

EXECUTIVE SUMMARY
DIRECT TESTIMONY OF CHARLES R. GRAY
DOCKET NO. EO-2002-384

Section I: Introduction

This section provides the qualifications of the witness.

Section II: Proof of Revenue and Billing Determinants

This section provides the purpose of the testimony, a listing of the sponsored schedules, the purpose of each schedule, a description of the sources of the test year billing determinants, the conclusions reached after billing determinants were compiled and a presentation of billing determinants at proposed rate design structures. The appropriate billed revenues are accurately reflected in the test year billing determinants on the schedules provided.

Section III: Rate Design Philosophy

This section describes the process to determine the proposed rate values and changes in rate design proposed by Aquila, a summation of how the information and feedback Aquila received from the technical conferences was incorporated into the rate design process, a listing of rate schedules maintaining their current rate structure and description of the across the board percentage change proposal of those rate schedules. This section also describes Aquila's rate design philosophy which is the creation of fair, competitive, consistent, and flexible rates that satisfy customers' needs while recovering and reflecting costs and shows how its application leads to Aquila's proposal. Aquila recommends a simplification of rate structures, elimination of the Time Of Use tariffs for small customers, elimination of the base/seasonal billing concept for all but the largest MPS customers, a regrouping of customers of similar load and service levels on the same rate schedule and simplifying a number of others either by consolidating multiple existing tariffs, or changing the basic structure to make them easier for customers to understand, thereby facilitating their ability to respond to the price signals.

Section IV: L&P Rate Design

This section describes the changes to L&P rate schedules, discusses the proposed rate design changes, discusses potential Large General Service rate switching, discusses the proposal to eliminate Time of Use Service, School and Church Service and Limited Demand Electric Space Heating General Service rate schedules and the addition of a Short Term Service tariff.

Section V: MPS Rate Design

This section describes the addition of a Residential Service-Other Use for MPS similar to the current L&P Residential-Other Use tariff, describes the proposed simplification of the rate structure for Small General Service tariff, describes the reason behind the consolidation proposal of School and Church rate and Municipal Water Pumping and Lighting rate into a standard Small General Service rate, describes changes to the Large General Service tariff, discusses the reasons behind the proposed elimination of the base/seasonal billing concept for all but the largest customers, and describes the proposed elimination of Time of Use tariffs and consolidation of the Special Contract tariff into a standard Large Power Service tariff.

Exhibit No.:

Issues: Proof of Revenue,
Billing Determinants,
Rate Design

Witness: Charles R. Gray

Sponsoring Party: Aquila Networks – L&P
Aquila Networks – MPS

Case No.: EO-2002-384

Before the Public Service Commission
Of the State of Missouri

Direct Testimony

Of

Charles R. Gray

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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
DIRECT TESTIMONY OF CHARLES R. GRAY
ON BEHALF OF AQUILA INC.
DOCKET NO. EO-2002-384**

1 Q. Please state your name and business address.

2 A. My name is Charles R. Gray and my business address is 10700 East 350
3 Highway, Kansas City Missouri.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by Aquila, Inc. ("Aquila" or "Company") in the Regulatory
6 Services group as a Senior Regulatory Analyst.

7 Q. Please briefly describe your duties and responsibilities as a Senior Regulatory
8 Analyst for Aquila.

9 A. I am responsible for gathering, researching and analyzing accounting,
10 financial, statistical, customer billing data and other information. I also
11 prepare analyses, work papers and other supporting documents for various
12 filings with regulatory agencies and reports, both internal and external. I also
13 participate in the preparation of the cost of service study and relate cost of
14 service results to the development of product prices, rates and tariffs.

15 Q. Please state your educational background and professional experience.

16 A. I attended Central Missouri State University in Warrensburg Missouri, from
17 which I received a Bachelor of Science-Education Degree. I also attended
18 Longview Community College in Kansas City Missouri, from which I
19 received an Associates of Arts-Accounting Degree. In 1986 I began working

1 for Missouri Public Service, a division of Aquila, and held positions within
2 the Accounting department. My responsibilities included direct responsibility
3 for the monthly billing of Missouri Public Service's Large Volume billing
4 accounts, as well as preparation of financial and regulatory reports, monthly
5 Accounting journal entries and budgeting. In 1995 I joined Aquila's
6 Regulatory Department as a Rates Analyst. I was promoted to Senior Rates
7 Analyst in 2000, the position I currently hold.

