

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

FILED²

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Missouri Public
Service Commission

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. 8
Case No(s) EO-2002-384
Date 11-07-05 Rptr KF

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) Case No. EO-2002-384
And Rate Design in the Missouri Jurisdictional Electric)
Service Operations of Aquila, Inc., formerly known as)
UtiliCorp United Inc.)

County of Jackson)
) ss
State of Missouri)

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
Charles R. Gray

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

Marvin L. Friedrich
Notary Public
MARVIN L. FRIEDRICH

My Commission expires:

March 10, 2007

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Residential General Use

Sheet No. 2

MO860

Customer Charge

Winter 10/1 to 5/31	Regular Use	1,161,843	\$	6.64	\$	7,714,635
Summer 6/1 to 9/30	Regular Use	581,198	\$	6.64	\$	3,859,154

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	566,986,477	\$	0.0693	\$	39,292,163
Winter 10/1 to 5/31	Excess Over 600 kWh	281,378,172	\$	0.0474	\$	13,337,325
Winter 10/1 to 5/31		-	\$	0.0474	\$	-
Summer 6/1 to 9/30	First 0-600 kWh	321,350,335	\$	0.0693	\$	22,269,578
Summer 6/1 to 9/30	Next 600-10000 kWh	169,075,990	\$	0.0713	\$	12,055,118
Summer 6/1 to 9/30	Excess Over 1000 kWh	297,851,511	\$	0.0749	\$	22,309,078
Total per Tariff Sheet		1,636,642,485			\$	120,837,052

Residential Electric Space Heating

Sheet No. 3

MO870

Customer Charge

Winter 10/1 to 5/31	Space Heating	317,821	\$	6.64	\$	2,110,329
Summer 6/1 to 9/30	Space Heating	160,272	\$	6.64	\$	1,064,205

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	177,571,626	\$	0.0693	\$	12,305,714
Winter 10/1 to 5/31	Next 600-1000 kWh	89,090,576	\$	0.0374	\$	3,331,988
Winter 10/1 to 5/31	Excess Over 1000 kWh	196,271,303	\$	0.0310	\$	6,084,410
Summer 6/1 to 9/30	First 0-600 kWh	89,688,112	\$	0.0693	\$	6,215,386
Summer 6/1 to 9/30	Next 600-10000 kWh	46,995,936	\$	0.0713	\$	3,350,810
Summer 6/1 to 9/30	Excess Over 1000 kWh	93,149,362	\$	0.0749	\$	6,976,887
Total per Tariff Sheet		692,766,915			\$	41,439,729

Small General Service - No Demand

Sheet No. 4

MO710

Customer Charge

Winter 10/1 to 5/31	Regular Use	106,797	\$	11.22	\$	1,198,260
Summer 6/1 to 9/30	Regular Use	51,741	\$	11.22	\$	580,534

Energy charge

Winter 10/1 to 5/31	Base Energy	50,419,888	\$	0.0689	\$	3,473,930
Winter 10/1 to 5/31	Seasonal Energy	27,480,337	\$	0.0267	\$	733,725
Summer 6/1 to 9/30	Base Energy	45,467,846	\$	0.0831	\$	3,778,378
Summer 6/1 to 9/30	Seasonal Energy	-	\$	0.0831	\$	-
Total per Tariff Sheet		123,368,071			\$	9,764,827

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Small General Service - Demand Secondary Service

Sheet No. 6

MO711

Customer Charge

Winter 10/1 to 5/31	Regular Use	95,464	\$	11.22	\$	1,071,106
Summer 6/1 to 9/30	Regular Use	49,909	\$	11.22	\$	559,983

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	939,001	\$	2.39	\$	2,244,212
Winter 10/1 to 5/31	Seasonal Billing Demand	663,969	\$	-	\$	-
Summer 6/1 to 9/30	Base Billing Demand	811,676	\$	3.22	\$	2,613,597
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	165,309,604	\$	0.0557	\$	9,207,745
Winter 10/1 to 5/31	Base Energy Next 180 hours	76,181,652	\$	0.0469	\$	3,572,919
Winter 10/1 to 5/31	Base Energy Over 360 hours	16,260,758	\$	0.0380	\$	617,909
Winter 10/1 to 5/31	Seasonal Energy First 180 h	97,700,103	\$	0.0267	\$	2,608,593
Winter 10/1 to 5/31	Seasonal Energy Next 180 h	-	\$	0.0267	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 h	-	\$	0.0267	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	140,221,582	\$	0.0652	\$	9,142,447
Summer 6/1 to 9/30	All Energy Next 180 hours	76,055,346	\$	0.0478	\$	3,635,446
Summer 6/1 to 9/30	All Energy Over 360 hours	19,056,603	\$	0.0380	\$	724,151
Total per Tariff Sheet		590,785,648			\$	35,998,108

Small General Service - Demand Primary Service

Sheet No. 6

MO716

Customer Charge

Winter 10/1 to 5/31	Regular Use	45	\$	11.22	\$	505
Summer 6/1 to 9/30	Regular Use	24	\$	11.22	\$	271

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	1,782	\$	1.35	\$	2,406
Winter 10/1 to 5/31	Seasonal Billing Demand	669	\$	-	\$	-
Summer 6/1 to 9/30	Base Billing Demand	1,325	\$	2.23	\$	2,955
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	322,898	\$	0.0543	\$	17,533
Winter 10/1 to 5/31	Base Energy Next 180 hours	228,234	\$	0.0457	\$	10,430
Winter 10/1 to 5/31	Base Energy Over 360 hours	9,970	\$	0.0371	\$	370
Winter 10/1 to 5/31	Seasonal Energy First 180 h	174,436	\$	0.0260	\$	4,535
Winter 10/1 to 5/31	Seasonal Energy Next 180 h	-	\$	0.0260	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 h	-	\$	0.0260	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	239,039	\$	0.0636	\$	15,203

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Summer 6/1 to 9/30	All Energy Next 180 hours	144,056	\$	0.0467	\$	6,727
Summer 6/1 to 9/30	All Energy Over 360 hours	4,446	\$	0.0371	\$	165
Total per Tariff Sheet		1,123,079				\$ 61,100

Large General Service - Demand Secondary Service

Sheet No. 9

MO720

Customer Charge

Winter 10/1 to 5/31	Regular Use	8,311	\$	43.70	\$	363,177
Summer 6/1 to 9/30	Regular Use	4,288	\$	43.70	\$	187,402

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	1,123,030	\$	2.24	\$	2,515,587
Winter 10/1 to 5/31	Seasonal Billing Demand	276,948	\$	-	\$	-
Summer 6/1 to 9/30	Base Billing Demand	810,744	\$	3.23	\$	2,618,703
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	-	\$	-

EDR discount

\$ (78,100)

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	179,720,905	\$	0.0445	\$	7,997,580
Winter 10/1 to 5/31	Base Energy Next 180 hours	126,617,260	\$	0.0374	\$	4,735,486
Winter 10/1 to 5/31	Base Energy Over 360 hours	41,730,008	\$	0.0355	\$	1,481,415
Winter 10/1 to 5/31	Seasonal Energy First 180 h	109,376,006	\$	0.0267	\$	2,920,339
Winter 10/1 to 5/31	Seasonal Energy Next 180 h	-	\$	0.0267	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 h	-	\$	0.0267	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	135,942,681	\$	0.0609	\$	8,278,909
Summer 6/1 to 9/30	All Energy Next 180 hours	104,409,570	\$	0.0445	\$	4,646,226
Summer 6/1 to 9/30	All Energy Over 360 hours	45,742,608	\$	0.0355	\$	1,623,863
Total per Tariff Sheet		743,539,038				\$ 37,290,588

Large General Service - Demand Primary Service

Sheet No. 10

MO725

Customer Charge

Winter 10/1 to 5/31	Regular Use	188	\$	43.70	\$	8,234
Summer 6/1 to 9/30	Regular Use	86	\$	43.70	\$	3,771

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	47,550	\$	1.35	\$	64,193
Winter 10/1 to 5/31	Seasonal Billing Demand	12,521	\$	-	\$	-
Summer 6/1 to 9/30	Base Billing Demand	44,660	\$	2.24	\$	100,038
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	8,031,373	\$	0.0435	\$	349,365
Winter 10/1 to 5/31	Base Energy Next 180 hours	6,088,914	\$	0.0366	\$	222,854
Winter 10/1 to 5/31	Base Energy Over 360 hours	1,084,348	\$	0.0346	\$	37,518

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Winter 10/1 to 5/31	Seasonal Energy First 180 hours	4,210,670	\$ 0.0260	\$ 109,477
Winter 10/1 to 5/31	Seasonal Energy Next 180 hours	-	\$ 0.0260	\$ -
Winter 10/1 to 5/31	Seasonal Energy Over 360 hours	-	\$ 0.0260	\$ -
Summer 6/1 to 9/30	All Energy First 180 hours	7,811,136	\$ 0.0593	\$ 463,200
Summer 6/1 to 9/30	All Energy Next 180 hours	4,101,716	\$ 0.0435	\$ 178,425
Summer 6/1 to 9/30	All Energy Over 360 hours	2,037,929	\$ 0.0346	\$ 70,512
Total per Tariff Sheet		33,366,086		\$ 1,607,588

Large Power Service - Demand Secondary Service
Sheet No. 12 MO730

Customer Charge

Winter 10/1 to 5/31	Regular Use	866	\$ 118.34	\$ 102,488
Summer 6/1 to 9/30	Regular Use	399	\$ 118.34	\$ 47,186

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	561,010	\$ 4.74	\$ 2,659,187
Winter 10/1 to 5/31	Seasonal Billing Demand	188,126	\$ -	\$ -
Summer 6/1 to 9/30	Base Billing Demand	395,508	\$ 6.48	\$ 2,562,892
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$ -	\$ -

EDR discount

\$ (890,163)

Reactive Demand Adjustment

\$ 22,970

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	96,822,036	\$ 0.0343	\$ 3,320,996
Winter 10/1 to 5/31	Base Energy Next 180 hours	92,243,474	\$ 0.0308	\$ 2,841,099
Winter 10/1 to 5/31	Base Energy Over 360 hours	65,461,251	\$ 0.0272	\$ 1,780,546
Winter 10/1 to 5/31	Seasonal Energy First 180 hours	85,884,669	\$ 0.0267	\$ 2,293,121
Winter 10/1 to 5/31	Seasonal Energy Next 180 hours	-	\$ 0.0267	\$ -
Winter 10/1 to 5/31	Seasonal Energy Over 360 hours	-	\$ 0.0267	\$ -
Summer 6/1 to 9/30	All Energy First 180 hours	69,977,390	\$ 0.0517	\$ 3,617,831
Summer 6/1 to 9/30	All Energy Next 180 hours	68,547,495	\$ 0.0340	\$ 2,330,615
Summer 6/1 to 9/30	All Energy Over 360 hours	59,106,238	\$ 0.0272	\$ 1,607,690
Total per Tariff Sheet		538,042,553		\$ 22,296,458

