
SMECO
SM
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SMECO Facts & History

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SMECO GIS

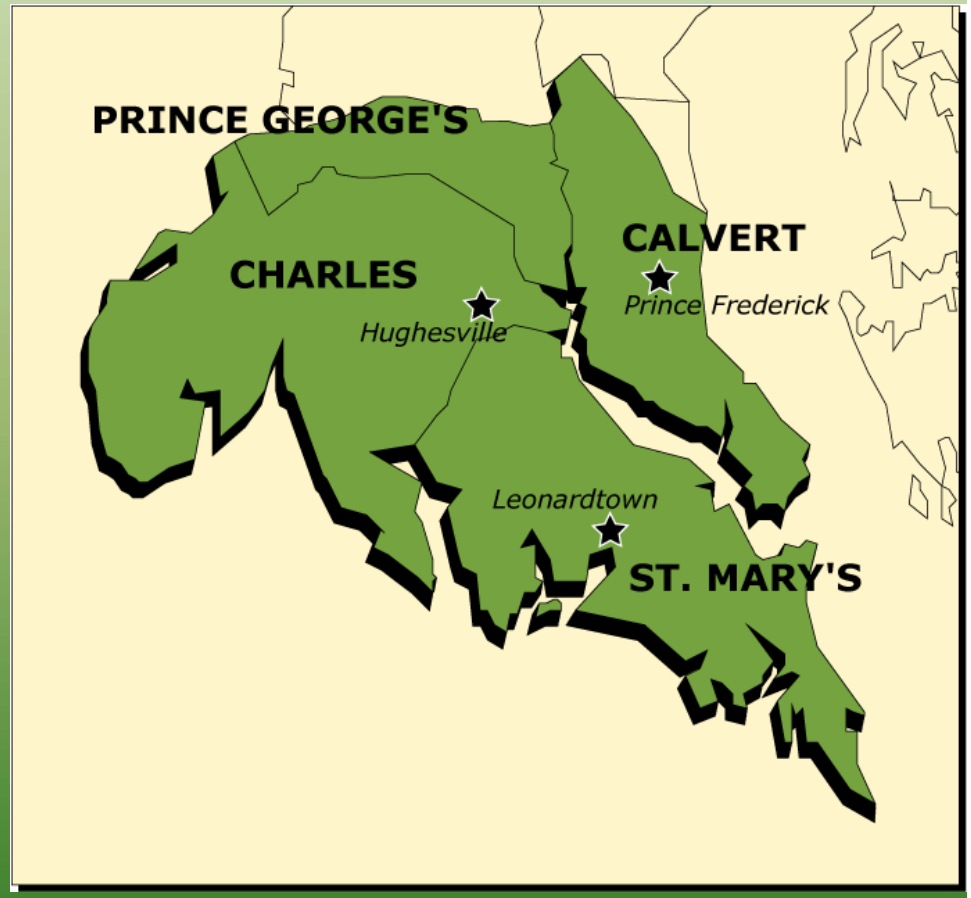
In search of electric lighting for their houses and power for their farms and businesses, residents in the Southern Maryland region formed local committees to seek federal assistance through the Rural Electrification Administration (REA), created in 1936 as part of President Franklin D. Roosevelt's New Deal.

In 1937, two local committees - one in St. Mary's County and one from Charles and Prince George's counties - merged to form the Southern Maryland Tri-County Cooperative Association.

In 1942, the members converted their association into a non-profit membership cooperative corporation and changed the name to Southern Maryland Electric Cooperative, Inc. (SMECO). At the time, the company had 438 miles of line. Its members included more than 1,400 families. Electric bills typically averaged five dollars a month.

SMECO GIS

Today, SMECO remains a customer-owned electric cooperative providing electricity to over 152,000 services in southern Prince George's County, and in Charles County, St. Mary's County, and all but the northeast portion of Calvert County



53 Substations

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253 Feeders

GIS / Where We Were…

SMECO's GIS, up until 2004 was an AM/FM (Automated Mapping Facilities Management), generation 5 technology system. AutoCAD was the graphic engine and oracle was the attribute database. The connectivity was modeled using a node based system (parent/child relationship). This system was a stand-alone system that did not share data with any other SMECO systems.

