



Commonwealth of Massachusetts
Executive Office of
Energy and Environmental Affairs

Second Electric Vehicle Infrastructure Coordinating Council (EVICC) Assessment

Assessment Overview Webinar
September 9, 2025





What We Will Cover

EVICC Background

- Establishment + Members
- Initial Assessment
- Progress Since 2023

Second EVICC Assessment

- Overview + Importance of EV Charging
- Where We Are
- Where We Hope to Go
- State EV Charging Priorities
- State EV Program Recommendations
- Electric Grid Implications
- Customer Experience
- EV Charging Technology and Business Model Evolution
- How We Plan to Get There – Second Assessment Strategic Plan

Stay Involved



EVICC Background



EVICC Background



- **Electric Vehicle Infrastructure Coordinating Council (EVICC)**
 - Established by the Legislature in [August 2022](#)
 - Tasked with developing strategies to enable an equitable, interconnected, accessible, and reliable electric vehicle (EV) charging network in Massachusetts
 - Strategies developed and provided to the General Court as part of a formal assessment (Assessment) every two years
- [The Initial Assessment](#) was filed on August 11, 2023
- [The Second Assessment](#) was filed on August 11, 2025



EVICC Member Organizations

Executive Office of Energy and Environmental Affairs (**Chair**)

Chairs of the Joint Committee on Telecommunications, Energy, and Utilities

Department of Energy Resources

Department of Environmental Protection

Department of Public Utilities

Department of Transportation

Division of Standards

Executive Office of Administration and Finance

Executive Office of Economic Development

Massachusetts Bay Transportation Authority

Massachusetts Clean Energy Center

Metropolitan Area Planning Council



Initial EVICC Assessment

- **Key takeaways from the Initial EVICC Assessment:**
 - Additional EV charging infrastructure is needed to meet the Commonwealth's 2030 climate goals
 - The customer charging experience needs improvement
 - Massachusetts should prioritize charger access for “garage orphans,” renters, and rural communities
 - A lack of grid capacity poses challenges to deploying the needed amount of EV chargers
 - The State should better promote its EV charger incentive programs and availability of EV charging



Commonwealth of Massachusetts

**Electric Vehicle Infrastructure
Coordinating Council**

Initial Assessment to the General Court
August 11, 2023



Initial Assessment Recommendations

- **Recommendations from the Initial EVICC Assessment included:**
 - Enact “Right to Charge” legislation
Status: Initial legislation for condos passed; developing legislation to expand access.
 - Expand curbside and overnight charging access
Status: \$11M+ allocated; programs launched targeting multi-unit dwellings.
 - Prioritize investments in underserved communities
Status: New EVICC-funded programs focus on environmental justice and rural areas.
 - Require EV charger registration for inspections
Status: Legislation under development to enable Division of Standards oversight.
 - Implement grid-friendly charging solutions
Status: Vehicle-to-Everything (V2X) pilot with 100 bidirectional chargers initiated.
- **An update on all of the recommendations from the Initial EVICC Assessment is included in the Second EVICC Assessment.**



EVICC Work Since the Initial Assessment

- In February 2024, [EVICC allocated \\$50 million in ARPA funds to several EV charging programs](#):
 - \$11 million to Leading By Example and DCAMM for EV charging for state fleet vehicles
 - \$38 million to MassCEC for innovative charging programs to help scale new technology/business models
 - ~\$500,000 to Division of Standards for EV charging testing equipment
 - The balance of funding has been used to support EVICC analysis
- [The 2024 Climate Act](#), signed on November 21, 2024, included several provisions related to EVICC:
 - **Sections 102-104:** Requires a 10-year EV charging forecast, to include medium- and heavy-duty vehicle charging
 - **Section 5:** Requires regulations related to EV charger reliability and data sharing for public EV chargers
 - **Section 42:** Requires an inventory of EV charging stations and the Division of Standards to ensure pricing accuracy
 - **Sections 85-86:** Grants residents of condos and homeowners' associations the "right to charge"
 - **Section 134:** Requires utility plans to allow EV charging in the public right-of-way and on utility poles
- EVICC released two public resources:
 - [Public Level 2 Charging Station Fee and Policy Guide](#)
 - [A Guide to Equitable Siting of Electric Vehicle Charging Stations in EJ Populations](#)



Development of the Second Assessment

- EVICC proposed the [Second Assessment workplan](#) in August 2024 and adopted it in September 2024
- EVICC held four public hearings to gather input from the public to inform the development of the Second Assessment, as well as to share information with the public about EVICC's work and on the state's suite of EV charging programs and initiatives:
 - New Bedford - March 27, 2025
 - Worcester - March 31, 2025
 - Holyoke - April 3, 2025 (Hybrid)
 - Boston - April 8, 2025 (Hybrid)
- On June 25, 2025, EVICC released the [draft Second Assessment](#) and accepted public comment.
- EVICC held a public meeting on July 9, 2025 to provide an overview of the draft Second Assessment and an opportunity for public input and discussion.

