USAGE THAT SHOULD BE BROUGHT TO THE ATTENTION OF THE CPUC AND RATEPAYERS AND ADDRESSED BY CUC?**

A. Yes, just as an automobile will not get peak gas mileage performance if it has not been properly maintained neither will CUC diesel engines perform at their designed efficiency levels. Unquestionably, CUC is not getting the efficiency from its diesel engines that the engines were designed to provide. This problem appears to exist across the board at all CUC power plants—including the one’s operated by private operators (although to a much less degree). Operating at suboptimal efficiency levels requires the diesel engines to burn

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<sup>6</sup> Report #:DOE/EIA-0383(June 2008)

1 more fuel oil to produce the same number of kWh—meaning that the fuel cost passed paid  
2 by customers is higher than it would be otherwise.

3  
4 Q. HOW DO YOU RECOMMEND THAT THIS SITUATION BE ADDRESSED BY THE  
5 CPUC AND CUC?

6 A. As part of the business planning process CUC should prioritize the importance of  
7 efficiency and unit dispatching once the current crisis associated with CUC shortage of  
8 capacity is resolved. This will require all units to be properly maintained and their  
9 availability consistent with industry standards. CUC should also require strict  
10 performance requirements not only for private contractors operating CUC power  
11 resources, but also of itself in the operations of those power plants CUC operates directly.  
12 There is no reason that with proper maintenance and training that CUC cannot improve  
13 the performance of its existing power plant facilities. The Business Plan recommended  
14 herein should address and present to the CPUC a plan to improve unit efficiency.

#### 15 16 **UNACCOUNTED FOR ENERGY**

17  
18 Q. WHAT IS THE SIGNIFICANCE OF UNACCOUNTED FOR ENERGY ON CUC AND  
19 ITS RATEPAYERS?

20 A. Unaccounted for energy is simply as the title imply “unaccounted for.” It is the energy  
21 that while being produced by CUC power plants that does not show us as an energy sale to  
22 its customers.

23  
24 Q. WHAT FACTORS CONTRIBUTE TO UNACCOUNTED FOR ENERGY?

25 A. There exist a lengthy discussion of the issue later in our testimony, but in simple terms it  
26 consist of the energy that is thermally consumed in the power delivery process, energy  
27 unaccounted for somewhere in the metering, meter reading and billing process, and finally  
28 energy that is illegally diverted by unscrupulous individuals and businesses.. Methods  
29 exist to control unaccounted for energy to a manageable level (6-7 percent) and can be  
30 implemented by CUC.

31  
32 Q. DO YOU HAVE CONCERNS ABOUT THE UNACCOUNTED FOR ENERGY LOSS  
33 LEVELS AT CUC?

34 A. Yes, based upon our observations it would appear that unaccounted for energy levels are  
35 going to exceed the 6 to 7 percent level that would be prudent for a utility of the nature of  
36 CUC. However, we were not able to obtain any credible data or information on the  
37 subject during our investigation and recommend that in CUC development of its Business  
38 Plan that the plan include a program to bring CUC unaccounted for energy levels in line  
39 with industry norms. This matter should be high on the CPUC agenda given that left  
40 uncorrected this inefficiency is directly passed to customers through the EFR mechanism.

#### 41 42 **SYSTEM COST RECOVERY & SUBSIDIZATION**

43  
44 Q. ARE THERE ISSUES ASSOCIATED WITH FULL COST RECOVERY AND  
45 SUBSIDIES THAT RAISE NEW QUESTIONS?

46 A. Yes, as indicated in the Financial and Operating discussion above it would appear that not

1 all of CUC operations are fully recovering their cost. For instance, supplemental  
2 information from the FY 2007 preliminary audit indicates that the water and wastewater  
3 systems have costs that are not currently being covered by water and wastewater rates.  
4 There is a short fall of approximately \$4.0 million inclusive of a reasonable allocation of  
5 administrative and general costs.  
6

7 Q. IN ADDITION, TO THE LACK OF FULL COST RECOVERY ARE THERE ANY  
8 OTHER CONCERNS YOU HAVE ABOUT DIRECT SUBSIDIES?

9 A. Based upon informal discovery responses it appears that there is at least one direct subsidy  
10 provided by the electric department to the water and wastewater departments. This is  
11 associated with the electricity consumed at water and wastewater system facilities—this  
12 would include pumps at wells, water and wastewater treatment facilities, and lift stations.  
13 While no value has been placed on these facilities, it is necessary that all such facilities be  
14 metered and appropriately charged for electricity.  
15

16 Q. WHAT SHOULD THE CPUC DO ABOUT THESE ISSUES?

17 A. Both issues will be investigated in early 2009 as part of the rate investigation into the rate  
18 adequacy and structure of the water and wastewater departments. In addition, these issues  
19 should be addressed in the development of the CUC Business Plan. CUC should develop  
20 strategies to transfer these liabilities appropriately to the water and wastewater  
21 departments while minimizing the impacts on customers.  
22

#### 23 CDA DEBT RESTRUCTURING

24  
25 Q. WHAT APPEAR TO BE THE PRINCIPLE ISSUES SURROUNDING THE CDA DEBT  
26 RESTRUCTURING?

27 A. This is a complicated matter that dates back many years and is not yet resolved.  
28 Resolution is critical to CUC since it will not be able to access short-and long-term credit  
29 markets until this matter is resolved. The Legislature addressed this matter in Public Law  
30 No. 15-12 and 15-44. The history of this matter is that funds originally provided to CUC  
31 by CDA were from a \$140 million direct assistance “grant” to the CNMI from the federal  
32 government—there was no repayment requirement of the CNMI to the federal  
33 government in connection to this “grant.” CDA simply acted as a channel for the CNMI  
34 government in the distribution of grant funds to CUC for the purpose of infrastructure  
35 development. Funds were also distributed by CDA to other government agencies without  
36 a requirement that the agencies pay principal and interest on the funds. The Legislature  
37 found in Public Law 15-12 “that it is in the best interest of the CNMI to write off in full  
38 CUC's loans from CDA in order to promote the stability of CUC and to secure the  
39 continuity of public utility services to the people of the CNMI.” This has not happened.  
40

41 Q. WHAT IS THE CURRENT STATUS OF THIS MATTER?

42 A. CUC had \$61.5 million (at FY 2007) of outstanding debt owed to the CDA. A proposal is  
43 pending whereby the CDA and CUC would agree to a preferred stock transaction, which  
44 is authorized by 4 CMC § 8123[p] and requires CPUC approval pursuant to 4 CMC §  
45 8123[r] and 8409[d]. Under the terms of this proposal the CDA debt would be reduced by  
46 an amount of \$45 million and converted to preferred stock.

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Q. WHAT DO YOU SEE AS THE NEXT STEP IN BRINGING THIS MATTER TO CLOSURE SO THAT CUC CAN ASSESS THE CREDIT MARKETS?

A. Given CUC’s urgent need for rehabilitation capital we view this matter as one of the most critical, if not the most critical, issue facing CUC today. We believe that CUC needs to make the policy and business decisions necessary to allow it to execute or renegotiate the proposed settlement agreement. CUC’s Business Plan should identify the rate and other implications of resolving the CDA dispute. CUC should at the earliest date possible petition the CPUC for review and approval of this transaction pursuant to the protocol recommended in the divestiture and contract approval protocol discussion below (assuming this protocol is approved in this proceeding by the CPUC). We believe the CDA issue will inhibit CUC access to the financial markets and without such access CUC’s path to financial independence will be seriously compromised.

**SOURCES OF REHABILITATION CAPITAL**

Q. WHAT ARE THE PRINCIPAL SOURCES OF INVESTMENT CAPITAL THAT CUC NEEDS TO ACCESS TO UNDERTAKE NEEDED REHABILITATION PROJECTS?

A. CUC’s principal sources of capital should include income from earnings (this requires that rates allow for full cost recovery and a reasonable margin or return—excess coverage revenue), lines of credit, short-term and long-term debt, grants, and interest income on certain restricted accounts. This can only be accomplished once CUC has in place rates that provide for full cost recovery and it has resolved its issues with CDA. Only then will CUC meet its key objective of become financially independent from the CNMI government.

Q. HOW WILL INTERNALLY GENERATED CAPITAL FROM CUC EARNINGS IMPACT ITS ANNUAL REVENUE REQUIREMENT?

A. Internally generated capital generally has no impact on a utility’s overall revenue requirement. It also typically represents the principal source of utility capital. Under traditional utility ratemaking principles regulatory authorities, such as the CPUC, set utility rates, such as for CUC, on the basis of the full reimbursement of prudently incurred operating expenses and a return of and on its invested capital. This is true of both investor and government-owned utilities like CUC. In the case of a government (publicly) owned utility certain surrogates such as debt service coverage ratio (DSCR) or target equity capital percentages sometimes serve as the basis for determining the annual return of and on invested capital. This approach fairly balances the utility’s requirement for capital with the ratepayer’s desire to keep rates at the lowest level reasonable.

Q. ASSUMING CUC RATES ARE SET AS OUTLINED IN THE ABOVE RESPONSE WHAT STEPS SHOULD CUC TAKE TO MAKE THE MAXIMUM USE OF AVAILABLE INTERNALLY GENERATED CAPITAL?

A. There is no question that CUC’s ability to borrow and internally generate capital funds will not allow it to undertake every rehabilitation or capital investment project currently required because of the current state of crisis. CUC will have to prioritize available projects and funds. This is commonly referred to as capital rationing—virtually all

1 entities have capital constraints. It will be necessary for CUC to classify all projects in  
2 order of highest to lowest priority. The priorities for the various categories of projects are  
3 legal, safety, planning, economic, and customer satisfaction. The March 1994 CUC  
4 Management Audit performed by Metzler & Associates provides a good Capital  
5 Budgeting Manual in its Appendix (Exhibit VII) describing how this should be  
6 accomplished.

7  
8 Q. WHAT DO YOU VIEW AS THE NEXT STEPS CUC SHOULD TAKE TO ACCESS  
9 REHABILITATION CAPITAL?

10 A. It must put in place rates that provide for full cost recovery and resolve the CDA issues.  
11 In the process it should identify standards and/or qualifications necessary to borrow short  
12 term lines of credit and debt as well as long-term debt. Additionally, it will need to  
13 establish internal budgeting systems that allow it to ration capital—use of benefit-cost  
14 analysis to determine which projects fall into the “economic” category in the event to  
15 further ration available investment capital. The Business Plan should fully outline its  
16 plans to meet these borrowing standards and implement internal systems allowing it to  
17 access capital markets and to rehabilitate existing system infrastructure.

#### 18 ENVIRONMENTAL—OPERATING PERMITS

19  
20  
21 Q. WHAT ARE THE PRINCIPAL ENVIRONMENTAL ISSUES THAT WILL BE  
22 IMPACTING THE ELECTRIC SYSTEM RATES AND THAT WILL NEED TO BE  
23 CONSIDERED DURING THIS AND SUBSEQUENT RATE INVESTIGATIONS?

24 A. Currently CUC has a number of environmental issues that need to be resolved. The  
25 Business Plan will need to identify a strategy for resolution if CUC is to meet its objective  
26 of financial independence and more importantly to remove what will be perceived as a  
27 major regulatory risk by the financial community. For instance, CUC’s electric system  
28 has compliance issues associated with the operation of a fuel pipeline and the storage of  
29 hazardous waste products in tank 104 and in barrels at Power Plant 1. Finally, with the  
30 exception of the power plant managed by Telesource on Tinian, CUC does not have any  
31 operating permit for its generating plants. This is going to develop into a serious issue. It  
32 is going to be necessary for CUC to do baseline and emissions testing as well as develop  
33 an implementation strategy, sufficient budget, and execute their plan to meet ambient and  
34 stack emission standards in order to obtain operating permits.

35  
36 In addition, there is the outstanding issue associated with the conversion of some of its  
37 larger diesel engines to No. 6 oil. At one time CUC used No. 6 or heavy oil at these units,  
38 but ceased using heavy oil due to high maintenance costs. A conversion to heavy oil  
39 would represent an approximate 30 percent reduction in the price of fuel oil and should be  
40 evaluated as soon as possible. Partially offsetting this amount would be an increase in the  
41 cost of maintenance. Other considerations would include the likelihood of being  
42 reasonably able to obtain an operating permit from the EPA.

#### 43 44 5. TEST YEAR FORECASTS AND REVENUE IMPLICATION

45  
46 Q. PLEASE DESCRIBE THE BASIS FOR CARRYING OUT THE ANALYSES

1 ASSOCIATED WITH INVESTIGATING CUC'S TEST YEAR INDICES AND  
2 REVENUE IMPLICATIONS.

- 3 A. At the core of conducting an analysis of CUC's rate situation is the availability of  
4 complete and accurate financial and related operating information necessary to assess its  
5 current position, with a view toward projecting with a high degree of certainty what future  
6 outcomes are likely to be. The most basic and most accurate information is comprised of  
7 what has already transpired, i.e., historical actual data related to energy sales and revenues  
8 produced O&M costs, capital expenditures, and resulting net financial surpluses or  
9 deficiencies.

