

Exhibit No.:
Issues: Class Cost of Service
Rate Design
Witness: Janice Pyatte
Sponsoring Party: MoPSC
Type of Exhibit: Direct Testimony
Case No.: ER-2001-299
Date Testimony Prepared: April 10, 2001

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

Exhibit No. 109-70
Date 5/29/01 Case No. ER-2001-299
Reporter KRM

DIRECT TESTIMONY

OF

JANICE PYATTE

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Jefferson City, Missouri
April, 2001

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OF

JANICE PYATTE

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

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2 **OF**
3 **JANICE PYATTE**
4 **THE EMPIRE DISTRICT ELECTRIC COMPANY**
5 **CASE NO. ER-2001-299**
6

7 Q. Please state your name and business address.

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

10 Q. Are you the same Janice Pyatte who filed direct testimony in this case on
11 April 3, 2001 on the topic of Sales and Revenues?

12 A. Yes, I am.

13 Q. What is the purpose of your direct testimony in this filing?

14 A. My testimony addresses both the Staff's class cost-of-service study and the
15 appropriate rate design for The Empire District Electric Company ("EDE" or "Company"). I
16 am sponsoring various inputs used in the Staff's class cost-of-service study and will describe
17 the Staff's proposal for adjusting EDE's electric rate schedules to reflect any increase in
18 overall electric revenues that result from this case.

19 Q. What has been your work experience in the topic of rate design in prior
20 Empire District Electric Company cases?

21 A. I filed testimony on the design of electric tariffs for Empire District Electric
22 Company in Case No. EO-91-74 (later consolidated with Case No.ER-94-174). I also

Direct Testimony of
Janice Pyatte

1 submitted testimony on the issues of class cost of service and rate design in
2 Case No. ER-95-279 and Case No. ER-97-81, EDE's last two rate cases.

3 Q. How does your testimony in this filing relate to the testimony of other Staff
4 witnesses?

5 A. Staff witness James C. Watkins, Staff witness Anne Ross and I are the
6 witnesses filing direct testimony on the issue of class cost of service. Mr. Watkins is
7 responsible for cost-of-service methodology used in Staff's class cost-of-service study and
8 the development of Staff's cost allocation factors. Ms. Ross is responsible for grouping
9 costs by functional category and applying the cost allocation factors to these costs. The
10 summary of the Staff's class cost-of-service study in this case is presented as Schedule 1 in
11 Ms. Ross' direct testimony. I contributed inputs to both Mr. Watkins and Ms. Ross. My
12 direct testimony filed on April 3, 2001 in this case on the issue of sales and revenues
13 describes the rationale and the development of many of these inputs.

14 **CLASS COST OF SERVICE**

15 Q. What was your role in the preparation of the Staff's class cost-of-service study
16 in this case?

17 A. I am responsible for four inputs into the Staff's class cost-of-service study: (i)
18 kWh sales and customer numbers by cost-of-service class; (ii) Missouri retail rate revenues
19 by cost-of-service class; (iii) "other" (non-rate) revenue, including Missouri's share of the
20 margins associated with EDE's test year off-system sales; and (iv) the December 31, 2000
21 balances associated with "special facilities" and "excess facilities" investment by Federal
22 Energy Regulatory Commission ("FERC") account. Rate revenues, "other" revenues, and
23 special/excess facilities investment are a direct input into the cost-of-service study; kWh

Direct Testimony of
Janice Pyatte

1 sales and customer number are inputs into the development of the cost allocation factors.

2 Q. Please describe the Missouri kWh sales and customer numbers that were
3 developed for the Staff's class cost-of-service study.

4 A. The annualized, normalized, growth-adjusted kWh sales that I developed by
5 cost-of-service class for the test year are described in detail in my April 3, 2001 direct
6 testimony. For this filing, I added the additional kWh sales attributable to estimated
7 customer growth through June 30, 2001 to test year kWh sales. Staff witness Roy M. Boltz,
8 Jr developed the estimated June 30, 2000 customer numbers and kWh sales.

9 These projected kWh sales, and the associated June 30, 2001 customer numbers, were
10 supplied to Mr. Watkins by cost-of-service class for use in the development of cost allocation
11 factors for the Staff's class cost-of-service study. The kWh sales and customer numbers I
12 supplied Mr. Watkins are shown on Schedule 1 attached to this testimony.

