Navigating the Hosting Capacity Map

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Central Hudson - Distribution Planning

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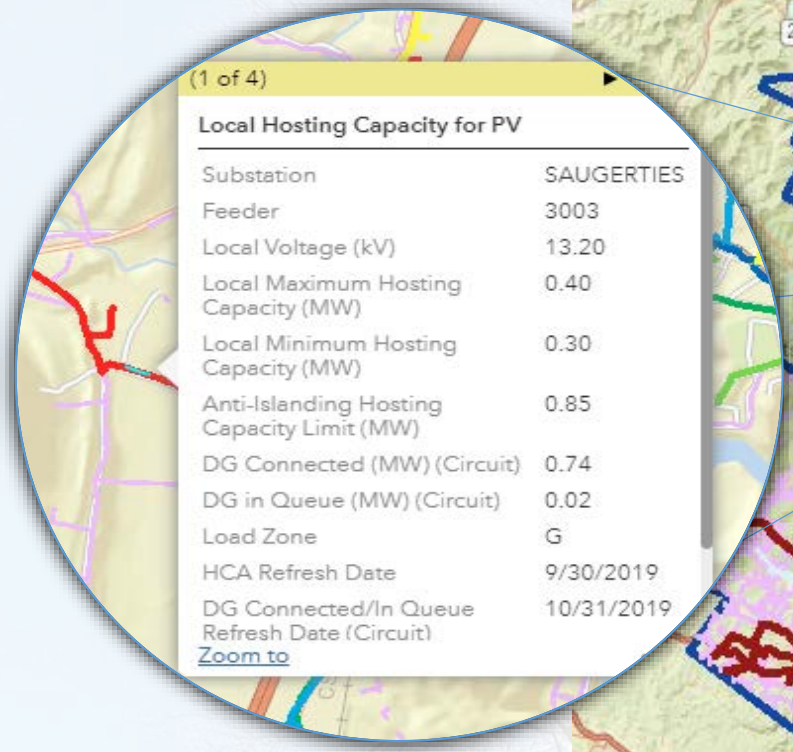
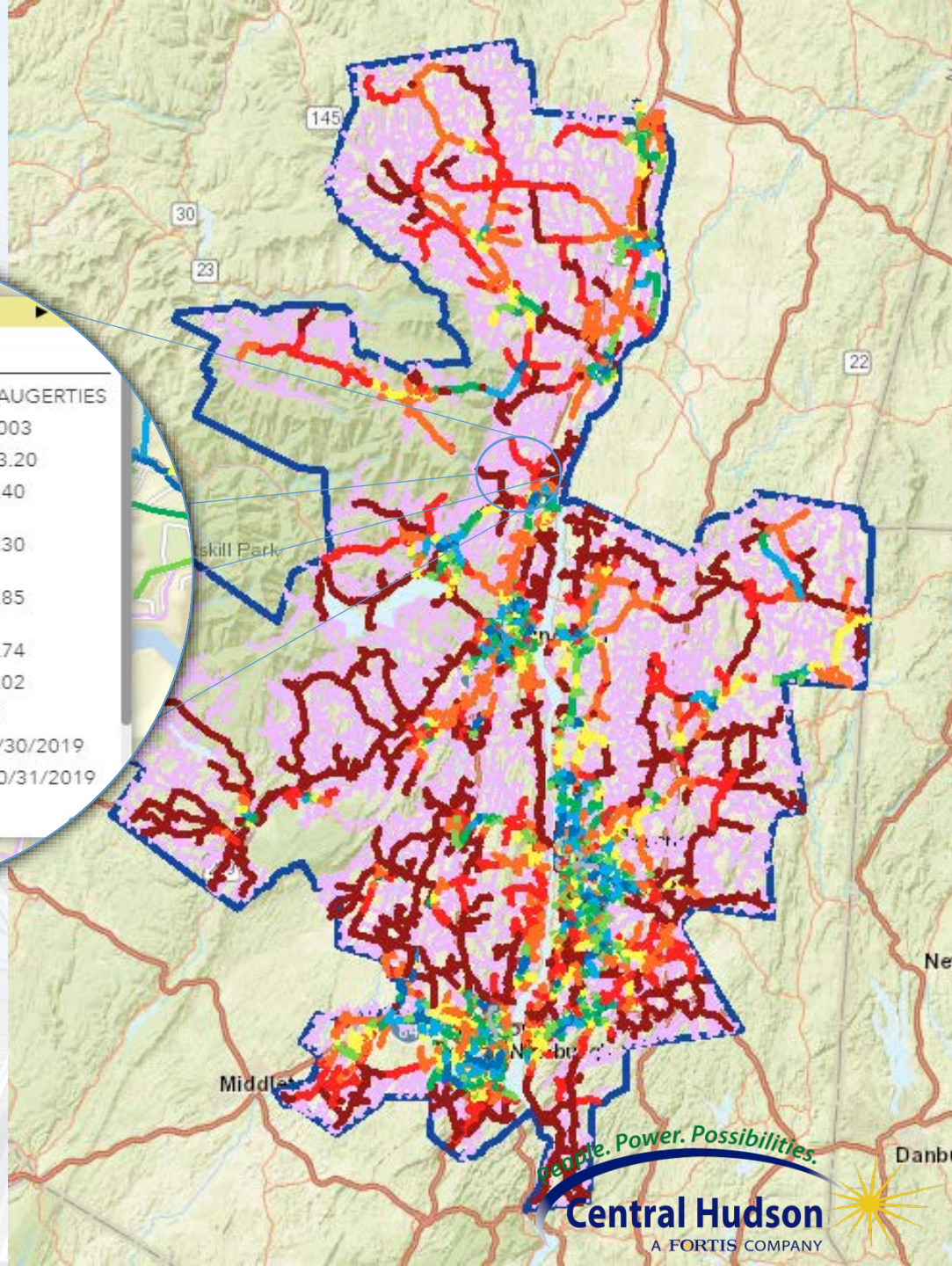
Hosting Capacity Map – Stage 3.0