10  
11 Q. WHAT ARE THE PRIMARY COMPONENTS AND DRIVERS OF CUC'S ANNUAL  
12 OPERATING REVENUES?

- 13 A. Consumer energy consumption, expressed in kWh sales by customer classification, yields  
14 a resultant amount of revenue based on the respective base electric rates then in effect for  
15 each class. Each customer is likewise billed a monthly customer charge. Further, as with  
16 many utilities, CUC also derives additional revenues through a separate, directly-  
17 associated charge to recover the cost of fuel consumed in the operation of its power  
18 generation facilities. (This "Electric Fuel Charge," or EFR, is discussed in greater detail  
19 elsewhere in our testimony).

20  
21 Q. WHAT ARE THE PRIMARY COMPONENTS AND DRIVERS OF CUC'S ANNUAL  
22 OPERATING EXPENSES?

- 23 A. One way to think of what drives CUC's operating expenses is in terms of the basic  
24 functions of many electric utilities: generation, transmission and distribution,  
25 administrative functions, and customer related activity. Each of these entails both capital  
26 investment in plant required to carry out a particular function, and annual operating and  
27 maintenance expenses that accrue as funds are expended on each function. Expenditures  
28 include overheads or otherwise not directly assignable costs associated with administrative  
29 activities, personnel costs (salaries, wages, and related expenses), operating and  
30 maintenance expenses, cost of supplies, and fuel oil, CUC's largest single expense.

31  
32 Regulated investor-owned utilities would also be entitled to earn a return on investment in  
33 capital plant used in generation production, distribution and customer service connection  
34 facilities, buildings, office and transportation equipment, and other plant required in the  
35 operation of the utility, which comprises and is termed its "rate base." Inasmuch as CUC  
36 is a government-owned utility, its investments in plant essentially belong to its consumer-  
37 customers and no such return on rate base is warranted, nor would be permitted from a  
38 regulatory standpoint. However, given that CUC operates on a cash basis and such  
39 expenditures involve real cash requirements, the accepted means to recover capital plant  
40 related expenditures for debt service, debt service reserves, and so forth, financing  
41 acquisition of rate base, or capital outlays derived from operating revenues, make up  
42 additional recoverable costs.

43  
44 The CUC's total annual operating expenses, inclusive of cash needed to cover debt service  
45 and capital improvements, comprise its revenue requirement.  
46

- 1 Q. PLEASE DESCRIBE THE RELATIONSHIP BETWEEN UTILITY REVENUES AND  
2 THE REVENUE REQUIREMENT.
- 3 A. Simply put, CUC’s revenues from operations, i.e., from all sources but primarily sales of  
4 electricity, must be sufficient to recover its revenue requirement. Under-recovery will  
5 result in a shortfall leaving the utility in a deficiency position and unable to meet its cash  
6 needs for operations. On the other hand, over-recovery as a result of rates which are too  
7 high, or a revenue requirement less than planned for, results in customers paying too much  
8 for service. The goal of ratemaking is to achieve balance by determining rates reflective  
9 of projected revenue requirements so that enough revenue is produced to cover cash needs  
10 without excess.
- 11
- 12 Q. PLEASE DESCRIBE THE BASIS FOR INVESTIGATING CUC’S TEST YEAR FOR  
13 RATEMAKING PURPOSES.
- 14 A. As a starting point, assembling a complete array of just-completed operations data – on  
15 electric sales, revenues, operating and maintenance expenses, debt service and capital  
16 outlays – would be arranged to compile a Historical Test Year. Through a series of  
17 adjustments to add or subtract out extraordinary and/or non-recurring entries, the Test  
18 Year is “normalized” to reflect what is more likely to have occurred, or will occur in the  
19 future absent any abnormalities or extenuating factors.
- 20
- 21 Q. WHAT ABOUT FUTURE YEARS?
- 22 A. A Future Test Year, absent any adjustment to rates, would be developed in consideration  
23 of anticipated events or circumstances likely to have an impact on just-completed or  
24 current Test Year conditions. For example, there may be conditions or information about  
25 events likely to result in changes to aspects of the utility’s previous operating  
26 performance. Examples include a deviation–up or down–in anticipated electric sales due  
27 to either internal or external factors; changes in personnel costs due to labor contract  
28 adjustments; the retirement of a particular debt instrument; the need for and initiation of  
29 large-scale maintenance or capital improvement projects and acquisitions.
- 30
- 31 Q. WHY IS IT IMPORTANT TO DERIVE ACCURATE FORECASTS OF FUTURE  
32 OPERATIONS?
- 33 A. Any one of the variations mentioned above, and many others, has the potential for large-  
34 scale secondary effects. For example, a decline in electric sales, i.e., kWh billing  
35 determinants, will result in decreased base revenues that the utility is counting on to cover  
36 more or less fixed O&M or other costs. This leads to under-recovery and a revenue  
37 deficiency, in turn leading to possible declines in service, deferral of scheduled  
38 maintenance or capital programs, or myriad other outcomes. At the same time, less  
39 generation output will be required resulting in less fuel consumed. Although this is a  
40 “savings” in utility operating costs, such costs are recovered through a separate Electric  
41 Fuel Rate, a pass-through mechanism designed to recover only the costs of fuel actually  
42 consumed. A more onerous consequence would be the impact on the terms of a utility’s  
43 “take-or-pay” fuel supply contract in which payment may be required for fuel not taken  
44 and consumed.
- 45

- 1 Q. WERE YOU ABLE TO ANALYZE WHAT YOU BELIEVE TO BE AN  
2 APPROPRIATE BASELINE TEST YEAR AS A PREDICTOR OF REVENUES AND  
3 NET SURPLUS/DEFICIENCY, PARTICULARLY WITH RESPECT TO ASSESSING  
4 THE REVENUE IMPLICATIONS UNDER RIGOROUS RATEMAKING  
5 PRINCIPLES?
- 6 A. No. As pointed out, the most important consideration is having complete, accurate, and  
7 consistent financial and other operating data to start with for a given period. Complete  
8 data for a recent historical year, preferably the year just completed which would be FY  
9 2008 or, alternatively, FY 2007, is especially desirable because it is reflective of the most  
10 recent, actual events and closed out financial and other operating information. Taking the  
11 sales and revenue side of the equation first, no complete set of data was available  
12 addressing kWh sales, numbers of customers, average sales, base revenues, fuel revenues,  
13 total revenues, average customer costs, etc.  
14
- 15 Q. DID YOU EXAMINE ANY YEARS PREVIOUS TO FY 2008 OR FY 2007?
- 16 A. Yes, data were available going back to FY 2004. However, the same issues emerged  
17 wherein certain data from various sources were available for past years, but no single  
18 complete or unambiguous data set could be derived, nor could multiple sources for any  
19 one year be combined owing to inconsistencies and ambiguities from one source to  
20 another. Regardless, there were outright gaps in some of the essential data points required.  
21 Additionally, these past years presented other problems concerning a lack of correlation in  
22 certain key variables and thus reducing their relevancy to the present in any case:  
23 significantly higher electric consumption than in recent years, a totally different base rate  
24 structure, lower fuel costs, and these periods pre-dated the institution of CUC's Electric  
25 Fuel Rate charge.  
26
- 27 Q. GIVEN THESE SHORTCOMINGS WERE YOU ABLE TO APPROXIMATE WHAT  
28 COULD BECOME A TEST YEAR?
- 29 A. In a manner of speaking yes, to a point. However, first, virtually no reliable data were  
30 available for FY 2008. Data for FY 2007 were incomplete and ambiguous, and FY 2009  
31 data consists only of budgeted total revenues with no supporting information on numbers  
32 of customers or kWh sales forecast information, much less disaggregation by class,  
33 breakouts of base vs. fuel revenues, and so on which would point to its derivation.  
34
- 35 An approximation of FY 2007 was derived utilizing available documents (primarily an  
36 earlier "Electric, Water and Wastewater Rate Study - 2007 Update" prepared by  
37 Economist.com; the FY 2006 and draft FY 2007 Financial Audits; CUC Rate Tariff Sheet;  
38 and unaudited FY 2004 - 2007 financial statements) and making various estimations within  
39 the year to produce a "complete" data set. This, as set forth in the following table, was  
40 then aligned to estimate an FY 2009 Test Year. As pointed out, the only number  
41 pertaining to FY 2009 is a single revenue total. FY 2006 electric consumption is also  
42 shown as a point of reference.

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SALES AND REVENUE RELATED TEST YEAR DATA							
		Per Economist.com		Adjusted Actual	12 Months Ending Aug-08	Per 2008 Sales Forecasted	
		FY 2006	FY 2007	FY 2007	FY 2008	FY 2009	Notes on data sources
<b>Row</b>	<b>Sales - kWh</b>						
1	Residential	141,596,643	124,605,046	100,209,431	85,899,626	85,899,626	FY-07 Econ proj. p8
2	Commercial	220,616,302	176,493,042	156,132,473	133,836,914	133,836,914	FY-07 Econ proj. p8
3	Non-conforming load	24,135,300	14,481,180	17,080,805	14,641,684	14,641,684	FY-07 Econ proj. p8
4	Governmental	47,423,489	45,052,315	33,562,101	28,769,467	28,769,467	FY-07 Econ proj. p8
5	Total	433,771,734	360,631,583	306,984,810	263,147,690	263,147,690	
6							
7	<b>No. Customers</b>						
8	Residential		12,272			11,045	FY-07 proj. Econ A-p3 calc; FY-09: 10% reduc
9	Commercial		3,505			3,154	FY-07 proj. Econ A-p3 calc; FY-09: 10% reduc
10	Non-conforming load		1			1	FY-07 proj. Econ A-p3 calc; FY-09 = FY-07
11	Governmental		754			754	FY-07 proj. Econ A-p3 calc; FY-09 = FY-07
12	Total		16,532			14,954	
13							
14	<b>Average Consumption - kWh</b>						
15	Residential		10,152			7,777	FY-07: FY-06 calculation; FY-09 class/12
16	Commercial		50,352			42,428	FY-07: FY-06 calculation; FY-09 class/12
17	Non-conforming load		14,481,180			14,641,684	FY-07: FY-06 calculation; FY-09 class/12
18	Governmental		59,760			38,160	FY-07: FY-06 calculation; FY-09 class/12
19	Total		21,814			17,597	
20							
21	<b>Customer Charge Revenues</b>						
22	Residential					\$742,231	
23	Commercial					290,333	
24	Non-conforming load					672	
25	Governmental					69,390	
26	Total					\$1,102,626	
27							
28	<b>Base Revenues</b>						
29	Residential		\$13,706,555			\$6,700,171	FY-07 proj. rate*kWh per Econ; FY-09 est
30	Commercial		28,238,887			11,509,975	FY-07 proj. rate*kWh per Econ; FY-09 est
31	Non-conforming load		2,316,989			3,250,454	FY-07 proj. rate*kWh per Econ; FY-09 est
32	Governmental		7,208,370			2,618,021	FY-07 proj. rate*kWh per Econ; FY-09 est
33	Total		\$51,470,801			\$24,078,621	
34			\$23,870,082				Audit actuals
35	<b>Fuel Revenues</b>						
36	Residential		\$4,361,177			\$23,192,899	FY-07 proj. rate*kWh per Econ; FY-09 est
37	Commercial		6,177,256			36,135,967	FY-07 proj. rate*kWh per Econ; FY-09 est
38	Non-conforming load		506,841			3,953,255	FY-07 proj. rate*kWh per Econ; FY-09 est
39	Governmental		1,576,831			7,767,756	FY-07 proj. rate*kWh per Econ; FY-09 est
40	Total		\$12,622,105			\$71,049,876	
41			\$64,714,485				Audit actuals
42	<b>Total Revenues</b>						
43	Residential		\$18,067,732			\$30,635,300	FY-07 proj. rate*kWh per Econ; FY-09 est
44	Commercial		34,416,143			47,936,275	FY-07 proj. rate*kWh per Econ; FY-09 est
45	Non-conforming load		2,823,830			7,204,380	FY-07 proj. rate*kWh per Econ; FY-09 est
46	Governmental		8,785,201			10,455,168	FY-07 proj. rate*kWh per Econ; FY-09 est
47	Total		\$64,092,906			\$96,231,123	FY 2009 forecast est
48			\$88,584,567			\$152,265,098	FY-07 audit; FY-09 Budgeted

Q. PLEASE SUMMARIZE THE SALIENT POINTS ASSOCIATED WITH THE SALES/REVENUE TEST YEAR WORKSHEET TABLE.

- A. Let's start with the required data clarifications:
- a) Sales by class [Rows 1-4] for the FY 2007 forecast were utilized to apportion FY 2008 and FY 2009 kWh sales by customer class.
  - b) The number of customers by rate class [Rows 8 - 10] for the FY 2007 forecast was reduced by 10 percent for FY 2009.
  - c) Base and fuel revenues for FY 2007 (Rows 21 - 40) were derived utilizing the 2007 Rate Study Update sales forecast times the applicable rates, shown in Rows 43 - 61.
  - d) As pointed out, the only data point source for the FY 2009 budget is total revenue, \$152,265,098, shown at Row 48. A forecast of total revenues utilizing the FY 2009 sales forecast, number of customers, and estimated average Electric Fuel Rate charges was developed and reflected in Row 47.

