

Exhibit No.:  
Issues: Sales and Revenue  
Witness: Janice Pyatte  
Sponsoring Party: MO PSC Staff  
Type of Exhibit: Direct Testimony  
Case No.: ER-2001-672  
Date Testimony Prepared: December 6, 2001

**MISSOURI PUBLIC SERVICE COMMISSION**  
**UTILITY OPERATIONS DIVISION**

**DIRECT TESTIMONY**

**OF**

**JANICE PYATTE**

**FILED<sup>3</sup>**

**DEC 6 2001**

**Missouri Public  
Service Commission**

**UTILICORP UNITED, INC.**  
**D/B/A MISSOURI PUBLIC SERVICE**

**CASE NO. ER-2001-672**

**Jefferson City, Missouri**  
**December 2001**



Direct Testimony of  
Janice Pyatte

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

2 A. My direct testimony describes my role in the development of specific  
3 adjustments to Missouri Public Service's ("Company" or "MPS") Missouri jurisdictional,  
4 test year kilowatt-hour sales (kWh sales) and revenue from kWh sales (rate revenue).

5 In this filing, I also present two schedules that summarize kWh sales and rate revenue  
6 by rate code. The kWh sales total shown on Schedule 2 is an input into the normalized  
7 hourly net system load used in the Staff's fuel run. The rate revenue shown on Schedule 3  
8 will be used for the implementation of the rates that result from the Commission's Report  
9 and Order in this case. The specific adjustments to rate revenue that are described in this  
10 testimony are inputs into the Staff's Accounting Schedule (Income Statement).

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

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

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

17 A. Staff witness Lena M. Mantle, Staff witness Janis E. Fischer, and I are  
18 sponsoring various adjustments to kWh sales at the rate code level of detail. Ms. Mantle is  
19 responsible for the normalization of kWh sales to account for the effects of deviations from  
20 normal weather in the test year. Ms. Fischer is responsible for calculating the effects of  
21 growth on kWh sales through the update period for all rate codes. I am responsible for  
22 compiling the table labeled as Schedule 2. This schedule summarizes the results of the work  
23 done by Ms. Mantle, Ms. Fischer, and myself regarding adjustments to kWh sales.

Direct Testimony of  
Janice Pyatte

1 Ms. Fischer and I are also sponsoring adjustments to rate revenue at the rate code  
2 level of detail. Ms. Fischer is responsible for calculating the effects that growth through the  
3 update period had on rate revenue. I am responsible for the revenue adjustments made to  
4 account for the effects on rate revenue of deviations from normal weather in the test year and  
5 for the annualization of economic development credits. I am also responsible for compiling  
6 the table shown labeled as Schedule 3, which summarizes the results of the work done by  
7 Ms. Fischer and myself regarding rate revenue.

8 Q. What is the rationale for making adjustments to test year kWh sales and rate  
9 revenue?

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

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

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

21 Annualizations are adjustments that result when test year results are restated as if  
22 conditions known at the end of the update period had existed throughout the entire test year.

23 A common example of a revenue annualization is a rate change that occurs during the test

Direct Testimony of  
Janice Pyatte

1 year. Actual test year revenue in this situation will be understated or overstated by the  
2 difference between what was actually billed and the revenue that would have been realized  
3 by the Company if the rates in effect at the end of the update period had been in effect  
4 throughout the entire year.

5 Another example of a typical annualization relates to a large customer that either  
6 begins or ceases service during the test year or update period. In the situation where a large  
7 customer ceases business, test year revenue should be decreased by the revenue the customer  
8 provided the Company. A corresponding reduction to kWh sales and to fuel and purchased  
9 power expense should be made to reflect those costs the Company will no longer incur.  
10 Conversely, when a large customer begins service, MPS's test year revenue, kWh sales, and  
11 fuel expense should be increased to reflect both the costs and the revenue associated with  
12 serving the new customer on an annual basis.

13 Normalizations deal with test year events that are unusual and unlikely to be repeated  
14 in the years when the new rates from this case are in effect. Test year weather is an example.  
15 It is unlikely that the weather that occurred in the test year will, on average, be repeated in the  
16 future, but what weather will actually occur is not predictable. The objective of the weather  
17 normalization process is to restate test year kWh sales and rate revenue on a "normal-  
18 weather" basis.

19 Growth adjustments reflect any additional sales and revenue that would have  
20 occurred in the test year if all of the customers that were on the system at the end of the  
21 update period had been customers for all 12 months of the test year.

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

Direct Testimony of  
Janice Pyatte

1           A.     The Missouri kWh sales and rate revenue that I am presenting have these  
2 characteristics: (i) they have been developed by rate code; (ii) they have been normalized to  
3 remove the effects of deviations from normal weather in the test year; (iii) they have been  
4 developed on both a billing month and on a calendar year basis; (iv) they have been  
5 annualized for the level of economic development ("EDR") credits in 2002; and (v) they  
6 have been adjusted to reflect growth through the update period.

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

8           A.     I am responsible for a number of annualizations made to reflect selected  
9 billing corrections and/or recording errors that MPS made during the test year. There were  
10 two typical situations where billing information is recorded on the Company's financial  
11 records in a month other than the month to which that data applies. One situation is the  
12 situation where an original bill was wrong and the correction is recorded in a month other  
13 than the month that the original, incorrect bill was recorded. The second situation requiring  
14 annualization resulted from MPS' new billing system incorrectly recording bills based upon  
15 the date when the bill is calculated rather than recording bills based upon the date when the  
16 meter is read. In both situations, the monthly data that is required for Staff's analysis of the  
17 weather normalization of kWh sales and revenue is distorted. I adjusted the individual  
18 customer kWh sales and revenue, as recorded, to what I believe the data would have looked  
19 like if the bill had been correctly billed and/or correctly recorded in the first place. The  
20 annual differences associated with this "clean-up" of the test year billing data were recorded  
21 as annualizations so that it would be clear that Staff's starting point in this case was the MPS  
22 FERC Form 1 filing for the year 2000. These annualizations to MPS test year billed kWh  
23 sales and revenue were done prior to the Staff's weather normalization analysis.

Direct Testimony of  
Janice Pyatte

1 Q. What annualizations to test year rate revenue are you sponsoring?

2 A. In addition to the annualization for billing corrections and recording errors  
3 discussed above, I am responsible for the annualization to rate revenue to reflect the updated  
4 dollar amount of Economic Development Rider credits.