13 Q. Please describe the Missouri rate revenues that were developed for the Staff's
14 class cost-of-service study.

15 A. My April 3, 2001 direct testimony in this case describes the development of
16 annualized, normalized, growth-adjusted Missouri rate revenues for the test year. For the
17 class cost-of-service study, I included an estimate of additional rate revenues attributable to
18 customer growth through June 30, 2001. Mr. Boltz developed the additional revenues. I
19 supplied rate revenues by cost-of-service class to Ms. Ross.

20 I also supplied Ms. Ross with "other rate revenue". These revenues are associated
21 with interruptible credits (Rider IR), special/excess facilities (Rider XC), and other (lighting)
22 facilities revenue. The revenues that I supplied Ms. Ross are shown on Schedule 1 attached
23 to this testimony.

Direct Testimony of
Janice Pyatte

1 Q. Please describe the "other" revenues that were developed for the Staff's class
2 cost-of-service study.

3 A. Other (non-rate) revenues were supplied by the Company. Other revenue was
4 compiled by categories such as forfeited discounts, reconnect charges, rent from electric
5 property, etc. With the exception of revenues from off-system sales, no adjustments were
6 made to "other" revenue.

7 Q. What modifications were made to the revenues associated with off-system
8 sales?

9 A. The Staff's class cost-of-service study treats the revenues and expenses
10 associated with off-system sales differently than does the Staff Accounting Schedules. The
11 treatment used by Staff accountants is to include the expenses associated with off-system
12 sales in the fuel and purchased power accounts and to record the revenues attributable to off-
13 system sales as revenues. In the class cost-of-service study, the margin is calculated and only
14 that amount is used (treated only as a revenue item). These two approaches are
15 computationally equivalent.

16 I am responsible for calculating the margin associated with off-system sales. Margin
17 revenue was calculated by subtracting the relevant fuel and purchased power expenses from
18 the total revenues attributable to off-system sales. This (net) revenue number was provided
19 to Ms. Ross, to substitute for the (gross) revenue from off-system sales shown on
20 Schedule 2-17, line 3 of the direct testimony of Staff witness Phillip K. Williams. The
21 margin revenues that I supplied Ms. Ross are shown on Schedule 1. An offsetting
22 adjustment was made to eliminate the fuel and purchased power expenses associated with
23 off-system sales from total fuel and purchased power expense.

1 Q. What data on special/excess facilities did you develop for use in the Staff's
2 class cost-of-service study?

3 A. When EDE installs special facilities or facilities in "excess" of those provided
4 via the standard rate schedule to serve a specific customer, the installed cost of these
5 facilities is recorded in both the Company's regular property accounting system and in a
6 separate database set up specifically to be used for class cost-of-service purposes. These
7 costs are recorded by customer and by FERC account (transformers, conductors, etc.). I am
8 responsible for compiling the historic cost of special/excess facilities attributable to each
9 customer and to each FERC account as of December 31, 2000, using records on individual
10 installations supplied me by the Company. The results of this compilation are shown on
11 Schedule 2 by FERC account and by cost-of-service class. I supplied this information to Ms.
12 Ross for inclusion in the Staff's class cost-of-service study. Mr. Watkins' testimony will
13 describe the rationale for the special treatment of special/excess facilities.

14 The compilation of special/excess facilities by customer was also described on page 6
15 of my April 3 direct testimony, in the context of EDE's recovery of these costs via Rider XC.

16 **RATE DESIGN**

17 Q. Please briefly describe the history of The Empire District Electric Company's
18 current electric rate design.

19 A. EDE's last rate design case, Case No. EO-91-74 Investigation of the Cost of
20 Service and Rate Design The Empire District Electric Company (later consolidated with
21 Case No. ER-94-174), was the genesis of the rate design contained in the Company's current
22 Missouri rate schedules. Major decisions made in that case, such as what rate schedules
23 would exist and what rate structures would be used to recover costs from individual

1 customers, are still in existence today. In addition, in that case rate design areas requiring
2 further study and action were identified.