8

9 **PROOF OF REVENUE AND BILLING DETERMINANTS**

10 Q. What is the purpose of your testimony in this proceeding before the Missouri
11 Public Service Commission ("Commission")?

12 A. The purpose of my testimony is to provide a proof of test year revenue on the
13 rate schedules in effect on December 31, 2002, the end of the test year in this
14 case, for Aquila Networks-Missouri Public Service ("MPS") and Aquila
15 Networks- Light and Power ("L&P"). I also will be providing the test year
16 billing determinants priced out on the proposed rates on the proposed rate
17 structures. I also will be introducing the new rate design concepts Aquila is
18 proposing in this proceeding. In addition, I will price out the test year billing
19 determinants on the proposed rate structure.

20 Q. Are you sponsoring any schedules?

21 A. Yes. I am sponsoring the MPS Billing Determinant Schedule CRG-1, L&P
22 Billing Determinant Schedule CRG-2, MPS Billing Determinant on Proposed

1 Structure Schedule CRG-3 and L&P Billing Determinant on Proposed

2 Structure Schedule CRG-4. .

3 Q. Please explain the purpose of Billing Determinant Schedule CRG-1.

4 A. The purpose of Schedule CRG-1 is to price out the MPS billing determinants

5 on existing rates for the test year ended December 2002 by rate ID. This

6 process is necessary for the proof of test year revenue on the existing rates.

7 The electric rate schedule revenue MPS receives is normally classified as

8 customer service charge, demand charge or energy charge. In addition to these

9 normal billing charges, electric revenues may also be generated by the

10 facilities kW charge, reactive demand adjustment, primary discount rider,

11 economic development rider, rate schedule minimum monthly charges, and

12 maintenance and facilities charges.

13 Q. Are there any billing charges excluded from Schedule CRG-1?

14 A. Yes. The revenue shown on Schedule CRG-1 does not include sales taxes,

15 franchise taxes or non-utility charges.

16 Q. Please explain how you derived the billing determinants shown on CRG-1?

17 A. I compiled the billing determinants by rate ID from a combination of

18 Customer Information System (CIS+) monthly billing system reports, monthly

19 amounts booked to the Aquila PeopleSoft accounting system and from a

20 download of individual customer billing records from CIS+ in a database

21 format. From these sources I crosschecked the billing information for

22 accuracy and reliability and grouped the appropriate rate ID's to the specific

23 rate schedule.

1 Q. Does the CIS+ Billing system assign only one rate ID number for each tariff
2 rate schedule?

3 A. No it does not. There can be multiple rate ID's within the CIS+ billing system
4 for a specific rate schedule. The rate ID's are used internally by the billing
5 system to designate the proper rate component values to apply to the billed
6 usage during the bill calculation process. As an example, L&P has a
7 Residential Service – General Use tariff schedule, but the tariff schedule has
8 two rate ID's associated with it. The Residential Service – General Use rate
9 sheet No. 18 uses rate ID MO910 for the regular residential service accounts
10 and MO911 for the Multiple Occupancy Residential accounts. In total, the
11 CIS+ billing system currently uses 27 rate ID's for metered electrical service
12 and another 38 rate ID's for the unmetered street lighting, security lighting and
13 private are lighting options available to MPS customers. The CIS+ billing
14 system currently uses 22 rate ID's for metered electrical service and another
15 39 rate ID's for the unmetered street lighting, security lighting and private are
16 lighting options available to L&P customers.

17 Q. Please discuss the format used on Schedule CRG-1.

18 A. The schedule lists separately each rate schedule by name and schedule
19 number. The summer billing period charges are used on bills inclusive of
20 June 1st to September 30th. The winter billing period charges are used on bills
21 inclusive of October 1st to May 31st. Charges may differ between the
22 summer/winter split or may remain constant during all months of the year.
23 The test year billing determinants are shown by season along with the

1 approved charge per unit and the total test year dollars billed by rate
2 component. The various components are summed and shown in total at the
3 end of each section. When the charge is stepped, the billing determinants are
4 shown for each step. For the unmetered street and area lighting schedules, the
5 schedule lists the unmetered usage billed and the revenue generated by
6 lighting schedule.

