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9 **IN THE PUBLIC UTILITIES COMMISSION**
10 **FOR THE**
11 **COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS**
12

13
14 **Petition of the**)
15 **Commonwealth Utilities Corporation**)
16 **For rate relief in its Power, Water and**)
17 **Wastewater business**)

RATE CASE No. 10-01

18)
19)
20)
21 **CUC's Prefiled Testimony of:**
22 **Robert E. Young**
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35 Levelized Energy Adjustment
36 Clause, Lifeline Rates, Payment for
37 use of Electricity by water and
38 wastewater divisions, Median
39 Household Income
40)

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42)
43 **Filing Date: January 31, 2010**
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1 **Direct Testimony of**
2 **Robert E. Young, Managing Director, Economists.com**
3

4 **Q. Please state your name and position, and business address.**

5 A. My name is Robert E Young. I am a Managing Director of Economists.com, LCC,
6 (Economists.com), a consulting firm with offices in Portland, Oregon and Plano, Texas
7 specializing in utility economics, finance and information technology. My business
8 address is 6443 SW Beaverton-Hillsdale Highway Suite 420, Portland, Oregon 97221.

9 **Q. Please state your professional experience in the Commonwealth of the Northern**
10 **Mariana Islands?**

11 A. Economists.com has performed numerous engagements in the Commonwealth of the
12 Northern Mariana Islands (CNMI) since 2005, when we were retained by the CNMI
13 government, Verizon and Pacific Telecommunications, Inc. (PTI) to assist in the analysis
14 of the sales of Verizon's CNMI telecommunications business to PTI. Since that
15 engagement we completed electric, water and wastewater rate studies for the
16 Commonwealth Utilities Corporation ("CUC"), prepared an economic impact study on
17 the effects to the CNMI economy of the loss of Japan Air Lines flights to Saipan and
18 represented AON Insurance in a personal injury lawsuit.

19 **Q. Have you worked for other utilities in Micronesia?**

20 A. Yes. Economists.com is currently assisting Guam Power Authority (GPA) with an
21 electric load research study. We also assisted GPA with their 2007 electric rate filing.
22 Additionally, we assisted GPA with implementation of their new billing system and
23 prepared an Information Technology Strategic Plan. Economists.com has also prepared
24 an electric rate study for the Palau Public Utility Corporation in 2007 and an electric,
25 water, wastewater and solid waste rate study and long-term financial plan for American

1 Samoa Power Authority. Additional background on my experience can be found in
2 Appendix A (Exhibit REY-06) of my testimony.

3 **Q. What is the purpose of your testimony?**

4 **A.** My testimony proposes a number of additions to Commonwealth Utilities Corporation's
5 (CUC) electric rate structure. I recommend that CUC implement a credit card
6 convenience charge for customers who pay their bill by credit card and a standby charge
7 for commercial customers with their own generation and who regularly produce all or a
8 significant portion of their electricity. I further recommend that CUC begin recording
9 monthly kW demand for commercial and government customers with an estimated
10 demand of 25 kW or greater. I will project CUC kWh sales for FY 2010, calculate the
11 reduction in CUC Non-Fuel Electric Rate resulting from the payment for electricity use
12 by CUC's Water and Wastewater Divisions, and suggest some minor changes to the
13 Levelized Energy Adjustment Clause. Finally, I analyze the relationship between median
14 household income on Saipan and the cost of CUC electric, water and wastewater service
15 under the proposed rates for a typical residential customer.

16

17 **CREDIT CARD CONVENIENCE FEE**

18 **Q. What is a credit Card Convenience Fee?**

19 **A.** A credit card convenience fee is a charge to customers to cover the cost the utility incurs
20 for the convenience of using a credit card to pay their utility bill.

21 **Q. How much does it cost CUC in fees from credit card companies for the processing of**

22 **CUC customers credit card payments?**

1 A. During fiscal year 2009, CUC incurred in excess of \$750,000 in processing fees from
 2 credit card companies for customers that used credit cards to pay their CUC bills. Exhibit
 3 REY-1 shows the monthly credit card fees for FY 2009. It should be noted that October,
 4 November and December 2009 credit card processing fees are consistent with those fees
 5 CUC incurred in FY 2009.

