

**ATTACHMENT F:
STATEMENT OF WORK**

Chargers to Promote Resilience: A Recharge Maine Community Project
Maine Department of Transportation

Following successful response to the Efficiency Maine Trust (“EMT”) Request for Proposal (“RFP”), the funding Recipient is responsible for completing a variety of work, including assurances of compliance with EMT guidelines and applicable NEVI Minimum Standards, and administrative functions and installation work pertaining to each electric vehicle (“EV”) charging site. The work is to include:

1. Obtaining all applicable local, state, and federal permits required for installation and operation of EV chargers;
2. Ensuring that all installation work as it pertains to site preparation, curbing, striping, signage, charging equipment, billing and networking systems and electrical interconnections is installed consistent with the manufacturers’ specifications, consistent with the project design and specifications proposed in the bid, in accordance with all applicable local, state, and federal zoning and code requirements and is working properly; and
3. Coordinating the installation activities with the equipment manufacturer, Host Site, networking service, electric utility, and any sub-contractors needed to complete the work.

Without limiting any additional work or services specified in Recipient’s Response to RFP, including “Statement of Work,” Recipient shall perform and provide the following for the EV Chargers awarded pursuant to the RFP and Recipient’s Response:

A. Install EV Charging Sites and Chargers.

1. Installation: The Recipient is responsible for achieving completed installations at each EV Charging Site, to include
 - a. Obtain all applicable local, state, and federal permits required for installation and operation of the EV chargers;
 - b. Ensure that the workforce installing, maintaining, and operating chargers meet the following standards as required by Section 680.106(j) of the NEVI Standards:
 - i. Except as provided in paragraph (b)(ii) of this section, all electricians installing, operating, or maintaining EV Chargers must meet one of the following requirements:
 1. Certification from the Electric Vehicle Infrastructure Training Program (“EVITP”).
 2. Graduation or a continuing education certificate from a registered apprenticeship program for electricians that includes charger- specific training and is developed as a part of a national guideline standard approved by the Department of Labor in

- consultation with the Department of Transportation.
- ii. For projects requiring more than one electrician, at least one electrician must meet the requirements above, and at least one electrician must be enrolled in an electrical registered apprenticeship program.
 - iii. All other onsite, non-electrical workers directly involved in the installation, operation, and maintenance of chargers must have graduated from a registered apprenticeship program or have appropriate licenses, certifications, and training as required by the State.
- c. Ensure that all installation work as it pertains to site preparation, curbing, striping, signage, charging equipment, billing and networking systems, and electrical interconnections is installed:
 - i. consistent with the manufacturers' specifications;
 - ii. consistent with the project design and specifications proposed in the bid;
 - iii. in accordance with all applicable local, state, and federal zoning and code requirements; and
 - iv. is working properly;
 - d. Coordinate the installation activities with the equipment manufacturer, host site, networking service, electric utility, and any sub-contractors needed to complete the work.

2. Charging Equipment Requirements –

The charging equipment that is subject to a financial incentive through this RFP must:

- a. Be new, and unused (not refurbished or remanufactured);
- b. Meet the following minimum specifications:
 - i. Not less than four (4) and not more than eight (8) DCFC ports per site;
 - ii. Each port must be able to serve EVs using the CCS standard;
 - 1. Per NEVI Q&A, 23 CFR 680.106(c) allows for permanently attached non-proprietary connectors (such as NACS) to be provided on each charging port so long as the requirements of 23 CFR 680 are met.
 - iii. Each site must be able to supply power according to an EV's power delivery request up to at least 150kW to four (4) vehicles simultaneously.
- c. Include all cables, connectors, interfaces, documentation for all components, and any other items necessary for full operation;
- d. Be factory calibrated (as applicable) prior to, or during installation, in accordance with the Original Equipment Manufacturer (OEM) standards;
- e. Include all standard manufacturer accessories;
- f. Use the most current software version available as of the time it is installed;
- g. Have the ability to stop the flow of power when not in use; and should have over-current protection to prevent vehicles from drawing too much power;
- h. Be certified by the Underwriters Laboratories, Inc. (UL), or another Occupational Safety and Health Administration Nationally Recognized Testing Laboratory to the appropriate Underwriters