5 MPS' tariffs include an Economic Development Rider that provides discounts to the  
6 electricity bills of certain customers that are either new to the area or are existing customers  
7 that have significantly expanded their operations. These discounts on electricity bills are part  
8 of a larger package of state and local development aid that is offered to the customer to  
9 encourage industrial and commercial development in the State of Missouri. Eligible  
10 customers receive a percentage discount to their electricity bill, as calculated on regular rates,  
11 over a term of five years. The discount is 30% in the first year, 25% in the second year, and  
12 so on, until it reaches 10% in the final year of the customer's contract.

13 In this case, I have estimated the dollar amount of the annual discount for each EDR  
14 contract based upon the customer's test year electricity bill before any discount is applied and  
15 the percentage discount(s) that will be applicable in calendar year 2002. This annualization  
16 affects revenue only; it has no effect on kWh sales. I do not intend to further annualize these  
17 EDR contracts during the true-up phase of this case.

18 The two annualizations that I am sponsoring are shown by rate code on Schedules 2  
19 and 3, attached to this testimony and, in aggregate, on Accounting Schedule 10, Adjustments  
20 S-1.6 and S-1.7.

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

22 A. Two normalizations of test year kWh sales were done in this case. The first  
23 normalization restates test year kWh sales on a "normal weather" basis; i.e., to the level of

Direct Testimony of  
Janice Pyatte

1 kWh sales that would have occurred in the test year if test year weather had been normal.  
2 The second normalization represents the additional kWh sales associated with adjusting the  
3 twelve, test year billing months to include exactly the 365 days between January 1 and  
4 December 31, 2000.

5 Ms. Mantle is sponsoring both the weather normalization and the days adjustment to  
6 kWh sales. Please refer to Ms. Mantle's testimony for a more complete description of the  
7 weather normalization concept and methodology.

8 Ms. Mantle's billing month adjustments to kWh sales were inputs into my  
9 normalization of rate revenue and are shown on my Schedule 4. Her annual results are  
10 shown by rate code on my Schedule 2, a summary of Missouri kWh sales.

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

12 A. I am responsible for calculating the adjustments to rate revenue that are  
13 associated with Ms. Mantle's weather adjustment to kWh sales. The assumption underlying  
14 my methodology for normalizing revenue is that the weather normalization process has no  
15 effect on either the number of customers or on the fixed charges those customers pay. In  
16 essence, I assume that weather normalization only affects the energy usage of each existing  
17 customer and thus only affects those charges directly related to kWh usage.

18 Schedule 3 shows the annual weather and days adjustments to revenue for each rate  
19 code. These normalization adjustments are also shown on Accounting Schedule 10,  
20 Adjustments S-1.3 and S-1.8. Schedule 4, attached to this testimony, displays the monthly  
21 results of the normalization of kWh sales and revenue for each of the eight weather-sensitive  
22 rate codes; i.e., Residential (860 and 870), Small General Service (310, 311, 316), Large  
23 General Service (720 and 725), and School and Church (740).



Direct Testimony of  
Janice Pyatte

1           Q.     What methodologies did you use to calculate the weather normalization  
2 adjustment to revenue?

3           A.     In situations where only one tariffed rate applied to all monthly usage (a "flat  
4 rate"), the weather adjustment to revenue was calculated by applying that rate to  
5 Ms. Mantle's weather normalization adjustment to kWh sales. This procedure was used to  
6 compute summer month revenue adjustments for the Small General Service (710) rate code  
7 and the School and Church (740) rate code, which are the weather-sensitive rate codes with a  
8 flat summer rate.

9           In situations where multiple rate blocks apply to monthly usage, I used a statistical  
10 regression technique to model the relationship between average monthly use per bill and the  
11 average rate per kWh, using twelve months of MPS data from January 2000 through  
12 December 2000, which was the only time period for which monthly bill counts existed.  
13 From this analysis, I determined how the average rate per kWh changed when use per bill  
14 changed for each of these rate codes. Ms. Mantle provided me with data on use per bill  
15 before and after weather normalization. I then calculated the monthly weather adjustment to  
16 revenue that corresponded to Ms. Mantle's monthly weather adjustment to kWh sales. This  
17 procedure was used to compute winter month revenue adjustments for Small General Service  
18 (710) and School and Church (740) rate codes. It was also used to calculate both summer  
19 month and winter month adjustments for Residential (860 and 870) rate codes and Small  
20 General Service (711) rate codes.

21           The weather adjustment to revenue for the remaining rate codes was calculated by the  
22 average realization method. This method applies the average energy charge per kWh for  
23 each specific month to the weather adjustment to that month's kWh sales. The rationale for

Direct Testimony of  
Janice Pyatte

1 the average realization method is that a reasonable estimate of the additional revenue  
2 associated with additional kWh sales can be calculated by assuming that these additional  
3 sales would be priced at the same average price as all other sales in that month. This method  
4 was applied to Small General Service (716) and Large General Service (720 and 725) rate  
5 codes.

6 Q. What is the relationship between the Missouri rate revenue shown on your  
7 Schedule 3 and the Missouri operating revenue shown on Accounting Schedule 9?

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

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

12 A. Yes, it does.

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

In The Matter Of The Tariff Filing Of )  
Missouri Public Service (MPS) A Division )  
Of UtiliCorp United Inc., To Implement A )  
General Rate Increase For Retail Electric )  
Service Provided To Customers In The )  
Missouri Service Area Of MPS. )

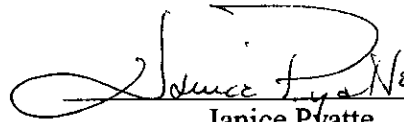
Case No. ER-2001-672

**AFFIDAVIT OF JANICE PYATTE**

**STATE OF MISSOURI** )  
 ) ss  
**COUNTY OF COLE** )

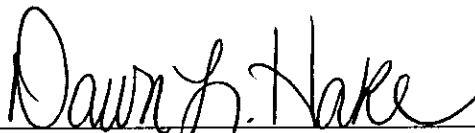
Janice Pyatte, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Direct testimony in question and answer form, consisting of 9 pages of Direct testimony to be presented in the above case, that the answers in the foregoing Direct testimony were given by her; 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 5th day of December, 2001.