Large Power Service - Demand Primary Service
Sheet No. 13 MO735

Customer Charge

Winter 10/1 to 5/31	Regular Use	241	\$ 118.34	\$ 28,518
Summer 6/1 to 9/30	Regular Use	134	\$ 118.34	\$ 15,858

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	557,643	\$ 3.46	\$ 1,929,445
Winter 10/1 to 5/31	Seasonal Billing Demand	122,630	\$ -	\$ -
Summer 6/1 to 9/30	Base Billing Demand	403,904	\$ 5.40	\$ 2,181,082

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	-	\$	-
EDR discount					\$	(281,317)
Reactive Demand Adjustment					\$	57,524

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	98,759,733	\$	0.0335	\$	3,308,451
Winter 10/1 to 5/31	Base Energy Next 180 hours	98,296,724	\$	0.0300	\$	2,948,902
Winter 10/1 to 5/31	Base Energy Over 360 hours	86,416,085	\$	0.0266	\$	2,298,668
Winter 10/1 to 5/31	Seasonal Energy First 180 h	65,754,952	\$	0.0260	\$	1,709,629
Winter 10/1 to 5/31	Seasonal Energy Next 180 h	-	\$	0.0260	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 h	-	\$	0.0260	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	72,555,660	\$	0.0505	\$	3,664,061
Summer 6/1 to 9/30	All Energy Next 180 hours	71,902,078	\$	0.0330	\$	2,372,769
Summer 6/1 to 9/30	All Energy Over 360 hours	66,214,813	\$	0.0266	\$	1,761,314
Total per Tariff Sheet		559,900,045			\$	21,994,901

School and Church Service - No Demand Secondary Service

Sheet No. 16 MO740

Customer Charge

Winter 10/1 to 5/31	Regular Use	8,037	\$	11.44	\$	91,946
Summer 6/1 to 9/30	Regular Use	3,933	\$	11.44	\$	44,997

Energy charge

Winter 10/1 to 5/31	Base Energy	23,533,039	\$	0.0609	\$	1,433,162
Winter 10/1 to 5/31	Seasonal Energy	10,633,395	\$	0.0313	\$	332,825
Summer 6/1 to 9/30	Base Energy	21,372,191	\$	0.0734	\$	1,568,719
Summer 6/1 to 9/30	Seasonal Energy	-	\$	0.0734	\$	-
Total per Tariff Sheet		55,538,625			\$	3,471,649

School and Church Service - No Demand Primary Service

Sheet No. 17 MO745

Customer Charge

Winter 10/1 to 5/31	Regular Use	8	\$	11.44	\$	92
Summer 6/1 to 9/30	Regular Use	4	\$	11.44	\$	46

Energy charge

Winter 10/1 to 5/31	Base Energy	72,463	\$	0.0594	\$	4,304
Winter 10/1 to 5/31	Seasonal Energy	59,857	\$	0.0305	\$	1,826
Summer 6/1 to 9/30	Base Energy	63,200	\$	0.0715	\$	4,519
Summer 6/1 to 9/30	Seasonal Energy	-	\$	0.0715	\$	-
Total per Tariff Sheet		195,520			\$	10,786

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Special Contract - Modine Mfg.**Sheet No. 34**

MO919

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	First 1,000 kWh used	16,000	\$	0.0618	\$	989
Winter 10/1 to 5/31	Next 2,000 kWh used	32,000	\$	0.0551	\$	1,763
Winter 10/1 to 5/31	Next 7,000 kWh used	112,000	\$	0.0486	\$	5,443
Winter 10/1 to 5/31	Next 40,000 kWh used	640,000	\$	0.0424	\$	27,136
Winter 10/1 to 5/31	Over 50,000 kWh used	3,209,010	\$	0.0389	\$	124,830
Summer 6/1 to 9/30	First 1,000 kWh used	8,000	\$	0.0618	\$	494
Summer 6/1 to 9/30	Next 2,000 kWh used	16,000	\$	0.0551	\$	882
Summer 6/1 to 9/30	Next 7,000 kWh used	56,000	\$	0.0486	\$	2,722
Summer 6/1 to 9/30	Next 40,000 kWh used	320,000	\$	0.0424	\$	13,568
Summer 6/1 to 9/30	Over 50,000 kWh used	1,722,117	\$	0.0389	\$	66,990
Total per Tariff Sheet		6,131,127			\$	244,818

Special Contract -**Sheet No. 69**

MO950

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Reactive Demand Adjustment

\$ -

Energy charge

Winter 10/1 to 5/31	-	\$	-	\$	-
Summer 6/1 to 9/30	-	\$	-	\$	-

Total per Tariff Sheet**\$ -****Residential Service Time-of-Day****Sheet No. 19**

MO600

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	11.76	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	11.76	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	0.0812	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	0.0324	\$	-
Summer 6/1 to 9/30	Peak	-	\$	0.1265	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	0.0703	\$	-

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Summer 6/1 to 9/30	Off-Peak	-	\$ 0.0422	\$ -
Total per Tariff Sheet		-		\$ -

General Service Single Phase Time-of-Day
Sheet No. 21 MO610

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$ 15.80	\$ -
Summer 6/1 to 9/30	Regular Use	-	\$ 15.80	\$ -

Energy charge

Winter 10/1 to 5/31	Peak	-	\$ 0.0858	\$ -
Winter 10/1 to 5/31	Off-Peak	-	\$ 0.0343	\$ -
Summer 6/1 to 9/30	Peak	-	\$ 0.1323	\$ -
Summer 6/1 to 9/30	Shoulder	-	\$ 0.0735	\$ -
Summer 6/1 to 9/30	Off-Peak	-	\$ 0.0441	\$ -
Total per Tariff Sheet		-		\$ -

General Service Single Phase with Demand Charge Time-of-Day
Sheet No. 22 MO620

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$ 15.80	\$ -
Summer 6/1 to 9/30	Regular Use	-	\$ 15.80	\$ -

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$ -	\$ -
Summer 6/1 to 9/30	Peak Billing Demand	-	\$ 6.76	\$ -

Energy charge

Winter 10/1 to 5/31	Peak	-	\$ 0.0674	\$ -
Winter 10/1 to 5/31	Off-Peak	-	\$ 0.0270	\$ -
Summer 6/1 to 9/30	Peak	-	\$ 0.0809	\$ -
Summer 6/1 to 9/30	Shoulder	-	\$ 0.0449	\$ -
Summer 6/1 to 9/30	Off-Peak	-	\$ 0.0270	\$ -
Total per Tariff Sheet		-		\$ -

General Service 3 Phase with Secondary Voltage Time-of-Day
Sheet No. 22 MO630

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$ 52.89	\$ -
Summer 6/1 to 9/30	Regular Use	-	\$ 52.89	\$ -

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak Billing Demand	-	\$	6.76	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	0.0674	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	0.0270	\$	-
Summer 6/1 to 9/30	Peak	-	\$	0.0809	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	0.0449	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	0.0270	\$	-

Total per Tariff Sheet**\$ -****General Service 3 Phase with Primary Voltage Time-of-Day****Sheet No. 23**

MO640

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	52.89	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	52.89	\$	-

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak Billing Demand	-	\$	4.61	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	0.0657	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	0.0263	\$	-
Summer 6/1 to 9/30	Peak	-	\$	0.0788	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	0.0438	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	0.0263	\$	-

Total per Tariff Sheet**\$ -****Thermal Energy Storage Pilot Program -Secondary Voltage Time-of-Day****Sheet No. 37**

MO650

Customer Charge

Winter 10/1 to 5/31	Regular Use	7	\$	127.52	\$	893
Summer 6/1 to 9/30	Regular Use	4	\$	127.52	\$	510

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	8,877	\$	4.74	\$	42,077
Summer 6/1 to 9/30	Peak Billing Demand	5,788	\$	6.48	\$	37,506

Energy charge

Winter 10/1 to 5/31	Peak	1,879,060	\$	0.0289	\$	54,305
Winter 10/1 to 5/31	Off-Peak	1,523,802	\$	0.0260	\$	39,619
Summer 6/1 to 9/30	Peak	827,074	\$	0.0515	\$	42,594
Summer 6/1 to 9/30	Shoulder	1,418,143	\$	0.0289	\$	40,984

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Summer 6/1 to 9/30	Off-Peak	705,658	\$	0.0260	\$	18,347	
Total per Tariff Sheet		6,353,737				\$	276,835

Real Time Pricing for MO720

Sheet No. 65 MO721

Customer Charge

Winter 10/1 to 5/31	Regular Use	6	\$	-	\$	1,341	
Summer 6/1 to 9/30	Regular Use	4	\$	-	\$	882	

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	580	\$	-	\$	263	
Summer 6/1 to 9/30	Peak Billing Demand	672	\$	-	\$	1,637	

Energy charge

Winter 10/1 to 5/31	kWh Usage	1,569,970	\$	-	\$	58,872	
Summer 6/1 to 9/30	kWh Usage	1,653,459	\$	-	\$	70,492	
Total per Tariff Sheet		3,223,429				\$	133,488

Real Time Pricing for MO730

Sheet No. 65 MO731

Customer Charge

Winter 10/1 to 5/31	Regular Use	19	\$	-	\$	4,063	
Summer 6/1 to 9/30	Regular Use	6	\$	-	\$	1,331	

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-	
Summer 6/1 to 9/30	Peak Billing Demand	-	\$	-	\$	-	

Energy charge

Winter 10/1 to 5/31	kWh Usage	8,890,303	\$	-	\$	457,171	
Summer 6/1 to 9/30	kWh Usage	11,591,523	\$	-	\$	532,516	
Total per Tariff Sheet		20,481,826				\$	995,082

Real Time Pricing for MO735

Sheet No. 65 MO737

Customer Charge

Winter 10/1 to 5/31	Regular Use	27	\$	-	\$	6,051	
Summer 6/1 to 9/30	Regular Use	9	\$	-	\$	1,957	

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-	
Summer 6/1 to 9/30	Peak Billing Demand	-	\$	-	\$	-	

Schedule CRG-1

Case No. EO-2002-384

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Energy charge

Winter 10/1 to 5/31	kWh Usage	31,344,774	\$	-	\$	1,343,501
Summer 6/1 to 9/30	kWh Usage	24,829,878	\$	-	\$	1,179,974
Total per Tariff Sheet		56,174,652				\$ 2,531,484