7 Q. Did your analysis of the test year billing determinants allow you to reach any
8 conclusions concerning billed revenue?

9 A. My analysis allows me to conclude that billed revenues are accurately
10 reflected in the test year billing determinants provided in Schedules CRG-1
11 and CRG-2.

12 Q. Please explain the purpose of the Schedule CRG-2.

13 A. The purpose of Schedule CRG-2 is to price out the L&P billing determinants
14 on existing rates for the test year ended December 2002 by rate ID. The
15 process to create the test year billing determinants for L&P was identical to
16 the process used for Schedule CRG-1

17 Q. Please explain the purpose of the Schedule CRG-3.

18 A. The purpose of Schedule CRG-3 is to price out the test year MPS billing
19 determinants on the proposed rate values and on the proposed rate design.
20 Schedule CRG-3 will prove that the proposed rate values and rate design will
21 allow Aquila to recover the proper revenue from each cost of service customer
22 class while maintaining overall revenue neutrality.

23 Q. Please explain the purpose of the Schedule CRG-4.

1 A. The purpose of Schedule CRG-4 is to price out the test year L&P billing
2 determinants on the proposed rate values and on the proposed rate design.
3 Schedule CRG-4 will prove that the proposed rate values and rate design will
4 allow Aquila to recover the proper revenue from each cost of service customer
5 class while maintaining overall revenue neutrality.

6

7 **RATE DESIGN**

8 Q. How are the proposed rate values and rate design decided upon?

9 A. We begin with a determination of the modifications in current rate structures
10 that are warranted and desired by the Company and/or its customers. When
11 this information is gathered, we incorporate changes into a fixed set of billing
12 determinants, in this proceeding, the billing determinants for the test year
13 ended December 31, 2002. We then adjust the current rate structures for each
14 rate ID into proposed rate structures for the customer classes. The cost of
15 service study presented by Aquila Witness David Stowe identifies the revenue
16 shifts between all cost of service customer classes. Within the cost of service
17 study results are the customer related, demand related and energy related costs
18 to be recovered from each customer class. We determined a proper rate value
19 for each of the billing components for each rate ID from the cost of service
20 study findings. Within the process of rate design, while maintaining revenue
21 neutrality, Aquila desires to ensure consistency in the electric rates across
22 various jurisdictions and compliance with a broad, Aquila rate design
23 philosophy.

1 Q. Generally speaking, what is Aquila's rate design philosophy?

2 A. Aquila's primary rate design principle is the creation of fair, competitive,
3 consistent, and flexible rates that satisfy customers' needs while recovering
4 and reflecting costs. However, the process of rate design is complex and
5 iterative, and involves various overlapping and sometimes conflicting factors.

6 Q. What are those factors?

7 A. They include, but are not limited to, the following: 1) collection of Aquila's
8 total revenue requirement, the required change in revenue and the allocation of
9 that change to each customer class, 2) recognition of the cost of service as
10 reflected by a cost of service study, as well as the cost of both existing and
11 future facilities to provide service, 3) the need to encourage optimum use of
12 supply facilities by promoting desirable and discouraging undesirable load
13 characteristics, 4) recognition of the value of service considering the nature
14 and level of competition and the degree of price sensitivity in each rate class,
15 5) avoidance of undue discrimination between customer classes and individual
16 customers within each class, 6) the history of rates, including trends in the
17 level of charges and stability of the rates, 7) rate structure and terms and
18 conditions of service which provide for simplicity of understanding,
19 acceptance by customers, ease of administration, and economy of billing, 8)
20 consideration of the rates and practices of other utilities having similar types
21 of load and service conditions, and 9) redesign of rates and services to reflect
22 industry movement.