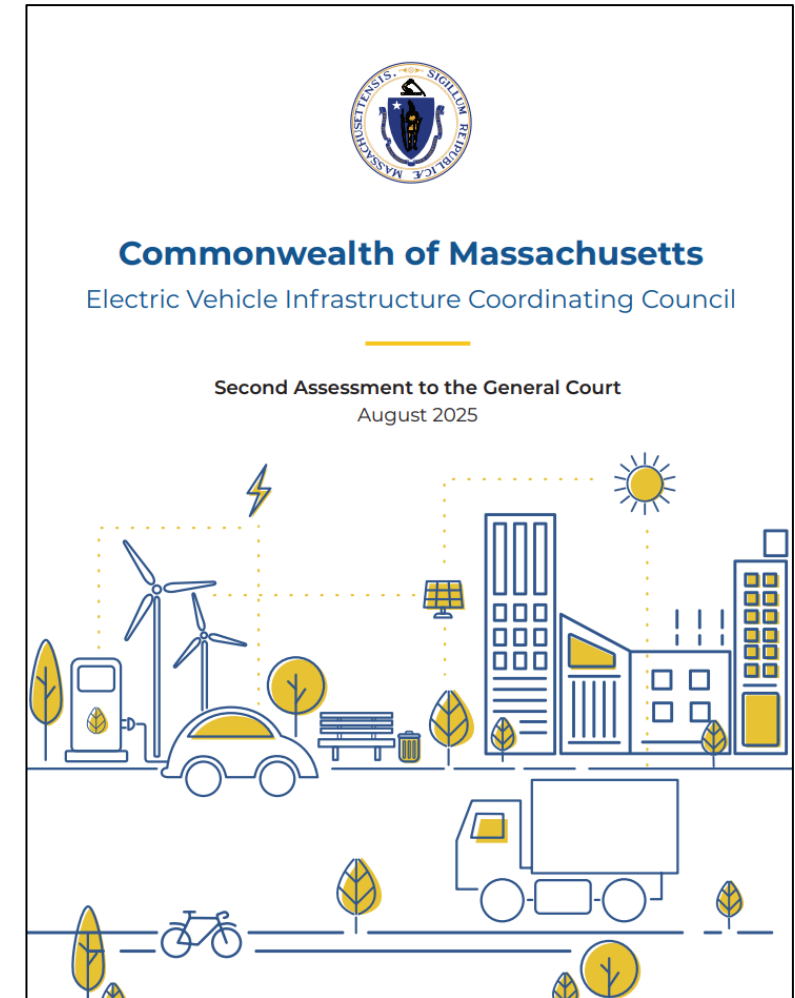


EVICC Second Assessment



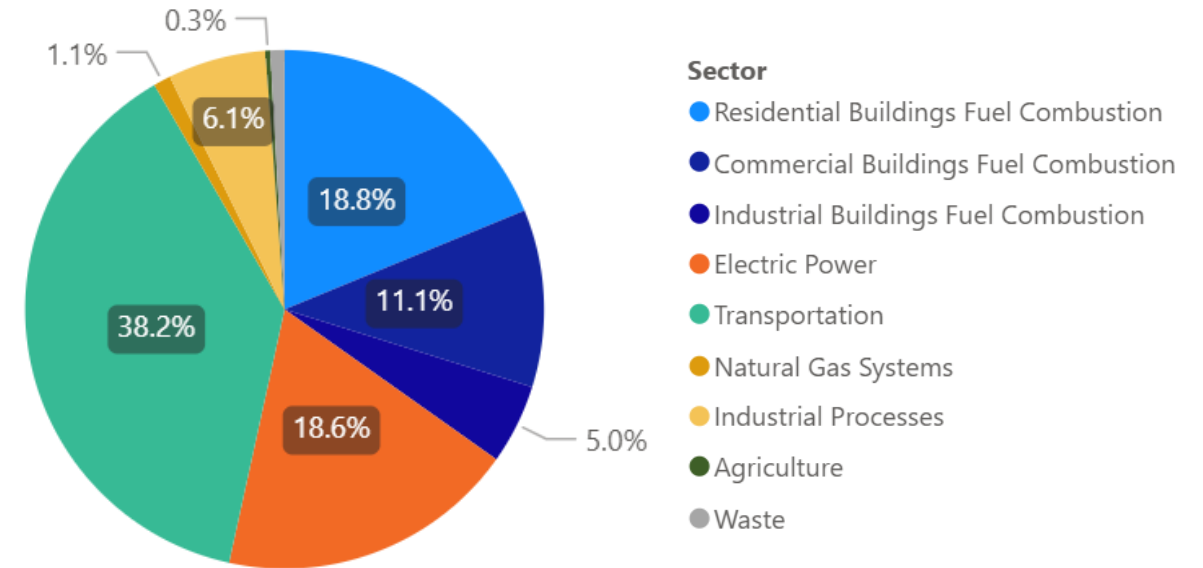
Second EVICC Assessment

- [The EVICC Second Assessment was released on August 12, 2025](#)
- **The Second Assessment outlines:**
 - The importance of EV charging to Massachusetts' transportation emissions goals
 - Where the Commonwealth is at in deploying EV charging infrastructure
 - Where the Commonwealth hopes to go regarding future EV charging infrastructure
 - How we plan to get from “here” to “there” – strategic actions to ensure that Massachusetts is well-positioned to continue its progress in deploying EV charging
- **The Massachusetts Department of Environmental Protection (MassDEP) also announced \$46 million to support the strategic buildout of EV chargers.**
 - The grant funding will support approximately:
 - \$16 million for EVIP to support chargers across workplaces, fleets, multi-unit dwellings, educational campuses, and public access locations.
 - \$10 million to support a program to deploy medium- and heavy-duty charging at strategically located hubs.
 - \$20 million for chargers along secondary corridors to support light- and medium-duty EVs and other high-value EV charging opportunities.



Importance of EV Charging

- The transportation sector is the largest contributor to the Commonwealth's total greenhouse gas emissions (GHG).
- The state established transportation sector sublimits for reducing GHG emissions at 34% below 1990 levels for 2030 and 86% below 1990 levels for 2050.
- The state's Clean Energy and Climate Plans propose reducing transportation emissions by transitioning most vehicles to EVs by 2050 and reducing vehicle miles travelled (VMT) growth by improving alternatives, such as public transportation.



