Exhibit No.:	
Issue:	Weather Normalization
Witness:	James R. Pozzo
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Union Electric Company
Case No.:	
Date Testimony Prepared:	May 23, 2003

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ____________

DIRECT TESTIMONY

OF

JAMES R. POZZO

ON BEHALF OF

UNION ELECTRIC COMPANY,
d/b/a AmerenUE

St. Louis, Missouri
May 2003

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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

STATE OF MISSOURI)
) **ss**
CITY OF ST. LOUIS)

AFFIDAVIT OF JAMES R. POZZO

James R. Pozzo, being first duly sworn on his oath, states:

1. My name is James R. Pozzo. I work in St. Louis, Missouri, and I am employed by Ameren Services Company as a Consulting Engineer, Rate Engineering.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company, d/b/a AmerenUE, consisting of 6 pages, Appendix A, and Schedules JRP-1 and JRP-2, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

James R. Pozzo
James R. Pozzo

Subscribed and sworn to before me this 22nd day of May, 2003.

Mary Hoyt
Notary Public

My commission expires: 4-1-2006

MARY HOYT
Notary Public - Notary Seal
STATE OF MISSOURI
Jefferson County
My Commission Expires: April 1, 2006

DIRECT TESTIMONY

OF

JAMES R. POZZO

CASE NO. ___________

Q. Please state your name and business address.

A. My name is James R. Pozzo. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. By whom and in what capacity are you employed?

A. I am employed by Ameren Services Company as a Consulting Engineer in the Rate Engineering Department of Corporate Planning. In this capacity I provide rate engineering services to Union Electric Company, d/b/a AmerenUE (referred to herein as "Company" or "AmerenUE").

Q. What is your educational background, work experience and duties of your position?

A. This information is summarized in Appendix A, which is attached to this testimony.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain the development of the weather normalized billing units for the Residential and General Service customer classes of AmerenUE.

Q. How was the weather normalized gas usage developed?

A. I used regression analysis to determine the statistical relationship of billing cycle gas usage and billing cycle heating degree days, and then used such results to estimate the weather normalized gas usage for the Residential and General Service customer classes of the Company.

Q. Please explain the general concept of regression analysis.

A. Regression analysis is a statistical technique for modeling and investigating the quantitative relationship between two or more variables. The analysis provides estimates of the portion of the variation of the dependent variable associated with variations in the independent variable.

Q. In your regression analysis, what are the independent and dependent variables?

A. The dependent variable is the billing cycle gas usage per customer. Gas usage is measured in hundreds of cubic feet, abbreviated as "Ccf". The independent variable is the billing cycle heating degree day temperature measure.

Q. Please explain the difference between billing cycle gas usage and calendar month gas usage.

A. Customer billing cycle usage is the accumulated gas consumed in Ccf between meter reading dates. For each of the 21 scheduled meter reading cycles of a specific Company billing month, a portion of the usage within each cycle usually occurs in the month prior to the month in which the meter is read. For example, meters read in mid-January will reflect customer gas consumption from mid-December to mid-January. Calendar usage for January would be the accumulated usage from January 1st to January 31st, as if all customer meters were simultaneously read at the beginning of January 1st and at the end of January 31st.

Q. Please explain the term "heating degree days."

A. One heating degree day is accumulated for each whole degree that the daily mean temperature is below 65° Fahrenheit. For example, five (5) heating degree days are incurred on a day having a mean temperature of 60° Fahrenheit.

Q. How did you develop the billing cycle heating degree days?

A. I calculated billing cycle heating degree days by applying a weighting factor to the heating degree days associated with each day in each billing month. I weighted the heating degree days to account for the fact that the Company's meters are read at different times throughout the billing cycle month. Finally, I summed the weighted heating degree days for each billing cycle day to determine heating degree days associated with each billing cycle month during the test year.

Q. How did you calculate normal heating degree days?

A. I obtained historical daily heating degree days from two weather stations in the areas in which AmerenUE serves gas customers. For the portion of the Company's service area supplied by Panhandle Eastern Pipe Line Company, I obtained the data from the Columbia Regional Airport. For the areas in Southeast Missouri served by Natural Gas Pipeline Company of America and Texas Eastern Transmission Corporation, I obtained the data from the Cape Girardeau Regional Airport. I calculated normal daily heating degree days for each day by developing an average of the historical heating degree days for the 30 calendar years beginning 1973 and ending in December 2002. I then used the normal daily heating degree days, along with the billing cycle weighting factors for the test year meter reading schedules, to calculate the normal heating degree days for each test year billing month. Panhandle Eastern Pipe Line Company serves the areas in and around Columbia, Jefferson City, Mexico and Wentzville. Natural Gas Pipeline Company of America and Texas Eastern Transmission Corporation serve the area in and around Cape Girardeau.

Q. What conclusions can be drawn from your regression analysis?

A. There is a valid statistical relationship between the level of customer gas usage and heating degree days for the Residential and General Service customer classes. The R^2 (pronounced R squared) statistic which, by formulation, will range from zero to 1.0, indicates the degree of correlation between the variables of a regression model. An R^2 value near zero indicates low or poor correlation, whereas an R^2 value near 1.0 indicates a high or good correlation between the variables being examined. The R^2 values which I calculated for the Residential and General Service classes as a part of this regression analysis were sufficiently high (close to a value of 1.0) to be considered statistically significant for these customer classes. Schedule JRP-1 shows the R^2 values for AmerenUE's Residential and General Service classes and regions.