Municipal Water Pumping and Special Street Lighting Service

Sheet No. 24 MO800

Customer Charge

Winter 10/1 to 5/31	Regular Use	1,618	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	806	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	First 150 kWh used	143,858	\$	8.84	\$	14,303
Winter 10/1 to 5/31	Excess kWh	5,352,920	\$	0.05870	\$	314,216
Summer 6/1 to 9/30	First 150 kWh used	64,678	\$	8.84	\$	7,125
Summer 6/1 to 9/30	Excess kWh	2,805,214	\$	0.05870	\$	164,666
Total per Tariff Sheet		8,366,670				\$ 500,311

Municipal Park And Recreation Service - Single Phase

Sheet No. 25 MO810

Customer Charge

Winter 10/1 to 5/31	Regular Use	1,265	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Minimum Bill charges

\$ 5,261

Energy charge

Winter 10/1 to 5/31	All kWh used	1,329,222	\$	0.07460	\$	99,160
Summer 6/1 to 9/30	All kWh used	1,330,821	\$	0.07460	\$	99,279
Total per Tariff Sheet		2,660,043				\$ 203,700

Municipal Park And Recreation Service - 3 Phase

Sheet No. 25 MO811

Customer Charge

Winter 10/1 to 5/31	Regular Use	735	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Minimum Bill charges

\$ 6,032

Energy charge

Schedule CRG-1

Case No. EO-2002-384

Missouri Public Service Billing Determinants by Tariff Sheet for the Year 2002

Winter 10/1 to 5/31	All kWh used	1,637,953	\$ 0.07460	\$	122,191
Summer 6/1 to 9/30	All kWh used	1,074,157	\$ 0.07460	\$	80,132
Total per Tariff Sheet		2,712,110			\$ 208,355

Street and Private Area Lighting

MONxx

Number of Services

Winter 10/1 to 5/31	-
Summer 6/1 to 9/30	-

Energy charge

Winter 10/1 to 5/31	Regular Use	28,282,914	\$	3,784,132
Summer 6/1 to 9/30	Regular Use	13,737,505	\$	1,250,798
Total per Tariff Sheet		42,020,419		\$ 5,034,930

Green Power**99-GP****Customer Charge**

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Regular Use	-	\$	5.00	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	5.00	\$	-
Total per Tariff Sheet		-				\$ -

Interdepartmental Service

MO888

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Minimum Bill charges

\$ -

Energy charge

Winter 10/1 to 5/31	Regular Use	-	\$	0.02650	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	0.02650	\$	-
Total per Tariff Sheet		-				\$ -

TOTAL RATES

5,123,392,078 kWh

\$ 304,901,787

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Residential General Use

Sheet No. 6 MO910

Customer Charge

Winter 10/1 to 5/31	Regular Use	263,007	\$	5.59	\$	1,470,209
Summer 6/1 to 9/30	Regular Use	131,720	\$	5.59	\$	736,317

Energy charge

Winter 10/1 to 5/31	First 0-650 kWh	124,201,380	\$	0.0570	\$	7,079,479
Winter 10/1 to 5/31	Excess Over 650 kWh	42,170,989	\$	0.0420	\$	1,771,182
Summer 6/1 to 9/30	All kWh	153,748,437	\$	0.0640	\$	9,839,900

Total per Tariff Sheet**320,120,806****\$ 20,897,086****Residential General Use-Multiple Occupancy Bldg.**

Sheet No. 6 MO911

Customer Charge

Winter 10/1 to 5/31	Regular Use	4,259	\$	5.59	\$	23,807
Summer 6/1 to 9/30	Regular Use	2,124	\$	5.59	\$	11,875

Energy charge

Winter 10/1 to 5/31	First 0-650 kWh	1,410,705	\$	0.0570	\$	80,410
Winter 10/1 to 5/31	Excess Over 650 kWh	45,577	\$	0.0420	\$	1,914
Summer 6/1 to 9/30	All kWh	1,198,627	\$	0.0640	\$	76,712

Total per Tariff Sheet**2,654,909****\$ 194,719****Residential Service - with Electric Space Heating**

Sheet No. 8 MO920

Customer Charge

Winter 10/1 to 5/31	Regular Use	108,710	\$	5.59	\$	607,691
Summer 6/1 to 9/30	Regular Use	54,543	\$	5.59	\$	304,897

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	94,601,337	\$	0.0420	\$	3,973,256
Winter 10/1 to 5/31	Excess Over 1000 kWh	103,045,784	\$	0.0300	\$	3,091,374
Summer 6/1 to 9/30	All kWh	77,656,243	\$	0.0640	\$	4,970,000

Total per Tariff Sheet**275,303,364****\$ 12,947,217****Residential General Use with Electric Space Heating-Multiple Occupancy Bldg.**

Sheet No. 6 MO921

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Customer Charge

Winter 10/1 to 5/31	Regular Use	5,709	\$	5.59	\$	31,915
Summer 6/1 to 9/30	Regular Use	2,770	\$	5.59	\$	15,484

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	4,625,493	\$	0.0420	\$	194,271
Winter 10/1 to 5/31	Excess Over 1000 kWh	620,633	\$	0.0300	\$	18,619
Summer 6/1 to 9/30	All kWh	1,941,490	\$	0.0640	\$	124,255
Total per Tariff Sheet		7,187,616			\$	384,545

Residential Service - with Electric Water Heating

Sheet No. 10 MO913

Customer Charge

Winter 10/1 to 5/31	Regular Use	56,650	\$	5.59	\$	316,672
Summer 6/1 to 9/30	Regular Use	28,353	\$	5.59	\$	158,495

Energy charge

Winter 10/1 to 5/31	First 0-650 kWh	31,223,286	\$	0.0530	\$	1,654,834
Winter 10/1 to 5/31	Excess Over 650 kWh	21,923,512	\$	0.0350	\$	767,323
Summer 6/1 to 9/30	All kWh	36,691,754	\$	0.0640	\$	2,348,272
Total per Tariff Sheet		89,838,552			\$	5,245,596

Residential Service - with Electric Water Heating - Multi Occupancy Bldg.

Sheet No. 10 MO914

Customer Charge

Winter 10/1 to 5/31	Regular Use	88	\$	5.59	\$	492
Summer 6/1 to 9/30	Regular Use	44	\$	5.59	\$	246

Energy charge

Winter 10/1 to 5/31	First 0-650 kWh	51,799	\$	0.0530	\$	2,745
Winter 10/1 to 5/31	Excess Over 650 kWh	7,688	\$	0.0350	\$	269
Summer 6/1 to 9/30	All kWh	42,905	\$	0.0640	\$	2,746
Total per Tariff Sheet		102,392			\$	6,498

Residential Service - Other Use

Sheet No. 11.2 MO915

Customer Charge

Winter 10/1 to 5/31	Regular Use	11,980	\$	6.11	\$	73,196
Summer 6/1 to 9/30	Regular Use	6,027	\$	6.11	\$	36,822

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Energy charge

Winter 10/1 to 5/31	All kWh	3,006,190	\$	0.0680	\$	204,421
Summer 6/1 to 9/30	All kWh	1,742,501	\$	0.0930	\$	162,053
Total per Tariff Sheet		4,748,691			\$	476,492

Residential Service - Separate Meter - Space Heating/Water Heating

Sheet No. 29

MO922

Customer Charge

Winter 10/1 to 5/31	Regular Use	815	\$	2.95	\$	2,405
Summer 6/1 to 9/30	Regular Use	409	\$	2.95	\$	1,207

Energy charge

Winter 10/1 to 5/31	All kWh	370,441	\$	0.0350	\$	12,965
Summer 6/1 to 9/30	All kWh	140,099	\$	0.0650	\$	9,106
Total per Tariff Sheet		510,540			\$	25,684

General Service - Limited Demand

Sheet No. 12

NO930

Customer Charge

Winter 10/1 to 5/31	Regular Use	25,540	\$	11.25	\$	287,328
Summer 6/1 to 9/30	Regular Use	12,808	\$	11.25	\$	144,085

Energy charge

Winter 10/1 to 5/31	All kWh	15,513,602	\$	0.0620	\$	961,843
Summer 6/1 to 9/30	All kWh	7,966,437	\$	0.0860	\$	685,114
Total per Tariff Sheet		23,480,039			\$	2,078,370

General Service - General Use

Sheet No. 13

MO931

Facilities kW Charge

Winter 10/1 to 5/31	First 10 Facilities kW	11,225	\$	23.46	\$	263,339
Winter 10/1 to 5/31	All over 10 kW Facilities kW	107,539	\$	1.71	\$	183,892
Summer 6/1 to 9/30	First 10 Facilities kW	5,629	\$	23.46	\$	132,056
Summer 6/1 to 9/30	All over 10 kW Facilities kW	51,539	\$	1.71	\$	88,132

Energy charge

Winter 10/1 to 5/31	First 150 kWh's per Actual kW	16,996,801	\$	0.0490	\$	832,843
Winter 10/1 to 5/31	Excess kWh's	8,733,527	\$	0.0380	\$	331,874
Summer 6/1 to 9/30	First 150 kWh's per Actual kW	10,614,246	\$	0.0720	\$	764,226
Summer 6/1 to 9/30	Excess kWh's	7,817,611	\$	0.0530	\$	414,333

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Total per Tariff Sheet

44,162,185\$ 3,010,695**General Service - Limited Demand with Electric Space Heating**
Sheet No. 14 MO932**Service Charge for each bill**

Winter 10/1 to 5/31	Regular Use	2,204	\$	11.25	\$	24,794
Summer 6/1 to 9/30	Regular Use	1,102	\$	11.25	\$	12,400

Energy charge

Winter 10/1 to 5/31	All kWh	2,904,663	\$	0.0620	\$	180,089
Summer 6/1 to 9/30	All kWh	1,237,446	\$	0.0860	\$	106,420

Total per Tariff Sheet

4,142,109\$ 323,703**General Service - With Electric Space Heating**
Sheet No. 15 MO933**Facilities kW Charge**

Winter 10/1 to 5/31	First 3 Facilities kW	4,778	\$	11.25	\$	53,753
Winter 10/1 to 5/31	All over 3 kW Facilities kW	76,727	\$	1.53	\$	117,392
Summer 6/1 to 9/30	First 3 Facilities kW	2,424	\$	11.25	\$	27,268
Summer 6/1 to 9/30	All over 3 kW Facilities kW	37,616	\$	1.53	\$	57,552

Energy charge

Winter 10/1 to 5/31	First 150 kWh's per Actual kW	8,673,363	\$	0.0490	\$	424,995
Winter 10/1 to 5/31	Excess kWh's	4,774,652	\$	0.0290	\$	138,465
Summer 6/1 to 9/30	First 150 kWh's per Actual kW	3,892,291	\$	0.0720	\$	280,245
Summer 6/1 to 9/30	Excess kWh's	2,915,611	\$	0.0530	\$	154,527

