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Ameren Missouri

Case No. ER-2016-0179

Prepared Direct Testimony of

Donald Johnstone

On behalf of

Office of Public Counsel
(OPC)

December, 2016



NP

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

In the Matter of Union Electric)	
Company d/b/a Ameren Missouri's)	
Tariffs to Increase Its)	Case No. ER-2016-0179
Revenues for Electric Service)	

Affidavit of Donald E. Johnstone

STATE OF MISSOURI)	
)	ss
COUNTY OF CAMDEN)	

Donald E. Johnstone, of lawful age and being first duly sworn, deposes and states:

1. My name is Donald E. Johnstone. I am the owner of Competitive Energy Dynamics, L.L.C.
2. Attached hereto and made a part hereof for all purposes is my direct testimony.
3. I hereby swear and affirm that my statements contained in the attached affidavit are true and correct to the best of my knowledge and belief.

Donald E. Johnstone

Donald E. Johnstone

Subscribed and sworn to me this 23rd day of December, 2016.



JERENE A. BUCKMAN
My Commission Expires
August 23, 2017
Cole County
Commission #13754037

Jerene A. Buckman

Jerene A. Buckman
Notary Public

My Commission expires August 23, 2017.

Before the
Missouri Public Service Commission

Ameren Missouri

Case No. ER-2016-0179

**Table of Contents
For the
Direct Testimony of Donald Johnstone**

Class Cost Of Service	2
Production Cost Allocation	4
Transmission Cost Allocation.....	9
Distribution Cost Allocation	10
Class Cost Of Service Summary	11
Recommended Spread Of The Increase	12
Rate Design	12
Rates 12(M) and 13(M)	13

Before the
Missouri Public Service Commission

Ameren Missouri

Case No. ER-2016-0179

Prepared Direct Testimony of Donald Johnstone

1 Q PLEASE STATE YOUR NAME AND ADDRESS.

2 A My name is Donald Johnstone and my business address is 384 Black Hawk Drive, Lake
3 Ozark, Missouri, 65049. I am employed by Competitive Energy Dynamics, L.L.C.

4 Q ON WHOSE BEHALF ARE YOU APPEARING?

5 A I am appearing on behalf of the State of Missouri, Office of Public Counsel ("OPC").
6 The customers of Ameren Missouri ("AMO") directly represented by OPC in matters of
7 rate design in this case are those served under the Residential and Small General
8 Service rate schedules.

9 Q PLEASE STATE YOUR QUALIFICATIONS AND EXPERIENCE.

10 A I have been working in the utility business since 1973. I started as an engineer working
11 for the Union Electric Company (now AMO), where I had assignments in power
12 operations and corporate planning. Since 1981, I have worked as a consultant in the
13 field of utility regulation. My work has taken me to many states and I have addressed
14 various matters including rate design, the cost of service, fuel costs, forecasting,

1 resource planning, and industry restructuring. My experience has included electric,
2 gas, water, sewer, and steam utility services. A more complete description is set
3 forth in Appendix A.

4 **CLASS COST OF SERVICE**

5 Q WHAT IS THE AMO DIRECT TESTIMONY ON THE MATTER OF A CLASS COST-OF-
6 SERVICE STUDY?

7 A AMO witness William E. Davis submitted a class cost-of-service study in his direct
8 testimony. The study in most respects is consistent with recent AMO studies, although
9 there are significant changes manifest in the proposed use of a hypothetical minimum
10 distribution system.

11 Q ARE THERE ANY REFERENCE WORKS THAT CAN BE USEFUL IN DEVELOPING THE
12 CLASS COST OF SERVICE?

13 A Yes. One of the most frequently cited references is the "Electric Utility Cost
14 Allocation Manual" issued by NARUC in January of 1992 ("the NARUC Manual"). Mr.
15 Davis, cites only company records and the NARUC Manual as the basis for his minimum
16 distribution system study. Of course, the NARUC Manual is devoted entirely to cost
17 allocation topics based on the world as it existed at the time, some 25 years ago.
18 There have been changes since then and it is always important to consider the cost
19 allocation process in the context of current circumstances.