**DAWN L. HAKE**  
Notary Public - State of Missouri  
County of Cole

  
\_\_\_\_\_  
Notary Public

My commission expires My Commission Expires Jan 9, 2005

**Testimony Filed before the Missouri Public Service Commission**  
**Witness: Janice Pyatte**

<b>Company</b>	<b>Case</b>	<b>Type</b>	<b>Issue1</b>	<b>Issue2</b>	<b>Date</b>
The Empire District Electric Company	ER-2001-299	True-Up Direct	Sales & Revenues		8/7/01
The Empire District Electric Company	ER-2001-299	Revised Surrebuttal	Rate Design		6/1/01
The Empire District Electric Company	ER-2001-299	Surrebuttal	Rate Design		5/17/01
The Empire District Electric Company	ER-2001-299	Rebuttal	Class Cost of Service	Rate Design	5/3/01
The Empire District Electric Company	ER-2001-299	Direct	Class Cost of Service	Rate Design	4/10/01
The Empire District Electric Company	ER-2001-299	Direct	Sales & Revenues		4/3/01
UtiliCorp United and St. Joseph Light & Po	EM-2000-292	Rebuttal	SJLP Earnings Review		5/1/00
St. Joseph Light & Power Company	ER-99-247 & EC-98-573	Rebuttal	Rate Design		6/10/99
St. Joseph Light & Power Company	HR-99-245	Direct	Rate Design		5/20/99
St. Joseph Light & Power Company	ER-99-247 & EC-98-573	Direct	Rate Design		5/20/99
St. Joseph Light & Power Company	ER-99-247 & EC-98-573	Direct	Sales & Revenues		5/13/99
Union Electric Company	EO-96-15	Surrebuttal	Rate Design		4/9/99
Union Electric Company	EO-96-15	Rebuttal	Rate Design		3/24/99
Union Electric Company	EO-96-15	Direct	Rate Design		3/4/99
St. Joseph Light & Power Company	EC-98-573	Additional Direct	Class Cost of Service	Rate Design	12/16/98
St. Joseph Light & Power Company	EC-98-573	Additional Direct	Sales & Revenues		12/16/98
St. Joseph Light & Power Company	EC-98-573	Direct	Class Cost of Service	Rate Design	10/15/98
St. Joseph Light & Power Company	EC-98-573	Direct	Sales & Revenues		10/7/98
Missouri Public Service	ER-97-394 & ET-98-103 & EC-98-126	Surrebuttal	Rate Design		11/21/97
Missouri Public Service	ER-97-394 & ET-98-103	Rebuttal	Rate Design		10/17/97
Missouri Public Service	ER-97-394 & ET-98-103	Direct	Rate Design		9/16/97
Missouri Public Service	EO-97-144 & EC-97-362	Direct	Rate Design		3/28/97
The Empire District Electric Company	ER-97-81	Direct	Rate Design		2/20/97
The Empire District Electric Company	ER-97-81	Direct	Revenues		2/11/97
Kansas City Power & Light Company	EC-96-57	Rebuttal	Rate Design		12/29/95
The Empire District Electric Company	ER-95-279	Direct	Class Cost of Service	Rate Design	9/8/95
The Empire District Electric Company	ER-95-279	Direct	Revenues		9/1/95
The Empire District Electric Company	ER-94-174 & EO-91-74	Direct	Class Cost of Service	Rate Design	5/20/94
St. Joseph Light & Power Company	ER-93-41	Direct	Rate Design		2/19/93
Missouri Public Service	ER-93-37	Direct	Class Cost of Service	Rate Design	1/22/93
Union Electric Company	EM-92-225 & EM-92-253	Rebuttal	25 Cycle Rates		8/14/92
Arkansas Power & Light Co. and Union Ele	EM-91-29	Rebuttal	Customer Impact		1/25/91
Union Electric Company	EO-87-175	Surrebuttal	(Class) Cost of Service & Rate Design		10/4/90
Union Electric Company	EO-87-175	Rebuttal	Rate Design		9/17/90
Union Electric Company	EO-87-175	Rebuttal	(Class) Cost of Service		8/13/90
Union Electric Company	EO-87-175	Direct	Rate Design		7/31/90
Union Electric Company	EO-87-175	Direct	Customer Classes and Class Data		5/17/90

**Testimony Filed before the Missouri Public Service Commission**  
**Witness: Janice Pyatte**

Company	Case	Type	Issue1	Issue2	Date
Arkansas Power & Light Company	ER-85-265	Surrebuttal	Rate Design		2/28/86
Arkansas Power & Light Company	ER-85-265	Rebuttal	Class Cost of Service		2/21/86
Arkansas Power & Light Company	ER-85-265	Direct	Class Cost of Service		1/16/86
Arkansas Power & Light Company	ER-85-265	Direct	Rate Design		1/16/86
Kansas City Power & Light Company	ER-85-128 & EO-85-185	Rebuttal	Class Cost of Service		5/3/85
Kansas City Power & Light Company	ER-85-128 & EO-85-185	Direct	Class Cost of Service	Rate Design	4/12/85
Union Electric Company	EO-85-17 & ER-85-160	Second Commission Re	Rate Design		3/19/85
Union Electric Company	EO-85-17 & ER-85-160	First Commission Requ	Rate Design		3/11/85
Union Electric Company	EO-85-17 & ER-85-160	First Commission Requ	Rate Design		3/6/85
Union Electric Company	EO-85-17 & ER-85-160	First Commission Requ	Rate Design		3/6/85
Union Electric Company	EO-85-17 & ER-85-160	First Commission Requ	Rate Design		3/6/85
Union Electric Company	ER-84-168	Surrebuttal	Class Cost of Service		9/7/84
Union Electric Company	ER-84-168	Rebuttal	Class Cost of Service		9/4/84
Union Electric Company	ER-84-168	Direct	Sub-Class Cost of Service		8/15/84
Union Electric Company	ER-84-168	Direct	Class Cost of Service		8/10/84
Laclede Gas Company	GR-84-161	Direct	Class Cost of Service		8/6/84
Union Electric Company	ER-84-168	Direct	Sales & Revenues		8/6/84
Arkansas Power & Light Company	ER-83-206	Direct	Class Cost of Service		8/3/83
Union Electric Company	ER-83-163	Direct	Class Cost of Service		6/3/83
Kansas City Power & Light Company	ER-83-49	Revised Direct	Class Cost of Service		3/10/83
Kansas City Power & Light Company	ER-83-49	Direct	Class Cost of Service		2/22/83
The Empire District Electric Company	EO-82-40	Rebuttal	Class Cost of Service		10/15/82
The Empire District Electric Company	EO-82-40	Supplemental (Direct)	Class Cost of Service		9/17/82
The Empire District Electric Company	EO-82-40	Direct	Class Cost of Service		3/15/82
The Empire District Electric Company	EO-82-40	Direct	Rate Design		3/15/82
The Empire District Electric Company	ER-81-209	Direct	Class Cost of Service	Rate Design	7/24/81
Kansas City Power & Light Company	EO-78-161	Report (8 Vols)	Rate Design		10/24/80
Laclede Gas Company	GO-78-38	Report (4 Vols)	Rate Design		4/16/79
Union Electric Company	EO-78-163	Report (5 Vols)	Rate Design		8/23/78
St. Joseph Light & Power Company	EO-77-56	Report (3 Vols)	Rate Design		11/28/77

