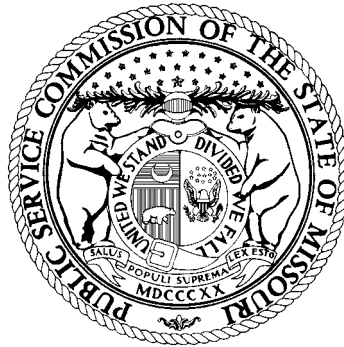


MISSOURI PUBLIC SERVICE COMMISSION

RATE DESIGN

AND

CLASS COST-OF-SERVICE REPORT



UNION ELECTRIC COMPANY
d/b/a AMERENUE

CASE NO. GR-2010-0363

*Jefferson City, Missouri
November 19, 2010*

****Denotes Highly Confidential Information****

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1 **I. EXECUTIVE SUMMARY**

2 Staff conducted a Class Cost of Service Study in this case and allocated costs to the
3 customer rate classes of Union Electric Company d/b/a AmerenUE (AmerenUE or Company).
4 Staff recommends no shift of cost between the classes. On September 10, 2010, Union
5 Electric Company notified the Missouri Public Service Commission (Commission) of its
6 intent to adopt the trade name “Ameren Missouri” effective October 1, 2010. For the sake of
7 consistency and historical accuracy in reference to the test year employed by Staff in this
8 case, Union Electric’s Missouri jurisdictional operations will be referred as AmerenUE.

9 Staff’s rate design proposal includes the Straight Fixed Variable (SFV) rate for the
10 Residential and new Small General Service classes. Staff recommends the remaining
11 customer classes, Large General Service, Large Volume Transportation, Interruptible, and
12 Standard Transportation customer classes continue to use the current rate design in place for
13 these classes.

14 Staff supports continuation of the low-income weatherization and energy efficiency
15 programs AmerenUE currently has in place.

16 **II. CLASS COST OF SERVICE (CCOS)**

17 **A. Fundamental Concepts of Gas Utility CCOS**

18 The fundamental concepts used in Staff’s CCOS Study (Study) are defined as follows:

19 **Billing Demand:** the charge applicable for the costs incurred by AmerenUE to have
20 sufficient capacity to meet its customers’ peak usage during a peak hour of usage – prorated
21 to each customer’s class of service that makes use of some portion of those joint and common
22 facilities during that peak-usage period.

1 **Cost of Service:** a utility’s total prudently incurred costs to provide services to its
2 customers in a particular jurisdiction.

3 **Cost-of-Service Study:** a study that begins with total company costs, adjusts those
4 costs in accordance with regulatory principles (annualizations and normalizations), allocates
5 those costs to the relevant jurisdiction, and compares the allocated costs to the revenues the
6 utility is generating from its retail rates, off-system sales, and other revenues.

7 **CCOS Study:** a quantitative analysis of the costs incurred by a utility to serve its
8 various classes of customers. The Staff CCOS Study consists of the following steps: 1) costs
9 are categorized (functionalized) based upon the specific type of cost; 2) costs are classified by
10 whether they are customer related, demand related, or energy related; and 3)
11 functionalized/classified costs are then allocated to customer classes. The sum of all allocated
12 costs to a customer class is called that class’ cost of service.

13 The cost of service of each customer class is compared to the annualized, normalized
14 revenues the utility collects from each class through its rates, plus each class’ allocated share
15 of revenues from off-system sales and other revenues. The results of a CCOS study are
16 expressed in terms of additional revenue required from each class for the utility to recover its
17 prudently incurred cost of serving that class.

18 **Relationship Between Cost of Service and CCOS:** conceptually, class cost of
19 service is a breakdown of cost of service. A cost-of-service study determines what portion of
20 total company costs is attributable to the retail jurisdiction; a CCOS Study determines what
21 portion of retail costs is attributable to each customer class.

22 **Cost Allocation:** a procedure by which common or joint costs are apportioned among
23 customers or classes of customers.

1 **Cost Functionalization:** the grouping of rate base and expense accounts according to
2 the specific function they play in the operations of a local distribution company (LDC).
3 Functional categories are production, storage, transmission, distribution, and other costs.

4 **Customer Class:** a group of customers with similar characteristics (usage patterns,
5 conditions of service, usage levels, etc.) that are identified for the purpose of setting rates for
6 gas service. AmerenUE's current tariff includes Residential Service, General Service,
7 Interruptible Service Rate with an Assurance Gas Option, Natural Gas Transportation Service,
8 and Special Contracts classes.

9 **Rate Design:** (1) The process of determining how a revenue requirement will be
10 allocated among the company's different customer classes; (2) characteristics such as rate
11 structure, rate values and availability that define a rate schedule and provide the instructions
12 necessary to calculate a customer's gas bill.

13 **Rate Design Study:** while a CCOS study focuses on the costs incurred to serve the
14 different customer classes, a rate design study focuses on the equitable pricing of the cost to
15 individual customers within each class as well as sending the proper price signal to customers.
16 The rate design process attempts to recover costs in each time period for each rate component
17 from each customer in a way that equates the cost of providing service with the amount the
18 customer is billed.

19 **Rate Schedule:** tariff sheets traditionally set forth the charges and conditions for a
20 particular class or type of service in a given area or location. A rate schedule generally
21 includes a schedule number, title, class of service, applicability, territory, rates, conditions,
22 and references to rules applicable to that service or specific rate.

23 **Rate Structure:** rate structure is composed of the various monthly prices charged for
24 the utility's products or services. At the most basic level there are: a) a monthly charge owed

1 irrespective of the amount of the product taken, which is designed to collect the costs of
2 providing service that do not vary by customer usage; b) variable charges that depend upon
3 the total number of units consumed during the month, and are designed to collect the costs of
4 providing service that vary with customer usage; c) purchased gas adjustment (PGA) charges,
5 which are a “pass-through” of gas costs; and d) demand charges, a price per unit charge for
6 gas consumed over a 24-hour period.

7 One criterion for setting rate structures has to do with how well the structure tracks
8 costs and reflects cost causation. Another criterion is the ease or difficulty in administering
9 the rate, as well as the customer’s ability to understand the bill’s calculation, i.e, what causes
10 the customer to incur a higher or lower monthly bill.

11 **Rate Values (Rates):** the per-unit prices the utility charges to deliver the natural gas
12 to its customers. Rates are expressed as dollars and/or cents per unit of volume (Ccf, Mcf) or
13 per unit of energy (MMBtu, therm), etc.

14 **Tariff:** a publically available listing of the rates (prices) the regulated entity will
15 charge to provide service to its customers and the terms and conditions of providing service.

16 **The Customer’s Daily Scheduled Quantities (DSQ):** the daily quantity of gas
17 ordered from the customers’ supplier, also known as “daily nominations”.