1 Q DOES THE NARUC MANUAL OFFER A DEFINITIVE SOLUTION TO MATTERS OF COST
2 ALLOCATION?

3 A No, it does not purport to do so. For example, in the conclusion regarding embedded
4 production cost allocation methods, it states:

5 This review of production cost allocation methods may not contain
6 every method, but it is hoped that the reader will agree that the broad
7 outlines of all methods are here. The possibilities for varying the
8 methods are numerous and should suit the analysts' assessment of
9 allocation objectives. Keep in mind that no method is prescribed by
10 regulators to be followed exactly; an agreed upon method can be
11 revised to reflect new technology, new rate design objectives, new
12 information or a new analyst with new ideas. These methods are laid
13 out here to reveal their flexibility; they can be seen as maps and the
14 road you take is the one that best suits you. (Electric Utility Cost
15 Allocation Manual, NARUC, Jan., 1992, p. 67)

16 While the above paragraph comes from the chapter addressing production costs, the
17 thought is applicable to all aspects of the study.

18 Q WHAT ARE SOME OF THE CURRENT INDUSTRY ISSUES THAT MIGHT IMPACT THE
19 CLASS COST-OF-SERVICE STUDY?

20 A There are several.

- 21 • As an example, there is legislation addressing energy efficiency, how it is to be
22 considered in utility planning and how costs may be recovered. AMO and its
23 customers share an interest in energy efficiency.
- 24 • Another example is legislation establishing portfolio targets for renewable sources
25 of generation. While low cost is a continuing objective, portfolio targets introduce
26 additional planning considerations and can increase costs.
- 27 • A third example is distributed generation. While AMO continues to operate as a
28 regulated monopoly, alternatives to utility generation are being promoted in an
29 evolving market for distributed generation.

30

1 Q ARE THERE WAYS IN WHICH THE EVOLUTION OF THE INDUSTRY RELATES TO
2 APPROPRIATE METHODOLOGIES FOR A CLASS COST-OF-SERVICE STUDY?

3 A Yes, there are several.

- 4 • First, peak demand, while still a very important consideration for reliability,
5 currently is not of the quite the same unique importance in generation planning.
- 6 • Second, transmission planning is also more complex. In the past it was attuned to
7 the reliable delivery of a utility's own generation and interconnections to bolster
8 reliability. Today there are regional transmission operators and system expansions
9 that are multi-valued.
- 10 • Third, the function of distribution is expanding due to small distributed generation.
- 11 • Fourth, advanced metering is opening possibilities for new rate designs.
- 12 • Fifth, there are additional rate design considerations due to policies that promote
13 customer efficiencies.

14 The methods used to allocate costs need to reflect the factors that are driving the
15 utility costs to be incurred at this point in history. I will provide recommendations to
16 improve the methods to better reflect current conditions.

17 PRODUCTION COST ALLOCATION

18 Q WHAT FACTORS SHOULD BE CONSIDERED IN REGARD TO THE ALLOCATION OF
19 PRODUCTION COSTS?

20 A In the context of an evolving industry, I recommend a change to give more weight to
21 energy in the allocation of production capacity costs. Cost drivers that lead to a need
22 for the increased energy weight will impact the type of energy, such that capacity
23 choices are constrained. The factors include:

- 24 • renewable portfolio targets;
- 25 • fuel source diversity;

- 1 • solar rebates;
- 2 • energy efficiency rebates; and
- 3 • price signals to encourage conservation.

4 These considerations, separately and together, suggest a relatively more important
5 role for energy in the allocation of production capacity costs.

6 **Q ARE OFF-SYSTEM SALES ALSO A CONSIDERATION IN PRODUCTION COST**
7 **ALLOCATION?**

8 **A**Yes. There should be a consistent allocation method between the profits derived from
9 off-system sales and the capacity that is used to generate the sales/profits.

10 **Q PLEASE EXPLAIN.**

11 **A**Off-system sales are possible when available AMO production capacity is greater than
12 what is needed for native load at the time. Hence, production capacity cost is the
13 factor driving the ability to make sales. In the class cost-of-service study the cost of
14 the production capacity so used is spread to the classes with the production demand
15 allocation factor.