6 **Exhibit REY-01**

Commonwealth Utilities Corporation			
Credit Card Fees			
FY 2009			
Month	Bankcard	Amex	Total
Oct-08	\$29,053.06	\$50,304.35	\$79,357.41
Nov-08	25,618.50	30,978.06	56,596.56
Dec-08	31,219.05	49,590.77	80,809.82
Jan-09	29,985.53	50,575.32	80,560.85
Feb-09	20,210.90	23,442.81	43,653.71
Mar-09	21,545.84	26,377.79	47,923.63
Apr-09	25,422.62	31,203.69	56,626.31
May-09	26,606.72	27,899.61	54,506.33
Jun-09	19,451.95	41,060.64	60,512.59
Jul-09	23,148.70	29,249.89	52,398.59
Aug-09	22,002.67	42,980.40	64,983.07
Sep-09	23,908.09	50,228.42	74,136.51
TOTAL	\$298,173.63	\$453,891.75	\$752,065.38

7
 8 Exhibit REY-1 clearly shows that credit card processing fees are a significant cost to
 9 CUC. In total, these fees represent approximately 1% of CUC revenues. The money that
 10 CUC spends on credit card fees for the convenience of their customers is badly needed in
 11 other areas of the utility.

12 **Q. Do other utilities charge convenience fees for customers who pay their bill with**
 13 **credit cards?**

1 A. Yes. My review of several utility web sites indicates that a large number of them assess
2 some sort of convenience fee to customers who use credit cards to pay their utility bill.
3 Some utilities charge a flat fee per transaction (for example, \$4.95 is a fairly common
4 convenience charge), others use a percent of the amount paid, and still others use a third
5 party vendor who adds the convenience fee to the amount of the utility bill.

6 **Q. How many CUC customers use credit cards to pay their utility bill?**

7 A. CUC's outdated accounting and customer information system is not able to easily
8 produce that information. We know that CUC processed 5,469 payments using American
9 Express cards between March and December of 2009. CUC does not have comparable
10 information for Visa and MasterCard transactions. Some CUC customers signed up for
11 automatic payment of their utility bill. Others customers appear at CUC offices to pay
12 their utility bill with a credit card.

13 **Q. What is your proposal for CUC credit card convenience fees?**

14 A. CUC proposes to implement a credit card convenience fee of 2.1% for all customers who
15 pay with Visa and MasterCard and 3.7% for all customers who pay with American
16 Express. These percentages are slightly higher than the transaction fee percentages
17 charged by the companies for processing of CUC transactions. The higher percentage
18 charged by the CUC is necessary because the amount charged to the credit card will be
19 CUC amount plus the convenience fee. In order for CUC to recover the total amount of
20 the customers' bill, it must slightly increase the convenience. CUC will not "profit" from
21 the processing of transactions for commercial customers.

22 I do not think it is reasonable that other CUC customers should have to pay commercial
23 customers' credit card processing fees. Some of these fees can be substantial. For

1 example, a large CUC commercial customer pays its monthly electric bill, which
2 routinely exceeds \$300,000, with an American Express card. American Express charges
3 CUC \$10,500 to process a \$300,000 transaction.

4

5 **Standby Charge**

6 **Q. What is a standby charge?**

7 **A.** Standby charges recover the costs to a utility for making power available for customers
8 who produce a portion of the electricity needs with their own generation. CUC has
9 several customers, primarily hotels, who produce some or all of their electricity with their
10 own generation, but are still connected to CUC's grid so that they may purchase power
11 from CUC when their own generation is not available.

12 **Q. How does having standby customers change the way CUC operates its generation**
13 **system?**

14 **A.** CUC must maintain sufficient generating capacity to serve the entire demand of
15 customers who only take a portion of their power from CUC's grid. This means that
16 CUC must maintain spinning reserves in the event that one of these customers'
17 generators shuts down and they turn to CUC to pick up the additional load. The amount
18 of generation capacity that is available to the customer but that is normally supplied by
19 their own generation is called standby delivery capacity. The costs of providing this
20 standby capacity, including both plant-related, operating and maintenance-related costs
21 and operating and spinning reserves, must be recovered through a separate standby
22 charge.

1 **Q. Has CUC recently experienced an instance where they began serving a hotel load**
2 **that had previously generated their own electricity needs?**

3 A. Yes. In December 2009, a hotel that previously generated all of their own electricity
4 asked CUC for electricity service because it needed to repair one of its generators. In
5 addition, two other hotels had maximum monthly kWh usage levels that were 12 times
6 greater than their minimum monthly usage. In my opinion, given the CNMI's particular
7 business and economic climate, this large variation in monthly usage is primarily the
8 result of these hotels' self-generation. Variance in occupancy rates could also be a
9 contributing factor, but I cannot verify this because CUC does not have access to
10 individual hotel occupancy rates.

