

## Electric Vehicle Infrastructure Coordinating Council

# A Guide to the Equitable Siting of Electric Vehicle Charging Stations in EJ Populations









Executive Office of Energy and Environmental Affairs

Office of Environmental Justice and Equity

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#### L **Executive Summary**

In August 2022, An Act Driving Clean Energy and Offshore Wind (ACT), was signed into law. Recognizing the need for Massachusetts to develop a comprehensive plan for transportation emission reduction, the Electric Vehicle Infrastructure Coordinating Council (EVICC) was established pursuant to Section 81 of the ACT to develop strategies for deploying an equitable, interconnected, accessible and reliable electric vehicle (EV) charging network in Massachusetts. This Guide to the Equitable Siting of Electric Vehicle Charging Stations in EJ Populations (Guide) serves to complement the second Electric Vehicle Infrastructure Coordinating Council (EVICC) Assessment, as it becomes increasingly necessary for public EV charging stations to further expand into communities with environmental justice populations (EJ Populations). Sites for public municipal- and state-owned EV charging stations should be selected with intentionality and in close partnership with the local community to ensure that the clean energy benefits are enjoyed by the residents of neighborhoods with EJ Populations. This Guide is primarily intended for State Agencies, Municipalities, and Community-Based Organizations (CBOs), with a secondary audience of members of the public, local businesses, utility providers, and members of the EV-industry.

As access to affordable EVs grows, it is important to ensure that historically underserved communities, including EJ Populations, have access to public EV charging stations. Early planning will allow neighborhoods with EJ Populations to be better positioned to benefit from the transition.

### Key highlights for best practices and takeaways:

- Conduct Equity-Centered Site Assessments by identifying priority areas, evaluating existing infrastructure, and considering co-benefits
- Prioritize Community-Centered Planning through early and ongoing meaningful engagement
- Collaboration and Stakeholder Engagement by involving and engaging with local community leaders and advisory committees
- Ensure Accessibility and Affordability through ADA-compliance, clear and effective signage, and affordable access
- Address Barriers to Accessing Charging Stations by considering various factors that limit access to the available technology and affordability

It is essential to ensure that EV infrastructure projects align with each community's interests. Project developers should undertake a meaningful and thorough engagement process that actively involves the community in siting discussions and directly incorporates the community's input into site selection to the extent feasible. When sited equitably, public EV charging stations can enable active participation in the transition to

electrified transportation and provide an opportunity for economic and workforce development as well as health benefits from reduction in noise pollution and improved air quality, including, lowering greenhouse gas (GHG) emissions.<sup>1</sup>



#### П. Introduction

EJ and equity are critical considerations in the transition from internal combustion engine vehicles to EVs. As the adoption of EVs accelerates, it is essential to ensure that all communities, especially those historically marginalized and underserved, benefit from this transition. Equitable access to EV infrastructure, commonly referred to as EV supply equipment (EVSE), can help reduce environmental disparities, promote social justice, and contribute to a cleaner and healthier environment for everyone. This Guide aims to provide a comprehensive framework for advancing EJ and equity in the planning, implementation, and operation of publicly accessible EV charging stations.

## A. Purpose of the Guide

Recognizing the need for Massachusetts to develop a comprehensive plan for transportation emissions reduction, the EVICC was established pursuant to Section 81 of An Act Driving Clean Energy and Offshore Wind (ACT) to develop strategies to facilitate deployment of EVSE and to enable increased and equitable access to an interconnected, accessible and reliable EV charging network in Massachusetts. EVICC is required to report on these strategies to the legislature through a formal assessment submitted every two years with the next report scheduled for publication in August 2025. In EVICC's Initial Assessment, the Council recognized that EVSE site selection must expand in underserved urban and rural communities for the advancement of the

<sup>&</sup>lt;sup>1</sup> Benefits to communities. U.S. Department of Transportation. (2023, May 5). https://www.transportation.gov/rural/ev/toolkit/ev-benefits-and-challenges/community-benefits

Commonwealth's EV adoption goals. During the development of the Second Assessment, the EVICC also identified the need for guidance to encourage responsible site selection for EVSE in communities with EJ Populations.