3 Subsequent to that rate design case, there have been two rate increase cases in which
4 modifications to the rate design established in Case No. EO-91-74 have been made. In
5 Case No.ER-95-279, the approved rate design changes were to: (i) create and maintain a
6 separate, on-going tracking system for Company investments in special/excess facilities for
7 the benefit of individual customers; (ii) charge all customers with special/excess facilities a
8 uniform rate of 1.25% of total investment per month; (iii) change the primary
9 discount/secondary adder on the General Power and Large Power rate schedules to reflect
10 "typical" facilities; (iv) order EDE to perform a special lighting study; and (v) reduce rate
11 levels and eliminate special discounts on the Municipal Street Lighting rate schedule. In
12 addition, a movement was made to narrow the imbalance between class cost responsibility
13 and class revenues, as measured by the various class cost-of-service studies.

14 In Case No.ER-97-81, the approved rate design changes were to: (i) begin the phase-
15 out of the special discounts on the Municipal Street Lighting rate schedule; (ii) eliminate the
16 School and Church rider; and (iii) file a thermal energy storage rider. Class revenues were
17 not adjusted towards class cost responsibility in this case. The overall rate increase of 8.25%
18 was applied as an equal percentage increase to all customer classes and each rate component.

19 Most of the specific rate design problems identified in Case No. EO-91-74 as
20 requiring further study and action have been dealt with in these subsequent cases and all of
21 the planned "phase-outs" have been accomplished.

22 Q. What class cost-of-service study has the Staff done in this case?

23 A. Staff's class cost-of-service study in this case uses the Staff projected

Direct Testimony of
Janice Pyatte

1 accounting costs contained in Schedule 2 of the direct testimony of Staff witness Phillip K.
2 Williams, filed April 3, 2001, and the class revenues I am sponsoring in this case. The
3 classes studied were residential, small general service ("Small GS" or "SGS"), large general
4 service ("Large GS" or "LGS"), large power service ("LPS"), and special contracts ("SC").
5 The lighting ("LGT") and power furnace ("PF") customers were not allocated costs within
6 the Staff's class cost-of-service study but will be included in the rate design proposal. Staff
7 witness James C. Watkins sponsors the description of the cost allocation methodology. The
8 results of the class cost-of-service study are shown as Schedule 1 attached to the direct
9 testimony of Staff witness Anne Ross.

10 Q. Briefly describe the results of Staff's class cost-of-service study.

11 A. The results of Staff's class cost-of-service study are summarized below.

Class	Allocated Costs	Rate Revenue	Rev Deficiency	% Change
Residential	\$103,681,896	\$93,046,757	\$6,108,075	6.56%
Small GS	\$28,724,195	\$28,648,359	(\$1,395,868)	-4.87%
Large GS	\$59,595,907	\$52,994,437	\$3,903,032	7.36%
Large Power	\$32,241,842	\$24,792,524	\$6,090,528	24.57%
Special Contracts	\$2,392,893	\$1,868,004	\$427,549	22.89%
TOTAL MO	\$226,636,730	\$201,350,081	\$15,133,316	7.52%

12
13 The last column shows the percentage change in rate revenues required for each class
14 to correct the imbalance between class cost responsibility and class revenue, as well as
15 provide the Company with an overall increase of \$15,133,316. This represents a 7.52%
16 increase for the studied customer classes, if lighting and power furnace rates are not changed.
17 The study results for each class should be compared to the 7.52% overall change. A
18 percentage change less than 7.52% should be interpreted as class revenues are more than
19 adequate to cover the class' cost to serve. Conversely, a percentage change greater than

1 7.52% means that current class revenues do not recover all costs that the class cost-of-service
2 study attributes to that class.

3 Q. Are there any significant imbalances between class costs and class revenues?

4 A. The results of Staff's class cost-of-service study in this case indicate that there
5 are some significant imbalances between the Company's costs of providing electric service to
6 the various customer classes and the revenues/rates those classes are paying for electric
7 service. The study results indicate that the costs attributed to the Large Power and Special
8 Contracts classes are significantly higher than the revenues being recovered from these
9 classes. The opposite is true with the Small General Service class, where revenue recovery is
10 significantly higher than class cost responsibility. Costs and revenues are essentially "in
11 balance" for both the Residential and Large General Service classes.

12 Q. Please describe Staff's proposal for changing EDE's electric rate schedules to
13 reflect any increase in overall electric revenues that result from this case.