Massachusetts Clean Energy and Climate Metrics



- [A survey by J.D. Power and Associates](#) found that the top three factors cited by vehicle shoppers as a barrier to EV adoption were related to charging.
- Thus, a robust network of available and reliable EV chargers is vital to ensuring that consumers feel comfortable making the switch to EVs and to meeting the Commonwealth's transportation sector emissions reductions sublimits.



Where We Are

- **Massachusetts has made considerable progress since the Initial EVICC Assessment**
 - The total number of public EV charger has increased by ~50% between August 2023 and May 2025 (6,082 vs. 9,413)
 - Annual public EV charging deployment increased ~50% from 2023 to 2024 (~1,400 vs. ~2,000)
 - Public fast charging infrastructure deployment has surged with the annual number of fast chargers deployed increasing from 142 in 2023 to 382 in 2024 and 390 in 2025 through August 1st
- **Massachusetts is well situated compared with its peers**
 - Massachusetts ranks 4th in EV chargers per capita amongst all states, including ACC II and ZEV MOU states (see table)
 - Massachusetts ranks 1st in charger density

Top Ten U.S. Jurisdictions – EV Chargers Per Capita

State	Population	Count of EV Ports	Ports Per Capita (per 10,000)
1. Vermont	647,464	1,284	19.83
2. District of Columbia	678,972	1,275	18.78
3. California	38,965,193	56,055	14.39
4. Massachusetts	7,001,399	9,413	13.44
5. Colorado	5,877,610	6,532	11.11
6. Connecticut	3,617,176	3,957	10.94
7. Washington	7,812,880	7,622	9.76
8. Maine	1,395,722	1,344	9.63
9. Oregon	4,233,358	4,022	9.50
10. New York	19,571,216	18,460	9.43



Existing State EV Charging Programs

Massachusetts has **programs in place or under development to support nearly every aspect of EV charging:**

EV Charger Deployment @ Scale

- [Massachusetts Electric Vehicle Incentive Program \(MassEVIP\)](#)
- Investor-owned utility incentive programs
 - [Eversource](#)
 - [National Grid](#)
 - [Unitil](#)

Test and Scale Novel Models

- MassCEC's innovative programs include:
 - [On-Street Charging Solutions](#)
 - [Ride Clean Mass Charging Hubs](#)
 - [Mobile Charging for Medium- and Heavy-Duty Vehicles](#)
 - [Vehicle-to-Everything Demonstration Projects](#)
 - [ACT4All](#)

Customer Support to Address Barriers

- MassCEC [Mass Fleet Advisor](#)
- Investor-owned utility fleet advisory services
 - [Eversource](#)
 - [National Grid](#)

Optimize Electric Grid Infrastructure Use

- Managed charging programs
- [Electric Sector Modernization Plans \(ESMPs\)](#)
- Transportation electrification plan development process per Section 103 of the [2024 Climate Act](#) (See [summary presentation](#))



Percentage of EV Charging Receiving Public Funding

- **Public funding remains an important tool in driving EV charging deployment.**
- Approximately 68% of all public EV chargers have received funding from state or utility programs.
 - The below table includes chargers located in Municipal Light Plant (i.e., municipal utility) territories. It does not include federal tax incentives or account for chargers that participated in multiple programs.

	Level 2 Ports	DCFC Ports	Total Ports
Total State/Utility-Funded Ports	5,853	530	6,383
Total Public Ports	8,193	1,220	9,413
% of Public Ports Receiving State/Utility Funding	71.44%	43.44%	67.81%

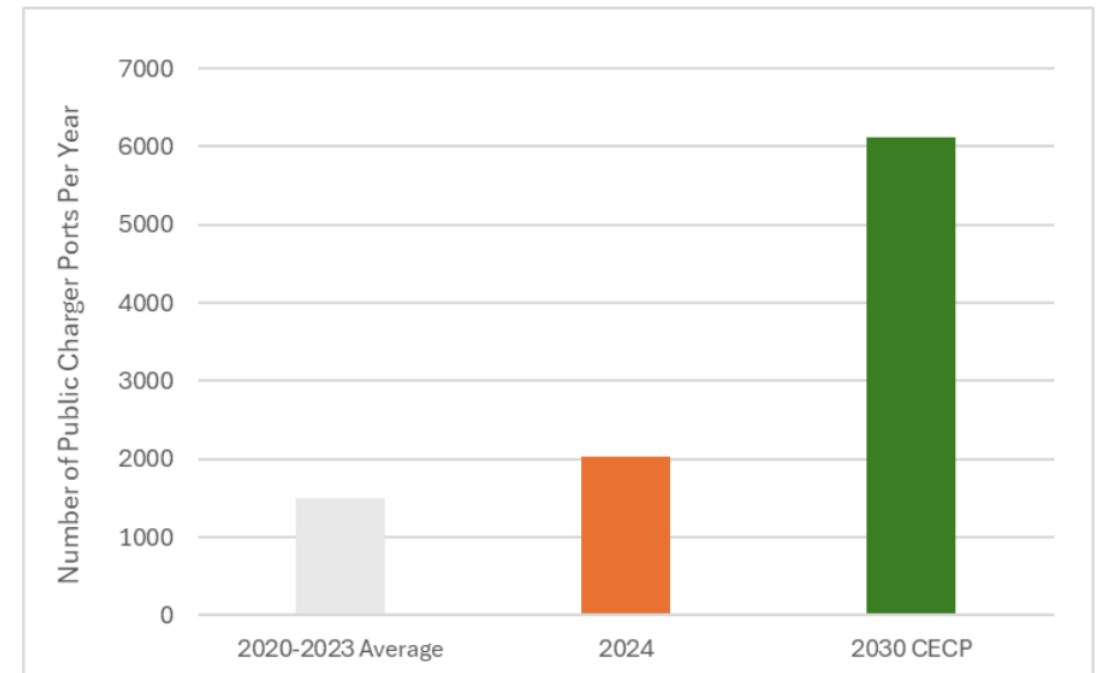
- **Massachusetts will look to foster a self-sustaining EV charging infrastructure market that requires fewer and smaller incentives over time.**



