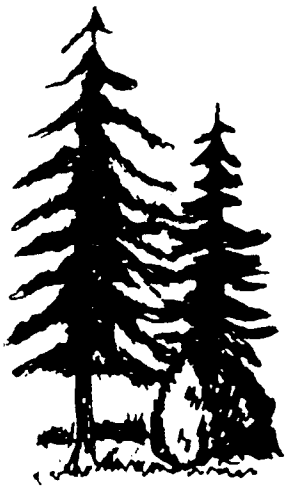
ORIGINAL



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June 18, 2007

Ms. Blanca S. Bayo, Director
Division of Commission Clerk
and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Comments on Docket Nos. 070297-EI, 070298-EI, 070299-EI, and 070301-EI

Dear Ms. Bayo:

I have been asked by the entities representing the wood pole industry to send you their comments on the above referenced dockets. These comments are enclosed.

The industry respectfully requests that you give these comments due consideration in your review of the submitted Electrical Infrastructure Storm Hardening Plans.

If you have any questions, please give me a call. Thank you for your time and consideration.

Sincerely,

H. M. Rollins, P.E.

Enclosure

cc: Mr. Bob Trapp, Florida Public Service Commission (w/encl.)
Mr. Dennis Hayward, North American Wood Pole Council
Mr. Carl Johnson, Southern Pressure Treaters Association
Mr. Ted LaDoux, Western Wood Preservers Institute
Mr. Henry Walthert, Wood Preservation Canada

North American Wood Pole Council

Comments to
Florida Public Service Commission on
Dockets 070297-EI, 070298-EI, 070299-EI, and 070301-EI

The North American Wood Pole Council (NAWPC), representing the treated-wood utility pole industry, would like to provide comments on the above referenced dockets presently being considered by the staff of the Florida Public Service Commission (PSC). These dockets concern the development of Electric Infrastructure Storm Hardening Plans filed by the public utilities pursuant to Rule 25-6.0342, Florida Administrative Code. These comments were prepared on behalf of the NAWPC by Martin Rollins, P.E., with H. M. Rollins Company, Inc. Mr. Rollins has been a participant on behalf of the NAWPC in prior PSC activities concerning storm hardening.

At the request of the NAWPC, Mr. Rollins reviewed the storm handling plans submitted to the PSC. In general, with the exception of the Florida Power and Light (FPL) plan (Docket No. 070301-EI), the NAWPC concludes that the plans are taking a reasonable, rational, and cost-effective approach. However, several of the utilities have included in their plans the gradual replacement of all wood transmission structures with concrete or other non-wood materials, as well as eliminating wood from consideration for any new transmission structures. Poles constructed of steel or concrete are not structurally superior to those of wood. Lines can be designed with equal strength and reliability using any of the materials presently found in the National Electrical Safety Code (NESC), which controls the safety of overhead utility line construction. These materials are wood, steel, concrete, and fiber-reinforced composites. Of these, wood is the dominant material of choice by utilities, although steel and concrete have a large share of transmission line construction. Some utility engineers prefer steel or concrete for transmission lines because they can be manufactured to a specific design capacity, rather than the design having to be developed to utilize an available wood pole capacity. Utilities have the prerogative to choose line design parameters and pole materials based on their own set of criteria, so long as the end product meets the requirements of the NESC. Some utilities standardize on steel or concrete, while others prefer wood. Although each material has its own positive attributes, one is not superior to the other from an engineering perspective, and the Florida Public Service Commission should not approve plans that effectively prohibit the use of wood transmission structures when there is no technical basis for the prohibition, and future conditions, such as material shortages or severe price escalation, may cause utilities to reevaluate pole material determinations.

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It has been reported that not only wood poles failed in Hurricane Wilma and other Florida hurricanes, and that, in fact, some key transmission lines failed that were constructed of steel or concrete. One of the negatives of these materials is that it takes a long time to manufacture a large number of poles, which can result in an extended time period to restore power. This is one of the advantages of wood poles. Large inventories of wood poles are maintained at manufacturing plants across the country. In the aftermath of Hurricanes Katrina and Rita, almost 100,000 wood distribution and transmission poles were provided to the affected utilities within a period of a few weeks. In the recent past, Bonneville Power, the governmental power authority in the west, lost a 345 kV line constructed of non-wood materials to an extreme weather event. Due to the long lead times for replacement poles the line was reconstructed using wood poles, which were readily available in the sizes needed to support a 345 kV line. Consideration of the use of wood transmission poles may have offered the opportunity to reduce the length of the outage after the recent storms, and the use of readily available wood transmission poles should be considered in the aftermath of future storms. Commission approval of plans prohibiting the use of wood transmission poles would eliminate this viable option in the future.

