Exhibit No.:
Witness: James C. Watkins
Type of Exhibit: Rebuttal
Sponsoring Party: MoPSC Staff
Case No.: EO-2000-580

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

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Missouri Public Service Commission

REBUTTAL TESTIMONY

OF

JAMES C. WATKINS

UNION ELECTRIC COMPANY

CASE NO. EO-2000-580

Jefferson City, Missouri

September, 2000

Exhibit No. 7
Date 11-30-00 Case No. EO-2000-580
Reporter MA

REBUTTAL TESTIMONY

OF

JAMES C. WATKINS

UNION ELECTRIC COMPANY

CASE NO. EO-2000-580

Q. Please state your name and business address.

A. My name is James C. Watkins and my business address is Missouri Public Service Commission, Governor Office Building, 200 Madison Street, P. O. Box 360, Jefferson City, Missouri 65102.

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

A. I am a Regulatory Economist in the Electric Department of the Operations Division. My working title is Supervisor - Tariffs / Rate Design.

Q. Please review your educational background and work experience.

A. I have a Bachelor of Arts Degree in Economics from William Jewell College, a year of graduate study at the University of California at Los Angeles in the Masters Degree Program, and have completed all requirements except my dissertation for a Ph.D. in Economics from the University of Missouri-Columbia. My previous work experience has been as an Instructor of Economics at Columbia College, the University of Missouri-Rolla, and William Jewell College. I have been on the Staff of the Missouri Public Service Commission (Staff) since August 1, 1982.

Q. What is the Staff's recommendation in this case?

A. The Staff recommends that the Commission reject the request of Holnam, Inc., River Cement Company and Lone Star Industries (MEG Interruptibles) as set forth on page 14 of the direct testimony of Mr. Maurice Burbaker and elsewhere to "put into effect immediately an interruptible rate that contains the combination of features from prior Rate 10M [Union Electric Company's (UE or Company) now canceled Service Classification 10(M)-Interruptible Power Rate, attached as Schedule 1] and the seven points outlined on Schedule 1 [of Mr. Maurice Brubaker's direct testimony]." In fact, the Staff opposes MEG Interruptibles' proposal whether it is to be implemented immediately or not.

Q. What is the basis for the Staff's recommendation?

A. The Staff's objections to the proposal of Holman, Inc., River Cement Company and Lone Star Industries (MEG Interruptibles) can be summarized as follows:

1. There has been no evidence presented that Company needs such a tariff in order to continue to provide reliable service to its customers.
2. The value of such a tariff, if needed, is much less than the $5.00/kW proposed by MEG Interruptibles.
3. The conditions under which customers can be interrupted are not described in a meaningful way in light of the changes in the wholesale power market that have occurred since the Curtailment of Service section of the old Interruptible Power Rate was last written.

Each of these items is addressed in the following testimony.

Reliability

Q. Are you aware of the Company experiencing any reliability problems since the Interruptible Power Rate was cancelled?

A. No. It is the Staff's understanding that Company will present specific evidence in this case regarding its situation with respect to the adequacy of its reserves and the success of its present interruptible program. The Staff monitors each electric utility for reliability problems and none have been reported by UE. In addition, the Company has reported considerable success with its new interruptible programs—Rider L and Rider M.

Rate Level

Q. Why do you say that the value of such a tariff, if needed, is much less than the $5.00/kW per month discount proposed by MEG Interruptibles?

A. On page 11 of Mr. Brubaker's direct testimony, he shows that the $5.00/kW per month discount, i.e., the average difference between the demand charges for firm service and interruptible service, was equivalent to the capital cost of a combustion turbine assuming a carrying charge rate of 15%; however, he fails to account for the availability differences. Once purchased, the capacity of a combustion turbine is always available for satisfying the Company's reserve requirements, while the effective availability of curtailable load under UE's old Interruptible Power Rate was a limit on curtailing interruptible customers of an average of 6 times per year.

During the course of its 1996 investigation, the Staff found that on average UE curtailed its interruptible customers only an average of six (6) times a year and purchased short term capacity to meet its reserve requirements an average of an additional forty

(40) times a year. While this limit was not specified in the tariff, it was understood between Company and its customers. UE subsequently modified its tariff to conform with its practice of purchasing capacity short term in the wholesale market to supply the curtailable load of its interruptible customers.