Where We Hope to Go

- EV charger deployment **currently faces significant headwinds**, including federal program and investment tax credit roll backs and market and cost uncertainties.
- The current pace of **EV charger deployment needs to triple** to meet the EV adoption benchmarks included in the state's Clean Energy and Climate Plans (CECP) by 2030.
- Given existing headwinds and the need to increase deployment, Massachusetts must:
 - **Be more strategic** in employing public funding, leveraging private funding, and utilizing the grid;
 - **Improve efficiencies** of existing program administration and coordination and by removing common barriers;
 - **Be proactive** in planning for future EV charging, grid infrastructure, and future funding sources; and,
 - **Significantly improve the EV charging experience.**

Historical, annual public EV charger deployment versus
annual deployment needed to meet 2030 CECP

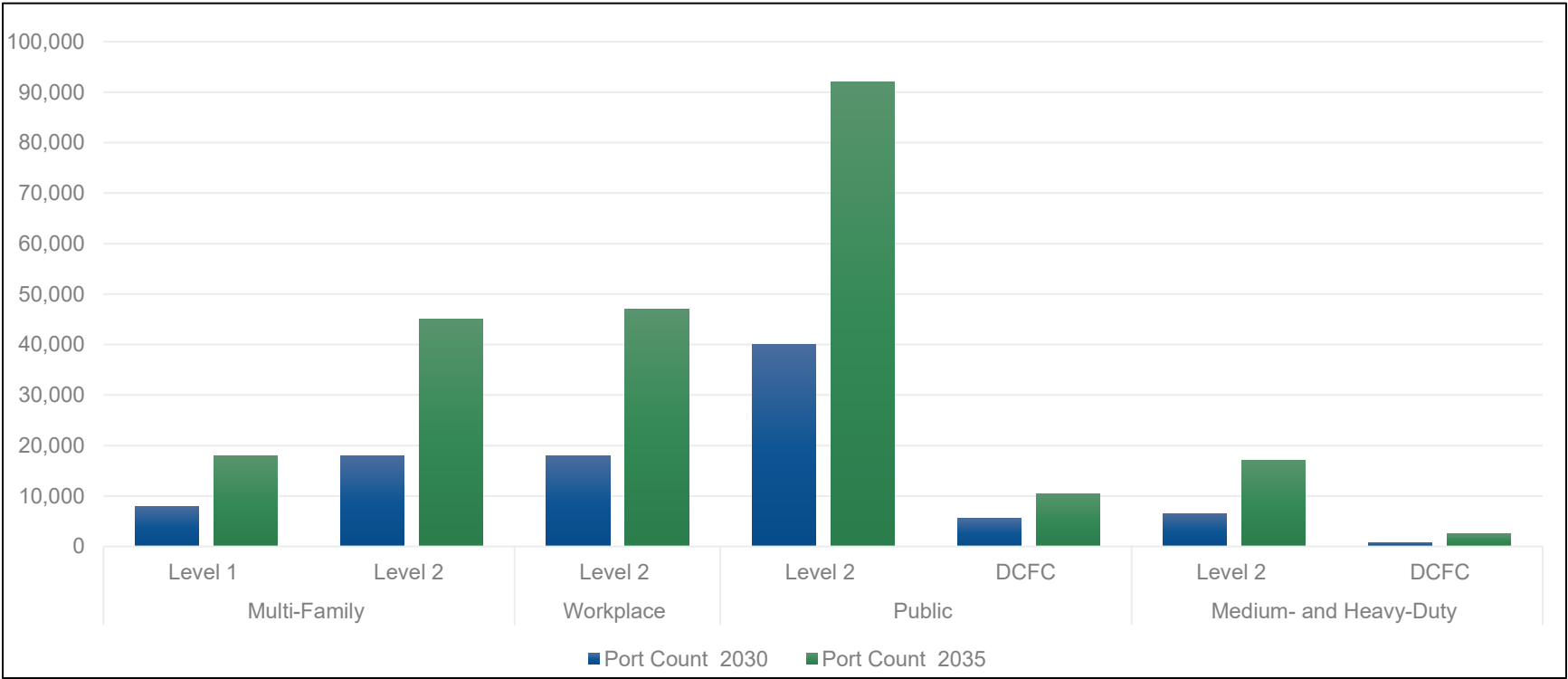




Charger Projections - 2030/2035 Estimates

Based on the EV adoption modeled in the Clean Energy and Climate Plan (CECP) for 2050, the Second EVICC Assessment estimates that Massachusetts will need roughly 800,000 chargers to support the number of EVs on the road in 2030, and over 1.5 million by 2035.

The estimates for multi-family (i.e., multi-unit dwellings), workplace, public, and medium- and heavy-duty fleets are provided below.



It is important to view EV charging infrastructure estimates in the context of whether and how much the state or other actors can influence deployment within the charger category, among other factors outlined on future slides.



