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Issues: Rate Design

Witness: Janice Pyatte
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

JANICE PYATTE

AQUILA, INC

CASE NO. EO-2002-0384

Jefferson City, Missouri
October 2005

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of an Examination of the Class Cost of Service and Rate Design in the Missouri Jurisdictional Electric Service Operations of Aquila, Inc., formerly known as UtiliCorp United, Inc.	)))))	Case No. EO-2002-0384

AFFIDAVIT OF JANICE PYATTE

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Janice Pyatte, of lawful age, on her oath states: that she has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 12 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Janice Pyatte

Subscribed and sworn to before me this 27th day of October, 2005.

Dawn L. Hake
Notary Public

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

DAWN L. HAKE
My Commission Expires
March 16, 2009
Cole County
Commission #05407643

My commission expires_____

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SURREBUTTAL TESTIMONY

OF

JANICE PYATTE

AQUILA, INC.

CASE NO. EO-2002-0384

Q. Please state your name and business address.

A. My name is Janice Pyatte and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. Are you the same Janice Pyatte who filed direct testimony in this case on September 19, 2005?

A. Yes.

Q. What is the purpose of your testimony?

A. I respond to statements made by Aquila witnesses David L. Stowe and J. Matt Tracy in their rebuttal testimonies.

EXECUTIVE SUMMARY

Q. Please provide a brief summary of your testimony.

A. The first issue addressed in my testimony is Aquila witness David L. Stowe's claim that the monthly class peak demand and energy data developed by Staff and used by OPC is erroneous. My testimony describes why Mr. Stowe's claim is incorrect.

The second issue addressed in my testimony is Aquila witness J. Matt Tracy's arguments in support of Aquila's proposed changes in rate structures. My testimony explains that Staff opposes Aquila's proposed rate structure changes because the current

rate structures work fine, the proposed rate structures are not supported by any analysis, and Staff's review of these rate structures (and rate values) uncovered a number of serious rate design features that send the "wrong" price signals to customers.

Staff's Overall Conclusion:

The Staff believes that implementing Aquila's proposed rate design, without extensive modifications to both the rate values and the rate structures, will amount to replacing the current MPS rate design and the current L&P rate design, neither of which is "broken", with one standardized "broken" rate design for both Aquila divisions.

SURREBUTTAL TO AQUILA WITNESS DAVID L. STOWE

Q. What statements does Mr. Stowe make to which you are responding?

A. Mr. Stowe states that OPC witness Barbara A. Meisenheimer used erroneous demand and energy data in the computation of her production cost allocation factors [Stowe, Rebuttal, page 20, line 10 through page 21, line 5]. Since I am the source of the demand and energy data Ms. Meisenheimer used, I am responding to his assertions.

Q. What is your response to Mr. Stowe's criticism?

A. I disagree with him. No one disputes that the value associated with monthly class peak demand (NCP) represents the highest hourly demand that occurs during the month. The difference between the OPC (Staff) value of class peak demand and that computed by Aquila is entirely due to different definitions of what constitutes a "class". In general, Aquila chose to perform both its MPS and L&P class cost-of-service studies using more narrowly defined classes than did the other parties.

Consider Mr. Stowe's example described on p.20 line 20: "...The NCP demand for the [MPS] Residential class in the month of January, 2002, is given as 525.553 MW ...Aquila's corresponding demand value... [is]...Class NCP of 639.607 MW..." Mr. Stowe's class peak demand value of 639.607 is calculated by residential rate schedule and then summed:

Residential-General Use rate schedule: 353.213 MW on January 25, Hour 13

Residential-with Space Heat rate schedule: 286.393 MW on Jan. 23, Hour 8

The class peak demand for January for Staff's residential class was not computed by rate schedule. One residential class was defined as the hour-by-hour sum of the demand of all residential customers. The January class peak demand of this class is 525.533 MW, which occurred on January 23, Hour 19.

Mr. Stowe is wrong to claim that Staff has computed (and OPC has used) erroneous data because we have chosen to define classes differently than Aquila. Ms. Meisenheimer's use of Staff class peak data for all MPS and L&P cost-of-service classes is entirely appropriate and correctly computed for investigating the costs of the classes she has chosen to analyze.

SURREBUTTAL TO AQUILA WITNESS J. MATT TRACY

Q. What statements does Mr. Tracy make to which you are responding?

A. Mr. Tracy's rebuttal testimony [Section V, pages 13-14] presents two arguments in support of Aquila's proposals to change the rate structures on the MPS and L&P rate schedules:

(1) Simplifying training requirements for Aquila field and call center personnel; and

(2) Providing "better" price signals to customers.

Q. Please comment on Mr. Tracy's claim that changing rate structures will simplify training requirements for Aquila field and call center personnel.

A. It strikes me as odd that, given this rationale, Mr. Tracy is nevertheless proposing to maintain the current rate structures for certain very large customers in both divisions.