This Guide is primarily intended for municipalities, state agencies, and CBOs; however, other individuals and entities, such as policymakers, utility companies, and private companies, may also find this Guide to be a helpful resource in developing their own EVSE deployment policies and strategies. It highlights the importance of community engagement in public EV charging station site selection, the different types of EV chargers, and the communities that would benefit from the expansion of public EVSE. The Guide also provides recommendations on best practices to increase equitable and just site selection. This Guide is not intended to determine programmatic changes or EV implementation fees, adoption, education or promotion, but is designed to serve as a tool to guide decision-making, encourage community engagement, and promote accountability in achieving EJ and equity in EVSE planning.

## **B. Environmental Justice and Equity in Massachusetts**

The Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Office of Environmental Justice and Equity (OEJE) is committed to ensuring the fair and equitable distribution of all environmental and energy benefits and burdens. OEJE is responsible for implementing EJ principles, as defined in section 62 of chapter 30, in the operation of each EEA agency and office.

EJ Populations are segments of the population that EEA has determined are especially vulnerable and most at risk of experiencing barriers to participation in environmental decision-making processes and to accessing state environmental resources. EJ Populations are defined as neighborhoods<sup>2</sup> that meet one or more of the following criteria:

- √ The annual median household income is not more than 65% of the statewide annual median household income, or
- ✓ Minorities comprise 40% or more of the population, or
- √ 25% or more of households lack English language proficiency, or

<sup>&</sup>lt;sup>2</sup> U.S. Census Bureau census block group data for minority criteria, and American Community Survey (ACS) data for state median income and English isolation criteria

- ✓ Minorities comprise 25% or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150% of the statewide annual median household income, or
- ✓ As determined by the EEA Secretary in accordance with <u>An Act Creating a</u> Next-Generation Roadmap for Massachusetts Climate Policy

While EV adoption has yet to be widespread amongst neighborhoods with EJ Populations, it is crucial to start building the necessary infrastructure in these communities to support a future with broader ownership. Research shows that the availability of charging stations is a key determining factor in whether consumers purchase or lease an EV. Therefore, to achieve the Commonwealth's transportation emissions reduction goals, broad penetration of infrastructure and increased EV adoption, including in neighborhoods with EJ Populations,

75% of potential EV buyers say charging access matters. To meet emissions goals, charging infrastructure must reach all communities— especially those historically underserved.

is necessary. According to a 2022 survey by the U.S. Department of Energy, 75% of potential EV buyers cite charging station accessibility as a critical factor in their decision-making process<sup>3</sup>. As access to affordable EVs increases, ensuring historically underserved communities can participate in the clean energy transition and share in the associated benefits, which include lower greenhouse gas emissions and improved air quality, reduced noise pollution, and availability of economic and workforce development opportunities, will assist the Commonwealth in achieving its transportation emission reduction goals.

It is important that public EV charging stations are not solely sited in neighborhoods with EJ Populations with the intention of serving commuters and other non-residents. For example, only siting charging stations in right of ways or highways that travel through EJ Populations may create inequities such as increased traffic, and residents may not benefit from these infrastructures. Site selection should be intentional and made in close partnership with the host community to ensure that EVSE serves and benefits those residents. When engaging with communities, it is essential to recognize that private ownership of EVs should not be considered the primary or exclusive solution to community mobility needs. In many cases, electrifying public transportation vehicles and

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<sup>&</sup>lt;sup>3</sup> U.S. Department of Energy. (2022). *Electric vehicle consumer preferences survey*. U.S. Department of Energy, Office of Energy and Renewable Energy. <a href="https://www.energy.gov/eere/electricvehicles">https://www.energy.gov/eere/electricvehicles</a>.

fleets can offer substantial benefits and may better address the priorities and preferences of residents.