11 **Q. Have other CUC customers exhibited significant variation in their monthly**
12 **electricity usage?**

13 A. Yes. I reviewed the monthly kWh consumption of CUC's 55 largest commercial
14 customers for the last 14 months and discovered that many customers showed
15 significant variance in their monthly kWh usage. The results of my analysis can be
16 found in Appendix B - Exhibit REY-07. For example, the highest month's kWh usage
17 for certain customers is 3 times the lowest month's kWh usage. Some of this variance
18 can be assigned to economic or operational factors. However, the data reveals that
19 many of CUC's large commercial customers do self generate a significant portion of
20 their electricity needs.

21 As the analysis in Appendix B shows, I included historical maximum monthly usage
22 figures along with the figures from the current month and year. I removed customer
23 names and account numbers from the table to protect the commercial interests of

1 CUC's customers. While some historical information is old and may not reflect these
2 customers' current maximum, it provides a reasonable estimate of the potential load
3 that could be placed on CUC. This in turns reveals the total operating and spinning
4 reserves CUC must provide.

5 **B. Do other island utilities have standby charges for customers who provide some or**
6 **all of their own generation?**

7 **A.** Yes. Guam Power Authority (GPA), Hawaiian Electric Company (HECO), Maui
8 Electric Company (MECO), Hawaiian Electric Light Company (HELCO) and Kauai
9 Island Utility Cooperative (KUIC) have standby rates in effect. Appendix C (Exhibit
10 REY-08) contains standby rate schedules for the above mentioned utilities.

11 **Q. Mr. Young, would you please summarize the KUIC standby charge?**

12 **A.** The KUIC standby charge, Rider S, is \$5/kW per month for standby demand for
13 customers with a generating source 30 kW or greater. KUIC defines standby demand
14 as the amount of standby capacity the customer requests in writing from the utility. If
15 the customer's demand ever exceeds the requested amount, the higher demand level is
16 used as the standby demand for billing purposes.

17 **Q. Would you please summarize GPA's Standby Charge?**

18 **A.** GPA's standby rate, Schedule M, is for customers who have a demand of 200 kW or
19 more. It is a slightly higher rate than GPA's Schedule P, because GPA uses a "Wright"
20 rate design that does not have separate demand and energy charges. This makes it
21 difficult to determine the extra costs paid by GPA's standby customers. I have prepared a
22 series of sample calculations and conclude that the extra cost paid by GPA standby

1 customers appears minimal. It is far less than the charge paid by KUIC's standby
2 customers.

3 **Q. Can you speculate on why GPA's standby charge is so much less than KUIC's**
4 **standby charge?**

5 **A.** There could be several reasons. The first of which would be the age of the rate schedule,
6 which was first issued in 1984 and modified on March 2009. A second possible reason is
7 that GPA has not performed a full cost of service study since the mid – 1990's. Finally,
8 GPA has a capacity surplus of approximately 100%, which means that ample reserves
9 are available to service any increased customer load.

10 **Q. Please describe the standby charge currently maintained by HECO, HELCO and**
11 **MECO.**

12 **A.** Because these utilities are owned by the same parent company and are regulated by the
13 Hawaiian Public Utilities Commission, the standby charges are slightly different for each
14 of them. However, the basic rate structure is identical. Schedule SS includes a standby
15 reservation demand charge, a standby daily demand charge, a standby energy charge, a
16 supplemental service demand charge, a supplemental service energy charge and a
17 minimum monthly charge. Like GPA's Schedule M, the actual standby charge paid by
18 the customer depends on its load characteristics. My review of Schedule SS for HECO,
19 HELCO and MECO indicates that the standby demand charge is at least \$10 per kW
20 month for a customer with a minimum demand of 200 kW.

