

# Exhibit B – Minimum Technical Specifications

As a whole, NYCHA seeks to comply with NEVI and other applicable federal, state, and local guidelines for electric vehicle supply equipment (“EVSE”).

## General

- All electric vehicle charging and transmission equipment must be Underwriters Laboratories (UL) listed for its designed use.
  - The EVSE must be UL listed and compliant with NEC Article 625 and all relevant NRTL and other industry safety standards, including UL 2594, UL 2231-1, UL 2231-2, UL 1998, UL 991, UL 2202, and UL 2251 or equivalent.
  - Enclosures must be compliant with UL 50, Type NEMA 3R or equivalent.
- EVSE must be ADA compliant, and the number of chargers installed in accessible parking spaces should conform to ADA standards and industry best practices. If installing an accessible charger requires the use of two existing parking spaces in order to create sufficient space for the access aisle, project developer will be required to pay for both spaces. Any existing (non-EV) accessible parking spaces that are converted into accessible EV charging spaces must be replaced by the project developer at an appropriate location in the parking lot approved by NYCHA, such that the total number of non-EV accessible parking spaces in the lot remains the same. Refer to Access Board for guidance related to accessible EV charging: <https://www.access-board.gov/tad/ev/>
- Construction must comply with current adopted local and national codes, which encompass:
  - 2024 International Building Code (or most recently adopted)
  - 2025 NYC Energy Conservation Code
  - 2026 National Electric Code (NEC) (or most recently adopted)
  - All other relevant local, state and national codes
- Project developer is responsible for conducting all required building, utility, and rebate inspections, and must complete all construction and documentation in a manner necessary to pass such inspections, and in accordance with industry standard best practices.
- Project developer must possess current state electric contractor’s license from State’s Contractors Licensing Board to perform work being proposed.

## Electric Vehicle Supply Equipment

- Each Direct Current Fast Charging (DCFC) port must have a continuous power delivery system rating of at least 150 kilowatt (kW) and supply power according to an EV's power delivery request up to 150 kW, simultaneously from each charging port at the charging station. DCFC charging stations may conduct power sharing so long as each charging port continues to meet an EV's request for power up to 150 kW.
- Each Level 2 charging port must have a continuous power delivery rating of at least 6 kW and the charging station must be capable of providing at least 6 kW per port simultaneously across all ports. Level 2 chargers may conduct power sharing and/or participate in smart charge management programs so long as each charging port continues to meet an EV's demand for power up to 6 kW.
- Project developers must ensure charging station operations protect consumer data and protect against the risk of harm to, or disruption of, charging infrastructure and the grid.
- Project Developer must ensure that each charging port has an average annual uptime of greater than 97%.
  - A charging port is considered "up" when its hardware and software are both online and available for use, or in use, and the charging port successfully dispenses electricity in accordance with requirements for minimum power level in Electric Vehicle Supply Equipment
  - Charging port uptime must be calculated on a monthly basis for the previous **six** months.
  - Charging port uptime percentage must be calculated using the following equation:
    - $\mu = ((262,800 - (T_{\text{outage}} - T_{\text{excluded}})) / 262,800) \times 100$
    - where:
    - $\mu$  = port uptime percentage,
    - $T_{\text{outage}}$  = total minutes of outage in previous six months, and
    - $T_{\text{excluded}}$  = total minutes of outage in previous six months caused by the following reasons outside the charging station operator's control, provided that the charging station operator can demonstrate that the charging port would otherwise be operational: electric utility service interruptions, failure to charge or meet the EV charging customer's expectation for power delivery due to the fault of the vehicle, scheduled maintenance, vandalism, or natural disasters. Also excluded are hours outside of the identified hours of operation of the charging station.
- If the EVSE includes any lithium ion batteries or other battery energy storage components, FDNY Technology Management requirements must be met.

## **Payment**

- Charging stations must provide for secure payment methods, accessible to persons with disabilities, which at a minimum shall include a contactless payment method that accepts major debit, credit and RFID cards.;
- Charging stations must not require a membership for use;
- Charging stations may not delay, limit, or curtail power flow to vehicles on the basis of payment method or membership; and
- Charging stations must provide access for users that are limited English proficient and accessibility for people with disabilities.

## **Installation**

- Project Developer shall ensure that the workforce installing, maintaining, and operating chargers has appropriate licenses, certifications, and training to ensure that the installation and maintenance of chargers is performed safely by a qualified workforce of licensed technicians and other laborers.
- Any placards required for EV charging must be provided and installed according to NYCHA guidelines and industry best practices.

## **Customer Service**

- EV charging stations must be open to the public 24/7, 365 days per year for the duration of the lease term.
- Project Developers must ensure that EV charging customers have mechanisms to report outages, malfunctions, and other issues with charging infrastructure. Charging station operators must enable access to accessible platforms that provide multilingual services. Project Developers must comply with the American with Disabilities Act of 1990 requirements and multilingual access when creating reporting mechanisms.
- Charging station operators must collect, process, and retain only that personal information strictly necessary to provide the charging service to a consumer, including information to complete the charging transaction and to provide the location of charging stations to the consumer. Chargers and charging networks should be compliant with appropriate Payment Card Industry Data Security Standards (PCI DSS) for the processing, transmission, and storage of cardholder data. Charging Station Operators must also take reasonable measures to safeguard consumer data.