It should not be assumed that EVSE and system upgrades are unnecessary in communities with EJ Populations and low EV adoption rates. It is essential that siting decisions ensure that EVSE projects align with the community's interests. When thoughtfully sited in collaboration with residents, charging stations and other EVSE can contribute to long-term community resilience, support economic development, and help promote EV adoption across all socioeconomic groups.

## III. The Role of Public EV Charging Stations in **Supporting Widespread Adoption**

As the world moves toward cleaner, more sustainable transportation, the development of robust public EV charging station network is crucial for the widespread adoption of EVs. This section will provide an overview of EV charging types and their ideal application, identify the communities that would benefit from enhanced access, and highlight the role of curbside charging in improving EV accessibility.

A strong public EV charging network is key to accelerating adoption—and it starts with understanding the right chargers for the right places.



## **A. Charging Types**

Understanding the three different EV charging types is essential for determining the appropriate location for the deployment of public EV charging stations, as each EV charging type has varying power requirements, charging speeds, and site considerations to meet the specific needs of different communities. The three main categories of EV charging are detailed below.

**Table 1. EV Charging Types** 

Charging Type	Level 1	Level 2	Level 3 (DC Fast Charging)
Voltage (V)	120-V (standard household outlet)	240-V (similar to an electric clothes dryer or oven outlet)	480-V or higher
Average Charging Speed & Time	<ul> <li>Approximately 2-5 miles of range per hour</li> <li>40 to 50 hours to fully charge an empty electric vehicle battery</li> </ul>	<ul> <li>Approximately 10- 60 miles of range per hour</li> <li>4 to 10 hours to fully charge an empty electric vehicle battery, depending on the battery size and the vehicle's efficiency</li> </ul>	Approximately 60- 200 miles of range in 20-30 minutes, depending on the battery size and the charging station's power output
General Application & Purpose	Level 1 charging is best suited for overnight charging at home or when one has access to a charging outlet for an extended period	Level 2 charging is common in residential homes, workplaces, and public charging stations and offers users a balance between charging speed and convenience	Level 3 charging is the quickest EV charging method available—ideal for long-distance travel and quick charging stops and is typically found at commercial charging stations and along highway rest areas
Barriers to Consider	Level 1 charging is insufficient and inconvenient charging times for residents who may primarily rely on public charging lots	Insufficient charging time for high destination or highly trafficked areas, such as right of ways or highway corridors	Level 3 charging is not available for all types of EVs, including plug-in hybrid vehicles or electric motorcycles. Level 3 charging has higher installation costs and may require electric grid upgrades
Recommend- ed Use	Level 1 charging is a viable option for single-	Level 2 charging is the recommended	Level 3 charging should be carefully considered

family households that have permanent overnight charging options	preference for charging infrastructure when considering siting for public lots or multiunit dwellings	based on current electrical load, frequency of use, high trafficked or destination areas, along right of ways or highways, and the impacts to EJ
		Populations

In addition to the table above, it is important to understand the limitations and implementation barriers associated with each EV charging type when siting public EV charging stations and determining which type of charger to install. Level 2 chargers are the ideal charging type for most publicly accessible charging locations. They provide a much faster charging speed than Level 1 chargers, which is essential for locations where users typically need to recharge quickly while engaging in other activities such as working, shopping, or dining. Additionally, Level 2 chargers are widely compatible with most EVs, ensuring broader accessibility in public spaces like parking garages and lots, retail centers, and housing complexes. They help reduce congestion at charging stations by accommodating more vehicles over time. Moreover, Level 2 chargers are more affordable to install and maintain compared to Level 3 chargers, making them a cost-effective option for building widespread publicly accessible EV charging stations.