21 **Q. Please describe your proposed standby charge.**

22 **A.** I recommend that CUC implement a standby charge of \$5 per kW for all customers that
23 are connected to CUC's grid and regularly generate some portion of their own electricity

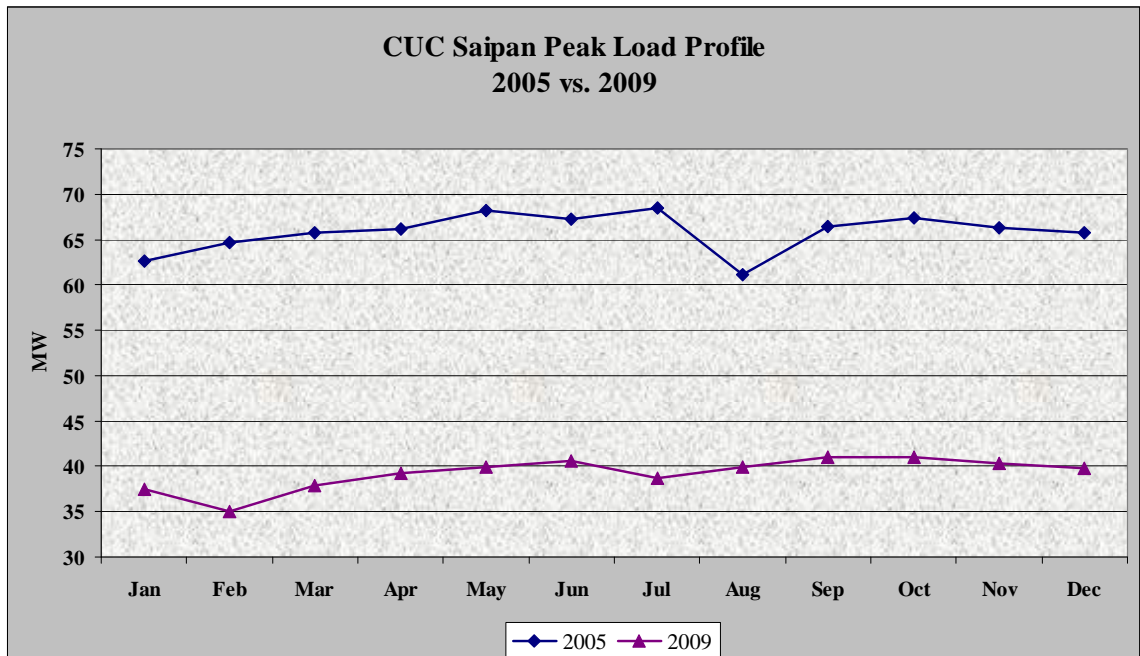
1 needs. The rate will be based on the maximum amount of power that the customer could
2 place on CUC. Details are described in the draft CUC tariff attached as Appendix D
3 (Exhibit REY-09).

4 **Q. Is the proposed standby charge based on the results of a CUC cost of service study?**

5 **A.** No. CUC did not prepare a cost of service study for this filing. In addition, because of
6 the significant drop in load since Economists.com's last electric rate study in 2005, I did
7 not feel comfortable using information from that study. Since the last CUC electric rate
8 study was prepared, CUC lost the garment industry and experienced other electric load
9 reductions due to declines in population and in the level of economic activity. Exhibit
10 REY-2 below presents CUC monthly peak load in megawatts (MW) in 2005 and 2009.
11 The chart shows that peak demand fell by almost 50% between 2005 and 2009.
12 Electricity use in kWh fell by a comparable amount between 2005 and 2009.

13

Exhibit REY-02



14

15

1 **Q. Do you think that the Standby charge of \$5 per kW per month is reasonable given**
2 **that it was not based on a CUC cost of service study?**

3 A. Yes I do. In theory, the cost of standby capacity should be based on cost to the utility of
4 providing the capacity to the standby customers. Most utilities base standby capacity on
5 either the marginal or embedded cost of capacity of the utility, depending on the cost
6 allocation philosophy of the utility and it'd regulator. I chose to use the standby charge
7 from KUIK because it is closer in size to CUC than GPA and it is publicly owned, so it
8 has a similar capital structure.

9 **Q. Do you think your proposed standby charge recovers the full cost to CUC of**
10 **providing standby service?**

11 A. No I do not. I think the actual standby charge should be much higher than \$5 per kW per
12 month, and should have several other elements that reflect the cost of providing standby
13 service. A properly structured standby rate should include a monthly capacity reservation
14 charge, based on the amount of capacity CUC makes available to the standby customer.
15 It should include a spinning reserve charge to reflect the amount of excess generation that
16 CUC generators have on hand in the event one of the standby customers increases it's
17 CUC load. The standby rate should also include usage charges for demand and energy
18 actually used.

19 **Q. Does CUC plan to develop a cost based standby rate in the future?**

20 A. CUC plans to present a cost-based standby charge when it submits a full electric cost of
21 service study later this year.