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Historical Sales and Sales Forecast:

- a) As shown in Rows 1 - 5, kWh sales were forecasted to decline from a FY 2006 level (data for FY 2004 - FY 2005 reflect kWh sales at levels similar to FY 2006) of 433,771,734 to 360,631,583 kWh, with dramatic declines in all customer classifications except government. It should be recognized that this forecast is higher than CUC's current experience based upon the recent unavailability of generation and rolling black-outs.
- b) Actual kWh sales figures for FY 2007 per CUC data indicate an even greater decline in FY 2007 306,984,810.

**SALES OF ELECTRICITY**

- Q. PLEASE DESCRIBE THE CHANGES IN SALES DURING FY 2006 TO FY 2007.  
A. The worksheet reflects a total sales decrease from 433,771,734 kWh in FY 2006 to Economist.com's forecast of 360,631,583 kWh in FY 2007, which would have produced a 17 percent decrease overall during this one-year period.
- Q. DID THAT FORECAST BEAR OUT?  
A. No, in fact, based on actual monthly historical sales figures, total sales for the period from October 2006 through September 2007, the FY 2007 period, total annual sales decreased even more to 306,984,810, a 29.2 percent decline during this one-year period.
- Q. DO YOU HAVE RESULTS FOR FY 2008?  
A. Not on a fiscal year basis, but nearly so. Actual monthly sales were available through August 2008 enabling us to determine total sales on a 12-month basis for the period September 2007 to August 2008. Total sales for this 12-month period were 263,147,690, a 14.3 percent decline from FY 2007 levels. The CUC has thus lost some 170,624,044 kWh of sales in an approximate two-year period, a enormous decline of 39.3 percent. Actual monthly sales figures for the period from August 2006 through August 2008 are shown on the table on the following page.
- Q. WHAT INFERENCES CAN BE DRAWN FROM THE DATA IN THE TABLE?  
A. It is obvious that CUC is losing sales on a virtually continuous month to month basis. The clear trend over the course of the 25 months worth of sales data is one of steady decline as reflected in the decreasing numbers in the second column.
- Q. WHAT OTHER CONCLUSIONS THAT CAN BE DRAWN FROM THE DATA PRESENTED?  
A. Two very simple calculations were performed to help ascertain potential impacts on annual sales. The first is shown in the third column wherein the actual monthly sales numbers were merely multiplied by a factor of 12 to derive annualized sales, assuming sales in a given month were to hold constant over a one-year period. The resultant total figures for each data point all fall well below Economist.com's last sales forecast, and many are below the actual total for FY 2007. Latter months reflect figures below even the 2008 total.

1 A second calculation shown in the last column reflects rolling 12-month average sales,  
 2 i.e., each data point is a calculation of year-long sales over the preceding 12-month period.  
 3 Again, these numbers depict a steady, certain decline in CUC's sales.  
 4  
 5

CUC kWh Sales			
Month	kWh Sales	Annualized Sales per Corresponding Month (i.e., 12x)	Rolling 12-month Average Sales
Aug-06	28,850,390	346,204,680	
Sep-06	27,827,424	333,929,088	
Oct-06	27,213,109	326,557,308	
Nov-06	26,935,819	323,229,828	
Dec-06	26,838,831	322,065,972	
Jan-07	25,376,166	304,513,992	
Feb-07	22,513,721	270,164,652	
Mar-07	24,649,678	295,796,136	
Apr-07	25,941,109	311,293,308	
May-07	27,151,323	325,815,876	
Jun-07	26,012,864	312,154,368	
Jul-07	25,631,133	307,573,596	314,941,567
Aug-07	25,060,301	300,723,612	311,151,478
Sep-07	23,660,756	283,929,072	306,984,810
Oct-07	24,514,910	294,178,920	304,286,611
Nov-07	23,890,389	286,684,668	301,241,181
Dec-07	23,534,136	282,409,632	297,936,486
Jan-08	23,107,849	277,294,188	295,668,169
Feb-08	21,065,565	252,786,780	294,220,013
Mar-08	21,571,514	258,858,168	291,141,849
Apr-08	21,701,356	260,416,272	288,902,096
May-08	21,987,503	263,850,036	281,738,276
Jun-08	20,128,304	241,539,648	275,853,716
Jul-08	19,832,281	237,987,372	270,054,864
Aug-08	18,153,127	217,837,524	263,147,690

34  
 35 Q. CAN YOU EXPLAIN THE  
 36 MATERIAL CHANGES IN YEAR-  
 37 TO-YEAR SALES, AS THE  
 38 CHANGES RELATE TO THE  
 39 SHARP DECLINE IN SALES?

40 A. Elsewhere in our testimony, we  
 41 discuss at length some of the key  
 42 factors at play that have, and are  
 43 likely to in future years, affect  
 44 electricity consumption. Losses in  
 45 industrial customer base have had a  
 46 direct effect in sales reductions for  
 47 that rate class, while loss of  
 48 associated employment results as a  
 49 secondary consequence, which in  
 50 turn leads to loss of residential  
 51 accounts and reductions in  
 52 residential consumption. Then there  
 53 are the further consequences of  
 54 reduced business activity, all of  
 55 which comprises a spiraling down of  
 56 electric demand.  
 57  
 58  
 59  
 60

61  
 62 Q. ARE THERE OTHER FACTORS AFFECTING SALES?

63 A. Unfortunately, yes. As we have also discussed at great length, CUC has experienced  
 64 significant periods when its generation is off-line due to mechanical failure and  
 65 breakdowns, resulting in wide-spread blackouts, in many cases for extended periods. No  
 66 generation at one or more units means no electrical output, and therefore those associated  
 67 kilowatt-hours are not available for sale.  
 68

69 As a consequence and in response to this situation, many businesses have installed their  
 70 own generation to ensure they have a ready and reliable power supply. As those entities  
 71 supply their own power requirements, they of course have reduced need or no need at all,  
 72 for electrical energy produced by CUC even as CUC's power production units come back  
 73 on line. This loss of load can be termed un-served load, but in any case results in attrition  
 74 of saleable kilowatt-hours.  
 75

76 Q. DOES THE PRICE OF ELECTRICITY HAVE AN IMPACT ON SALES?

77 A. Yes and this is particularly so due to recent steep increases in the cost of fuel oil purchased  
 78 by CUC. As noted, the costs of fuel are recovered through the EFR, a charge added to

1 customers' base bills to purchase electricity at each customer's respective base energy rate.  
2 For example, a commercial customer whose base electric rate is \$0.086/kWh would have  
3 paid a fuel charge of \$0.228/kWh in October 2007 (plus a monthly customer charge of  
4 \$7.67). Exclusive of the customer charge, the total combined rate for electricity was  
5 \$0.314/kWh. However, the fuel charge for July 2008 rose to \$0.413/kWh, yielding a total  
6 combined rate of \$0.449/kWh, an increase of 58.9 percent.  
7

8 Electric demand is not inelastic with respect to price and consumers will take steps where  
9 they can to reduce consumption. This results in another eroding factor bearing on CUC  
10 sales.  
11

## 12 **IMPLICATIONS FOR FORECASTING SALES, REVENUES AND MARGIN**

13  
14 Q. HOW DO THESE FACTORS AFFECT CUC'S ABILITY TO FORECAST SALES?

15 A. The factors just described make the necessary task of forecasting less exact. Any one  
16 factor, and particularly in combination, coming into play can appreciably alter the forecast  
17 of CUC sales. This results in instability of the electric sales forecast.  
18

19 Q. BASED ON THE DATA REFLECTED ON THE WORKSHEET, WHAT ARE THE  
20 REVENUE IMPLICATIONS ASSOCIATED WITH CUC'S DECLINE IN SALES?

21 A. The reduced sales are not insignificant decreases, as kWh sales drive the amount of base  
22 revenue available to CUC to meet its cash outlays for essentially fixed operating expenses,  
23 maintenance of plant and equipment, cash outlays for capital repairs and improvements,  
24 and coverage for any debt responsibilities.  
25

26 As pointed out previously, revenues must be sufficient to recover these revenue  
27 requirements. Under-recovery will result in a shortfall leaving the utility in a deficiency  
28 position and unable to meet its cash needs for operations. The consequences are declines in  
29 service, deferral of scheduled maintenance or capital programs, and default on payment  
30 obligations.  
31

32 Q. HAVE YOU CONSIDERED APPROXIMATING THE REVENUE CUC IS LIKELY TO  
33 PRODUCE IN FY 2009 AND MARGIN IT IS LIKELY TO EARN? IF SO, WHAT DID  
34 YOUR APPROXIMATION REVEAL?

35 A. Yes, we looked at the most recent sales data as discussed above and based upon  
36 normalizing that data prepared a pro-forma profit and loss analysis for CUC for FY 2009.  
37 This is admittedly a very preliminary analysis, but is revealing.  
38

39 Q. WHAT OTHER FACTORS DID YOU CONSIDER IN THIS ANALYSIS?

40 A. We assumed that fuel revenues would be a pass-through. We further accepted, for the  
41 purpose of the analysis only, CUC expenditure levels as included in its FY 2009 budget  
42 request. Some allocation assumptions were necessary since CUC does not functionalize its  
43 budget into electric, water, and wastewater. Conservative estimates were made to  
44 functionalize the FY 2009 budget to identify electric only expenses. Debt service was  
45 assigned based upon the FY 2009 budget request. It should be noted that no allowance  
46 was made for repayment of CDA debt and that debt service payments were included in the  
47 above table in the A&G category and below the line in a debt service category for a total of  
48 \$2.6 million in annual debt service. Finally, it was necessary to estimate the base rate  
49 revenues by customer classes. This was accomplished by estimating sales by customer  
50 classes and applying the average revenue per kilowatt-hour collected based upon CUC

existing rates for each customer class. The table below presents a proforma income statement for FY 2009.

<b>Commonwealth Utilities Corporation</b>					
<b>(Proforma Income Statement - Power Division)</b>					
				<b>10% Sales</b>	<b>10% Sales</b>
		<b>CUC Budget</b>	<b>GCG</b>	<b>Reduction</b>	<b>Increase</b>
		<b>FY2009</b>	<b>FY2009</b>	<b>Scenario</b>	<b>Scenario</b>
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>Row</b>					
<b>1</b>	<b>Operating Revenues</b>				
2	Base Revenues - Customer Charge		\$1,102,626		
3	Base Revenues - kWh Sales		24,078,621		
4	Fuel Revenues		71,049,876		
5	<b>Total Operating Revenues</b>	\$152,265,098	\$96,231,123	\$86,608,011	\$105,854,236
6					
<b>7</b>	<b>Operating Expenses</b>				
8	Production Fuel	\$103,170,676	\$71,049,876	\$71,049,876	\$71,049,876
9	General & Administrative - Notes 1,	4,890,284	4,890,284	4,890,284	4,890,284
10	Maintenance	5,090,940	5,090,940	5,090,940	5,090,940
11	Supplies	1,158,000	1,158,000	1,158,000	1,158,000
12	Personnel	5,615,668	5,615,668	5,615,668	5,615,668
13	Purchased Power	11,300,000	11,300,000	11,300,000	11,300,000
14	Misc./Other	29,600	29,600	29,600	29,600
15		131,255,168	99,134,368	99,134,368	99,134,368
16	PL 9-68 Assesment	1,312,552	991,344	991,344	991,344
17	<b>Total Operating Expense</b>	\$132,567,719	\$100,125,712	\$100,125,712	\$100,125,712
18					
19	<b>Earnings from Operations</b>	\$19,697,379	(\$3,894,588)	(\$13,517,701)	\$5,728,524
20					
21	<b>Cash Items</b>				
22	Debt Service - Note 2	\$900,000	\$900,000	\$900,000	\$900,000
23					
24	<b>Net Cash Surplus ( Deficiency)</b>	\$18,797,379	(\$4,794,588)	(\$14,417,701)	\$4,828,524
	<b>Note 1</b>		<b>Note 2</b>		
	CUC's FY 2009 budgeted General & Administrative expense is for all utility divisions; Electric Division G&A was derived by apportioning G&A based on its proportion of other expenses		CUC's General & Administrative Budget, includes \$1,583,354 identified as debt service; additional debt service in the amount of \$900,000 is identified for Tinian; the purposes and how dollar amounts should be apportioned is not know.		

