

Electric Service Delivery Process

Facilitating interconnection of electrification applications

September 2024

We are experiencing a high volume of inquiries and requests related to large-scale electrification of heat and transportation for commercial buildings and residential complexes. This document is intended to provide guidance to those customers and developers who are requesting more than 200 kW (typically greater than 800 amps, three phase) through our Company's service delivery process.

Pre-Application Process

As a customer or developer, once you understand your load requirements and those load requirements are expected to exceed 200 kW, **please reach out to us before submitting a work request. Call 1-800-260-0054 and request that a Step Zero Inquiry Order be created.** You will be asked to provide a.) the proposed service location, b.) load requirements and c.) approximate date service will be needed.

You will receive confirmation from us within three business days that the Step Zero Inquiry has been assigned to a company engineer. We will then confirm, within ten business days, whether there is readily available capacity to serve this load or whether more analysis will be required. If there is readily available capacity*, you will be encouraged to establish a Work Request (by calling the number above) and provide a load data sheet, one-line diagram and, in some situations, cut sheets, site plan and easement information.

If there is not readily available capacity and/or if you are interested to understand how long it may take and/or how much it might cost to provide service, we will identify the fee and duration to perform the requisite analysis. In general, the more detail requested, the longer the analysis will take and the costlier it will be.

It is critical that you have a good understanding of your load requirement, as this is fundamental to the Company being able to analyze, engineer and design your service. Upon receipt of a Step Zero Inquiry Order or a formal Work Request, you will be assigned a "Job Owner" who will serve as a single point of contact and help you navigate through the end-to-end service delivery process. The Job Owner will reach out to you within three business days.

For additional information on how to apply for service and our service requirements, visit the electric portal at <https://ngrid.com/electric-connection>

**Disclaimer: Peak loads and load commitments made on National Grid's distribution system are dynamic and, as such, we may need to modify its initial disposition from the pre-application process as loading on its system changes. National Grid does not formally reserve capacity for a customer or developer until a formal work request has progressed to its engineering stage.*

Cost and Timing Considerations

With electrification loads (electric vehicles & heat) typically being much higher than standard loads, we may not have adequate capacity readily available at a given location. Depending on the scope of the project, considerable time may be required to engineer, design, permit and construct the necessary system modifications to provide that additional capacity. This could take months, or years. Likewise, the cost of the system modifications can be considerable and, in many situations, chargeable to the customer. Please reach out to us as soon as possible to discuss project expectations and deliverables.

Electric Service Delivery Process

Facilitating interconnection of electrification applications *continued*

Impact of Distribution Voltage on Load Requests

National Grid operates two general levels of distribution voltage (5kV class and 15kV class). Each level has specified limitations on project load requests:

- **4.16 or 4.8kV Electrical** demands of up to 1,000kW (1MW) are allowed (e.g. ~3-6 DCFC ports; ~50-100 single-family houses with heat pumps; ~100-150 units of multifamily housing with heat pumps; or ~90,000-110,000 sq. ft. of commercial space with heat pumps)*
- **13.2kV Electrical** demands of up to 2,500kW (2.5MW) are allowed (e.g. ~8-15 DCFC ports; ~125-250 single-family houses with heat pumps; ~250-375 units of multifamily housing with heat pumps; or ~225,000-275,000 sq. ft. of commercial space with heat pumps)*
- **>13.2kV Engineering** will review demands in excess of 2.5MVA and respond accordingly. Demands over 2.5MVA may require primary metered 13.2kV service or service from higher voltage (sub-transmission or transmission systems).

**Disclaimer: Typical DCFC loading per charger port is assumed at 150kW-300kW, Heat Pump loading for a residential single-family home is assumed at 9kW, Heat Pump loading for a residential multi-family home is assumed at 4.5kW, Heat Pump loading for a commercial space is assumed at 3.5kW per 1 ton HVAC/HP and 1 ton HVAC/HP per 400-600sqft*

Electric System Data Portal

For our New York developers and contractors, we created a [NY System Data Portal](#) an online, interactive collection of maps that provides in-depth visibility into the electric grid distribution system. The portal contains distribution feeder and substation information, including:

- Feeder ID and characteristics, such as geographic locations
- Substation source
- Planning area
- Voltage information
- Loading and available hosting capacity

We encourage you to visit the [electric portal](#) and use the information, in consultation with one of our engineers, to help develop your future projects.

We look forward to collaborating with you on your project.