1 Q. Please describe the process used to develop the proposed rate schedules in this
2 case.

3 A. The Company's Regulatory Services Department representatives met with
4 various employee groups within Aquila. In addition to the internal meetings
5 with Aquila employees, multiple meetings and technical conferences were
6 held with members of The Public Service Commission ("Staff"), members of
7 the Office of The Public Counsel ("OPC") and representatives of the Sedalia
8 Industrial Energy Users' Association ("SIEUA") and the Federal Executive
9 Agencies ("FEA"). From the discussions in those meetings, Regulatory
10 Services developed the proposed rate structures with the mission to satisfy
11 customer feedback to simplify the rates, to provide Aquila with an ease of
12 tariff administration, to consolidate rate schedules where appropriate, to
13 eliminate certain rate schedules, to regroup customers of similar load and
14 service level onto the same rate schedule, to eliminate the base/seasonal rate
15 design concept for MPS small general service and MPS large general service
16 customers, and finally to design rates that more adequately assign and allocate
17 the total costs of providing service to the various customer classes.

18 Q. Why has Aquila proposed these new rate design changes?

19 A. Aquila would like to simplify the rates wherever possible, as long as it does
20 not produce undue hardship and burden on customers. Many of the factors
21 that were used to determine the current rate design are no longer valid and/or
22 quantifiable.

23 Q. Is Aquila proposing to change every MPS rate ID rate structure?

- 1 A. No. Aquila has not proposed any rate structure changes for the following
- 2 MPS rate IDs:
- 3 Residential General Use rate MO860
- 4 Residential Electric Space Heating rate MO870
- 5 Thermal Energy Storage Pilot Program rate MO650
- 6 Real Time Pricing Program rate MO721, MO731, MO737
- 7 Large Power Service rate MO730 MO735
- 8 Lighting - Municipal Street Lighting Service
- 9 Lighting – Private Area Lighting Service
- 10 Lighting – Non-Standard Street and Area Light Facilities
- 11 Cogeneration Purchase Schedule rate MO700
- 12 Net Metering Rider rate MO865
- 13 Q. Is Aquila proposing to change every L&P rate ID rate structure?
- 14 A. No. Aquila has not proposed any rate structure changes for the following L&P
- 15 rate IDs:
- 16 Residential Other Use rate MO915
- 17 Residential Space Heating/Water Heating – Separate Meter rate MO922
- 18 Fixed Bill Pilot Program rate MO916
- 19 Large Power Service rate MO944
- 20 Lighting - Municipal Street Lighting Service
- 21 Lighting - Street Lighting and Traffic Signals Service MO972
- 22 Lighting – Private Area Lighting Service
- 23 Lighting – Outdoor Night Lighting MO971

1 Cogeneration Purchase Schedule rate MO700

2 Net Metering Rider rate MO965

3 Q. Does Aquila propose to change any rate values for the rate IDs listed above?

4 A. Aquila proposes an across the board percentage change to each rate
5 component for the rate IDs that are not structurally changing. The percentage
6 change is calculated from the cost of service study. The proposed rate
7 component values are each test year rate component value times the
8 percentage increase/decrease determined by the cost of service study. For
9 example, if the cost of service study determined that the MPS lighting
10 customer class warrants a 10% increase in revenue, each type of private area
11 lighting will receive a 10% increase in each rate component charge.

12

13 **L&P Rate Design**

14 Q. Please discuss the changes proposed to the L&P residential rates.

15 A. Currently, L&P offers the following residential rate schedules.

16 Residential Service - General Use

17 Residential Service – With Space Heating

18 Residential Service – With Electric Water Heating

19 Residential Service - Other Use

20 Residential Space Heating/Water Heating – Separate Meter

21 We are proposing merging the Residential Service – General Use and the
22 Residential Service – With Electric Water Heating. The reason behind this
23 consolidation deals with the difficulty of verifying a customer having a