Q. WHAT CONCLUSION CAN BE DRAWN FROM THIS PRELIMINARY PROFIT AND LOSS STATEMENT CONCERNING CUC'S RATE ADEQUACY?

A. Some useful information can be determined; however, definitive conclusions cannot be reached. What can be seen is that without CUC recovering its lost sales due to customers leaving its system CUC will essentially operate at about break-even. This is true for its current sales level or a 10 percent increase in sales. Another further reduction in sales (the analysis above assumed a 10 percent reduction) would result in significant financial loss for FY 2009—a situation CUC is not prepared to handle.

Q. DO YOU HAVE ANY CLOSING COMMENTS CONCERNING CUC'S PRELIMINARY FINANCIAL POSITION FOR FY 2009 AS FORECAST BASED UPON YOUR EARLY ASSUMPTIONS?

1 A. CUC financial position is precarious and it is going to be incumbent that all stakeholders  
2 (CPUC, CUC, CNMI government, CDA, citizens, and businesses) work together if its  
3 financial integrity is to be restored and financial independence achieved any time soon.  
4

5 **6. RATE DESIGN CONSIDERATIONS**

6  
7 **ELECTRIC FUEL CHARGE**  
8

9 Q. DO YOU HAVE A RECOMMENDATION REGARDING HOW CUC SHOULD  
10 RECOVER THE COST FUEL USED TO PRODUCE THE ENERGY FOR THE CNMI?

11 A. Yes. We would recommend a fuel recovery mechanism that would be level for a period of  
12 6 months to provide for stability and predictability to ratepayers. We call this mechanism  
13 the Levelized Energy Adjustment Clause (LEAC). This is described in detail below.  
14

15 The largest single cost for CUC is the cost of fuel oil required to produce the energy for the  
16 Commonwealth. According to the Fiscal 2005 and Fiscal 2006 audits, fuel expense  
17 reached \$59.5 million and \$76.0 million on an annual basis, representing approximately  
18 75% of the total O&M of the utility. Preliminary audit data, from Fiscal 2007 shows a  
19 level of approximately 68%.<sup>7</sup> Unlike other operating and maintenance costs the variability  
20 of the price of fuel oil has been very dramatic at times and has certainly been so in the past  
21 year.  
22

23 Successful regulation balances the needs of the utility with the impact of electric rates on  
24 the community. One of the principles of regulation is to recover all prudent cost of the  
25 utility and maintain viability of the utility through reasonable rates. Another principle is  
26 to maintain reasonable rates for the utility customers at a constant level to the degree  
27 possible so that customers can plan ahead knowing the approximate level of their utility  
28 bills. The mechanism proposed does both.  
29

30 Q. ARE THERE OPTIONS FOR COMMISSIONS IN THE METHOD USED TO  
31 RECOVER PRUDENT FUEL COSTS?

32 A. There are several methods to recover fuel costs used by various Commissions. These fall  
33 into basically three categories.  
34

35 The first is to include the cost of fuel in the base rates and to not have a self reconciling  
36 fuel recovery mechanism. This keeps the rates stable for at least the period of time those  
37 rates are in effect (i.e. until base rates are changes in a subsequent rate proceeding), but  
38 could lead to situations where the utility is not recovering sufficient revenues to pay for  
39 fuel in the case where the price of oil is rising above the levels anticipated when base rate  
40 were established. Conversely, should the price of oil decrease below the levels that were  
41 used when the base rates were established, the energy cost to the ratepayer would be in  
42 excess of the requirement of the utility.  
43

---

<sup>7</sup> We have not included other production expenses in the fuel expense.

1 A second method of fuel cost recovery would be to have automatic increases or decreases  
2 in the fuel rates on a monthly basis through a fuel cost recovery mechanism. This would  
3 permit the utility to automatically recover (and customer to pay) current costs of fuel based  
4 upon the current price of oil. However, this method may result in wildly fluctuating rates  
5 in periods where there are fluctuating oil prices and does not give the Commission  
6 opportunity to review the largest single cost of the utility.<sup>8</sup>  
7

8 Finally, there is the “Levelized” approach for a fuel recovery mechanism where the price  
9 of oil (and cost of fuel) is estimated for a period of time and a rate established to recover  
10 fuel costs for that period, say 6 months. This approach is referred to as the LEAC. This is  
11 the approach we recommend.  
12

13 Q. PLEASE DESCRIBE THE LEVELIZED FUEL CLAUSE RECOMMENDED AND  
14 WHY YOU MAKE SUCH RECOMMENDATION.

15 A. The total fuel costs for a projected six-month period would be estimated and divided by the  
16 energy use (kWh) projected for the same six months. The factor so obtained would be the  
17 fuel factor in cents/kWh and would be billed to customers over the projected six month  
18 period using that factor multiplied by the consumer’s monthly usage. At the end of the six  
19 month projected period, a true-up of energy costs and usage would take place and a new  
20 projection of fuel costs for the following 6 months would be performed. A new fuel factor  
21 for the newly projected six-month period would be computed taking into account any over-  
22 or under-recovery for the period just ended. The advantages of such a levelized fuel clause  
23 are many:  
24

- 25 a) It is easy to understand.
- 26 b) It is simple to implement – billing changes are made every six months;
- 27 c) Bills are predictable since this factor is stable for six months;
- 28 d) Inquiries and complaints to both CUC and the Commission from changing factors  
29 should be reduced.
- 30 e) Similar clauses have been successfully implemented in other states.
- 31 f) The CPUC can investigate the causes of variances from projected data.
- 32 g) Any disparity between the forecast of fuel costs and the actual fuel costs is  
33 captured and that difference is either refunded to the ratepayer (“over-recovery”)  
34 in the next fuel clause period or paid to the utility (“under-recovery”) in the next  
35 fuel clause period.  
36

37 Q. PLEASE PROVIDE A DESCRIPTION OF THE COMPONENTS OF YOUR  
38 PROPOSED FUEL CLAUSE AND THE DETAILED METHODOLOGY FOR  
39 DETERMINING A FUEL ADJUSTMENT FACTOR.

40 A. CUC would estimate its cost of fuel for a projected six months and divide that dollar  
41 amount by the expected sales for that same period. To derive the estimate of fuel cost for  
42 electric utilities contains essentially three variables: system requirement (sales, uses and  
43 losses), generation dispatch and efficiency, and estimated per unit fuel price.  
44

---

<sup>8</sup> An annual review could be built in to the process.

1 Q. WOULD YOU PLEASE DESCRIBE WHAT DETAILS WOULD BE REQUIRED TO  
2 ESTIMATE SYSTEM REQUIREMENTS?

3 A. The first variable is the sales projection for the six-month period. It is from this projection  
4 that CUC can determine the amount of energy necessary to produce to meet the sales  
5 demand. Not only must CUC project the sales for the period, but also estimate the  
6 amount of energy that will be used at the generating plant to operating machinery (fans,  
7 heaters, transfer pumps, water pumps, etc), to light the plant and adjacent grounds and to  
8 power the electronic monitoring systems. Collectively this usage is referred to as "Plant  
9 Use." This Plant Use is usually metered and represents the difference between the amount  
10 of energy produced at a generator's terminals ("Gross Generation") and the amount of  
11 energy leaving the plant ("Net Plant Output").  
12

13 Once the net plant output is measured (or projected) CUC must determine or project the  
14 amount of energy that does not result in sales. This difference is collectively referred to as  
15 Unaccounted for Energy. There are several reasons why sales and net plant output are not  
16 the same.  
17

18 Some of the electricity is converted to heat as it travels along the transmission and  
19 distribution lines. This is termed a thermodynamic loss. This type of loss also occurs at  
20 the substations. This loss cannot be eliminated, but can be controlled to some degree.  
21

22 The second item that is included as Unaccounted for Energy are referred to as  
23 administrative losses. One component of this loss is related to faulty meters. If the  
24 customer meter is not properly registering usage of the customer, energy can be "lost" as  
25 a result of the meter underestimating the usage of the customer. This component of losses  
26 can also be controlled by monitoring existing meters and changing out those meters that  
27 are not correctly measuring consumption.  
28

29 Other components of administrative losses are related to accounting differences and  
30 company use. The sales for any month may not be coincident with the production figures  
31 for that month. This difference (sometime referred to as a timing difference) can be  
32 significant in regions where sales are highly dependent on the time of year. In tropical  
33 climates this component of loss is not usually a major item. Moreover, these accounting  
34 losses will "wash" over a period of time, since the difference can also create a negative  
35 loss. There is also a use of energy by the utility (referred to as "Company Use"). This  
36 would be the power used by CUC at its offices (lights, air conditioning, computers, alarms,  
37 etc.). This is often metered and therefore be eliminated from the computation of loss.  
38

39 The final component of administrative loss is theft of service ("diversion"). While energy  
40 is being consumed by non-paying customer, the usage is not metered and sales are not  
41 recorded. This theft of service cannot be totally eliminated, but can be controlled with  
42 effective monitoring of energy and field investigations. Control is achieved by

1 discontinuing the illegal connection and penalizing the party or parties with fines or in  
2 severe cases imprisonment.<sup>9</sup>  
3

4 Q. IF CUC DOES NOT CORRECTLY PROJECT THE SALES FOR THE SIX MONTH  
5 PERIOD WILL THIS HAVE A MAJOR IMPACT ON THE RESULTS OF THE FUEL  
6 CLAUSE?

7 A. Errors in the sales projection do not usually have a large impact in the difference between  
8 projected costs and actual costs. If sales should be less than projected, required generation  
9 will also decrease and the actual cost should be less than estimated. Since the customers  
10 are billed an amount per kWh, any decrease in usage will also equate to a decrease in  
11 recovery of fuel cost. The converse is equally true. The only time this is not true is in the  
12 instance where sales projections have greatly impacted the dispatch assumption (and unit  
13 efficiency) as described below.  
14

15 Q. WHAT IS MEANT BY DISPATCH AND HOW DOES THIS IMPACT YOUR  
16 PROPOSED FUEL CLAUSE?

17 A. The second variable in determining a fuel factor (generation dispatch and unit efficiency)  
18 is related to the anticipated source of supply of electricity in order to need demand. In  
19 CUC's circumstances all of the generation is from sources requiring fuel oil. The cost of  
20 fuel is also impacted by the efficiencies of the units.  
21

22 Q. WOULD YOU PLEASE DEFINE UNIT EFFICIENCY?

23 A. In simple terms, the efficiency of the unit is the ability of the unit to generate energy and  
24 the amount of fuel required for that energy. The more fuel-efficient the unit is the less fuel  
25 consumed to generate that energy. The measurement of this efficiency is usually provided  
26 in energy units (mmBTU) or kWh per gallon<sup>10</sup> and is called the heat rate of the unit.  
27

28 Q. WHAT IS THE LAST ASSUMPTION USED IN THE DERIVATION OF A FUEL  
29 CLAUSE?

30 A. The last variable, cost per gallon of fuel oil, is usually based on long-term contracts or  
31 some reasoned estimate of the Company or other experts. This estimate can be the one  
32 variable that will impact the over-recovery (or under-recovery) position for utilities the  
33 most. Obviously, the duration of the adjustment period becomes important. If the  
34 Company experiences large unexpected increases in its costs, the resultant under-recovery  
35 will accumulate until the next adjustment proceeding. In most jurisdictions with similar  
36 levelized fuel clauses with which we are familiar, the duration of the clause is either six-  
37 months or one year.  
38

39 Q. ARE THERE ANY OTHER ISSUES RELATED TO THE IMPLEMENTATION OF  
40 YOUR RECOMMENDED FUEL CLAUSE?

41 A. Yes. The current financial situation of CUC is such that it may not be able to fund any  
42 large under-recovery for a period of six months or until it can adjust the fuel factor for this  
43 under-recovery. There is a possible remedy for this problem. The CPUC should consider

---

<sup>9</sup> It should be noted that when a fuel clause is established, and theft occurs, the cost of the fuel required for this energy is paid by other ratepayers.

<sup>10</sup> The lower the mmBTU value the fewer gallons of oil consumed and therefore the higher the "efficiency" of that unit.