22 **Q. Does CUC have sufficient reserve generation capacity to meet the increased loads of**
23 **standby customers?**

1 A. Based on my review of the testimony of CUC witness Wallon Young, my answer to this
2 question is yes. On Saipan, CUC currently maintains a peak load of approximately 40
3 MW. As of December 2009, CUC generation capacity was 60.7 MW, which means CUC
4 has a very respectable reserve margin of 50.7%. Major overhauls are underway on
5 Engine No. 8 at Power Plant 1 and Engine Nos. 2 and 4 at Power Plant 2. When
6 completed, Engine 8 will add approximately 10 MW to CUC's generation capacity and
7 Engines 2 and 4 at Power Plant 4 will add approximately 5 MW.

8

9 **CUC Demand Charge**

10 **Q. Does CUC have a demand charge for its larger commercial and government**
11 **customers?**

12 A. No it does not. However, CUC does plan to implement a demand charge for large
13 commercial and government customers in its next rate filing. In preparation for that
14 filing, I requested that CUC staff check the meters of its larger commercial and
15 government customers to determine if these meters currently record the maximum
16 monthly demand. CUC staff will replace those meters that do not with new meters that
17 have the capability of recording the monthly demands. Beginning March 1, 2010, CUC
18 will record the monthly demand of all customers with who average a monthly demand of
19 25 kW or greater. Our current thought is to split CUC's commercial and government
20 customers into large and small categories with the break point at 25 kW of monthly
21 demand. Customers that meet a monthly demand of less than 25 kW will be billed at a
22 small commercial and small government non-demand rate. Customers that established a

1 monthly demand of 25 kW or greater would be billed at the large commercial or large
2 government rate.

3 Please note that this represents our initial thoughts regarding the demand charge. We
4 welcome the prospect of entering into discussions with Commission staff concerning the
5 structure of CUC's demand charge for commercial and government customers.

6 **Q. Should CUC implement demand charges for all commercial and government**
7 **customers?**

8 **A.** At this time, I do not think the cost of purchasing and installing meters for all CUC
9 commercial and government customers is worth the additional accuracy in cost allocation
10 and rate design. CUC's Electric division has much higher priority items at this time. As
11 of September 2009, CUC has 2,885 commercial and 857 government customers. The
12 cost of purchasing approximately 4,000 demand meters would be at least \$500,000.

13

14 **CUC Projected kWh Sales for 2010**

15 **Q. Mr. Young, have you developed an estimate of CUC kWh sales for 2010?**

16 **A.** Yes. I estimate CUC's kWh sales will be 240 million kWh for 2010.

17 **Q. How did you develop the estimate of CUC's kWh sales for 2010?**

18 **A.** I began with a review of CUC's monthly kWh sales by customer class and by island for
19 the last several years. However, historical kWh sales are not a good indicator of future
20 sales because of the unprecedented volatility in fuel oil prices, which directly affects the
21 price of electricity to CUC customers. The delivered cost of CUC's fuel oil increased
22 dramatically between 2002 and July 2008, when CUC's average delivered cost of fuel oil
23 peaked at \$4.45/ gallon. This dramatic increase was then followed by a sharp decline,

1 with the delivered cost of fuel oil falling to \$1.47/gallon in April 2009. However, this
2 decline proved to be short lived, and CUC's delivered cost of fuel oil increased again to
3 approximately \$2.30 per gallon by December 2009. This dramatic volatility in the
4 delivered cost of fuel oil and it's impact on CUC's electric rates, combined with CUC's
5 inability to meet the total electric load on the island of Saipan at certain periods in 2007
6 and 2008, makes basing future projections of electricity consumption on econometric
7 analysis of historical customer usage of little value.

8 In FY 2009, CUC's average monthly sales were 19,400,939 kWh. In order to develop
9 the 2010 sales estimate, I increased the total monthly CUC kWh sales to 20,000,000
10 because of the nominal increase in monthly kWh sales in FY 2009. Total Saipan kWh
11 generation for October through December 2009 does show an overall reduction, so on
12 balance the 20,000,000 kWh estimate for total monthly FY 2010 CUC sales is
13 reasonable.