Total per Tariff Sheet

20,255,917\$ 1,254,197**General Service - School and Church Service**
Sheet No. 18 MO934**Customer Charge**

Winter 10/1 to 5/31	Regular Use	2,491	\$	11.25	\$	28,023
Summer 6/1 to 9/30	Regular Use	1,253	\$	11.25	\$	14,098

Energy charge

Winter 10/1 to 5/31	All kWh	2,864,723	\$	0.0620	\$	177,613
Summer 6/1 to 9/30	All kWh	2,438,116	\$	0.0860	\$	209,678

Total per Tariff Sheet

5,302,839\$ 429,412

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Large General Service (40 kW mininum)

Sheet No. 19

MO940

Facilities kW Charge

Winter 10/1 to 5/31	First 40 Facilities kW	8,648	\$	75.86	\$	656,037
Winter 10/1 to 5/31	All over 40 kW Facilities kW	710,852	\$	1.02	\$	725,069
Summer 6/1 to 9/30	First 40 Facilities kW	4,337	\$	75.86	\$	329,005
Summer 6/1 to 9/30	All over 40 kW Facilities kW	326,020	\$	1.02	\$	332,540

Demand charge

Winter 10/1 to 5/31	kW < Prev Summer Peak kW	749,140	\$	1.23	\$	921,442
Winter 10/1 to 5/31	Each kW > Prev Summer Peak	68,712	\$	0.20	\$	13,742
Summer 6/1 to 9/30	All kW of Billing Demand	419,511	\$	2.60	\$	1,090,729

Primary Discount Rider

\$ (6,588)

EDR Credit

\$ (15,050)

Misc Fees

\$ 58,766

Curtailment Credit

\$ (4,752)

Energy charge

Winter 10/1 to 5/31	First 200 kWh's per Actual kW	139,614,008	\$	0.0340	\$	4,746,876
Winter 10/1 to 5/31	Excess kWh's	86,563,165	\$	0.0290	\$	2,510,332
Summer 6/1 to 9/30	First 200 kWh's per Actual kW	75,927,978	\$	0.0490	\$	3,720,471
Summer 6/1 to 9/30	Excess kWh's	60,603,540	\$	0.0330	\$	1,999,917

Total per Tariff Sheet362,708,691\$ 17,078,537**Large Power Service (500 kW minimum)**

Sheet No. 21

MO944

Facilities kW Charge

Winter 10/1 to 5/31	First 500 Facilities kW	448	\$	640.86	\$	287,105
Winter 10/1 to 5/31	All over 500 kW Facilities kW	742,530	\$	1.00	\$	742,530
Summer 6/1 to 9/30	First 500 Facilities kW	228	\$	640.86	\$	146,116
Summer 6/1 to 9/30	All over 500 kW Facilities kW	363,225	\$	1.00	\$	363,225

Demand charge

Winter 10/1 to 5/31	kW < Prev Summer Peak kW	774,267	\$	3.13	\$	2,423,456
Winter 10/1 to 5/31	Each kW > Prev Summer Peak	40,441	\$	0.20	\$	8,088
Summer 6/1 to 9/30	All kW of Billing Demand	434,071	\$	7.34	\$	3,186,081

Primary Discount Rider

- \$ (0.56) \$ (126,859)

EDR Credit

\$ (539,953)

Misc Fees

\$ 26,694

Curtailment Credit

\$ (11,880)

Energy charge

Winter 10/1 to 5/31	For each "on-peak" kWh's	192,286,264	\$	0.0280	\$	5,384,015
Winter 10/1 to 5/31	For each "off-peak" kWh's	201,702,919	\$	0.0210	\$	4,235,761
Summer 6/1 to 9/30	For each "on-peak" kWh's	87,808,718	\$	0.0340	\$	2,985,496
Summer 6/1 to 9/30	For each "off-peak" kWh's	131,832,184	\$	0.0240	\$	3,163,972

Total per Tariff Sheet613,630,085\$ 22,273,849

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Non-Residential Service - Separate Meter -Space Heating/Water Heating
Sheet No. 30 MO941
Service Charge for each bill

Winter 10/1 to 5/31	Regular Use	875	\$	5.78	\$	5,057
Summer 6/1 to 9/30	Regular Use	439	\$	5.78	\$	2,535

Energy charge

Winter 10/1 to 5/31	All kWh	2,121,346	\$	0.0350	\$	74,247
Summer 6/1 to 9/30	All kWh	679,748	\$	0.0860	\$	58,458
Total per Tariff Sheet		2,801,094			\$	140,298

Private Area Lighting
Sheet No.
Number of Services

Winter 10/1 to 5/31	-
Summer 6/1 to 9/30	-

Energy charge

Winter 10/1 to 5/31	Regular Use	14,380,951			\$	1,549,855
Summer 6/1 to 9/30	Regular Use	4,788,501			\$	518,453
Total per Tariff Sheet		19,169,452			\$	2,068,308

Outdoor Night Lighting
Sheet No. 28.1 MO971
Service Charge for each bill

Each Bill	Regular Use	565	\$	4.00	\$	2,259
Each Bill	Regular Use	-	\$	4.00	\$	-

Energy charge

Winter 10/1 to 5/31	All kWh	203,576	\$	0.0660	\$	13,436
Summer 6/1 to 9/30	All kWh	218,359	\$	0.0660	\$	14,412
Total per Tariff Sheet		421,935			\$	30,107

Private Area Lighting
Sheet No. 27 MO972
Number of Services

Light and Power Billing Determinants by Tariff Sheet for the Year 2002

Each Bill	Secondary meter base install, per n	71,747		\$	767
Each Bill	Meter Installation with CT's, per me	-			
Misc Fees				\$	1,476
Energy charge					
Winter 10/1 to 5/31	Regular Use	614,820	\$	0.0340	\$ 20,904
Summer 6/1 to 9/30	Regular Use	253,208	\$	0.0340	\$ 8,609
Total per Tariff Sheet		868,028			\$ 31,756

Street Lighting & Traffic Signals

Sheet No. 25.2 MO973

Service Charge for each bill

Each Month	Secondary meter base install, per n	260	\$	1.71	\$ 445
Each Month	Meter Installation with CT's, per me	-	\$	2.95	\$ -

Energy charge

Winter 10/1 to 5/31	All kWh	428,207	\$	0.0410	\$ 17,556
Summer 6/1 to 9/30	All kWh	206,907	\$	0.0410	\$ 8,483
Total per Tariff Sheet		635,114			\$ 26,485

1,798,044,358 kWh**\$ 88,923,554**

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MPS Billing Determinants on Proposed Rate Design for the TY 2002

Residential General Use

Sheet No. 2

MO860

Customer Charge

Winter 10/1 to 5/31	Regular Use	1,169,205	\$	18.00	\$	21,045,690
Summer 6/1 to 9/30	Regular Use	584,881	\$	18.00	\$	10,527,858

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	568,106,433	\$	0.0650	\$	36,926,918
Winter 10/1 to 5/31	Excess Over 600 kWh	280,204,824	\$	0.0600	\$	16,812,289
Winter 10/1 to 5/31		-	\$	0.0600	\$	-
Summer 6/1 to 9/30	First 0-600 kWh	318,849,387	\$	0.0650	\$	20,725,210
Summer 6/1 to 9/30	Next 600-10000 kWh	163,094,057	\$	0.0700	\$	11,416,584
Summer 6/1 to 9/30	Excess Over 1000 kWh	240,857,596	\$	0.0741	\$	17,847,548
Total per Tariff Sheet		1,571,112,297			\$	135,302,098

Residential Electric Space Heating

Sheet No. 3

MO870

Customer Charge

Winter 10/1 to 5/31	Space Heating	335,353	\$	18.00	\$	6,036,354
Summer 6/1 to 9/30	Space Heating	169,113	\$	18.00	\$	3,044,034

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	279,649,647	\$	0.0500	\$	13,982,482
Winter 10/1 to 5/31	Next 600-1000 kWh	78,503,615	\$	0.0417	\$	3,273,601
Winter 10/1 to 5/31	Excess Over 1000 kWh	147,475,700	\$	0.0335	\$	4,940,436
Summer 6/1 to 9/30	First 0-600 kWh	142,002,254	\$	0.0600	\$	8,520,135
Summer 6/1 to 9/30	Next 600-1000 kWh	41,523,333	\$	0.0650	\$	2,699,017
Summer 6/1 to 9/30	Excess Over 1000 kWh	45,072,683	\$	0.0741	\$	3,339,886
Total per Tariff Sheet		734,227,232			\$	45,835,945

Small General Service - No Demand

Sheet No. 4

MO710

Customer Charge

Winter 10/1 to 5/31	Regular Use	106,678	\$	7.00	\$	746,746
Summer 6/1 to 9/30	Regular Use	51,683	\$	7.00	\$	361,781

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	48,501,141	\$	0.0640	\$	3,104,073
Winter 10/1 to 5/31	Excess Over 1000 kWh	29,802,040	\$	0.0500	\$	1,490,102
Summer 6/1 to 9/30	First 0-1000 kWh	24,084,951	\$	0.0650	\$	1,565,522
Summer 6/1 to 9/30	Next 1000-5400 kWh	18,040,981	\$	0.0700	\$	1,262,869
Summer 6/1 to 9/30	Excess Over 5400 kWh	1,451,924	\$	0.0750	\$	108,894
Total per Tariff Sheet		121,881,037			\$	8,639,987

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Small General Service - Demand Secondary Service

Sheet No. 6

MO711

Customer Charge

Winter 10/1 to 5/31	Regular Use	95,384	\$	30.88	\$	2,945,458
Summer 6/1 to 9/30	Regular Use	49,868	\$	30.88	\$	1,539,924

Demand charge

Winter 10/1 to 5/31	Billing Demand	1,592,357	\$	3.22	\$	5,127,390
Summer 6/1 to 9/30	Billing Demand	912,275	\$	5.21	\$	4,752,953

EDR discount**Energy charge**

Winter 10/1 to 5/31	Energy First 180 hours	233,178,069	\$	0.0400	\$	9,327,123
Winter 10/1 to 5/31	Excess Energy Over 180 hours	122,532,741	\$	0.0300	\$	3,675,982
Summer 6/1 to 9/30	Energy First 180 hours	138,549,232	\$	0.0400	\$	5,541,969
Summer 6/1 to 9/30	Excess Energy Over 180 hours	85,849,451	\$	0.0300	\$	2,575,484
Total per Tariff Sheet		580,109,493			\$	35,486,282

