

## Transformer Monitoring And Analysis

Virtual meters at the transformer level enable aggregation of end point loads so that transformers can be monitored for capacity and performance issues.



### Problem

- + Large intermittent loads such as EV charging can cause distribution transformer overload
- + Variable distributed generation can cause distribution transformer overload
- + Installing interval meters on all transformers would be prohibitively expensive

### Why Fractal

Fractal Programming enables virtual meters that aggregate millions of individual meters.

Virtual meter definitions are easy to create and edit.

Fractal Programming performance enables real-time analysis.

Utility can now detect when transformers are being operated too close to rated capacity and take proactive action.

### Solution



Virtual meters defined for every transformer that aggregate all of the transformer's end point loads



Aggregation performed on both interval and daily data

Alerting and alarming based on transformer rated capacity



Virtual meter aggregation of transformers at sub-station level to identify potential distribution problems

### Impact



Enables proactive action to prevent transformer failure and associated costs.



More reliable delivery of power to customers.