16 **Q IN THE AMO CLASS COST-OF-SERVICE STUDY IS THERE A PROBLEM BETWEEN THE**
17 **PRODUCTION CAPACITY COST ALLOCATION AND THE ALLOCATION OF OFF-SYSTEM**
18 **SALES PROFITS?**

19 **A**They are inconsistent. As it stands in the AMO class cost-of-service study the
20 residential class is allocated 47.92% of the production cost but only 40.35% of profits.
21 Consequently in the AMO study the residential cost of service is overstated by several

1 million dollars and the return shown for the residential class is lower than it ought to
2 be.

3 Q WHY HAS AMO SUPPORTED THE APPROACH?

4 A Mr. Davis cites the Commission's Report and Order in ER-2010-0036. He did not
5 otherwise explain or defend the approach.

6 Q WHAT DID AMO HAVE TO SAY ON THE MATTER IN EO-2010-0036?

7 A In that case, AMO witness William M. Warwick testified that, from a cost causation
8 perspective, the allocation of the off-system sales margin should follow the allocation
9 of the production capacity that made the sales possible. He stated in rebuttal:

10 ...the margin (off-system sales revenues less associated fuel expense)
11 from these revenues should be allocated the same as fixed production
12 plant. These sales are being generated by a fixed asset, and,
13 consequently, equity considerations promote the allocation of this net
14 amount to the Company's customer classes on the same basis as the
15 allocation of the costs of the same fixed production assets.
16 (William M. Warwick, Rebuttal Testimony, ER-2010-0036, February 11,
17 2010, p.6)

18 He stated further in surrebuttal:

19 . . . revenues from off-system sales are generated from fixed production
20 assets and consistent with the "expense follows cost" theory, "revenues
21 following costs" would dictate that the allocation of revenues
22 associated with these fixed production assets should be consistent with
23 the allocation of the assets (i.e. A&E 4 NCP).
24 (William M. Warwick, Surrebuttal Testimony, ER-2010-0036, March 5,
25 2010, p.3)

26 There is an inexorable link between the profit margin from off-system sales and the
27 cost of the capacity that makes the off-system sales possible. It can be addressed
28 through either the production demand allocator or the off-system sales profit margin
29 allocator so long as consistency is maintained. Either the allocation of the off-system

1 sales margins should be changed to the same basis as production capacity, or there
2 should be an accommodation in the method for allocating production capacity to
3 match the allocation of the off-system sales margins. I take the latter approach and
4 make an adjustment to the allocation of production capacity costs to achieve the
5 needed consistency.

6 Q HOW DOES AMO PROPOSE TO ALLOCATE PRODUCTION COSTS IN ITS CLASS COST-OF-
7 SERVICE STUDY?

8 A Mr. Davis supports an average and excess factor using a 4 NCP definition of the peak.

9 Q FIRST, PLEASE DEFINE THE 4 NCP ALLOCATION FACTOR.

10 A NCP is the abbreviation for "Noncoincident Class Peak." In a given time period, a
11 month for this purpose, the NCP is the highest demand for a customer class's loads
12 during the period. The NCPs for each class are added together and total for each class
13 each is divided by the system total to yield a percentage allocation for each customer
14 class. Noncoincident peaks often occur close in time to the system peaks, but they
15 are not tied to the time of a system peak and instead rely on the highest load of each
16 customer class.

17 The AMO 4 NCP factor includes the NCPs from the four months of the year with
18 highest NCP totals. Then the class loads from the selected months are added together
19 and the totaled class loads are added together for the system total. The loads totaled
20 for each class are divided by the system total to develop the class percentage
21 allocations.

1 Q HOW DOES MR. DAVIS CALCULATE THE AVERAGE AND EXCESS 4 NCP ALLOCATION
2 FACTOR THAT HE APPLIES TO DEMAND RELATED PRODUCTION COSTS?

