Exhibit No.:
Issues: Sales and Revenues
Witness: Janice Pyatte
Sponsoring Party: MoPSC
Type of Exhibit: Direct Testimony
Case No.: ER-2001-299
Date Testimony Prepared: April 3, 2001

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

Exhibit No. 69
Date 5/29/01 Case No. ER-2001-299
Reporter KAS

DIRECT TESTIMONY

OF

JANICE PYATTE

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Jefferson City, Missouri
April, 2001

DIRECT TESTIMONY

OF

JANICE PYATTE

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Q. Please state your name and business address.

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

Q. What is your present position with the Missouri Public Service Commission?

A. I am a Regulatory Economist in the Electric Department, Operations Division.

Q. Would you please review your educational background and work experience?

A. I completed a Bachelor of Arts degree in Economics at Western Washington State College in Bellingham, Washington and a Masters of Arts (A.M.) degree in Economics at Washington University in St. Louis, Missouri. I have been employed by the Missouri Public Service Commission (Commission) since June 1977. My primary role with the Missouri Public Service Commission Staff (Staff) has been to perform class cost-of-service and rate design studies for the regulated electric utilities in Missouri.

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

A. My direct testimony describes my role in the development of specific adjustments to The Empire District Electric Company's ("Company" or "EDE") Missouri jurisdictional, test year kilowatt-hour sales (kWh sales) and revenue from kWh sales (rate revenue).

In this filing, I also present two schedules that summarize kWh sales and rate revenue by rate schedule and cost-of-service class. The kWh sales shown on Schedule 1 are inputs into the normalized hourly net system load used in the Staff's fuel run. The rate revenues shown on Schedule 2 are inputs into both the Staff's Accounting Schedules and Staff's customer class cost-of-service study.

Q. Do you have a recommendation for the Commission regarding kWh sales and rate revenues?

A. I recommend that the Commission adopt the adjustments to kWh sales and rate revenue that I am sponsoring in this case.

Q. What has been your work experience in the issue of kWh sales and rate revenues in prior Empire District Electric Company cases?

A. I testified on these issues in each of the Company's last two rate cases, Case No. ER-95-279 and Case No. ER-97-81.

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

A. Staff witness Lena M. Mantle, Staff witness Roy M. Boltz, Jr. and I are sponsoring various adjustments to kWh sales at the rate schedule level of detail. Ms. Mantle is responsible for the normalization of kWh sales to account for the effects of abnormal weather. Mr. Boltz is responsible for calculating the effects that the growth in the number of customers has on kWh sales. I am responsible for calculating the effects on kWh sales of customer load growth in the Special Contracts and Large Power rate classes. I am also responsible for compiling the table labeled as Schedule 1. This schedule summarizes the

results of the work done by Ms. Mantle, Mr. Boltz, and myself regarding adjustments to kWh sales.

Mr. Boltz and I are also sponsoring adjustments to rate revenues at the rate schedule level of detail. Mr. Boltz is responsible for calculating the effects that customer growth has on class revenue. I am responsible for the revenue adjustments made to account for the effects of abnormal weather on rate revenue, for the annualization of curtailable demand credits and excess facilities revenue, and for an annualization done to the Special Contracts and Large Power rate classes. I am also responsible for compiling the table shown labeled as Schedule 2, which summarizes the results of the work done by Mr. Boltz and myself regarding rate revenues.

Q. What is the rationale for making adjustments to test year kWh sales and revenues?

A. The intent of adjustments to test year (historical) revenues is to estimate the revenues that EDE would have collected on an annual, normal-weather basis, based on the information known at the end of the update period. Most of the adjustments to test year revenues correspond to adjustments to kWh sales that also affect the Company's fuel and purchased power costs. The "matching principle" dictates that any change to revenues from historical levels that result from changes in underlying kWh sales must be associated with changes to fuel and purchased power costs that reflect that same adjustment to sales.

Q. What categories of adjustments to sales and revenues are typically made in a rate case?

A. The three major categories of adjustments are known as annualizations, normalizations, and customer growth.

Annualizations deal with events that are known, are expected to continue indefinitely into the future, and whose revenue effect can be reasonably estimated. A common example of a revenue annualization is a rate change that occurs during the test year. Actual test year revenue in this situation will be understated or overstated by the difference between what was actually billed and the revenues that would have been realized by the Company if the rates in effect at the end of the test year had been in effect throughout the entire year.