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- Prior CAD-based system (AM/FM)

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Hurricane Isabel hit our area in 2003. It was during this storm that we realized our outage restoration time could be greatly improved by implementing an Outage Management System (OMS). In 2003 we hired the Boreas Group consulting firm to get requirements and present an RFP to companies to replace our GIS, implement an outage management system and automated staking package. We held workshops for companies to demo their products and ESRI, CGI, and Miner and Miner had a joint solution that was selected by SMECO.

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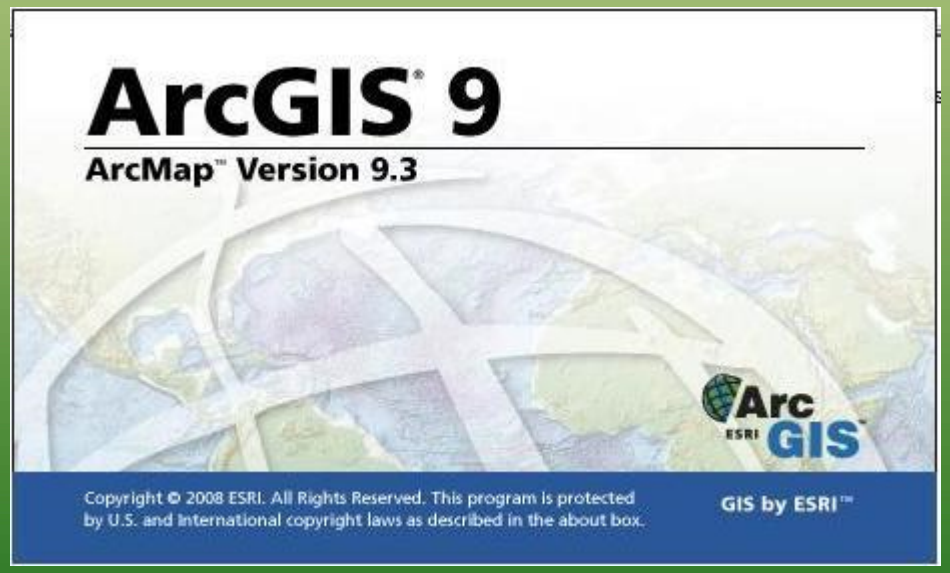
Converting from a node based AM/FM system to ESRI's GIS platform created data issues such as loop feeds, multi loop feeds, and de-energized features. These data issues were manually corrected by adding open point switches and other switchable devices.

Once the data issues were fixed, we proceeded to implement a backlog project to incorporate all of our outstanding work requests into the new GIS. Apex, a company based out of India was chosen to handle this project. The project started in October 2004 and was completed in September 2006 with 20,320 work orders that were entered into the GIS system.

SMECO GIS

- In 2004, SMECO implemented ArcGIS 8.1
- Current Version ArcGIS 9.3.1with ArcFM Designer extension running on top of the GIS



ArcFM

ArcFM SOLUTION

GIS / Where We Are…

- GIS data is exported to:
  - o Outage Management System
  - o Distribution Analysis Package
  - o Mobile GIS
  - o Internet/Intranet Outage Map