Q. How does Staff respond to Mr. Tracy's argument that Aquila's proposed rate structures (and rate values) provide "better" price signals to customers?

A. First of all, Aquila has not presented any evidence (other its class cost of service study) to demonstrate that its proposed rates are cost justified.

Secondly, Mr. Tracy appears to concur with the conclusion I made in my direct testimony that the current rate structures are "fine".

Thirdly, Staff's review of Aquila's proposed rate structures (and rate values) uncovered a number of rate design flaws that provide customers with ambiguous or "wrong" price signals.

Q. Isn't Aquila's class cost-of-service study enough evidence to justify its proposed rates?

A. A standard class-cost-of-service study provides the "target" revenue that a class should recover through rates. The actual design of rates requires additional information on how functionalized costs previously allocated to each class were allocated to seasons, to sub-classes, etc.; which functionalized costs are to be recovered in which type of charge (customer, demand, energy, facilities, etc.); and how much higher or lower one rate should be than another. This process results in only the "starting point" for

designing rate values. The "final" rate values are those that represent the best balancing of rate design objectives.

Q. Has Aquila done the additional analysis required to determine whether important characteristics of its proposed rate design (such as cost recovery by seasons) are justified?

A. My discussions with Aquila's rate design experts indicate that, in general, this analysis was not done.

Q. Have you found instances where Aquila's proposals send the "wrong" price signals to customers?

A. Yes. My cursory review of Aquila's proposed rate schedules has turned up a number of other features of Aquila's proposed rate design that are symptomatic of a flawed rate design:

- Higher rates are proposed to be charged for summer energy use by MPS Residential-General Use customers than by MPS Residential-with Electric Space Heating customers.
- Significantly higher customer charges are proposed to be applied to MPS residential customers than to MPS non-demand-metered small general service customers.
- A lower customer charge is proposed to be charged to L&P Residential-General Use customers than to L&P Residential-with Electric Space Heating customers.
- Proposed energy charges for both the MPS and L&P Small General Service Demand Billing rate schedules are not seasonally differentiated, even though the proposed demand charges are.

- Proposed energy charges for both the MPS and L&P Large General Service rate schedules are not seasonally differentiated, even though the proposed demand charges are.
- Certain proposed energy rates are in the range of 2.00 to 2.20 cents per kWh. These rates need to be examined to make certain that Aquila isn't proposing to provide to service at less than its avoided cost.
- Proposed MPS residential rates will reduce the proportion of total revenue collected in the summer, when compared to current rates.
- The load factor at which a 100 kW MPS customer will choose to switch from the SGS Demand Billing rate schedule to the LGS rate schedule is much too low.
- The load factor at which a 100 kW L&P customer will choose to switch from the SGS Demand Billing rate schedule to the LGS rate schedule is much too high.

Q. Which of Aquila's other rate structure proposals does the Staff oppose?

A. The Staff opposes most of the rate structure changes Aquila proposes for billing the demand-metered customers on the Small General Service and Large General Service rate schedules. The proposals would eliminate key elements of both the current MPS and L&P non-residential rate structures and replace them with a uniform "hybrid" structure. I discuss my concern with this "hybrid" rate structure in greater detail later in my testimony.

For the MPS SGS Demand Billing and LGS rate schedules, the major proposed rate structure change is to eliminate the base/seasonal feature of the rates.

For the L&P SGS Demand Billing and LGS rate schedules, Aquila proposes to eliminate or replace virtually all features of the existing rate structure:

(1) Eliminate the facilities charge;

(2) Replace the customer-specific service charge with a tariff-specific charge; and

(3) Change the method used to treat customers served at different voltage levels.

Q. Why does the Staff oppose these particular rate structure changes?

A. The bases for the Staff's opposition follow:

(1) The proposed rate structures have not been adequately analyzed to see if they recover the "right" costs from the "right" customers;

(2) The proposed rate structures may be more prone to being accidentally "broken"; and

(3) The implementation of the proposed rate structure changes to L&P customers may not send the price signal to customers that Aquila intends.

Q. What do you mean by the statement: *The proposed rate structures have not been adequately analyzed to see if they recover the "right" costs from the "right"* customers?

A. As I explained in my direct testimony, neither the MPS nor the L&P rate structures currently used for billing demand-metered customers is "broken" and thus neither rate structure needs to be "fixed." In his rebuttal testimony Mr. Tracy admits that the current MPS and L&P rate structures are "sophisticated" [p.17, line 7], "elegant" [p.17, line 7], and "refined"[p.17, line 11].

Nevertheless, Aquila proposes to change both the MPS and L&P rate structures for demand-metered customers to a hybrid structure that has not been shown to result,

even on paper, in the "right" costs being recovered from the "right" customers. Aquila's rationale for changing the MPS rate structure is that "...customers show a lack of understanding of the ...MPS base seasonal rate [feature]..." [Tracy, Rebuttal, Page 13, lines 19-20]. It is not clear from the testimony why, after deciding to eliminate the base-seasonal feature of the MPS rate structures, Aquila did not choose to adopt a tried-and-true rate structure, such as the one currently in effect at L&P.