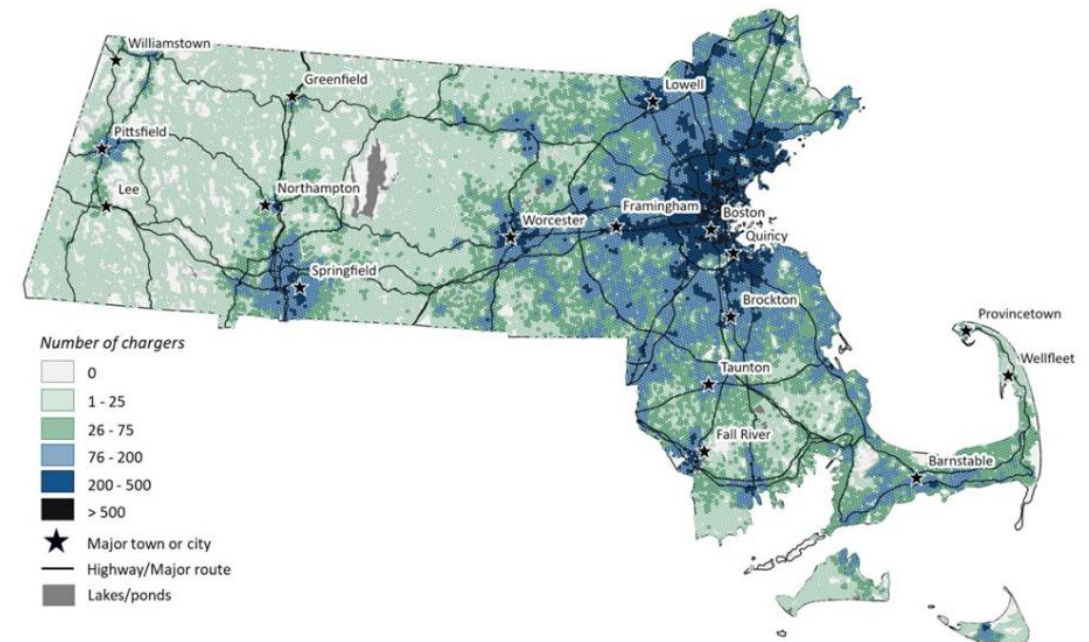
Multi-Family Residential Charging

- Expanding access to EV charging for residents of multi-unit dwellings (MUD) without off-street parking is essential to ensuring equitable participation in the EV transition.
- Unique challenges for MUDs without access to off-street charging:
 - Community outreach and education is critical
 - Complex ownership arrangements for curbside and shared infrastructure
 - Overnight on-street parking bans and restrictive zoning
 - Existing electrical capacity may be limited in older neighborhoods
 - EV affordability limits access even when chargers are available

Estimates of MUD chargers needed in 2030 and 2035

Type	2030	2035
Level 2	8,000	18,000
DCFC	18,000	45,000

Residential Level 1 and Level 2 chargers forecasted to serve 2.4 million light-duty EVs by 2035





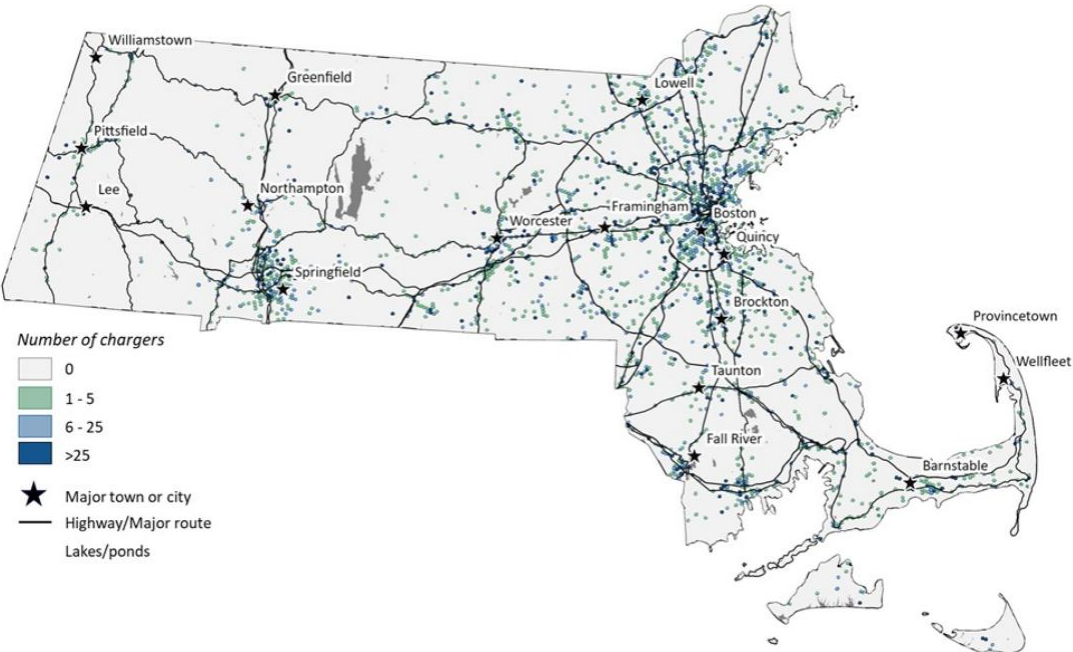
Medium- and Heavy-Duty Charging

- The total number of MHD EVs is forecast to increase significantly to around 25,000 EVs in 2030, and 75,000 EVs in 2035.
- Unique MHD charging challenges:
 - Variability in daily mileage, downtime and charging needs
 - Depot versus corridor charging
 - High power demand
 - Heavy localized load on grid
 - Co-location with amenities
 - (MHD Vehicles) High upfront costs

