

Dispersion Along a Circuit

May 30, 2018



Dispersion Along a Circuit – Overview

Inputs

- Circuit Load Profile
- System Topology
- Customer Load Data
- Known Generation Information
 - Technology
 - Size
 - Location

Process

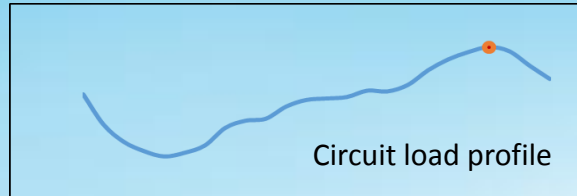
- Load flow software
 - Synergi
 - CYME
- Engineer Review

Outputs

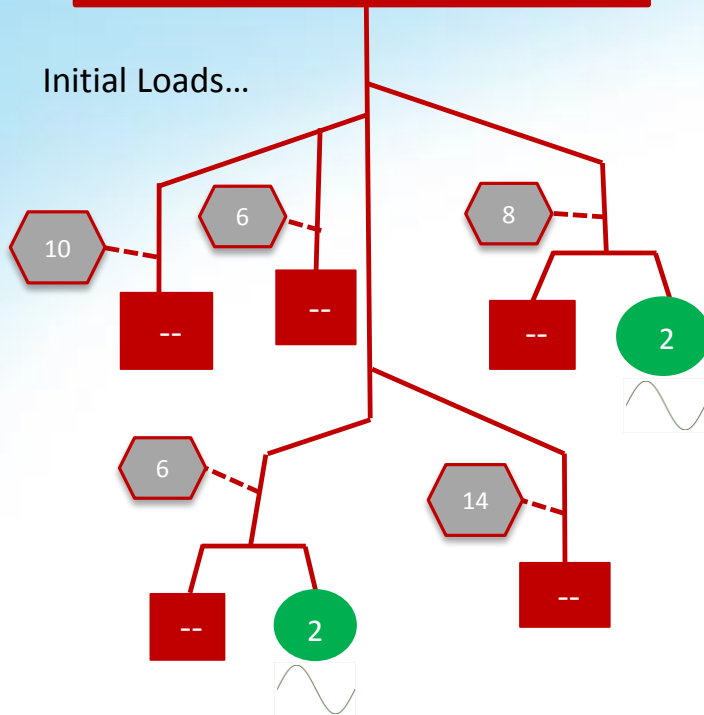
- Calculated Load Values
 - Locational granularity to distribution transformers
 - Temporal granularity to 576-hour shapes

Dispersion Along a Circuit

AMI Data @ Circuit Peak



Initial Loads...



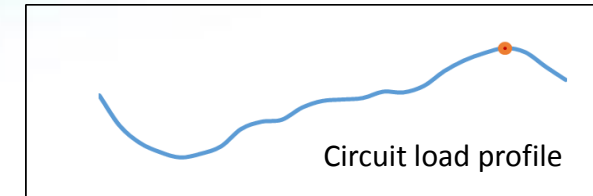
Load Allocation



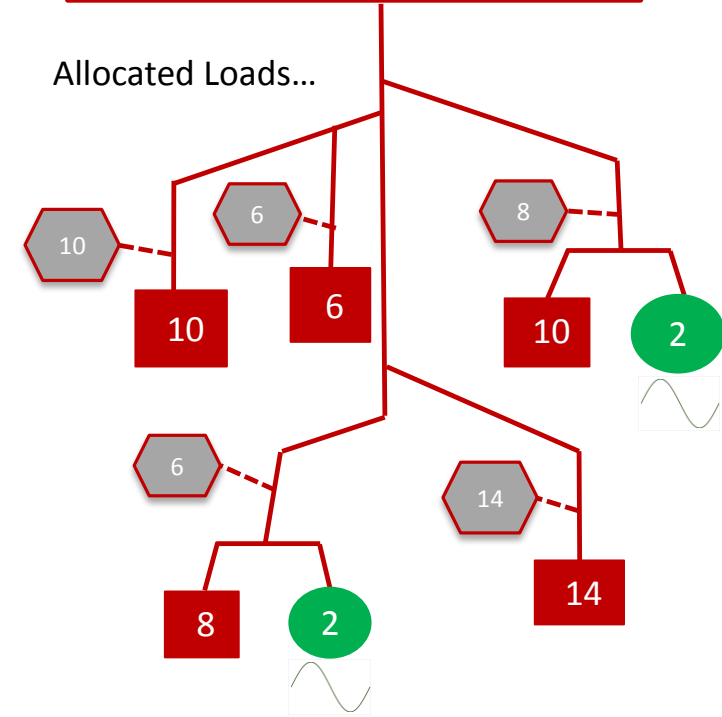
- AMI data applied to load points at circuit peak
- Generator output based on models
- PV generators modelled with nameplate and irradiance curves