3 A The 4 NCP demands of each class are first separated into an average component and
4 an excess component. This is done by subtracting the average demand of each class
5 from the average 4 NCP demand of the class. The remainder is the so called "excess"
6 demand for each class. The final step is to combine the average and excess demands
7 of the classes into a weighted average allocation factor that is the average and excess
8 4 NCP. When combined the average demands are weighted by the system load factor,
9 56.9%, and combined with the excess demands that are weighted by 43.1%, which is
10 one minus the load factor.

11 Q DOES THE METHOD GIVE DUE WEIGHT TO ENERGY IN THE ALLOCATION FACTOR?

12 A No. While it appears to assign a substantial weight of 56.9% to energy, the effect is
13 greatly muted because the excess demands, created by removing the average
14 demands, magnify the variability in class 4 NCP demands. It is the same effect that
15 one can see in a chart when the zero reference is removed. The appearance of
16 variability is magnified. In a similar fashion, the impact of 4 NCP demands is
17 magnified because the computation removes an essential reference by subtracting the
18 average demands.

19 Q WHAT IS YOUR RECOMMENDATION REGARDING THE ALLOCATION OF PRODUCTION
20 CAPACITY COSTS?

21 A I recommend an approach that incorporates demand and energy with a straightforward
22 weighting of the two.

- 1 • The four highest monthly noncoincident class demands should be used for the
2 demand component with a weight of 80%.
- 3 • Energy should be used with a weight of 20%.
- 4 • The allocation weights are applied explicitly to eliminate the possibility of
5 unintended or illusory weightings.

6 Q WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

7 A It increases the influence of energy on the allocation, an appropriate impact given the
8 several considerations already discussed.

9 Q DOES THE AVERAGE AND EXCESS 4 NCP PRODUCTION COST ALLOCATION METHOD
10 PROPOSED BY AMO REASONABLY REFLECT THESE CONSIDERATIONS?

11 A No. Simply put, as a consequence of the computational approach, the impact of
12 energy is quite limited.

13 TRANSMISSION COST ALLOCATION

14 Q HOW DOES AMO PROPOSE TO ALLOCATE TRANSMISSION COSTS IN ITS CLASS COST-
15 OF-SERVICE STUDY?

16 A Mr. Davis supports an allocation factor defined by the class contributions to the twelve
17 monthly system peak demands, or the twelve coincident peak method (12 CP).

18 In this instance, the fact that lighting loads do not contribute to the summer
19 peaks illustrates a limitation of relying on coincident peaks. The use of monthly
20 coincident peaks is in contrast to the use of the 4 NCP for production capacity under
21 which a contribution for each class in each month would be ensured. In the 12 CP

1 factor, the lighting class loads in months where the coincident demands are zero
2 remain part of the calculation, to the benefit of the class.

3 Q WHAT ALLOCATION FACTOR DO YOU RECOMMEND FOR TRANSMISSION?

4 A I recommend an approach that incorporates demand and energy with a straightforward
5 weighting of the two.

- 6 • The twelve monthly coincident class demands should be used for the demand
7 component with a weight of 90%.
- 8 • Energy should be used with a weight of 10%.

9 The energy component is needed because transmission supports large energy transfers
10 in addition to the primary traditional use in support of reliability. Also, I note that
11 lighting makes zero contribution to the 12 CP allocator in many months and the use of
12 energy ensures a contribution based on usage in all months.

13 DISTRIBUTION COST ALLOCATION

14 Q WHAT METHODS ARE PROPOSED BY AMO FOR THE ALLOCATION OF DISTRIBUTION
15 COSTS?

16 A AMO uses various noncoincident peak and customer allocations to reflect the services
17 provided at various voltage levels. AMO also proposes the use of a hypothetical
18 minimum distribution system in which substantial costs are classified as customer
19 related.

1 Q DOES AMO'S ADAPTION OF A MINIMUM SYSTEM PROPERLY REFLECT COST
2 CAUSATION?

3 A No. One important question is whether the minimum system developed by Mr. Davis is
4 comprised solely of customer related costs. To illustrate a problem, consider that the
5 line transformers used in the minimum system would be sufficient to serve the total
6 load of many of the AMO's customers. In fact, depending on the size of the customers,
7 the total load of multiple customers may be served by one of the line transformers
8 defined as the minimum system. To accept that the minimum system is solely a
9 customer related cost, one also must accept there is no demand service provided by
10 the equipment ascribed to the minimum system. That is inconsistent with reality.