Level 3 chargers are optimal in contexts where rapid charging is essential. This includes highway rest areas, fleet and ride sharing charging stations, commercial hubs, and other centrally located areas where users have a limited time to charge, or a quicker charge would provide the driver with greater convenience. In rural communities, Level 3 chargers can be particularly valuable due to the need for long-range travel and limited access to charging stations. However, the deployment of Level 3 chargers should be selective. Level 3 chargers are significantly more expensive to install and maintain, both in terms of upfront cost of the equipment and the electrical infrastructure required to support fast charging. They also consume much more power, which can strain local electrical grids, especially in areas that are not equipped for high-demand usage, leading to potential reliability concerns. Expensive and time-intensive upgrades to the grid may be required in locations without sufficient grid capacity. Therefore, while Level 3 chargers are indispensable for specific use cases that require high-speed, highvolume charging, they generally are not suitable for widespread, indiscriminate installation.

In summary, Level 2 chargers are the recommended choice for publicly accessible EV charging stations due to their cost-effectiveness, accessibility, and suitability for locations where vehicles are parked for extended periods. Level 3 chargers should be used selectively at sites and paired with centrally located charging sites in areas with EJ Populations to provide the convenience of faster charging within the community. Every community should have easily accessible Level 2 and some Level 3 chargers relatively

close/convenient to concentrations of multi-unit housing, retail outlets, public buildings, and local businesses. Ultimately, the deployment of either type of EV charger should be guided by thoughtful planning and community engagement to ensure the infrastructure is equitable, accessible, and aligned with the needs and priorities of the community it is sited in.

## **B. Understanding the Barriers That Discourage EV Adoption**

Publicly accessible EV charging stations are important for the widespread adoption of EVs, as it ensures drivers have convenient and reliable access to charging stations beyond the home. Many neighborhoods with EJ Populations lack the ability to install a dedicated home charger, especially those within densely populated urban areas or multi-family housing.

Without access to home chargers, many communities—especially Environmental Justice populations—depend on public charging to join the EV future.

There are distinct challenges that discourage certain communities from installing home charging

equipment. Below are various communities, many of which include EJ Populations, and the barriers that generally prevent them from benefitting from the expansion of public EV charging stations:

- Garage Orphans: Individuals who live in a single-family dwelling without access to private garages or off-street parking options or multifamily dwellings (i.e. apartments, condominiums, multi-unit houses, etc.) without dedicated parking spaces where they could install a home charger
- Low-Income Communities: Communities comprised of people who may not have the financial means to install home charging but want to make the transition to EVs
- **Urban Residents:** People who live in a city without the space to install home chargers or who rely on street parking
- Commercial Fleet Operators: Businesses that operate fleets of electric vehicles and require public charging stations for operational convenience
- Tourists and Long-Distance Travelers: Drivers on the road for long-distance trips who rely on highway charging stations to power their vehicles
- Rural Communities: Communities outside city centers that may have fewer home charging options and rely on public charging for EV adoption
- **Renters:** Individuals who rent their dwelling and would have to coordinate with landlords or property managers to install EV chargers, which can be an intimidating process. There also may be increased rents as EV parking spaces may be seen as a luxury amenity, which may result in displacement

- **Individuals within HOAs**: Individuals who live in communities or buildings with homeowner associations (HOAs) may encounter an approval process and/or may be restricted by HOA by-laws
- Individuals with Limited Home Electrical Capacity: Individuals with older homes may not have the electrical capacity to support an EV charger without significant upgrades and high upfront costs

The presence of well-distributed, fast, and reliable publicly accessible charging stations will help facilitate the transition to EVs. Avoiding the potential for displacement of residents due to gentrification associated with siting publicly accessible EV charging stations is a complex but important task. By implementing the Best Practices in Section IV, it is possible to promote equitable access to EVSE while minimizing the risk of displacement and gentrification.

