

MEMORANDUM

FILED
MAY 17 1991
PUBLIC SERVICE COMMISSION

TO: Missouri Public Service Commission Official Case File,
Case Number ER-91-356

FROM: Mack McDuffey, Energy Department *mmfom*

SUBJECT: Staff Recommendation in Case No. **ER-91-356**
Union Electric Company, PowerStat Program: File No. 9100431

DATE: May 16, 1991

Reviewed by: *Sam Alderman* 5/16/91 *Manly* 5/16/91
Utility Operations Division/Date General Counsel's Office/Date

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On April 5, 1991 Union Electric Company (UE) filed tariff sheets designed to allow UE to test on an experimental basis, a new type of metering system called PowerStat. UE has purchased 100 units with the anticipation of installing 85 units within the Jefferson City corporate limits of UE Capital District for a period of at least one (1) year. UE has an installation commitment from Public Housing for 50 units. PowerStat is an experimental program in which a participant will volunteer and may return to standard metering upon request.

Proposed Operation of PowerStat:

PowerStat is a prepaid metering system. The participant purchases a PowerCard from UE during business hours or by mail for an amount in whole dollars. The PowerCard is coded with an amount of purchased usage and the customer's identification. The PowerCard will only work on that participant's PowerStat code meter. The participant runs the PowerCard through the slot of the display unit located inside the dwelling. The PowerStat then allows electricity to be used. The display has six normal modes of information; each shown in dollars: (1) amount remaining, (2) present use \$/hr, (3) amount used the previous 24 hour period, (4) last 30 days' use, (5) last purchase, (6) current rate-¢/KWH.

Participants are warned four days prior to end of their electric purchase expiration by the display constantly flashing and chirping hourly. When the amount remaining reaches zero, one of two things will occur. Either the participant's service is automatically disconnected or the service goes into an extended service mode. Two additional displays on the meter can be shown during the extended service period; (7) wattage presently being used, and (8) number of days remaining in the extended service mode. Extended service is a feature of the PowerStat that allows electric service without prepaying. The display "Amount Remaining" will show a negative amount in the extended service mode. This feature is used during the Cold Weather Rule and special conditions such as medical use. Extended service provides a participant with

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MoPSC Memo
File No. 9100431
May 16, 1991
Page 2 of 2

limited amount of electric service in 500-watt increments or for a UE specified length of time, either periodic or annual. A wattage will be determined by the participant's furnace, refrigerator and lights. If the wattage is exceeded, electric interruption will occur for 4 minutes and power for 1 minute up to 1 hour, then the off/on cycle goes to 48 minutes off and 12 minutes on. The participant will receive uninterrupted power when the wattage is reduced to within limits.

PowerStat has a termination date of November 15, 1994. The provisions of the Cold Weather Rule will apply under the PowerStat experimental program. The PowerStat participant will sign an agreement that explains his role in the program.

PowerStat Equipment:

PowerStat system consists of a host processor located at each participant's dwelling and a PowerCard Encoder located at UE's office on Madison Street, Jefferson City. The modified meter, PowerStat and display unit are located at the participant's dwelling with display unit on interior of dwelling. Displays are to be located in a traffic area at the homes so the participants can be aware of any warnings and of his usage. PowerStat is a cylindrical device located between meter and meter base. It contains the electronic hardware, disconnect switch, termination of lead wire to display inside and surge protection. Installation time at participant's property is one half to one hour. Cost of PowerStat system is \$52,530 for 100 units and approximately \$500 on the participant's property.

Staff Review:

The Staff has reviewed this filing and recommends approval. On May 9, 1991, the Office of Public Counsel filed a "Motion to Suspend Tariff".

copies: Director of Utility Operations
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Hearing Examiner
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File No. 9100431
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