Allocated Loads @ Peak

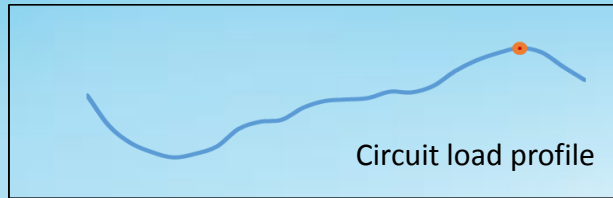


Allocated Loads...

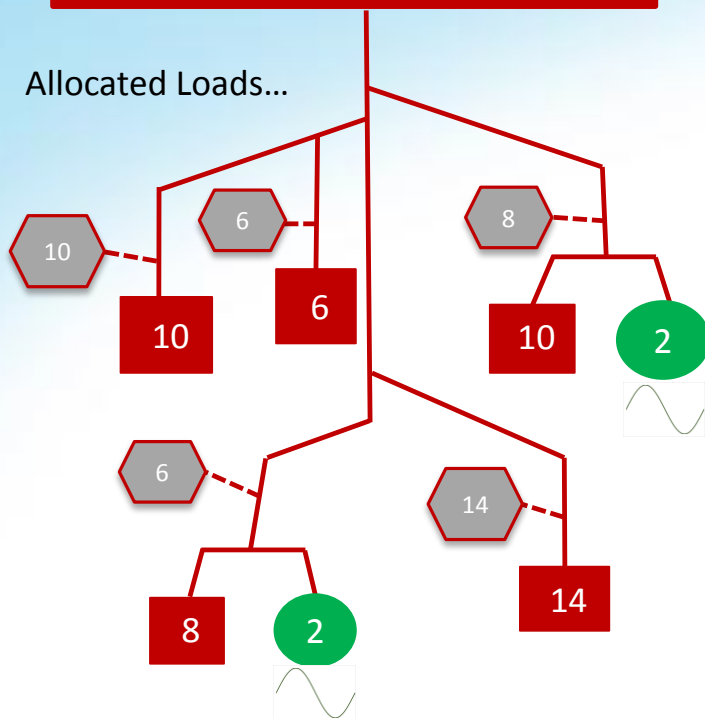


Dispersion Along a Circuit

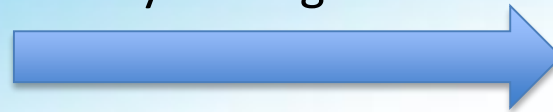
Allocated Loads @ Peak



Allocated Loads...



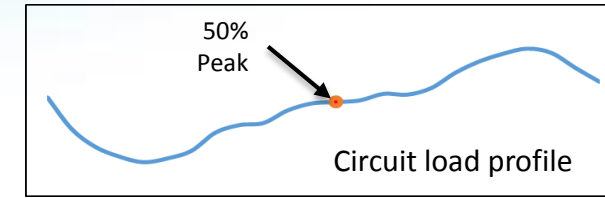
Hourly Scaling



- Customer loads are scaled to circuit-level load
- Generator output updated to modelled profile
- PV generators use irradiance curve
- AMI not included in scaling



Scaled Loads @ Non-Peak



Rescaled Loads...