**MISSOURI PUBLIC SERVICE - CASE NO. ER-2001-672**  
**ADJUSTED MISSOURI KWH SALES BY RATE CODE**  
**(CALENDAR YEAR 2000, ADJUSTED THROUGH JUNE 30, 2001)**

RATE ID		As Billed (kWh)	Annualizations to kWh Sales	Normalizations to to kWh Sales	Effect of Growth to kWh Sales	Total kWh Sales
060/MO860	Residential General Use	1,551,362,456		(21,606,729)	7,960,710	1,537,716,437
070/MO870	Residential w/ Space Heat	560,138,187		26,438,397	54,884,930	641,461,514
310/MO710	Small GS (no kW meter)	145,879,483		704,520	2,553,691	149,137,694
311/MO711	Small GS w/kW mtr, Sec	523,263,747	1,264,080	(467,013)	69,650,626	593,711,440
316/MO716	Small GS w/kW mtr, Pri	2,168,261	512,480	31,217	39,843	2,751,801
611/MO611	TOD (GS) - 1 phase	84,440			(21,520)	62,920
320/MO720	Large GS, Secondary	705,679,378	(1,014,600)	(1,664,410)	25,934,820	728,935,188
325/MO725	Large GS, Primary	33,591,546	(179,480)	(161,975)	1,738,467	34,988,558
420/MO721	RTP (721)	312,550	3,199,841		(60,550)	3,451,841
631/MO631	TOD (GS) - 3 phase, Sec	923,760			(263,600)	660,160
330/MO730	Large PS, Secondary	454,767,384			6,738,022	461,505,406
335/MO735	Large PS, Primary	546,364,706			(21,410,404)	524,954,302
430/MO731	RTP (731)	26,366,077			2,774,000	29,140,077
435/MO737	RTP (737)	34,582,327			(5,019,057)	29,563,270
219/MO919	Special Contract (Modine)	7,636,838			718,959	8,355,797
450/MO950	Special Contract	67,528,693			(2,431,401)	65,097,292
651/MO651	Thermal Energy	7,007,594			(236,960)	6,770,634
340/MO740	Schools & Churches, Sec	61,087,743	(8,357,800)	927,460	382,759	54,040,162
345/MO745	Schools & Churches, Pri	170,840			4,400	175,240
500/MO800	Muni Water Pumps	9,382,910			(225,720)	9,157,190
510/MO810	Muni Park & Rec	2,503,631			135,332	2,638,963
511/MO811	Muni Park & Rec, 3-phase	2,591,389			348,057	2,939,446
	Unaccounted for	1,622,000				1,622,000
300/MO888	Interdepartmental Lighting	40,482,864			406,796	40,889,660
	<b>Total MO Retail Sales</b>	<b>4,785,498,804</b>	<b>(4,575,479)</b>	<b>4,201,467</b>	<b>144,602,200</b>	<b>4,929,726,992</b>
283	Wholesale - Sales to Munis	218,771,000		(4,889,301)		213,881,699
	<b>Total MO Sales</b>	<b>5,004,269,804</b>	<b>(4,575,479)</b>	<b>(687,834)</b>	<b>144,602,200</b>	<b>5,143,608,691</b>

**MISSOURI PUBLIC SERVICE - CASE NO. ER-2001-672**  
**DETAILS OF SPECIFIC ADJUSTMENTS TO MISSOURI KWH SALES**  
**(CALENDAR YEAR 2000, ADJUSTED THROUGH JUNE 30, 2001)**

RATE ID		Annualizations for Billing Corrections	Annualizations for EDR Credits	Normalization for Weather	Normalization for Unbilled	Growth in kWh due to Customers	Growth in kWh Update Period
060/MO860	Residential General Use			(28,696,593)	7,089,864	7,960,710	
070/MO870	Residential w/ Space Heat			16,875,089	9,563,308	54,884,930	
310/MO710	Small GS (no kW meter)			(1,014,078)	1,718,598	2,553,691	
311/MO711	Small GS w/kW mtr, Sec	1,264,080		(3,802,636)	3,335,623	69,650,626	
316/MO716	Small GS w/kW mtr, Pri	512,480		(26,080)	57,297	39,843	
611/MO611	TOD (GS) - 1 phase						(21,520)
320/MO720	Large GS, Secondary	(1,014,600)		(5,032,459)	3,368,049	25,934,820	
325/MO725	Large GS, Primary	(179,480)		(146,096)	(15,879)	1,738,467	
420/MO721	RTP (721)	3,199,841					(60,550)
631/MO631	TOD (GS) - 3 phase, Sec						(263,600)
330/MO730	Large PS, Secondary						6,738,022
335/MO735	Large PS, Primary						(21,410,404)
430/MO731	RTP (731)						2,774,000
435/MO737	RTP (737)						(5,019,057)
219/MO919	Special Contract (Modine)						718,959
450/MO950	Special Contract						(2,431,401)
651/MO651	Thermal Energy						(236,960)
340/MO740	Schools & Churches, Sec	(8,357,800)		(784,235)	1,711,695	382,759	
345/MO745	Schools & Churches, Pri						4,400
500/MO800	Muni Water Pumps						(225,720)
510/MO810	Muni Park & Rec						135,332
511/MO811	Muni Park & Rec, 3-phase						348,057
300/MO888	Unaccounted for Interdepartmental Lighting						406,796
	<b>Total MO Retail Sales</b>	(4,575,479)		(22,627,088)	26,828,555	163,145,846	(18,543,646)
283	Wholesale - Sales to Munis			(2,229,011)	(2,660,290)		
	<b>Total MO Sales</b>	<b>(4,575,479)</b>	<b>-</b>	<b>(24,856,099)</b>	<b>24,168,265</b>	<b>163,145,846</b>	<b>(18,543,646)</b>

