

Hosting Capacity Map FAQ & Definitions

What is Hosting Capacity?

Hosting Capacity is the maximum amount of distributed energy (such as a photovoltaic system) that can be interconnected to the distribution system without requiring significant infrastructure upgrades. This capacity takes into consideration safety, power quality, reliability or other operational criteria.

What is the difference between Location Hosting Capacity and Bulk Substation Hosting Capacity?

The Bulk Station Hosting Capacity is the amount of distribution energy a bulk substation can accommodate, assuming one of the transformers at the substation is offline (either for service or repair).

The Location Hosting Capacity is the amount of distribution energy a circuit can accommodate at a specific location. This can't exceed the Bulk Substation Hosting Capacity of the circuit's substation.

My proposed project is larger than the Hosting Capacity. Does this mean the generation can't be interconnected?

No. The Hosting Capacity values only reflect the maximum amount of distributed energy that can be interconnected with minimal impact to the distribution system. You can still apply for an interconnection, however an impact study will determine the scope of upgrades required to interconnect the project.

Does the Hosting Capacity consider power flows from alternate circuits?

No. It assumes the proposed distributed energy will only operate on the circuit in its normal or primary configuration.

How do I know if we have a single phase at the site?

All gray lines on the map are single phase. Colors other than gray on the map indicate hosting capacity on three phase circuits.

There is sufficient capacity on a circuit for my project. Do I still need to submit an application to interconnect?

Yes. An application is still needed to review the project in detail and secure a queue position relative to other applications on the circuit. Depending on the size of the project, a system impact study may still be required.

Definitions of items in Hosting capacity pop up box:

Location Hosting Capacity(MW) the maximum amount of distributed energy (such as a photovoltaic system) that can be interconnected to the distribution system without requiring significant infrastructure upgrades. This capacity takes into consideration safety, power quality, reliability or other operational criteria.

Section ID Section identification number, information for reference only

Operating Voltage (kV)	Circuit operating voltage
Circuit Name	Circuit name to which DER will be interconnected. This can be a circuit originating from a Bulk substation or a distribution substation. Distribution substations are fed from bulk substations at distribution voltages such as 13.2 KV, 13.8KV or 23KV. Bulk substations are fed from transmission voltages greater than 69 KV
Bulk Circuit Name	Bulk Circuit name.
Distribution Substation Name	Distribution substation station name if applicable
Distribution Substation Voltage(kV)	Distribution substation station voltage if applicable
Distribution Substation Rating (MVA)	Maximum substation transformer Name plate rating. This assumes N-1 conditions that is if a substation has two transformers, the largest transformer will be out of service and remaining transformer will carry the load and all DER at full capacity.
Bulk Substation Name	Bulk Substation Name
Bulk Substation Voltage(kV)	Bulk Substation High voltage / Secondary voltage
Bulk Substation Rating (MVA)	Maximum substation transformer Name plate rating. This assumes N-1 conditions that is if a substation has two transformers, the largest transformer will be out of service and remaining transformer will carry the load and all DER at full capacity.
Bulk Sub Hosting Capacity(MW)	$\text{Bulk Sub Hosting Capacity(MW)} = \text{Bulk Substation Rating (MVA)} - \text{Aggregate DER on substation} + \text{minimum day time load on substation}$
DER Online(kW)	Aggregate DER online on circuit
DER In Queue(kW)	Aggregate DER in queue on circuit
Ferc Jurisdiction	Effective August 28, 2022 per FERC order all distribution interconnections will fall under state interconnection rules.
Current ASO Studies	Number of transmission studies in process on the bulk substation. Note that a "Y" indicates that any DER greater than 1 MW will require a Level III transmission study as required by ISO-NE OPP procedures.
Circuit Feeds Secondary Network Customers	Secondary and spot networks can only support up to 50 KW of DER only. It is important to understand that secondary network systems are fed from low voltages, typically 208 volts while the hosting capacity maps only show higher primary voltages such as 4.8KV, 13.2 KV, 13.8KV, 23KV and 27KV. This means that a circuit may have sufficient hosting capacity but a customer fed from a network system from that same circuit will still be limited to 50 KW regardless of the hosting capacity value shown on the hosting maps.

Circuit Rating (Amp) The circuit rating is the maximum current allowed at the feeder head (where it exits the substation). The circuit cannot exceed this limit from forward or reverse power flow. Other parameters on the feeder (conductor, regulators, etc.) may further reduce the circuit rating as you get further away from the substation.

3V0 Status When export occurs at the bulk substation onto the transmission system, additional relay protection is needed to avoid damage to substation equipment due to ground faults on the distribution or transmission system. Some substations have existing protection so the maps will indicate a "Y" in the columns and no upgrades will be required. However, a "N" answer suggest that if the impact study determines a significant amount of generation is exported on the transmission, then substation upgrades may be required.

Date Last Updated Date the maps were last updated