- Interactive online map
- Estimates amount of DER that can be accommodated at locations across Central Hudson's service territory.
- In October 2019, Stage 3.0 Update went live

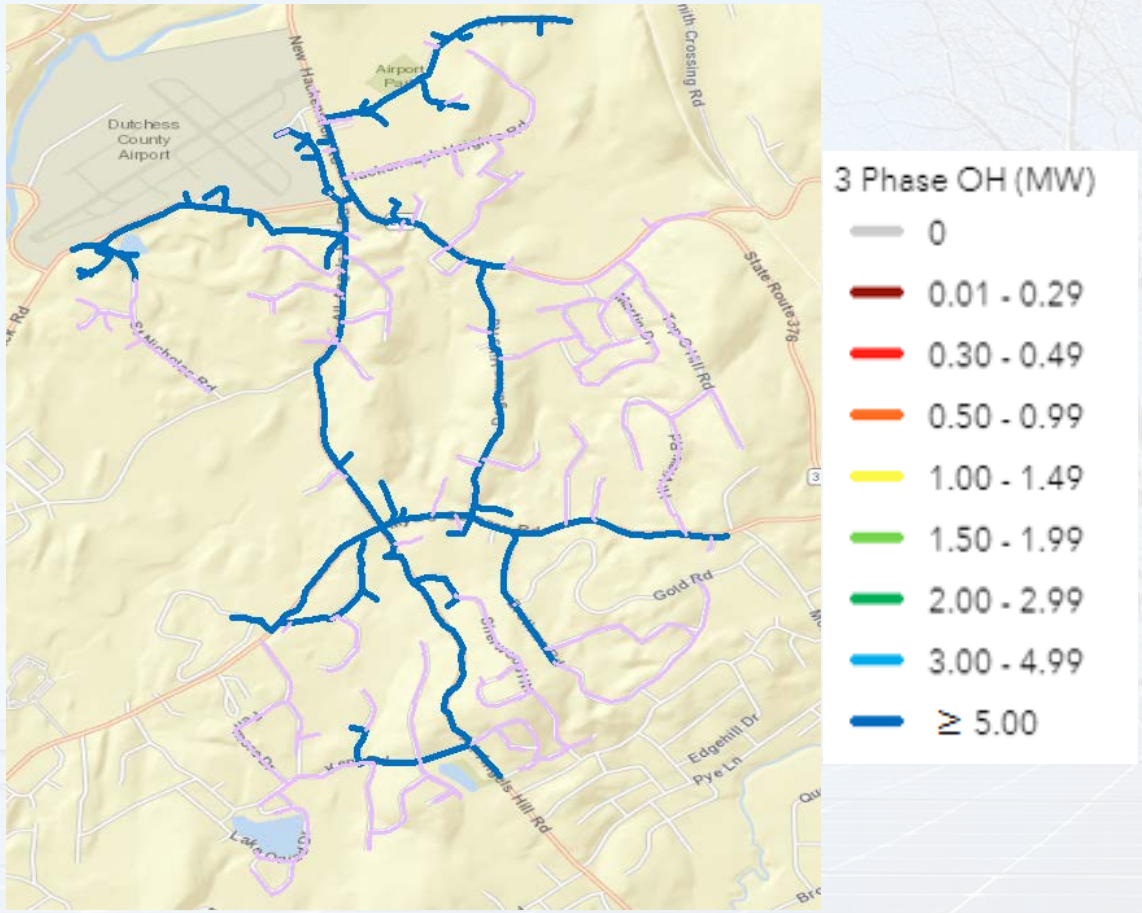




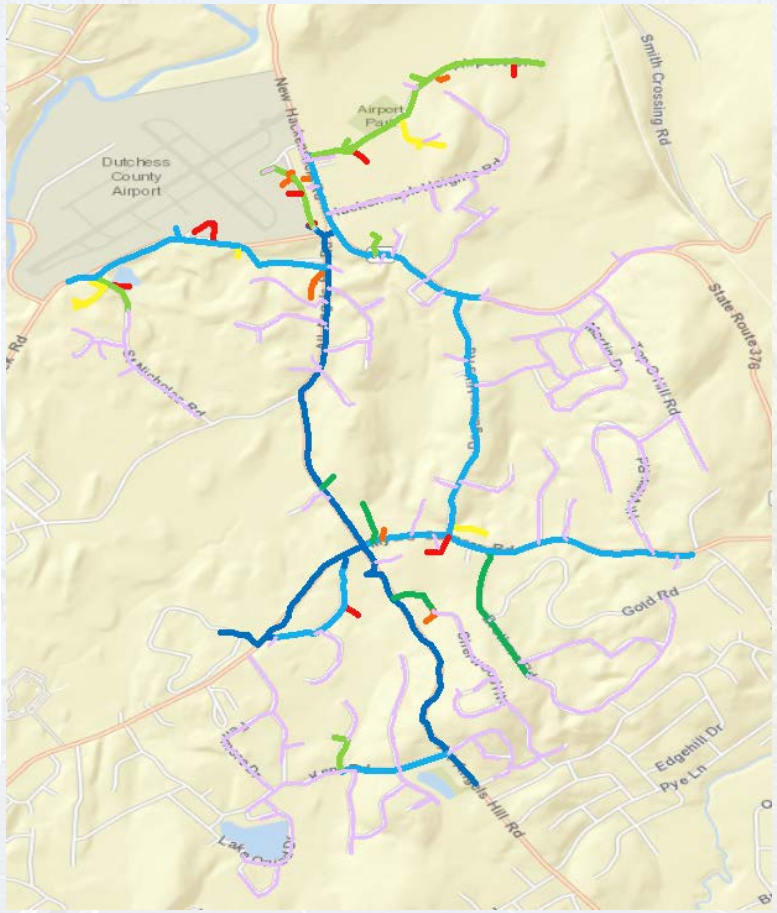
https://www.cenhud.com/dg/dg_hostingcapacity

Hosting Capacity: Stage 3.0 (Nodal Analysis)

Stage 2.1 (10/1/2018)



Stage 3.0 (10/1/2019)



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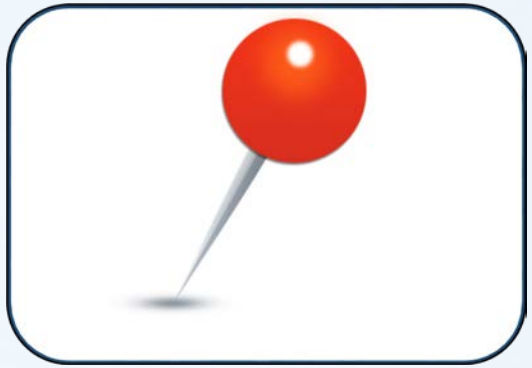
What Factors Affect Hosting Capacity?

