

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

IN RE:  AGING TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE	DOCKET NO. NOI-02-2
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**ORDER CLOSING DOCKET**

(Issued November 8, 2006)

On December 27, 2002, the Utilities Board (Board) issued an order opening an inquiry to obtain information about the costs and plans for replacement of electric transmission and distribution underground cable and overhead lines that are nearing the end of their useful lives and potential future rate implications of those plans. The Board's Policy Development Section issued a report in August 2000 that showed that MidAmerican Energy Company (MidAmerican) and Interstate Power and Light Company (IPL) had many lines that may be nearing the end of their useful lives and the Board expressed concern that the number of lines in this category could eventually lead to reduced reliability or have significant rate impacts, if plans were not in place to assure timely and orderly replacement.

In the December 27, 2002, order, the Board established a date for interested persons to notify the Board of their interest in participating in the inquiry and scheduled a meeting of participants for January 21, 2003. The American Association of Retired Persons, AG Processing Inc, Alcoa Mill Products, Interstate Power and

Light Company, Brubaker & Associates, Inc., Deere & Company, Energy Argus, IBEW Iowa State Conference, IBEW Local 55, the Iowa Association of Electric Cooperatives, the Iowa Association of Municipal Utilities, the Iowa Citizen Action Network, the Iowa Consumers Coalition, the Iowa Department of Natural Resources, the Iowa Federation of Labor, AFL-CIO, the Iowa Industrial Energy Group, the Iowa Utility Association, IPSCO Steel, Inc., MidAmerican Energy Company, Midwest Independent Transmission System Operator, Inc., the Consumer Advocate Division of the Department of Justice, Sargent & Lundy, and Platts Electric Power Publications filed to participate in the docket.

The workshop was held as scheduled on January 21, 2003. In addition, Board staff reviewed the activities in other states addressing this issue. Board staff met separately with MidAmerican and IPL to discuss the extent of the problem and each utility's plans for addressing the problem. Board staff also reviewed the applicable Board rules and technical codes and standards for replacing aging electric infrastructure.

Based upon the information obtained, Board staff determined that while there are a number of concerns that may govern infrastructure replacement, a prominent infrastructure protection issue is the inspection, treatment, and, when necessary, replacement of wooden poles. Board staff also found that certain types of underground electric cable (concentric neutral design) and overhead conductor (Copperweld) had poorer performance histories that could become a concern.

In the inquiry, MidAmerican and IPL indicated that they could not identify their oldest poles by location and that creating a database of pole location by age would be very expensive. MidAmerican and IPL indicated that the age of the pole was not the deciding factor in the decision to replace the pole. Pole replacement decisions are made based upon the condition of the pole and reliability concerns for the line as a whole, regardless of age.

Based upon the review of the applicable safety standards, the activities in other states, and the information obtained from all of the participants, including MidAmerican and IPL, the Board has determined that there is no direct relationship between the age of an electric line pole and the need for its replacement. Age may be a factor, but the condition of a pole also depends on environmental conditions and the type of materials used; older lines may be capable of continuing in service while newer lines in other settings may be at the end of their useful lives.

The Board has rules requiring the periodic inspection and maintenance of electric lines and for monitoring service reliability by the utilities. Each utility's inspection and maintenance activities are monitored by Board staff and, while staff inspections have found conditions requiring repair or replacement of individual components, or local problems in a particular service area, Board staff has found no evidence that either MidAmerican or IPL is neglecting its electrical facilities. Overall, it appears that both utilities have reasonable replacement plans in place, based on current needs and requirements.

As a result of the inquiry, Board staff suggested two areas where amendments to the Board's rules might be helpful. First, the Inspection and Maintenance (I&M) Plan requirements of the Iowa Electrical Safety Code differentiate between inspection of lines, poles, and substations, and tree trimming or vegetation management programs, recognizing that these programs may not be done by the same people, at the same time, or on the same schedule. Inspection of general line condition and specialized inspections of pole condition may also be done by separate crews and on separate schedules. However, the Board's rules do not distinguish between these two activities, nor do I&M Plans of the investor-owned utilities clearly differentiate between them. Board staff suggested that an amendment be proposed to the Board's rules to make comprehensive pole inspections a separate component of I&M Plans which would clarify utility practices in this area.

In addition, the Board's reliability regulations and annual report requirements do not specifically address or require information on line or pole replacements and no procedures are in place to monitor line and pole replacements on a regular basis. If increased monitoring of replacement activities is desired, the rules for reliability reports by investor-owned utilities could be modified to require information such as the number of miles of line replaced (separated by voltage, whether overhead or underground, and by other distinguishing factors) and/or the number of poles inspected, rejected, or replaced.

The Board has considered the two staff recommendations and will commence a rule making in a separate docket proposing to amend 199 IAC 20.18(7) to require utilities with more than 50,000 Iowa retail customers to include data on line and pole replacements in each company's annual reliability report. Subrule 20.18(7) currently requires these utilities to file on or before May 1 of each year an annual reliability report for the previous calendar year that includes items described in paragraphs 20.18(7)"a" through "h." The Board will propose a new paragraph, 20.18(7)"i," that would require the utilities to include miles of line replaced (by voltage, whether overhead or underground, and so on) and the number of poles inspected, rejected, or replaced.

The Board will not propose amendments to its rules to specify the scheduling and methodology to be used for comprehensive pole inspections. The Board understands that the utilities are currently performing comprehensive pole inspections, and seeks only that information on those activities be available for review and monitoring through inclusion in the I&M Plans.

Based upon the decision of the Board described above, the Board will open a separate docket commencing a rule making to amend 199 IAC 20.18(7). The rule making will be identified as Docket No. RMU-06-10, In re: Filing of Pole Replacement Data [199 IAC 20.18(7)]. With the decision to commence a rule making, this inquiry concerning aging electric infrastructure is concluded. The Board

appreciates the efforts of the participants in providing information and comments.

Since the inquiry is concluded, the Board will close Docket No. NOI-02-2.

**IT IS THEREFORE ORDERED:**

1. Docket No. NOI-02-2 is closed.
2. A copy of this order shall be sent to all participants listed on the service

list in Docket No. NOI-02-2.

**UTILITIES BOARD**

/s/ John R. Norris

/s/ Diane Munns

ATTEST:

/s/ Judi K. Cooper  
Executive Secretary

/s/ Curtis W. Stamp

Dated at Des Moines, Iowa, this 8<sup>th</sup> day of November, 2006.