14 A. The Staff's proposal for determining class revenues in this case is that the
15 Commission make a movement towards class cost of service if it is determined that there
16 should be an overall revenue increase. The specifics of Staff's proposal are:

17 (1) If the overall increase in Missouri revenues is \$15,133,316 or less, the rates of the
18 Residential, Large General Service, Lighting and Power Furnace customer classes should
19 receive the system average percentage increase. The Small General Service class rates
20 should be increased by 50% of the system average percentage increase, and the Large Power
21 and Special Contracts class rates should be increased by more than the system average
22 percentage to pick up the remainder of the revenue increase, with the same percentage
23 increase applying to both classes.

(2) If the overall increase in Missouri revenues is greater than \$15,133,316, the first \$15,133,316 should be distributed as described in (1) above, and the remainder of the increase should be distributed to customer classes on an equal percentage basis. A formulistic representation of this proposal is shown below.

C-O-S CLASS	First \$15,133,316 or Less	Any Excess Over \$15,133,316
RESIDENTIAL	System Average Percent	Equal Percentage
SMALL GS	50% System Average	Equal Percentage
LARGE GS	System Average Percent	Equal Percentage
LPS & SC (Combined)	Remainder of Increase	Equal Percentage
LGT & PF	System Average Percent	Equal Percentage

(3) Rate levels should be determined by increasing all rate components on each rate schedule by the percentage increase in class revenue.

Schedule 3 displays the outcome by class of enacting this proposal at various levels of increase in overall Missouri revenue.

Q. How is Staff's proposal related to the class cost-of-service results?

A. Staff's proposal is consistent with the direction of the changes indicated by Staff's class cost-of-service study. Viewed from the standpoint of each class' share of total revenue, the Staff's class cost-of-service study shows how class revenue shares will need to change to align class revenue with class costs. The following table shows the current class revenue shares, the class revenue shares if Staff's proposal is adopted at a \$15,133,316

overall increase in total Missouri revenues, and the class revenue shares associated with class cost of service.

Class	Class Share of Current Revenue	Proposed Class Revenue Share	Class Share of C-O-S Revenue
Residential	46.21%	46.21%	45.75%
Small GS	14.23%	13.74%	12.67%
Large GS	26.32%	26.32%	26.30%
Large Power& SC	13.24%	13.73%	15.28%
Total Studied Classes	100.00%	100.00%	100.00%

This table demonstrates that the Staff's proposal represents a movement towards a class revenue distribution consistent with the Staff's class cost-of-service study results.

Q. Why is it important to move towards class cost-of-service results in this case?

A. Staff's class cost-of-service study in Case No.ER-97-81, EDE's last rate case, showed that Small General Service class revenues were considerably in excess of cost responsibility. On the other hand, the Large Power and Special Contract classes show a significant under-recovery of revenues when compared to class cost to serve. The results in this case show an even greater imbalance in both situations.

In the prior EDE rate case, no class cost-of-service changes were made. To keep these imbalances from widening further, it is important that some movement towards Staff's class cost-of-service study results be made in this case.

Q. Why is the imbalance between class cost responsibility and class revenues widening for the Large Power Service and Special Contracts classes?

A. One reason for the widening imbalance between class cost responsibility and class revenues for the Large Power and Special Contracts customer classes relates to changes in the functional mix of overall costs.

1 A comparison of Staff's class cost-of-service study in this case with a similar study
2 done in the prior case (Case No. ER-97-81) shows that the portion of total costs related to
3 production (generation of electricity) has grown by approximately 10 percentage points. Of
4 these 10 percentage points, less than 1% appears to be due to growth in production capacity
5 (such as the Combined Cycle Unit), while more than 9% is related to the increased energy
6 costs associated with producing electricity. This fact is illustrated in Schedule 4-1.

7 Increases in production costs, both capacity-related ("production-capacity") and
8 energy-related ("production-energy") will disproportionately affect those customer classes
9 with a high proportion of production costs. The larger the proportion of energy costs that
10 make up a class' total electricity bill, the larger the impact will be and vice versa.
11 Schedule 4-2 through 4-5 show the breakdown of the various types of costs (production-
12 capacity, production-energy, transmission, distribution, and customer-related) for each
13 customer class. Those schedules also show the breakdown of costs by function from Staff's
14 class cost-of-service in EDE's prior rate increase case.