18 **B. Units of Measurement**

19 **Btu:** British thermal unit.

20 **MMBtu:** one million Btus. One MMBtu is approximately the amount of energy
21 contained in 1,000 Cf (or 1 Mcf) of natural gas.

22 **Ccf:** a unit of volume of one hundred cubic feet of natural gas, which contains
23 approximately 100,000 Btus of energy.

1 **Therm:** 100,000 Btus of energy approximately equal to the energy contained in 100
2 Cf of natural gas.

3 **C. General Description of the CCOS Study filed in Case No. GR-2010-0363**

4 The purpose of Staff’s CCOS Study is to provide the Commission with a measure of
5 relative customer class responsibility to provide AmerenUE’s cost of providing service. For
6 individual items of cost, the responsibility of a certain class of customers to pay that cost can
7 be either directly assigned or allocated to customer classes using reasonable methods for
8 determining the class responsibility for that item of cost.

9 The results are then summarized so that they can be compared to revenues being
10 collected from each class on current rates. The difference between a particular customer
11 class’ cost responsibility and the revenues generated by that customer class is the amount that
12 class is either paying in excess of its costs (revenues greater than costs) or less than its costs
13 (revenues are less than costs).

14 Generally, CCOS studies correspond to tariffed customer classes. However, in this
15 particular case, AmerenUE proposed to “split” the existing General Service into “Small
16 General Service” class and “Large General Service” class. Staff’s study reflects this proposed
17 division of an existing class.

18 Staff witness Kim Cox provided the annualized usage levels and customer bill counts
19 for the Residential Service and the two proposed General Service classes. Staff witness
20 Michael Stahlman provided the annualized levels and customer bill counts for the
21 Interruptible Service Rate with an Assurance Gas Option, Natural Gas Transportation Service,
22 and Special Contracts classes.

23 The class peak demand levels for all tariffed classes referenced above were provided
24 by Staff witness Daniel I. Beck. All accounting information was developed using costs

1 produced by the Commission’s Auditing Department, and are based upon a test-year ending
2 December 31, 2009, updated for known and measurable changes through September 30, 2010.

3 **D. Customer Classes**

4 Staff analyzed the costs and revenues of the following customer classes for CCOS
5 Study purposes:

6 Residential Service

7 Small General Service

8 Large General Service

9 Interruptible Service

10 Standard Transportation

11 Large Volume Transportation

12 These classes correspond to what AmerenUE uses in its Direct Testimony.

13 **E. Functionalization**

14 A company has many types of cost. Some broad categories are workforce, plant and
15 equipment. Within each broad type of cost are many specific costs. Staff categorized the
16 Company’s total cost into functional areas, a process referred to as “cost functionalization”.

17 The rate base and expense accounts are assigned to one of the following functional categories:
18 Storage, Distribution Mains, Distribution Measuring and Regulating, Purchased Gas Related,
19 Distribution Meters, Distribution Regulators, Distribution Services, Customer Related,
20 Billing, Meter Reading.

21 Those costs that cannot be directly assigned into any of these specific functional
22 categories are divided among several functions based upon some relational factor. For
23 example, it is reasonable to assume that property taxes are related to gross plant costs and can
24 therefore be functionalized in the same manner as gross plant costs.

1 The allocation factors for Distribution Mains, Meters, Regulators, and Service Lines
2 were determined using allocation factors developed by Staff witness Daniel I. Beck. Meter
3 Reading costs were allocated using weighted customer numbers. Revenue related costs were
4 allocated based upon Staff's annualized margin revenues.

5 *Staff Expert: Michael Ensrud*

6 **III. ALLOCATION OF MAINS**

7 To determine how much each customer class should pay for the cost of mains Staff
8 used a capacity utilization factor. Stated it another way, Staff determined how each class used
9 the capacity available on the Company's system. Mains are an integrated system of pipes that
10 deliver natural gas to customers when they use gas appliances. While the pipes are sized to
11 carry enough gas to meet customers' peak-day demands, the value of mains to the individual
12 customer occurs throughout the year, not just on the peak day. The allocation of the cost of
13 mains should reflect the total value that customers derive from the service throughout the
14 year. Analyzing how customer classes use the capacity of mains is a reasonable way to
15 measure how the various classes of customers benefit from that portion of the local
16 distribution system, and how that cost should be spread among the classes.

17 To calculate each class' use of the mains' capacity, Staff calculated the relative
18 amount of capacity used each month of the year. Staff then determined how much each class
19 used during that month's peak demand period and allocated that amount to each class. Then,
20 these allocations are added over all twelve months to derive the annual capacity utilization of
21 each class.

22 Staff makes this calculation of the relative amount of capacity utilized each month by
23 ranking the months from the lowest peak demand to the highest peak demand. The capacity

1 used in the lowest demand month is used in all other months as well. The additional capacity
2 used in the next lowest demand month is included in all higher demand months, but not in the
3 lowest demand month. Applying this same principle to each succeeding month results in a
4 determination of the relative amount of capacity being utilized in each month.

5 Notably, capacity utilization is not the same as total gas usage by each class. A class
6 that uses the same amount of capacity year round is considered more efficient than a class
7 with varying demand. A class with more efficient use of capacity requires less capacity for
8 the same total gas usage than a class that uses the capacity less efficiently. Consider an
9 example of two classes having the same total usage of 100 MCFs per year. The class having
10 perfect capacity utilization efficiency takes 50 MCFs in both the off-peak and on-peak
11 periods. The class having less efficient capacity usage takes 30 MCFs in the off-peak period
12 and 70 MCFs in the on-peak period. Notice that the capacity required in the off-peak period
13 is 80 ($50 + 30$) MCFs and the capacity required in the on-peak period is 120 ($50 + 70$) MCFs.
14 Out of a total capacity of 120 MCFs, 80 MCFs of capacity is utilized in both periods, but an
15 additional 40 ($120 - 80$) MCFs is needed to serve the on-peak period. If both classes had
16 perfect efficiency (50 MCFs each in both periods) then the total capacity required would have
17 only been 100 ($50 + 50$) MCFs. Clearly, the less efficient use of capacity by the one class has
18 resulted in the need for additional capacity on the system.

19 This example can also explain how Staff determines capacity utilization for each class.
20 The 80 MCFs of capacity required to meet the off-peak demand is also used to meet a portion
21 of the on-peak demand. Assuming the length of off-peak and on-peak periods are the same,
22 half of this 80 MCFs of capacity is allocated equally to both periods (i.e., 40 MCFs off peak
23 and 40 MCFs on-peak). The additional 40 MCFs of capacity required to serve the on-peak

1 period is assigned only to that period. The result is that, of the 120 MCFs of total capacity, 40
2 MCFs go to the off-peak period and 80 MCFs go to the on-peak period.

