

Central Hudson Hosting Capacity Map

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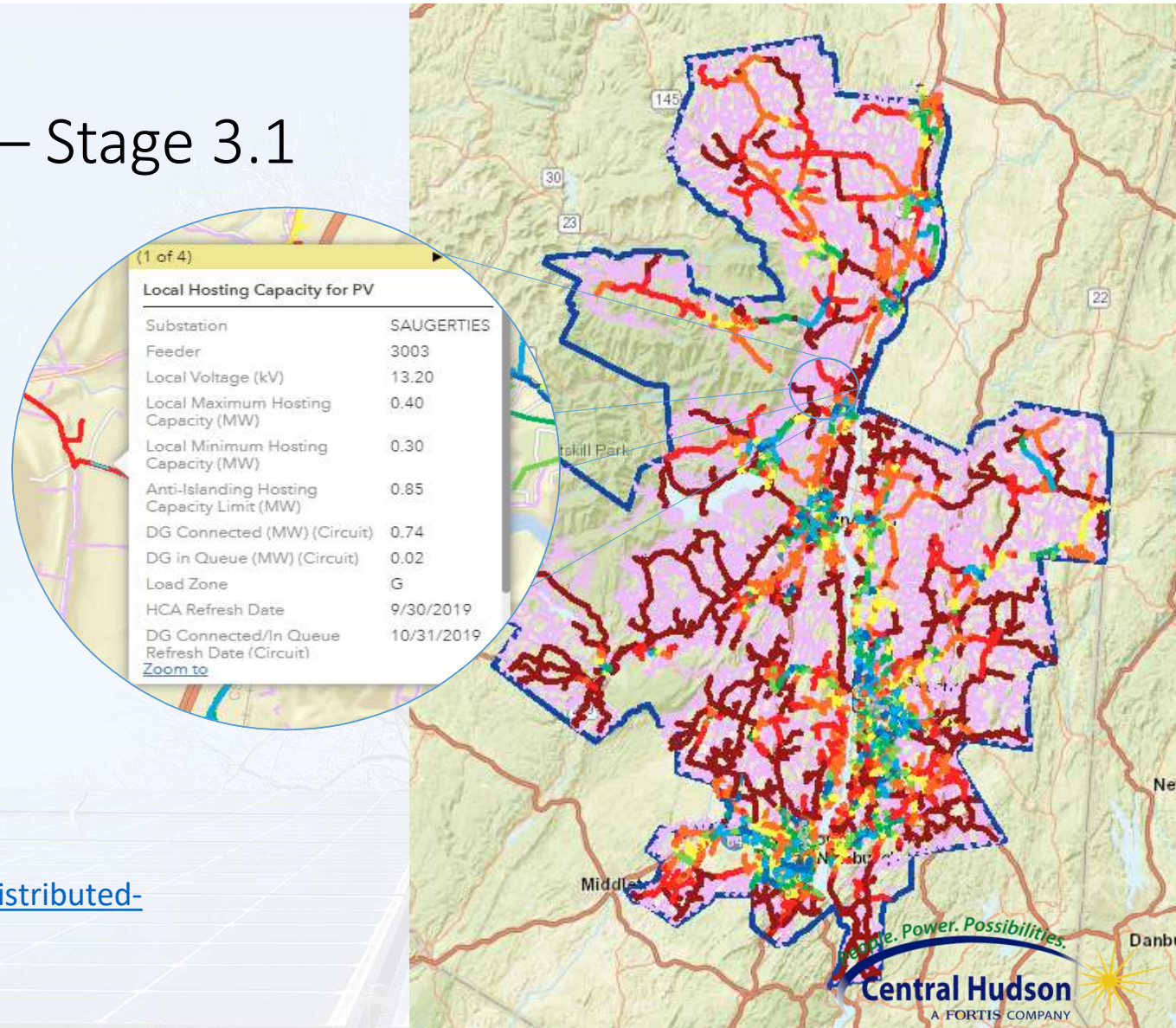
Central Hudson - Distribution Planning



Hosting Capacity Map – Stage 3.1

- Interactive online map
- Estimates amount of DER that can be accommodated at locations across Central Hudson's service territory.
- In October 2021, Stage 3.1 Update went live

<https://www.cenhud.com/en/my-energy/distributed-generation/hosting-capacity-map/>



What Factors Affect Hosting Capacity?