Q. What do you mean by the statement: *The proposed rate structures may be more prone to being accidentally "broken" than the existing structures?*

A. Consider Aquila's proposal to change the format used in the L&P rate schedules to treat voltage level differences between customers. The current MPS tariffs and the current L&P tariffs illustrate two different, but theoretically equivalent, ways to reflect voltage level differences in rate schedules.

The MPS method is to design two separate rate schedules: one for secondary voltage level customers and another for primary voltage level customers. In this method of rate design, the voltage level "links" between the two schedules are not immediately obvious, although they can be calculated. For example, if a customer wishes to know what "discount" Aquila provides for customer ownership of voltage transformation equipment, it can be calculated as the dollar difference (per kW) between the facilities charges on the two rate schedules. Similarly, the implicit adjustment for losses can be calculated as the percentage difference between the energy charges on the primary and secondary rate schedules. I will refer to this as the "two-separate-rate-schedules" method.

The L&P method of reflecting voltage level differences in rate schedules can be described as the "standard-rate-with- riders" method. The current L&P tariffs reflect this rate design. The standard rate schedule assumes that all customers are served at secondary voltage. Those customers who are served at primary voltage are subject to a "loss adjustment rider" prior to billing and to a "primary discount rider" as part of the billing process. The discount per kW applied for being served at primary voltage is readily apparent.

Aquila's proposal is to replace the L&P "standard-rate-with-riders" method with the MPS "two-separate-rate-schedules" method of treating voltage level.

Q. If these two methods are theoretically equivalent, then doesn't the choice of formats depend on personal preference?

A. Yes, and no. If a secondary rate schedule and a primary rate schedule are designed so that the only differences between them reflect losses and the ownership of voltage transformation equipment, then this method will achieve the same result as the "standard-rate-with-riders" method. My concern is that two separate rate schedules connected by "invisible" links have a higher probability of being inadvertently broken in the future. My rate design experience has taught me breaking implicit links is simple, but repairing them can be difficult.

Q. Can you provide an example?

A. Yes. Aquila itself has provided an excellent example in this case. I computed the implicit credit per kW for customer transformer ownership in Aquila's current and proposed MPS Large General Service (LGS) and Large Power Service (LPS) rate schedules. The comparison follows:

	Current Discount	Proposed Discount
LGS-Winter	$0.89 per kW	$0.09 per kW
LGS-Summer	$0.99 per kW	$0.13 per kW
LPS-Winter	$1.28 per kW	$0.17 per kW
LPS-Summer	$1.08 per kW	$0.21 per kW

I don't recall any Aquila testimony in this case stating that the current discounts for customer ownership of transformers is "too high" and should be drastically reduced to the levels it proposes. Nor do I believe that the values associated with the proposed discounts are reasonable. The proposed changes shown above are more likely to be the result of mechanically applying the Company's class cost of service results to achieve a revenue requirement objective, rather than an intentional balancing of multiple objectives.

The point is that, if the "standard-rate-with-riders" method of reflecting voltage level differences in rate schedules is adopted, this dramatic change in the value of customer transformer ownership would not happen by accident.

Q. What do you mean by the statement: *The implementation of the proposed rate structure changes to L&P customers may not send the price signal to customers that Aquila intends*?

A. Changes to rate structure always create "winners" and "losers." I am concerned that the "losers" will be those customers with the more desirable load characteristics, and the "winners" will be those with less desirable load characteristics.

Consider the example of a low load factor (low energy usage, high "spiky" demands) customer on an L&P rate schedule with a facilities charge. The utility company must install distribution facilities that are "large" enough to serve the customer's maximum demand. The installed cost of facilities to serve this specific customer is the same whether the customer's high demand(s) occur in only one hour of the year or in every hour. This customer currently pays a facilities charge every month based upon its annual maximum demand. Under Aquila's proposal, the facilities charge is eliminated. Instead, the customer's bill would be based on a smaller demand value.

Not only will elimination of the facilities charge result in lowering the low load factor customer's bill, the lower the customer's load factor, the more of a "winner" the customer is. On the other hand, since rates are designed to recover total class costs from all customers within the class, if the low load factor customers are now paying less than their cost of distribution facilities, then other customers must be paying more. These desirable customers will be "losers" when the change occurs.

Aquila itself is also likely to be a "loser" because facilities charges are more stable sources of revenue than demand charges.

The point is that, if Aquila's intent is to improve the price signals sent to customers to encourage them to improve load factor, this rate structure change will have the opposite effect.

Q. What is your conclusion?

A. The Staff believes that implementing Aquila's proposed rate design, without extensive modifications to both the rate values and the rate structures, will amount to replacing the current MPS rate design and the current L&P rate design, neither of which is "broken", with one standardized "broken" design for both Aquila divisions.

Q. Does this conclude your testimony?

A. Yes, it does.