Automated DR Screening and Solar Map

by:

GREEN MOUNTAIN POWER

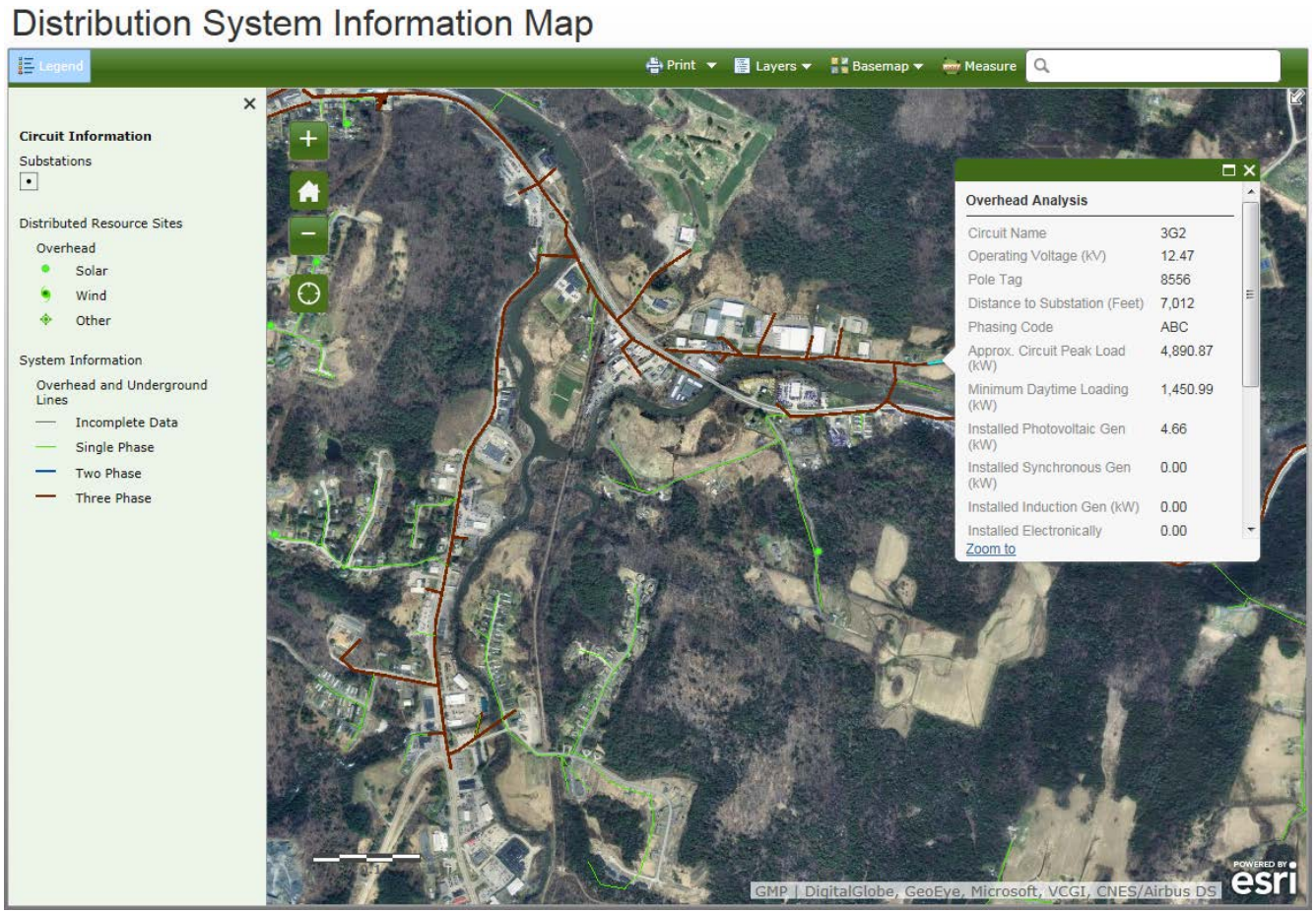
Generating Possibilities Together

Objective and Goals

Transparent DR Interconnection in GMP's electrical distribution system by making the technical grid information available to developers