Another example of a typical annualization relates to a "large" customer that either begins or ceases service during the test year. In the situation where a large customer ceases business, test year revenue should be decreased by the revenue the customer provided the Company. A corresponding reduction to kWh sales and to fuel and/or purchased power expense should be made to reflect those costs the Company will no longer incur. Conversely, when a large customer begins service, EDE's revenues, kWh sales, and fuel expense should be increased to reflect both the costs and the future revenue associated with serving the new customer on a year-round basis.

Normalizations deal with test year events that are unusual and unlikely to be repeated in the years when the new rates from this case are in effect. Test year weather is an example. It is unlikely that the weather that occurred in the test year will be repeated in the future, but what weather will actually occur is not predictable. The objective of the weather normalization process is to remove the effects of abnormal weather from test year kWh sales and revenue.

Customer growth adjustments, if positive, reflect additional sales and revenue that will occur in the future because of known growth in the number of customers.

Q. Please describe the characteristics of the Missouri kWh sales and rate revenues that have been developed in this case.

A. The Missouri kWh sales and rate revenues that I am presenting have these characteristics: (i) they have been developed by both rate schedule and by cost-of-service class; (ii) they have been normalized to remove the effects of abnormal weather; (iii) they have been developed on both a billing month and on a calendar year basis; (iv) they have been annualized for the level of special customer bill credits/charges; and (v) they have been adjusted to reflect load growth.

Q. What annualizations to test year kWh sales are you sponsoring?

A. An annualization was made to reflect a significant drop in electric load and an associated switch in rate schedule for one large industrial customer. This annualization affects both kWh sales and rate revenue. The customer in question was included in the kWh sales and rate revenue of the Large Power class (the rate schedule it switched to) for the entire year, at load levels that are representative of its current operating situation. It was removed entirely from the Special Contracts class (the rate schedule it switched from). The overall effect of this annualization is to reduce both kWh sales and rate revenues.

A second annualization reflects the value of special bill credits that EDE provides to current customers who have contracted with the Company to curtail load during peak times (Interruptible Service Rider IR). This annualization assumes that EDE maintains the same amount of interruptible capacity via Rider IR during summer 2001 as during summer 2000. If the Commission determines that the State Line unit is "in service", then a more appropriate assumption would be that interruptible capacity via Rider IR will not be necessary and the

adjustment would be to increase rate revenues by $208,161 from the level shown in Schedule 2.

A third annualization reflects the current value of EDE's investment associated with the Special or Excess Facilities Rider XC. When EDE installs special facilities or facilities "in excess" of those provided via the standard rate schedule to serve a specific customer, that customer is assessed, in accordance with Rider XC, a monthly charge of 1.25% of the total cost of the facilities. In this case I calculated the historic cost of special/excess facilities attributable to each customer at the end of the test year and determined what revenues the Company would have realized if this investment had been present throughout the entire period. This annualization affects revenues, but does not affect kWh sales.

The three annualizations that I am sponsoring are shown by rate schedule and cost-of-service class on Schedules 1 and 2, attached to this testimony, and, in aggregate, on Accounting Schedule 10, S-1.

Q. What normalizations were done to test year billed kWh sales in this case?

A. The normalization of kWh sales results in an estimate of the kWh sales associated with "normal weather", while the actual kWh sales reflect the actual weather that occurred in the test year. Both kWh sales and net system load were adjusted to a normal weather basis. Staff Witness Lena M. Mantle is sponsoring the monthly and annual weather normalization of kWh sales by rate schedule. Her annual results are shown by rate schedule and cost-of-service class on my Schedule 1.

Q. What normalizations to test year rate revenues are you sponsoring?

A. I am responsible for calculating the adjustments to rate revenues that are associated with Ms. Mantle's weather adjustment to kWh sales. The assumption underlying

my methodology for normalizing revenues is that the weather normalization process has no effect on either the number of customers or on the fixed charges those customers pay. In essence, I assume that weather normalization only affects the energy usage of each existing customer and thus only affects those charges directly related to kWh usage.

In situations where only one tariffed rate applies to all monthly usage (a "flat rate"), the weather adjustment to revenue was calculated by applying that rate to Ms. Mantle's weather normalization adjustment to kWh sales. This procedure was used to compute summer revenue adjustments for the residential, commercial buildings, and small heating rate schedules, which are the rate schedules with flat summer rates.

