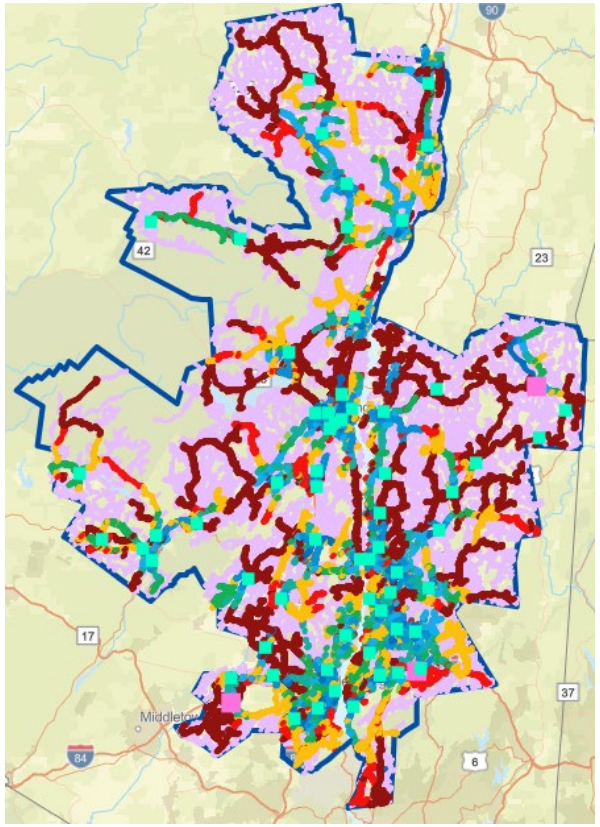
Central Hudson
A FORTIS COMPANY

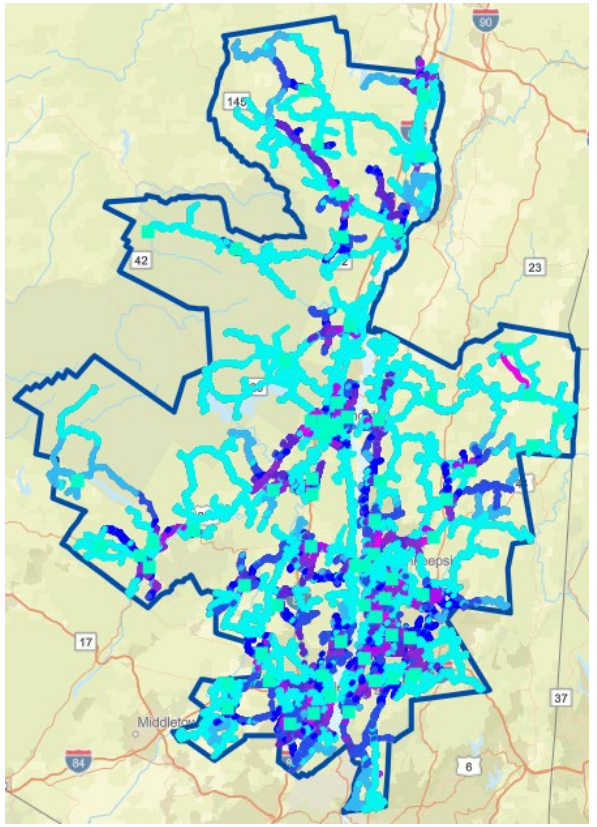
Hosting Capacity: What Developers Need to Know

By: Dylan Piccorelli, Associate Engineer

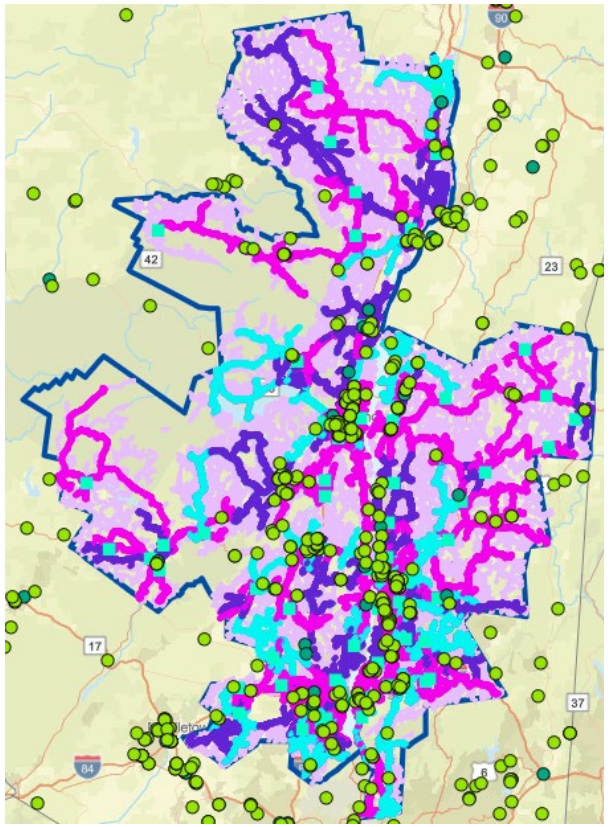
Central Hudson's Hosting Capacity Maps



Solar PV



Energy Storage



Electrification

PV Map Use Cases

- Identify locations with available hosting capacity for PV sites.
- Avoid costly delays or upgrades by targeting grid-ready locations.

Energy Storage Map Use Cases

- Identify locations with available hosting capacity for battery system's charging and discharging.
- Gain insight into the impact load has on specific feeders and segments.