3 Staff allocates each classes' capacities from each period based on its contribution to
4 demand (usage) as shown in the following table:

	Class 1		Class 2		Total	
	Usage	Capacity	Usage	Capacity	Usage	Capacity
Off-Peak	50	25	30	15	80	40
On-Peak	50	33.33	70	46.67	120	80
Total	100	58.33	100	61.67	200	120

5
6 While the total usage for each class is the same (100 MCFs each), the capacity utilized by the
7 more efficient class 1 (58.33 MCFs) is less than the capacity utilized by the less efficient class
8 2 (61.67 MCFs).

9 *Staff Expert/Witness: Daniel I Beck*

10 **IV. ALLOCATION OF SERVICE LINES**

11 Staff allocated service lines by using the allocation factors developed by the Company.
12 Staff reviewed the Company's analysis and, based on that review, Staff recommends the
13 Company's allocators for service lines be used to design rates.

14 *Staff Expert/Witness: Daniel I Beck*

15 **V. ALLOCATION OF METERS AND REGULATORS**

16 Staff allocated meters and regulators using the allocators developed by the Company.
17 Staff reviewed the Company's analysis, determined that the Company's allocators for meters
18 and regulators produced reasonable allocations to customer classes and recommends these
19 allocators be used to design rates.

20 *Staff Expert/Witness: Daniel I Beck*

1 **VI. CALCULATION OF PEAK DEMANDS**

2 To develop various allocators for use in Staff’s CCOS Study, Staff uses monthly peak
3 demands. For the Residential, Small General Service and Large General Service Classes,
4 Staff developed monthly peak Heating Degree Days (HDD) by averaging the coldest day of
5 each month, for each of the 30 years in the historical data base. Staff combined these monthly
6 peak HDDs with the per-customer usage coefficients determined by the Staff’s weather
7 normalization process. This number produced the peak customer usage for each class.

8 For the Interruptible Service, Standard Transportation and Large Volume
9 Transportation Classes, Staff used the monthly volumes developed by Staff witness Michael
10 Stahlman to develop peaks. These customers are all commercial or industrial consumers.
11 Staff estimated a peak day monthly demand for these classes by considering that there are
12 approximately 22 working days in a month and divided monthly usage by 22 for each month
13 of the year.

14 *Staff Expert/Witness: Daniel I Beck*

15 **VII WEATHER-NORMALIZED COINCIDENT PEAK DAY**
16 **DEMAND**

17 Staff computed weather-normalized coincident peak day demand by customer class.
18 Staff estimates weather-normalized coincident peak day class demands because these
19 estimates determine the relative responsibility of the residential, small general service, and
20 large general service customers for that estimated single-day system peak. For cost-of-service
21 studies, it is important to determine each class’ contribution to the peak day responsibility. In
22 other words, it is important to know what each class’ needs are likely to be when the system is
23 operating at its maximum load.

1 Staff's calculation results in estimated usage per firm customer, by customer class,
2 based on the normally occurring monthly or winter season (December – February) coldest day
3 information computed by Staff witness Seoungjoun Won. Each firm customer's estimated
4 daily usage is based on the regression of monthly use per customer per day and monthly
5 heating degree days (HDD). The daily peak is the highest daily load or draw of natural gas on
6 the system and the demand is the amount of natural gas used on that day. Staff's estimates of
7 each class customers' natural gas peak usage -- residential (Schedule KSC-1), small general
8 service (Schedule KSC-2) and large general service (Schedule KSC-3) -- are at the time
9 (coincident) of a utility system's daily peak.

10 Schedules KSC-1 through KSC-3 of this Report contain the estimated
11 weather-normalized coincident peak day natural gas usage in hundreds of cubic feet (Ccf) per
12 customer, by billing month and customer class, for both the Panhandle Eastern District (PE)
13 and Southeast District (SE). This information was provided to Staff witness Daniel I. Beck of
14 the Commission's Energy Department, Engineering Analysis Section for his calculation of
15 total peak day demand across AmerenUE's general service customer classes.

16 *Staff Expert/Witness: Kim Cox*

17 **VIII. RATE DESIGN**

18 **A. Residential and Small General Service Rate Design**

19 **1. Straight Fixed Variable Rate Design and Costs of Service**

20 Staff proposes a *Straight Fixed Variable* (SFV) rate design for AmerenUE Residential
21 and Small Firm General Service (SGS) rate classes. For AmerenUE's' other customer
22 classes, Staff generally recommends that Large General Service, Interruptible Service,
23 Transportation Service, and the other customers' rate components be increased by an equal
24 percentage of the revenue requirement in this case. The term revenue requirement refers to

1 the increase or decrease in revenue a utility needs to be able to provide safe and reliable
2 service measured against the utility's existing rates and cost of service.

3 For rate design, Staff used the following customer classes as designated by AmerenUE
4 in AmerenUE's tariff sheets filed with this case:

5 Residential (RES)

6 Small General Service (SGS) – firm sales customers, installed capacity of less
7 than 650 cubic feet per hour (*cfh*) at low pressure
8 of one quarter ($\frac{1}{4}$) pounds per square inch (*psi*).

9 Large General Service (LGS) – firm sales customers, installed capacity greater
10 than or equal to 650 *cfh* at low pressure $\frac{1}{4}$ *psi*.

11 Interruptible Sales Service (ISS) – with an assurance gas option

12 Natural Gas Transportation Service --

13 Standard Small (SST) – less than 600,000 Ccf annually and whose
14 installed capacity is less than 650 *cfh* at $\frac{1}{4}$ *psi*

15 Standard Large (SLT) – less than 600,000 Ccf annually and whose
16 installed capacity is greater than or equal to 650
17 *cfh* at $\frac{1}{4}$ *psi*

18 Large Volume (LVT) – greater than or equal to 600,000 Ccf annually.

19 In the context of the Local Distribution Company (LDC) the SFV rate design recovers
20 non-gas costs through a monthly fixed charge rather than the traditional rate design which
21 uses a combination of a fixed monthly charge and a volumetric margin rate. In both SFV and
22 traditional rate design, gas costs are recovered through the volumetric Purchase Gas
23 Adjustment (PGA) charge.

1 The SFV rate design provides an appropriate price signal to prospective customers,
2 thus protecting current customers. When a new customer connects to the AmerenUE system,
3 there are costs involved – both immediate and long-term. As discussed above, these costs are
4 not driven by the amount of gas used by the individual Residential or SGS customer.