The rate schedules just mentioned have multiple rate blocks in the winter season. In addition, the general power and the total electric buildings rate schedules have multiple rate blocks in both seasons. Multiple rate blocks result in the average rate per kWh declining as customer usage increases. Using a statistical regression technique, I modeled the relationship between average monthly use per customer and the average rate per kWh, using thirty-four months of EDE data (January 1998 - December 2000). From this analysis, I determined how the average rate per kWh changed when use per customer changed for each of these rate schedules. Ms. Mantle provided me with data on use per customer before and after weather normalization. I then calculated the monthly weather adjustment to revenues that corresponds to Ms. Mantle's monthly weather adjustment to kWh sales.

Schedule 2 shows the annual normalization adjustment to revenue for each rate schedule and cost-of-service class. This normalization adjustment is also included in Accounting Schedule 10, S-1. Schedule 3, attached to this testimony, displays the monthly

results of my normalization of revenues for the applicable rate schedules; i.e., residential, commercial building, small heating, total electric building and general power.

Q. How was the effect of customer growth on kWh sales and revenues accounted for?

A. Conceptually, customer growth adjustments reflect additional kWh sales and revenues that would have occurred if all customers active at the end of the test year (December 2000) had existed throughout the entire year. Staff Witness Roy M. Boltz, Jr. sponsors the customer growth adjustments to kWh sales and revenues that are shown by rate schedule on Schedule 1 and Schedule 2 attached to this testimony. The customer growth adjustment to revenues is also shown, in aggregate, in Accounting Schedule 10, S-1.

Q. What is the relationship between the Missouri rate revenues shown on your Schedule 2 and the Missouri operating revenues shown on Accounting Schedule 9?

A. Operating revenue is composed of two components: the revenue that the Company collects from the sales of electricity to Missouri retail customers (rate revenue); and the revenue the Company receives for providing other services (other revenue).

Q. Does this conclude your direct testimony in this case?

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 8 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 28th day of March, 2001.

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

Dawn L. Hake
Notary Public

My commission expires

EMPIRE DISTRICT ELECTRIC CO - CASE NO ER-2001-299
MISSOURI RETAIL SALES BY RATE SCHEDULES COST OF SERVICE CLASS

Cost of Service Class/ Rate Schedule	TY Booked Sales (kWh)	Annualization Adjustment(2)	Normalization Adjustment (3)	Growth Adjustment (4)	Total Test Year Booked Sales (kWh)
RESIDENTIAL	1,457,134,358		(26,307,294)	14,979,648	1,445,806,712
SMALL GENERAL SERVICE:					
Commercial Service	314,196,522		(3,315,333)	4,802,874	315,684,063
Small Heating	108,442,256		(1,017,233)	(6,823,638)	100,601,385
Feed Mills	1,291,512				1,291,512
Traffic Signals	456,549				456,549
Total Small GS	424,386,839		(4,332,566)	(2,020,764)	418,033,509
LARGE GENERAL SERVICE:					
Total Electric Buildings	302,944,254		(2,616,566)	5,137,559	305,465,247
General Power	700,599,253		(4,024,636)	30,793,166	727,367,783
Total Large GS	1,003,543,507		(6,641,202)	35,930,726	1,032,833,031
LARGE POWER	644,913,500	3,184,800			648,098,300
SPECIAL CONTRACTS (1)	61,663,973	(6,565,800)			55,098,173
ELECTRIC FURNACE	2,081,160				2,081,160
LIGHTING					
Street Lighting	15,350,916				15,350,916
Private Lighting	17,149,283				17,149,283
Special Lighting	1,585,158				1,585,158
Total Lighting	34,085,357				34,085,357
TOTAL MO RETAIL SALES	3,627,808,694	(3,381,000)	(37,281,062)	48,889,609	**3,636,036,241**

1. Test year booked sales reflect a 14,205,005 kWh increase to correct bookkeeping mistakes.
2. Adjustments to sales to reflect significant customer load changes and rate switching.
3. Adjustment to sales resulting from the normalization of kWh sales for weather.
4. Adjustment to sales resulting from growth in the number of customers.