15 It is noteworthy that production costs make up 84% of the total costs attributed to the
16 Large Power and Special Contracts classes.

17 Q. Are there special circumstances that need to be considered in this case?

18 A. The revenue effect of rate switching by customers in the Large General
19 Service and Large Power Service customer classes in response to rate design changes needs
20 to be anticipated and explicitly accounted for in this case. Otherwise, the Company will not
21 have a reasonable expectation of collecting the revenues authorized by the Commission.
22 Staff recommends that the Commission allow EDE to account for rate switching as part of
23 their filing of tariffs in compliance with the Report and Order in this case.

Direct Testimony of
Janice Pyatte

1 Q. Does this conclude your direct testimony on the issue of rate design in this
2 case?

3 A. Yes, it does.

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

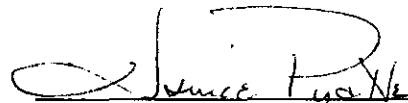
IN THE MATTER OF THE)
APPLICATION OF THE EMPIRE)
DISTRICT ELECTRIC COMPANY FOR)
A GENERAL RATE INCREASE.)

Case No. ER-2001-299

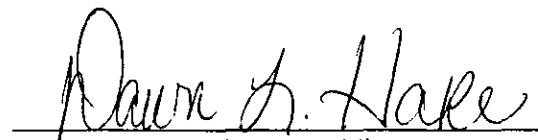
AFFIDAVIT OF JANICE PYATTE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

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


Janice Pyatte

Subscribed and sworn to before me this 10th day of April, 2001.


Notary Public

My commission expires _____

DAWN L. HAKE
Notary Public – State of Missouri
County of Cole
My Commission Expires Jan 9, 2005

THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2001-299
INPUTS TO STAFF CLASS COST-OF-SERVICE STUDY

KWH SALES AND CUSTOMER NUMBERS

Cost of Service Class/Tariff	Booked Sales (kWh) @ June 30, 2001	Customer Nos. @ June 30, 2001
RESIDENTIAL	1,458,495,987	109,767
SMALL GENERAL SERVICE:		
Commercial Service	320,897,159	16,497
Small Heating	94,106,265	2,579
Feed Mills	1,291,512	19
Traffic Signals	456,549	1
Total Small GS	416,751,485	19,096
LARGE GENERAL SERVICE:		
Total Electric Buildings	307,262,101	684
General Power	750,116,734	1,253
Total Large GS	1,057,378,836	1,937
LARGE POWER	648,098,300	37
SPECIAL CONTRACTS	55,098,173	1
ELECTRIC FURNACE	2,081,160	3
LIGHTING		
Street Lighting	15,350,916	116
Private Lighting	17,149,283	675
Special Lighting	1,585,158	177
Total Lighting	34,085,357	968
TOTAL MO RETAIL	3,671,989,297	131,809

RATE AND OPERATING REVENUES

	Revenues @ June 30, 2001
C-O-S CLASS RATE REVENUES:	
Residential	\$93,046,757
Small General Service	\$28,648,359
Large General Service	\$52,994,437
Large Power	\$24,792,524
Special Contracts	\$1,868,004
	<u>\$201,350,080</u>
Electric Furnace (Rate Code 70)	\$94,693
Lighting	<u>\$3,807,158</u>
	\$3,901,851
OTHER RATE REVENUE:	
Excess Facilities Revenue	\$1,025,511
Other Facilities Revenue	\$517,091
Interruptible Credits	<u>(\$551,073)</u>
	\$991,529
TOTAL MISSOURI RETAIL RATE REVENUE	\$206,243,460
OTHER REVENUE:	
Forfeited Discounts	\$1,144,950
Reconnect Charges	\$19,809
Rent from Electric Property	\$241,451
Other Electric Revenue - Missouri -System	\$143,204
Other Electric Revenue - Off System - KEPCO	<u>\$1,179,084</u>
	\$2,728,498
Sales of Emission Credits	\$26,536
Sales for Resale (Margin)	<u>\$2,504,921</u>
	\$2,531,457
TOTAL OTHER REVENUE	\$5,259,955
TOTAL MISSOURI OPERATING REVENUE	<u>\$211,503,415</u>