5 For example, the utility must run pipe to connect the customer to its distribution main,
6 provide metering equipment, etc, for these customers; and this cost investment does not vary
7 based on whether the customer plans to use gas for space heating or cooking. The smallest
8 diameter service line and meter is sufficient to serve the load generated by existing
9 Residential and SGS end-uses, such as space- or water-heating, gas fireplaces or barbecues,
10 dryers, and stoves.

11 When making long-term investment decisions, the utility must take into account the
12 ability of Residential and SGS customers to change their gas consumption at any time,
13 making it impossible to predict exactly what each individual household is going to ‘need’
14 from the local distribution system in the future. Furthermore, the consequences of missing the
15 mark in sizing equipment are expensive – for example, even if it was possible to exactly size a
16 main to meet expected future demand, it would be very expensive to dig up and install a new
17 main if any individual Residential or SGS customer’s usage increased or decreased in the
18 future. Thus, even in the long-term, the investments that AmerenUE makes to serve its
19 Residential or SGS customers will not exactly reflect the amount of gas each customer uses.

20 Under a traditional volumetric rate design that bases cost recovery on an average level
21 of gas consumption, a very small user will underpay their share of these costs, and Residential
22 and SGS customers using more than average pay more than their share. A fixed charge that
23 accurately reflects the fixed nature of the costs AmerenUE incurs to serve a Residential or
24 SGS customer will have the customer paying what it costs AmerenUE to serve them. A fixed

1 charge sends a clear price signal to customers who are making their energy decisions based on
2 the as to costs and benefits of that decision. It is illogical to hook up a customer who clearly
3 will not pay their fair share of the true cost of service, and it is unfair to allow one customer to
4 take service while expecting another Residential or SGS customer to pay for that service.

5 Residential and SGS customers' cost of service in a fixed monthly Delivery Charge is
6 an equitable and reasonable way to recover costs from the customers in these classes. SFV
7 rate design reflects the fact that a difference in the cost of serving two Residential or SGS
8 customers is not driven by the size of the customer's load; in fact, the difference between
9 individual Residential or SGS customers' annual volumes is miniscule when you consider the
10 fact that the larger customers on the AmerenUE system used several hundred thousand Ccf in
11 the test year, while the average Residential usage is about 660 Ccf per year in the Panhandle
12 Eastern (PE) Division and 602 Ccf per year in the Southeastern (SE) Division. Similarly, in
13 the Company's proposed SGS class the average customer usage is about 1011 Ccf per year in
14 the PE Division and 973 Ccf per year in the SE Division.

15 Staff is aware that any LDC is going to have a few Residential and SGS customers
16 that are high usage customers in their respective classes; these are the exception, rather than
17 the rule. These exceptions cannot be segregated when trying to design fair rates for the
18 majority of the customers in a class. The majority of customers in the Residential class or
19 SGS class fall within a relatively small band of usage, and Staff has not seen any evidence
20 that a difference of a few hundred Ccf per year creates a difference in the costs incurred to
21 serve these high usage customers. Said another way, the cost of serving an individual
22 Residential or SGS customer is not dependent on the amount of gas that flows through the
23 service connection. Any difference in the cost to serve any two Residential or two SGS
24 customers is more likely driven by factors other than customer size, such as distance of the

1 service connection from the service line, customer density in the area, the terrain in the
2 customer's geographical area, or the exact age and depreciated cost of the equipment serving
3 the customer. Traditionally service rates do not reflect differences in these factors.

4 **2. SFV and Energy Efficiency**

5 The SFV rate design more closely aligns the Company's and customers' interests
6 regarding energy conservation, and enables AmerenUE to expand its promotion of
7 conservation without harming its shareholders because revenues from Residential and SGS
8 customers do not depend on customer usage. This will increase AmerenUE's incentive to
9 educate or assist its customers regarding conservation measures. At this time cost recovery
10 and profits are directly tied to their customers use of natural gas, so by promoting energy
11 conservation, the Company is actually harming its shareholders by lowering its ability to
12 recover its cost of service.

13 In 2009, for the AmerenUE PE Division, PGA charges were estimated to be over 60%
14 of the average Residential customer's bill, so even with the SFV rate design there is still
15 ample incentive for reducing gas usage. SFV provides utility companies with a disincentive
16 to promote customer usage, and an incentive to promote energy efficiency through programs
17 to reduce natural gas use and decrease bills by decreasing the PGA part of their bill. SFV
18 aligns the interest of the utility company and the customers to increase energy efficiency.

19 Over the last five years, AmerenUE has been researching and implementing energy
20 efficiency programs for its Residential and Commercial customers. These energy efficiency
21 programs are available to all Residential and SGS customers as the result of a funding of
22 initially \$55,000 and in 2010, \$325,176 that was authorized by Commission order for this
23 purpose in the previous rate case (See *Energy Efficiency and Conservation Programs* in
24 Staff's *Revenue Requirement Cost of Service Report* filed on November 8, 2010, in this case).

1 These programs were developed with the assistance of the Residential and Commercial
2 Energy Efficiency Collaborative (Collaborative) established for this purpose by Commission
3 order in the previous rate case. In addition, AmerenUE has funded low-income
4 weatherization through rates. The low-income weatherization program has been developed
5 by the Collaborative, then coordinated with the Missouri Department of Natural Resources,
6 Energy Division and Community Action Agencies in the AmerenUE service areas. The SFV
7 rate design would further the promotion of energy efficiency in the AmerenUE service area.
8 Staff is of the opinion that the SFV rate design should be continued along with the funding for
9 energy efficiency programs. The Unanimous Stipulation and Agreement (Agreement) in Case
10 No. GR-2007-0003 continued the Collaborative and funding collected in rates for the
11 development of energy efficiency programs. Staff believes that the Collaborative needs to
12 continue, however Staff recommends that the expenditures beyond the funding collected in
13 rates be tracked in the regulatory asset account established in the previous rate case.

14 Staff concurs with the company in recommending the continuation of the rate design
15 for Residential, SGS, LGS, Interruptible, and Transportation customers. The SFV rate design
16 is both fair to the Residential and SGS customers and fair to the Company. It also provides
17 both customers and the company incentives to engage in energy efficiency.

18 **B. AmerenUE's Proposed General Service and Transportation Class Restructuring**

19 AmerenUE proposes a criteria for classifying its current general service customers into
20 the Small and Large General Service rate classes on a meter *cfh* capacity as described above,
21 with the Small General Service having a capacity of less than 650 *cfh*. Similarly, Standard
22 Transportation customers would be divided into Small Standard Transportation (SST) and
23 Large Standard Transportation (LST) using the same criteria.

1 Staff has reviewed the Company's analysis of the current and proposed criteria for the
2 General Service customer classes and Standard Transportation. Staff concurs with the
3 Company that the proposed parameters for the SGS, LGS, SST, and LST customer classes are
4 reasonable and provide for more stability in the General Service and Transportation customer
5 classes.