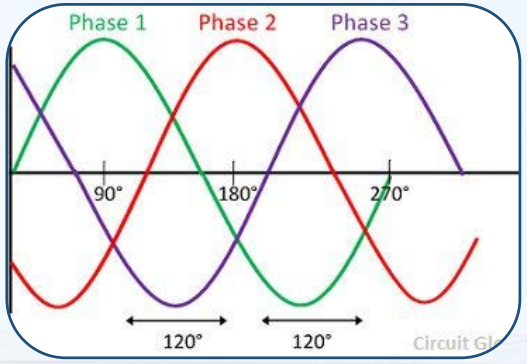


Location

Circuit Loading

Conductor Size

Existing DG



Phasing

Voltage

Distribution Equipment

Protective Devices

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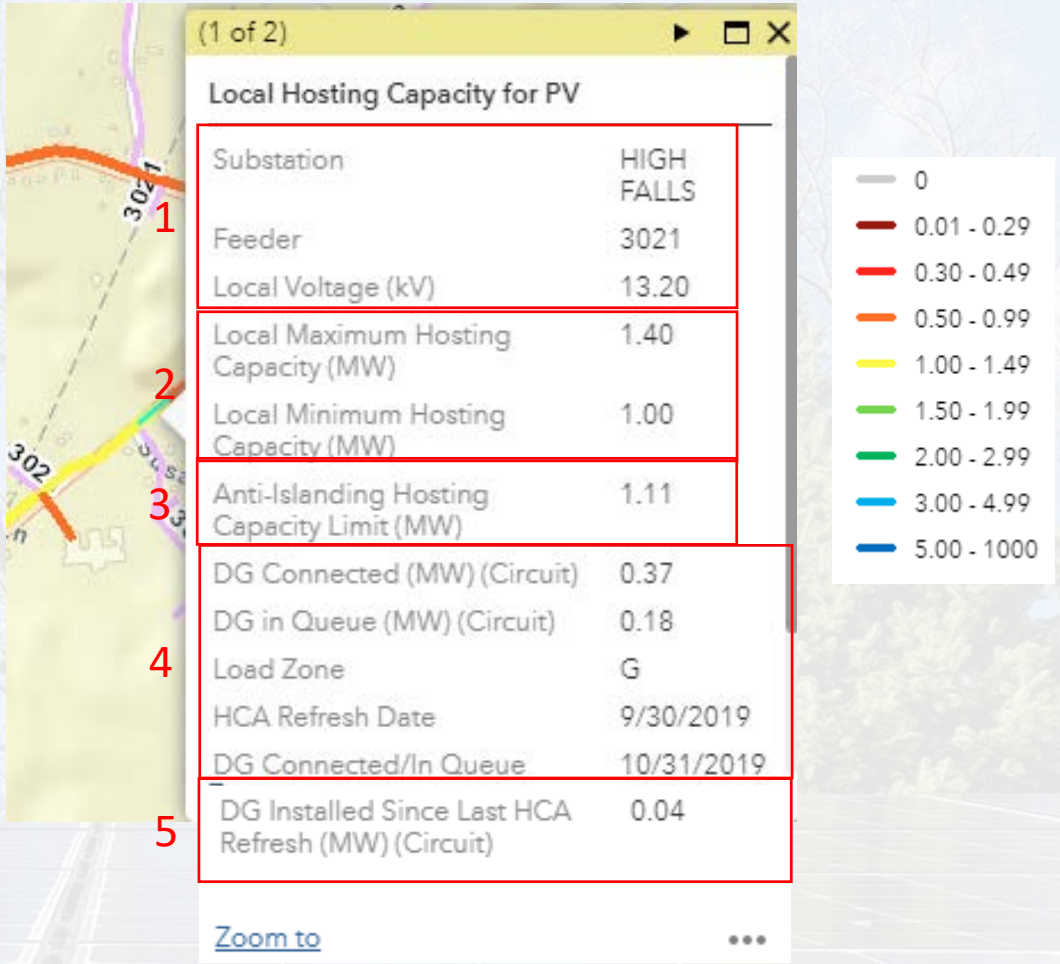
Hosting Capacity Map Pop-Ups

1. Substation Name, Feeder #, Voltage
2. Local Hosting Capacity Max / Min
   - Range of Hosting Capacity across adjacent same-colored segments
3. Anti-Islanding Hosting Capacity Limit
   - 2/3 of Feeder Daytime Minimum Load
   - Exceeding value will likely result in need for Anti-Islanding mitigation
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