A simplistic calculation is that if capacity is available via curtailments on 6 of the 46 times it is needed and capacity from a combustion turbine that is available all 46 times it is needed is worth $5.00/kW per month, then the capacity that is available only 6 times a year is worth only $0.65/kW per month (6/46 * $5.00 = $0.65). This calculation is not intended to indicate what the rate should be. It is presented only to show that Mr. Brubaker's analysis is seriously flawed because his analysis fails to account for this difference.

Q. Is there another way of determining the reasonableness of the $5/kW per month discount proposed by the MEG Interruptibles?

A. Yes, another way of examining the reasonableness of a $5/kW per month, or $60/kW per year, discount is to look at UE's costs on a dollar per megawatt-hour basis. Assuming six eight-hour interruptions per year, UE's average cost of obtaining power from its interruptible customers was $1,250 per megawatt-hour ($60 / 6*8 kilowatt-hours *1000=$1,250). Based on the data relied upon by Mr. Brubaker for his analysis found on page 6 of his direct testimony, there were no days in 1997 when the price of power ever reached that high; only 3 days in 1998; and only 2 days in 1999. The average cost of power during the 6 days with the highest power costs in each of the 3 years was less than $747 per megawatt-hour, which would translate to less than $3 per kilowatt-month.

More recent data through September 12, 2000 shows that power costs never exceeded \$150 per megawatt-hour in 2000 and the average power cost on the 6 highest cost days was less than \$100 per megawatt-hour. Thus, had Company paid MEG Interruptibles \$2.4 million for interruptible power in 2000, and had Company been able to call for 8-hour curtailments on each of those 6 days, Company would have paid MEG Interruptibles more than 10 times (\$1,250 / \$100 = 12.5) what the power was worth.

Q. How does the \$5/kW per month discount proposed by the MEG Interruptibles compare to the credits that are paid by other Missouri utilities for interruptible power?

A. The average credit paid by Empire District Electric Company, Missouri Public Service, St. Joseph Light & Power Company, and Kansas City Power & Light Company is \$2.01/kW per month. Only Kansas City Power & Light Company's rate is above this average, that utility having increased its rate from \$1.33 to \$3.33 following the Hawthorne 5 explosion.

Q. Are there other significant deficiencies of the interruptible rate proposed by the MEG Interruptibles as compared to those currently offered by the other Missouri utilities?

A. Yes. There are four significant deficiencies. First, the form of rate proposed by the MEG Interruptibles is different. While each of the other utilities pays a credit to customers based on the amount of load that a customer is expected to be able to curtail if called upon, MEG Interruptibles have proposed a rate discount to be applied every month to all kilowatts in excess of a single predetermined firm power level.

Second, the other utilities specify the maximum number of times, or hours, that customers can be interrupted (at least 20 times per year or at least 200 hours per year), while the MEG Interruptibles' proposal does not specify any limit. Staff assumes that it is MEG Interruptibles' intention that the unwritten limit for UE's old Interruptible Power Rate, a maximum of about 10 interruptions within a single year and an average of no more than 6 per year, would be applicable to its proposal.

Third, none of the other utilities are limited as to when they can interrupt customers, other than by the limits on the number of interruptions or on the cumulative hours of interruptions per year. While UE was restricted in its old Interruptible Power Rate to interrupting in specific reliability-related situations or when a new system peak load was expected to be established, MEG Interruptibles propose even more stringent limits on Company's right to curtail by eliminating the right to curtail customers when a new system peak load is expected to be established.

Fourth, as was the case with UE's old Interruptible Power Rate, MEG Interruptibles propose to require UE to first exhaust all available opportunities to purchase power at any cost to remedy its reliability problems before calling for curtailments of interruptible load by its interruptible customers. No other utility is required to purchase power to serve its interruptible load, unless it has already reached its limit on the number of times or number of hours that it has the right to interrupt.

Q. If these deficiencies also applied to UE's old Interruptible Power Rate, why didn't the Staff move earlier to eliminate or modify it?