Small General Service - Demand Primary Service

Sheet No. 6

MO716

Customer Charge

Winter 10/1 to 5/31	Regular Use	53	\$	24.05	\$	1,275
Summer 6/1 to 9/30	Regular Use	28	\$	24.05	\$	673

Demand charge

Winter 10/1 to 5/31	Billing Demand	2,881	\$	3.14	\$	9,046
Summer 6/1 to 9/30	Billing Demand	1,566	\$	5.08	\$	7,955

Energy charge

Winter 10/1 to 5/31	Energy First 180 hours	507,251	\$	0.0390	\$	19,783
Winter 10/1 to 5/31	Excess Energy Over 180 hours	357,613	\$	0.0293	\$	10,478
Summer 6/1 to 9/30	Energy First 180 hours	280,815	\$	0.0390	\$	10,952
Summer 6/1 to 9/30	Excess Energy Over 180 hours	174,866	\$	0.0293	\$	5,124
Total per Tariff Sheet		1,320,545			\$	65,286

Large General Service - Demand Secondary Service

Sheet No. 9

MO720

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Customer Charge

Winter 10/1 to 5/31	Regular Use	8,985	\$	85.71	\$	770,104
Summer 6/1 to 9/30	Regular Use	4,636	\$	85.71	\$	397,352

Demand charge

Winter 10/1 to 5/31	Billing Demand	1,612,333	\$	3.60	\$	5,804,399
Summer 6/1 to 9/30	Billing Demand	876,449	\$	5.20	\$	4,557,535

EDR discount

\$ -

Energy charge

Winter 10/1 to 5/31	All Energy First 180 hours	260,832,282	\$	0.0300	\$	7,824,968
Winter 10/1 to 5/31	All Energy Next 180 hours	180,639,780	\$	0.0270	\$	4,877,274
Winter 10/1 to 5/31	Excess Energy Over 360 hours	60,923,638	\$	0.0240	\$	1,462,167
Summer 6/1 to 9/30	All Energy First 180 hours	147,080,481	\$	0.0340	\$	5,000,736
Summer 6/1 to 9/30	All Energy Next 180 hours	112,059,495	\$	0.0300	\$	3,361,785
Summer 6/1 to 9/30	Excess Energy Over 360 hours	46,272,813	\$	0.0265	\$	1,226,230
Total per Tariff Sheet		807,808,489			\$	35,282,550

Large General Service - Demand Primary Service
Sheet No. 10 MO725**Customer Charge**

Winter 10/1 to 5/31	Regular Use	188	\$	85.71	\$	16,088
Summer 6/1 to 9/30	Regular Use	86	\$	85.71	\$	7,354

Demand charge

Winter 10/1 to 5/31	Billing Demand	62,317	\$	3.51	\$	218,733
Summer 6/1 to 9/30	Billing Demand	44,582	\$	5.07	\$	226,031

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	10,354,642	\$	0.0293	\$	303,391
Winter 10/1 to 5/31	Base Energy Next 180 hours	7,540,057	\$	0.0263	\$	198,303
Winter 10/1 to 5/31	Base Energy Over 360 hours	1,486,645	\$	0.0234	\$	34,787
Summer 6/1 to 9/30	All Energy First 180 hours	7,797,481	\$	0.0332	\$	258,876
Summer 6/1 to 9/30	All Energy Next 180 hours	4,094,532	\$	0.0293	\$	119,970
Summer 6/1 to 9/30	All Energy Over 360 hours	2,034,365	\$	0.0258	\$	52,487
Total per Tariff Sheet		33,307,722			\$	1,436,020

Large Power Service - Demand Secondary Service
Sheet No. 12 MO730**Customer Charge**

Winter 10/1 to 5/31	Regular Use	917	\$	90.00	\$	82,530
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MPS Billing Determinants on Proposed Rate Design for the TY 2002

Summer 6/1 to 9/30	Regular Use	422	\$	90.00	\$	37,980
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Demand charge

Winter 10/1 to 5/31	Base Billing Demand	593,819	\$	7.00	\$	4,156,733
Winter 10/1 to 5/31	Seasonal Billing Demand	199,128	\$	-	\$	-
Summer 6/1 to 9/30	Billing Demand	418,638	\$	8.47	\$	3,545,864
Summer 6/1 to 9/30	Seasonal Billing Demand	-			\$	-

EDR discount**Reactive Demand Adjustment**

\$	-
\$	24,314

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	102,484,450	\$	0.0290	\$	2,972,049
Winter 10/1 to 5/31	Base Energy Next 180 hours	97,638,121	\$	0.0260	\$	2,538,591
Winter 10/1 to 5/31	Base Energy Over 360 hours	69,289,602	\$	0.0240	\$	1,662,950
Winter 10/1 to 5/31	Seasonal Energy First 180 hours	90,907,436	\$	0.0220	\$	1,999,964
Winter 10/1 to 5/31	Seasonal Energy Next 180 hours	-	\$	0.0220	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 hours	-	\$	0.0220	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	74,069,857	\$	0.0300	\$	2,222,096
Summer 6/1 to 9/30	All Energy Next 180 hours	72,556,337	\$	0.0260	\$	1,886,465
Summer 6/1 to 9/30	All Energy Over 360 hours	62,562,930	\$	0.0220	\$	1,376,384

Total per Tariff Sheet**569,508,733****\$ 22,505,920****Large Power Service - Demand Primary Service****Sheet No. 13**

MO735

Customer Charge

Winter 10/1 to 5/31	Regular Use	233	\$	274.00	\$	63,912
Summer 6/1 to 9/30	Regular Use	130	\$	274.00	\$	35,536

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	539,726	\$	6.83	\$	3,686,326
Winter 10/1 to 5/31	Seasonal Billing Demand	118,690	\$	-	\$	-
Summer 6/1 to 9/30	Billing Demand	390,926	\$	8.26	\$	3,229,052
Summer 6/1 to 9/30	Seasonal Billing Demand	0	\$	5.40	\$	-

EDR discount**Reactive Demand Adjustment**

\$	-
\$	55,676

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	95,586,531	\$	0.0283	\$	2,703,187
Winter 10/1 to 5/31	Base Energy Next 180 hours	95,138,399	\$	0.0254	\$	2,411,758
Winter 10/1 to 5/31	Base Energy Over 360 hours	83,639,491	\$	0.0234	\$	1,957,164
Winter 10/1 to 5/31	Seasonal Energy First 180 hours	63,642,211	\$	0.0215	\$	1,365,125
Winter 10/1 to 5/31	Seasonal Energy Next 180 hours	0	\$	0.0215	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 hours	0	\$	0.0215	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	70,224,408	\$	0.0293	\$	2,054,064
Summer 6/1 to 9/30	All Energy Next 180 hours	69,591,826	\$	0.0254	\$	1,764,153
Summer 6/1 to 9/30	All Energy Over 360 hours	64,087,296	\$	0.0215	\$	1,374,673

Total per Tariff Sheet**541,910,162****\$ 20,700,627**

Schedule CRG-3

Case No. EO-2002-384

MPS Billing Determinants on Proposed Rate Design for the TY 2002

School and Church Service - No Demand Secondary Service

Sheet No. 16

MO740

Customer Charge

Winter 10/1 to 5/31	Regular Use	6,686	\$	7.00	\$	46,802
Summer 6/1 to 9/30	Regular Use	3,272	\$	7.00	\$	22,904

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	4,960,912	\$	0.0640	\$	317,498
Winter 10/1 to 5/31	Excess Over 1000 kWh	23,298,475	\$	0.0500	\$	1,164,924
Summer 6/1 to 9/30	First 0-1000 kWh	2,633,222	\$	0.0650	\$	171,159
Summer 6/1 to 9/30	Next 600-1000 kWh	5,898,794	\$	0.0700	\$	412,916
Summer 6/1 to 9/30	Excess Over 5400 kWh	8,085,606	\$	0.0750	\$	606,420
Total per Tariff Sheet		44,877,009			\$	2,742,624

School and Church Service - No Demand Primary Service

Sheet No. 17

MO745

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	24.05	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	24.05	\$	-

Demand charge

Winter 10/1 to 5/31	Billing Demand	-	\$	3.14	\$	-
Summer 6/1 to 9/30	Billing Demand	-	\$	5.08	\$	-

Energy charge

Winter 10/1 to 5/31	Energy First 180 hours	-	\$	0.0390	\$	-
Winter 10/1 to 5/31	Excess Energy Over 180 hours	-	\$	0.0293	\$	-
Summer 6/1 to 9/30	Energy First 180 hours	-	\$	0.0390	\$	-
Summer 6/1 to 9/30	Excess Energy Over 180 hours	-	\$	0.0293	\$	-
Total per Tariff Sheet		-			\$	-

Special Contract - Modine Mfg.

Sheet No. 34

MO919

Customer Charge

Winter 10/1 to 5/31	Regular Use	16	\$	90.00	\$	1,440
Summer 6/1 to 9/30	Regular Use	8	\$	90.00	\$	720

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	9,459	\$	5.15	\$	48,714
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MPS Billing Determinants on Proposed Rate Design for the TY 2002

Winter 10/1 to 5/31	Seasonal Billing Demand	4,197	\$	-	\$	-
Summer 6/1 to 9/30	Billing Demand	7,132	\$	7.65	\$	54,560
Summer 6/1 to 9/30	Seasonal Billing Demand	-			\$	-

Reactive Demand Adjustment

\$ -

Energy charge

Winter 10/1 to 5/31	Base Energy First 180 hours	1,669,194	\$	0.0330	\$	55,083
Winter 10/1 to 5/31	Base Energy Next 180 hours	1,066,340	\$	0.0290	\$	30,924
Winter 10/1 to 5/31	Base Energy Over 360 hours	71,739	\$	0.0260	\$	1,865
Winter 10/1 to 5/31	Seasonal Energy First 180 hours	1,201,737	\$	0.0240	\$	28,842
Winter 10/1 to 5/31	Seasonal Energy Next 180 hours	-	\$	0.0240	\$	-
Winter 10/1 to 5/31	Seasonal Energy Over 360 hours	-	\$	0.0240	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	1,237,020	\$	0.0420	\$	51,955
Summer 6/1 to 9/30	All Energy Next 180 hours	844,154	\$	0.0360	\$	30,390
Summer 6/1 to 9/30	All Energy Over 360 hours	40,943	\$	0.0310	\$	1,269
Total per Tariff Sheet		6,131,127			\$	305,761

Special Contract -

Sheet No. 69

MO950

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Reactive Demand Adjustment

\$ -

Energy charge

Winter 10/1 to 5/31	-	\$	0.0360	\$	-
Summer 6/1 to 9/30	-	\$	0.0360	\$	-

Total per Tariff Sheet

\$ -

Residential Service Time-of-Day

Sheet No. 19

MO600

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	-	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	-	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	-	\$	-