11 Q WHAT IS YOUR RECOMMENDATION REGARDING ADOPTION OF THE MINIMUM SYSTEM?

12 A Only the costs of facilities which do not provide electrical service should be allocated
13 and collected on a customer basis. Those costs would include metering, billing and
14 customer service expenses. Otherwise most of the costs, whether or not they are
15 identified as part of the hypothetical minimum system, are demand related and should
16 be allocated accordingly.

17 CLASS COST OF SERVICE SUMMARY

18 Q PLEASE SUMMARIZE THE ADJUSTMENTS YOU RECOMMEND TO THE AMO CLASS COST-
19 OF-SERVICE STUDY?

20 A I recommend the following:

- 21 • Adjust the production plant allocation to use weights of 80% for the 4 NCP
22 factor and 20% for the energy factor.

- 1 • Adjust the transmission plant allocation factor to use weights of 90% for the 12
2 CP and 10% for the energy factor.
- 3 • Adjust the distribution plant allocation factors to remove inappropriate
4 customer classifications and allocations for the costs of lines and substations.

5 Q WHAT ARE THE RESULTS OF THE CLASS COST-OF-SERVICE STUDY?

6 A The results are summarized in schedule 1.

7 RECOMMENDED SPREAD OF THE INCREASE

8 Q WHAT DO YOU RECOMMEND FOR THE SPREAD OF ANY APPROVED INCREASE AMONG
9 THE CUSTOMER CLASSES?

10 A I recommend an adjustment to eliminate 20% of the variation from cost for the general
11 service and small primary service classes. The SGS class would receive a .92%
12 downward adjustment. For the LGS and SPS classes the downward adjustment is .15%.
13 To maintain an adjustment that is revenue neutral I recommend increases in the rates
14 for the residential and large primary service classes in proportion to the respective
15 class variations from cost. The residential adjustment is an increase of .18%. The LPS
16 adjustment is an increase of .86%. After application of these adjustments I
17 recommend an equal percentage increase in the base rate revenue of all classes.

18 RATE DESIGN

19 Q WHAT RATES DO YOU RECOMMEND FOR RESIDENTIAL CLASS?

20 A I recommend no implementation of the proposed grid access charge and holding the
21 customer charge at the present level of \$8.00.

1 Q WHAT RATES DO YOU RECOMMEND FOR SMALL GENERAL SERVICE (SGS) CLASS?

2 A I recommend no implementation of the grid access charge and holding the customer
3 charges at the present levels.

4 RATES 12(M) AND 13(M)

5 Q WHAT ARE RATES 12(M) AND 13(M)?

6 A Rate 12(M) is the Large Transmission Service Rate (LTS). At its inception it was
7 intended as a cost based rate under which service would be provided to the aluminum
8 smelter located in southeast Missouri, then owned by Noranda Aluminum. Rate 13(M)
9 is the Industrial Aluminum Smelter Rate (IAS) implemented in May 2015 pursuant to
10 Commission order. It provides a significantly lower price than Rate 12(M).

11 Q ARE YOU FAMILIAR WITH RATE 12(M)?

12 A Yes. I was retained by Noranda to assist in the negotiation leading to the rate and to
13 assist in the presentation to the Commission.

14 Q WHAT IS THE STATUS OF THE SMELTER?

15 A While the facility remains, the smelter per se is not operating. A load that once
16 approached 500 MW is now less than ** ** MW. The large load and very high load
17 factor for which the rate was designed are not being achieved.

18 Q HOW DID AMO TREAT THE REMAINING LOAD OF THE FACILITY IN ITS FILING IN THIS
19 DOCKET?

20 A AMO removed all of the usage of the facility in its direct case.

1 Q DOES THE CURRENT LOAD MEET THE AVAILABILITY PROVISIONS OF RATES 12(M)
2 AND 13(M)?

3 A Based on my review of the smelter usage data from January 2016 through August 2016,
4 it is questionable, but in any event the current load is not consistent with that for
5 which the rates were designed.