6 *Staff Expert/Witness: Dr. Henry E. Warren*

7 **IX. ENERGY EFFICIENCY**

8 The number of AmerenUE customers participating in residential energy efficiency
9 programs has increased in recent years. AmerenUE has a number of programs including
10 rebates on programmable thermostats and high efficiency furnaces and water heaters. The
11 Residential and Commercial Energy Efficiency Collaboration (RCEEC), composed of
12 representatives from AmerenUE, Staff, the Office of Public Council, and the Missouri
13 Department of Natural Resources (MDNR), was formed to determine what programs may be
14 effective for AmerenUE's customers and has responded to increased participation by re-
15 allocating existing funds. The Company has increased participation by using Heating,
16 Ventilation, and Air Conditioning (HVAC) contractors in their service areas to educate
17 consumers. Since these contractors are often the first contact a utility customer has when they
18 need to replace a heating system or water heater, the contractor can inform the customer of a
19 rebate for an Energy Star[®] rated appliance. This encourages more customers to take
20 advantage of the rebate.

21 The current budget for the Missouri Energy Efficient Natural Gas Equipment Rebate
22 Program is \$325,176, due to carryover of funds from previous years and surplus generated by
23 other discontinued programs. However, on October 18, 2010, AmerenUE informed the

1 collaborative that it had ceased taking application reservations due to the full allocation of
2 budgeted funds and the unwillingness of AmerenUE to use a regulatory asset account as
3 authorized in the Stipulation and Agreement for GR-2007-0003. This issue is currently being
4 addressed in GT-2011-0130. To fund the development of energy efficiency programs, Staff
5 recommends AmerenUE continue to collect \$100,000 in rates and that AmerenUE fully fund
6 the current programs through the regulatory asset account established in Case No. GR-2007-
7 0003, so that programs are not discontinued due to a lack of funding.

8 *Staff Expert/Witness Michael Stahlman*

9 **X. LOW-INCOME WEATHERIZATION**

10 Low-income consumers often live in housing that is not energy efficient due to
11 substandard insulation, inefficient furnaces and/or other deficiencies. Building shell energy
12 conservation measures such as weatherization, and use of more energy-efficient appliances
13 can help these customers. The Low Income Weatherization Assistance Program
14 (Weatherization Program) is administered by the MDNR using federal, state, and utility
15 funding. The Missouri State Environmental Improvement and Energy Resources Authority
16 (EIERA) is the organization that manages and disburses federal and other weatherization
17 funds to local Community Action Agencies or other local agencies (Weatherization
18 Agencies). These Weatherization Agencies oversee the work. Currently, four other Missouri
19 jurisdictional utilities use EIERA to manage and distribute their weatherization funds. EIERA
20 invests funds to earn a return until the monies are distributed enhanced by the value of the
21 fund.

22 The federal government, through the American Recovery and Reinvestment Act
23 (ARRA) is providing special funding of \$128 million for the Missouri Weatherization
24 Program for the period of April 2009 through March 2012 (ARRA Period). The ARRA

1 provides an average of \$6,500 of weatherization for households with income at 200% or less
2 of the Federal Policy Guidelines. This is a substantial, but temporary increase in federal
3 funding. The Weatherization Agencies are making a concerted effort to utilize the ARRA
4 funding before the March 2012 deadline.

5 The Commission authorized AmerenUE's Weatherization Program in approving the
6 Stipulation and Agreement in Case No. GR-2007-0003. Under the terms of this agreement
7 AmerenUE agreed to contribute \$263,000 to Weatherization Agencies. The last year of
8 funding in the Weatherization Program is 2010. On October 23, 2010, MDNR gave the
9 Weatherization Collaborative Committee a spreadsheet, *Cash Flow & Homes Weatherized for*
10 *AmerenUE Gas Settlement*, attached hereto as Schedule HEW-2, which shows the
11 Weatherization Agencies have used ** ____ ** of the annually contributed funds. The
12 agencies are focused on using the temporary ARRA funding. At the end of the ARRA Period
13 the Weatherization Agencies anticipate using any surplus funds to continue weatherization
14 activity.

15 Staff recommends that the AmerenUE tariff sheets be updated to reflect administration
16 of the program by the EI ERA and further recommends that the annual funding of \$263,000
17 currently collected in rates be maintained and deposited annually with the EI ERA.

18 *Staff Expert/Witness: Dr. Henry E. Warren*

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

In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File Tariffs) Case No. GR-2010-0363
Increasing Rates for Natural Gas Service)
Provided to Customers in the Company's)
Missouri Service Area)

AFFIDAVIT OF MICHAEL J. ENSRUD

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Michael J. Ensrud, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 1-7, and the facts therein are true and correct to the best of his knowledge and belief..


Michael J. Ensrud

Subscribed and sworn to before me this 17th day of November, 2010.

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086


Notary Public

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File Tariffs)
Increasing Rates for Natural Gas Service)
Provided to Customers in the Company's)
Missouri Service Area)

Case No. GR-2010-0363

AFFIDAVIT OF DANIEL I. BECK

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Daniel I. Beck, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 7-10, and the facts therein are true and correct to the best of his knowledge and belief..



Daniel I. Beck

Subscribed and sworn to before me this 17th day of November, 2010.

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086



Notary Public

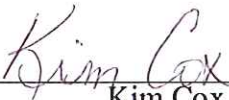
**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File Tariffs) Case No. GR-2010-0363
Increasing Rates for Natural Gas Service)
Provided to Customers in the Company's)
Missouri Service Area)

AFFIDAVIT OF KIM COX

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Kim Cox, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that she has participated in the preparation of the accompanying Staff Report on pages 10-11, and the facts therein are true and correct to the best of her knowledge and belief.



Kim Cox

Subscribed and sworn to before me this 18th day of November, 2010.



Notary Public

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086

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


In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File Tariffs)
Increasing Rates for Natural Gas Service)
Provided to Customers in the Company's)
Missouri Service Area)

Case No. GR-2010-0363

AFFIDAVIT OF HENRY WARREN

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Henry Warren, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 11-17 + 18-19, and the facts therein are true and correct to the best of his knowledge and belief..


Henry Warren

Subscribed and sworn to before me this 17th day of November, 2010.

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086


Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
 d/b/a AmerenUE for Authority to File Tariffs)
 Increasing Rates for Natural Gas Service)
 Provided to Customers in the Company's)
 Missouri Service Area)

Case No. GR-2010-0363

AFFIDAVIT OF MICHAEL STAHLMAN

STATE OF MISSOURI)
) ss
 COUNTY OF COLE)


Michael Stahlman, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 17-18, and the facts therein are true and correct to the best of his knowledge and belief..