**THE EMPIRE DISTRICT ELECTRIC COMPANY
COMPANY INVESTMENT IN SPECIAL/EXCESS FACILITIES**

RIDER XC INVESTMENT BY FERC ACCOUNT

	Prior Case (ER-97-81)	Additions	Current Case (ER-2001-299)
Acct #362		\$150,000	\$150,000
Acct #364	\$320,664	\$155,905	\$476,569
Acct #365	\$387,414	\$182,212	\$569,626
Acct #366	\$295,615	\$324,824	\$620,439
Acct #367	\$684,593	\$771,415	\$1,456,008
Acct #368	\$2,262,560	\$681,271	\$2,943,831
Acct #369	\$188,903	\$2,063	\$190,966
Acct #370	\$86,728	\$42,058	\$128,786
Acct #371	\$250,513	\$50,000	\$300,513
Total	\$4,476,990	\$2,359,748	\$6,836,738

RIDER XC INVESTMENT BY COST-OF-SERVICE CLASS

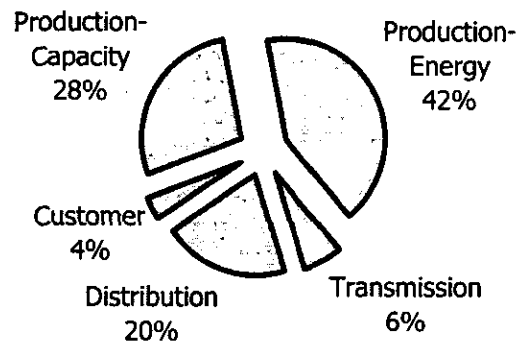
	Investment	Monthly Rate	Rider XC Revs
Residential			
Small GS	\$15,254	1.25%	\$2,288
Large GS	\$2,000,117	1.25%	\$300,018
Large Power	\$4,544,120	1.25%	\$681,618
Special Contracts	\$5,760	1.25%	\$864
Power Furnace	\$20,974	1.25%	\$3,146
Lighting	\$250,513	1.25%	\$37,577
Total	\$6,836,738		\$1,025,511

**STAFF PROPOSAL FOR DISTRIBUTION OF REVENUE INCREASE TO CLASSES
AT VARIOUS INCREASES IN OVERALL MISSOURI REVENUE
CASE NO. ER 2001-299**

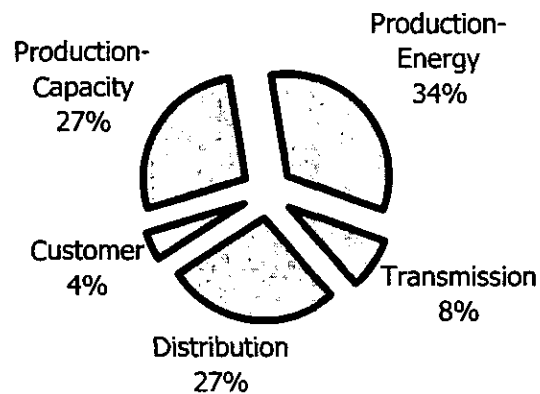
	RESIDENTIAL	SMALL GS	LARGE GS	LPS & SC	LGT & PF	TOTAL MO
Current Revenues	\$93,046,757	\$28,648,359	\$52,994,437	\$26,660,528	\$3,901,851	\$205,251,932
Current % of Revs	45.33%	13.96%	25.82%	12.99%	1.90%	100.00%
@ \$ 5 Million	\$2,266,648	\$348,941	\$1,290,961	\$998,400	\$95,050	\$5,000,000
% rate change	2.44%	1.22%	2.44%	3.74%	2.44%	2.44%
@ \$10 Million	\$4,533,295	\$697,883	\$2,581,921	\$1,996,800	\$190,101	\$10,000,000
% rate change	4.87%	2.44%	4.87%	7.49%	4.87%	4.87%
@ \$12 Million	\$5,439,954	\$837,459	\$3,098,306	\$2,396,160	\$228,121	\$12,000,000
% rate change	5.85%	2.92%	5.85%	8.99%	5.85%	5.85%
@ \$15,133,316*	\$6,860,379	\$1,056,128	\$3,907,303	\$3,021,821	\$287,685	\$15,133,316
% rate change	7.37%	3.69%	7.37%	11.33%	7.37%	7.37%
@ \$20 Million	\$9,066,590	\$1,712,081	\$5,163,843	\$3,677,285	\$380,201	\$20,000,000
% rate change	9.74%	5.98%	9.74%	13.79%	9.74%	9.74%
@ \$25 Million	\$11,333,238	\$2,386,003	\$6,454,804	\$4,350,704	\$475,251	\$25,000,000
% rate change	12.18%	8.33%	12.18%	16.32%	12.18%	12.18%
@ \$30 Million	\$13,599,885	\$3,059,925	\$7,745,764	\$5,024,124	\$570,302	\$30,000,000
% rate change	14.62%	10.68%	14.62%	18.84%	14.62%	14.62%
@ \$35 Million	\$15,866,533	\$3,733,847	\$9,036,725	\$5,697,544	\$665,352	\$35,000,000
% rate change	17.05%	13.03%	17.05%	21.37%	17.05%	17.05%
@ \$40 Million	\$18,133,180	\$4,407,768	\$10,327,686	\$6,370,963	\$760,402	\$40,000,000
% rate change	19.49%	15.39%	19.49%	23.90%	19.49%	19.49%
@ \$41,467,926	\$18,798,634	\$4,605,622	\$10,706,693	\$6,568,669	\$788,308	\$41,467,926
% rate change	20.20%	16.08%	20.20%	24.64%	20.20%	20.20%
<hr/> *@ \$15,133,316	\$99,907,136	\$29,704,487	\$56,901,740	\$29,682,349	\$4,189,536	\$220,385,248
% of Revenues	45.33%	13.48%	25.82%	13.47%	1.90%	