Estimates of MHD chargers needed in 2030 and 2035

Type	2030	2035
Level 2	6,500	17,000
Public DCFC	800	2,500

Level 2 and DCFC forecasted to serve electric MHD vehicles in 2035





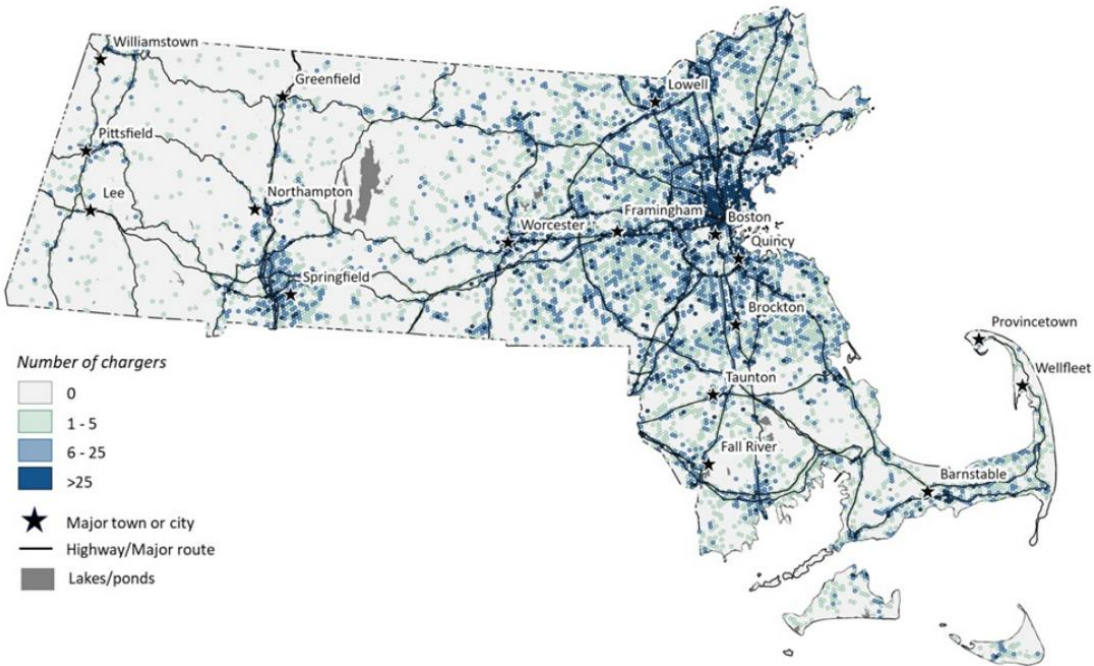
Public Charging

- Public Level 2 chargers can serve several charging use cases, including providing charging within communities to support daily trips and serving residents without off-street parking.
- Public DCFC tend to be the most convenient charging option for drivers when charging away from home and can serve multi-unit dwellings.
- The availability of DCFC along the state’s main transportation corridors is critical for meeting charging demand and addressing range anxiety and charger availability concerns.
- The Second EVICC Assessment identified gaps in the state’s network of public DCFC along secondary corridors.

Estimates of public chargers needed in 2030 and 2035

Type	2030	2035
Level 2	40,000	92,000
Public DCFC	5,500	10,500

Public Level 2 chargers forecast to serve 2.4 million light-duty EVs by 2035





State EV Charging Priorities

- The state's priorities and strategy for building EV charging infrastructure are more important than the forecast of future EV charging infrastructure as the amount of EV charging infrastructure needed in the future is uncertain and highly dependent on several factors.
- State and utility program should focus on:
 - EV charging opportunities that have the **highest value for Massachusetts drivers** and **where state and utility programs can have the greatest impact**. In general, this means targeting public and fleet charging infrastructure.
 - EV charging opportunities that **maximize emissions reduction benefits** (e.g., MHD fleet electrification and EV chargers for rideshare drivers) and **support multiple high-value use cases** (e.g., fast charging along major corridors that also supports charging for residents without off-street parking or on-street charging).
 - The **equitable buildout of EV charging infrastructure** across the Commonwealth, particularly in areas or for customers that have historically had limited access to EV charging infrastructure (i.e., rural communities, communities with environmental justice populations, tenants of multi-unit dwellings without off-street parking, and MHD vehicles).