1 permanently installed electric water heater. Most all of the water heaters are
2 located inside a home either in the basement, garage or utility room. The
3 location of the water heater makes it extremely difficult and time consuming
4 to validate that a customer does in fact have an electric water heater. The
5 proposed Residential Service – General Use would be a stepped rate with
6 seasonal winter/summer energy charges. The winter period declining block
7 energy charge proposed will allow L&P to encourage a customer to install an
8 electric water heater while eliminating the need for home access by Company
9 personnel to validate the presence of the electric water heater. This
10 consolidation is proposed to help ease tariff administration and consistency in
11 electric rates across the various Aquila jurisdictions. Both the proposed
12 Residential Service – General Use and the Residential Service –With Electric
13 Space Heat tariff will have an inverted stepped energy rate in the summer
14 period. I believe this rate design is appropriate to send the proper price signal
15 to customers during period of higher energy production costs. It also allows
16 Aquila to encourage optimum use of supply facilities by promoting desirable
17 and discouraging undesirable load characteristics as previously listed in
18 Aquila's rate design philosophy. We are proposing no rate structure change on
19 the Residential Service – Other Use tariff or the Residential Space
20 Heating/Water Heating – Separate Meter tariff.

21 Q. What rate design is proposed for Small General Service – Limited Demand
22 tariffs?

1 A. Aquila proposes a Small General Service – Limited Demand tariff for
2 customers whose actual demand is no greater than 30 kW or energy usage
3 greater than 5,400 kWh per month. The tariff would consist of a monthly
4 customer charge and a stepped energy charge. During winter billing months,
5 the energy charge is stepped at 1,000 kWh and priced with a declining energy
6 charge. During the summer billing months, the tariff would have 3 energy
7 blocks. The first block is for usage between 0 and 1,000 kWh. The second
8 block is for usage between 1,000 and 5,400 kWh. The last block is for usage is
9 excess of 5,400 kWh. This inverted rate design, where the unit charge for
10 energy increases as usage level increases, encourages optimum use of supply
11 facilities by promoting desirable and discouraging undesirable load
12 characteristics. Aquila also proposes to consolidate the General Service –
13 Limited Demand with Electric Space Heating tariff and the General Service –
14 Churches and Schools tariff into the Small General Service – Limited Demand
15 tariff. Currently all three tariffs are billed the identical charge for monthly
16 customer charge and seasonal energy charges. In keeping with our desire to
17 eliminate duplicate tariffs and ease tariff administration, this consolidation
18 will not affect the customers or the Company.

19 Q. What rate design is proposed for Small General Service – Demand tariffs?

20 A. Aquila proposes to consolidate The General Service – General Use tariff and
21 the General Service – With Electric Space Heating tariff. The tariff would
22 consist of a monthly customer charge, seasonal demand charge and a stepped
23 energy charge. The energy charge is stepped at the first 180 hours of use with

1 an excess block of any remaining kWh and priced with a lower energy charge.
2 This declining energy charge encourages the customer to control his kW
3 demand and increase his kWh usage (i.e. improve his load factor). The current
4 facilities charge has been eliminated and replaced with a monthly customer
5 charge and a monthly kW demand charge. This rate structure mirrors the MPS
6 Small General Service with Demand Meters tariff and accomplishes our desire
7 for common rate structures.

8 Q. What rate design is proposed for Large General Service tariff?

9 A. Aquila proposes a monthly customer charge, seasonally priced demand charge
10 and a stepped energy charge. The current facilities charge would be replaced
11 with a monthly customer charge. This rate structure mirrors the MPS Large
12 General Service tariff and accomplishes our desire for common rate structures.
13 The energy charge would incorporate a 3 step allocation of the kWh usage.
14 The first step would bill the first 180 hours of use. The second step would bill
15 the kWh from 180 hours through 360 hours of use. The third step would be for
16 any kWh usage in excess of 360 hours of use. The higher the load factor, more
17 kWh is billed at the cheaper energy rate. The 180 hours of use was chosen as
18 that level represents the normal business hours in an 8 to 5 PM workplace.
19 The second 180 hours of use typically reflects the addition of a second work
20 shift. The excess hours of use typically signifies a "graveyard" shift. We also
21 are proposing elimination of the Primary Discount Rider for Large General
22 Service customers and will offer a Large General Service- Primary Voltage
23 tariff for those current customers on Large General Service rate (MO940). The

1 reason behind this change is to make it simpler to identify the primary voltage
2 customers from the secondary voltage customers. Aquila uses different rate
3 IDs for its MPS secondary and primary customers and desires to do the same
4 for L&P customers. Both the Large General Service-Secondary Voltage and
5 Large General Service-Primary Voltage will have a 100 kW monthly
6 minimum billing demand and a 75% demand ratchet covering the previous 11
7 months.