6 Q WHAT IS YOUR RECOMMENDATION FOR A RATE TO BE APPLIED TO THE FACILITY?

7 A I recommend that the load be served under one of AMO's standard rate offerings,
8 either Small Primary Service or Large Primary Service. Due to the unique service
9 arrangements for the facility I further recommend the creation of a rider with the
10 necessary terms and conditions. Paragraphs 1, 2, 3, 4, 5, 6, 7, 8 in the current Rate
11 12(M) provide a starting point for the development of an appropriate rider. Each
12 paragraph would need to be reviewed by AMO to ensure appropriate provisions in the
13 new context. AMO would also be expected to address any other provisions that may
14 be relevant to the development of this rider. Once done, AMO would file the rider
15 with the Commission. Upon the rider becoming effective the facility would be
16 required to obtain its service under an applicable standard rate in conjunction with
17 the rider.

18 Q ARE YOU SUGGESTING THAT A REPLACEMENT EITHER FOR RATE LTS OR RATE IAS
19 WILL NOT BE NEEDED IN THE FUTURE?

20 A No. If the load changes substantially in magnitude or character, a rate appropriate
21 under then current conditions may be introduced for consideration. Such a rate would
22 be created from a clean slate, unencumbered by the provisions of the earlier periods.

1 Q DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?

2 A Yes it does.

Appendix A
Qualifications of Donald E. Johnstone

1 Q PLEASE STATE YOUR NAME AND ADDRESS.

2 A Donald E. Johnstone. My business address is 384 Black Hawk Drive, Lake Ozark, MO
3 65049.

4 Q PLEASE STATE YOUR OCCUPATION.

5 A I am President of Competitive Energy Dynamics, L. L. C. and a consultant in the field
6 of public utility regulation.

7 Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

8 A In 1968, I received a Bachelor of Science Degree in Electrical Engineering from the
9 University of Missouri at Rolla. After graduation, I worked in the customer engineering
10 division of a computer manufacturer. From 1969 to 1973, I was an officer in the Air
11 Force, where most of my work was related to the Aircraft Structural Integrity Program
12 in the areas of data processing, data base design and economic cost analysis. Also in
13 1973, I received a Master of Business Administration Degree from Oklahoma City
14 University.

15 From 1973 through 1981, I was employed by a large Midwestern utility and
16 worked in the Power Operations and Corporate Planning Functions. While in the
17 Power Operations Function, I had assignments relating to the peak demand and net
18 output forecasts and load behavior studies which included such factors as weather,
19 conservation and seasonality. I also analyzed the cost of replacement energy
20 associated with forced outages of generation facilities. In the Corporate Planning

1 Function, my assignments included developmental work on a generation expansion
2 planning program and work on the peak demand and sales forecasts. From 1977
3 through 1981, I was Supervisor of the Load Forecasting Group where my
4 responsibilities included the Company's sales and peak demand forecasts and the
5 weather normalization of sales.

6 In 1981, I began consulting, and in 2000, I created the firm Competitive Energy
7 Dynamics, L.L.C. As a part of my thirty-five years of consulting practice, I have
8 participated in the analysis of various electric, gas, water, and sewer utility matters,
9 including the analysis and preparation of cost-of-service studies and rate analyses. In
10 addition to general rate cases, I have participated in electric fuel and gas cost reviews
11 and planning proceedings, policy proceedings, market price surveys, generation
12 capacity evaluations, and assorted matters related to the restructuring of the electric
13 and gas industries. I have also assisted companies in the negotiation of power
14 contracts representing over \$1 billion of electricity.

15 I have testified before the state regulatory commissions of Delaware, Hawaii,
16 Illinois, Iowa, Kansas, Massachusetts, Missouri, Montana, New Hampshire, Ohio,
17 Pennsylvania, Tennessee, Virginia and West Virginia, and the Rate Commission of the
18 Metropolitan St. Louis Sewer District.

