Data Request 0259
Empire District Electric

Please provide a summary description of the new outage management system. Include the objectives of the system and the expected impact on the reliability indices.

The Company's Outage Management System (OMS) is the integration of Geospatial Management System (GMS), Trouble Analysis System, Automatic Vehicle Locating (AVL) and Workforce Management System (WMS).

Objectives:

- Improve communication
  - Provide better restoration times to internal and external customers
  - Provide more accurate reliability indices

- Reduce operating costs
  - Better allocation of resources by the use of a system distribution dispatcher
  - Reduce workforce labor searching for customers and facilities by providing accurate maps
  - Improve workforce productivity by the use of AVL and the inherent accountability with such systems
  - Quicker and more effective dispatching of the workforce

- Improve customer service
  - Improved communication to internal and external customers
  - Long term reduction of outages by the ability to pin-point areas of high outages and prioritizing resources
  - Reduce restoration times
    - Gather data and provide summaries by use of the Trouble Analysis System to accurately determine the scope and magnitude of the outages
    - Quickly locate the faulted protection device
    - Real time tracking of resources and outages
    - Provide accurate location of the facilities and customers to the workforce
    - Provide accurate maps and data to the workforce to greatly improve the productivity of crews working outside their normal work area
    - Quickly analyze the extent of storms to allow quick and accurate decisions for the amount of internal and external resources required

- Improved workforce safety by the use of the system distribution dispatcher, vehicle tracking and alarm systems

Expected impact on the reliability indices:

The reported indices will likely increase when compared with indices before the OMS implementation. The old method was based on manual reporting with inaccurate and incomplete maps. The old system had no method of retrieving customer counts for partial restorations or for outages occurring at a nonprotective device such as an open jumper or open conductor.

We expect to see improvements in the real (as compared to reported) indices for the reasons outlined in the objectives of the system.