

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: April 10, 2018

AT (OFFICE): NHPUC

FROM: Kath Mullholand, Director, Regulatory Innovation and Strategy
Kurt Demmer, Analyst, Electric Division

SUBJECT: Recommendation to Open an Investigation into Utility Poles and Attachments Storm Damage and Response Issues

TO: Commissioners
Debra A. Howland, Executive Director

CC: Thomas C. Frantz, Director, Electric Division
Randy Knepper, Director, Safety Division
David K. Wiesner, Staff Attorney

In the past decade there have been a number of wide-scale weather events which have had a substantial impact on New Hampshire utility customers and distribution system assets. During those severe weather events, downed wires, pole failures, and pole hardware failures have contributed to extensive outages and public safety concerns. Wires down related to pole asset failure and tree damage hinder first responder efforts and delay travel along major routes in the state.

Excluding the October 2017 wind event,¹ the top five wide-scale weather events resulted in a cumulative outage of 1.68 million customers statewide. There are approximately 780,000 electric customers in New Hampshire, so the extent of these outages is vast. Further, the average duration of outages due to storm damage is often measured in terms of days rather than hours. Damages numbered in excess of 1,000 poles and 2,000 crossarms.²

One direct result of downed wires and poles is road closures, including the closure last month of Interstate 95 in Portsmouth for more than two hours.³ Each year, there are multiple unplanned and unpredictable incidents of downed wires and cables resulting in road closures that can last from several minutes to several days. See attached report from the New Hampshire Department of Transportation (NH DOT) Transportation Management Center (TMC).

¹ The outage data for the October 2017 wind event has not been finalized; customer impacts are estimated to be more than 300,000 outages.

² The pole and crossarm data is incomplete for some of the events; the actual amounts are expected to be considerably higher than stated.

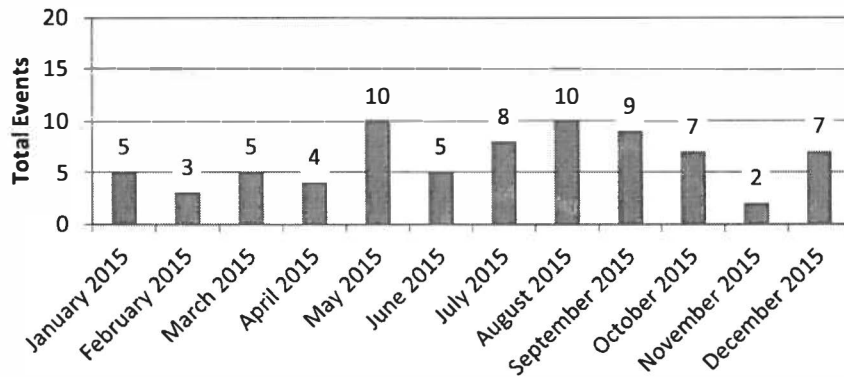
³ See, e.g., <https://www.usnews.com/news/best-states/new-hampshire/articles/2018-03-08/i-95-closed-in-portsmouth-due-to-downed-power-lines>; <https://www.bostonglobe.com/metro/2018/03/08/portsmouth-reopened-after-downed-power-lines-removed/CrRUhScFjGLqC2L2UDgtcO/story.html>.

The TMC report indicates that there were 75 total incidents in 2015 and 2016, with 9 events involving road closures in excess of 12 hours. The number of incidents for 2017 shows a large increase, due in part to increased reporting activity, to 142 total incidents, with 18 of those incidents lasting more than 12 hours. Further, TMC pointed out to Staff that the hurricane-related closures in late 2017 were managed and tracked separately, due to the unique intensity and duration of the event, and therefore are not included in the TMC report. In 2018 to date, there have been 37 incidents. It should be noted that these incident numbers include only closures of state highways maintained by the NH DOT and do not include closures of local roads maintained by cities, towns, or village districts.

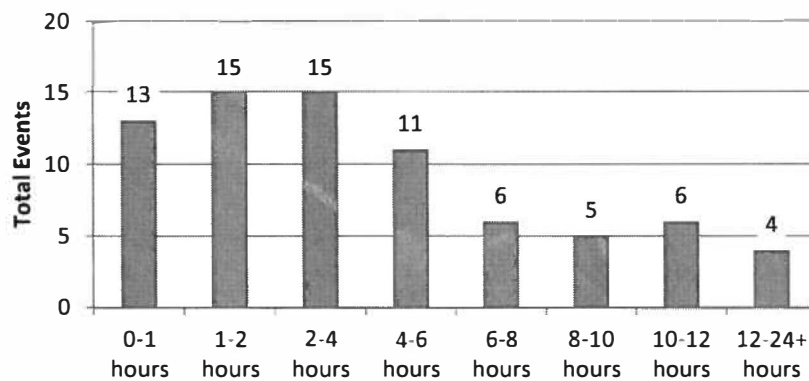
Staff reviewed these events and determined that two issues should be investigated. First, the condition of pole and attachment assets should be addressed, as cyclical pole maintenance and inspection procedures to identify rotted or structurally deficient poles and hardware, coupled with timely replacement or repair of those assets, would reduce pole and pole hardware failures. Second, the duration of road closures could be reduced by more efficient and effective identification procedures for various types of attaching entities on a pole, particularly those in the communications space, through improved notification and response in the event of downed lines and cables.

