

# Improving charging infrastructure availability: The Fast Charge TN Network

The Tennessee Department of Environment and Conservation (TDEC) and the Tennessee Valley Authority (TVA) have partnered to develop a statewide electric vehicle (EV) fast charging network to power the growth of EVs across Tennessee and reduce barriers of transportation electrification. Specifically, the two have signed an agreement to collaborate and fund a network of fast charging stations every 50 miles along Tennessee's interstates and major highways. This initiative will add approximately 50 new charging locations, tripling the existing fast charging network.

Tennessee Electric Vehicle Charging Corridor Completion Map

Existing DC Fast Charging Infrastructure and Completed & Incomplete Corridor Segments (June 2021)









# **Fast Charge TN Network Overview**

TDEC and TVA will leverage various funding sources to support the development of the Fast Charge TN Network, with an anticipated total project cost of \$20 million. TDEC has committed 15%, the maximum allowable, of the <a href="State's Volkswagen Diesel Settlement Environmental Mitigation Trust allocation">State's Volkswagen Diesel Settlement Environmental Mitigation Trust allocation</a> to fund light-duty EV charging infrastructure. Approximately \$5 million from this fund is expected to be allocated to fast charging infrastructure along corridors.

The Tennessee Department of Transportation (TDOT) intends to provide TDEC with an additional \$7 million in federal Highway Infrastructure Program (HIP) funds to expand fast charging EV infrastructure along federally designated Alternative Fuel Corridors in Tennessee. The remainder of the project will be funded by TVA, other program partners, and program participant cost share.

To optimize available funding sources, TVA and programpartners will structure development in phases.

- Initial eligible applicants shall include TVA-served Local Power Companies (LPCs) and other local utilities that distribute electricity in Tennessee whose service territory is located along prioritized corridor gaps. An interactive version of the corridor gap map may be accessed <a href="here">here</a>.
- Later rounds of funding may expand applicant eligibility to include local government entities, private companies, and/or non-profits.





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# **Funding & Reimbursement**

For selected, eligible projects, the program will provide up to 80% of the cost to purchase, install, operate, and maintain eligible EV charging infrastructure that will be located within a prioritized corridor gap and made available to the public. This program will not support the purchase or rental of real estate, other capital costs (e.g., construction of buildings, parking facilities, etc.), or general maintenance (i.e., maintenance other than of the EV charging infrastructure). Program participants will be required to provide at least 20% of the total project cost through direct or in-kind cost share.

This program will require selected projects to include at least two DC fast chargers at each location, with the option to request to install a maximum of four DC fast chargers per location. Additionally, requests for funding may not exceed \$150,000 per fast charger to be installed. Program participants will be responsible for finding a suitable host site and purchasing, installing, owning, operating, and maintaining program-funded fast charging equipment for a period of no less than five years.

Payment of project expenses will take place on a reimbursement basis. Reimbursement will be made following charging station completion, commissioning, and submission of supporting documentation of costs incurred. TVA will provide reimbursement to LPCs through a credit on their monthly wholesale power bill following approval. For TDEC-funded projects, program participants will be issued a reimbursement payment following project completion and approval of invoice(s).

#### Reimbursable costs include:

- Cost to purchase and install (e.g., utility make-ready) eligible EV charging infrastructure
- Support services (e.g., engineering and design, site identification and qualification)
- Operational and maintenance costs purchased upfront. including maintenance services and network fees

### Non-eligible expenses include:

- The purchase or rental of real estate
- Other capital costs (e.g., construction of buildings, parking facilities, etc.)
- General maintenance (i.e., maintenance other than of the charging infrastructure)
- Legal fees associated with land acquisition

Station Proximity to Roadway

determinant of both consumer appeal and

anticipated charging station utilization.

Proximity to identified corridors is one important

## **Site Selection**

## **Site Considerations**

Charging sites must follow Site Selection Guidelines provided by the program to ensure a positive consumer experience.



- 24 /7 availability
- Publicly accessible
- · No charge for entry



### **Nearby Amenities**

- Shops
- Restrooms



- Close proximity to 480V, 3 phase power
- Future upgradability



Corridors

Interstates

Major U.S. and State highways



#### Distance from highway

- <1 mile preferred
- 5 miles max
- 50 miles or less between Fast Charge TN Network stations



#### Weather Protection

Shelter from elements is desirable but construction of such is not reimbursable under this program





- Secure
- Well-lit
- On-site personnel



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## **Installation Term**

Program participants will have 15 months from the effective date of the **Contract** to complete the project. No-cost extensions will be evaluated on case-by-case basis.

## Site Engineering and Design

- Complete environmental review and return the provided Environmental Review Checklist, which will be provided to selected grantees, for final site approval before beginning construction activities; additional information will be provided to outline necessary documentation and required information to complete this review.
- Design and construct site in accordance with Minimum Technical Specifications, which can be found in Program Guidelines, provided by the program.

## **Co-branding**

To increase consumer awareness and recognizability of charging stations, a consistent visual design featuring program partner cobranding will be leveraged. Guidance on design and process will be provided by the program.

## **EV Rate & Pricing**

- TVA's EV rate (wholesale EV Rate plus Valley-wide retail adders) is recommended, but LPCs retain rate setting flexibility for electric services.
- Consumer pricing for charging services will be set by station owners and is not regulated by TVA.

## **Operation & Maintenance Term**

Program participants will be responsible for owing, operating, and maintaining program-funded fast charging equipment for a period of no less than five years. After termination of the contract term, property disposition requirements may apply depending on the funding source.

## **Site Acquisition**

- A site host agreement will be required to show that
  the program participant has been granted access to
  the property where charging stations are to be
  installed. If a program participant owns the property,
  this will be confirmed via a Verification of Property
  Ownership Form provided by the program. The
  purchase or rental of real estate is a nonreimbursable cost under the program.
- HIP (TDOT) funded projects will need to comply with the Uniform Act for any property that is acquired for charging stations. For more information, visit here.

## **Equipment Acquisition**

Purchase and install charging stations that meet the **Minimum Technical Specifications**, which can be found in the Program Guidelines, provided by the program.

## **Reporting & Station Access**

- Program participants will be required to report station usage (or allow "view access" to the charging network for automated monitoring and reporting) and gross income generated for a period of no less than five years.
- Reports will be due on an annual basis unless otherwise agreed upon in individual program contract.

Conservation

## **Program Income**

All program income (gross income earned by the program participant that is directly generated by the project or earned as a result of the project funding during the contract term) must conform with program income requirements (e.g., see 2 CFR § 200.307) in that such income must be reinvested in or used to defray ongoing costs of the project (e.g., other maintenance fees).