**MISSOURI PUBLIC SERVICE - CASE NO. ER-2001-672  
ADJUSTED MISSOURI RETAIL RATE REVENUES BY RATE ID  
(CALENDAR YEAR 2000, ADJUSTED THROUGH JUNE 30, 2001)**

		As Billed w/o Taxes	Annualizations to Rate Revenue	Normalizations to to Rate Revenue	Effect of Growth to Rate Revenue	Total Rate Revenue
060/MO860	Residential General Use	\$116,660,296		(\$1,730,128)	\$606,662	\$115,536,829
070/MO870	Residentail w/ Space Heat	\$33,885,299		\$672,783	\$3,129,737	\$37,687,819
310/MO710	Small GS (no kW meter)	\$11,983,195		(\$51,105)	\$190,777	\$12,122,867
311/MO711	Small GS w/kW mtr, Sec	\$32,080,482	\$64,529	(\$90,106)	\$4,230,083	\$36,284,987
316/MO716	Small GS w/kW mtr, Pri	\$117,037	\$28,119	\$982	\$1,230	\$147,369
	EDR Discounts (711)	(\$2,244)	(\$15,384)			(\$17,628)
611/MO611	TOD (GS) - 1 phase	\$6,133			(\$1,765)	\$4,368
320/MO720	Large GS, Secondary	\$36,032,258	(\$48,329)	(\$108,661)	\$1,275,537	\$37,150,805
325/MO725	Large GS, Primary	\$1,599,858	(\$9,992)	(\$9,233)	\$88,485	\$1,669,118
420/MO721	RTP (721)	\$12,891	\$135,496		\$40,921	\$189,308
	EDR Discounts (720)	(\$113,627)	\$49,107			(\$64,519)
	EDR Discounts (725)	(\$4,021)	\$4,021			
631/MO631	TOD (GS) - 3 phase, Sec	\$54,060			(\$15,835)	\$38,225
330/MO730	Large PS, Secondary	\$20,047,793			\$208,840	\$20,256,633
335/MO735	Large PS, Primary	\$21,691,499			(\$105,718)	\$21,585,782
430/MO731	RTP (731)	\$1,037,620			\$489,901	\$1,527,521
435/MO737	RTP (737)	\$1,454,671			\$320,814	\$1,775,485
	EDR Discounts (730)	(\$542,438)	\$300,465			(\$241,973)
	EDR Discounts (735)	(\$258,594)	(\$25,241)			(\$283,835)
219/MO919	Special Contract (Modine)	\$307,675			\$29,986	\$337,661
450/MO950	Special Contract	\$2,367,685			(\$47,773)	\$2,319,913
651/MO651	Thermal Energy	\$300,439			(\$4,875)	\$295,564
340/MO740	Schools & Churches, Sec	\$3,585,069	(\$261,599)	(\$9,269)	\$20,274	\$3,334,475
345/MO745	Schools & Churches, Pri	\$9,377			\$112	\$9,489
500/MO800	Muni Water Pumps	\$560,473			(\$13,198)	\$547,275
510/MO810	Muni Park & Rec	\$192,188			\$10,261	\$202,449
511/MO811	Muni Park & Rec, 3-phase	\$200,515			\$25,490	\$226,005
	Unaccounted for Interdepartmental Lighting	(\$48,617) \$4,908,066			\$74,170	(\$48,617) \$4,982,236
	<b>TOTAL MO RATE REVENUE</b>	<b>\$288,125,042</b>	<b>\$221,192</b>	<b>(\$1,324,737)</b>	<b>\$10,554,114</b>	<b>\$297,575,610</b>



**MISSOURI PUBLIC SERVICE - CASE NO. ER-2001-672  
DETAILS OF ADJUSTMENTS TO MISSOURI RETAIL RATE REVENUES  
(CALENDAR YEAR 2000, ADJUSTED THROUGH JUNE 30, 2001)**

		Annualizations for Billing Corrections	Annualizations for EDR Credits	Normalization for Weather	Normalization for Unbilled	Growth in \$ due to Customers	Growth in \$ Update Period
060/MO860	Residential General Use			(\$2,084,932)	\$354,804	\$606,662	
070/MO870	Residential w/ Space Heat			\$373,451	\$299,332	\$3,129,737	
310/MO710	Small GS (no kW meter)			(\$103,881)	\$52,776	\$190,777	
311/MO711	Small GS w/kW mtr, Sec	\$64,529		(\$209,892)	\$119,786	\$4,230,083	
316/MO716	Small GS w/kW mtr, Pri	\$28,119		(\$1,619)	\$2,601	\$1,230	
	EDR Discounts (711)		(\$15,384)				
611/MO611	TOD (GS) - 1 phase						(\$1,765)
320/MO720	Large GS, Secondary	(\$48,329)		(\$236,626)	\$127,965	\$1,275,537	
325/MO725	Large GS, Primary	(\$9,992)		(\$8,643)	(\$590)	\$88,485	
420/MO721	RTP (721)	\$135,496					\$40,921
	EDR Discounts (720)	\$35,986	\$13,122				
	EDR Discounts (725)		\$4,021				
631/MO631	TOD (GS) - 3 phase, Sec						(\$15,835)
330/MO730	Large PS, Secondary						\$208,840
335/MO735	Large PS, Primary						(\$105,718)
430/MO731	RTP (731)						\$489,901
435/MO737	RTP (737)						\$320,814
	EDR Discounts (730)		\$300,465				
	EDR Discounts (735)		(\$25,241)				
219/MO919	Special Contract (Modine)						\$29,986
450/MO950	Special Contract						(\$47,773)
651/MO651	Thermal Energy						(\$4,875)
340/MO740	Schools & Churches, Sec	(\$261,599)		(\$69,246)	\$59,977	\$20,274	
345/MO745	Schools & Churches, Pri						\$112
500/MO800	Muni Water Pumps						(\$13,198)
510/MO810	Muni Park & Rec						\$10,261
511/MO811	Muni Park & Rec, 3-phase						\$25,490
	Unaccounted for Interdepartmental Lighting						\$74,170
	<b>TOTAL MO RATE REVENUE</b>	<b>(\$55,790)</b>	<b>\$276,982</b>	<b>(\$2,341,386)</b>	<b>\$1,016,649</b>	<b>\$9,542,783</b>	<b>\$1,011,330</b>