A. Frankly, the Staff did not move sooner because of the significant impact that it would have had on the interruptible customers. The rate was eliminated in UE's most recent rate design case, Case No. EO-96-15, where an overall revenue reduction, shifts in class revenue responsibility, and rate design changes worked to bring those impacts down to an acceptable level—a level that was accepted by the MEG Interruptibles.

Curtailment Conditions

Q. Are the curtailment of service provisions proposed by MEG Interruptibles, i.e., the same provisions as in UE's old Interruptible Power Rate, adequate for describing the conditions under which customers can be interrupted?

A. No. The only thing that is made clear in the MEG Interruptibles' proposal is that the Company would not be able to interrupt customers in an effort to reduce its reserve requirements, which are based on each company's actual system peak. Furthermore, since power is always available at some price in today's competitive wholesale power markets, it would seem that the MEG Interruptibles have proposed an interruptible rate under which no customer could ever be interrupted.

Other Problems

Q. Are there any other problems with immediately implementing the MEG Industrials proposal?

A. Yes, there are two additional considerations. First, if the Commission were to approve the MEG Interruptibles' proposal with the effect of reducing the MEG Interruptibles' rates by $2.4 million a year, who is going to pay the $2.4 million and how will that affect the agreements previously approved by the Commission in Case No. EM-96-149 and Case No. EO-96-15? This matter will be addressed in the Staff's brief.

A second consideration is that the reliability benefits, if any, of the MEG Interruptibles' proposal are unlikely to occur until next summer. No evidence has been presented as to why it is important to reduce the rate applicable to the MEG Interruptibles at this point in time.

Q. Does this conclude your prefiled rebuttal testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF AN INVESTIGATION INTO AN ALTERNATIVE RATE OPTION FOR INTERRUPTIBLE CUSTOMERS OF UNION ELECTRIC COMPANY D/B/A AMERENUE.	))))))	Case No. EO-2000-580

AFFIDAVIT OF JAMES C. WATKINS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

James C. Watkins, of lawful age, on his oath states: that he 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 him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

James C. Watkins
James C. Watkins

Subscribed and sworn to before me this 18th. day of September, 2000.

SHARON S WILES
NOTARY PUBLIC STATE OF MISSOURI
COLE COUNTY
MY COMMISSION EXP. AUG. 23,2002

Sharon S. Wiles
Notary Public

My commission expires

Missouri Public Service Commission

RECD MAR 23 2000

SERVICE CLASSIFICATION NO. 10(M)

INTERRUPTIBLE POWER RATE

*RATE OF LIMITED APPLICATION (See Note)

1. General. Interruptible Power is available, subject to the conditions of this Service Classification, for the exclusive supply of customers whose curtailable loads equal or exceed 10,000 kilowatts of interruptible power and have operating characteristics which permit, without delay, interruption of the supply of service for indefinite periods of time. Customers who were served under an Interruptible Rate on and after December 28, 1983, by a former Union Electric Company subsidiary and customers served under a combination of interruptible Riders O and S as of August 21, 1994 may receive service under this Service Classification irrespective of their level of curtailable kilowatts. Company shall have the right to limit the aggregate amount of Interruptible Power available to an amount appropriate to its operating requirements. This limitation is currently 100,000 kilowatts in Missouri.

Where customer's operation requires an amount of power during periods of curtailment of Interruptible Power, customer may contract for an amount of power in kilowatts to be known as Assurance Power.

Service will be furnished in the form of three-phase, 60 Hz power, to be metered at a suitable point near the boundary of customer's property.

2. Supply Facilities. Customer shall pay the total installed cost of any transmission or distribution facilities initially utilized for the delivery of electric service to said customer and any subsequent replacements required thereof. Such costs shall include the entire circuit and related facilities from the metering point back to the point on Company's system where adequate capacity exists to provide for customer's requirements. The total installed cost of such facilities shall include labor, materials, easements, rights-of-way and other expenditures incident to the installation of facilities for the delivery of electric service to customer's premises including any applicable overheads. Customer shall also pay each month an amount equal to 0.4% of the total installed cost of such lines for maintenance of such facilities. Ownership, including easements and rights-of-way, will be vested permanently in the Company. If these facilities utilized have capacity in excess of that necessary to supply customer's initial contract requirements, Company may utilize the excess capacity for other purposes and in such event the cost and charges specified above shall be prorated. Such costs will also be reduced in proportion to the amount of Assurance Power to the customer's total requirements.