Location



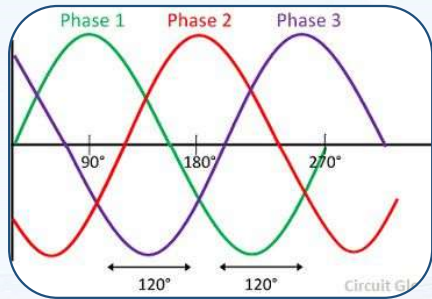
Circuit Loading



Conductor Size



Existing DG



Phasing



Voltage



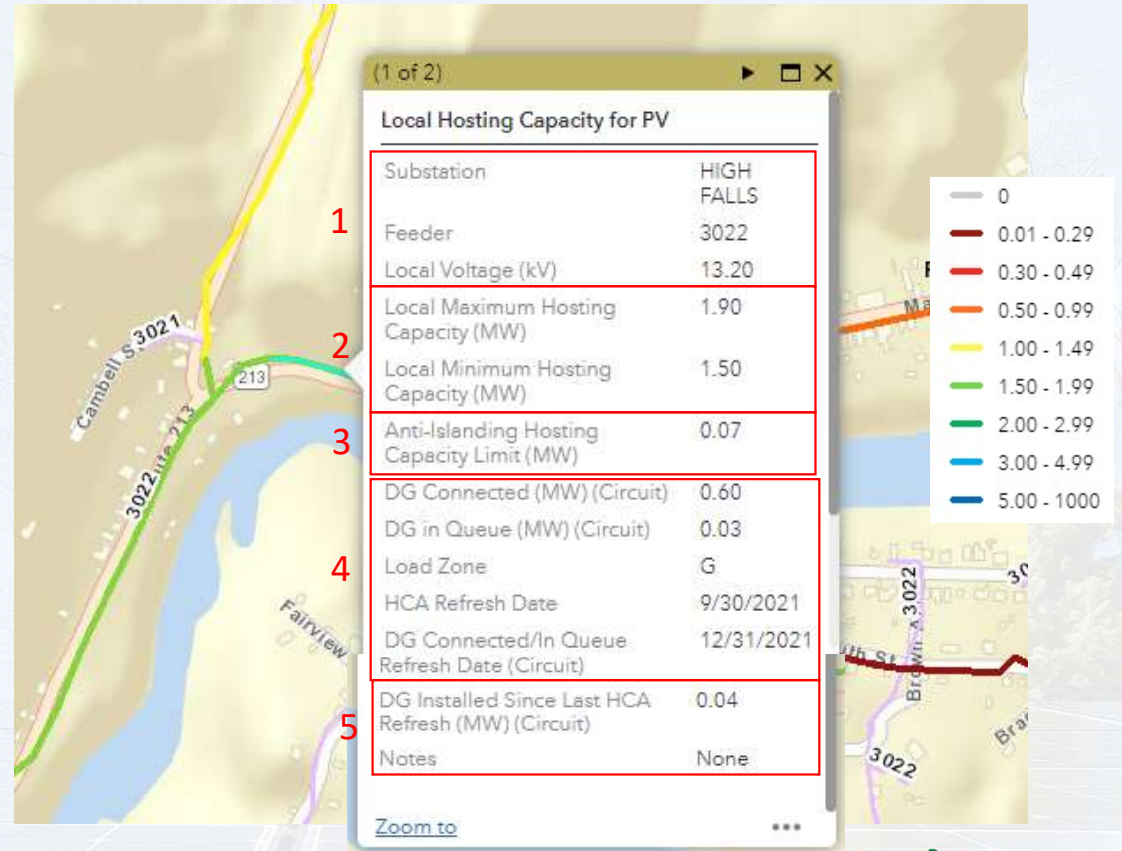
Distribution Equipment



Protective Devices

Hosting Capacity Map Pop-Ups

1. Substation Name, Feeder #, Voltage
 - Range of Hosting Capacity across adjacent same-colored segments
2. Local Hosting Capacity Max / Min
 - Exceeding value will likely result in need for Anti-Islanding mitigation
3. Anti-Islanding Hosting Capacity Limit
 - 2/3 of Feeder Daytime Minimum Load
4. DER Information
 - HCA Refresh Date = Date Hosting Capacity values were updated
 - DG Connected/In Queue = Date the DG values connected and in queue were updated (Monthly)
5. DG Installed Since Last HCA Refresh
 - High values can imply lower overall feeder hosting capacity than what is shown