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**RESIDENTIAL GENERAL USE (060/M0860)**

Rev Mo	Actual Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	109,411,946	4,876,903	3,544,932	117,833,781	7.70%
2000-02	102,885,520	6,172,885	-	109,058,405	6.00%
2000-03	98,343,169	4,701,619	-	103,044,788	4.78%
2000-04	80,810,247	2,777,949	-	83,588,196	3.44%
2000-05	88,471,633	(23,929)	-	88,447,704	-0.03%
2000-06	135,637,472	1,240,032	-	136,877,504	0.91%
2000-07	201,556,009	27,051,656	-	228,607,665	13.42%
2000-08	190,614,860	(9,380,561)	-	181,234,299	-4.92%
2000-09	224,749,933	(45,392,268)	-	179,357,665	-20.20%
2000-10	117,445,817	(11,708,572)	-	105,737,245	-9.97%
2000-11	90,502,035	(2,376,606)	-	88,125,429	-2.63%
2000-12	110,933,815	(6,635,701)	3,544,932	107,843,046	-2.79%
Total	1,551,362,456	(28,696,593)	7,089,864	1,529,755,727	-1.39%

Rev Mo	Actual Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$7,783,940	\$242,057	\$175,947	\$8,201,943	5.37%
2000-02	\$7,450,515	\$313,560	\$0	\$7,764,074	4.21%
2000-03	\$7,229,755	\$244,600	\$0	\$7,474,355	3.38%
2000-04	\$6,205,567	\$153,119	\$0	\$6,358,686	2.47%
2000-05	\$6,678,926	(\$1,300)	\$0	\$6,677,626	-0.02%
2000-06	\$10,594,816	\$89,939	\$0	\$10,684,754	0.85%
2000-07	\$15,602,627	\$2,034,241	\$0	\$17,636,868	13.04%
2000-08	\$14,767,837	(\$699,391)	\$0	\$14,068,446	-4.74%
2000-09	\$17,335,165	(\$3,397,675)	\$0	\$13,937,490	-19.60%
2000-10	\$8,370,184	(\$600,706)	\$0	\$7,769,478	-7.18%
2000-11	\$6,784,269	(\$128,574)	\$0	\$6,655,695	-1.90%
2000-12	\$7,856,694	(\$334,800)	\$178,857	\$7,700,751	-1.98%
Total	\$116,660,296	(\$2,084,932)	\$354,804	\$114,930,167	-1.48%

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**RESIDENTIAL SPACE HEATING (070/MO870)**

Rev Mo	Actual Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	62,804,821	7,843,910	4,781,654	75,430,385	20.10%
2000-02	65,118,558	10,889,093	-	76,007,651	16.72%
2000-03	50,269,918	9,850,729	-	60,120,647	19.60%
2000-04	36,666,322	3,563,283	-	40,229,605	9.72%
2000-05	29,630,980	902,459	-	30,533,439	3.05%
2000-06	36,005,297	1,235,562	-	37,240,859	3.43%
2000-07	48,419,596	4,562,457	-	52,982,053	9.42%
2000-08	45,515,927	(1,492,148)	-	44,023,779	-3.28%
2000-09	53,044,932	(8,003,413)	-	45,041,519	-15.09%
2000-10	34,812,308	(1,569,392)	-	33,242,916	-4.51%
2000-11	36,382,752	(874,590)	-	35,508,162	-2.40%
2000-12	61,466,776	(10,032,861)	4,781,654	56,215,569	-8.54%
Total	560,138,187	16,875,089	9,563,308	586,576,584	4.72%

Rev Mo	Actual Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$2,968,605	\$245,514	\$149,666	\$3,363,785	13.31%
2000-02	\$3,044,909	\$340,829	\$0	\$3,385,737	11.19%
2000-03	\$2,559,548	\$308,328	\$0	\$2,867,876	12.05%
2000-04	\$2,080,510	\$135,749	\$0	\$2,216,259	6.52%
2000-05	\$1,849,544	\$40,579	\$0	\$1,890,123	2.19%
2000-06	\$2,767,141	\$89,223	\$0	\$2,856,365	3.22%
2000-07	\$3,743,432	\$341,821	\$0	\$4,085,253	9.13%
2000-08	\$3,524,822	(\$110,963)	\$0	\$3,413,859	-3.15%
2000-09	\$4,092,930	(\$597,919)	\$0	\$3,495,011	-14.61%
2000-10	\$2,123,805	(\$69,210)	\$0	\$2,054,595	-3.26%
2000-11	\$2,141,834	(\$36,472)	\$0	\$2,105,362	-1.70%
2000-12	\$2,988,220	(\$314,029)	\$149,666	\$2,823,857	-5.50%
Total	\$33,885,299	\$373,451	\$299,332	\$34,558,082	1.99%

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**SMALL GENERAL SERVICE (310/MO710)**

Rev Mo	Annualized Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	12,053,781	368,795	859,299	13,281,875	10.19%
2000-02	12,294,059	494,242	-	12,788,301	4.02%
2000-03	11,197,421	607,731	-	11,805,152	5.43%
2000-04	9,277,638	219,566	-	9,497,204	2.37%
2000-05	9,668,573	(75,383)	-	9,593,190	-0.78%
2000-06	11,745,169	(74,362)	-	11,670,807	-0.63%
2000-07	14,546,492	759,170	-	15,305,662	5.22%
2000-08	14,000,986	(326,806)	-	13,674,180	-2.33%
2000-09	16,001,345	(1,565,524)	-	14,435,821	-9.78%
2000-10	11,600,216	(499,107)	-	11,101,109	-4.30%
2000-11	10,755,703	(288,756)	-	10,466,947	-2.68%
2000-12	12,738,100	(633,644)	859,299	12,963,755	1.77%
Total	145,879,483	(1,014,078)	1,718,598	146,584,003	0.48%