- Laboratories (UL) standards for EV charging system equipment;
 - i. Be able to withstand extreme weather conditions, including temperature extremes, flooding, ice, heavy snow or rain, and high winds and is protected from malfunctions due to condensation;
 - j. Include barriers or other configuration to prevent damage from equipment used for snow removal;
 - k. Include screen displays that are user friendly and easy to operate (display should be LCD, LED or equivalent, or better and should be readable in direct sunlight and at night);
 - l. Be tamper-proof and deter vandalism;
 - m. Incorporate a cord management system or method to minimize the potential for cable entanglement, user injury, or connector damage from lying on the ground, and comply with NEC articles 625 as it applies to cord management systems; and
 - n. Comply with all National Electrical Code and Federal Communications Commission regulations for safety and operation requirements.
3. Interoperability of Electric Vehicle Charging Infrastructure –
- a. Charger-to-EV Communication. Chargers must conform to ISO 15118-3 and must have hardware capable of implementing both ISO 15118-2 and ISO 15118-20. Charger software must conform to ISO 15118-2 and be capable of Plug and Charge. Conformance testing for charger software and hardware should follow ISO 15118-4 and ISO 15118-5, respectively.
 - b. Charger-to-Charger-Network Communication. Chargers must conform to Open Charge Point Protocol (OCPP) 2.0.1 or higher.
 - c. Charging-Network-to-Charging-Network Communication. Charging networks must be capable of communicating with other charging networks in accordance with Open Charge Point Interface (OCPI) 2.2.1.
 - d. Network Switching Capability. Chargers must be designed to securely switch charging network providers without any changes to hardware.
4. Charging Network Connectivity of Electric Vehicle Charging Infrastructure –
- a. Charger-to-Charger-Network Communication.
 - i. Chargers must communicate with a charging network via a secure communication method. See Section 680.108 of the NEVI Standards for more information about OCPP requirements.
 - 2. 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.
 - 3. Charging networks must perform and chargers must support remote charger monitoring, diagnostics, control, and smart charge management.
 - 4. 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.

- b. Interoperability. See Section 680.108 of the NEVI Standards for interoperability requirements.
- c. Charging-Network-to-Grid Communication. Charging networks must be capable of secure communication with electric utilities, other energy providers, or local energy management systems.
- d. 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 Section 680.106(d) of the NEVI Standards.

5. Data Capture Requirements –

Each EV charger must have network communications that, at a minimum, provide the following information:

- a. Date and time of each charging session (start and stop time);
- b. Total kWh dispensed and maximum kW demand for each session;
- c. Total dollar amount charged to the user for each session;
- d. Charger status and health in real time;
- e. Malfunction or operating error;
- f. Full site level demand; and
- g. For projects that employ battery energy storage systems (BESS), BESS state of charge before and after each vehicle charging session and time to charge and discharge.

This information will be reported quarterly to the Trust as part of Recipient’s reporting obligation further specified below for the duration of the Term.

6. Payment Methods –

Each charger must:

- a. Provide for secure payment methods, accessible to persons with disabilities, which at a minimum shall include a contactless payment method that accepts major debit and credit cards, and either an automated toll-free phone number or a short message/messaging system (SMS) that provides the EV charging customer with the option to initiate a charging session and submit payment;
- b. Not require a membership for use;
- c. Not delay, limit, or curtail power flow to vehicles on the basis of payment method or membership; and
- d. Provide access for users that are limited English proficient and accessibility for people with disabilities. Automated toll-free phone numbers and SMS payment options must clearly identify payment access for these populations.

7. Communication of Price –

- a. The price for charging must be displayed on the charging unit prior to initiating a charging transaction and be based on the price for electricity to charge in \$/kWh.
- b. The price for charging displayed and communicated via the charging

network must be the real-time price (i.e., price at that moment in time). The price that is offered at the start of the session cannot be changed during the session.