Schedule 1

EMPIRE DISTRICT ELECTRIC CO - CASE NO ER-2001-299
MISSOURI RETAIL RATE REVENUES BY RATE SCHEDULE AND COST OF SERVICE CLASS

Cost of Service Class/ Rate Schedule	TY Booked Revenues	Annualization Adjustment(2)	Normalization Adjustment (3)	Growth Adjustment (4)	Test Year Retail Rate Revenue
RESIDENTIAL	$92,473,518		($1,191,175)	$954,884	$92,237,227
SMALL GENERAL SERVICE:					
Commercial Service	$22,443,951		($182,011)	$339,367	$22,601,307
Small Heating	$6,338,400		($46,706)	($377,537)	$5,914,158
Feed Mills	$117,329				$117,329
Traffic Signals	$24,170				$24,170
Total Small GS	$28,923,850		($228,717)	($38,169)	$28,656,964
LARGE GENERAL SERVICE:					
Total Electric Buildings	$15,370,417		($86,014)	$281,209	$15,565,612
General Power	$34,880,522		($197,767)	$1,522,173	$36,204,928
Total Large GS	$50,250,939		($283,780)	$1,803,381	$51,770,540
LARGE POWER	$24,687,223	$105,302			$24,792,524
SPECIAL CONTRACTS (1)	$2,187,513	($319,509)			$1,868,004
ELECTRIC FURNACE	$94,693				$94,693
LIGHTING					
Street Lighting	$904,535				$904,535
Private Lighting	$2,770,142				$2,770,142
Special Lighting	$132,482				$132,482
Total Lighting	$3,807,158				$3,807,158
OTHER RATE REVENUE:					
Interruptible Credits (5)	($529,599)	($21,474)			($551,073)
Excess Facilities Revenue	$990,968	$34,542			$1,025,511
Other Facilities Revenue	$517,091				$517,091
Total Other Rate Revenue	$978,460	$13,068			$991,529
TOTAL MO RATE REVENUE	$203,403,354	($201,139)	($1,703,672)	$2,720,096	**$204,218,638**

1. Test year booked revenue has been reduced by $545,970 to correct bookkeeping mistakes.
2. Adjustments to revenues to reflect significant customer load changes, rate switching and revenue credits.
3. Adjustment to revenues resulting from the normalization of sales for weather.
4. Adjustment to revenues resulting from growth in the number of customers.
5. If the Commission determines that the State Line unit is "in service", revenues should be increased by $208,161.

Schedule 2

SUMMARY OF NORMALIZATION OF RATE REVENUE
EMPIRE DISTRICT ELECTRIC COMPANY
MO PSC CASE NO. ER-2001-299

RESIDENTIAL SERVICE

Billing Month	Actual Booked Revenue	Weather Adj to Revenue	Normalized Booked Revenue	Normalization Adj to Revenue
2000-01	$8,387,435	($199,231)	$8,188,204	-2.38%
2000-02	$6,103,650	$576,443	$6,680,093	9.44%
2000-03	$6,319,044	$544,461	$6,863,505	8.62%
2000-04	$5,638,076	$184,068	$5,822,144	3.26%
2000-05	$5,738,688	($65,649)	$5,673,039	-1.14%
2000-06	$6,876,850	$106,442	$6,983,292	1.55%
2000-07	$10,407,005	$1,089,166	$11,496,171	10.47%
2000-08	$12,018,237	($156,410)	$11,861,827	-1.30%
2000-09	$8,740,135	($1,268,167)	$7,471,968	-14.51%
2000-10	$5,711,591	($230,925)	$5,480,666	-4.04%
2000-11	$6,452,598	($219,946)	$6,232,652	-3.41%
2000-12	$10,080,209	($1,551,428)	$8,528,782	-15.39%
Total	$92,473,518	($1,191,175)	$91,282,343	-1.29%

COMMERCIAL SERVICE (CB)

