Respondents' Exhibit 26.0

ILLINOIS COMMERCE COMMISSION

DOCKET NOS. 06-0070 / 06-0071 / 06-0072 (Consolidated)

REBUTTAL TESTIMONY

OF

ALLEN L. CLAPP

Submitted On Behalf

Of

CENTRAL ILLINOIS LIGHT COMPANY d/b/a AmerenCILCO, CENTRAL ILLINOIS PUBLIC SERVICE COMPANY d/b/a AmerenCIPS and ILLINOIS POWER COMPANY d/b/a AmerenIP

May 26, 2006

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Q. Please state your name and business address.

A. My name is Allen L. Clapp and my business address is 6112 St. Giles Street, Raleigh, North Carolina 27612.

Q. How and by whom are you employed?

A. I am President of Clapp Research Associates, P.C., Consulting Engineers and President of Clapp Research, Inc. We refer to the two companies as PC and INC.

Q. What is the business of Clapp Research Associates, P.C.?

A. Clapp Research Associates, P.C., is a professional corporation providing consulting engineering and training services to over 300 power, telephone, CATV, and railroad utility systems; industrial utility systems; OSHA, and various state public service commissions. The majority of PC's work is helping utilities to assure that their construction and maintenance standards meet the requirements of applicable codes and regulations and training utility personnel on these requirements. Over 20,000 utility personnel have attended our seminars on requirements of the National Electrical Safety Code (NESC) and OSHA regulations. We also investigate accidents and equipment or systems failures and provide accident reconstruction, testimony on codes and regulations,

mediation/arbitration services, and other assistance in litigation to utilities, industries and individuals.

Q. What is the business of Clapp Research, Inc.

A. INC produces training materials and technical manuals for use by power and communication utility systems. INC also does business under two names: (a) the Power & Communication Utility Training Center and (b) CRI Designs. PCU Training provides both public and in-house training for utility and industry personnel using instructors from both the Clapp Research group of companies and other entities. It also operates the Utility Bookstore, which sells design and training manuals, handbooks, software, and videos to utility and industrial system personnel.

CRI Designs is the graphics and programming arm of the companies. It provides internal support to PC and INC operations and provides specialty productivity improvement programming, integrated web sites and ordering/inventory systems, publication design, and other services to the public.

Q. On whose behalf are you testifying in these proceedings?

A. I have been asked by the Ameren Companies (sometimes referred to as Ameren in this testimony) to review and respond to ICC witness James Spencer's testimony, specifically with regard to his statements or positions concerning Rule 218 of the National Electric Safety Code.

Q. What is your familiarity, if any, with the National Electrical Safety Code?

A. I am a Member (Chair 1984-1993) of the National Electrical Safety Code (NESC) Committee and the editor of the NESC Handbook. I represented the National

Association of Regulatory Utilities Commissioners on the NESC Committee until I became the Chair in 1984, at which time I became an Individual Member of the Committee. I am a member of the following NESC Subcommittees:

- National Electrical Safety Code Executive Subcommittee 1976-1993 (Chair 1984-93)
- Interpretations Committee 1976-present (Chair 1981-1990)
- Coordination Subcommittee 1978-present (Secretary 1981-84, Chair 1993-present)
- Clearances Subcommittee 1971-present (Acting Secretary over 20 times)
- Strengths and Loadings Subcommittee 1971-present (Secretary 1978-present)

In my more than 35 years of service on these committees, I became and am familiar with the NESC, its rules and the changes that have occurred in the NESC over time. As a part of my role as Editor of the NESC Handbook, I have reviewed every document known to exist relating to the original codification and subsequent revisions of the NESC. During these years, I have been involved in many seminars, discussions, meetings and the like with stakeholders in the industry, who have helped to form consensus around the NESC.

Q. What, if any, is your familiarity with NESC Rule 218?

A. I serve on the NESC Subcommittee responsible for Rule 218: NESC Subcommittee 4 on overhead clearances. I have personally examined every document known to exist in the history of this rule. The rule was originally codified as Rule 281 in the 4th Edition (1927) and remained unchanged in the 5th Edition (1941) and 6th Edition (1961). It moved to Rule 218 in the 1990 Edition.

I have personally participated in each of the three modifications to the rule (1977 Ed., 1984 Ed., and 2007 Ed.). By this I mean I discussed, considered and debated with my colleagues as to the propriety to each rule change and the associated intent.

Q. Have there been any governing parameters associated with the changes to Rule 218?

A. Yes. Each NESC rule recognizes the purpose of the NESC, as stated in Rule 010:

> The purpose of these rules is the practical safeguarding of persons during the installation, operation, or maintenance of electric supply and communication lines and associated equipment. These rules contain the basic provisions that are considered necessary for the safety of employees and the public under the specified conditions....

It has been recognized by the NESC since the first promulgation of the code under the aegis of the National Bureau of Standards that both (a) not every desirable action is possible or practical and (b) not every possible action is practical to accomplish. Rule 010 continues that recognition.

