

EMPOWER - Cable Fault and Area Outage Tracking Module



The ***EMPOWER Cable Fault and Area Outage Tracking Module*** provides the Utility with the ability to systematically record the location of every cable fault and area outage occurring within the Utility system. Both overhead and underground systems can be tracked at the transmission, sub-transmission, distribution and service levels. The module provides a recording and analysis tool to assist the operations personnel in improving overall system reliability.

Outages caused by cable faults or other external forces on overhead and underground systems are meticulously documented at the time of occurrence. Analysis of these records indicates the need for subsequent remedial action. For example, should a pre-defined number of incidents occur within a specified period of time, all within a defined area, a management report will "red-flag" the area. Configuration of numbers of incidents per unit time, and definitions of areas, is extremely flexible. For example, the definition of a particular area could be based on geographical criteria, or alternately, on electrical network connectivity.

Advantages through the use of this module include:

- ***reduced operating costs*** through detection and locating of tree limb encroachment on overhead conductors.
- ***reduced operating costs*** through the detection and locating of contaminated overhead insulators
- ***reduced operating costs*** through tabulation of insulation deterioration (treeing) causing underground outages
- ***reduced operating costs*** through tabulation of outages caused by underground cable termination deterioration (both slip-on and taped configurations).

The ***EMPOWER Cable Fault and Area Outage Tracking Module*** allows entry and interrogation of outage data such as:

- fault location - this is handled as two text fields (that can be numeric) allowing use of only the first as the Utility's reference code, or using both as either a grid coordinate or nearest intersection specification
- date/time of fault or outage
- date/time of restoration
- cause of fault or outage
- area designation (as defined by the Utility)
- cable splice locations (again with x,y grid coordinates, if desired)
- free format commentary for fault resolution data

The ***EMPOWER Cable Fault and Area Outage Tracking Module*** will allow the Utility to increase both system security and reliability.