Q. What adjustments for these customer classes resulted from your weather normalization process?

A. Test year usage for the Residential class was decreased by 334,525 Ccf (0.5%) and General Service class usage was decreased by 124,572 Ccf (0.3%). Test year revenue for the Residential class was decreased by $65,433 (0.3%) and revenue for the General Service class was decreased by $21,932 (0.2%) to reflect what the gas usage of these customer classes would have been in the test year under normal weather conditions. Schedule JRP-2 shows the actual and normal sales and revenue for various rate classes.

Q. Did you adjust sales and revenue for the Transportation and Interruptible customer classes using the weather normalization process?

A. No, the Transportation and Interruptible customer classes consist of large non-residential customers whose usage generally does not vary significantly with weather. For this reason, I decided not to attempt to weather normalize the usage or revenue for these customer classes.

Q. In what other ways did you use the regression analyses?

A. I used the results of these regression analyses along with the peak heating degree day data for the test year to estimate the coincident peak day demands for the Residential and General Service customer classes. Company witness William M. Warwick will discuss the use of the peak day demand requirements for allocation factor development in his testimony.

Q. How were the coincident peak day demands of the various other rate classes determined?

A. The coincident demand for the Interruptible class was the assurance level contracted for by such customers under the Company's Interruptible Service tariff. I determined the coincident peak for the Transportation customers by summing the individual customer usage for the maximum heating degree day during the test year for each region.

Q. How did you determine the non-coincident peak day demands for the various classes?

A. I assumed the non-coincident peak day demands for the Residential, General Service, Standard Transportation and Large Volume Transportation to be the same as the peak day demands. I determined the non-coincident peak day demand for the Interruptible Service class by dividing the maximum monthly use by the number of work days in the month.

Q. Did you make any other adjustments to the billing data?

A. Yes, I made an adjustment to the December 2002 billing data for the residential and general service classes to reflect the implementation of window billing. Window billing caused some customers to receive thirteen (13) bills during the test year. With window billing, a bill group can be billed in the billing system up to three (3) days prior to its last bill date. This can result in some bill groups being billed twice in the same revenue month. This adjustment for window billing is included in the pro forma adjustment made to book revenues to reflect billing units at current rates in the cost of service testimony of Company witness Gary S. Weiss.

Q. Does this conclude your direct testimony?

A. Yes, it does.

QUALIFICATIONS OF JAMES R. POZZO

My name is James R. Pozzo and my business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103. I reside in St. Louis County, Missouri.

I am a Consulting Engineer in the Rate Engineering Department of Corporate Planning at Ameren Services Company.

I received the degree of Bachelor of Science in Mechanical Engineering from the University of Missouri - Rolla in December 1978.

I began working at Union Electric Company in January 1979 in the Power Operations Department, working as an Engineer at the Ashley Plant for two (2) years and at the Meramec Plant for five (5) years. During this time I was responsible for operations and maintenance support for assigned plant equipment, along with various other projects as assigned.

I transferred into Union Electric Company's Rate Engineering Department in September 1985 and I assumed my current position with Ameren Services Company upon completion of the merger of CIPSCO Inc. and Union Electric Company effective December 31, 1997.

My duties and responsibilities include assignments related to the gas and electric rates of Union Electric Company, now doing business as AmerenUE, and Central Illinois Public Service Company, now doing business as AmerenCIPS, including participation in regulatory proceedings, rate analysis, the development and interpretation of the gas and electric tariffs, including rules and regulations, and other rate or regulatory projects as assigned.

Appendix A

Union Electric Company

12 Months Ending December 2002

R^2 Values

Class	R^2
Residential Panhandle Area	0.980
Residential Texas Eastern Area	0.980
General Service Panhandle Area	0.971
General Service Texas Eastern Area	0.972

Union Electric Company

Weather Adjustment to Non-Gas Revenue

12 Months Ending December 2002

	Average # Customers	As Billed		Normal		Difference			
		Use	Non-Gas Revenue	Use	Non-Gas Revenue	Use		Non-Gas Revenue	
Residential	99,195	71,458,327	$24,690,275	71,123,802	$24,624,842	(334,525)	-0.5%	($65,433)	-0.3%
General Service	12,033	37,019,664	$9,521,102	36,895,092	$9,499,170	(124,572)	-0.3%	($21,932)	-0.2%
Interruptible	13	4,079,283	$546,384	4,079,283	$546,384	0		$0	
Standard Transportation	119	15,042,705	$2,179,433	15,042,705	$2,179,433	0		$0	
Large Volume Transportation	21	34,356,297	$3,575,046	34,356,297	$3,575,046	0		$0	
Special Contracts	6	5,855,709	$173,651	5,855,709	$173,651	0		$0	
Total	111,387	167,811,985	$40,685,891	167,352,888	$40,598,526	(459,097)		($87,365)	

Schedule JRP-2