## C. Additional Benefits of Publicly Accessible Electric **Vehicle Charging Stations**

Siting EVSE in publicly accessible, centrally located areas—such as at schools, community centers, and near public transportation—offers significant benefits to public health. One of the most immediate impacts is improved air quality. By reducing dependence on internal combustion engine vehicles, EVs help lower harmful emissions such as fine particulate matter, nitrogen oxides, and carbon monoxide, many of which are pollutants that are linked to chronic respiratory

Placing EV chargers in community hubs like schools and transit stops can reduce pollution, protect public health, and deliver economic benefits.

conditions. EVs also operate more quietly than internal combustion engine vehicles and reduce noise pollution. Reducing vehicular pollution in areas with high residential foot traffic can directly improve the health of children, seniors, vulnerable groups, and others who spend time in these areas.

In addition, public EV charging stations can stimulate local economies by attracting visitors, boosting foot traffic, and supporting nearby businesses. In California, installing a charging station boosted annual spending at each nearby business by an average of about \$1,500 in 2019 and about \$400 between January 2021 and June 2023. 4 Moreover, the siting of EVSE can create job opportunities and training programs for residents in the installation, maintenance, and operation of EVSE. If installers partner with local businesses, contractors, and labor unions, they can help ensure that installations are more efficient, cost-effective, and locally supported. These partnerships harness local knowledge, trust, and resources to create a more seamless and community-backed installation process.

Despite current low EV-ownership rates amongst EJ Populations, it is still important to integrate EVSE and other potential electrical upgrades into the neighborhood. Often, necessary electrical upgrades may be overlooked in EJ Populations due to the burdens of the upgrade itself to the community (i.e., increased ratepayer costs, construction time, etc.). However, delaying these necessary upgrades may set EJ Populations behind in the clean energy transition, exacerbate inequities, and prevent EJ Populations from receiving and enjoying the full benefits resulting from the Commonwealth's decarbonization and clean energy policies. Low electrical capacity in aging infrastructure should not deter the installation of EVSE. Many communities will need to undergo these significant upgrades to benefit from future policies and requirements for electric heat pumps and electric water heaters, among others. There are other longterm benefits that will go beyond the siting of public EVSE that should be considered when determining whether to upgrade the electrical grid, as they may outweigh the short-term burdens on the community. It is also important to consider the installation of solar panels in conjunction with electrical upgrades which will benefit communities residing in aging infrastructure and help alleviate electrical loads and grid impacts.

Ultimately, the community should be informed of all the short-term and long-term benefits and burdens of EVSE installation so that the community can determine whether there is an alignment with its goals and priorities. There may be instances where the community decides that EVSE installation is not a current priority, although they may want to revisit the consideration in the future as other priorities are fulfilled and shift. This is what it means to involve the community in public processes and meaningfully incorporate equity principles in siting decisions.

<sup>&</sup>lt;sup>4</sup> Zheng, Y., Keith, D. R., Wang, S., Diao, M., & Zhao, J. (2024, September 4). Effects of electric vehicle charging stations on the economic vitality of local businesses. Nature Communications. https://www.nature.com/articles/s41467-024-51554-9



## IV. Environmental Justice and Equity **Considerations in Siting Public EV Charging Stations**

It is essential to consider EJ and equity in the siting of public EV charging stations. This process should be informed by principles that ensure a comprehensive understanding of accessibility and resilience. By understanding and adopting best practices, including meaningful engagement, an EV charging station network can be developed that supports EJ and equity. This section provides a roadmap for integrating these principles and best practices into the siting and development of EVSE.

## A. Principles

The following principles provide a foundation for creating an effective approach to siting public EV charging stations that benefits all communities.

#### i. Reduce Disparities in Access to Public EV Charging Stations

- Implement programs and policies that prioritize the deployment of charging stations in underserved areas and provide incentives or support for EJ Populations to adopt EV technology.
- Address "charging deserts" by strategically placing charging stations in underserved and rural areas, including in EJ Populations.