Electrification Map Use Cases

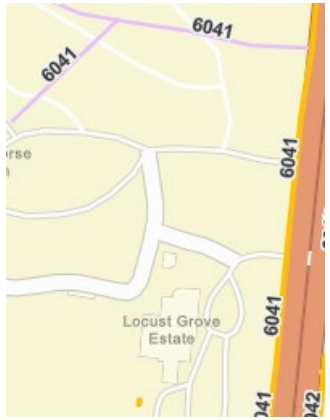
- Locate areas with available capacity for new load
  - Typically for EV's or building electrification projects such as heat pumps
- Compare seasonal effects

Solar PV Metrics

3 Phase Overhead

Substation	SPACKENKILL
Feeder	6041
Section ID	PRIOH_207486
Section Voltage (kVLL)	13.20
Section Hosting Capacity (MW)	0.80
Flicker (MW)	3.42
Primary Over-Voltage (MW)	0.80
Primary Voltage Deviation (MW)	5.40
Regulator Deviation (MW)	2.00
Thermal from Generation (MW)	5.10
Anti-Islanding (MW)	1.88

Location Information and Properties



Section Hosting Capacity Metrics:

- Primary Overvoltage
  - Export amount which is below ANSI upper limits
- Primary Voltage Deviation
  - Export amount which causes a less than 3% change in voltage between 0% and 100% of export
- Regulator Deviation
  - Export amount which causes voltage to be less than regulators bandwidth limit
- Thermal from Generation
  - Export amount which is below allowable thermal limits

Energy Storage Metrics

3 Phase Charging (MW)

Section Hosting Capacity (MW)	0.50
Primary Under Voltage (MW)	6.00
Primary Voltage Deviation (MW)	4.90
Regulator Deviation (MW)	1.80
Thermal from Load (MW)	0.50

- Primary Overvoltage
  - Export amount which is above ANSI lower limits

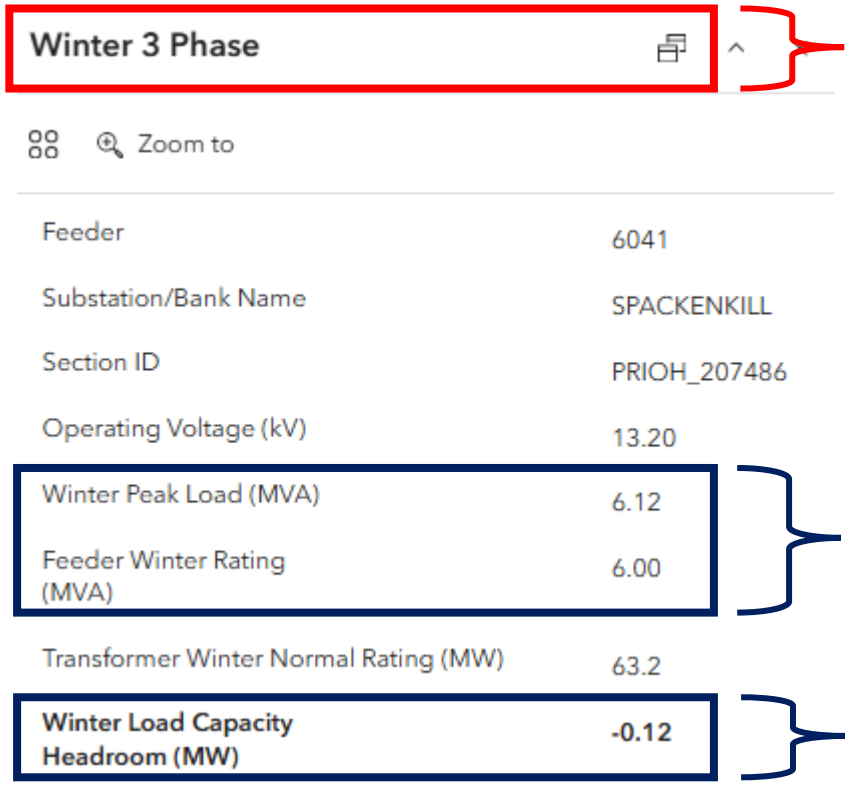
3 Phase Discharging (MW)

Section Hosting Capacity Generation (MW)	0.70
Flicker (MW)	3.42
Primary Over-Voltage (MW)	0.70
Primary Voltage Deviation (MW)	4.90
Primary Regulator Deviation (MW)	1.80
Thermal from Discharging	4.90
Anti-Islanding Limit Generation (MW)	1.45

- Flicker
  - Allowable amount per IEEE 1453

- Anti-Islanding
  - Maximum DER export which is ≤ 67% of minimum daytime load

Electrification Metrics



- Season layer
- Load Capacity Metrics
  - Evaluated on a per-season basis
- Extremely limited capacity on this feeder
  - Doesn't mean an application shouldn't be filled with New Business

Hosting Capacity Tips

- Locations closer to a substation will result in higher hosting capacity and likely fewer upgrades
- Avoid circuits with drastic drops in hosting capacity, they may have a strict limiting factor
  - Typically, stepdown transformers or protective devices
- Location will determine POI, circuit, and substation
  - It is possible to choose between circuits when more than one circuit is available at a location
- Check the DG queue for the feeder/substation to get an idea of how much hosting capacity may be left
  - See Central Hudson's interconnection inventory for greater details

Hosting Capacity Trainings

The NY JU offered two training sessions last year, a beginner and an advanced option, for developers.

These recorded trainings go into detail with the hosting capacity maps available from New York utilities.

Access it here: https://jointutilitiesofny.org/utility-specific-pages/hosting-capacity/

Links

- https://www.cenhud.com/en/my-energy/distributed-generation/hosting-capacity-maps/
- https://dps.ny.gov/distributed-generation-information
- https://jointutilitiesofny.org/utility-specific-pages/hosting-capacity/

Thank you!

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