Staff recommends that the Commission open a generic investigation docket regarding matters related to the safety and general status of utility poles and attached wires and cables in the state, pursuant to RSA 365:5 (regarding independent inquiry by the Commission), 365:6 (authority to inspect plant), 374:1 (duty of public utilities generally to provide safe and adequate service), 374:3 (general supervisory powers of the Commission), 374:4 (Commission duty to keep informed), 374:7 (general investigation powers of the Commission), and 374:34-a (pole attachments).

2015 Monthly Event Totals Poles and/or Wires

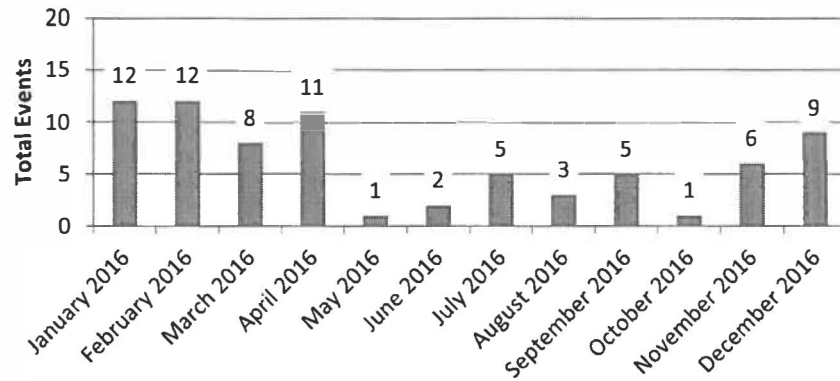


2015 Average Event Durations Poles and/or Wires

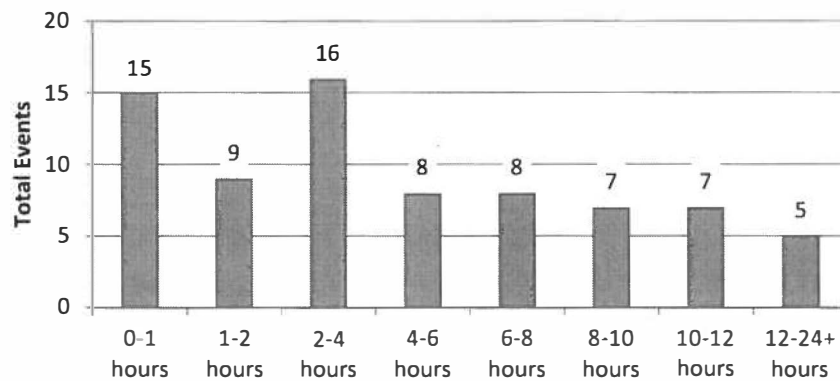


Information within summarizes unplanned incidents from unaudited data involving poles and/or wires down that were reported to NH DOT's Transportation Management Center (TMC)

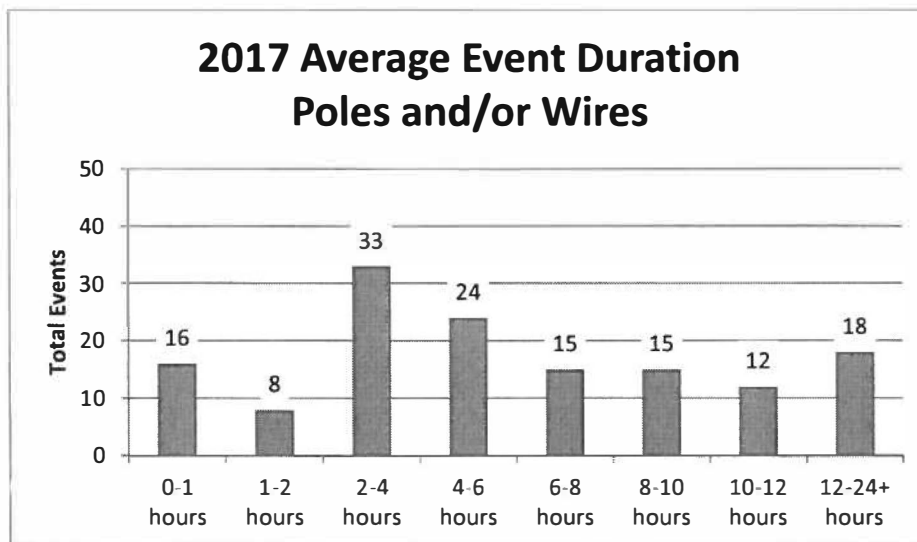
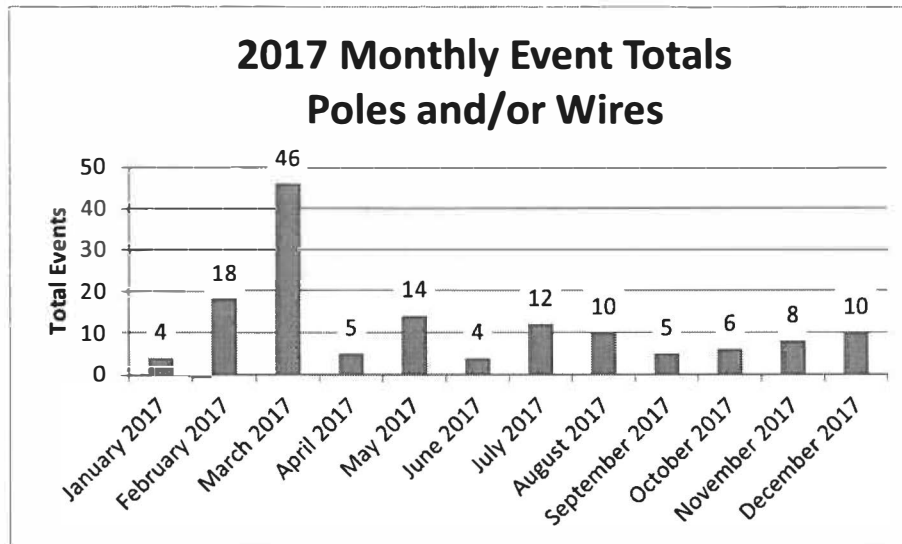
2016 Monthly Event Totals Poles and/or Wires