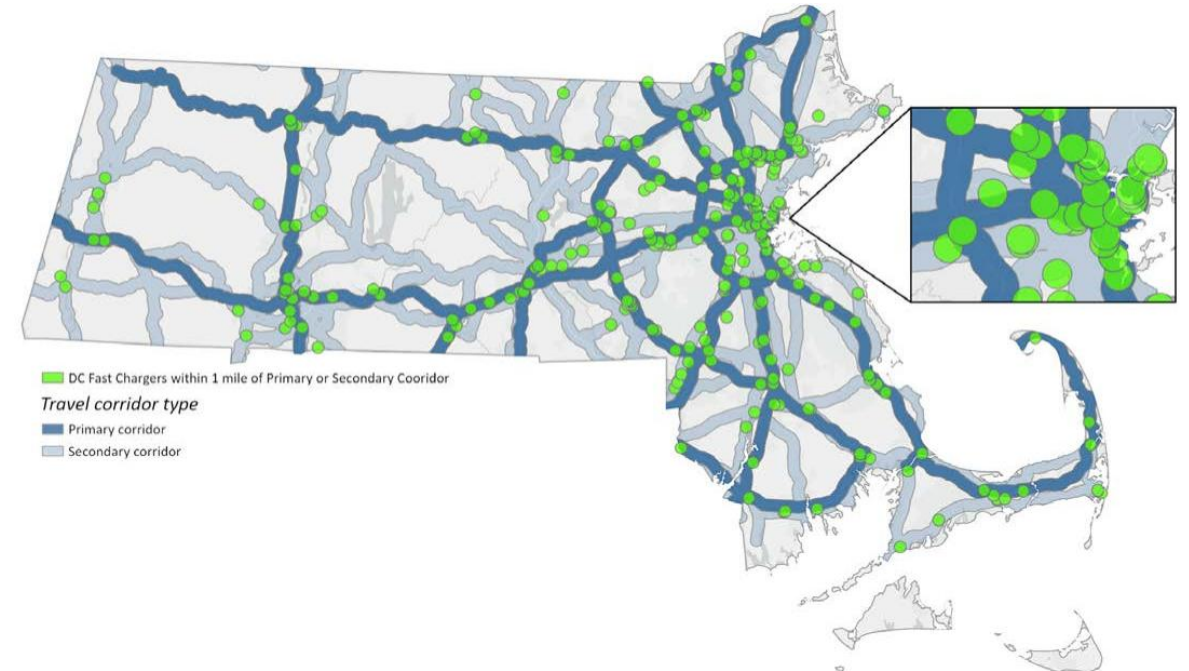
EV Charging Program Recommendations

- The Second Assessment recommends that existing state and utility programs and initiatives continue to fund EV charging infrastructure for public use, multi-unit dwellings, workplaces, and fleets.
- The Second Assessment also recommends that existing programs make improvements to better align with high-value EV charging opportunities and better unlock private funding, including but not limited to:
 - **Minimizing eligibility overlap;**
 - **Improving customer communications** and publicly available information;
 - **Targeting high-value DCFC opportunities** that, where possible and practical, serve both light- and medium-duty vehicles and multiple use cases (e.g., overnight residential charging, rideshare and food delivery vehicle electrification, etc.); and,
 - **Ensuring funds are utilized on intended use cases**, where necessary and practical.

EV Charging Program Gaps

- The Second Assessment also recommends that the following gaps in the EV charging network and existing program offerings be prioritized moving forward:
 - Ensuring a baseline of **fast charging along secondary transportation corridors**;
 - Scaling on-street charging and charging at public transit parking lots in residential areas to **support residents without off-street EV charging**, particularly in municipalities without existing on-street charging programs; and,
 - Deploying **MHD fleet charging**, including charging for transit fleets, at or near where fleet vehicles are housed, both for individual fleets and at depots to serve multiple fleets.

Primary and secondary transportation corridor segments within 1 mile of a DCFC station



Electric Grid Implications of EV Charging

- Growing electric demand from EV charging presents a range of challenges, including the localized and stepwise nature of new EV charging development, requiring grid upgrades that outpace traditional utility infrastructure planning processes.
- Alternative solutions to building new grid infrastructure to accommodate EV charging load include:
 - Active managed charging programs (i.e., utility directly controls EV charging);
 - Passive managed charging (i.e., incentives provided for not charging at certain times);
 - Advanced rate designs; and,
 - Demand response programs.





Electric Grid Implications of EV Charging

- Understanding the impacts of EV charging on the grid and alternative solutions to building new grid infrastructure is critical to ensuring affordability.
- The Second Assessment models four scenarios to estimate the potential peak electricity demand of EV charging (Table 1) and the potential impact on electric grid feeders* (Table 2) in 2030 and 2035.
- This analysis is a starting point to engage with the utilities and stakeholders on the new new grid planning process to accommodate the growth of EV charging required by Section 103 of the 2024 Climate Act.

Table 1. 2030 and 2035 demand from EVs during peak hours

Year	Scenario 1 – Unmanaged (MW)	Scenario 2 – Flat Charging (MW)	Scenario 3 – Status Quo (MW)	Scenario 4 – Technical Potential** (MW)
2030	1,547	1,035	1,440	241
2035	4,001	2,699	3,255	477

Table 2. Overloaded Feeders in 2030 and 2035

	Scenario 1 – Unmanaged	Scenario 2 – Flat Charging	Scenario 3 – Status Quo	Scenario 4 – Technical Potential**
2030 count	289	200	266	41
% of Total Feeders	11%	8%	10%	2%
2035 count	613	466	537	7
% of Total Feeders	23%	18%	20%	4%

* Feeders are low- to medium-voltage distribution lines that carry electricity from a substation to lower distribution lines that directly serve customers.

Scenario 4 is **not practically possible; however, it serves as an illustration of the importance of managed charging. The types of locations where managed charging is most likely to help avoid grid upgrades is the most impactful output of the managed charging analysis included in the draft Second EVICC Assessment.



Consumer Experience Considerations

Reliability

A charger's hardware and software components must all be working correctly for a smooth charging experience.

Best Practices:

- Real time status reporting
- Uptime requirements
- Open Charge Point Protocol (OCPP)

Data Sharing

Data sharing across charging networks and interoperability requirements help streamline consumer charging experiences.

Best Practices:

- Data aggregation on platforms like Google, Apple Maps, and PlugShare
- Data sharing through Application Programming Interfaces (APIs)

Consumer Disclosure and Payment

Generally, each charging station operator has their own payment system, which often causes consumer frustration.

Best Practices:

- Plug & Charge (see below)
- EVICC Owner-Operator Resource on fee and policy guidance

Plug & Charge

Technology that allows seamless authentication and billing so that drivers can charge simply by plugging in their vehicle.

Benefits:

- Reduces friction at the point of use
- Greater convenience and trust for drivers
- Reduced support costs and stronger customer retention for operators
- Current network is fragmented

Technology and Business Model Challenges & Opportunities



- EV charging business models face challenges like:
 - Significant upfront costs;
 - Electric grid constraints;
 - Uncertain profitability and utilization rates;
 - Regulatory hurdles; and,
 - Coordinating responsibilities between site hosts and operators.
- Innovative technology and business models are paramount to unlocking private investment and addressing the challenges faced by traditional business models.
- Charging-as-a-Service and other turnkey solutions that offer minimal capital investment for site hosts and long-term operations and maintenance support could help scale EV charger deployment.