Rev Mo	Annualized Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$818,763	\$10,811	\$25,190	\$854,764	4.40%
2000-02	\$825,123	\$14,019	\$0	\$839,142	1.70%
2000-03	\$792,894	\$19,273	\$0	\$812,168	2.43%
2000-04	\$722,121	\$8,471	\$0	\$730,592	1.17%
2000-05	\$759,905	(\$2,998)	\$0	\$756,907	-0.39%
2000-06	\$1,146,649	(\$6,306)	\$0	\$1,140,343	-0.55%
2000-07	\$1,418,161	\$64,378	\$0	\$1,482,539	4.54%
2000-08	\$1,368,354	(\$27,713)	\$0	\$1,340,641	-2.03%
2000-09	\$1,541,019	(\$132,756)	\$0	\$1,408,262	-8.61%
2000-10	\$891,811	(\$19,703)	\$0	\$872,109	-2.21%
2000-11	\$817,491	(\$11,017)	\$0	\$806,474	-1.35%
2000-12	\$880,904	(\$20,341)	\$27,585	\$888,148	0.82%
Total	\$11,983,195	(\$103,881)	\$52,776	\$11,932,090	-0.43%

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**SMALL GENERAL SERVICE (311/MO711)**

Rev Mo	Annualized Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	39,968,881	1,163,157	1,667,812	42,799,850	7.08%
2000-02	39,430,074	1,541,612	-	40,971,686	3.91%
2000-03	37,756,880	1,031,189	-	38,788,069	2.73%
2000-04	35,380,453	522,396	-	35,902,849	1.48%
2000-05	37,304,139	(343,417)	-	36,960,722	-0.92%
2000-06	47,124,079	(250,823)	-	46,873,256	-0.53%
2000-07	53,348,963	2,517,635	-	55,866,598	4.72%
2000-08	51,942,247	(1,320,743)	-	50,621,504	-2.54%
2000-09	57,595,023	(4,710,794)	-	52,884,229	-8.18%
2000-10	44,181,761	(1,460,035)	-	42,721,726	-3.30%
2000-11	39,960,796	(894,755)	-	39,066,041	-2.24%
2000-12	40,534,531	(1,598,058)	1,667,812	40,604,285	0.17%
Total	524,527,827	(3,802,636)	3,335,623	524,060,814	-0.09%

Rev Mo	Annualized Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$2,153,167	\$41,459	\$59,447	\$2,254,072	4.69%
2000-02	\$2,124,219	\$55,207	\$0	\$2,179,426	2.60%
2000-03	\$2,073,882	\$37,610	\$0	\$2,111,492	1.81%
2000-04	\$2,000,070	\$19,870	\$0	\$2,019,939	0.99%
2000-05	\$2,096,952	(\$12,945)	\$0	\$2,084,008	-0.62%
2000-06	\$3,297,074	(\$13,483)	\$0	\$3,283,591	-0.41%
2000-07	\$3,742,813	\$134,681	\$0	\$3,877,494	3.60%
2000-08	\$3,746,381	(\$72,958)	\$0	\$3,673,423	-1.95%
2000-09	\$4,036,269	(\$254,601)	\$0	\$3,781,668	-6.31%
2000-10	\$2,465,423	(\$53,713)	\$0	\$2,411,710	-2.18%
2000-11	\$2,218,867	(\$33,204)	\$0	\$2,185,663	-1.50%
2000-12	\$2,189,894	(\$57,815)	\$60,339	\$2,192,417	0.12%
Total	\$32,145,011	(\$209,892)	\$119,786	\$32,054,904	-0.28%

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**SMALL GENERAL SERVICE (316/MO716)**

Rev Mo	Annualized Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	151,840	4,500	28,649	184,989	21.83%
2000-02	235,760	9,135	-	244,895	3.87%
2000-03	132,081	3,017	-	135,098	2.28%
2000-04	219,320	3,529	-	222,849	1.61%
2000-05	217,580	(2,065)	-	215,515	-0.95%
2000-06	215,240	(1,972)	-	213,268	-0.92%
2000-07	142,440	6,304	-	148,744	4.43%
2000-08	350,020	(2,028)	-	347,992	-0.58%
2000-09	297,100	(24,706)	-	272,394	-8.32%
2000-10	259,220	(8,228)	-	250,992	-3.17%
2000-11	232,080	(4,711)	-	227,369	-2.03%
2000-12	228,060	(8,855)	28,649	247,854	8.68%
Total	2,680,741	(26,080)	57,297	2,711,958	1.16%

Rev Mo	Annualized Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$6,771	\$185	\$1,178	\$8,134	20.12%
2000-02	\$9,490	\$345	\$0	\$9,835	3.64%
2000-03	\$6,381	\$135	\$0	\$6,516	2.11%
2000-04	\$8,794	\$132	\$0	\$8,926	1.50%
2000-05	\$8,956	(\$80)	\$0	\$8,876	-0.89%
2000-06	\$15,219	(\$119)	\$0	\$15,100	-0.78%
2000-07	\$10,324	\$356	\$0	\$10,680	3.45%
2000-08	\$22,024	(\$114)	\$0	\$21,910	-0.52%
2000-09	\$18,872	(\$1,396)	\$0	\$17,476	-7.40%
2000-10	\$13,634	(\$397)	\$0	\$13,237	-2.91%
2000-11	\$12,223	(\$226)	\$0	\$11,997	-1.85%
2000-12	\$12,467	(\$440)	\$1,423	\$13,451	7.89%
Total	\$145,156	(\$1,619)	\$2,601	\$146,138	0.68%

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**LARGE GENERAL SERVICE (320/MO720)**

Rev Mo	Annualized Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	54,092,986	577,205	1,684,025	56,354,216	4.18%
2000-02	55,261,510	933,274	-	56,194,784	1.69%
2000-03	48,281,488	(107,495)	-	48,173,993	-0.22%
2000-04	52,754,221	239,534	-	52,993,755	0.45%
2000-05	55,705,466	(487,973)	-	55,217,493	-0.88%
2000-06	63,229,806	(101,584)	-	63,128,222	-0.16%
2000-07	68,776,383	1,701,986	-	70,478,369	2.47%
2000-08	66,869,898	(1,306,263)	-	65,563,635	-1.95%
2000-09	71,658,187	(3,359,621)	-	68,298,566	-4.69%
2000-10	61,439,469	(1,503,548)	-	59,935,921	-2.45%
2000-11	54,778,280	(1,074,246)	-	53,704,034	-1.96%
2000-12	51,817,084	(543,728)	1,684,025	52,957,381	2.20%
Total	704,664,778	(5,032,459)	3,368,049	703,000,368	-0.24%