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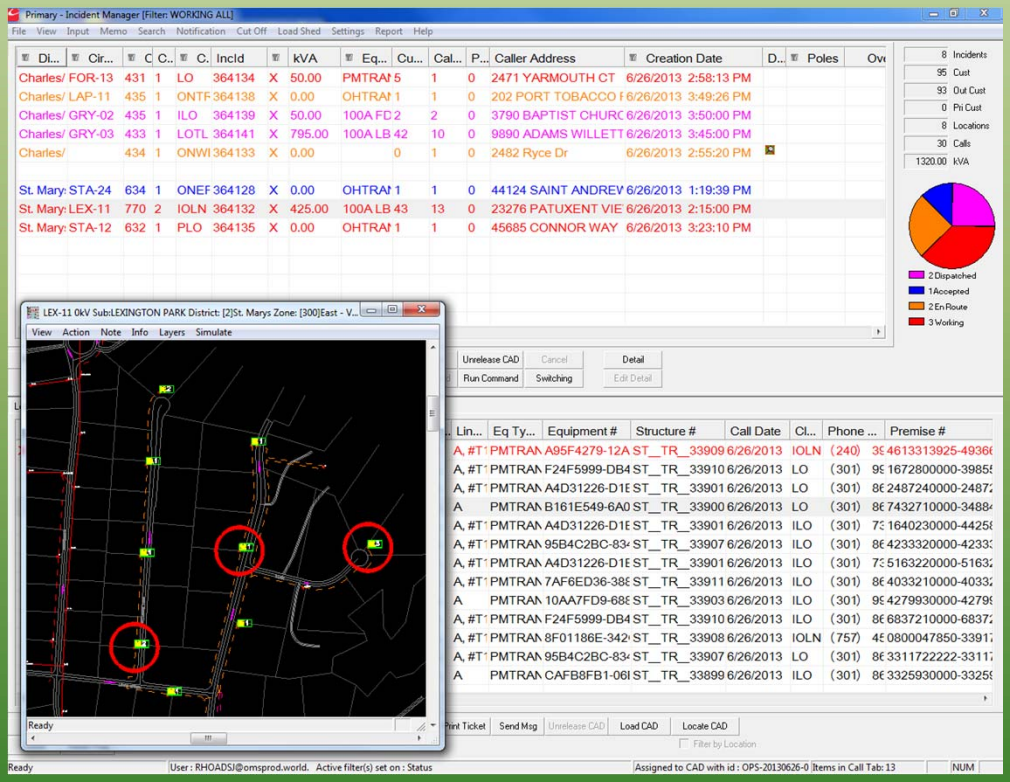
Outage Management System



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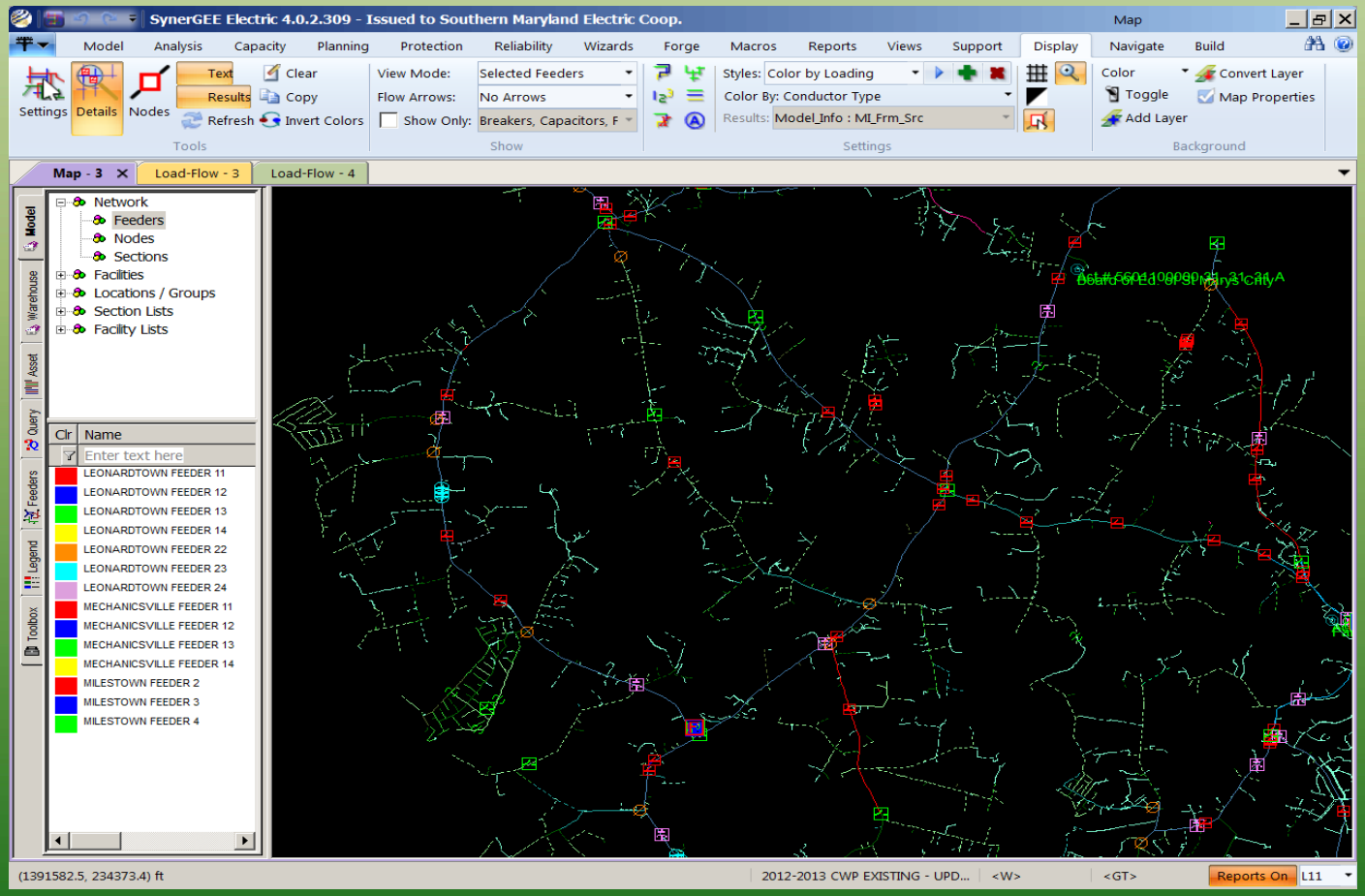
Distribution Analysis Package