CANCELLED JUL 21 2000 11th R.S. 62 By Public Service Commission MISSOURI

*Indicates Addition

(NOTE: The applicability of this Service Classification is limited to those interruptible accounts receiving service under the provisions herein, as of 11/30/99.)

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INTERRUPTIBLE POWER RATE (Con't)
RATE OF LIMITED APPLICATION

2. Supply Facilities (Cont'd.). Customer will, at its own expense, install and maintain, on its own premises, all lines, substation and utilization equipment for the proper use and control of the electric service supplied by the Company. If requested by Company, customer will also, at its own expense, provide suitable relays and signal system on its premises to operate the circuit breakers on the circuits supplying the Interruptible Power, such relays and signals to be arranged for automatic or remote control by Company's Load Dispatcher. Company will, at customer's expense, supply the control circuits to customer's premises to effect energizing of the relay system. Equipment installed for this purpose by customer shall be approved by Company's engineers and Company shall at all reasonable times be permitted free access to customer's premises for inspection of equipment and checking its operation.

3. Rate Based on Monthly Meter Readings

Customer Charge		$ 210.00 per month
*Energy Charge:	Summer (1)	Winter (2)
All kWh	2.62¢ per kWh	2.31¢ per kWh
Demand Charge:		
Assurance Power (3)		
All kW	$15.67 per kW	$7.11 per kW
Interruptible Power (4)		
All kW	$ 7.835 per kW	$3.555 per kW
Reactive Charge (5):	24¢ per kVar	24¢ per kVar

Optional Time-of-Day Adjustments

Additional Customer Charge - (All Months) $14.00 per month

Energy Adjustment (Cents per kWh)	On-Peak Hours (6)	Off-Peak Hours (6)
Summer (June-September billing periods)	+0.45¢	-0.25¢
Winter (October-May billing periods)	+0.20¢	-0.11¢

(1) Applicable during 4 monthly billing periods of June through September.

*Indicates Change

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INTERRUPTIBLE POWER RATE (Cont'd.)
*RATE OF LIMITED APPLICATION

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(2) Applicable during 8 monthly billing periods of October through May.

(3) The kilowatts to be billed as Assurance Power in any month will be the higher of (a) the Assurance Power previously established by contract, or (b) the maximum demand in kilowatts during any period within the prior 12 months in which Company has notified customer to curtail load.

(4) The kilowatts to be billed as Interruptible Power in any month will be (a) the highest demand established during peak hours minus the Assurance Power Demand or (b) 50% of the difference between the highest demand established during off-peak hours and the Assurance Power Demand, whichever is greater. The Interruptible Power demand charge will be calculated at the appropriate demand step after the initial billing of the kilowatts of Assurance Power.

On-peak hours - - - 10:00 A.M. to 10:00 P.M., Monday through Friday.

Off-peak hours - - All other hours including the entire 24 hours of the following days:

New Year's Day	Independence Day	Thanksgiving Friday
Good Friday	Labor Day	Christmas Eve Day
Memorial Day	Thanksgiving Day	Christmas Day

All times stated above apply to the local effective time.

Where Company supplies service at 34.5 kV or higher the appropriate adjustments under Rider B will apply to the energy and Assurance Power Demand.

(5) The reactive kilovars to be billed in any month shall be the kilovars by which the customer's average metered kilovars exceed the customer's kilovars at an average power factor of 90% lagging during the billing period. Such average kilovar billing units shall be determined in accordance with the

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INTERRUPTIBLE POWER RATE (Cont'd.)
*RATE OF LIMITED APPLICATION

(5) (cont'd.)
following formula:

$$kVar = \left(\frac{kVarh}{kWh} - 0.4843\right)(kW)$$

where:	kVar	=	kilovar billing units
	kVarh	=	metered kilovarhours
	kWh	=	metered kilowatt hours
	kW	=	metered kilowatts
	0.4843	=	kilovar requirement at 90% lagging power factor

(6) On-peak and off-peak hours applicable herein shall be as specified within this service classification.