Total per Tariff Sheet

\$ -

MPS Billing Determinants on Proposed Rate Design for the TY 2002

General Service Single Phase Time-of-Day

Sheet No. 21

MO610

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	-	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	-	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	-	\$	-

Total per Tariff Sheet

-	-	-	\$	-
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General Service Single Phase with Demand Charge Time-of-Day

Sheet No. 22

MO620

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak Billing Demand	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	-	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	-	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	-	\$	-

Total per Tariff Sheet

-	-	-	\$	-
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General Service 3 Phase with Secondary Voltage Time-of-Day

Sheet No. 22

MO630

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-
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Schedule CRG-3

Case No. EO-2002-384

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Summer 6/1 to 9/30	Peak Billing Demand	-	\$	-	\$	-
Energy charge						
Winter 10/1 to 5/31	Peak	-	\$	-	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	-	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	-	\$	-
Total per Tariff Sheet		-			\$	-

General Service 3 Phase with Primary Voltage Time-of-Day
Sheet No. 23 MO640

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak Billing Demand	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Peak	-	\$	-	\$	-
Winter 10/1 to 5/31	Off-Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Peak	-	\$	-	\$	-
Summer 6/1 to 9/30	Shoulder	-	\$	-	\$	-
Summer 6/1 to 9/30	Off-Peak	-	\$	-	\$	-
Total per Tariff Sheet		-			\$	-

Thermal Energy Storage Pilot Program -Secondary Voltage Time-of-Day
Sheet No. 37 MO650

Customer Charge

Winter 10/1 to 5/31	Regular Use	8	\$	90.00	\$	720
Summer 6/1 to 9/30	Regular Use	4	\$	90.00	\$	360

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	9,432	\$	5.15	\$	48,575
Summer 6/1 to 9/30	Peak Billing Demand	6,150	\$	7.65	\$	47,048

Energy charge

Winter 10/1 to 5/31	Peak	1,996,470	\$	0.0330	\$	65,884
Winter 10/1 to 5/31	Off-Peak	1,619,014	\$	0.0290	\$	46,951
Summer 6/1 to 9/30	Peak	878,752	\$	0.0420	\$	36,908
Summer 6/1 to 9/30	Shoulder	1,506,753	\$	0.0360	\$	54,243
Summer 6/1 to 9/30	Off-Peak	749,750	\$	0.0310	\$	23,242
Total per Tariff Sheet		6,750,739			\$	323,930

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Real Time Pricing for MO720

Sheet No. 65

MO721

Customer Charge

Winter 10/1 to 5/31	Regular Use	6	\$	85.71	\$	518
Summer 6/1 to 9/30	Regular Use	4	\$	85.71	\$	343

Demand charge

Winter 10/1 to 5/31	Peak Billing Demand	4,995	\$	3.60	\$	17,982
Summer 6/1 to 9/30	Peak Billing Demand	2,877	\$	5.20	\$	14,960

Energy charge

Winter 10/1 to 5/31	All Energy First 180 hours	813,965	\$	0.0300	\$	24,419
Winter 10/1 to 5/31	All Energy Next 180 hours	813,965	\$	0.0270	\$	21,977
Winter 10/1 to 5/31	ExcessEnergy Over 360 hours	270,494	\$	0.0240	\$	6,492
Summer 6/1 to 9/30	All Energy First 180 hours	517,862	\$	0.0340	\$	17,607
Summer 6/1 to 9/30	All Energy Next 180 hours	517,861	\$	0.0300	\$	15,536
Summer 6/1 to 9/30	ExcessEnergy Over 360 hours	289,282	\$	0.0265	\$	7,666
Total per Tariff Sheet		3,223,429			\$	127,500

Real Time Pricing for MO730

Sheet No. 65

MO731

Customer Charge

Winter 10/1 to 5/31	Regular Use	19	\$	90.00	\$	1,710
Summer 6/1 to 9/30	Regular Use	6	\$	90.00	\$	540

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	14,628	\$	7.00	\$	102,396
Winter 10/1 to 5/31	Seasonal Billing Demand	-	\$	-	\$	-
Summer 6/1 to 9/30	Billing Demand	9,065	\$	8.47	\$	76,781
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	All Energy First 180 hours	3,770,931	\$	0.0290	\$	109,357
Winter 10/1 to 5/31	All Energy Next 180 hours	2,624,172	\$	0.0260	\$	68,228
Winter 10/1 to 5/31	ExcessEnergy Over 360 hours	11,374,342	\$	0.0240	\$	272,984
Winter 10/1 to 5/31	Seasonal Energy First 180 hours	-	\$	0.0220	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	1,512,963	\$	0.0300	\$	45,389
Summer 6/1 to 9/30	All Energy Next 180 hours	905,093	\$	0.0260	\$	23,532
Summer 6/1 to 9/30	ExcessEnergy Over 360 hours	294,325	\$	0.0220	\$	6,475
Total per Tariff Sheet		20,481,826			\$	707,393

Real Time Pricing for MO735

Schedule CRG-3

Case No. EO-2002-384

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Sheet No. 65

MO737

Customer Charge

Winter 10/1 to 5/31	Regular Use	27	\$	274.00	\$	7,428
Summer 6/1 to 9/30	Regular Use	9	\$	274.00	\$	2,431

Demand charge

Winter 10/1 to 5/31	Base Billing Demand	99,200	\$	6.83	\$	677,536
Winter 10/1 to 5/31	Seasonal Billing Demand	-	\$	-	\$	-
Summer 6/1 to 9/30	Billing Demand	71,821	\$	8.26	\$	593,241
Summer 6/1 to 9/30	Seasonal Billing Demand	-	\$	5.40	\$	-

Energy charge

Winter 10/1 to 5/31	All Energy First 180 hours	20,036,194	\$	0.0283	\$	566,624
Winter 10/1 to 5/31	All Energy Next 180 hours	11,934,442	\$	0.0254	\$	302,538
Winter 10/1 to 5/31	ExcessEnergy Over 360 hours	3,500,521	\$	0.0234	\$	81,912
Winter 10/1 to 5/31	Seasonal Energy First 180 hours	-	\$	0.0215	\$	-
Summer 6/1 to 9/30	All Energy First 180 hours	11,390,996	\$	0.0293	\$	333,187
Summer 6/1 to 9/30	All Energy Next 180 hours	5,888,589	\$	0.0254	\$	149,276
Summer 6/1 to 9/30	ExcessEnergy Over 360 hours	3,423,910	\$	0.0215	\$	73,443
Total per Tariff Sheet		56,174,652			\$	2,787,616

Municipal Water Pumping and Special Street Lighting Service

Sheet No. 24

MO800

Customer Charge

Winter 10/1 to 5/31	Regular Use	1,415	\$	7.00	\$	9,905
Summer 6/1 to 9/30	Regular Use	708	\$	7.00	\$	4,956

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	652,922	\$	0.0640	\$	41,787
Winter 10/1 to 5/31	Excess Over 1000 kWh	4,384,859	\$	0.0500	\$	219,243
Summer 6/1 to 9/30	First 0-1000 kWh	290,375	\$	0.0650	\$	18,874
Summer 6/1 to 9/30	Next 600-1000 kWh	640,405	\$	0.0700	\$	44,828
Summer 6/1 to 9/30	Excess Over 5400 kWh	1,699,468	\$	0.0750	\$	127,460
Total per Tariff Sheet		7,668,029			\$	467,054

Municipal Park And Recreation Service - Single Phase

Sheet No. 25

MO810

Customer Charge

Winter 10/1 to 5/31	Regular Use	1,606	\$	7.00	\$	11,242
Summer 6/1 to 9/30	Regular Use	803	\$	7.00	\$	5,621

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	671,967	\$	0.0640	\$	43,006
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Schedule CRG-3

Case No. EO-2002-384

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Winter 10/1 to 5/31	Excess Over 1000 kWh	554,040	\$	0.0500	\$	27,702
Summer 6/1 to 9/30	First 0-1000 kWh	386,224	\$	0.0650	\$	25,105
Summer 6/1 to 9/30	Next 600-1000 kWh	386,127	\$	0.0700	\$	27,029
Summer 6/1 to 9/30	Excess Over 5400 kWh	451,569	\$	0.0750	\$	33,868
Total per Tariff Sheet		2,449,927				\$ 173,572

Municipal Park And Recreation Service - 3 Phase

Sheet No. 25

MO811

Customer Charge

Winter 10/1 to 5/31	Regular Use	600	\$	7.00	\$	4,200
Summer 6/1 to 9/30	Regular Use	300	\$	7.00	\$	2,100

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	452,756	\$	0.0640	\$	28,976
Winter 10/1 to 5/31	Excess Over 1000 kWh	1,186,134	\$	0.0500	\$	59,307
Summer 6/1 to 9/30	First 0-1000 kWh	238,991	\$	0.0650	\$	15,534
Summer 6/1 to 9/30	Next 600-1000 kWh	342,527	\$	0.0700	\$	23,977
Summer 6/1 to 9/30	Excess Over 5400 kWh	491,697	\$	0.0750	\$	36,877
Total per Tariff Sheet		2,712,105				\$ 170,972

Street and Private Area Lighting

MONxx

Across the board increase of

25.87%

Number of Services

Winter 10/1 to 5/31	-
Summer 6/1 to 9/30	-

Energy charge

Winter 10/1 to 5/31	Regular Use	28,282,914	\$	4,763,088
Summer 6/1 to 9/30	Regular Use	13,737,505	\$	1,574,380
Total per Tariff Sheet		42,020,419		\$ 6,337,468

Green Power**99-GP****Customer Charge**

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-

Energy charge

Winter 10/1 to 5/31	Regular Use	-	\$	5.00	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	5.00	\$	-
Total per Tariff Sheet		-				\$ -

Schedule CRG-3

Case No. EO-2002-384

MPS Billing Determinants on Proposed Rate Design for the TY 2002

Interdepartmental Service

MO888

Customer Charge

Winter 10/1 to 5/31	Regular Use	-	\$	-	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	-	\$	-
Minimum Bill charges					\$	-

Energy charge

Winter 10/1 to 5/31	Regular Use	-	\$	0.02650	\$	-
Summer 6/1 to 9/30	Regular Use	-	\$	0.02650	\$	-
Total per Tariff Sheet		-				\$ -

TOTAL RATES

5,153,674,972 kWh

\$ 319,398,603

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Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Residential General Use

Sheet No. 6 MO910

Customer Charge

Winter 10/1 to 5/31	Regular Use	259,570	\$	10.00	\$	2,595,700
Summer 6/1 to 9/30	Regular Use	129,999	\$	10.00	\$	1,299,990

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	117,129,082	\$	0.0600	\$	7,027,745
Winter 10/1 to 5/31	Excess Over 600 kWh	47,612,567	\$	0.0490	\$	2,333,016
Summer 6/1 to 9/30	First 0-600 kWh	66,550,991	\$	0.0600	\$	3,993,059
Summer 6/1 to 9/30	Next 600-1000 kWh	31,114,443	\$	0.0650	\$	2,022,439
Summer 6/1 to 9/30	Excess Over 1000 kWh	40,409,074	\$	0.0700	\$	2,828,635
Total per Tariff Sheet		302,816,157			\$	22,100,584

Residential General Use-Multiple Occupancy Bldg.