- c. Price structure including any other fees in addition to the price for electricity to charge must be clearly displayed and explained.
- d. For the first five years of the contract, the chargers must charge a rate or fee to the customer for each charging event equal to the starting rate proposed in the Recipient's bid, provided that the Recipient may increase the rate or fee during this five-year period by not more than the Consumer Price Index, as measured using the online CPI Inflation Calculator published by the US Bureau of Labor Statistics, for the period since the last time the rate or fee was increased.¹

8. Customer Data Privacy –

- a. 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.

9. Traffic Control Devices or On-Premises Signs Acquired, Installed, or Operated –

- a. General Requirements: Signage must comply with all applicable local, state, and/or federal laws, ordinances, regulations, and standards; and
- b. On-Site: Signage and other traffic control devices for each Host Site must clearly identify to an approaching driver from any ingress, that the Host Site has an EV Charger(s) and the location(s) of the EV Charger(s). On-site signage should indicate that parking spaces associated with the chargers are reserved for electric vehicles only.
- c. The Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) found at 23 CFR part 655 and the Highway Beautification regulation at 23 CFR part 750 address requirements about traffic control devices and on- premise signs.
 - i. Manual on Uniform Traffic Control Devices for Streets and Highways. All traffic control devices must comply with part 655 of this subchapter.
 - ii. On-Premises Signs. On-property or on-premise advertising signs must comply with part 750 of this chapter.

10. Requirements for Accessibility and

Availability – The chargers awarded through this RFP must:

- a. Be available to the public 24 hours per day, seven (7) days a week, year-round;
- b. Be accessible from a paved or hardscaped parking space that is clearly marked

¹ https://www.bls.gov/data/inflation_calculator.htm

to designate the spaces as reserved for EV Charger parking, where the number of parking spaces reserved for EVs, within reach of the DCFC, is equal to the maximum number of EVs that can be charged simultaneously from chargers awarded pursuant to the RFP;

- c. Have dusk-to-dawn area lighting;
- d. Be accessible to persons with disabilities, which will be satisfied if at least one of the parking spaces meets ADA requirements and is accessible according to U.S. Access Board Design Recommendations for Accessible Electric Vehicle Charging Stations (it will not be necessary for the ADA spaces to be ADA reserved);² and
- e. Provide appropriate safety instructions for EV drivers regarding the proper use of the charging equipment.

11. Third-Party Data Sharing –

As required by the NEVI Standards § 680.116, recipients must ensure that the following data fields are made available, free of charge, to third-party software developers, via application programming interface:

- a. Unique charging station name or identifier;
- b. Address (street address, city, State, and zip code) of the property where the charging station is located;
- c. Geographic coordinates in decimal degrees of exact charging station location;
- d. Charging station operator name;
- e. Charging network provider name;
- f. Charging station status (operational, under construction, planned, or decommissioned);
- g. Charging station access information:
 - i. Charging station access type (public or limited to commercial vehicles);
 - ii. Charging station access days/times (hours of operation for the charging station);
- h. Charging port information:
 - i. Number of charging ports;
 - ii. Unique port identifier;
 - iii. Connector types available by port;
 - iv. Charging level by port (DCFC, AC Level 2, etc.);
 - v. Power delivery rating in kilowatts by port;
 - vi. Accessibility by vehicle with trailer (pull-through stall) by port (yes/no);
 - vii. Real-time status by port in terms defined by Open Charge Point Interface 2.2.1;
- i. Pricing and payment information:
 - i. Pricing structure;
 - ii. Real-time price to charge at each charging port, in terms defined by Open Charge Point Interface 2.2.1; and
 - iii. Payment methods accepted at charging station.

