

Northeast Freight Corridor Charging Plan Summary Sheet

September 2025



The first roadmap to enable the development of a corridor charging map to foster the electrification of freight travel in the Northeast.

Medium- and heavy-duty freight rely on service plazas and truck stops to refuel their vehicles and meet their obligations. Creating a reliable fast-charging network across the Northeast is critical to provide security for fleets to electrify.

National Grid, alongside RMI, NREL, NESCAUM, CALSTART, and the project’s Advisory Committees, evaluated over 130 sites in the region to develop a shortlist of 39 sites to create a fast-charging backbone in the region.

Major Learnings	Implications
Prioritizing sites to support electrification is a complex and multifaceted process.	Given the costs and timelines for site development, it is important to engage multiple stakeholders across utilities and state borders to identify “no-regrets” upgrades at priority sites.
Utilities, fleets, infrastructure providers, and state and local governments all play a critical role in building a well-functioning charging infrastructure network.	Close collaboration and coordination between stakeholders are essential for identifying, funding, and building electrical infrastructure to support fast charging at the lowest possible cost to ratepayers.
Power demand grows steadily over time in all locations, but peak demand varies greatly.	To meet rising power demands, distribution, transmission, and flexible interconnection solutions must be explored. In most cases, allowing for proactive rather than reactive investments ensures projects can be delivered in a timeline aligned with state and industry expectations.
Limited real estate and charging capacity at the Port of New York and New Jersey will push drayage trucks toward depot and corridor sites, creating challenges for regional grid infrastructure around logistics hubs.	As drayage trucks electrify, charging will first depend on depots before shifting to more reliance on corridor charging as adoption broadens. As electrification continues, peak travel plaza demand associated with drayage will reach 20-30 MW by 2050, highlighting the critical need for charging infrastructure development.

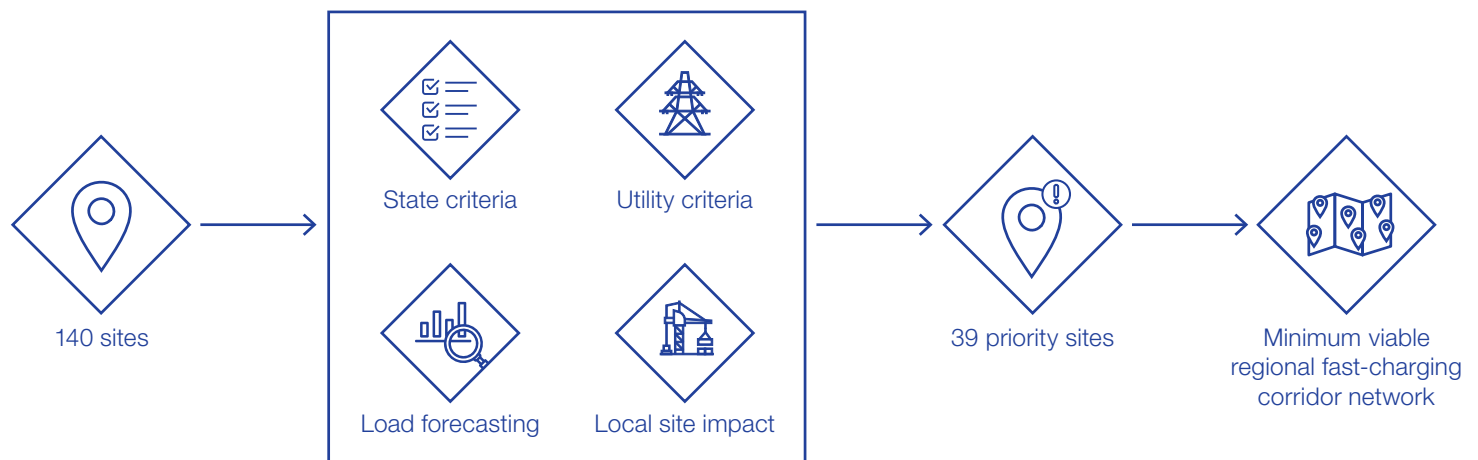
A multi-stakeholder process ensured that the sites selected for the roadmap encompass different priorities

Sites were evaluated and selected based on criteria developed by industry, utilities, and state and local impact groups. This multi-stakeholder process means buy-in from the important stakeholders involved in

identifying and developing sites, making the roadmap actionable.

Working beyond state borders is key to ensuring that resources are deployed efficiently, avoiding overbuilding sites close to state borders where there is sufficient cover close by, and thus lowering costs to ratepayers in the region.

Site identification process



Proactive planning efforts are key to addressing power system requirements and minimizing deployment costs

During the busiest hour of the year, highway fast-charging sites could draw as much power as a sports stadium or a small town.