**COMPARISON OF MISSOURI FUNCTIONALIZED COSTS
BETWEEN CASE NO. ER-2001-299 AND CASE NO. ER-97-81
THE EMPIRE DISTRICT ELECTRIC COMPANY**

TOTAL MISSOURI - CASE NO. ER-2001-299

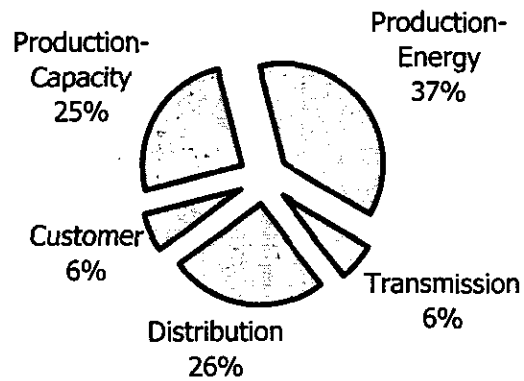


TOTAL MISSOURI - CASE NO. ER-97-81

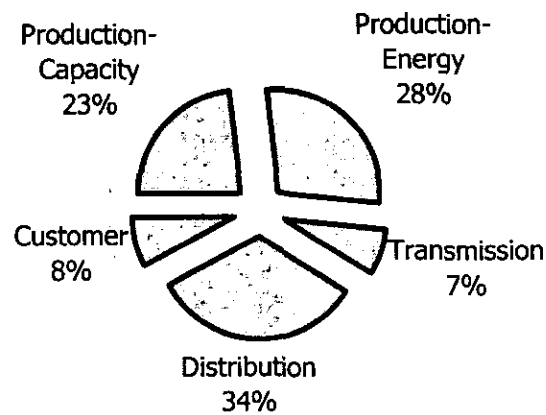


**COMPARISON OF MISSOURI FUNCTIONALIZED COSTS
BETWEEN CASE NO. ER-2001-299 AND CASE NO. ER-97-81
THE EMPIRE DISTRICT ELECTRIC COMPANY**