14

15 **Levelized Energy Adjustment Clause**

16 **Q. What are your suggested changes to the Levelized Energy Cost Adjustment Clause?**

17 **A.** First, I would like to suggest that the LEAC's value for CUC's accounting and regulatory
18 support be increased from \$160,000 to \$320,000 per year. When the Commission staff
19 developed the estimate for CUC accounting and regulatory support, they were acting as
20 consultants to both the Commission and CUC. For this and future filings with the
21 Commission, CUC will follow the more traditional regulatory model and use its own
22 consultants. In addition, its cost for outside legal advice will also increase. I propose that
23 this change be incorporated in the next LEAC, which will go into effect in April of 2010.

1 The second change that I recommend in the LEAC is to determine the projected monthly
2 engine efficiency and capacity factor at the power plant level, rather than the current
3 method, which requires an engine-by-engine estimate of the monthly capacity factor and
4 efficiency in kWh/gallon.

5 **Q. Why do you recommend projecting monthly capacity factor and efficiency at the**
6 **plant level instead of on an engine-by engine basis?**

7 **A.** Primarily because it is difficult to project engine specific capacity factors for a six-month
8 period with any degree of accuracy. While CUC staff has dramatically improved the
9 reliability of many of their engines, the engines on Saipan are still at least 15 years old,
10 and as with any older engine are subject to periodic forced outages.

11 Second and more importantly, the efficiency of diesel engines is a function of its
12 operating level. That is, the higher the output of CUC diesel engines, the higher the
13 overall efficiency. CUC witness Wallon Young estimates that Engine 7 at Power Plant 1
14 will have an efficiency of 14.5 kWh/gallon when operating at 9 MW. When it operates at
15 7 MW, the efficiency drops to about 13.9 kWh per gallon. When operating at 5 MW, the
16 efficiency drops to 13.4 kWh per gallon. While the above relationship between engine
17 efficiency and operating level are estimates, the general relationship is correct. The
18 current LEAC does not adjust the engine efficiency for different operating levels. I
19 recommend that in the next LEAC, projected efficiency and operating levels should be
20 determined at the plant as opposed to the engine level. It will be more accurate and much
21 easier to calculate.

22
23

1 **Lifeline Rates for CUC Residential Electric Customers**

2 **Q. Mr. Young, in your opinion, does the current CUC Non-Fuel Electric meet the**
3 **requirements of a Lifeline rate for residential customers?**

4 A. Yes it does. While no industry standard definition exists for lifeline rates, most utility
5 industry rate design experts would agree that a lifeline rate structure should incorporate a
6 reduced charge for consumers low monthly electricity use. The rate would then increase
7 as monthly electricity use increases.

8 The theory behind lifeline rates is that a strong correlation exists between electricity use
9 and income. The current CUC Non-Fuel Electric Rate contains four usage based rates,
10 which increase with monthly usage. The lowest rate is for CUC residential customers
11 with monthly usage of 500 kWh or less. As stated above, this meets the definition of
12 lifeline rates.

13
14 **Payment for Use of Electricity by CUC Water and Wastewater Divisions**

15 **Q. CUC witness Dan Jackson's testimony includes a scenario whereby CUC's Water**
16 **and Wastewater divisions pay for their use of electricity. Under the terms of this**
17 **scenario, how do you propose to reflect the revenue received by the CUC's Electric**
18 **Division from the Water and Wastewater Divisions?**

19 A. Mr. Jackson indicates that CUC's Electric Division would receive approximately \$5.494
20 million annually from the CUC's Water and Wastewater Divisions if the Commission
21 adopts his rate plan and recommendations under the terms of this scenario. My opinion is
22 that the transfer of revenue to the Electric Division from CUC's Water and Wastewater
23 Divisions should be reflected in the CUC's Non-Fuel Electric Rates.

Q. What is the effect on the CUC's Non-Fuel Electric Rate of the \$5.494 million annual revenue transfer from the CUC Water and Wastewater Divisions?

A. Based on my projection of 240 million kWh in CUC sales of electricity for FY 2010, the average reduction in CUC's Non-Fuel Electric Rate under this scenario would be \$.0229/kWh. However, adjustments must be made to reflect the lifeline rates for CUC residential customers. The current Non-Fuel Electric Rate for residential customers who use 500 kWh per month or less is \$.016/kWh. Because subtracting \$.0229/kWh would result in no recovery of non fuel electric costs from those residential customers in the first rate block, a result that is not reasonable in my opinion, I reduced the Non-Fuel Electric Rate for the 0-500 kWh per month residential block to \$.01/kWh and adjusted rates for the other blocks in the Residential Non-Fuel Electric Rate accordingly. Because the Commercial and Government Non-Fuel Electric Rates do not vary with usage, their Non-Fuel Electric Rates were reduced by \$.0229/kWh. Exhibit REY-3 below shows the derivation of the rates incorporating the transfer of revenues from the CUC Water and Wastewater Divisions to CUC Electric division.