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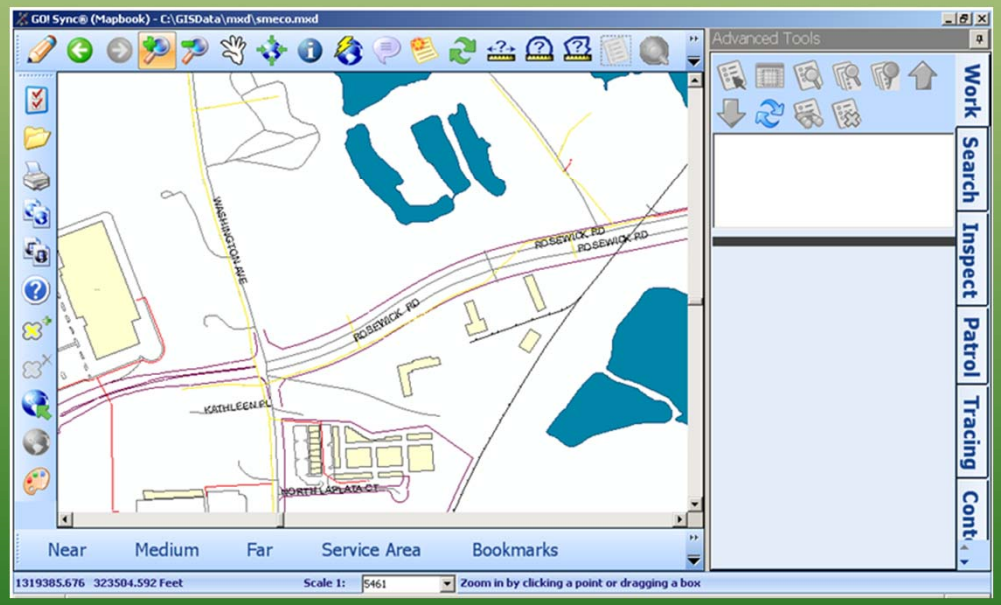
Mobile GIS

