

**THE METROPOLITAN TRANSPORTATION AUTHORITY
ACTING BY THE
MTA CONSTRUCTION AND DEVELOPMENT**



RFI-433829

Request for Information for

Mobile Traction Power Substation

REQUEST FOR INFORMATION # 433829

Mobile Traction Power Substations for use within the NYC Transit System

Reply Date: 3:00PM, May 17, 2023

New York City Transit (“NYCT”) uses a network of substations to convert high tension AC power to DC power for train propulsion. Because some of these substations are in low lying areas and vulnerable to future flood events, the MTA is looking at ways to mitigate risk to NYCT service reliability. To that end, the MTA is in search of Mobile Rectifier-Transformer-based Traction Power Substations (each a “Mobile Substation”) to provide NYCT with the ability to temporarily shut down all or part of an existing substation facility while continuing to provide traction power to the transit system. More specifically, the MTA is looking for two 38kV 3-phase rated Mobile Substations with ancillary equipment, for connection to a 26.4kV utility feed and two two (2)-15kV 3-phase rated Mobile Substations with ancillary equipment, for connection to a 13.2kV utility feed. It is the MTA’s preference that each Mobile Substation be comprised for four trailers, each trailer not exceeding 20ft in length, 7 feet in width or in excess of 20,000lbs, and segmented as follows:

Trailer 1 - 52 Device, high voltage switch gear with associated ancillary equipment.

Trailer 2 – Rectifier-transformer with auxiliary power and associated ancillary equipment.

Trailer 3 - DC traction rectifier with associated ancillary equipment.

Trailer 4 - DC feeder breaker lineup with machine breaker and associated ancillary equipment.

The equipment package for a 38 kV rated Mobile Substation should include:

- One (1) HT AC switchgear (Con Edison/PSEG - incoming service).
- Metering compartment;
- Two (2) Ground and Test device(s) and cubicle(s);
- One (1) 3000 kVA dry type rectifier-transformer (26.4 kV with snubbers);
- One (1) 3000 kW rectifier (ANSI 31 circuit with interphase transformer) with a 150 kVA built-in auxiliary transformer;
- One (1) DC Switchgear Lineup with four (4) 4000A feeder breakers and one (1) 8000A Machine Breaker;
- Programmable Logic Controller monitoring service with SCADA capabilities to the Power Control Center (“PCC”) via a cable service. The PCC cable service must be provided at each site;
- Medium Voltage and Low Voltage interconnection cables with end connectors;
- Heating, ventilation, and air conditioning;
- VRLA or sodium battery system sized to support Mobile Substation as per industry standards.

The equipment package for a 15kV rated Mobile Substation should include:

- One (1) HT AC switchgear (Con Edison/PSEG - incoming service).

- Metering compartment;
- Two (2) Ground and Test device(s) and cubicle(s);
- One (1) 3000 kVA dry type rectifier-transformer (13.2 kV);
- One (1) 3000 kW rectifier (ANSI 31 circuit with interphase transformer) with a 150 kVA built-in auxiliary transformer;
- One (1) DC Switchgear Lineup with four (4) 4000A feeder breakers and one (1) 8000A Machine Breaker;
- Programmable Logic Controller monitoring service with SCADA capabilities to the PCC via a cable service. The PCC cable service must be provided at each site);
- Necessary Medium Voltage and Low Voltage interconnection cables with end connectors;
- Heating, ventilation, and air conditioning;
- VRLA or sodium battery system sized to support Mobile Substation as per industry standards.

This RFI is not a solicitation for actual proposals. MTA C&D may elect to issue a Request for Proposal (“RFP”) at a later date. This RFI does not commit MTA C&D to contract for any material or services and MTA C&D will not pay for any information or any costs incurred in responding to this RFI. MTA C&D shall have the right to use any information submitted in response to this RFI without obligation or compensation. The primary purpose of this RFI is to identify potential suppliers with the capability of and interest in providing Mobile Substations meeting MTA C&D’s requirements. To that end, MTA C&D is seeking responses to the questions set forth below.

Questions:

1. Is your company currently in the business of manufacturing and supplying Mobile Substations? If so, please identify the types of Mobile Substations that are currently manufactured and sold by your company.
2. Is your company capable of supplying the Mobile Substations described above or adaptable for NYCT’s intended use as described above?
3. Please provide contact information for your company and company information, including number of employees, locations, etc.
4. Does your company’s proposed solution satisfy the Buy America requirements as set forth in 49 U.S.C. 5323(j) as amended by Public Law 114-94, Fixing America’s Surface Transportation Act (“FAST Act”), Section 3011, and the applicable regulations in 49 CFR Part 661.11.
5. What is your Company’s experience in providing Mobile Substations?
6. Does your company have Mobile Substations in operation at other rail transportation agencies? If so, please identify the transportation agency(ies), the duration of time the

Mobile Substations have been in operation, and the contact information for the person most knowledgeable at each transportation agency?

7. Does your company have any licenses or certifications relating to its work in manufacturing Mobile Substations?
8. What quality standards does your company follow?
9. Does your company have the capability to factory test each Mobile Substation with a simulation system that measures compliance with the IEEE requirements for heavy traction service (as defined in IEEE Standard 1653.2) on traction power and control systems?
10. Does your company have technical service representatives who can provide onsite technical service support in New York City?
11. Where is your company's nearest technical service facility to New York City?
12. Will your company warranty the Mobile Substation and if so for how long and under what terms?
13. How long would it take your company from award of a contract to deliver the Mobile Substations?

Please review the above requirements and submit your reply which should include the following:

- 1) Responses to the questions posed above.
- 2) Relevant company brochures; and
- 3) Any other information your company deems relevant in assisting MTA C&D to understand what your company may offer.

The designated Point of Contact for this RFI is Nicole Gubelli (646-252-6027), Contracts Representative. A reply must be submitted via email to Nicole.Gubelli@mtacd.org no later than close of business May 17, 2023.