 Michael Stahlman

Subscribed and sworn to before me this _____ day of November, 2010.

SUSAN L. SUNDERMEYER Notary Public - Notary Seal State of Missouri Commissioned for Callaway County My Commission Expires: October 03, 2014 Commission Number: 10942086
--



 Notary Public

Michael J. Ensrud

AmerenUE GR-2010-0363

My educational and professional experience is as follows:

I have a Bachelor of Science from Drake University. I attended the NARUC Annual Regulatory Studies Program at Michigan State University. In the regulatory field, I've worked for CompTel Missouri, and CommuniGroup, Inc., Teleconnect, TeleCom* USA, and General Telephone Company of the Midwest in the private sector. In addition, I have four-years of experience with the Iowa Public Utility Board – Iowa's equivalent to the Missouri Commission.

I have filed written testimony and have testified in several cases before Missouri Public Service Commission. Schedule 1 lists the cases where I have filed testimony (or otherwise materially participated) as a Staff witness before this Commission. (There are numerous cases going back to the mid-1980s where I filed testimony on behalf of Teleconnect (TeleCom*USA), CompTel of Missouri & CommuniGroup, Inc. - various private entities or trade associations - that are not listed). I have also testified in other jurisdictions.

Michael J. Ensrud

AmerenUE GR-2010-0363

Schedule 1

Cases that I have testified (or otherwise materially participated) in as a Staff witness:

Atmos Energy Corporation - GR-2006-0387 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

Missouri Gas Energy (a Division of Southern Union Company) - GR-2006-0422 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

AmerenUE (Union Electric Company) - GR- 2007-0003 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

Laclede Gas Company - GR-2005-0284 - Miscellaneous Rate Issues & Credit Scoring / **GR - 2007-0208** - Miscellaneous Rate Issues & Credit Scoring & Rate Switching Customers

Southern Missouri Natural Gas Company (Southern Missouri Natural Gas Company) - GE-2005-0189 - Promotional Practices

Empire District Electric Company of Joplin - ER-2006-0315 - Street Lighting

Missouri Gas Utilities, Inc. (MGU) - GR-2008-0060 - Miscellaneous Rate Issues

Trigen Kansas City Energy Corporation - HR-2008-0300 - Miscellaneous Rate Issues

Union Electric Company d/b/a AmerenUE - ER-2008-0318 – Renewable Energy Certificates

Kansas City Power & Light – KCP&L Greater Missouri Operations Company (“GMO”) – HR-2009-0092 – Contract Adjustment & Imputation – AG Processing (AGP)

Missouri Gas Energy (a Division of Southern Union Company) - GR-2008-0355 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Missouri Gas Energy (a Division of Southern Union Company) - GR-2010-0355 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Empire District Electric Company of Joplin – GR-2009-0434 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Missouri Gas Energy (a Division of Southern Union Company) - GT-2010-0261 - Rewrite of Transportation Tariff (Off-shoot of .GR-2010-0355).

Laclede Gas Company – GR-2010-0171 – Class Cost of Service

Daniel I. Beck, P.E.

Supervisor of the Engineering Analysis Section of the Energy Department
Utility Operations Division

Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102

I graduated with a Bachelor of Science Degree in Industrial Engineering from the University of Missouri at Columbia. Upon graduation, I was employed by the Navy Plant Representative Office in St. Louis, Missouri as an Industrial Engineer. I began my employment at the Commission in November, 1987, in the Research and Planning Department of the Utility Division (later renamed the Economic Analysis Department of the Policy and Planning Division) where my duties consisted of weather normalization, load forecasting, integrated resource planning, cost-of-service and rate design. In December, 1997, I was transferred to the Tariffs/Rate Design Section of the Commission's Gas Department where my duties include weather normalization, annualization, tariff review, cost-of-service and rate design. Since June 2001, I have been in the Engineering Analysis Section of the Energy Department, which was created by combining the Gas and Electric Departments. I became the Supervisor of the Engineering Analysis Section, Energy Department, Utility Operations Division in November 2005.

I am a Registered Professional Engineer in the State of Missouri. My registration number is E-26953.

**List of Cases in which prepared testimony was presented by:
DANIEL I. BECK**

<u>Company Name</u>	<u>Case No.</u>
Union Electric Company	EO-87-175
The Empire District Electric Company	EO-91-74
Missouri Public Service	ER-93-37
St. Joseph Power & Light Company	ER-93-41
The Empire District Electric Company	ER-94-174
Union Electric Company	EM-96-149
Laclede Gas Company	GR-96-193
Missouri Gas Energy	GR-96-285
Kansas City Power & Light Company	ET-97-113
Associated Natural Gas Company	GR-97-272
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Missouri Gas Energy	GT-98-237
Ozark Natural Gas Company, Inc.	GA-98-227
Laclede Gas Company	GR-98-374
St. Joseph Power & Light Company	GR-99-246
Laclede Gas Company	GR-99-315
Utilicorp United Inc. & St. Joseph Light & Power Co.	EM-2000-292
Union Electric Company d/b/a AmerenUE	GR-2000-512
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GR-2001-629
Union Electric Company d/b/a AmerenUE	GT-2002-70
Laclede Gas Company	GR-2001-629
Laclede Gas Company	GR-2002-356
Union Electric Company d/b/a AmerenUE	GR-2003-0517
Missouri Gas Energy	GR-2004-0209
Atmos Energy Corporation	GR-2006-0387
Missouri Gas Energy	GR-2006-0422
Union Electric Company d/b/a AmerenUE	GR-2007-0003
The Empire District Electric Company	EO-2007-0029/EE-2007-0030
Laclede Gas Company	GR-2007-0208
The Empire District Electric Company	EO-2008-0043
Missouri Gas Utility, Inc.	GR-2008-0060

The Empire District Electric Company	ER-2008-0093
Union Electric Company d/b/a AmerenUE	ER-2008-0318
Kansas City Power & Light Company	ER-2009-0089
KCP&L Greater Missouri Operations Company	ER-2009-0090
Missouri Gas Energy	GR-2009-0355
The Empire District Gas Company	GR-2009-0434
Union Electric Company d/b/a AmerenUE	ER-2010-0036
Laclede Gas Company	GR-2010-0171
Atmos Energy Corporation	GR-2010-0192
Kansas City Power & Light Company	ER-2010-0355
KCP&L Greater Missouri Operations Company	ER-2010-0356