1 a “cap” of the amount of under- and over-recovery that when reached the clause could be  
2 modified with approval of the Commission.  
3

4 Q. WHAT HAPPENS DURING THIS PERIOD IF THE VARIOUS ESTIMATES USED IN  
5 DERIVING THE FUEL FACTOR ARE INCORRECT?

6 A. With as many variables and uncertainties implicit in a fuel cost forecast, it is to be  
7 expected that there will be over-or under-recoveries of fuel costs on a monthly basis. The  
8 utility will “book” any surplus or deficiency to a deferred fuel account and will accumulate  
9 the net results on its balance sheet. It is in the manner that the utility can successfully track  
10 its cost recovery.  
11

12 Prior to the conclusion of the adjustment period, usually two to three months, the utility  
13 submits a new estimate for fuel costs for the next adjustment period along with the results  
14 of the current period. Should the utility be in an under-recovery position, it simply adds  
15 that amount to the estimated cost of fuel and recovers the revenue deficiency in addition to  
16 the cost of fuel in the next period. Likewise in an over-recovery position, the utility  
17 subtracts that amount from the anticipated cost of fuel and in effect refunds that balance to  
18 its ratepayers over the next adjustment period.  
19

20 Q. ARE THERE ANY OTHER CALCULATIONS INVOLVED IN THE COMPUTATION  
21 OF A LEVELIZED FUEL FACTOR?

22 A. Yes. There could be an interest calculation based on the recovery balance in the deferred  
23 fuel account. There are wide differences in various jurisdictions as to the method  
24 employed, rate imputed and direction of this interest calculation. We recommend the  
25 CPUC decide whether interest on over-and under-recoveries be included in CUC’s fuel  
26 clause factor in a future proceeding. This is a policy decision for the CPUC. Mainland  
27 regulatory commissions both allow and disallow interest on the deferred fuel account.  
28

29 Q. WOULD YOU EXPLAIN THESE DIFFERENCES?

30 A. The average monthly balance of over or under-recovery amounts is used to compute  
31 interest on a monthly basis. A rate of interest is applied to that average amount and that  
32 interest accrues to the ratepayer (over recovery) or utility (under recovery).  
33

34 The rate of interest used is set by the Commission. Many states use the cost of capital  
35 (debt and equity) of an individual utility on the premise that it is representative of the cost  
36 to the utility of under-recovery or cost savings in the case of over-recovery. Others,  
37 particularly in the case of a government owned utility, rather than an investor-owned  
38 utility, use the cost of utility debt or prime rate as reasonable.  
39

40 Q. IS THERE ANY CONTROVERSY CONCERNING THE ACCUMULATION OF  
41 INTEREST ON THESE BALANCES IN THE JURISDICTIONS WITH WHICH YOU  
42 ARE FAMILIAR?

43 A. Yes. The issue revolves around what is termed “one way” interest. While the utility is  
44 allowed to accrue interest in its favor in any given month during the adjustment period, if  
45 the total net result is interest accrued to the utility, the interest is not used in the  
46 determination of the factor for the next adjustment period, or essentially is “zeroed” out.

1           However, if the interest accrues to the “benefit” of the ratepayer, such interest is used to  
2           reduce the cost of fuel in the subsequent period.  
3

4           Q. ISN'T THIS UNFAIR TO THE CUC?

5           A. While utilities, particularly investor owned utilities, have argued that such interest is  
6           “unfair,” the provision has been accepted in some jurisdictions.  
7

8           The first reason is the ability of the utility to recover the largest single operating cost in a  
9           simple proceeding requiring little or no outside assistance, massive preparation of analyses  
10          and forecasts, nor intensive investigation. In addition, all intervenors are precluded from  
11          investigating other costs of operations such as labor, capital, other O&M, etc. Another  
12          reason for adopting “one way” interest is that in most instances, if not all, the cost of  
13          money for a large utility is considerable less than the cost of money for the typical  
14          ratepayer.  
15

16          The last and probably most critical reason, particularly in the case of a government-owned  
17          utility, is to ensure that the estimate made by the utility is the best estimate possible. If no  
18          interest were accrued, there would exist motivation for the utility to over-estimate costs  
19          and thereby ensure over-recovery. In other words, the clause would provide a method for  
20          the utility to obtain interest-free capital.  
21

22          Q. WHAT IS YOUR RECOMMENDATION REGARDING INTEREST ON THE  
23          DEFERRED FUEL BALANCES?

24          A. We recommend that this issue be deferred to the proceeding in which the LEAC is  
25          implemented. Given the precarious condition of CUC at the current time the issue of one  
26          way interest needs to be very carefully evaluated for implementation at this time.  
27

28          Q. DOES CUC CURRENTLY HAVE A FUEL ADJUSTMENT IN PLACE?

29          A. In very general terms, yes but not a levelized adjustment. The price for fuel and lubricant  
30          is charged to the customers through the electric fuel rate (“EFR”), which is adjusted  
31          monthly. CUC estimates the amount of sales for a given month and the cost of fuel and  
32          lubricant required for the sales demand. As an example of the EFR: CUC projects that it  
33          will have a total sales amount of 22,500,000 kWh for the month of November 2008. To  
34          serve the projected demand, CUC estimates that it will require 2,055,900 gallons of diesel  
35          fuel to meet this demand.  
36

37          Q. HOW WAS THE AMOUNT AND COST OF THE FUEL REQUIRED TO MEET THE  
38          NOVEMBER DEMAND ESTIMATED?

39          A. CUC employs a twenty-four month moving average for each of the Islands of what CUC  
40          calls “efficiency.” This efficiency is calculated by dividing the historic fuel consumed by  
41          the number of sales for each Island in each month. Based on this methodology for the  
42          month of November 2008 the system-wide is estimated to be 10.94 kWh per Gal or 460  
43          kWh per barrel.  
44

45          CUC then computes the number of gallons of oil required to meet the demand, which for  
46          the month of November is 2,055,900 gallons. CUC then multiplies the number of gallons

1 by its cost per gallon estimate (based upon October prices). The cost per gallon estimate  
 2 for November is \$2.67 per gallon resulting in a total cost estimate for fuel of \$5,487,523.  
 3

4 Using a similar algorithm for lubricant, CUC estimates a cost of lubricating the units at  
 5 \$206,403.<sup>11</sup> To the total of fuel and lubricant, CUC adds an additional \$391,838<sup>12</sup> for a  
 6 total cost to be recovered in November of \$6,085,765. When this total is divided by the  
 7 estimated sales for November, the resulting EFR is \$0.27 per kWh which is then billed to  
 8 all customers. The following table summarizes the components used by CUC in  
 9 computing the November 2008 EFR:  
 10  
 11

**Summary of November 2008 EFR**

	Fuel	Lubricant	TOTAL
Estimated Sales mWh	22,500	19,300	
Efficiency	10.94	685.68	
Total Gal. Fuel (000)	2,056	28	
Price per Gallon	\$ 2.67	\$ 7.33	
Cost (\$000)	\$5,488	\$ 206	\$5,694
Under-Recovery (50%)			392
TOTAL (\$000)			\$6,086
Estimated Sales mWh			22,500
EFR			\$ 0.27

12  
 13 Q. IS THIS EFR APPROACH A REASONABLE ALTERNATIVE TO THE LEAC?

14 A. For the reasons previously stated we believe that a LEAC should be implemented. While  
 15 some of the components of the EFR will be incorporated into the LEAC that we  
 16 recommend, there is a lack of filed data in the current EFR that results in the “efficiency”  
 17 amount employed by CUC in estimating its monthly costs. In the time available to us, we  
 18 cannot collect the required data to present to the Commission for review and analysis, e.g.  
 19 the dispatch, unit efficiency, plant use and Unaccounted for Energy allowances that are  
 20 essentially included in the CUC “efficiency” number on a macro level; however, we can  
 21 say that based upon the macro level we have concerns about the transparency of  
 22 components that make up the “efficiency” component. For instance, it would appear from  
 23 numbers contained in the November 2008 EFR that the efficiency component is higher  
 24 than should be necessary to account for components such as plant use and Unaccounted for  
 25 Energy.  
 26

27 Q. DO YOU BELIEVE THAT THE DATA THAT YOU ARE MISSING WOULD BE OF  
 28 INTEREST TO THIS COMMISSION?

29 A. Absolutely. Some combination of unit or inefficiency and/or high Unaccounted for  
 30 Energy seems to be causing low overall system efficiency. As an example, GPA has  
 31 several diesel units that are dispatched in order to serve the load. The typical efficiency of  
 32 the units is about 600-650 kWh per barrel as opposed to CUC efficiency of 460 kWh per

<sup>11</sup> For lubricant, CUC ignores sales on Tinian.

<sup>12</sup> The amount is based upon 50% of the total under-recovery as of August 2008. The basis for this request is unknown.

1 barrel. The GPA unit efficiency is measured at the plant so some allowance to restate the  
2 efficiency on a sales basis would be required. Currently GPA has a plant use and line loss  
3 of about 12%. If you adjust the GPA plant efficiency to reflect efficiency on a sales basis  
4 the result is about 575 kWh per barrel. Therefore GPA can serve 20-25% more load  
5 (kWh) per barrel of diesel fuel than does CUC. The reasons for this low efficiency need to  
6 be explored and remedies sought. CUC has indicated to us that street light energy  
7 consumption is included in line losses and this makes the data less comparable. While this  
8 would partially explain the low efficiency, it would only explain a relatively small portion  
9 of the cause for low efficiency.

10

11 Q. WHAT STEPS WOULD YOU SUGGEST TO MOVE CUC TOWARD A LEVELIZED  
12 ADJUSTMENT CLAUSE?

13 A. We would encourage the CPUC to initiate a proceeding to implement a LEAC as soon as  
14 possible. If CUC were agreeable a LEAC could be implemented in the context of this rate  
15 investigation and proceeding. CUC and we could derive a factor for the first half of  
16 calendar year 2009 that could be implemented.

17

18 Q HAVE YOU PREPARED RATE SCHEDULE THAT THE COMMISSION COULD  
19 APPROVE THAT WOULD INSTITUTE A LEVELIZED FUEL CLAUSE?

20 A. As an example we have appended a rate schedule of GPA that uses a levelized fuel clause  
21 of (“LEAC”) to recover oil purchases as a sample. See Appendix D for an example of the  
22 GPA rate schedule for it LEAC.

23

## 24 7. DIVESTITURE AND CONTRACT REVIEW PROTOCOL

25

26 Q DO YOU HAVE ANY COMMENTS PUBLIC LAW 15-35?

27 A. Yes. In Public Law 15-35 the Commission is required to set rates that are just and  
28 reasonable. § 8409 (d) states the following:

29

30 Review and approve any divestiture of capital or contractual agreement that may  
31 increase rates and charges to the consumer.

32

33 Article 8 in PL 15-35 further defines divestiture of capital and requires that:

34

35 All Public Utilities shall obtain prior approval of the Commission for  
36 the **significant** divestiture, transference of operations, sale or lease of  
37 production or transmittal of electrical, water, or wastewater facilities  
38 and/or transmissions systems.

39

(a) Approval of Divestiture is subject to provisional approval  
40 of proposed rate structure following divestiture.

41

(b) A significant divestiture, transference of operations, sale  
42 or lease of production or transmittal of electrical, water, or waste  
43 water facilities and/or transmissions systems is that which may

1 modify or change the rate structure being charged to the customer.<sup>13</sup>

2 **[Emphasis added]**

3  
4 Q. ARE YOU AWARE OF SIMILAR REQUIREMENTS IN OTHER JURISDICTIONS?

5 A. Yes. There is similar, although not identical, language requiring that the Guam Public  
6 Utilities Commission (GPUC or Guam Commission) review and approve any contract or  
7 obligation that “may increase rates.” The Guam Commission realized that to separately  
8 investigate every item that may affect rates could be onerous and require approval of  
9 nearly every purchase or contract by the regulated Authority. Therefore, to implement a  
10 practical and balanced methodology, by Order of the Guam Commission, a process or  
11 protocol has been established that limits the level of contracts or purchases to be  
12 investigated without a full rate proceeding. During the pendency of a rate proceeding all  
13 contracts and obligations are subject to full review and analysis. Without such a protocol,  
14 the Guam Commission would be in the position of investigating and approving every  
15 transaction between rate cases and would have put the Guam Commission in the  
16 undesirable position of micromanaging the operations of the utility.

17  
18 The Guam Commission established the protocol for meeting the requirements of Guam  
19 Law after requesting input from all parties. After consideration of all of the positions, a  
20 minimum threshold on the amount of the contract or purchase was set as the primary  
21 consideration and amounts in excess of that threshold were determined to warrant  
22 investigation by the Guam Commission. As modified in October 2007, that threshold for  
23 the Guam Power Authority (GPA) is \$1.5 million. This requirement was set as a general  
24 condition for consideration between rate cases and there were also other considerations  
25 that will be discussed below.