Exhibit REY-03

Commonwealth Utilities Corporation Determination of Reduction in Non-Electric Fuel Rate Projected FY 2010 kWh Sales by Customer Class							
Monthly kWh Usage	Monthly Average Bill Frequency Percentage	Annual kWh Sales	Current Non-Fuel Rate	Projected FY 2010 Non-Fuel Rate Revenues with Current Rates	Revised Non-Fuel Rate	Customer Class Reduction	FY 2010 Non-Fuel Rate Revenues with W&WW Revenue
0 - 500	27.140%	20,781,900	\$0.0160	\$332,510	\$0.0100	\$124,691	\$207,819
501 - 1,000	33.617%	25,742,012	\$0.0660	\$1,698,973	\$0.0371	\$743,944	\$955,029
1,000 - 2,000	25.143%	19,253,122	\$0.0860	\$1,655,769	\$0.0571	\$556,415	\$1,099,353
Greater Than 2,000	14.100%	10,796,943	\$0.1287	\$1,389,567	\$0.0988	\$322,829	\$1,066,738
Total Residential	100%	76,573,977		\$5,076,818		\$1,747,879	\$3,328,939
Commercial		115,399,604	\$0.086	\$9,924,366	0.0631	\$2,642,651	\$7,281,715
Government		48,026,418	\$0.091	\$4,370,404	0.0681	\$1,099,805	\$3,270,599
Total		240,000,000		\$19,371,588	\$0.0229	\$5,490,335	\$13,881,253

1 Exhibit REY-4 below shows CUC proposed rates reflecting the reduction in the Electric
 2 Non-Fuel Rate for the transfer of revenue from CUC Water and Wastewater divisions for
 3 payment of electricity costs.

4

Exhibit REY-04

Commonwealth Utilities Corporation			
Proposed Electric Rates Reflecting			
Water and Wastewater Division Revenue Transfer			
Projected FY 2010 kWh Sales by Customer Class			
Monthly kWh Usage	Monthly Customer Charge	Proposed Non-Fuel Rate	Current Fuel Rate
Residential			
0 - 500	\$5.60	\$0.0100	\$0.20147
501 - 1, 000	\$5.60	\$0.0371	\$0.20147
1,000 - 2,000	\$5.60	\$0.0571	\$0.20147
Greater Than 2,000	\$5.60	\$0.0988	\$0.20147
Commercial	\$7.87	\$0.063	\$0.20147
Government	\$7.87	\$0.068	\$0.20147

5

6 Exhibit REY-5 below shows a comparison of CUC monthly electric bills at selected
 7 consumption levels under the current and proposed rates.

8

Commonwealth Utilities Corporation				
FY 2010 Monthly Bill Comparison				
Current and Proposed Rates				
Residential Customers	Current Bill	Proposed Bill	Increase/(Decrease)	
500 kWh	\$ 114.34	\$ 111.34	\$ (3.00)	-2.62%
1,000 kWh	\$ 273.07	\$ 244.17	\$ (28.90)	-10.58%
1,500 kWh	\$ 436.81	\$ 393.46	\$ (43.35)	-9.92%
2,500 kWh	\$ 831.03	\$ 756.28	\$ (74.75)	-8.99%
Commercial Customers	Current Bill	Proposed Bill	Increase/(Decrease)	
1,500 kWh	\$ 439.08	\$ 402.46	\$ (36.62)	-8.34%
10,000 kWh	\$ 2,882.57	\$ 2,651.30	\$ (231.27)	-8.02%
20,000 kWh	\$ 5,757.27	\$ 5,297.00	\$ (460.27)	-7.99%
Government Customers	Current Bill	Proposed Bill	Increase/(Decrease)	
5,000 kWh	\$ 1,470.22	\$ 1,355.72	\$ (114.50)	-7.79%
20,000 kWh	\$ 5,857.27	\$ 5,399.27	\$ (458.00)	-7.82%
100,000 kWh	\$ 29,254.87	\$ 26,964.87	\$ (2,290.00)	-7.83%

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Q. Mr. Young, what would be the impact on CUC's electric rate structure if the Commission adopted Mr. Jackson's Scenario II, in which it is not necessary for the water and wastewater utility to reimburse the electric utility in order to achieve full cost recovery?