Each edition of the NESC has recognized that it may not be practical to prevent contact between portions of trees and utility lines in all cases, due to the competing desires of consumers to (a) have an aesthetic environment (*i.e.*, to limit the drastic pruning or complete removal of trees necessary to absolutely prevent all contact by trees with utility lines and to (b) have economical utility service. However, the NESC recognizes that it is practical to limit such contact between

trees and utility lines to levels that are not likely to cause a safety or reliability problem.

The 1977 change was basically to revise the rule language to use modern code terminology. The 1984 change recognized that grounded conductors cannot be burned down by tree contact and limited application of the rule to ungrounded conductors. The 2007 changes (to be published 1 August 2007) will (a) update the language to modern terminology and, most importantly, to (b) be more specific as to the intent of the rule, if ever there was a need for clarification. The previous use of the term *interfere with the conductors* was not defined and was found to be misinterpreted by some to mean prohibiting contact by trees under any circumstances; the latter was never the intent of this rule. Rather, for those in the industry, the phrase was understood to be *damage the conductors*. To my knowledge, there has never been any intention by the NESC to prevent all contact of trees with utility line conductors. On the contrary, the intent of the code has been to require a *practical* vegetation management program that will *limit the opportunity for* damage to utility facilities due to contact by vegetation.

Respondents' Exhibit 26.1, *Texts of 2007 National Electrical Safety Code Rule 218 and the Discussion of Rule 218 in the 6th Edition of the NESC Handbook,* shows the changes in Rule 218 in the 2007 NESC and the changes in the Discussion of Rule 218 in the 6th Edition of the NESC Handbook, both to be published by the Institute of Electrical and Electronics Engineers (IEEE), the Secretariat for the NESC, on August 1, 2006. The explanation in the NESC Handbook was prepared from the discussions held by Subcommittee 4 and the

minutes of the meetings; the explanation was approved by the Secretary of NESC Subcommittee 4 as correctly representing the consensus of the subcommittee.

Q. How can you be certain the additional explanation to the rule will be in effect on August 1, 2006?

A. These changes have already been approved and are set to go to the printer next week.

Q. At page 7 of his testimony, Mr. Spencer states "…that AmerenCILCO does not now trim to avoid interference between trees and its underground supply conductors as required by NESC Rule 218." He also offers similar commentary with regard to AmerenCIPS at page 14. Are you in agreement with Mr. Spencer's interpretation of NESC Rule 218?

A. No.

Q Why do you not agree with Mr. Spencer's interpretation of NESC Rule 218?

A. The discussion of the 2007 changes in Rule 218 that will be published in the NESC Handbook provides the rationale for my disagreement. Mr. Spencer believes that the NESC language intends that utilities must trim trees back far enough that there is no possibility that any limb will grow out and contact an energized conductor before the next pruning cycle. That is not practical to accomplish under any reasonable vegetation management program. Experience with tree growth in various areas of the country has shown that, while it is practical to prune far enough back using the so-called natural pruning method to limit the opportunity for future growth to grow back into the line before the next cycle, it is not possible to absolutely prevent any contact at all between

cycles without (a) employing such drastic pruning or complete removal of trees that the adjacent landowners will be ill-served and the health and life of the vegetation will all too often be adversely affected, and (b) spending so much money on needless pruning of trees that would not have grown back into the line that economy of service is adversely affected without significantly increasing system reliability. Indeed, in many municipalities, utilities are not allowed to prune vegetation back far enough to accomplish that goal.

Q. Have you previously been asked by the Ameren Companies to review the requirements of the NESC that apply to vegetation management around overhead power lines?

A. Yes. At their request I was engaged to study the matter and in so doing I also offered commentary regarding the NESC requirements. Specifically, I explained the intended application of NESC Rule 218 as it related to vegetation management around overhead lines. A copy of that report, dated November 29, 2005 and titled *National Electrical Safety Code Requirements and Practical Considerations Relative to Vegetation Management Around Overhead Power Lines*, is attached hereto Respondents' Exhibit 26.2. The report includes more detail than the above brief discussions.

Q. Have you examined Ameren's vegetation management program?

A. Yes. I have met with Ameren personnel and examined field locations in the Champaign/Urbana area to look at the practical problems faced by the utility and at the implementation of its vegetation management program. My report on that effort, dated March 30, 2006 and titled *Inspection of Vegetation Management*

Around Ameren Overhead Power Lines in Champaign and Urbana, Illinois, is attached as Respondents' Exhibit 26.3.

Q. Have you reached a conclusion as to the appropriateness of the design of Ameren's vegetation management program?

A. Yes. The Ameren vegetation management program of combining (a) a 4-year normal pruning cycle with (b) identifying and scheduling any faster growing trees or trees with pruning limitations such that they might become *cycle busters* for interim inspection or pruning is a reasonable, practical and pragmatic method of achieving the goal of providing safe and reliable electric service in an economical manner.

Q. Does this conclude your rebuttal testimony?

A. Yes.

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