Special Commission for the Placement of Solar Panels on Interstate Highways
December 6, 2023
Agenda

• Interconnection Summary

• Interconnection Process & Challenges

• Contact Information
Interconnection Summary
Total MW interconnected to-date and in queue

616 MW Interconnected as of November 27, 2023

- Solar breakdown
  - 135 MW from systems under 25 kW
  - 481 MW from systems over 25 kW

- Remaining MW in queue
  - 573 MW

- Total connected applications to date
  - 22,637
Interconnection Process & Challenges
|------------------------------------------|-------------------------|--------------------------------------------------------------------------------|
Interconnection process overview

- Pre-App Application Screening
- Feasibility Study Engineering Review
- Interconnection Service Agreement (ISA)
- Construction
- Witness Test Meter Install
- Asset Registration Authority to Interconnect (ATI)

Pre-ISA

Post-ISA
Pre-ISA

- All proposed interconnections 250 kW and greater will submit a pre-application
- Applications are on a per-site basis
- Optional **feasibility study** after application and screening
- Engineering Review
  - Study the system to determine adverse impacts
  - Identify the scope of work and cost associated with interconnection
- Executed Interconnection Service Agreement (ISA)
  - The contract between the Customer & Electric Distribution Utility
  - Identifies the terms and conditions, timeline, scope of work, and payment schedules
Engineering considerations when applying to connect

• RI Energy offers an overview of Distributed Generation (DG) hosting capacity via its System Data Portal: [https://systemdataportal.nationalgrid.com/RI/](https://systemdataportal.nationalgrid.com/RI/)
  • This includes hosting capacity for a particular substation and/or feeder capacity shown in a color code by percent available.

• Large influx of DG has rendered some substations and feeders at their limit of hosting capacity. This means any significant sized generator will tip the scale and trigger need for system upgrades when applying for interconnection.
  • These types of feeders are placed on a challenging feeder list.

• A pre-application report (required for 250KW or greater) indicate if interconnecting customer is in the vicinity of a challenging feeder.
Engineering considerations when applying to connect
Post-ISA

- Construction
  - RIE construction and Customer construction
  - Municipal inspection is required during construction
- At the conclusion of construction prior to interconnection, there is a Witness Test (WT)
  - This ensures that the system is programmed correctly and operates as expected
- Meter will be set after the conclusion of the WT
- All systems 25 kW and above will be registered with ISO-NE
  - Systems 5 MW and above will be fully dispatchable by ISO-NE
Thank You!

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