The NAWPC has additional comments directed specifically to the plan submitted by FPL, being considered under Docket No. 070301-EI. The FPL plan differs from the plans submitted by the other utilities in several key respects. These differences will result in significantly higher costs, and, therefore, higher rates to the consumer, without a quantifiable improvement in storm response. The FPL plan goes beyond the PSC guidance to target "critical infrastructure" for hardening in that it applies the NESC extreme wind load (EWL) criteria to all distribution work including new construction, major planned work, relocation projects, and daily work. No other utility is planning to take this approach. The FPL approach will significantly increase cost without any assurance of a commensurate improvement in storm performance. As FPL stated in their plan: "...even if FPL had experienced zero pole failures during the 2004 and 2005 storms, there still would have been millions of customers without power." The application of extreme wind load criteria to distribution lines has been vigorously debated for several decades within the NESC committee responsible for strengths and loadings of overhead electrical systems. For each of the last two code cycles, there have been change proposals submitted which would have required application of EWL to distribution systems. The overwhelming comments submitted by the utility industry were that most distribution pole failures in extreme weather events are the result of secondary damage effects, not wind alone, and that the system would have failed even if designed to the EWL criteria. Based on this feedback from the field, the NESC committee has retained the EWL exemption for structures 60 feet and less in the 2007 Code. Approval of the FPL plan will endorse a design and construction practice that the knowledgeable and experienced members of the NESC rejected because the field reports indicated the increased cost would not result in a significant improvement in extreme weather performance. The NAWPC believes that the

"targeted hardening" requested by the PSC and being pursued by the other utilities is a much more rational approach. This targeted approach would allow the evaluation of the performance of "hardened" system components in future storms so that any improvements in system performance could be quantified and a legitimate cost/benefit analysis could be performed. Blindly adopting EWL criteria for distribution systems could provide unexpected results. The FPL plan proposes to harden the distribution system by increasing the number of structures per mile and/or increasing the individual pole strength. If the industry reports that most pole failures are a result of secondary damage effects are accurate, then increasing the number of structures per mile to "harden" the system may actually result in more, not fewer, pole failures and a subsequent increase, not decrease, in the time to restore the system. Given these uncertainties and the known increase in cost, it becomes questionable whether the wholesale change to EWL criteria for distribution systems is in the best interests of the consumer.

Another provision of the FPL plan calls for the use of a square concrete pole, designated a Class III-H, in lieu of wood for poles defined as "critical" poles. Critical poles include multi-circuit poles, the first switch out of the substation, and poles that carry a variety of equipment other than wire, such as capacitor banks, 3-phase reclosers, etc. There are several disadvantages to the use of the specified square concrete poles. First, the cost is significantly higher than a comparable strength wood pole. The cost differential is exacerbated by the fact that, due to the higher required setting depth of the concrete poles, a 5-foot longer concrete pole will be required to meet the same clearance requirements. Second, the square cross-section requires the use of a 1.6 load factor for wind loads on the pole itself as compared to a 1.0 load factor for wind loads on a wood pole. With increasing wind speed, more of the square pole's ultimate strength is consumed to resist wind load on the pole itself and less is available to resist wind load on the overhead wires and other equipment. What this means is that if a comparable square pole and a round pole are both designed to a specific wind speed, such as 105 mph (the lowest included in the FPL plan), the square pole will be more likely to fail than the round pole at wind speeds in excess of the design. In other words, if lines in areas of Florida designed to 105 mph or 130 mph winds actually saw winds of 145 mph, square poles would be expected to have higher failure rates than comparably designed round poles. If FPL elects to incrementally strengthen "critical" poles as planned, through the use of square concrete Class III-H poles, the NAWPC suggests that a Class 1 wood pole may provide a structurally superior and more cost-effective alternative that can be installed without the equipment access concerns associated with the equipment required to install concrete poles.

The new distribution system design guide included with the FPL plan essentially limits the use of wood poles to two classes, ANSI O5.1 Classes 2 and 3. FPL has standardized on these classes and limits span lengths based on wind speed and wire size and number. Although this is a workable system, the use of only two classes will likely increase the

cost of wood poles. Use of a broader range of pole sizes would result in lower overall cost and improved availability. It appears from the tables included in the FPL design guide that in many cases, in particular where there are third party attachments, span length is limited by clearance, and a lower class pole may meet the structural strength requirements. The NAWPC suggests that a companion design approach using a broader spectrum of wood pole classes may result in lower total cost.

FPL's plan to increase the use of concrete poles in its overhead distribution system could create problems in future storm response activities. The concrete pole industry cannot easily provide the large quantity of poles that may be required in a few days after a storm event. In addition, the installation of the heavier concrete poles requires equipment with more lifting capacity than a standard bucket truck, so there could be a lack of adequate equipment to make timely repairs. In the aftermath of Hurricanes Katrina and Rita in 2005, the wood pole industry provided as many as 100,000 poles in a period of four weeks, and the crews that came from all over the country to assist in storm restoration efforts came equipped with everything necessary to install wood poles. Most of these crews did not have equipment that could have handled comparable concrete poles.

The NAWPC supports the effort to improve the performance of the overhead electrical system in extreme weather events. However, the NAWPC believes that efforts to improve performance should not include the blanket application of NESC extreme wind loads to distribution structure design when it is acknowledged that any potential improvement in performance is unquantifiable at this time. A more prudent approach would be to strengthen selected line segments and determine the effectiveness of this through forensic analysis of the performance of comparable line segments in future storms.

NAWPC appreciates the opportunity to provide input into this important process.

Sincerely,

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