8 Q. Will adopting the 100 kW minimum demand cause “rate switchers”?

9 A. Yes, many of the current Large General Service customers never register a
10 metered demand of 100 kW. Currently the L&P Large General Service tariff is
11 used by customers with a maximum demand of 20 kW to customers over
12 1,000 kW maximum demands. The range is too large and the customers too
13 dissimilar. Those smaller customers will be shifted to the Small General
14 Service – Demand tariff. This follows Aquila’s rate design philosophy to
15 regroup customers of similar load and service levels onto the same rate
16 schedule. It also would allow Aquila to align the L&P Large General Service
17 tariff with the MPS Large General Service tariff. This follows Aquila’s rate
18 design philosophy of consistency of rates throughout the state of Missouri.

19 Q. How many Large General Service rate switchers are anticipated by Aquila?

20 A. Aquila expects over 60% of the current Large General Service customers will
21 switch to the Small General Service – Demand tariff.

22 Q. Why is Aquila proposing elimination of the optional Time of Use Adjustment
23 Rider?

1 A. No customer has taken service under this rider for at least 4 years. The Aquila
2 cost of generation in our region does not, in our opinion, justify a large enough
3 differential between On and Off Peak periods to compel customers to change
4 their usage behavior. Time of Use rates have more value to the customer, as
5 well as the Company, when there is a wider range of prices between peak use
6 periods and off peak periods. As evidenced by the lack of L&P customer
7 participation in Time of Use rates, we propose eliminating the tariff. We will
8 continue the Large Power Service (MO944) structure as those customers
9 through their representatives, SIEUA and FEA, have expressed the desire to
10 keep the current Large Power Service tariff structure. This is another example
11 of Aquila's primary principle for rate design as the creation of fair,
12 competitive, consistent, and flexible rates that satisfy customers' needs while
13 recovering and reflecting costs.

14 Q. Please describe the proposed Small General Service Short Term tariff?

15 A. The purpose of the Short Term Service tariff is to allow L&P to easily identify
16 customer services that are of a temporary nature. These services would include
17 festivals, fairs, carnivals, circuses, seasonal fruit stands and other services on a
18 non-permanent nature. In addition, Short Term Service shall be supplied to
19 builders, contractors, or developers constructing residential or commercial
20 sites prior to occupancy and/or permanent meter set. The tariff would consist
21 of a monthly customer charge and a seasonal energy charge similar to Small
22 General Service without Demand billing.

23 Q. Does this conclude your direct testimony of the L&P rate design?

1 A. Yes, that covers our rate design for L&P.

2

3 **MPS Rate Design**

4 Q. What rate design is Aquila proposing for residential customers of MPS?

5 A. The only new residential rate design proposed for MPS is the addition of a
6 Residential – Other Use tariff. This rate will mirror the L&P Residential –
7 Other Use tariff in rate structure and availability. This rate will greatly reduce
8 the problem customers and Company employees have in determining what
9 rate an outbuilding at a residence should be billed. Customers have
10 complained that we are billing their separately metered detached garage on a
11 commercial rate, typically Small General Service rate ID MO710. The
12 customer believes that the metered service should be billed on a residential
13 rate like his house. If a customer is truly running a commercial business, a
14 wood shop or auto repair business for example, out of the detached building,
15 then we will continue to place the service on the Small General Service rate.
16 By offering a Residential – Other Use tariff that specifically describes the
17 appropriate types of buildings covered under the tariff, less confusion will be
18 experienced by both the customer and the Company. This will foster rate
19 acceptance by customers and ease of tariff administration.