- The Project will:
  - Enable optimal siting of DR while reducing interconnection cost and project lead time
  - Improve GMP's efficiency and accuracy on DR interconnection analysis

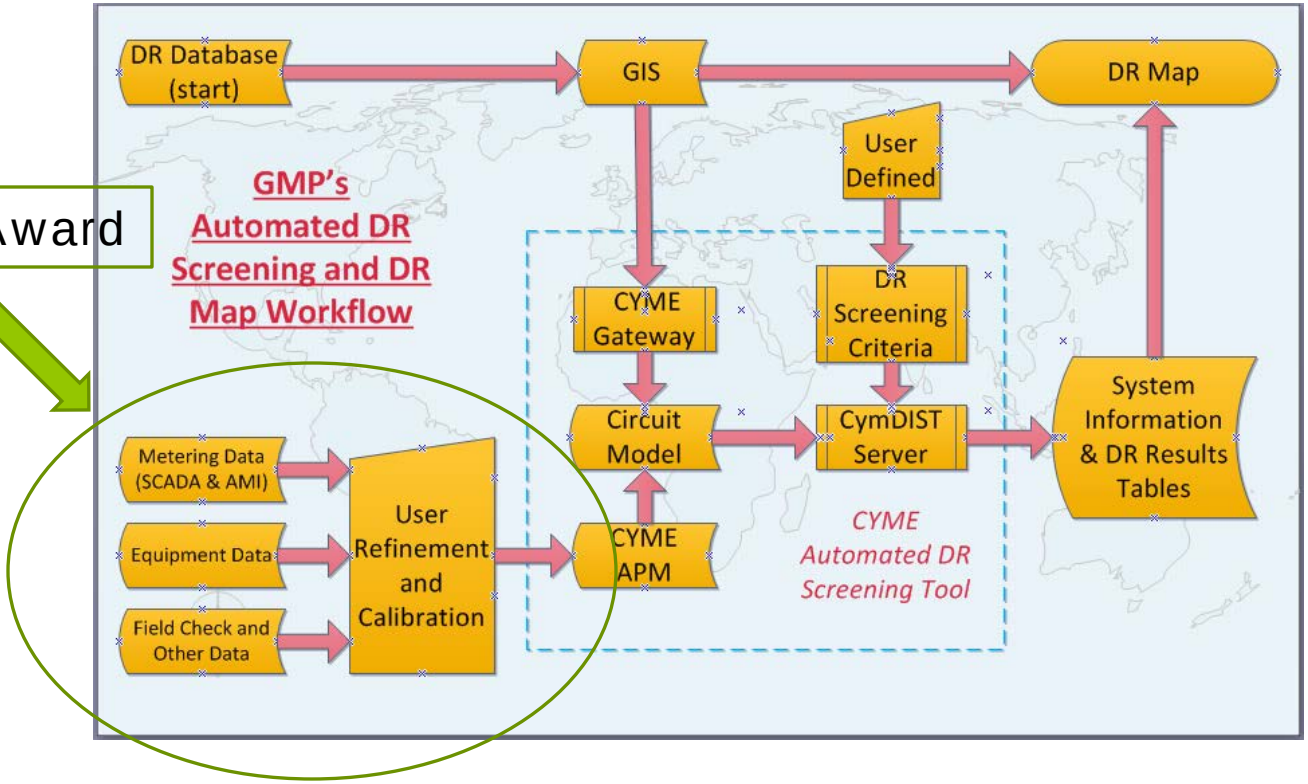
Solar Map



http://gmp.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=dcf1de0fd1ff4cd29d81ca534d3b0318