Sheet No. 6 MO911

Customer Charge

Winter 10/1 to 5/31	Regular Use	4,203	\$	10.00	\$	42,030
Summer 6/1 to 9/30	Regular Use	2,097	\$	10.00	\$	20,970

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	1,380,301	\$	0.0600	\$	82,818
Winter 10/1 to 5/31	Excess Over 600 kWh	57,731	\$	0.0490	\$	2,829
Summer 6/1 to 9/30	First 0-600 kWh	949,131	\$	0.0600	\$	56,948
Summer 6/1 to 9/30	Next 600-1000 kWh	98,890	\$	0.0650	\$	6,428
Summer 6/1 to 9/30	Excess Over 1000 kWh	30,471	\$	0.0700	\$	2,133
Total per Tariff Sheet		2,516,524			\$	214,156

Residential Service - with Electric Space Heating

Sheet No. 8 MO920

Customer Charge

Winter 10/1 to 5/31	Regular Use	107,880	\$	15.00	\$	1,618,200
Summer 6/1 to 9/30	Regular Use	54,127	\$	15.00	\$	811,905

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	60,342,578	\$	0.0600	\$	3,620,555
Winter 10/1 to 5/31	Excess Over 600 kWh	32,798,907	\$	0.0380	\$	1,246,358
Winter 10/1 to 5/31	Excess Over 1000 kWh	109,984,293	\$	0.0220	\$	2,419,654
Summer 6/1 to 9/30	First 0-600 kWh	29,410,106	\$	0.0600	\$	1,764,606
Summer 6/1 to 9/30	Excess Over 600 kWh	15,044,445	\$	0.0650	\$	977,889
Summer 6/1 to 9/30	Excess Over 1000 kWh	28,488,506	\$	0.0700	\$	1,994,195
Total per Tariff Sheet		276,068,835			\$	14,453,363

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Residential General Use with Electric Space Heating-Multiple Occupancy Bldg.

Sheet No. 6

MO921

Customer Charge

Winter 10/1 to 5/31	Regular Use	5,666	\$	15.00	\$	84,990
Summer 6/1 to 9/30	Regular Use	2,749	\$	15.00	\$	41,235

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	3,160,043	\$	0.0600	\$	189,603
Winter 10/1 to 5/31	Excess Over 600 kWh	1,317,493	\$	0.0380	\$	50,065
Winter 10/1 to 5/31	Excess Over 1000 kWh	911,258	\$	0.0220	\$	20,048
Summer 6/1 to 9/30	First 0-600 kWh	1,511,637	\$	0.0600	\$	90,698
Summer 6/1 to 9/30	Excess Over 600 kWh	275,179	\$	0.0650	\$	17,887
Summer 6/1 to 9/30	Excess Over 1000 kWh	38,263	\$	0.0700	\$	2,678
Total per Tariff Sheet		7,213,873			\$	497,203

Residential Service - with Electric Water Heating

Sheet No. 10

MO913

Customer Charge

Winter 10/1 to 5/31	Regular Use	55,808	\$	10.00	\$	558,080
Summer 6/1 to 9/30	Regular Use	27,932	\$	10.00	\$	279,320

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	28,807,473	\$	0.0600	\$	1,728,448
Winter 10/1 to 5/31	Excess Over 600 kWh	23,818,585	\$	0.0490	\$	1,167,111
Summer 6/1 to 9/30	First 0-600 kWh	14,946,697	\$	0.0600	\$	896,802
Summer 6/1 to 9/30	Next 600-1000 kWh	7,499,531	\$	0.0650	\$	487,470
Summer 6/1 to 9/30	Excess Over 1000 kWh	10,614,992	\$	0.0700	\$	743,049
Total per Tariff Sheet		85,687,278			\$	5,860,280

Residential Service - with Electric Water Heating - Multi Occupancy Bldg.

Sheet No. 10

MO914

Customer Charge

Winter 10/1 to 5/31	Regular Use	87	\$	10.00	\$	870
Summer 6/1 to 9/30	Regular Use	43	\$	10.00	\$	430

Energy charge

Winter 10/1 to 5/31	First 0-600 kWh	48,455	\$	0.0600	\$	2,907
Winter 10/1 to 5/31	Excess Over 600 kWh	10,384	\$	0.0490	\$	509
Summer 6/1 to 9/30	First 0-600 kWh	25,235	\$	0.0600	\$	1,514
Summer 6/1 to 9/30	Next 600-1000 kWh	10,381	\$	0.0650	\$	675

Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Summer 6/1 to 9/30	Excess Over 1000 kWh	3,086	\$	0.0700	\$	216
Total per Tariff Sheet		97,541				\$ 7,121

Residential Service - Other Use

Sheet No. 11.2 MO915

Customer Charge

Winter 10/1 to 5/31	Regular Use	12,614	\$10.00	\$	126,140
Summer 6/1 to 9/30	Regular Use	6,345	\$10.00	\$	63,450

Energy charge

Winter 10/1 to 5/31	All kWh	3,165,259	\$0.0600	\$	189,916
Summer 6/1 to 9/30	All kWh	1,834,703	\$0.0700	\$	128,429
Total per Tariff Sheet		4,999,962			\$ 507,935

Residential Service - Separate Meter -Space Heating/Water Heating

Sheet No. 29 MO922

Customer Charge

Winter 10/1 to 5/31	Regular Use	736	\$	7.91	\$	5,822
Summer 6/1 to 9/30	Regular Use	369	\$	7.91	\$	2,919

Energy charge

Winter 10/1 to 5/31	All kWh	349,037	\$0.0220	\$	7,679
Summer 6/1 to 9/30	All kWh	119,495	\$0.0600	\$	7,170
Total per Tariff Sheet		468,532			\$ 23,589

General Service - Limited Demand

Sheet No. 12 NO930

Customer Charge

Winter 10/1 to 5/31	Regular Use	25,741	\$	13.84	\$	356,255
Summer 6/1 to 9/30	Regular Use	12,871	\$	13.84	\$	178,135

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	9,767,886	\$0.0600	\$	586,073
Winter 10/1 to 5/31	Excess Over 1000 kWh	6,032,143	\$0.0530	\$	319,704
Summer 6/1 to 9/30	First 0-1000 kWh	4,892,643	\$0.0600	\$	293,559
Summer 6/1 to 9/30	Next 1000-5400 kWh	2,373,858	\$0.0650	\$	154,301
Summer 6/1 to 9/30	Excess Over 5400 kWh	430,378	\$0.0700	\$	30,126
Total per Tariff Sheet		23,496,908			\$ 1,918,153

Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

General Service - General Use

Sheet No. 13

MO931

Customer Charge

Winter 10/1 to 5/31	Regular Use	11,035	\$	38.42	\$	423,965
Summer 6/1 to 9/30	Regular Use	5,517	\$	38.42	\$	211,963

Demand Charge

Winter 10/1 to 5/31	All kW of Billing Demand	214,410	\$	2.26	\$	484,567
Summer 6/1 to 9/30	All kW of Billing Demand	80,552	\$	4.25	\$	342,346

Energy charge

Winter 10/1 to 5/31	First 180 kWh's per Actual kW	18,948,051	\$0.0360	\$	682,130
Winter 10/1 to 5/31	Excess kWh's	6,496,342	\$0.0280	\$	181,898
Summer 6/1 to 9/30	First 180 kWh's per Actual kW	11,971,697	\$0.0360	\$	430,981
Summer 6/1 to 9/30	Excess kWh's	5,409,298	\$0.0280	\$	151,460

Total per Tariff Sheet**42,825,388****\$ 2,909,309****General Service - Limited Demand with Electric Space Heating**

Sheet No. 14

MO932

Service Charge for each bill

Winter 10/1 to 5/31	Regular Use	2,306	\$	13.84	\$	31,915
Summer 6/1 to 9/30	Regular Use	1,153	\$	13.84	\$	15,958

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	1,607,751	\$0.0600	\$	96,465
Winter 10/1 to 5/31	Excess Over 1000 kWh	1,414,301	\$0.0530	\$	74,958
Summer 6/1 to 9/30	First 0-1000 kWh	695,546	\$0.0600	\$	41,733
Summer 6/1 to 9/30	Next 1000-5400 kWh	513,405	\$0.0650	\$	33,371
Summer 6/1 to 9/30	Excess Over 5400 kWh	12,019	\$0.0700	\$	841

Total per Tariff Sheet**4,243,022****\$ 295,241****General Service - With Electric Space Heating**

Sheet No. 15

MO933

Customer Charge

Winter 10/1 to 5/31	Regular Use	4,854	\$	38.42	\$	186,491
Summer 6/1 to 9/30	Regular Use	2,427	\$	38.42	\$	93,245

Demand Charge

Winter 10/1 to 5/31	All kW of Billing Demand	92,062	\$	2.26	\$	208,060
Summer 6/1 to 9/30	All kW of Billing Demand	29,367	\$	4.25	\$	124,810

Energy charge

Winter 10/1 to 5/31	First 180 kWh's per Actual kW	9,938,155	\$0.0360	\$	357,774
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Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Winter 10/1 to 5/31	Excess kWh's	3,788,984	\$0.0280	\$	106,092
Summer 6/1 to 9/30	First 180 kWh's per Actual kW	4,506,462	\$0.0360	\$	162,233
Summer 6/1 to 9/30	Excess kWh's	2,099,477	\$0.0280	\$	58,785
Total per Tariff Sheet		20,333,078			\$ 1,297,489

General Service - School and Church Service

Sheet No. 18 MO934

Customer Charge

Winter 10/1 to 5/31	Regular Use	2,532	\$	13.84	\$	35,043
Summer 6/1 to 9/30	Regular Use	1,266	\$	13.84	\$	17,521