20 Q. What changes are proposed for the Small General Service Without Demand
21 Billing rate schedule?

22 A. We are proposing to greatly simplify the tariff offered to non-residential
23 customers with low kWh usage and limited kW demands. The proposed rate

1 structure will have a monthly customer charge and a stepped kWh energy
2 charge. We propose to eliminate the base/seasonal billing concept to all Small
3 General Service rate schedules. In addition to simplifying the rate structure,
4 we also propose consolidating five frozen rate IDs into the Small General
5 Service – Without Demand Billing rate schedule. In keeping with our desire to
6 regroup customers of similar load and service level onto the same rate
7 schedule, the School and Church Service tariff (MO740 and MO745), the
8 Municipal Water Pumping and Special Street Lighting Service tariff (MO800)
9 and the Municipal Park and Recreation Service tariff (MO810 and MO811)
10 will be consolidated with the Small General Service non-demand billing tariff
11 (MO710). These five rates have been frozen to new customers since June 29,
12 1993. The largest School and Church accounts have migrated to other tariffs
13 over the years that resulted in actual dollar savings for the customers. The
14 remaining accounts still on these rates have very similar load and service
15 levels as the typical MO710 customer. They are the very low usage services.

16 Q. Why do away with the base/seasonal billing concept for Small General
17 Service and Large General Service tariffs?

18 A. While the Company still believes that the base/seasonal concept is an
19 excellent method of sending appropriate price signals to the customer, the
20 calculations and allocations of demand and energy are difficult for the less
21 sophisticated energy users to understand. Within the Company, some of our
22 customer service employees that do not work with the base/seasonal concept
23 on a day to day basis also have trouble understanding what the billing concept

1 is trying to accomplish. Aquila will continue to offer the base/seasonal
2 concept for the large usage customers taking service on the Large Power
3 Service tariff. The SIEUA and FEA representative voiced their desire to
4 maintain the base/seasonal concept for those accounts on Large Power Service
5 (MO730 and MO735). Aquila has taken customer feedback and incorporated
6 those wants and needs into the proposed rate designs.

7 Q. What changes are proposed for the Small General Service Demand billing rate
8 schedule?

9 A. Aquila proposes the elimination of the base/seasonal billing concept for Small
10 General Service with Demand meters at Secondary Voltage (MO711) and
11 Primary Voltage (MO716). We also propose elimination of the billing demand
12 calculation that compares the actual metered maximum demand with the
13 imputed demand value determined by dividing the monthly energy usage by
14 180 hours during billing periods when the customer's maximum demand does
15 not exceed 100 kW. We propose to bill the demand charge based on each
16 customer's actual metered maximum monthly demand. The proposed rate
17 structure is identical as the previously discussed L&P Small General Service –
18 Demand tariff. The tariff would consist of a monthly customer charge, a
19 seasonally priced demand charge and a stepped energy charge. The energy
20 charge is stepped at the first 180 hours of use with an excess block of any
21 remaining kWh and priced with a lower energy charge. This declining energy
22 charge encourages the customer to control his kW demand and increase his
23 kWh usage. Aquila also proposes to freeze the Small General Service-

1 Demand at Primary Voltage rate offering. During the test year only 6
2 customers took service at Primary Voltage. Recently the 3 largest customers
3 have migrated to Large General Service- Primary tariff (MO725). The
4 remaining customers have special security reasons for owning their own
5 transformers. Because of the lack of customer interest in a Small General
6 Service Demand at Primary Voltage service, we chose to freeze the tariff.

7 Q. What changes are proposed for the Large General Service rate schedule?

8 A. Aquila proposes the elimination of the base/seasonal billing concept for Large
9 General Service with Demand meters at Secondary Voltage (MO720) and
10 Primary Voltage (MO725). The proposed rate structure is identical to the
11 previously discussed L&P Large General Service – Demand tariff. Both the
12 Large General Service-Secondary Voltage and Large General Service-Primary
13 Voltage will maintain the 100 kW monthly minimum billing demand with a
14 75% demand ratchet covering the previous 11 months. Aquila proposes a
15 monthly customer charge, seasonally priced demand charge and a stepped
16 energy charge. The energy charge would incorporate a 3 step allocation of the
17 kWh usage. The first step would bill the first 180 hours of use. The second
18 step would bill the kWh from 180 hours through 360 hours of use. The third
19 step would be for any kWh usage in excess of 360 hours of use. The higher the
20 load factors, the more kWh are billed at the cheaper energy rate.