- Identify and address barriers that may prevent certain communities from accessing charging stations and adopting EVs. This includes economic, geographic, and informational barriers.
- Consider factors such as location, affordability, and availability when planning charging stations to prevent disparities in access to clean transportation options.
- Ensure that charging stations are safe and reliable, with proper lighting, security measures, and maintenance.

#### ii. Sustainable and Resilient EVSE

- Design and build EVSE that is not only equitable but also sustainable and resilient. Ensure that EVSE can withstand climate change impacts and continue to serve communities in the long term with minimum maintenance, repair, and associated costs.
- Consider the environmental impacts of construction and operation and prioritize the use of sustainable and renewable energy sources into charging stations to maximize sustainability.

### **B. Best Practices**

#### i. **Conduct Equity-Centered Site Assessments**

- Identify Priority Areas: Use tools like EEA's Environmental Justice Map Viewer to identify communities with high pollution burdens, low incomes, or limited mobility options.
- Evaluate Existing Infrastructure: Assess the community's transportation needs, current EV adoption levels, and infrastructure gaps.
- Consider Co-Benefits: Prioritize sites that provide additional benefits, such as reducing air pollution near schools, healthcare facilities, or densely populated areas.
- Data: Use transparent, data-driven approaches to inform EVSE siting and adjust based on community feedback and usage patterns.

#### **Prioritize Community-Centered Planning** ii.

• Early and Ongoing Engagement: Projects impacting EJ Populations should take enhanced measures of engaging community members early and seeking initial feedback at the project's onset. Involve EJ Populations early in the decision-making process to ensure their voices shape the siting and implementation plans. It is also important to keep in mind that the needs of the communities that host the installations do not always align with the goals

- of EVSE planners, owners, and operators. This engagement can help identify opportunities for medium- and heavy-duty vehicle and fleet transition to EVs and need for EVSE.
- **Meaningful Engagement:** Conduct meaningful and ongoing engagement, which requires consultation with communities to gather information about their specific needs. Empower community members to influence and shape project design, timeline, and benefits, and actively contribute to the public EV charging station site-selection process, including identifying charging options near highways and other roads with high congestion that could support freight and high mileage internal combustion engines in transitioning to EVs.
- Culturally Relevant Outreach: Use culturally appropriate materials and communication methods, such as multilingual resources and outreach through trusted community organizations.
- Public Meetings and Workshops: Host accessible meetings (virtual and inperson) to gather input, ensuring timing and locations accommodate residents' schedules. To the greatest extent possible, planning for public meetings should be developed in consultation with community-based organizations.
- Mitigation: Consider mitigating the loss of public parking spaces.

#### iii. Collaboration and Stakeholder Engagement

- Collaborative planning: Foster cross-sector collaboration among government agencies, utilities, the private sector, and community organizations to ensure comprehensive and inclusive decision-making. Community centers, faith-based organizations, and other CBOs can often assist with identifying populations where additional outreach is needed and have insight on the best channels to engage with local EJ Populations
- Involve Local Community Leaders: Join community meetings, town halls, EJ forums, or other advertised community activities to establish relationships with community leaders. Engage with local leaders who are active in underserved communities, so they can refer you to key organizations and networks.
- Engage with Utilities: Engage with the utility company serving the local geographic area to understand relevant rebates, incentives, and incomerestricted assistance programs they offer. Work collaboratively with the utilities to conduct outreach and enhance awareness and participation in these programs.
- Community Advisory Groups: Establish advisory committees that include residents, EJ advocates, and local leaders to guide the process. Leverage expertise from organizations focused on EJ and equity and clean energy to

shape and review plans. Consider offering compensation for their participation.