How We Plan to Get There – Second Assessment Strategic Plan

The Second Assessment recommends **32 strategic actions** to ensure that Massachusetts is well-positioned to continue its progress in deploying EV chargers and to effectively adapt to changing circumstances.

The strategic actions are organized into the following categories:

Be More Strategic

- Prioritizing Value
- Unlocking Private Funding
- Minimizing Grid Impact

Improve Efficiency

- Enhancing Current Programs
- Reducing Barriers

Be Proactive

- Proactive Planning
- Sustainable Funding

Significantly Improve the Charging Experience



Recommendations – Prioritizing Value

New and existing incentive programs designed to deploy EV charging will target the highest value charging opportunities, while also ensuring equitable deployment across the Commonwealth.



- Explore the creation of an initiative focused on deploying fast charging stations along secondary corridors.



- Develop additional initiatives to support MHD EV charging, including exploring deploying charging hubs near fleet depots and industrial zones and piloting MHD charger sharing.



- Identify locations that could serve multiple high-value EV charging use cases.



- Establish partnerships with state, municipal, and stakeholder organizations to conduct tailored outreach and ways to package existing incentive programs to high-value EV charging opportunities.



Recommendations – Unlocking Private Funding

Massachusetts will leverage private industry and funding to a greater degree by, among other efforts, enabling new EV charging business models.



- Build on the success of MassCEC's existing innovative EV charging infrastructure programs by providing resources and lessons learned to help further unlock the potential of these business and technology models.
- Look for new opportunities to test and help scale other innovative business models



- Explore ways to further unlock the Charging-as-a-Service and similar business models for publicly accessible charging.



Recommendations – Minimizing Grid Impact

EVICC will work with the utilities to ensure that programs and technologies are deployed to minimize the need for electric grid upgrades to accommodate EV charging.



- Explore additional, innovative rate designs, novel incentive structures, and customer engagement strategies to avoid grid upgrades and minimize grid-related costs in areas that are projected to face grid constraints by 2030 or 2035.



- Develop a long-term managed charging strategy, defining program benefits, cost-effectiveness metrics, and incentive structures, and integrating lessons learned from pilot projects and industry best practices into broader implementation.



Recommendations – Enhancing Current Programs

Administrators of existing programs will work to improve the efficiency of and coordination between programs to enhance the customer experience and stretch current funding further.



- Ensure that future iterations of existing state-funded EV charging programs appropriately prioritize the high-value use cases identified in the Second Assessment and utilize the [Guide to the Equitable Siting of Electric Vehicle Charging Stations in Environmental Justice Populations](#), as applicable.
- Better align MassEVIP and the EDC programs by coordinating customer eligibility and program requirements to improve the customer experience and more efficiently disburse available funding.
- Improve customer communications of existing incentive programs including, quicker response times, greater clarity on program rules and processes, and information on pending program applications, and enhanced public information on current programs.



Recommendations – Reducing Barriers

EVICC will develop additional resources, among other efforts, for municipalities and potential EV charging site hosts to address barriers to deployment.



- Collaborate with relevant stakeholders to explore ways to standardize local EV charger permitting to reduce EV charger deployment delays, including developing model ordinances.



- Develop resources to reduce barriers for municipalities, potential EV charging site hosts, and other EV charging stakeholders similar to the [Public Level 2 EV Charging Station Fees and Policies Guide](#).



Recommendations – Proactive Planning

EVICC will work with state agencies and stakeholders to execute on strategic, long-term planning efforts to ensure efficient EV charging infrastructure.



- Create a planning framework for integrating EV charging infrastructure projections into electric distribution system planning through the requirements outlined in Section 103 of the 2024 Climate Act.



- Assess grid resilience and infrastructure needs for EVs before, during, and after major weather events and other emergency events with a particular focus on emergency vehicles and public transportation fleets.

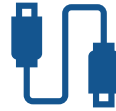


Recommendations – Improving Customer Experience

Massachusetts will implement tangible solutions to improve the customer experience with EV charging, including through regulations to establish minimum reliability standards and consumer price and fee structure transparency.



- Renew efforts to pass comprehensive “right-to-charge” legislation by expanding on the 2024 Climate Act to include renters.



- Implement a phased approach to regulating the reliability of fast and Level 2 charging, setting minimum uptime standards for fast chargers installed on or after June 1, 2026



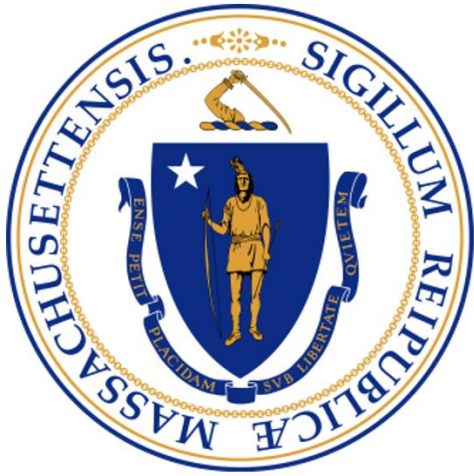
- Explore the development of model local ordinances and other approaches that allow internal combustion engine vehicles to be fined for parking in EV charging parking spots, consistent with state law.



Stay Involved



- Attend the Monthly EVICC Meetings
 - First Wednesday of every month; 1-3pm
- [Visit the EVICC Website](#)
 - Website includes meeting schedule, past meeting notes, the First Assessment, and other resources
- [Sign-Up for the EVICC Email List](#)



Thank You