26  
27 Q. IS IT YOUR UNDERSTANDING THAT THE TERM “SIGNIFICANT” AS USED IN  
28 SECTION 8439 OF PL15-35 REPRESENTS A LIMITATION ON THE CPUC OF ITS  
29 REQUIREMENT TO INVESTIGATE FUTURE DIVESTURES?

30 A. Yes. Section 8439 specifies the following:

31  
32 *(b) A significant divestiture, transference of operations, sale or lease of production*  
33 *or transmittal of electrical, water, or waste water facilities and/or transmissions*  
34 *systems is that which may modify or change the rate structure being charged to the*  
35 *customer*

36  
37 We have asked legal counsel to address this issue more fully.

38  
39 In the case of utilities on Guam, the threshold for review of contracts and obligations  
40 between rate cases, similar to the requirements of § 8409 (d), was established based upon  
41 the size of the utility. One method of determining the threshold for review would be based

---

<sup>13</sup> PL 15-35, § 8439, Divestiture of Capital.

1 on the gross plant of the utility. As of March 31, 2008, Guam Power Authority's gross  
2 investment in plant was about \$825 million (excluding construction work in progress). At  
3 this same point in time, CUC gross investment in plant for the electric department only  
4 was about \$123 million (excluding construction work in progress) plus about \$5 million of  
5 administrative plant. If one were to use gross plant to establish a threshold this would  
6 mean a level of about \$250 thousand relative to the \$1.5 million currently for GPA.  
7

8 One could also use operating expenses to compare the relative size of these two utilities.  
9 Comparing the operating expenses of GPA for the six-month period ending March 31,  
10 2008 of \$150 million<sup>14</sup> to the equivalent operating expenses for this same time period for  
11 CUC of \$48 million, CUC is about 30% of the size of GPA. If this comparison is used to  
12 determine the measurement of the divestiture level, then a threshold of \$450 thousand would  
13 be appropriate.  
14

15 Q. WHAT IS YOUR RECOMMENDATION REGARDING THE THRESHOLD FOR  
16 REVIEW?

17 A. We recommend an initial threshold of \$350 thousand be established for CPUC review and  
18 approval of contracts and obligations before the procurement process begins.  
19

20 Q. IS THE PROPOSED CONTRACT REVIEW PROTOCOL DUPLICATIVE OF THE  
21 INVESTIGATION INTO EXPENSES THAT WOULD BE UNDERTAKEN IN THE  
22 CONTEXT OF A BASE RATE PROCEEDING?

23 A. No, not at all. The proposed contract review protocol would only be utilized where an  
24 expense meeting the threshold is scheduled at a time when there is not a base rate case  
25 pending. In a base rate case, all expenses are subject to a review. The proposed contract  
26 review protocol would be a mechanism for reviewing significant expenditures, whether  
27 procurements or capital divestitures, before the procurement process begins. It is in such a  
28 proceeding that the CPUC would determine whether a proposed expenditure is necessary,  
29 reasonable, and prudent. In the absence of a mechanism for review between rate cases,  
30 there is the danger that expenditures will be made that are unnecessary and imprudent and  
31 once expended would have to be borne by ratepayers in future rate proceedings. This is  
32 especially the case where, as here, there are no shareholders to absorb the costs of an  
33 imprudent contract.  
34

35 Q. ARE THERE SITUATIONS IN ADDITION TO THE THRESHOLD DOLLAR VALUE  
36 OF THE CONTRACT OR OBLIGATION IN WHICH CONTRACT REVIEW SHOULD  
37 BE UNDERTAKEN?

38 A. Yes, there are. See Appendix E for a complete draft of the proposed contract review  
39 protocol. As previously mentioned we have recommended that the procedures established  
40 in Guam and that have worked well be implemented in the CNMI. The essence of the  
41 additional circumstances for which the contract review protocol is triggered is that multiple

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<sup>14</sup> Excludes Depreciation.

1 transactions are aggregated for the determination whether they reach the \$350,000  
2 threshold. One example is the aggregation of multiple purchases within an accounting  
3 category; another is the issuance of debentures or other securities in order to raise capital  
4 for construction projects. Another section of the proposed protocol enumerates the various  
5 sorts of expenditures that are covered by the protocol.  
6

7 Q. IS THERE AN EXCEPTION IN THE PROTOCOL IN THE EVENT OF AN  
8 EMERGENCY?

9 A. Yes. There is a provision in the proposed protocol that exempts CUC from the protocol in  
10 the event that an emergency is declared by the Governor.  
11

12 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

13 A. Yes, it does. Upon CPUC review, and consideration of the recommendations included  
14 herein, we are prepared to work collaboratively with CUC to move forward with  
15 implementation of the critical programs required with the stated goal of CUC financial  
16 independence from the government of the CNMI.

**APPENDIX A-  
EDUCATION AND PROFESSIONAL QUALIFICATIONS**

**JAMSHED K. MADAN**

Provided expert testimony in the areas of accounting, tariffs, and general regulatory theory for telephone, electric, cost allocations and transit, water, sewer, and gas, and telephone utilities in the following jurisdictions:

Alabama	Kentucky	North Carolina
Arkansas	Louisiana	Ohio
Colorado	Maryland	Pennsylvania
Connecticut	Massachusetts	South Carolina
Delaware	Minnesota	Tennessee
District of Columbia	New Jersey	Nuclear Regulatory Commission
Georgia	New Mexico	U.S. Virgin Islands
Guam	New York	Virginia
Guyana		

Other Business Experience

- Principal, Management Services, Touche Ross & Company

Managed numerous consulting engagements involving various financial and management areas: cash flow projections, operations reviews, feasibility studies, and systems planning.

Served as National Director for firm's regulatory consulting. Responsibilities included setting policy and procedures for regulatory work done by all offices of the firm.

- General Manager of Corporate Development, PSE&G

Involved in various financial and business planning assignments as well as contract review and operations planning.

Employment History

May 1979 - Present	Georgetown Consulting Group, Inc.
May 1976 - April 1979	Touche Ross & Company
September 1975 - April 1976	Public Service Electric & Gas
August 1968 - August 1975	Touche Ross & Company

Education

- Massachusetts Institute of Technology, Alfred P. Sloan School of Management, M.S. in Management, 1968
- Massachusetts Institute of Technology, B.S. in Electrical Engineering, 1966

**APPENDIX A- (continued)**  
**EDUCATION AND PROFESSIONAL QUALIFICATIONS**

**LARRY R. GAWLIK**

Provided expert testimony in the areas of electric power system planning and operations, as well as strategic and tactical business planning, policy analysis and development, construction program development/implementation, regulatory policy and management, contract negotiations, and operational and management reviews for and of electric power, natural gas, and water entities in the following jurisdictions:

Arkansas	Georgia	North Carolina
Connecticut	Guam	Nuclear Regulatory Commission
Delaware	Illinois	Ohio
FERC	Louisiana	Texas
Florida	New Mexico	U.S. Virgin Islands
	New York	

Other Business Experience

Managing Director for International Business Development, Navigant Consulting, Inc.

Executive Vice President, Resource Management International, a division of Navigant Consulting, Inc. responsible for the firm's international consulting operations and domestic regulatory practices.

Directed numerous consulting engagements involving various financial and management areas: forecasting, management reviews, cash flow projections, operations reviews, feasibility studies, and systems planning.

Responsible for the firm's practice related to public utility system acquisitions & merger analysis, divestiture, and restructuring analysis.

Associate General Manager for Engineering & Planning, Public Utilities Board

Director of System Planning, Gainesville Regional Utilities, FL

Employment History

July 2000-Present	Independent Management Consultant.
January 1985-June 2000	Navigant Consulting, Inc.
February 1981-December 1984	URS/Daverman Associates, Inc.
May 1978-January 1981	Public Utilities Board/Brownsville, TX
January 1973-May 1978	Gainesville Regional Utilities, FL

## APPENDIX B— RATE REGULATION THEORY AND PRACTICES

### Q. WHY ARE UTILITIES REGULATED?

- A. The regulation of public utilities is most simply understood as a substitute for the rigors of a competitive market. The essence of a firm's status as a regulated public utility is that there is no viable competition available for the provision of the utility's core business. The lack of competition is generally attributable to a cost structure in the industry that makes it prohibitive to duplicate a network, often specifically a distribution network. This is readily evident when considering the typical utility company: telephone,<sup>15</sup> electric, gas, and water utilities face no competition because the investment in their networks is so great that it can only be recouped by a system which includes all available ratepayers.

Where there is no competition, however, consumers are at risk that their lack of choice will be exploited by the monopoly company. Common risks include lack of responsive customer service, poor quality of service due to failure to maintain network components, lack of investment in new technologies, and most prominently, monopoly-level rates. All these negative outcomes are possible in the absence of competition, since consumers lack viable alternative providers. It is for this reason that utilities must be regulated.

### Q. WHAT DOES REGULATION PROVIDE FOR BOTH UTILITY COMPANIES AND THEIR RATEPAYERS?

- A. Effective regulation seeks to balance the interests of the regulated company and its ratepayers. Over many years of utility regulation, terms of art have evolved to describe the regulatory compact between ratepayers and utilities. The company's interests include a reasonable return on its investment. This is the case whether a utility is investor-owned or municipally owned. In turn, ratepayers are entitled to safe and adequate service and to pay just and reasonable rates for those services.

At a slightly more detailed level, regulated companies must have the opportunity to earn a return such that they have reasonable access to financial markets and commensurate with the return that similar companies with similar risks earn. This in turn enables them to build, maintain and improve their facilities, so that they can deliver safe and adequate service to their ratepayers.

Effective regulation requires neutrality on the part of the regulators, who may advantage neither party lest another party's interests be impaired. The regulatory process is ideally marked by proceedings in which all relevant information is timely provided by the parties to each other and a record is built that is thorough in the presentation of facts that the regulators must consider in order to decide a disputed issue. It is also essential that political considerations are absent from the decision-making process.

### Q. WHAT DO THE TERMS "JUST AND REASONABLE" AND "RATE BASE" MEAN?

- A. Just and reasonable rates are rates that enable the company to recover all prudently incurred expenses of providing service, plus a return on its rate base,<sup>16</sup> or investment, such that it has the access to financial markets mentioned above. This return should approximate the level of return that would be earned by a company facing a similar degree of risk, out in the

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<sup>15</sup> In the telecom industry there is rapidly emerging various degrees of inter-modal competition – e.g. Wireless, cable and VOIP.

<sup>16</sup> Or debt service coverage in the case of a municipal utility

marketplace, that is, an unregulated company. Thus, a company which faces very little risk would earn a lower return, and a company facing substantial risk would earn a relatively higher return. The combination of these two items, recovery of expenses and a return, are known as a company's revenue requirement.

Data is submitted by the regulated company showing what it expects its expenses to be during the period in which the new rates will be in effect. This data is referred to as a "test year" and may be comprised of some combination of actual (historical) data and projected data, or either a fully historical test year, adjusted, or a fully projected test year. All expenses related to the provision of regulated service should be submitted, as should the budgets prepared by the company for the rate effect period. The company officials who have prepared the data or are charged with responsibility for those areas of expertise submit testimony in support of their data. Generally, extensive discovery then takes place, in which interested parties to the proceeding may request additional information or explanation, and are generally allowed to file testimony proposing alterations to the rate request that was submitted by the company.

Once a company's revenue requirement is determined, that amount of authorized recovery must be spread across the rates customers will pay. Ideally, this is done in such a way as to, as closely as possible, reflect the costs of providing the various services the utility offers. This process is known as rate design, and some important principles include that no class of customer unduly subsidizes another, such as residential ratepayers subsidizing business services or vice versa, and that the individual components of a service be costed out so as to distinguish between fixed and variable costs and charged accordingly. Estimates must be made of the volumes of activity that the utility anticipates providing, so as to calculate the amount of revenue any rate is expected to generate.

Utilities generally initiate rate cases, therefore, when they believe they have earned an inadequate amount of revenue to approach their authorized rate of return, referred to as a revenue deficiency. In contrast, utilities may be called in to the regulatory forum for a rate case or rate review when public utility commissions believe a utility may be over earning.

**Q. WHAT MAKES AN EXPENSE OR AN ASSET "PRUDENTLY INCURRED" SUCH THAT THEIR RECOVERY CAN BE INCLUDED IN RATES?**

- A. Prudent expenses are necessary for the provision of service and their costs are reasonable and efficiently provided. These determinations can be quantitative in nature, as in the case of not overpaying for either labor or materials, based on appropriate comparisons, or may require adjustments based on testimony regarding the reasons for a significant departure from comparable costs. For example, the labor expense regarding employees covered by union labor agreements may be adjusted to reflect a wage increment specified in the union's contract. Such adjustments are referred to as "known and measurable" and are generally allowed if reasonable.