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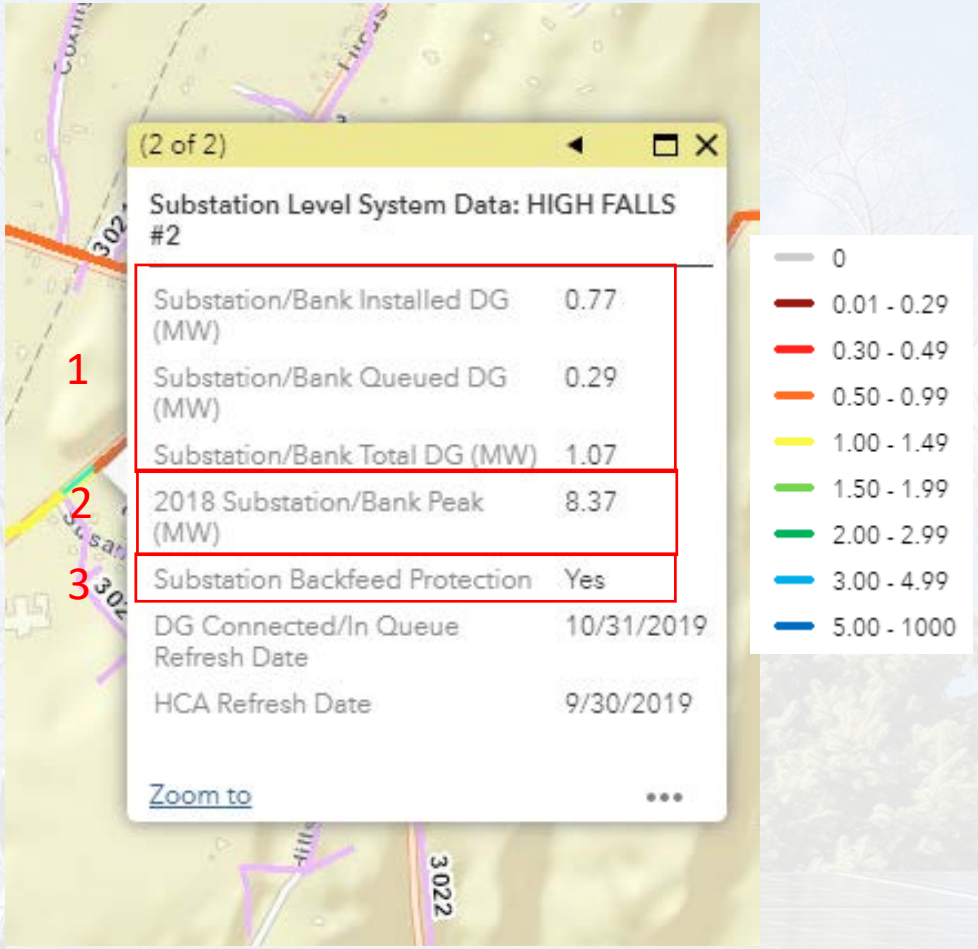
Hosting Capacity Map Pop-Ups

1. DER Information on **Substation Bank**
2. Substation/Bank Peak Load
3. Substation Backfeed Protection
   - If ‘No’, 3V0 protection will be required if reverse flow is seen through substation transformer



