

EVSE Implementation Plans for the New York I-90 Corridor

BACKGROUND

For a new technology such as the electric vehicle (EV), which requires coordinated construction of infrastructure and widespread education and outreach, careful planning is essential. Public electric vehicle supply equipment (EVSE), or charging stations, are important to EV drivers to have the ability and confidence to use their vehicle throughout New York State, both to travel within and between metropolitan areas. Incorporating EVSE planning into broader local and regional planning processes can help ease the adoption of the new technology. EVSE planning is complex because of the different factors considered by drivers when planning trips, including the different types and speeds of EV charging stations. Educating decision makers and key stakeholders is critical. A number of initiatives have recently been undertaken to support EV readiness nationally (through the Department of Energy Clean Cities EV readiness grants), within New York State (chiefly through efforts by NYSERDA), and even locally in some cases.

OBJECTIVE

The objective of this project is to develop five regional EVSE implementation plans that identify gaps where public EVSE is not available to support EV drivers and suggest further EVSE deployments in key locations to establish a comprehensive charging network. The Project Team is comprised of JJ Unlimited, LLC (the Prime Contractor), Energetics Incorporated, Capital District Clean Communities, Genesee Region Clean Communities, Central New York Regional Planning and Development Board, Clean Communities of Central New York, and Clean Communities of Western New York. The Project Team will help address any implementation barriers and work with municipalities to encourage and prepare for public EVSE installations. The five regions and associated Metropolitan Planning Organizations (MPOs) involved in this collaborative effort include:

- Capital District; Capital District Transportation Committee
- Mohawk Valley; Herkimer-Oneida Counties Transportation Study
- Central New York; Syracuse Metropolitan Transportation Council
- Genesee/Finger Lakes Region; Genesee Transportation Council
- Western New York; Greater Buffalo-Niagara Regional Transportation Council

THE EVSE IMPLEMENTATION PLANS

Five (5) EVSE Implementation Plans will be created – one for each of the I-90 MPO regions. The EVSE Implementation Plans will assess the region's current EV-readiness (including local government engagement, number and type of publicly accessible EVSE, number of EVs, utility programs, local EV supporters, and other incentives), identify areas that lack EVSE infrastructure (places where there are no Level 2 charging stations within 20-40 miles and an EV driver passing through the area would not have a feasible option to charge if they need one), and make recommendations to establish a comprehensive network of EV charging stations to support current and future EV drivers. The resulting proposed new EV charging station locations should create a comprehensive network that supports EV drivers that includes Level 2 public EVSE, low-powered DC fast chargers (~20-24 kW), and high-powered DC fast chargers (~50 kW). The plans will describe networks that support both intra-regional and inter-regional travel in Upstate New York. Elements of the EVSE Implementation Plans are;

- Define **objectives** (based on promoting EV travel both within and between regions)

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- Identify **key EVSE deployment stakeholders** in the region
- Briefly present **background information on EVs and EVSE** with references to the previously created documents assembled by the Northeast Electric Vehicle Network
- Provide information (with GIS maps) on the **current EVSE landscape and EV use** in the region to determine locations where EV Level 2 or higher charging infrastructure is not readily available within 20-40 miles
- Highlight any **region-specific issues related to EV/EVSE deployment** that will need to be addressed (i.e. utility rates that discourage EV charging, zoning laws that restrict the placement of EVSE, or demographics that would not be supportive of successful deployments [high rates of copper theft for example that might require additional precautions])
- Develop **recommendations** that address the identified EVSE network gaps and would make each region more EV-accessible

APPROACH AND TIMELINE

Introductory Presentation [May]: The Project Team shall introduce the project of developing a regional EVSE implementation plan to each MPO region and summarize the EVSE resources currently available to support EV-readiness.

Plan Development [May-August]: A regional working group will be established to serve as advisory committees to the development of the EVSE implementation plan for each region. Invited members of the working group may include MPO staff, municipalities, developers, utilities, retailers, employers, universities, and other interested parties. The working group members will receive preliminary materials and provide input at the following stages:

- **Preliminary investigation [June]:** given documentation on the current EVSE landscape and EV use, the working group shall provide input on potential locations for new EV charging stations and region-specific issues related to EV/EVSE deployment
- **Developing recommendations [July]:** based on the input during the preliminary investigation, a comprehensive list of potential locations and issues will be compiled and shared for the working group to prioritize and add additional information to
- **Draft EVSE Implementation Plan [August]:** a draft of the complete EVSE Implementation Plan will be shared for feedback and comments.

Presentation of the EVSE Implementation Plan [September]: The Final EVSE Implementation Plan will be presented to the MPO region to share the results and obtain approval for publication.

Initial Dissemination Meetings [October-December]: Based on the EVSE Implementation Plan recommendations, the Project Team shall approach officials and key EV stakeholders from four key municipalities/jurisdictions within the MPO region to share the EV-related resources available to them, discuss barriers limiting EVSE installations, and talk about the need to prepare for and encourage new EVSE installations.

Follow-up Dissemination Meetings [December-February]: The Project Team shall hold follow-up meetings with officials and key EV stakeholders from the same four key municipalities/jurisdictions to put a strategy into action for addressing key barriers preventing EVSE installations and preparing for the future installation of EVSE infrastructure.

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