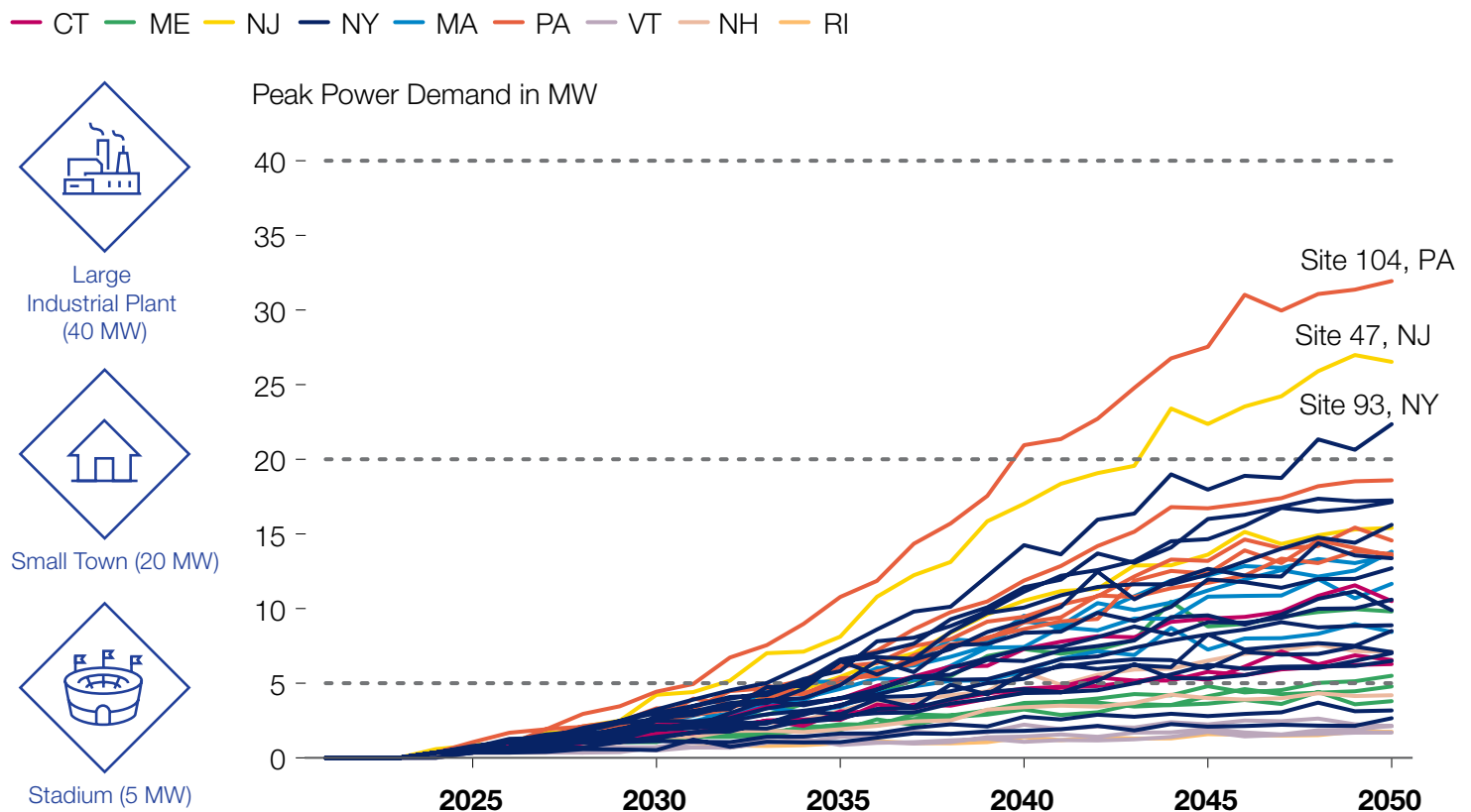
The study uses a rapid electrification scenario with 350 kW chargers to model MHDV peak power demand across 140 sites. By 2035, one-third of charging sites will exceed 5 MW of demand, with half surpassing 10 MW by 2050 — beyond the limits of many distribution systems in the Northeast. Utilities, developers, and regulators must begin planning now for high-voltage connections to ensure fast

charging is available where it will be needed most, especially for heavy-duty trucks.

Electrifying highway service plazas will unlock major benefits for freight transportation:

- Meeting the fast-charging needs of long-haul freight operations and regional commerce
- Lower operating costs for freight carriers, especially small fleets, by ensuring reliable, high-speed charging access
- New economic development opportunities through energy and logistics investments at service plazas

Peak power requirements from MHDV fast-charging sites over time



The study models adoption in line with ACT MHDV electrification. The results above is the peak power demand using 350 kW chargers as charger speed.

Close collaboration between states, utilities, industry, and communities is critical to enabling an electric freight future.