Automated DR Screening

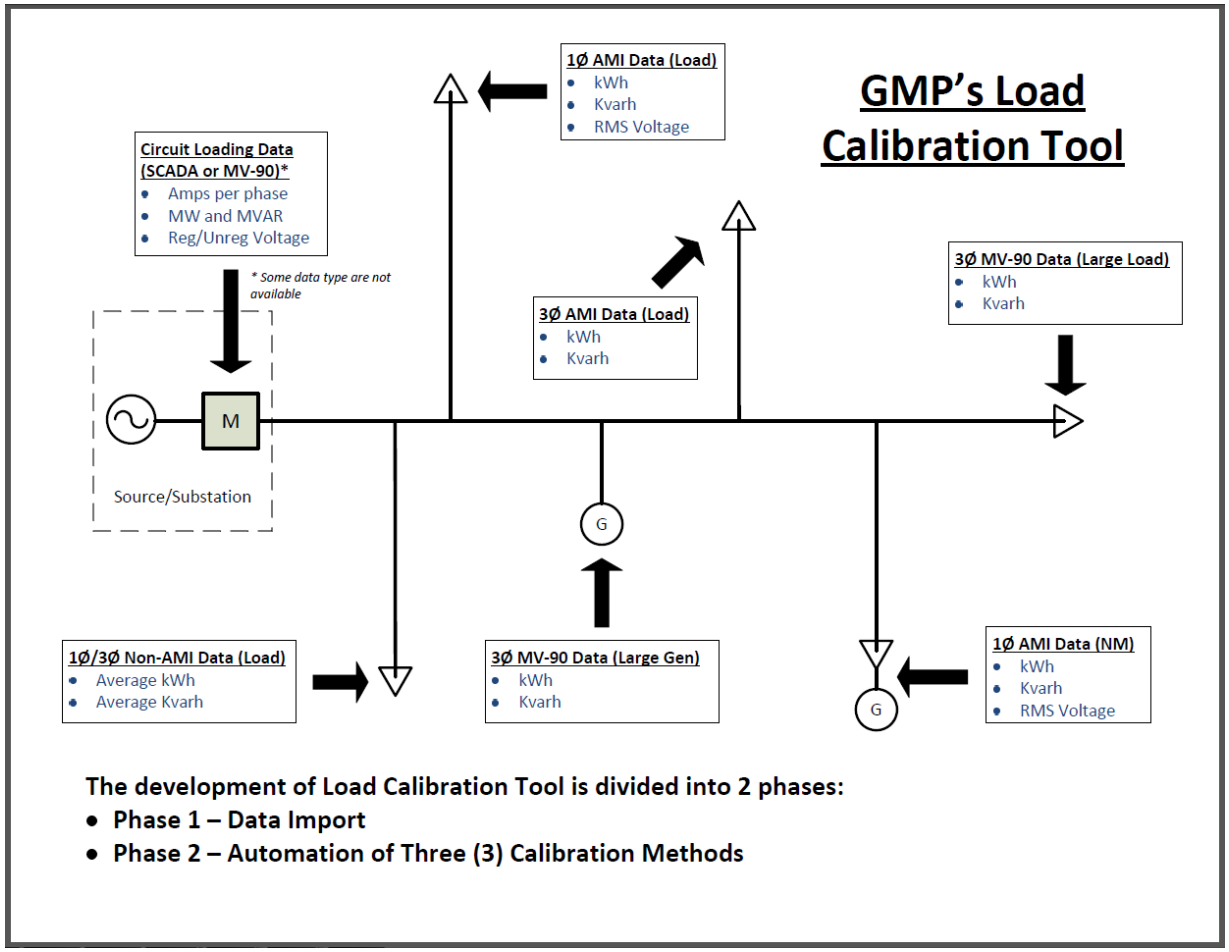
DOE Award



Automated DR Screening

- Integration of metered load data, GIS information and Distributed Resource (DR) Database
  - Metered load data from SCADA, AMI and MV90
  - GIS data includes GMP's distribution circuit infrastructure and equipment information, such as regulators, capacitors, conductor and cable size types, and protective and switching devices.
  - DR database provides the size and type of the DR system and the location relative to GMP's GIS data.
- Refinement and visual display of all GMP distribution circuits with table showing pertinent grid information, necessary for evaluation of interconnection.
- Development of circuit calibration tools to properly simulate actual circuit metering data. This provides proper depiction of circuit load distribution, voltage performance and other system parameters.
- Complete Capacity load flow analysis for each protective zone in a circuit; screening specific locations to assist developers in determining the maximum generation that can be added for potential interconnection.

Load Calibration Tool



The development of Load Calibration Tool is divided into 2 phases:

- **Phase 1 – Data Import**
- **Phase 2 – Automation of Three (3) Calibration Methods**