TCTechnology
Makers of GO! Sync Mobile GIS



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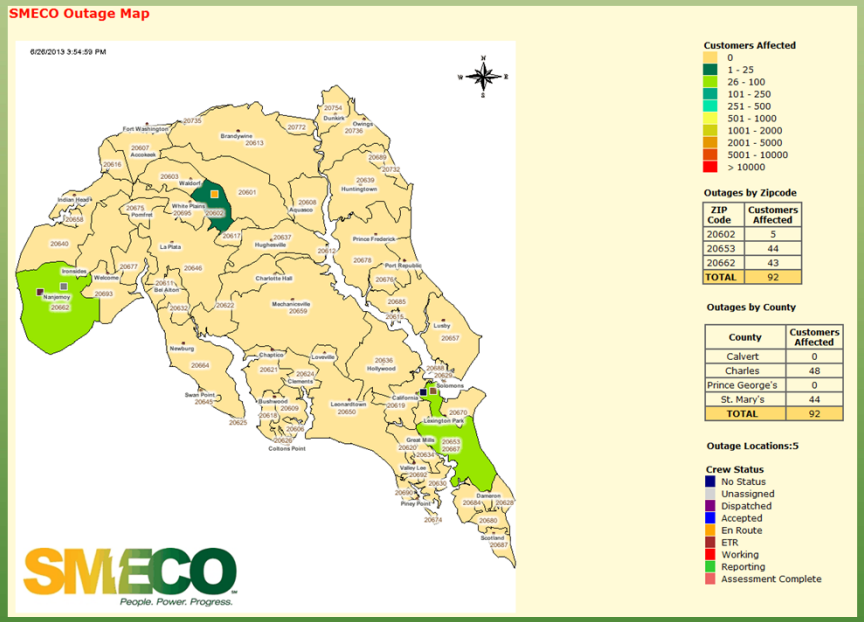
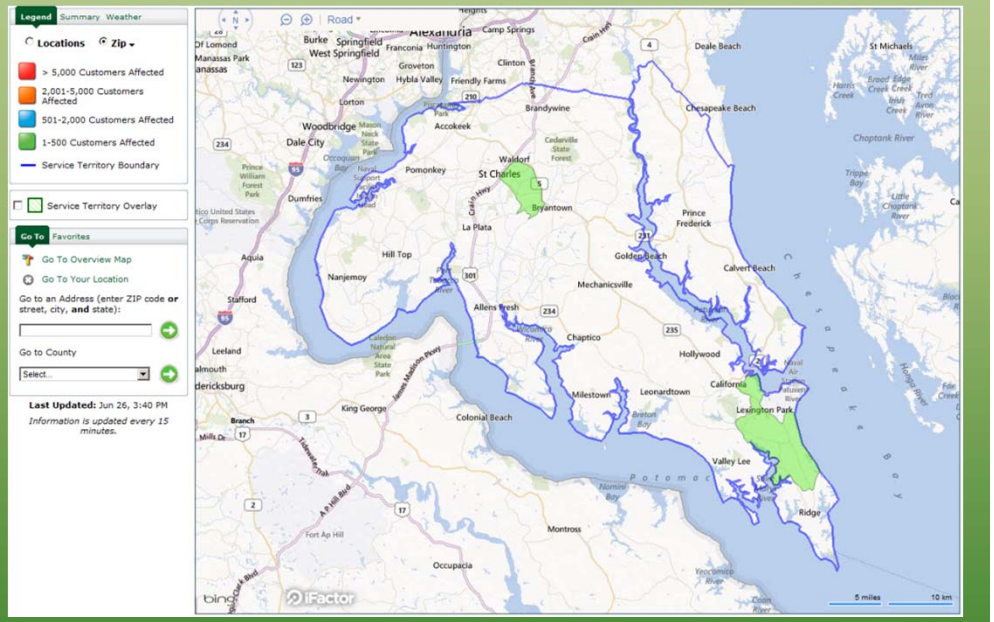
SMECO's Outage Map