² <https://www.access-board.gov/tad/ev/>

B. Provide Ongoing Operation and Maintenance and Customer Service Support

1. Operation and Maintenance – The Recipient must:

- a. Operate and maintain each EV Charger for at least five (5) years from the date the EV charger developed under this RFP becomes fully operational, in accordance with the terms of the contract resulting from this RFP;
- b. Be responsible for ensuring the maintenance of the chargers including cables, ancillary equipment, and any awnings, canopies, shelters and information display kiosks for signage associated with the charger. “Maintain” as used in this RFP shall mean “to provide all needed repairs or desired and approved alteration, as well as regular maintenance needed to ensure optimal performance and minimize downtime. Equipment shall be kept safe and presentable;”
- c. Minimum Uptime. Recipients must ensure that each charging port has an average annual uptime of greater than 97%.
 - i. 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 (see Section 680.106(d) of the NEVI Standards).
 - ii. Charging port uptime must be calculated on a monthly basis for the previous 12 months using the methodology described in Section 680.116(b) of the NEVI Standards.
- d. It is the Recipient’s responsibility to ensure the 97% uptime requirement is met for each individual charging port. For any interruption in service to any port that has lasted or is expected to last more than four (4) hours:
 - i. Notify appropriate information sources including, but not limited to, website and application hosts, as appropriate so drivers are aware of the interruption; and
 - ii. Inform the Trust via email within one business day to give the Trust notice of the event and when it started and to explain the cause of the interruption and the plan for and estimated time needed to restore service;
- e. Provide for snow removal plan to ensure access during and after inclement weather;
- f. Ensure all data fields in 23 CFR 680.116(c) are made available, free of charge, to third-party software developers, via application programming interface;
- g. List the EV chargers on PlugShare.com and the Alternative Fuels Data Center Electric Vehicle Charging Station

Locator:

https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fu

[el=ELEC](#);

- h. **Not**, during the term of the contract, move an EV charger to another host site location, sell or permanently take an EV charger out of service at a given site for any reason, without **prior written approval** from the Trust.

2. Customer Support Services –

- a. Recipients 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. Recipients must comply with the American with Disabilities Act of 1990 requirements and multilingual access when creating reporting mechanisms.
- b. Recipients must be available 24 hours a day, seven (7) days per week via a toll-free telephone number posted on or near the EV chargers, that is clearly visible to the customer.
- c. Recipients must provide customer support for the duration of the contract, with the ability to provide customer support/or extend after the completion of the contract.
- d. Recipients must resolve customer issues over the telephone.

C. Manage Host Site Relationship

1. The Recipient shall be solely responsible to secure and maintain the designated Host Sites as necessary for the performance and operation of the Project for the entire Term, to include at a minimum:
 - a. Written, enforceable deed, lease, easement, or occupancy agreement granting Recipient all necessary rights to install, operate, and maintain the Charging Station as required under this Agreement throughout the entire Term (i.e., a Host Site Agreement);
 - b. Written provisions in the Host Site Agreement acknowledging the Recipient's ownership interest in the EV Charging Station equipment, prohibiting the Host Site owner from causing any interference with the operation and use of the Charging Station, and prohibiting the Host Site owner or any third-party creditor of the Host Site owner from asserting any interest, lien, or encumbrance in the EV Chargers or Charging Station equipment;
 - c. Cause the Host Site owner to execute a Conditional Assignment of Lease in the form attached hereto as Rider E and acknowledge and recognize the Trust's rights, upon default by Recipient under this Agreement or exercise by the Trust of its option under the Option Agreement, to assume and succeed to all of Recipient's rights to occupy and use the Host Site and Charging Station to the same extent and under the same terms as Recipient for the duration of the term of the Host Site Agreement;
 - d. Be executed by individuals who have the legal power and authority to enter into a Host Site Agreement, and identify the name, title, and capacity on behalf of the entity represented; and

- e. A disposition plan for the EV Charging Stations in the event the Host Site agreement is terminated and not assumed by the Trust or the Trust does not acquire the Charging Station equipment under the Security Agreement or Option Agreement.