### iv. Accessibility and Affordability

- ADA-Compliance: Ensure chargers are ADA-compliant and accessible to people with diverse disabilities. Reference MassEVIP ADA requirements as an example. as an example.
- Clear Signage: Ensure clear and consistent communication about the availability and pricing of charging stations to encourage use and build trust, including information designed for non-English speakers.
- **Technology Access**: Install EV chargers that are compatible with diverse EV models, particularly affordable and used EVs.
- Curbside Charging Stations: Consider installing curbside charging stations to provide convenient, public charging options for residents without access to private parking spaces. Reference MassCEC's Study (to be released in late 2025) and the City of Boston's Curbside EV Pilot Program.
- Affordable Access: Ensure that EV chargers are affordable to use, with clear pricing transparency and posting, both on the charging station and in the app. Provide subsidies or tiered pricing for low-income users where possible. Please refer to EVICC's Public Level 2 EV Charging Station Fees and Policies Guide.
- Payment Flexibility: To address financial inclusion, enable cash payment or systems that do not solely require credit cards or a smart phone application. Smart phone applications should include options to enter banking information and should not require additional debit or credit card fees at point-of-sale. Also consider adapting existing programs, such as SNAP, to allow for beneficiaries to apply those funds towards EV charging.

Equitable siting of public EV charging stations is not a one-size-fits-all endeavor; it demands a tailored strategy that considers the unique needs and priorities of each community. Achieving this requires meaningful engagement, where community members are not just consulted but are actively involved in the planning and decisionmaking process. By fostering trust and building strong partnerships, organizations can empower residents, ensure their voices are heard, and align public EV charging station deployment with local values.



## V. Conclusion and Next Steps

By prioritizing EJ and equity in the siting of EVSE, we can ensure that the benefits of clean transportation are accessible to all communities, particularly those historically underserved. This guide provides a roadmap for integrating best practices into planning and implementation processes, fostering a more inclusive and sustainable public EV charging station network. Through collaborative efforts and a commitment to EJ and equity, we can pave the way for a more just and green future.

EEA is dedicated to continuing to support and advance an equitable clean energy transition. This guide is a living document and serves to provide best practices for meaningfully incorporating EJ and equity in EVSE siting decisions and ensuring that EJ and equity is advanced in a just manner. The guide will be updated every two years and included in future iterations of EVICC assessments.

## VI. Appendices

### A. Case Studies & Resources

Below are case studies that consider EJ and equity in EVSE and EV charging station siting decisions for various scenarios. These resources serve for educational

opportunities and are not endorsed by OEJE, EEA, EVICC or EVICC Council members, or the Commonwealth of Massachusetts.

- American Council for an Energy Efficient Economy. As EVs Surge, Utilities Need Transparent, Equitable, Comprehensive Plans to Support Them: This report urges utilities to develop transparent and equitable strategies to support electric vehicle growth. It emphasizes the need for coordinated investment and planning to ensure all communities benefit from EV infrastructure
- American Council for an Energy Efficient Economy. Few States, Utilities Ensure Equity in Electric Vehicle Charging: This analysis highlights a lack of equity-focused policies in state and utility EV charging plans. It calls for stronger commitments to serve low-income and historically underserved communities.
- American Council for an Energy Efficient Economy. Siting Electric Vehicle Supply Equipment (EVSE) With Equity In Mind: This guide outlines best practices for locating EV charging stations to promote equitable access. It includes considerations for income, race, housing type, and transit access in placement decisions.
- North Carolina Advanced Energy Corporation's Community Planning Guide for Electric Vehicles: Designed for local governments, this guide offers a stepby-step approach to integrating EVs into community planning. It includes tools and templates to support stakeholder engagement, policy development, and infrastructure planning.
- Public Electric Vehicle (EV) Charging Infrastructure Playbook: This federal playbook provides guidance for states and communities deploying public EV charging networks. It covers funding, site selection, equity considerations, and workforce development.
- Seattle City Light Transportation Electrification Strategic Investment Plan: 2021-2024: Seattle City Light's plan outlines goals and investments to expand equitable transportation electrification. It prioritizes community engagement, grid readiness, and reducing emissions in underserved neighborhoods.
- Streetlight EV Charging Metropolitan Energy Center: This resource presents strategies for using streetlight infrastructure to expand EV charging access. It focuses on cost-effective deployment and equity in urban and residential areas.
- US DOT. Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure and Charging Forward: A Toolkit for Planning and Funding Urban Electric Mobility Infrastructure: These toolkits from the U.S. DOT offer practical guidance for developing EV charging infrastructure in rural and urban areas. They include case studies, funding sources, and equity frameworks tailored to each setting.