## **Reporting Requirements**

- Monthly submittal during construction: EV Lessee must ensure the following data are submitted on a monthly basis in a manner approved by NYCHA.

- Number of Section 3 hires/trainees/hours worked (labor hours)
- Schedule update with a two week look-ahead
- Issues/flags for NYCHA's support
  - New conditions that arise onsite
  - Substantive changes to scope
  - Onsite coordination issues
  - Utility coordination
- Monthly submittal in operation: EV Lessee must ensure the following data are submitted on a monthly basis in a manner approved by NYCHA. Any monthly data made public will be aggregated and anonymized to protect confidential business information.
  - Charging station identifier that the following data can be associated with. This must be the same charging station name or identifier used to identify the charging station in data made available to third-parties;
  - Charging port identifier. This must be the same charging port identifier used to identify the charging port in data made available to third-parties;
  - Charging session start time, end time, and any error codes associated with an unsuccessful charging session by port;
  - Energy (kWh) dispensed to EVs per charging session by port;
  - Peak session power (kW) by port;
  - Payment method associated with each charging session;
  - Charging station port uptime, T\_outage, and T\_excluded calculated in accordance with the equation outlined above for each of the previous 3 months;
  - Duration (minutes) of each outage;
  - Gross revenue by charging port;
  - Number of charging sessions using NYCHA resident discount.

**Charging network connectivity of electric vehicle charging infrastructure.**

- Charger-to-charger-network communication:
  - Chargers must communicate with a charging network via a secure communication method. See § 680.108 for more information about OCPP requirements.
  - Chargers must have the ability to receive and implement secure, remote software updates and conduct real-time protocol translation, encryption and decryption, authentication, and authorization in their communication with charging networks.
  - Charging networks must perform and chargers must support remote charger monitoring, diagnostics, control, and smart charge management.
  - Chargers and charging networks must securely measure, communicate, store, and report energy and power dispensed, real-time charging-port status, real-time price to the customer, and historical charging-port

uptime.

- Interoperability:
  - *Charger-to-EV communication.* Chargers must conform to ISO 15118-3 and must have hardware and software compliant with both ISO 15118-2 and ISO 15118-20. Conformance testing for charger software and hardware should follow ISO 15118-4 and ISO 15118-5, respectively.
  - *Charger-to-Charger-Network Communication.* Chargers must conform to Open Charge Point Protocol (OCPP) 2.0.1.
  - Charging networks must be capable of communicating with other charging networks in accordance with Open Charge Point Interface (OCPI) 2.2.1.
  - Where feasible, chargers must be designed to securely switch charging network providers without any changes to hardware.
  - *Charging-network-to-charging-network communication.* A charging network must be capable of communicating with other charging networks to enable an EV driver to use a single method of identification to charge at Charging Stations that are a part of multiple charging networks.
- *Charging-network-to-grid communication.* Charging network operators must provide a written capability statement indicating that their network can communicate with electric utilities, other energy providers, or energy management platforms.
- *Disrupted network connectivity.* Chargers must remain functional if communication with the charging network is temporarily disrupted, such that they initiate and complete charging sessions, providing the minimum required power level defined in Electric Vehicle Supply Equipment.

## Security

- If the project developer would like to install security cameras as part of the project, they must follow protocols from NYCHA's Office of Safety and Security.

## Interconnection

- EV charging stations must comply with NEC and Utility regulations and must be approved by the local Utility and Authorities Having Jurisdiction (AHJ) such as NYCHA and DOB before any EV charging station construction is begun.

## System Design and Permitting

- System design and submissions for review and acceptance by NYCHA shall be in accordance with **Exhibit G**.
- All proposed system designs and construction techniques must be approved by the AHJ.
- A building permit is required for each system and must be obtained through normal permitting processes by bidder.

- Project Developer is responsible for any required hazardous materials testing and permitting.

### **Construction**

- Project developer shall prepare, maintain, and abide by Site Safety Plan to include, at a minimum, all applicable OSHA workplace safety and Personal Protective Equipment (PPE) requirements
- Construction work shall be designed to minimize impact to facility operations. Project developers shall develop a construction plan for site access, staging, and equipment storage and obtain approval from the NYCHA prior to beginning construction.
- All asphalt, concrete, landscaping, and other areas that are disturbed during construction shall be remediated and returned to original condition, or equivalent condition as approved by NYCHA.
- After completion of work, site shall be left clean and free of any dirt or debris that may have accumulated during construction. All construction equipment, spoils, and other construction byproducts shall be removed from the site.
- All electrical enclosures and equipment shall be installed to be readily accessible to qualified personnel only. Fences or other protection may be required per NYCHA specifications.
- All visible conduits and electrical equipment shall be painted or aesthetically dressed per NYCHA specifications.
- Location of existing underground utilities must be marked by USA/Dig Alert and equivalent private service prior to any underground work.

### **Documentation and Process Control**

In addition to construction requirements listed above, Project Developer will be required to:

- Apply for and receive interconnection approval from the local Utility for proposed EV charging installations.
- Provide basic operations & emergency maintenance training to Host staff
- Provide As-Built drawings of EV charging system, which must include finalized layout, layout of all conduit runs, and single-line diagram.