Ameren Missouri
OPC Class Cost of Service Study under Present Rates
Class Returns and Variations from Average Return

	<u>MISSOURI</u>	<u>RESIDENTIAL</u>	<u>SMALL GEN SERV</u>	<u>LARGE G.S. / SMALL PRIMARY</u>	<u>LARGE PRIMARY</u>	<u>LARGE TRANS</u>	<u>LIGHTING</u>
1 BASE REVENUE	\$2,657,947	\$1,255,086	\$309,643	\$843,330	\$209,532	\$0	\$40,356
2 OTHER REVENUE	84,601	43,080	9,364	24,744	6,022	0	1,392
3 LIGHTING REVENUE	0	0	0	0	0	0	0
4 SYSTEM, OFF-SYS SALES & DISP OF ALLOW	525,489	212,311	55,558	193,296	61,561	0	2,762
5 RATE REVENUE VARIANCE	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
6 TOTAL OPERATING REVENUE	\$3,268,037	\$1,510,476	\$374,565	\$1,061,370	\$277,115	\$0	\$44,511
7							
8 TOTAL PROD, T&D, CUST, AND A&G EXP	\$2,001,082	\$905,753	\$216,307	\$665,435	\$194,601	\$0	\$18,986
9 TOTAL DEPR AND AMMORT EXPENSES	532,300	259,214	60,240	165,352	39,613	0	7,880
10 REAL ESTATE AND PROPERTY TAXES	151,461	73,998	17,430	46,580	11,136	0	2,317
11 INCOME TAXES	173,800	91,455	19,836	47,647	11,947	0	2,916
12 PAYROLL TAXES	19,846	9,782	2,200	5,959	1,554	0	350
13 FEDERAL EXCISE TAX	0	0	0	0	0	0	0
14 REVENUE TAXES	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
15							
16 TOTAL OPERATING EXPENSES	\$2,878,489	\$1,340,202	\$316,013	\$930,972	\$258,850	\$0	\$32,451
17							
18 NET OPERATING INCOME	\$389,549	\$170,274	\$58,552	\$130,398	\$18,265	\$0	\$12,060
19							
20 GROSS PLANT IN SERVICE	\$16,976,734	\$8,294,312	\$1,951,366	\$5,221,426	\$1,249,623	\$0	\$260,007
21 RESERVES FOR DEPRECIATION	<u>7,461,799</u>	<u>3,708,497</u>	<u>858,776</u>	<u>2,232,217</u>	<u>525,424</u>	<u>0</u>	<u>136,885</u>
22							
23 NET PLANT IN SERVICE	\$9,514,935	\$4,585,815	\$1,092,590	\$2,989,209	\$724,199	\$0	\$123,122
24							
25 MATERIALS & SUPPLIES - FUEL	\$317,381	\$128,230	\$33,556	\$116,745	\$37,181	\$0	\$1,668
26 MATERIALS & SUPPLIES -LOCAL	\$206,340	\$109,660	\$24,717	\$56,675	\$9,043	\$0	\$6,245
27 CASH WORKING CAPITAL	\$34,400	\$15,570	\$3,718	\$11,439	\$3,345	\$0	\$326
28 CUSTOMER ADVANCES & DEPOSITS	-\$27,473	-\$11,689	-\$8,245	-\$6,552	\$0	\$0	-\$987
29 ACCUMULATED DEFERRED INCOME TAXES	<u>-\$2,850,326</u>	<u>-\$1,392,562</u>	<u>-\$328,010</u>	<u>-\$876,575</u>	<u>-\$209,569</u>	<u>\$0</u>	<u>-\$43,609</u>
30							
31 TOTAL NET ORIGINAL COST RATE BASE	\$7,195,256	\$3,435,025	\$818,326	\$2,290,941	\$564,199	\$0	\$86,766
32							
33 RATE OF RETURN	5.41%	4.96%	7.16%	5.69%	3.24%		13.90%
34 VARIATION FROM EQUAL RATE OF RETURN	\$0 \$	(15,697) \$	14,248 \$	6,367 \$	(12,281) \$		7,363 \$
35 VARIATION PERCENTAGE		-1.25%	4.60%	0.76%	-5.86%		18.24%