- Virginia Beach's Electric Vehicle Community Charging Plan: This plan outlines Virginia Beach's approach to building a community-based EV charging network. It focuses on accessibility, equity, and supporting the city's climate and transportation goals.
- Pioneer Valley Planning Commission. Electric Vehicle Charging Assessment and Deployment Plan: This regional plan assesses current EV infrastructure and identifies optimal locations for future charging stations. It integrates equity, environmental, and economic factors into its recommendations.
- Charging Your EV in Middleborough | Middleborough Gas & Electric, MA: This local guide explains how residents can charge EVs in Middleborough and access available resources. It highlights public charging locations and offers support for at-home charger installation.

## **B. Glossary**

Community-based Organization: A "community-based organization" is a public or private nonprofit organization of demonstrated effectiveness that (A) is representative of a community or significant segments of a community; and (B) provides educational or related services to individuals in the community.

Environmental Justice: Environmental justice (EJ) is based on the principle that all people have a right to be protected from environmental pollution, and to live in and enjoy a clean and healthful environment. Environmental justice is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits.

EJ Populations: In Massachusetts, an Environmental Justice population is a neighborhood that meets one or more of the following criteria: The annual median household income is 65 percent or less of the statewide median; 40 percent or more of the population identify as minority; 25 percent or more of households have a household member who speaks English less than "very well," and the population includes 25 percent or more minority residents and the annual median household income of the municipality does not exceed 150 percent of the statewide median.

**Electric Vehicles:** A vehicle that does not have the ability to be propelled by gasoline, draws electricity from a battery with a capacity of at least four kilowatt-hours and is capable of being charged from an external source, has not been modified from the original equipment manufacturer power train specifications, has a gross vehicle weight rating of 8,500 pounds or less, has a maximum speed of at least 65 miles per hour, and meets applicable requirements in Title 49 of the U.S. Code of Federal Regulations,

Section 571. (See S.2967, 193rd Massachusetts General Court, Section 5, Lines 148-152)

**EVSE:** EV Supply Equipment is defined as an electric component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles by permitting the transfer of electric energy to a battery or other storage device in an electric vehicle5.

EVICC: The Electric Vehicle Infrastructure Coordinating Council (EVICC) was established pursuant to St. 2022 c. 179 § 81 and is tasked with developing and implementing an electric vehicle charging infrastructure deployment plan.

Multifamily dwelling: The term "multifamily housing" means housing accommodations on the mortgaged property that are designed principally for residential use, conform to standards satisfactory to the Secretary, and consist of not less than 5 rental units on 1 site. These units may be detached, semidetached, row house, or multifamily structures.

**Publicly Accessible:** A good or service that is accessible by or generally used by members of the general public.

**Single-family dwelling:** The term single-family dwelling means a structure designed for residential use by one family, or a unit so designed, whose owner owns, directly or through a non-profit cooperative housing organization, an undivided interest in the underling real estate, including property owned in common with others which contributes to the use and enjoyment of the structure or unit.

## C. Contact Information for Support

For more information or additional support regarding EV siting, please visit: Electric Vehicle Infrastructure Coordinating Council (EVICC)

<sup>&</sup>lt;sup>5</sup> https://www.mass.gov/doc/225-cmr-9-appliance-energy-efficiency-standards-testing-andcertification-program/download