

ELECTRIC VEHICLE IDENTIFICATION

Identify location of electric vehicles on the grid using machine learning



Problem

- + Electric vehicle (EV) charging impacts the grid causing potentially dangerous transformer overloads
- + There is no easy way for utilities to identify these locations
- + Need to know who has electric vehicles so that customer programs can be more targeted

Why Fractal

Fractal Programming delivered identification app in a single business quarter.

Machine learning used to analyze utility electric meter data and create statistically significant "EV identifiers".

Fractal Programming performance enables application to run in real-time and identify charging events as they occur.

Solution

Electric meter data evaluated for back years and current months to identify load profiles indicative of EV charging

Utility was able to make much more accurate forecasts of electric demand for EVs

Distribution grid hot spots identified and distribution transformer failures avoided

Impact

Prevented transformer failures by identifying distribution hot spots and proactively upgrading transformers.

Utility was able to more aggressively roll out EV and distributed generation programs.