A. In that case, I would recommend that the electric base rate remain at its current levels, with no change in the rate structure at this time. Please remember, however, that CUC intends on submitting an electric rate case at some point later in 2010.

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Saipan Median Household Income

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Q. Please define median household income.

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A. Median household income is the amount which divides the household income distribution of a sample population into two equal groups, with half having household income above that amount, and half having household income below that amount.

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1 **Q. Mr. Young, does the CNMI government or the US Census Bureau have an estimate**
2 **of 2010 median household income for the island of Saipan?**

3 A. No they do not. Information on 2010 Saipan median household income will not be
4 available until the 2010 Census is completed, which is scheduled for release sometime in
5 2011. The most recent official information for median household income for Saipan is
6 from the 2005 CNMI Household, Income, and Expenditures Survey, published April 1,
7 2008 by the CNMI Department of Commerce, Central Statistics Division, which reports
8 the 2004 Saipan median household income as \$16,385.

9 **Q. Would the 2004 median household income for Saipan be a reasonable estimate to**
10 **use for 2010?**

11 A. Yes it would. While the CNMI economy has suffered greatly since 2004 as evidenced by
12 even a casual reading of local news stories. For a more thorough treatment of the decline
13 in the CNMI economy, please refer to the report “The Economic Impact of Federal Laws
14 on the Commonwealth of the Northern Marianas Islands” prepared by Malcolm McPhee
15 and Dick Conway in October 2008 (CNMI Economic Impact Study). The CNMI
16 Economic Impact Study reports that personal income for all of the CNMI declined by
17 38% 2004 and 2007. CNMI personal income was \$935.5 million in 2004 and only
18 \$577.1 million in 2007. CNMI income per capita showed a similar decline, falling by
19 28% over the same period. CNMI income per capita was \$13,270 in 2004 and dropped to
20 \$9,555 by 2007. Because median household income and income per capita are different
21 statistics, they are highly correlated. Therefore a good argument could be made for
22 reducing Saipan’s 2004 value for median family income by a comparable amount.
23 However, we also know from the CNMI Economic Impact Study that the Saipan labor

1 force declined dramatically due the closing of the garment industry, whose workers were
2 at the low end of Saipan's income distribution. We also know that the CNMI minimum
3 wage has increased recently due to changes in Federal laws. The loss of the Saipan
4 garment industry and the increased CNMI minimum wage would argue for an upward
5 adjustment in the 2004 Saipan value for median household income. On balance, I
6 recommend using \$16,385 as the 2010 value for Saipan's median household income.

7 **Q. Mr. Young, what is the combined bill for a CUC residential customer on Saipan**
8 **who uses 500 kWh per month and 10,000 gallons of water and 10,000 gallons of**
9 **wastewater under CUC's proposed electric water and wastewater rates?**

10 A. Table 4 above shows that the monthly electric bill for a residential CUC customer on
11 Saipan would be \$111.34. CUC witness Mr. Jackson states that under his Scenario 1, in
12 which the water and wastewater utilities reimburse the electric utility for their use of
13 electricity, the monthly water bill for a residential customer on Saipan using 10,000
14 gallons would be \$50.87. CUC witness Mr. Jackson also states that the monthly
15 wastewater bill for a residential customer on Saipan using 10,000 gallons would be
16 \$41.04. Thus the total monthly bill under the proposed rates for a CUC residential
17 customer on Saipan who uses 500 kWh per month, 10,000 gallons of water and 10,000
18 gallons of wastewater_would be \$203.25. Their CUC bill would represent almost 15% of
19 the median household income on Saipan.

20

21 **Q. Mr. Young, in closing, a couple of housekeeping questions. Did you prepare this**
22 **testimony and exhibits, or was it prepared under your supervision and control?**

23 A. Yes.

24

1 Q. Are the statements in your testimony true and correct to the best of your knowledge,
2 information and belief?

3 A. Yes.

4

5 Q. If you were testifying live, under oath, today, would you say what appears in this,
6 your prefiled testimony filing?

7 A. Yes.

8

9 Q. Does this conclude your testimony?

10 A. Yes it does. However, I reserve the right to make any necessary adjustments during the
11 course of these proceedings.

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15 **AFFIDAVIT AND DECLARATION**

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18 The proceeding prefiled testimony, and the exhibits referred to therein, are true and
19 correct to the best of my knowledge, information and belief. Signed under the penalties
20 of perjury.

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