Capital expenditures must be for assets that are "used and useful" in the provision of regulated service. Limited exceptions are made for the costs associated with assets being readied for service, such as large construction projects. It is this category of asset upon which the company's rate of return will be applied. The determination of a rate of return is a complex and largely academic undertaking, in which the cost of the company's debt is combined with the theoretical return on an unregulated company facing similar risk and that return is applied to the total investment in the utility's assets. In the case of the debt service coverage required on a municipal utility's existing debt there are minimum levels of coverage that are usually required by the indenture agreements associated with the issuance of debt

plus an adequate additional margin of coverage to provide a cushion for variability and for funding a level of construction projects from internal funds.

Expenses that are found to have been imprudent should be eliminated from the company's revenue requirement. It is inappropriate for ratepayers to compensate the utility for expenses that the regulators have found to be unnecessary, or to pay for assets that are not used and useful in the provision of service. An example of an imprudently incurred expense would be when poor maintenance practices result in electric outages for which a utility must purchase alternative sources of power. If the power is extremely expensive compared to what the cost would have been had maintenance been regular and appropriate, the difference between these two costs might be disallowed by regulators. Assets that have been found to be not used and useful include power plants built unsafely or on unsafe sites, which are never allowed into service. While costs associated with construction may have been allowed, had all necessary permits been acquired, once the plant was unable to go into service, no return on it is permissible. Similarly power plants that are operating inefficiently because of poor maintenance practices and as a result of poor planning usually have high costs for the energy they produce compared with efficient plants. This situation poses great challenges for regulators in a municipal environment since a disallowance of rates to cover inefficient costs will result in a diminished cash flow that could result in the further deferral of maintenance and a downward spiral of escalating costs. There is no "investor" to deny a return on. In this situation the regulators need to be pro-active in order to set an environment that encourages efficiency.

APPENDIX C—  
LEGAL OPINIONS CONCERNING CNMI STATUTES,  
EXECUTIVE ORDERS AND PRACTICES

**Introduction**

The Commonwealth Public Utilities Corporation is an administrative agency whose power is derived from the legislature. Pursuant to the PL 15-35, as amended, CPUC has general supervision over public utilities providing water and electrical services and telecommunications and cable television entities. When a utility files a request for a rate increase in the form of a new tariff schedule, the CPUC may upon complaint, or on its own, hear evidence, hold hearings and determine the propriety of the requested rate increase. CPUC must determine whether the proposed rates are just and reasonable and do so within the regulatory confines of PL 15-35, as amended. Because the analysis of CPUC's regulatory authority largely depends on interpreting its enabling act, principles of statutory construction provide guidance in reviewing PL 15-35, and other pertinent laws relating to CPUC's authority and the regulation of public utility rates. The starting point is the Plain Meaning Rule. This rule requires that a statute be construed, according to its plain meaning, where it is clear and unambiguous.<sup>1</sup> Another useful principle of construction calls for statutes on the same subject matter to be read together to give effect and to harmonize each other.<sup>2</sup> Words in a statute are not to be read in isolation.<sup>3</sup>

There are also specific principles of administrative law that are implicated because of the highly technical nature of utility rates and CPUC's authority. Judicial deference is accorded to the ratemaking determinations of a public commission like CPUC. As such, CPUC's determinations on the setting of just and reasonable rates are entitled to deference and will not be set aside unless they are without rational basis or reasonable support in the record.<sup>4</sup>

Within this analytical framework, the legal questions presented are examined.

**a. What is the meaning of “*necessary*” ratemaking standard in 4 CMC § 8409(e)?**

Section 8409 vests CPUC with regulatory oversight supervision over each regulated entity and confers specific powers and duties on the Commission. Among them is the authority to conduct investigation and hearings on any request for rate change to determine if the change is necessary. No rate change would be approved unless it is shown by preponderance of the evidence that the rate change is necessary.

Section 8431 sets forth the procedures for implementing or modifying rates, charges or rents. Instructive in subsection (c) is the reference to reports or documents *supporting* or *justifying* the proposed changes to the rates to which the public must have sufficient access (emphasis added). This provision implies that an entity proposing a change to its rates must

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<sup>1</sup> *Gioda v. Saipan Stevedoring Co. Inc.*, 1 N.M.I. 310 (1990); *Office of the Attorney General v. Deala*, 3 N.M.I. (1994) (stating if the meaning of a statute is clear, court will not construe it contrary to its plain meaning);

<sup>2</sup> *US West Communication, Inc., v. Washington Utils. & Trans. Comm'n*, 949 P.2d 1337, 1359 (Wash. 1998) (stating that all of the provisions of the public utilities statutes must be construed together to accomplish the purpose of assuring the public of adequate service at fair and reasonable rates).

<sup>3</sup> *Aguon v. Marianas Pub. Land Corp.*, 2001 MP 4 ¶ 30, 6 N.M.I. 233, 240 (citing *Commonwealth Ports Auth. v. Hakubotan Saipan Enter., Inc.*, 2 N.M.I. 212, 224 (1991)).

<sup>4</sup> See *New York Telephone Co. v. Public Service Com'n*, 731 N.E.2d 1113, 1116 (NY 2000).

justify why it is necessary. A hearing is held followed by a report compiled by an examiner for the CPUC's review.

Under § 8433, CPUC's review of a proposed change may result in any of the following determinations:

1. the proposed change would violate or is incompatible with PL 15-40,
2. the proposed change is unreasonable,
3. The proposed change would offer improper advantages or preferences to a regulated entity, or
4. The proposed change would endanger the stability of the provision of services to the Commonwealth.

If CPUC makes any of the foregoing findings, it may determine and fix the "just and reasonable" rate, or a range of minimum and maximum rates that must be observed. The use of the term "just and reasonable" requires the reading of §§ 8409(e), 8433 in tandem with § 8409(c) which defines the term "just and reasonable." Under this definition, a just and reasonable rate means "that rate, charge or assessment cost which enables a public utility, telecommunications company, and cable television company an opportunity to finance its capital improvement needs, cover all its operating and debt expenses, and earn a reasonable rate of return on its investment in the Commonwealth."<sup>5</sup> Reading these sections together, the term "necessary" ratemaking is similar, if not identical, to the term "just and reasonable" ratemaking.

This interpretation of those provisions of PL 15-35, is consistent with a review of relevant case law of other jurisdictions. Discussions on changes to rates revolve around the just and reasonable ratemaking standard and the judicial deference accorded to administrative determinations.<sup>6</sup>

**b. What is the meaning of the term "standards and financial criteria consistent with generally accepted rate-making principles" in § 8409(f)? What standards and criteria should be used by CPUC pursuant to this requirement?**

Ratemaking guidelines are provided under 4 CMC § 8430. This section notes two methods for developing rates: (1) a price-cap formula, and (2) formula based on rate of return. The rate of return formula takes into account the public need for adequate, efficient and reasonable service and the need of the entity to receive sufficient income to cover all current costs including depreciation and a fair and reasonable return on the value of their property. It is worth noting that these factors are similar to those listed in the definition of "just and reasonable."

As to the phrase "standards and financial criteria", the provisions of § 8423 give guidance. Under this section, CPUC has the discretion to direct a regulated entity to follow

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<sup>5</sup> 4 CMC § 8402(c).

<sup>6</sup> See *New York Telephone Co.*, 731 N.E.2d 1113 (NY 2000) (rate reductions must be just and reasonable); *Georgia Pub. Serv. Comm'n v. ALLTEL Georgia Communications Corp.*, 489 S.E.2d 350 (Ga. Ct. App. 1997) (adjustment of rates must be just and reasonable); *In re Island Hi-Speed Ferry, LLC.*, 746 A.2d 1240 (R.I. 2000); *US West Communications, Inc. v. Washington Utilities and Transp. Comm'n*, 949 P.2d 1337 (Wash. 1997) (a utility must demonstrate need for general rate increase and such increase must be just and reasonable).

standard accounting practices, or, in the case of public utilities, like CUC, the accounting procedures required by the Federal Energy Regulatory Commission. It would be reasonable to infer that the standards and criteria in § 8409(f) includes standard accounting practices and those required by FERC.

**c. What is the meaning of the term “just and reasonable” in § 8424(a)? How should these three standards [a-c] work together and be applied by CPUC in its rate deliberations?**

As indicated, the term “just and reasonable” means a rate, charge or assessment cost which enables a public utility, telecommunications company, and cable television company an opportunity to finance its capital improvement needs, cover all its operating and debt expenses, and earn a reasonable rate of return on its investment in the Commonwealth.” 4 CMC § 8402(c).

The foregoing discussion shows the similarity of, if not identical, terms of “necessary ratemaking” and “just and reasonable”. The phrase “standards and financial criteria consistent with generally accepted rate-making principles” appears at the end of § 8409(f) which also lists a set of factors analogous to those in the definition of “just and reasonable.”<sup>8</sup> Although different words are used, it appears that the three standards are closely related and used perhaps interchangeably. A review of the case law of other jurisdictions, shows that the commonly used term to describe utility ratemaking in the context of a public commission’s review is “just and reasonable.”

**d. What does the requirement in § 8429(a) “no entity shall give preferences or improper or unreasonable advantages of any type related to rates, charges to any person or geographic area nor shall it subject any person or geographic area to undue prejudices, disadvantages, or discrimination in any other service aspect” mean and how does it work with § 8141(d) which provides that CUC’s rate schedules may provide for separate utility service rates for different islands, residential, commercial, industrial, or other categories of consumption?**

PL 15-40 substantially amended the nondiscrimination clause of § 8429 to permit non-uniform rates in specific circumstances.<sup>9</sup> As an initial matter, CPUC must find that there is a

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<sup>8</sup>Section 8409(f) empowers CPUC to ensure that rates would be sufficient to enable each entity to meet its financial obligations, operating expenses, debt service, capital improvement needs, and accurately reflects the true cost or savings to electrical consumers of renewable energy.

<sup>9</sup>The non-discrimination clause, amended by PL 15-40, § 3(e), now reads --

(c) A regulated entity shall not unduly discriminate or give undue preferences or advantages to any person or class of customers, or customers of a geographic area. Upon a finding that there is a cost of service benefit therefrom, the Commission may permit the preference, advantage, or discrimination pursuant to established ratemaking principles for purposes which include, but are not limited to, the following:

- (1) economic development;
- (2) energy conservation or independence;
- (3) fuel and power source diversification;
- (4) universal service and a due recognition to the affordability of service to low income customers;
- (5) giving due recognition to the class of service, including but not limited to residential, commercial, government, industrial, and street lighting; and

“cost of service benefit” from the non-uniform rate. The specific circumstances may include -- giving “due recognition” to the class of service, including but not limited to residential, commercial, government, industrial, and street lighting, or providing for geographically uniform rates, charges and fees among the islands of Rota, Tinian, and Saipan, and among geographic areas within an island.

In light of the amended language, the nondiscrimination clause would not prohibit CUC from providing separate utility rates under § 8141(d).

**e. Does § 8429(b) make CUC’s service rules subject to CPUC review and approval? Should any such review be part of a phase two component of this docket?**

Section 8429(b) requires every regulated entity to present the CPUC with a schedule of all rates, rents, fees, and charges it proposes to assess for regulated services of all types.

The plain terms of the CPUC’s enabling statute brings CUC and all of its services squarely within the jurisdiction of CPUC. The definition “public utility” specifically mentions CUC and incorporates by reference CUC into the definition of “regulated utility”.<sup>10</sup> Article 2 of PL 15-35, moreover, vests CPUC with the authority to regulate all rates, fares, fees, charges, *services*, rules, conditions of *service*, and *all other matters* pertaining to the formation, operation, and/or direction of a regulated entity.<sup>11</sup> PL 15-35, casts a wide net over CUC.

**f. Is § 8430 relevant to Docket 09-1?**

Yes. To the extent that § 8430 spells out the statutory parameters for methods and procedures for establishing rates, charges and rents, it is highly relevant to Docket 09-1. As indicated, § 8430 provides ratemaking guidance which CPUC would find useful in reviewing any rate change pursuant to § 8209(f).

**g. Does § 8433(a) require CPUC in Docket 09-1 to determine whether CUC’s current rates are: [i] consistent with the requirements of law; [ii] compatible with statutory purposes; [iii] reasonable; [iv] do not offer improper advantage or preferences to CUC; and [v] do not endanger the stability of CUC’s provision of service to the Commonwealth?**

Yes, except that the elements listed above are not conjunctive but disjunctive. If the CPUC determines that CUC’s present rates are inconsistent with PL 15-40 as amended, or are unreasonable, either bases is sufficient for the Commission to fix just and reasonable rates or set the maximum or minimum rates that must be observed.

**h. Section 8434 requires CPUC to “promulgate rules and regulations to define an unreasonable service outage, the formula for determining the amount of credit or rate, or any other necessary rules and regulations necessary to implement this subsection.”**

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(6) providing for geographically uniform rates, charges and fees among the islands of Rota, Tinian, and Saipan, and among geographic areas within an island.