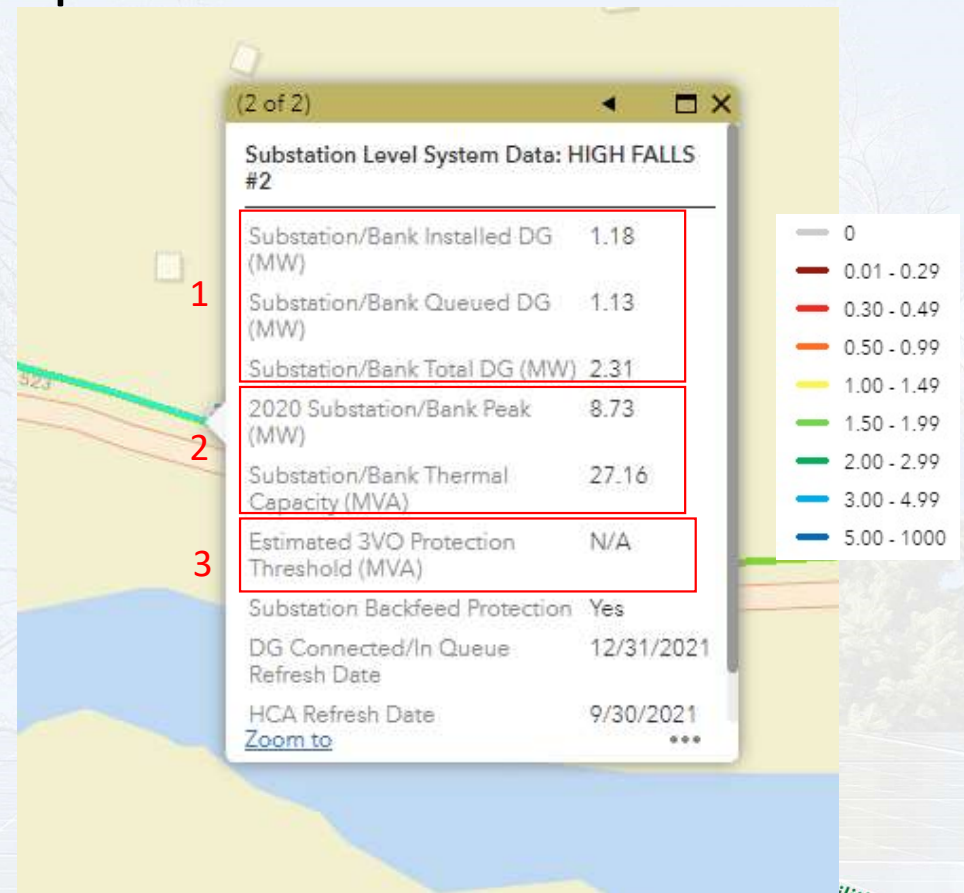
Hosting Capacity Map Pop-Ups

1. DER Information on **Substation Bank**

2. Substation/Bank Peak Load and Substation Bank Thermal Capacity

3. Estimated 3VO Protection

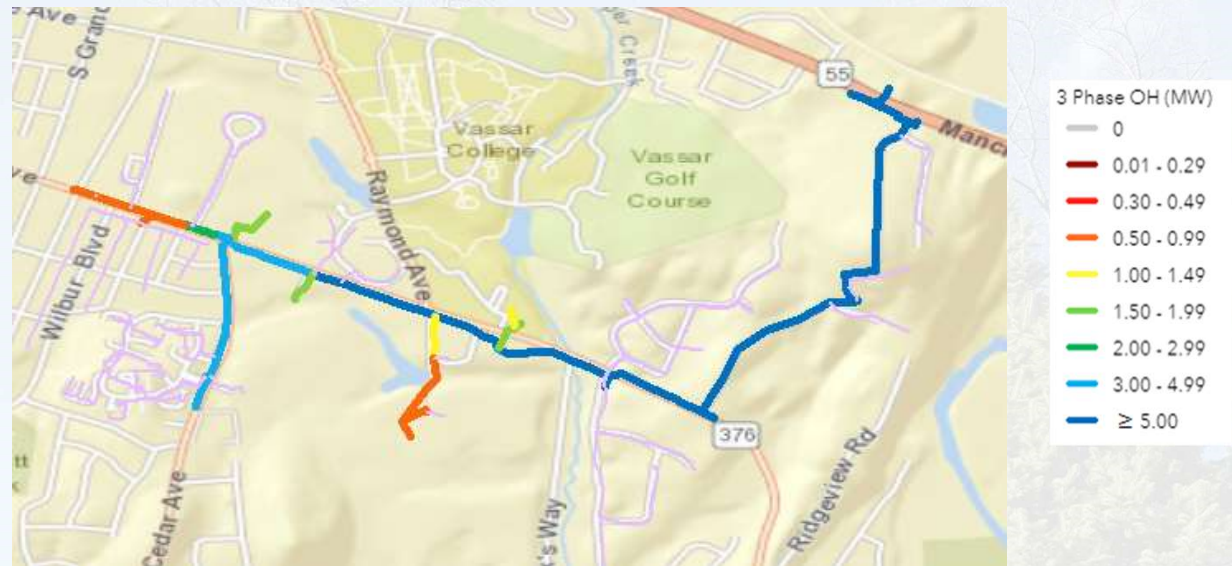
- This is the estimated amount of DER that can interconnect prior to the installation of 3VO protection. If N/A is displayed, then the station would not require a 3VO protection installation.