21 Q. Why is Aquila proposing elimination of the Residential Time of Use Service?

22 A. No residential customer has ever taken service under this tariff. The Aquila
23 cost of generation in our region does not, in our opinion, justify a large enough

1 differential between On and Off Peak periods to compel customers to change
2 their usage behavior. Time of Use rates have more value to the customer, as
3 well as the Company, when there is a wider range of prices between peak use
4 periods and off peak periods. As evidenced by the lack of MPS customer
5 participation in Time of Use rates, we propose eliminating the tariff.

6 Q. Why is Aquila proposing elimination of the General Service Time of Use
7 tariff?

8 A. No customers are taking service under this tariff. The last customer left the
9 time of use tariff and returned to a standard tariff on June 1, 2001. The Aquila
10 cost of generation in our region does not, in our opinion, justify a large enough
11 differential between On and Off Peak periods to compel customers to change
12 their usage behavior. Time of Use rates have more value to the customer, as
13 well as the Company, when there is a wider range of prices between peak use
14 periods and off peak periods. As evidenced by the lack of MPS customer
15 participation in Time of Use rates, we propose eliminating the tariff.

16 Q. What is Aquila proposing for the Modine Manufacturing Company tariff?

17 A. Aquila is proposing a consolidation of the Modine Manufacturing Co.
18 (MO919) tariff into the Large Power Service – Secondary Voltage (MO730)
19 tariff. The current rate structure for rate MO919 dates back to 1978. It only
20 incorporated a declining stepped energy rate. It lacks a monthly customer
21 charge or a demand charge component. Aquila does not support the idea of
22 customer specific tariffs, preferring the use of Special Contracts when unique
23 situations warrant. In keeping with our desire to offer fair and equitable tariffs

1 to all customers, the appropriate rate structure for this size of customer is one
2 that has a customer charge, demand charge and base/seasonal hours of use
3 energy charge. Aquila's cost of service study results along with the Staff and
4 SIEUA and FEA cost of service study results all indicate that the MO919 rate
5 does not generate an appropriate level of revenue to cover the allocated costs.
6 By consolidating the MO919 rate ID into the MO730 rate ID, the customer
7 will experience modest but justified increase in rates. Removal of this rate
8 schedule will also reduce the burdens of tariff administration on the Company.

9 Q. Does Aquila propose adding any new tariffs?

10 A. Yes, a Small General Service Short Term Service tariff.

11 Q. Please describe the proposed Small General Service Short Term tariff?

12 A. The purpose of the Short Term Service tariff is to allow MPS to easily identify
13 customer services that are of a temporary nature. These services would include
14 festivals, fairs, carnivals, circuses, seasonal fruit stands and other services on a
15 non-permanent nature. In addition, Short Term Service shall be supplied to
16 builders, contractors, or developers constructing residential or commercial
17 sites prior to occupancy and/or permanent meter set. The tariff would consist
18 of a monthly customer charge and a seasonal energy charge similar to Small
19 General Service without Demand billing.

20 Q. Does this conclude your direct testimony?

21 A. Yes.

22

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

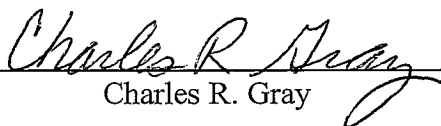
In the matter of an Examination of Class Cost of Service)
And Rate Design in the Missouri Jurisdictional Electric)
Service Operations of Aquila, Inc., formerly known as)
UtiliCorp United Inc.)

Case No. EO-2002-384

County of Jackson)
)
State of Missouri) ss

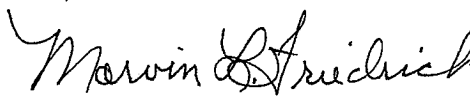
AFFIDAVIT OF CHARLES R. GRAY

Charles R. Gray, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Direct Testimony of Charles R. Gray;" that said testimony was prepared by him and under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.



Charles R. Gray

Subscribed and sworn to before me this 16TH day of SEPTEMBER, 2005.



Notary Public
MARVIN L. FRIEDRICH

My Commission expires:

March 10, 2007