D. Reporting

Without limiting any additional data collection and reporting as specified in Section 4 “Statement of Work” of Recipient’s Response to RFP, Recipient shall provide the following reporting to the Trust:

1. **Construction updates.** For the period from the effective date of this Agreement through the date of final commissioning of each EV Charging Station at each Host Site, Recipient will provide a **monthly construction update** by Host Site location to include status of: Host Site agreements, permits, utility assessment and interconnection, site construction progress, charger installation, and station commissioning.
2. **Ad hoc operations reports.** For the period from the commissioning of each EV Charging Site through the entire Term of this Agreement, Recipient will provide the Trust access to its Network Operating System. The Network Operating System will enable the Trust to generate ad hoc, operational reports to include plug time, day and time of charge event, length of time charging, length of time connected, kWh provided per charging event and aggregate, total dollar amount charged to each user, and number of unique users for each EV Charging Site.
3. **Periodic status reports.** For the period from the commissioning of each EV Charging Site through the entire Term of this Agreement, Recipient will provide quarterly **status reports** to include:
 - a. **Maintenance reports** detailing Charging Site and Charger status, maintenance dispatches, service and repair response time, station Uptime, and any other notable events.
 - b. **Customer service reports** by Charging Sites detailing the type and number of customer service issues received. Reports should include a description of any unresolved issues and a plan to resolve them.
4. **Operational reports.** Recipient must collect and report the following data to the Trust at the frequencies listed below. These data capture and reporting requirements are based on those in the NEVI Standards and Requirements (23 CFR 680) at § 680.112 and § 680.116(c).
 - a. **Quarterly Data submittal.** Recipients must submit the following data on a quarterly basis for each individual port:
 - i. 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 in § 680.116(c)(1) of the NEVI Standards (see Third Party Data Sharing

- above);
- ii. Charging port identifier. This must be the same charging port identifier used to identify the charging port in data made available to third-parties in § 680.116(c)(8)(ii);
- iii. Charging session start time, end time, and any error codes associated with an unsuccessful charging session by port;
- iv. Energy (kWh) dispensed to the EV per charging session by port;
- v. Peak session power (kW) by port;
- vi. Payment method associated with each charging session;
- vii. Charging station port uptime, T_{outage}, and T_{excluded} calculated in accordance with the equation in § 680.116(b) of the NEVI Standards for each of the previous 3 months;
- viii. Duration (minutes) of each outage.

In addition to the above listed data, Recipient should report to the Trust quarterly:

- i. The amount billed to each customer for each transaction; and
- ii. For projects that employ battery energy storage systems (BESS), BESS state of charge before and after each vehicle charging session and time to charge and discharge.

- b. **Annual Data Submittal.** Recipients must submit the following data on an annual basis, on or before March 1:
 - i. Maintenance and repair cost per charging station for the previous year.
 - ii. For private entities involved in the operation and maintenance of chargers, identification of and participation in any State or local business opportunity certification programs including but not limited to minority-owned businesses, Veteran-owned businesses, woman-owned businesses, and businesses owned by economically disadvantaged individuals.
- c. **One-time Data Submittal.** Recipients must submit the following data once for each charging station, on or before March 1 of each year:
 - i. The name and address of the private entity(ies) involved in the operation and maintenance of chargers.
 - ii. Distributed energy resource installed capacity, in kW or kWh as appropriate, of asset by type (e.g., stationary battery, solar, etc.) per charging station; and
 - iii. Charging station real property acquisition cost, charging equipment acquisition and installation cost, and distributed energy resource acquisition and installation cost;
 - iv. Aggregate grid connection and upgrade costs paid to the electric utility as part of the project, separated into:
 - (1) Total distribution and system costs, such as extensions to overhead/underground lines, and upgrades from single-phase

- to three-phase lines; and
 - (2) Total service costs, such as the cost of including poles, transformers, meters, and on-service connection equipment.
5. **Notable Downtime issues** shall be reported to the Trust within one business day. In addition, Recipient shall provide a system availability and response time report within three business days upon request by the Trust.
 6. Recipient shall provide such other reporting and shall provide such other information relevant to the EV Chargers, Charging Sites, and Host Sites as the Trust may reasonably request from time to time.