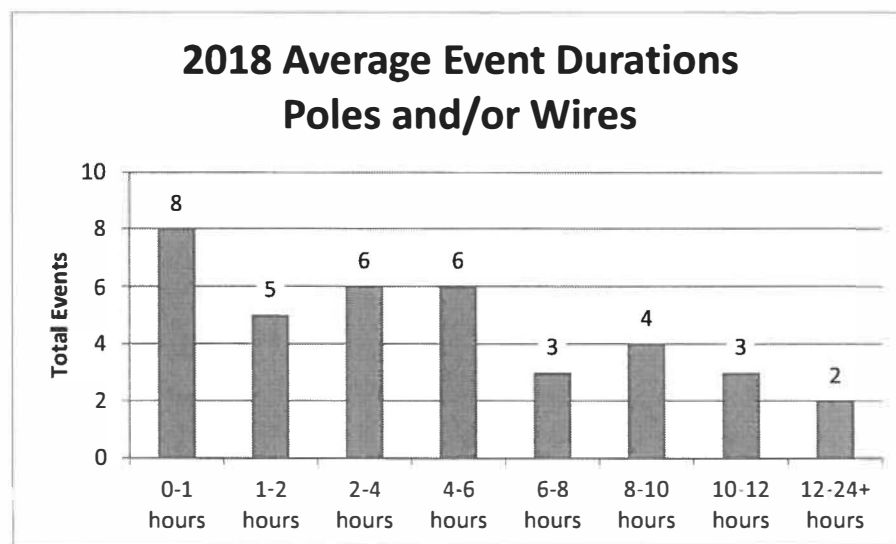
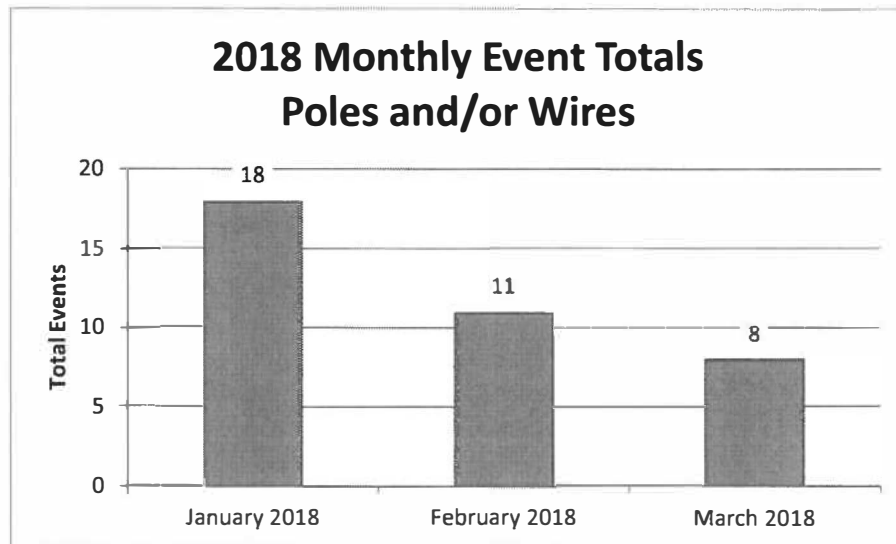
2016 Average Event Duration Poles and/or Wires



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