Energy charge

Winter 10/1 to 5/31	First 0-1000 kWh	1,510,364	\$0.0600	\$	90,622
Winter 10/1 to 5/31	Excess Over 1000 kWh	1,395,988	\$0.0530	\$	73,987
Summer 6/1 to 9/30	First 0-1000 kWh	882,024	\$0.0600	\$	52,921
Summer 6/1 to 9/30	Next 1000-5400 kWh	1,029,679	\$0.0650	\$	66,929
Summer 6/1 to 9/30	Excess Over 5400 kWh	445,182	\$0.0700	\$	31,163
Total per Tariff Sheet		5,263,237			\$ 368,187

Small General Service - Demand

MO940 rate switchers MO939

Customer Charge

Winter 10/1 to 5/31	Regular Use	5,814	\$	38.42	\$	223,378
Summer 6/1 to 9/30	Regular Use	2,916	\$	38.42	\$	112,021

Demand Charge

Winter 10/1 to 5/31	All kW of Billing Demand	268,102	\$	2.26	\$	605,910
Summer 6/1 to 9/30	All kW of Billing Demand	143,336	\$	4.25	\$	609,178

Energy charge

Winter 10/1 to 5/31	First 180 kWh's per Actual kW	39,054,260	\$0.0360	\$	1,405,953
Winter 10/1 to 5/31	Excess kWh's	25,494,650	\$0.0280	\$	713,850
Summer 6/1 to 9/30	First 180 kWh's per Actual kW	22,098,352	\$0.0360	\$	795,541
Summer 6/1 to 9/30	Excess kWh's	18,317,979	\$0.0280	\$	512,903
Total per Tariff Sheet		104,965,241			\$ 4,978,734

Large General Service-Secondary Service (100 kW minimum)

Sheet No. 19 MO940

Customer Charge

Winter 10/1 to 5/31	Regular Use	2,786	\$	54.00	\$	150,438
Summer 6/1 to 9/30	Regular Use	1,384	\$	54.00	\$	74,752

Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Demand charge

Winter 10/1 to 5/31	All kW of Billing Demand	473,167	\$	5.00	\$	2,365,837
Summer 6/1 to 9/30	All kW of Billing Demand	266,248	\$	7.47	\$	1,988,873

Primary Discount Rider

\$ -

EDR Credit

\$ (14,993)

Misc Fees

\$ 7,941

Curtailment Credit

\$ (4,734)

Energy charge

Winter 10/1 to 5/31	First 180 kWh's per Actual kW	87,357,347	\$0.0240	\$	2,096,576
Winter 10/1 to 5/31	Next 180 kWh's per Actual kW	49,664,272	\$0.0220	\$	1,092,614
Winter 10/1 to 5/31	Excess kWh's	22,047,044	\$0.0200	\$	440,941
Summer 6/1 to 9/30	First 180 kWh's per Actual kW	46,742,561	\$0.0240	\$	1,121,821
Summer 6/1 to 9/30	Next 180 kWh's per Actual kW	29,809,977	\$0.0220	\$	655,819
Summer 6/1 to 9/30	Excess kWh's	18,329,686	\$0.0200	\$	366,594

Total per Tariff Sheet253,950,887\$ 10,342,480**Large General Service-Primary Service (100 kW minimum)**

Sheet No. 19

MO943

Customer Charge

Winter 10/1 to 5/31	Regular Use	40	\$	140.50	\$	5,620
Summer 6/1 to 9/30	Regular Use	20	\$	140.50	\$	2,810

Demand charge

Winter 10/1 to 5/31	All kW of Billing Demand	4,333	\$	4.88	\$	21,145
Summer 6/1 to 9/30	All kW of Billing Demand	2,577	\$	7.28	\$	18,761

Primary Discount Rider

\$ -

EDR Credit

\$ -

Misc Fees

\$ 50,605

Curtailment Credit

\$ -

Energy charge

Winter 10/1 to 5/31	First 180 kWh's per Actual kW	782,304	\$0.0234	\$	18,306
Winter 10/1 to 5/31	Next 180 kWh's per Actual kW	673,003	\$0.0215	\$	14,470
Winter 10/1 to 5/31	Excess kWh's	258,754	\$0.0195	\$	5,046
Summer 6/1 to 9/30	First 180 kWh's per Actual kW	400,178	\$0.0234	\$	9,364
Summer 6/1 to 9/30	Next 180 kWh's per Actual kW	299,560	\$0.0215	\$	6,441
Summer 6/1 to 9/30	Excess kWh's	14,444	\$0.0195	\$	282

Total per Tariff Sheet2,428,243\$ 152,848**Large Power Service-Secondary (500 kW minimum)**

Sheet No. 21

MO944

Facilities kW Charge

Winter 10/1 to 5/31	First 500 Facilities kW	410	\$	650.00	\$	266,500
Winter 10/1 to 5/31	All over 500 kW Facilities kW	658,380	\$	1.10	\$	724,218

Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Summer 6/1 to 9/30	First 500 Facilities kW	206	\$	650.00	\$	133,900
Summer 6/1 to 9/30	All over 500 kW Facilities kW	317,185	\$	1.10	\$	348,904
Demand charge						
Winter 10/1 to 5/31	kW < Prev Summer Peak kW	688,147	\$	3.32	\$	2,284,648
Winter 10/1 to 5/31	Each kW > Prev Summer Peak	38,708	\$	0.2700	\$	10,451
Summer 6/1 to 9/30	All kW of Billing Demand	382,041	\$	6.74	\$	2,574,956
Primary Discount Rider						
		-	\$	(0.56)	\$	-
EDR Credit						
					\$	(367,955)
Misc Fees						
					\$	26,694
Curtailement Credit						
					\$	(11,880)
Energy charge						
Winter 10/1 to 5/31	For each "on-peak" kWh's	171,276,258	\$	0.0270	\$	4,624,459
Winter 10/1 to 5/31	For each "off-peak" kWh's	182,840,201	\$	0.0220	\$	4,022,484
Summer 6/1 to 9/30	For each "on-peak" kWh's	77,371,328	\$	0.0330	\$	2,553,254
Summer 6/1 to 9/30	For each "off-peak" kWh's	116,862,187	\$	0.0250	\$	2,921,555
Total per Tariff Sheet		<u>548,349,974</u>			<u>\$</u>	<u>20,112,188</u>

Large Power Service-Primary (500 kW minimum)

Sheet No. 21

MO945

Facilities kW Charge

Winter 10/1 to 5/31	First 500 Facilities kW	38	\$	650.00	\$	24,700
Winter 10/1 to 5/31	All over 500 kW Facilities kW	83,850	\$	1.10	\$	92,235
Summer 6/1 to 9/30	First 500 Facilities kW	22	\$	650.00	\$	14,300
Summer 6/1 to 9/30	All over 500 kW Facilities kW	45,893	\$	1.10	\$	50,482

Demand charge

Winter 10/1 to 5/31	kW < Prev Summer Peak kW	85,807	\$	3.24	\$	278,015
Winter 10/1 to 5/31	Each kW > Prev Summer Peak	1,717	\$	0.2700	\$	464
Summer 6/1 to 9/30	All kW of Billing Demand	51,854	\$	6.57	\$	340,681

Primary Discount Rider

		-	\$	-	\$	-
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EDR Credit

					\$	(171,998)
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Misc Fees

					\$	-
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Curtailement Credit

					\$	-
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Energy charge

Winter 10/1 to 5/31	For each "on-peak" kWh's	18,351,284	\$	0.02633	\$	483,098
Winter 10/1 to 5/31	For each "off-peak" kWh's	18,290,332	\$	0.02145	\$	392,328
Summer 6/1 to 9/30	For each "on-peak" kWh's	9,260,518	\$	0.03218	\$	297,957
Summer 6/1 to 9/30	For each "off-peak" kWh's	13,569,887	\$	0.02438	\$	330,766

Total per Tariff Sheet		<u>59,472,021</u>			<u>\$</u>	<u>2,133,027</u>
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Non-Residential Service - Separate Meter -Space Heating/Water Heating

Sheet No. 30

MO941

Service Charge for each bill

Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Winter 10/1 to 5/31	Regular Use	842	\$7.20	\$	6,062
Summer 6/1 to 9/30	Regular Use	422	\$7.20	\$	3,038

Energy charge

Winter 10/1 to 5/31	All kWh	2,064,786	\$0.0530	\$	109,434
Summer 6/1 to 9/30	All kWh	626,676	\$0.0600	\$	37,601
Total per Tariff Sheet		<u>2,691,462</u>			<u>\$ 156,135</u>

Private Area Lighting
Sheet No.

Across the Board 7.5% Decrease 92.5000%

Number of Services

Winter 10/1 to 5/31	-
Summer 6/1 to 9/30	-

Energy charge

Winter 10/1 to 5/31	Regular Use	14,380,951		\$	1,433,616
Summer 6/1 to 9/30	Regular Use	4,788,501		\$	479,569
Total per Tariff Sheet		<u>19,169,452</u>			<u>\$ 1,913,185</u>

Outdoor Night Lighting

Sheet No. 28.1 MO971

Across the Board 7.5% Decrease 92.5000%

Service Charge for each bill

Each Bill	Regular Use	-	\$ 4.00	\$	2,090
Each Bill	Regular Use	-	\$ 4.00	\$	-

Energy charge

Winter 10/1 to 5/31	All kWh	203,576	\$ 0.0660	\$	12,428
Summer 6/1 to 9/30	All kWh	218,359	\$ 0.0660	\$	13,331
Total per Tariff Sheet		<u>421,935</u>			<u>\$ 27,849</u>

Private Area Lighting

Sheet No. 27 MO972

Across the Board 7.5% Decrease 92.5000%

Number of Services

Each Bill	Secondary meter base install, per r	71,747		\$	709
Each Bill	Meter Installation with CT's, per me	-			

Misc Fees

\$ 1,365

Energy charge

Winter 10/1 to 5/31	Regular Use	614,820	\$ 0.0340	\$	19,336
Summer 6/1 to 9/30	Regular Use	253,208	\$ 0.0340	\$	7,963
Total per Tariff Sheet		<u>868,028</u>			<u>\$ 29,374</u>

Schedule CRG-4

Case No. EO-2002-384

Light and Power Billing Determinants on Proposed Rate Design for the TY 2002

Street Lighting & Traffic Signals

Sheet No. 25.2

MO973

Across the Board 7.5% Decrease

92.5000%

Service Charge for each bill

Each Month	Secondary meter base install, per r	260	\$	1.71	\$	411
Each Month	Meter Installation with CT's, per me	-	\$	2.95	\$	-

Energy charge

Winter: 10/1 to 5/31	All kWh	428,207	\$	0.0410	\$	16,240
Summer 6/1 to 9/30	All kWh	206,907	\$	0.0410	\$	7,847
Total per Tariff Sheet		635,114			\$	24,498

Normalized Adjusted kWh on Proposed Rate Design

1,768,982,692 kWh\$ 90,322,928

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