4. Optional Time-of-Day (TOD) Service. Applicable at customer's option for all Interruptible Service usage, subject to the following provisions:

A. Customer will be transferred to this TOD rate option effective with TOD meter installation and transferred from this TOD rate option to the applicable non-TOD rate after the meter is removed.

B. Customer electing this TOD option, shall remain on said option for a minimum period of twelve (12) months, provided however, that customer may discontinue this option within the first ninety (90) days thereunder subject to the continued payment of the TOD customer charge, in lieu of any other customer charge, for the full twelve (12) month term of this option.

C. Any customer canceling this TOD option cannot thereafter resume billing under said option for a period of one year following the last billing period on the TOD option.

5. Minimum Monthly Charge. The minimum monthly charge hereunder will be sum of the Customer Charge, the applicable Energy Charge for all kilowatthours consumed, the Assurance Power Demand Charge, the Interruptible Power Demand Charge and any supply facility charges referred to in paragraph (2.) above.

6. Curtailment of Service. Interruptible Power may be curtailed or interrupted when it is anticipated that the Company's annual system peak will be established or whenever in Company's judgment, such

*Indicates Addition

SERVICE CLASSIFICATION NO. 10(M)
INTERRUPTIBLE POWER RATE (Cont'd.)
*RATE OF LIMITED APPLICATION

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6. Curtailment of Service (cont'd.)

power is required to a) maintain a firm power supply to the Company's non-interruptible customers; b) meet contractual obligations for the delivery of firm power to other utilities; c) maintain water elevation levels at Company's hydro plants consistent with the preservation of desired system reliability levels and applicable regulatory operating requirements; or d) prevent jeopardizing the Company's interconnected generation and transmission system. Notwithstanding the above, Company will, based on system operating conditions, endeavor to obtain temporary power (capacity only or both capacity and energy) to meet requirements a) through d) above.

Company may curtail or interrupt service in either of two ways:

a) Where the need for curtailment of Interruptible Power may be anticipated in advance, Company will notify customers by telephone of the time such curtailment shall be effected. Company shall endeavor to give customer as much advance notice as is practical under the circumstances.

b) Where an emergency occurs in the operation of Company's system which requires immediate disconnection of Interruptible Power to meet its obligations to others, Company may effect such disconnection by telephone notice, or by initiating operation of automatic signals and relays referred to in paragraph (2.) hereof.

Assurance Power shall be exempt from customer's requirement to curtail or completely interrupt operations.

7. Resale of Service. Customer may not sell or otherwise dispose of any part of the electric service supplied.

8. Relief of Liability. Customer will assume responsibility for, and will save Company harmless from all actions, causes of action, suits, claims and demands whatsoever in law or equity, for injuries to persons (including employees of customer), damages to property, or losses, directly or indirectly caused or claimed to be caused by the acts of negligence of customer, its licensees, invitees, agents, servants, or others, or by the use, interruption or imperfection of electric service supplied by Company, or by the curtailment or disconnection of electric service or by any mistake in judgment or act or omission by Company, or from any other cause, occurring or sustained on property owned or controlled by customer.

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INTERRUPTIBLE POWER RATE (Cont'd.)
*RATE OF LIMITED APPLICATION

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9. Term. Initial term of five (5) years, extending thereafter until terminated by twelve (12) months' advance notice given by either party.

10. General Rules and Regulations. Except as provided by the above specific rules and regulations, all of Company's General Rules and Regulations shall apply to service supplied under this rate.

*11. Termination of Service Classification No. 10(M) - Pursuant to the Order of the Commission in Case No. EO-96-15, this Service Classification No. 10(M) will continue to be available to existing (as of 11/30/99) interruptible accounts through their May 2000 billing period. Commencing with their June 2000 billing period and thereafter, such accounts will be transferred to other then existing service classifications and riders for which they qualify, and which are applicable to the nature of the electric service they are being provided.

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Service List for
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September 18, 2000

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