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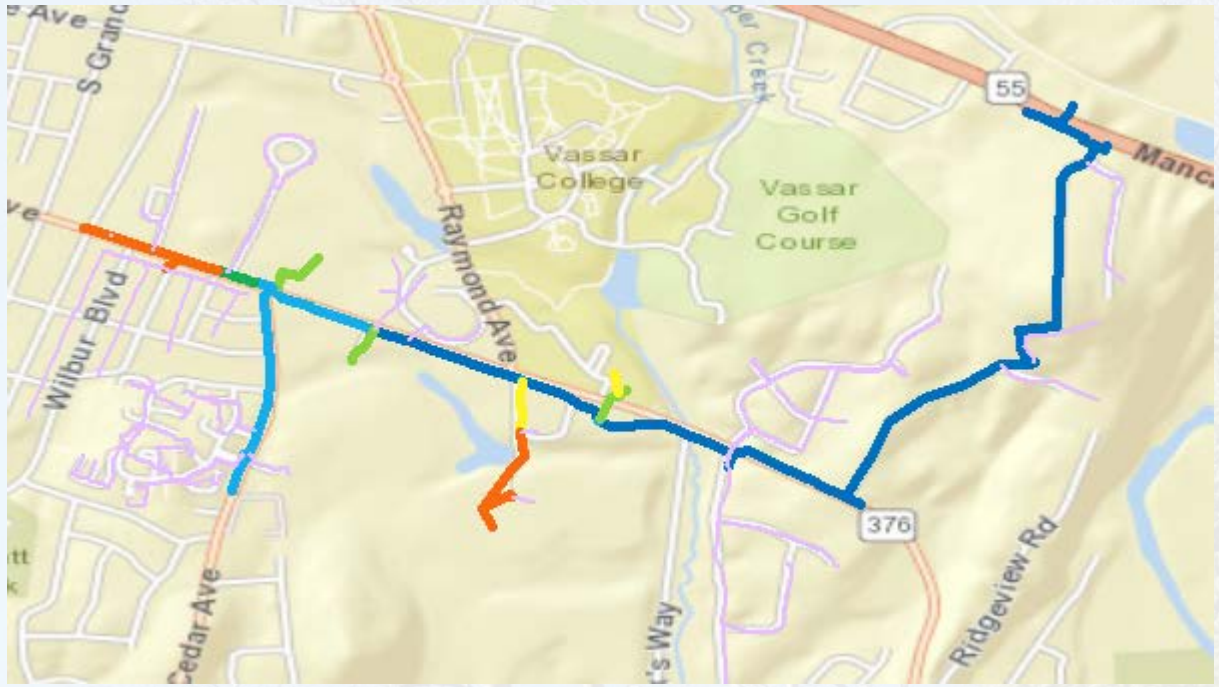
Example of a Strong Feeder

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



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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

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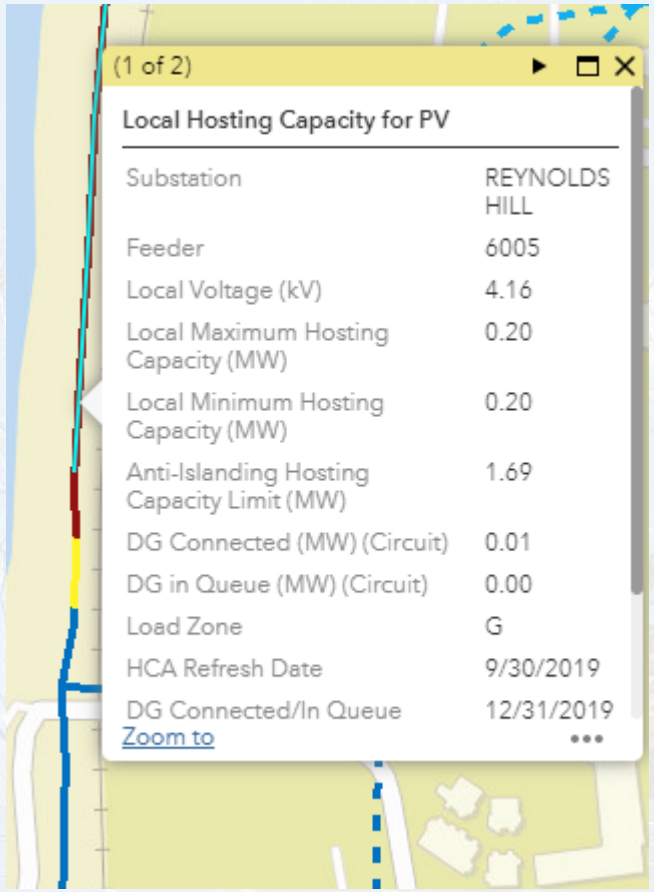
Final Tips - Navigating the Hosting Capacity Map

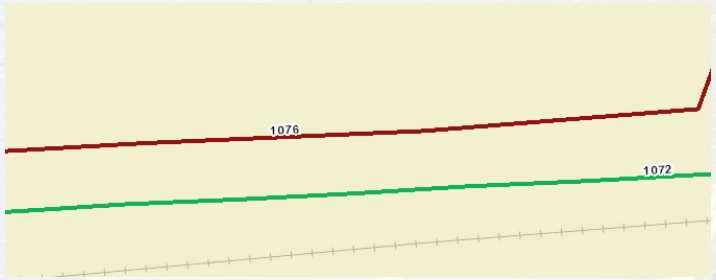
1. Always be attentive on the queued-ahead DER and DER interconnected since the most recent refresh

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.





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Thank You

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