HENRY WARREN, PHD
REGULATORY ECONOMIST
UTILITY OPERATIONS DIVISION
ENERGY DEPARTMENT

EDUCATION AND EXPERIENCE

I received my Bachelor of Arts and my Master of Arts in Economics from the University of Missouri-Columbia, and a Doctor of Philosophy (PhD) in Economics from Texas A&M University. Prior to joining the PSC Staff (Staff), I was an Economist with the U.S. National Oceanic and Atmospheric Administration (NOAA). At NOAA I conducted research on the economic impact of climate and weather. I began my employment at the Commission on October 1, 1992 as a Research Economist in the Economic Analysis Department. My duties consisted of calculating adjustments to test-year energy use based on test-year weather and normal weather, and I also assisted in the review of Electric Resource Plans for investor owned utilities in Missouri. From December 1, 1997, until May 2001, I was a Regulatory Economist II in the Commission's Gas Department, where my duties included analysis of issues in natural gas rate cases and were expanded to include reviewing tariff filings, applications and various other matters relating to jurisdictional gas utilities in Missouri. On June 1, 2001 the Commission organized an Energy Department and I was assigned to the Tariff/Rate Design Section of the Energy Department. My duties in the Energy Department include analysis of issues in rate cases of natural gas and electric utilities, tariff filings, applications, and various other matters relating to jurisdictional gas and electric utilities in Missouri, including review of Electric Resource Plans and Regulatory Plans for investor owned electric utilities in Missouri. I have also served on various task forces, collaboratives, and working groups dealing with issues relating to jurisdictional natural gas and electric utilities.

MISSOURI PUBLIC SERVICE COMMISSION
CASES IN WHICH PREPARED TESTIMONY,
REPORT, OR REVIEW WAS SUBMITTED BY:
HENRY E. WARREN, PHD

<u>COMPANY NAME</u>	<u>CASE NUMBER</u>
St. Joseph Light and Power Company	GR-93-042 ¹
Laclede Gas Co.	GR-93-149
Missouri Public Service	GR-93-172 ¹
Western Resources	GR-93-240 ¹
Laclede Gas Co.	GR-94-220 ¹
Kansas City Power & Light Co.	EO-94-3601 ²
United Cities Gas Co.	GR-95-160 ¹
UtiliCorp United, Inc.	EO-95-187 ²
The Empire District Electric Co.	ER-95-279 ¹
The Empire District Electric Co.	EO-96-56 ²
St. Joseph Light and Power Company	EO-96-198 ²
Laclede Gas Co.	GR-96-193 ¹
Missouri Gas Energy	GR-96-285 ¹
The Empire District Electric Co.	ER-97-081 ¹
Union Electric Co.	GR-97-393 ¹
Missouri Gas Energy	GR-98-140 ¹
Laclede Gas Co.	GR-98-374 ¹
St. Joseph Light & Power Company	GR-99-246 ¹
Laclede Gas Co.	GR-99-315 ¹
Union Electric Company (d/b/a AmerenUE)	GR-2000-512 ¹
Missouri Gas Energy	GR-2001-292 ¹
Laclede Gas Co.	GR-2001-629 ¹

¹Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

²Staff Report or Review

**MISSOURI PUBLIC SERVICE COMMISSION
CASES IN WHICH PREPARED TESTIMONY,
REPORT OR REVIEW WAS SUBMITTED BY:**

**HENRY E. WARREN, PHD
(CONTINUED)**

<u>COMPANY NAME</u>	<u>CASE NUMBER</u>
Laclede Gas Company	GC-2002-0110 ²
Laclede Gas Company	GR-2002-0356 ¹
Aquila, Inc.	GC-2003-0131 ²
Laclede Gas Company	GC-2003-0212 ²
Laclede Gas Company	GT-2003-0117
Aquila, Inc., (d/b/a Aquila Networks MPS and L&P)	GR-2004-0072 ¹
Missouri Gas Energy	GR-2004-0209
Laclede Gas Company	GC-2004-0240 ²
Kansas City Power & Light Company	EO-2005-0329 ²
Union Electric Company (d/b/a AmerenUE)	EO-2006-0240 ²
The Empire District Electric Company	ER-2006-0315
The Atmos Energy Corporation	GR-2006-0387 ¹
Missouri Gas Energy	GR-2006-0422 ¹
Union Electric Company (d/b/a AmerenUE)	GR-2007-0003 ¹
Kansas City Power & Light Company	EO-2007-0008 ²
Aquila, Inc., (d/b/a Aquila Networks MPS and L&P)	EO-2007-0298 ²
Laclede Gas Company	GR-2007-0208 ²
Missouri Gas Energy – The Empire District Gas Company	GA-2007-0289, et al
Union Electric Company (d/b/a AmerenUE)	EO-2007-0409 ²

¹Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

²Staff Report or Review

**MISSOURI PUBLIC SERVICE COMMISSION
CASES IN WHICH PREPARED TESTIMONY,
REPORT OR REVIEW WAS SUBMITTED BY:**

**HENRY E. WARREN, PHD
(CONTINUED)**

The Empire District Electric Company	EO-2008-0069 ²
Union Electric Company (d/b/a AmerenUE)	ER-2008-0318
Missouri Gas Energy	GR-2009-0355 ¹
The Empire District Gas Company	GR-2009-0434
The Empire District Electric Company	ER-2010-0130
Laclede Gas Company	GR-2010-0171 ²
Atmos Energy Corporation	GR-2010-0192
Kansas City Power & Light	ER-2010-0355
Kansas City Power & Light - Greater Missouri Operations	ER-2010-0356

¹Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

²Staff Report or Review

Ameren Missouri
CASE NO. GR-2010-0363
TEST YEAR ENDED December 31, 2009
C-O-S RESULTS