<sup>10</sup> 4 CMC § 8402(c) and (f).

<sup>11</sup> 4 CMC § 8409(a).

Section 8434 imposes on CPUC the duty to prescribe rules and regulations defining, an unreasonable service outage, the formula for determining the amount of credit or rebate, and any other necessary rules and regulations. The exercise of the authority to order a credit or rebate as a result of an unreasonable outage, however, is committed firmly to the discretion of the CPUC.

**i. What is the meaning of “divestiture of capital” in §§ 8409(d) and 8439?**

As provided under § 8439, the divestiture of capital means any “significant divestiture, transference of operations, sale or lease of production or transmittal of electrical, water, wastewater facilities and/or transmissions systems” which “may modify or change the rate structure being charged.” As such, if a transfer of operations or a lease electrical production will not affect the rate structure being charged, there would be no divestiture of capital.

- j. Does § 8409 require that the transaction discussed in § 8123(p) obtain CPUC approval before it is “effectuated”? Relevant points of analysis on this issue would include: [i] whether the memorandum of understanding was entered into before October 24, 2006 (the date PL 5-35 became law); and [ii] whether CUC’s authority under the subsection is circumscribed by subsection (r), which provides that all CUC powers are subject to the requirements of CPUC’s enabling legislation (PL 15-35).

The insertion of § 8123(r) in PL 16-17, reflects legislative intent to subject CUC to the authority of CPUC and PL 15-35, including, if required under PL 15-35, CPUC approval of a preferred stock agreement between CDA and CUC. This agreement, which has yet to be signed by both parties, would effectuate a memorandum of agreement (MOA) signed by CUC and CDA on November 21, 2002, then later amended on January 16, 2004. Because the MOA was signed years before PL 15-35 became effective, there may be a legal challenge raised on whether CPUC’s approval of the agreement is required, especially in view of the savings clause in both PL 15-35, and PL 16-17. A savings clause is inserted in a statute to make clear its prospective effect and that any existing contractual or legal right would not be affected by the new law. However, it should also be noted that § 8123 (p) of PL 16-17, while mandating that CUC effectuate the terms of the MOA, gives CUC discretionary authority to issue the preferred stock valued at \$45 million to CDA and to determine appropriate terms and conditions.

Given that the preferred stock agreement has yet to be consummated and signed by the parties, it is also counsel’s view that additional disclosure and information is required on this question. The main inquiry is whether the terms of the agreement between CDA and CUC will affect or have any effect on CUC’s rates including overhead, management, etc. As a judgment creditor in the Superior Court case, CDA is now transforming its claim into that of a shareholder or equitable interest. While this may be permissible by statute, the import is that CDA is accomplishing what it sought in the case by now becoming a shareholder, to wit: satisfaction of its multi-million dollar judgment against CUC by now increasing the value of its interest. The rate-setting impact on CUC and its customers would certainly justify CPUC oversight and scrutiny.

- k. Sections 8141 and 8142 of PL 16-17 give CUC specific ratemaking powers and duties. Are these powers and responsibilities subject to CPUC’s regulatory authority pursuant to § 8123(r) of PL 16-17?**

As indicated, § 8123(r) of PL 16-17 expressly subjects CUC to the authority of the CPUC pursuant to PL 15-35. Left unchanged, moreover, is the definition of “public utility” in PL 15-35 that specifically includes CUC as a regulated entity under the CPUC. Sections 8425 and 8429 also direct that a regulated entity can only collect for rates that are specified on the entity’s current rate structure on file with the CPUC (filed rate doctrine). As such, CUC’s rates remain under the CPUC’s purview.

- i. Section 8141(c) of PL 16-17 requires that CUC shall adjust the rate structure “so that within three complete fiscal years collections for a particular service are sufficient to recover the costs associated with the operation and delivery of the service”. See also, § 8122(b) which requires CUC to implement a plan by December 31, 2008, by which CUC will establish rates, meter, bill and collect fees in a fair and rational manner so that it will be financially independent by October 1, 2009, or as soon as possible thereafter. What does this mean within the context of CPUC’s rate analysis? How do these provisions interplay with CPUC’s ratemaking authority?**

CPUC’s rate analysis must take into account PL 16-17’s rate setting provisions for CUC and the deadlines imposed on its financial independence. CPUC however retains authority to review and adjust the rates if deemed unjust and unreasonable as PL 16-17 maintains CPUC supervision over CUC. Because the principles of ratemaking in PL 15-35 are similar to the goals of cost recovery and financial independence set forth in PL 16-17, CPUC need not develop a completely different set of procedures to accommodate PL 16-17.

**APPENDIX D  
GUAM POWER AUTHORITY  
SCHEDULE "Z"**

**Levelized Energy Adjustment Clause  
(LEAC)**

The calculation of each bill, pursuant to the rates and charges contained in the applicable rate schedule, shall be subject to an adjustment for variations in fuel cost. The adjustment will be made by multiplying a Fuel Recovery Charge times the total kilowatt hours for which the bill is rendered.

The Fuel Recovery Charge will be calculated semi-annually by the following formula:

$$\text{Fuel Recovery Charge} = \frac{A \ +/- \ B \ +/- \ C}{D}$$

Where:

- A - Equals the projected fuel expense for the next LEAC period.
- B - Equals the difference between the fuel revenue and actual fuel expenses as approved by the Public Utilities Commission, including the true up of the second prior six month period.
- C - Refunds or credits from supplier, excluding legal settlements.
- D - Equals the projected retail KWH sales for the next six months.

The Fuel Recovery Charge will be recalculated semi-annually for a six month period and be subject to the approval of the Guam Public Utilities Commission. In the event that GPA has a cumulative under [or over] recovery balance of more than \$2 million or if the under [over] recovery balance is projected to exceed \$2 million during the six-month levelized period, excluding net revenues from the Navy under The Customer Agreement, the Fuel Recovery Charge may be adjusted to recover such deficit, subject to PUC approval.

**APPENDIX E—  
DIVESTITURE AND CONTRACT REVIEW PROTOCOL**

**CONTRACT REVIEW PROTOCOL FOR  
THE COMMONWEALTH UTILITIES  
CORPORATION**

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**ADMINISTRATIVE  
DOCKET**

**ORDER**

Pursuant to its authority under 4 CMC § 8409[d], the Commonwealth Public Utilities Commission (CPUC) establishes the following protocol to identify and review regulated contracts and obligations of the Commonwealth Utilities Corporation (CUC):

1. The following CUC contracts and obligations shall require prior CPUC approval under 4 CMC § 8409[d], **which shall be obtained before the procurement process is begun:**
  - a) All capital improvement projects (CIP) in excess of \$350,000 whether or not a project extends over a period of one year or several years; provided, however, that no regulatory review shall be required for blanket job orders and line extensions.
  - b) All capital items by account group, which in any year exceed the review threshold.
  - c) All professional service procurements in excess of the review threshold.
  - d) All externally funded loan obligations and other financial obligations such as lines of credit, bonds, etc. in the excess of the review threshold and any use of said funds.
  - e) Any contract or obligation not specifically referenced above, which exceeds the review threshold, not including individual contracts within an approved CIP or contract.
  - f) Any internally funded procurement in excess of a CIP expenditure ceiling, which CPUC shall establish on or before November 15 of each fiscal year.
  - g) Any agreement to compromise or settle disputed charges for services by GPA, when the amount of the waived charges would exceed the review threshold.
  - h) Any divestiture of capital in excess of the review threshold.
  
2. For contract that involves the receipt by CUC of revenues or reimbursement of costs

in excess of the review threshold, the following procedure will apply:

- a) CUC is permitted to evaluate the contract without CPUC approval;
  - b) Prior to entering into the contract, CUC will provide the following to CPUC:
    - i. An affidavit from CUC management stating that the contract does not produce an increased revenue requirement with supporting documentation.
    - ii. A narrative description of the contract.
  - c) The contract will be deemed approved unless rejected by CPUC within 30 days after an adequate filing [as determined by CPUC's hearing examiner] has been made by CUC pursuant to subparagraph (b).
3. Emergency procurements, which are made by CUC under specific legislation that declares an emergency shall not require CPUC approval; provided, however that CUC shall file all necessary details of the procurement within 30 days after the contractual aspects of the procurement have been completed. Any emergency procurement funded by other than bond revenues shall be included in the CIP ceiling established under paragraph 1 (f).
4. With regard to multi-year contracts:
- a) The term of a contract or obligation (procurement) will be the term stated therein, including all options for extension or renewal.
  - b) The test to determine whether procurement exceeds the review threshold is the total estimated cost of the procurement, including cost incurred in any renewal options.
  - c) For a multi-year procurement with fixed terms and fixed annual costs, CUC must obtain CPUC approval if the total costs over the entire procurement term exceed the review threshold. No additional CPUC review shall be required after the initial review process.
  - d) For multi-year procurements with fixed terms and variable annual costs, CUC shall seek CPUC approval of the procurement if the aggregate cost estimate for the entire term of the procurement exceeds its review threshold. On each anniversary date during the term of the procurement, CUC will file a cost estimate for the coming year of the procurement. CUC shall seek CPUC approval in the event procurement subject to this paragraph should exceed 120% of the aggregate cost initially approved by CPUC.
  - e) Unless for good cause shown, any petition for CPUC approval of a multi-year procurement must be made sufficiently in advance of the commencement of the procurement process to provide CPUC with reasonable time to conduct its review.
5. In the event CUC receives only one bid for procurement, which is subject to this contract review protocol, CUC shall provide the CPUC with justification as to why the procurement should be approved and a resolution from CUC Management and Board approving the project subject to CPUC approval.
6. On or before September 15 of each year, CUC will use best efforts to file with CPUC its construction budget for the coming fiscal year plus estimates for the subsequent

two fiscal years. The filing shall contain a description of each CIP contained with the budget and estimates. Project descriptions should be sufficiently detailed to identify the specific location and type of equipment to be purchased, leased or installed. For capital items that are subject to review by account group, CUC shall file information equivalent to that submitted to its governing body for these items.

7. With regard to any contract or obligation (procurement), which requires CPUC approval under this Order, CUC shall initiate the regulatory review process through a petition, which shall be supported with the following:
  - a) A report from management or an independent third party, which contains the following:
    - i. A description of the project, including timeframes, time constraints and deadlines, and a justification of its need.
    - ii. An analysis from a technical and cost benefit perspective, of all reasonable alternatives for the procurement.
    - iii. A detailed review of the selected alternative, which establishes the basis of selection and that it is economically cost effective over its life.
    - iv. Cost estimates and supported milestones for the selected alternative.
    - v. The projected source of funding for the project with appropriate justification and documentation.
    - vi. A supporting finding that the procurement is necessary within the context of other utility priorities.
8. If during any fiscal year, CUC desires to undertake a contract or obligation covered by paragraph 1, for which approval has not otherwise been received, it may file an application with the CPUC for approval of such contract or obligation, which shall contain the information required in paragraph 6 above. CUC shall obtain CPUC approval thereof before the procurement process is begun.
9. CUC shall, on or before December 1 of each year, file a report on the contracts and obligations approved by CPUC for the prior fiscal year pursuant to this Protocol. This report shall show the amount approved by CPUC and the actual expenditures incurred during the preceding fiscal year for each such contract and obligation and other changes from the prior filing in cost estimates, start dates and in-service or completion dates.
10. CUC shall not incur expenses for CPUC approved contracts and obligations in excess of 20% over the amount authorized by CPUC without prior CPUC approval. In the event that CUC estimates that it will exceed the CPUC approved level of expenditures by more than 20%, it shall submit to CPUC the revised estimate and full explanation of all additional cost.
11. CUC shall file with CPUC monthly financial reports within five working days of presentation of monthly financial reports to its governing body.
12. To the extent CUC submits a filing to CPUC under this order which CPUC staff believes is incomplete or deficient, it shall notify CUC and the CPUC within 15

calendar days thereof with specific indication of the alleged incompleteness or deficiency.

13. CPUC staff will use best efforts to be prepared for hearing within 45 days of a complete CUC filing under the terms of paragraph 6 above. CPUC's hearing examiner is authorized, in his judgment, to shorten the above 45 day period, for good cause shown by CUC.
14. Within the context of a rate or management audit proceeding, CPUC staff may review the prudence of all procurement or obligations whether or not subject to review herein.
15. CPUC's hearing examiner is authorized to interpret the meaning of any provision of this order, in furtherance of the contract review process.

Dated this \_\_\_\_<sup>th</sup> day of \_\_\_\_\_, 2008.

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Viola Alepuyo, Chairperson

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Kimberlyn King-Hinds

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Kyle Calabrese