MISSOURI RESIDENTIAL - CASE NO. ER-2001-299

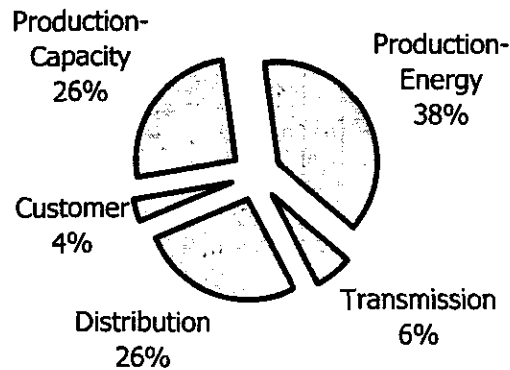


MISSOURI RESIDENTIAL - CASE NO. ER-97-81

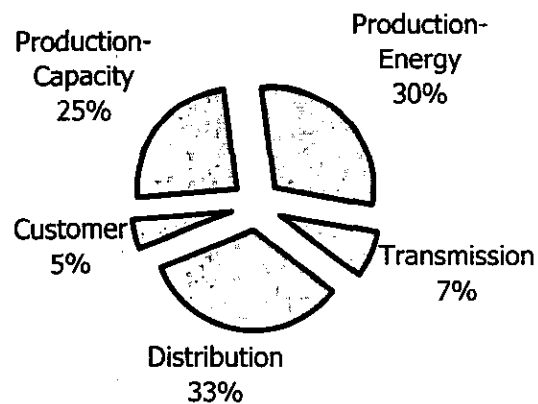


**COMPARISON OF MISSOURI FUNCTIONALIZED COSTS
BETWEEN CASE NO. ER-2001-299 AND CASE NO. ER-97-81
THE EMPIRE DISTRICT ELECTRIC COMPANY**

MISSOURI SMALL GENERAL SERVICE - CASE NO. ER-2001-299

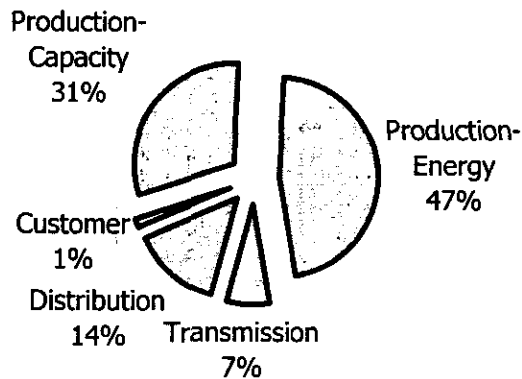


MISSOURI SMALL GENERAL SERVICE - CASE NO. ER-97-81

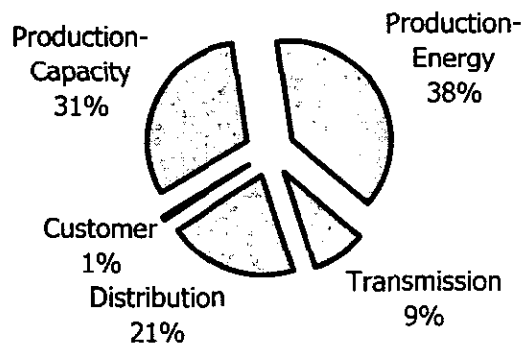


**COMPARISON OF MISSOURI FUNCTIONALIZED COSTS
BETWEEN CASE NO. ER-2001-299 AND CASE NO. ER-97-81
THE EMPIRE DISTRICT ELECTRIC COMPANY**

MISSOURI LARGE GENERAL SERVICE - CASE NO. ER-2001-299

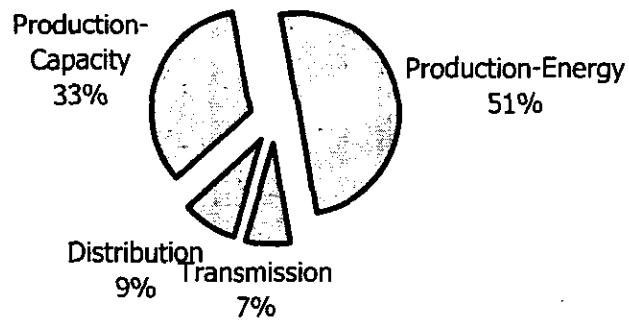


MISSOURI LARGE GENERAL SERVICE - CASE NO. ER-97-81



**COMPARISON OF MISSOURI FUNCTIONALIZED COSTS
BETWEEN CASE NO. ER-2001-299 AND CASE NO. ER-97-81
THE EMPIRE DISTRICT ELECTRIC COMPANY**

MISSOURI LARGE POWER & SPECIAL CONTRACTS - CASE NO. ER-2001-299



MISSOURI LARGE POWER & SPECIAL CONTRACTS - CASE NO. ER-97-81