Rev Mo	Annualized Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$2,403,506	\$21,984	\$64,139	\$2,489,629	3.58%
2000-02	\$2,430,916	\$35,651	\$0	\$2,466,568	1.47%
2000-03	\$2,173,515	(\$4,158)	\$0	\$2,169,357	-0.19%
2000-04	\$2,392,701	\$9,222	\$0	\$2,401,923	0.39%
2000-05	\$2,461,175	(\$18,434)	\$0	\$2,442,742	-0.75%
2000-06	\$3,836,952	(\$5,145)	\$0	\$3,831,807	-0.13%
2000-07	\$4,167,059	\$86,557	\$0	\$4,253,616	2.08%
2000-08	\$4,160,168	(\$67,949)	\$0	\$4,092,219	-1.63%
2000-09	\$4,395,473	(\$173,171)	\$0	\$4,222,303	-3.94%
2000-10	\$2,839,084	(\$59,634)	\$0	\$2,779,450	-2.10%
2000-11	\$2,441,924	(\$40,942)	\$0	\$2,400,982	-1.68%
2000-12	\$2,281,455	(\$20,608)	\$63,826	\$2,324,673	1.89%
Total	\$35,983,929	(\$236,626)	\$127,965	\$35,875,268	-0.30%

**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**LARGE GENERAL SERVICE (325/MO725)**

Rev Mo	Annualized Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	2,540,324	31,587	(7,940)	2,563,972	0.93%
2000-02	2,515,416	53,212	-	2,568,628	2.12%
2000-03	2,188,046	37,799	-	2,225,845	1.73%
2000-04	2,518,454	39,057	-	2,557,511	1.55%
2000-05	2,531,416	(58,380)	-	2,473,036	-2.31%
2000-06	2,246,732	31,323	-	2,278,055	1.39%
2000-07	3,503,229	119,501	-	3,622,730	3.41%
2000-08	3,320,806	(79,009)	-	3,241,797	-2.38%
2000-09	3,754,867	(205,575)	-	3,549,292	-5.47%
2000-10	3,386,342	(35,520)	-	3,350,822	-1.05%
2000-11	2,565,767	(33,219)	-	2,532,548	-1.29%
2000-12	2,340,667	(46,872)	(7,940)	2,285,856	-2.34%
Total	33,412,066	(146,096)	(15,879)	33,250,091	-0.48%

Rev Mo	Annualized Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$104,664	\$1,154	(\$290)	\$105,527	0.83%
2000-02	\$100,560	\$1,985	\$0	\$102,545	1.97%
2000-03	\$87,588	\$1,324	\$0	\$88,912	1.51%
2000-04	\$102,474	\$1,404	\$0	\$103,878	1.37%
2000-05	\$99,325	(\$2,038)	\$0	\$97,287	-2.05%
2000-06	\$122,715	\$1,473	\$0	\$124,188	1.20%
2000-07	\$200,316	\$5,940	\$0	\$206,256	2.97%
2000-08	\$201,435	(\$4,780)	\$0	\$196,655	-2.37%
2000-09	\$223,694	(\$10,694)	\$0	\$212,999	-4.78%
2000-10	\$146,863	(\$1,403)	\$0	\$145,460	-0.96%
2000-11	\$103,614	(\$1,234)	\$0	\$102,381	-1.19%
2000-12	\$96,619	(\$1,773)	(\$300)	\$94,545	-2.15%
Total	\$1,589,866	(\$8,643)	(\$590)	\$1,580,633	-0.58%



**SUMMARY OF NORMALIZATION OF SALES AND REVENUES  
MISSOURI PUBLIC SERVICE  
MO PSC CASE NO. ER-2001-672**

**SCHOOL & CHURCH (340/MO740)**

Rev Mo	Annualized Billed kWh Sales	Weather Adj to Sales	Unbilled Adj to Sales	Total Normalized kWh Sales	Total Normalization Adj to Sales
2000-01	4,056,485	303,733	855,848	5,216,066	28.59%
2000-02	4,513,761	323,013	-	4,836,774	7.16%
2000-03	3,756,997	320,085	-	4,077,082	8.52%
2000-04	3,783,660	151,518	-	3,935,178	4.00%
2000-05	3,466,158	3,126	-	3,469,284	0.09%
2000-06	4,035,682	82,315	-	4,117,997	2.04%
2000-07	4,697,499	581,606	-	5,279,105	12.38%
2000-08	5,146,217	(395,383)	-	4,750,834	-7.68%
2000-09	6,261,113	(1,263,326)	-	4,997,787	-20.18%
2000-10	5,191,261	(306,356)	-	4,884,905	-5.90%
2000-11	3,760,760	(156,328)	-	3,604,432	-4.16%
2000-12	4,060,350	(428,238)	855,848	4,487,960	10.53%
Total	52,729,943	(784,235)	1,711,695	53,657,403	1.76%

Rev Mo	Annualized Billed Revenue	Weather Adj to Revenue	Unbilled Adj to Revenue	Total Normalized Revenue	Total Normalization Adj to Revenue
2000-01	\$219,693	\$10,412	\$29,338	\$259,443	18.09%
2000-02	\$236,449	\$10,216	\$0	\$246,665	4.32%
2000-03	\$200,332	\$10,703	\$0	\$211,035	5.34%
2000-04	\$216,803	\$5,850	\$0	\$222,653	2.70%
2000-05	\$199,322	\$124	\$0	\$199,446	0.06%
2000-06	\$293,839	\$6,042	\$0	\$299,881	2.06%
2000-07	\$356,000	\$42,690	\$0	\$398,690	11.99%
2000-08	\$390,152	(\$29,021)	\$0	\$361,131	-7.44%
2000-09	\$471,464	(\$92,728)	\$0	\$378,736	-19.67%
2000-10	\$309,631	(\$12,189)	\$0	\$297,442	-3.94%
2000-11	\$212,304	(\$6,014)	\$0	\$206,290	-2.83%
2000-12	\$217,481	(\$15,331)	\$30,639	\$232,789	7.04%
Total	\$3,323,470	(\$69,246)	\$59,977	\$3,314,201	-0.28%