Old



New



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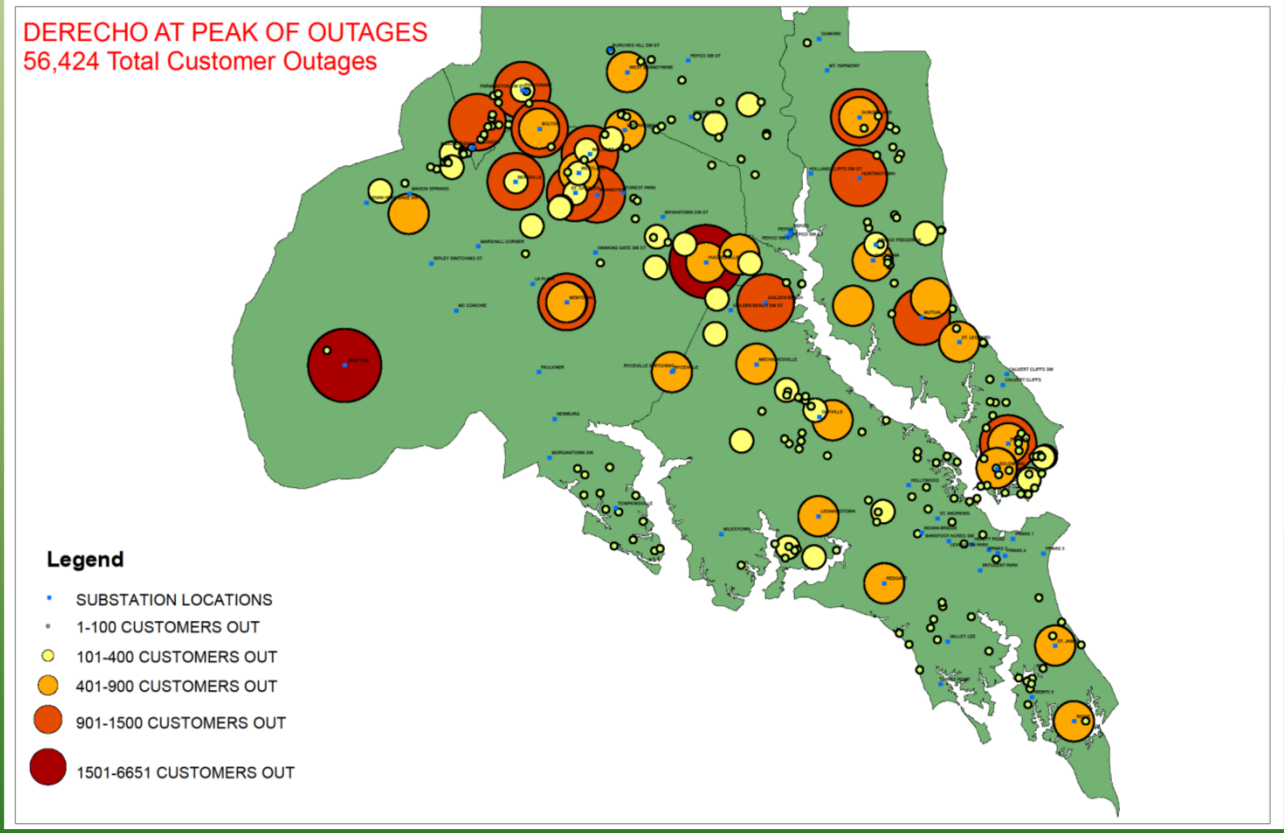
Derecho Outages by Magnitude



GIS / Where We Are Cont'd…

- Accomplishments:
  - Customers connected on GIS at 99.6%
  - Average outage restoration time during major storms improved by 33%.
  - Able to provide accurate GIS data when requested.
  - Expand GIS data to include electric facilities at PAX, Webster's Field, Solomon's Annex, Harry Lundenberg School and Saint Mary's College.
  - Currently adding an average of 300 work orders per month to the GIS.
  - Process GIS update inspections delivered by lineman via mobile GIS.

Future GIS Initiatives

- Upgrade ArcGIS in 2014 to version 10x
- Phasing Inventory (Currently Underway)
- X/Y inventory (spatial adjustment of existing feature classes)
- Device Tagging
- Asset Management data collection

Questions?