Example of a Strong Feeder

When looking for a “strong” feeder look for the following:

1. Slow drop-off of hosting capacity on mainline
2. High feeder head hosting capacity
3. Minimum hosting capacity > 0.5 MW



Example of a Weak Feeder

A weak feeder will have the following:

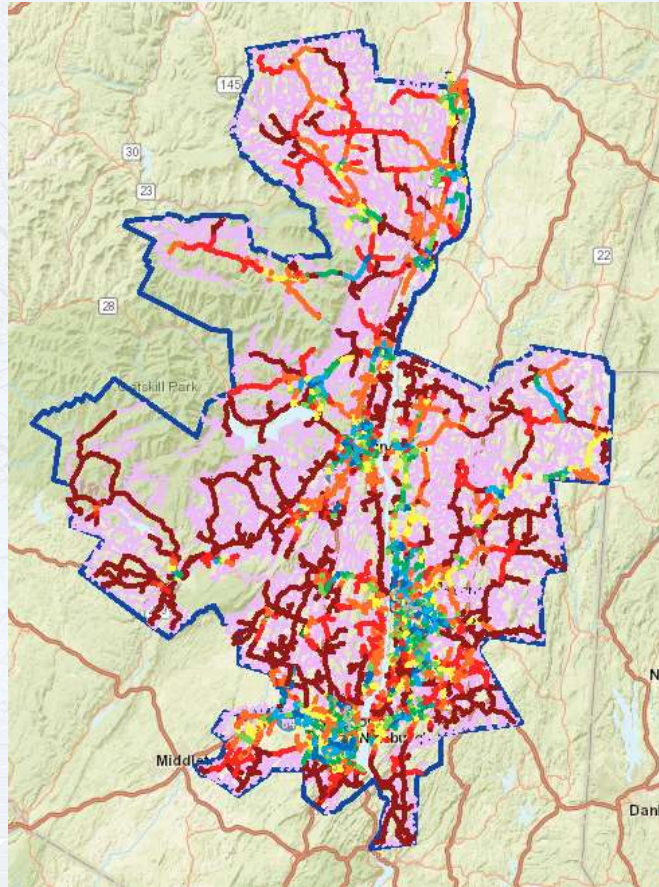
1. Quick drop-off of hosting capacity on mainline
2. Low feeder head hosting capacity

Attempting to interconnect a large DER system to a circuit such as this one will likely occur in high upgrade costs and possibly some downsizing



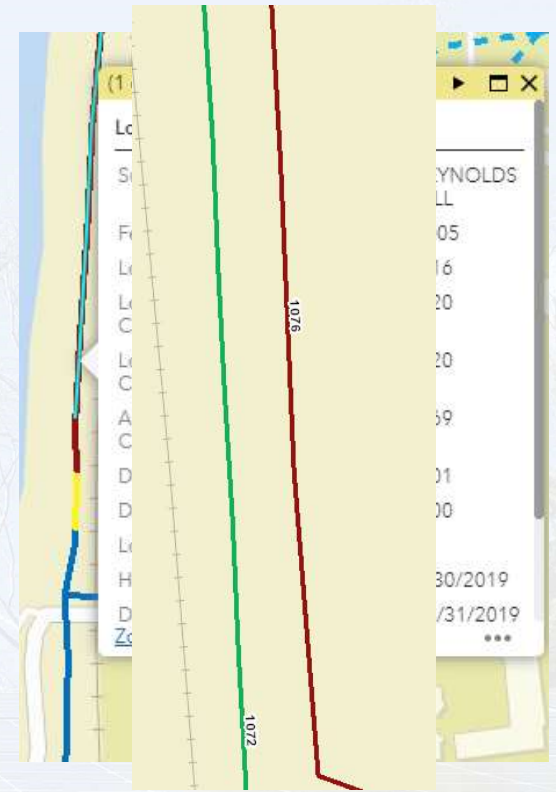
New Energy Storage Hosting Capacity Map

1. Central Hudson is currently in development of an Energy Storage Hosting Capacity map.
2. Initial map will be available April 1, 2022
3. Map will have two layers, one to show the discharge Hosting Capacity, and the second layer will show the charging Hosting Capacity



Final Tips - Navigating the Hosting Capacity Map

1. Always be attentive on the queued-ahead DER and DER interconnected since the most recent refresh
2. For all circuits, especially weaker ones, the further you are from the substation the higher risk there is for expensive upgrade costs
3. Any significant and immediate drop in hosting may identify the location of a stepdown transformer. You can check local voltage within the pop-up boxes to confirm.
4. If the location of a proposed system is off of a double circuit, you can use the hosting capacity map to see which circuit will give you the best chance of avoiding high upgrade costs.



Thank You