Billing Month	Actual Booked Revenue	Weather Adj to Revenue	Normalized Booked Revenue	Normalization Adj to Revenue
2000-01	$969,878	($9,622)	$960,256	-0.99%
2000-02	$1,818,800	$52,097	$1,870,897	2.86%
2000-03	$1,577,670	$54,977	$1,632,647	3.48%
2000-04	$1,068,350	$18,078	$1,086,429	1.69%
2000-05	$1,668,236	($4,924)	$1,663,312	-0.30%
2000-06	$2,052,363	$8,893	$2,061,256	0.43%
2000-07	$2,661,728	$181,186	$2,842,914	6.81%
2000-08	$3,049,166	($15,821)	$3,033,345	-0.52%
2000-09	$2,324,264	($193,292)	$2,130,971	-8.32%
2000-10	$1,681,106	($59,500)	$1,621,606	-3.54%
2000-11	$1,747,469	($65,026)	$1,682,443	-3.72%
2000-12	$1,824,920	($149,056)	$1,675,864	-8.17%
Total	$22,443,951	($182,011)	$22,261,940	-0.81%

SUMMARY OF NORMALIZATION OF RATE REVENUE
EMPIRE DISTRICT ELECTRIC COMPANY
MO PSC CASE NO. ER-2001-299

SMALL HEATING SERVICE (SH)

Billing Month	Actual Booked Revenue	Weather Adj to Revenue	Normalized Booked Revenue	Normalization Adj to Revenue
2000-01	$526,294	($12,228)	$514,066	-2.32%
2000-02	$455,644	$50,391	$506,034	11.06%
2000-03	$458,539	$38,429	$496,968	8.38%
2000-04	$326,586	$14,754	$341,340	4.52%
2000-05	$409,409	$709	$410,118	0.17%
2000-06	$475,861	$53	$475,914	0.01%
2000-07	$817,048	$37,510	$854,558	4.59%
2000-08	$881,363	$1,295	$882,659	0.15%
2000-09	$570,748	($45,337)	$525,411	-7.94%
2000-10	$484,219	($13,191)	$471,029	-2.72%
2000-11	$398,120	($16,781)	$381,339	-4.21%
2000-12	$534,570	($102,311)	$432,259	-19.14%
Total	$6,338,400	($46,706)	$6,291,695	-0.74%

TOTAL ELECTRIC BUILDINGS (TEB)

Billing Month	Actual Booked Revenue	Weather Adj to Revenue	Normalized Booked Revenue	Normalization Adj to Revenue
2000-01	$771,316	($36,069)	$735,247	-4.68%
2000-02	$989,720	$87,921	$1,077,641	8.88%
2000-03	$1,076,080	$84,210	$1,160,289	7.83%
2000-04	$966,553	$27,608	$994,162	2.86%
2000-05	$1,145,513	$2,383	$1,147,896	0.21%
2000-06	$1,159,393	($3,828)	$1,155,566	-0.33%
2000-07	$1,904,864	$46,052	$1,950,916	2.42%
2000-08	$2,012,515	$13,980	$2,026,495	0.69%
2000-09	$1,336,222	($51,631)	$1,284,592	-3.86%
2000-10	$1,369,110	($24,599)	$1,344,511	-1.80%
2000-11	$1,147,689	($37,381)	$1,110,308	-3.26%
2000-12	$1,491,439	($194,660)	$1,296,779	-13.05%
Total	$15,370,417	($86,014)	$15,284,403	-0.56%

SUMMARY OF NORMALIZATION OF RATE REVENUE
EMPIRE DISTRICT ELECTRIC COMPANY
MO PSC CASE NO. ER-2001-299

GENERAL POWER SERVICE (GP)

Billing Month	Actual Booked Revenue	Weather Adj to Revenue	Normalized Booked Revenue	Normalization Adj to Revenue
2000-01	$2,200,717	$3,929	$2,204,646	0.18%
2000-02	$2,363,336	$61,561	$2,424,897	2.60%
2000-03	$2,259,915	$31,242	$2,291,157	1.38%
2000-04	$2,307,641	$20,730	$2,328,370	0.90%
2000-05	$2,869,039	($7,059)	$2,861,980	-0.25%
2000-06	$3,301,186	($24,837)	$3,276,349	-0.75%
2000-07	$3,745,988	$94,383	$3,840,370	2.52%
2000-08	$4,339,262	($20,550)	$4,318,712	-0.47%
2000-09	$3,137,590	($92,581)	$3,045,009	-2.95%
2000-10	$3,056,141	($45,768)	$3,010,373	-1.50%
2000-11	$2,737,294	($73,480)	$2,663,813	-2.68%
2000-12	$2,562,415	($145,336)	$2,417,079	-5.67%
Total	$34,880,522	($197,767)	$34,682,756	-0.57%