	TOTAL	RESIDENTIAL	SMALL GENERAL SERVICE	LARGE GENERAL SERVICE	INTERRUPTIBLE	0 STANDARD TRANSPORTATION	TRANSPORTATION
RATE BASE	\$225,134,860	\$137,360,782	\$19,495,396	\$36,760,414	\$3,404,133	\$13,302,967	\$14,811,168
REQUESTED RETURN	7.30%	7.30%	7.30%	7.30%	7.30%	7.30%	7.30%
RETURN ON RATE BASE	\$16,423,588	\$10,020,469	\$1,422,189	\$2,681,672	\$248,331	\$970,451	\$1,080,475
O & M EXPENSES	\$32,348,247	\$22,758,155	\$2,910,604	\$3,701,696	\$318,062	\$1,313,727	\$1,346,003
DEPRECIATION EXPENSE	\$8,668,928	\$5,532,266	\$809,257	\$1,320,855	\$109,218	\$425,147	\$472,185
TAXES OTHER THAN INCOME	\$7,959,802	\$5,061,581	\$727,497	\$1,208,436	\$104,423	\$405,817	\$452,049
INCOME TAXES	\$5,745,062	\$3,505,216	\$497,490	\$938,064	\$86,868	\$339,469	\$377,956
TOTAL EXPENSES	\$54,722,039	\$36,857,218	\$4,944,847	\$7,169,051	\$618,570	\$2,484,161	\$2,648,193
TOTAL C-O-S	\$71,145,627	\$46,877,687	\$6,367,037	\$9,850,723	\$866,901	\$3,454,612	\$3,728,668
OTHER REVENUES	\$2,201,664	\$761,588	\$82,678	\$85,517	\$142,158	\$495,839	\$633,883
REQUIRED MARGIN REVENUE	\$68,943,963	\$46,116,099	\$6,284,359	\$9,765,205	\$724,743	\$2,958,773	\$3,094,784
CURRENT MARGIN REVENUE	\$62,008,886	\$38,455,821	\$5,401,836	\$8,995,477	\$930,079	\$4,079,949	\$4,145,724
ZERO REVENUE INCREASE PLUG	(\$6,935,077)	(\$4,638,821)	(\$632,144)	(\$982,283)	(\$72,902)	(\$297,623)	(\$311,305)
C-O-S MARGIN REVENUES @ 0%	\$62,008,886	\$41,477,278	\$5,652,215	\$8,782,923	\$651,841	\$2,661,150	\$2,783,480
CLASS SHARE OF CURRENT MARGIN REVENUES	100.00%	62.02%	8.71%	14.51%	1.50%	6.58%	6.69%
CLASS SHARE OF COST-OF-SERVICE MARGIN REVENUES	100.00%	66.89%	9.12%	14.16%	1.05%	4.29%	4.49%

AmerenUE
CASE NO. GR-2010-0363
RESIDENTIAL COINCIDENT PEAK DAY DEMAND ESTIMATE

Panhandle Eastern District

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Ccf/C/D	CUSTOMERS	Ccf/DAY
Jan	65.59	7.3057	95,966	701,095
Feb	60.89	6.8022	96,168	654,157
Mar	46.69	5.2816	96,379	509,040
Apr	29.89	3.4837	95,677	333,314
May	17.24	2.1288	94,892	202,006
Jun	6.67	0.9971	94,194	93,917
Jul	1.16	0.4077	93,488	38,114
Aug	2.46	0.5466	93,546	51,133
Sep	16.59	2.0591	93,516	192,561
Oct	27.96	3.2768	94,021	308,088
Nov	43.88	4.9810	95,230	474,345
Dec	63.58	7.0904	95,639	678,117
ANNUAL	65.59	7.3057	95,924	700,791

Southeast District

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Ccf/C/D	CUSTOMERS	Ccf/DAY
Jan	60.17	7.2147	17,964	129,604
Feb	53.46	6.4411	18,059	116,319
Mar	40.68	4.9670	18,098	89,893
Apr	26.84	3.3715	17,938	60,478
May	13.42	1.8235	17,830	32,512
Jun	2.88	0.6084	17,734	10,790
Jul	0.10	0.2878	17,730	5,102
Aug	0.72	0.3586	17,664	6,334
Sep	12.92	1.7662	17,647	31,169
Oct	24.88	3.1447	17,651	55,507
Nov	38.20	4.6817	17,776	83,222
Dec	55.68	6.6968	17,883	119,759
ANNUAL	60.17	7.2147	17,969	129,638

AmerenUE
CASE NO. GR-2010-0363
SMALL GENERAL SERVICE COINCIDENT PEAK DAY DEMAND ESTIMATE

Panhandle Eastern District

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Ccf/C/D	CUSTOMERS	Ccf/DAY
Jan	65.59	12.0582	7,581	91,413
Feb	60.89	11.2047	7,621	85,391
Mar	46.69	8.6268	7,586	65,443
Apr	29.89	5.5787	7,514	41,919
May	17.24	3.2816	7,441	24,419
Jun	6.67	1.3630	7,421	10,114
Jul	1.16	0.3638	7,370	2,681
Aug	2.46	0.5993	7,334	4,395
Sep	16.59	3.1635	7,346	23,239
Oct	27.96	5.2279	7,336	38,352
Nov	43.88	8.1172	7,434	60,343
Dec	63.58	11.6932	7,461	87,243
ANNUAL	65.59	12.0582	7,554	91,092

Southeast District

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Ccf/C/D	CUSTOMERS	Ccf/DAY
Jan	60.17	12.5877	2,143	26,975
Feb	53.46	11.2049	2,160	24,203
Mar	40.68	8.5702	2,148	18,409
Apr	26.84	5.7183	2,136	12,214
May	13.42	2.9514	2,116	6,245
Jun	2.88	0.7796	2,108	1,643
Jul	0.10	0.2064	2,096	433
Aug	0.72	0.3330	2,089	696
Sep	12.92	2.8491	2,088	5,949
Oct	24.88	5.3129	2,083	11,067
Nov	38.20	8.0602	2,087	16,822
Dec	55.68	11.6620	2,114	24,653
ANNUAL	60.17	12.5877	2,139	26,925

AmerenUE
CASE NO. GR-2010-0363
LARGE GENERAL SERVICE COINCIDENT PEAK DAY DEMAND ESTIMATE

Panhandle Eastern District

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Ccf/C/D	CUSTOMERS	Ccf/DAY
Jan	65.59	85.1381	2,685	228,596
Feb	60.89	79.6027	2,707	215,485
Mar	46.69	62.8833	2,699	169,722
Apr	29.89	43.1148	2,683	115,677
May	17.24	28.2167	2,679	75,593
Jun	6.67	15.7729	2,671	42,129
Jul	1.16	9.2925	2,676	24,867
Aug	2.46	10.8200	2,678	28,976
Sep	16.59	27.4506	2,674	73,403
Oct	27.96	40.8394	2,656	108,469
Nov	43.88	59.5782	2,715	161,755
Dec	63.58	82.7710	2,681	221,909
ANNUAL	65.59	85.1381	2,691	229,107

Southeast District

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Ccf/C/D	CUSTOMERS	Ccf/DAY
Jan	60.17	79.8000	608	48,518
Feb	53.46	72.2548	623	45,015
Mar	40.68	57.8782	618	35,769
Apr	26.84	42.3164	616	26,067
May	13.42	27.2181	614	16,712
Jun	2.88	15.3676	613	9,420
Jul	0.10	12.2401	614	7,515
Aug	0.72	12.9307	614	7,939
Sep	12.92	26.6600	614	16,369
Oct	24.88	40.1042	613	24,584
Nov	38.20	55.0952	610	33,608
Dec	55.68	74.7490	613	45,821
ANNUAL	60.17	79.8000	615	49,050

Schedule HEW-2

is

Highly Confidential

In Its Entirety