# 2. Purpose and Context



# **Key Takeaways**

- The Clean Energy and Climate Plans for 2025/2030 set a goal for Massachusetts to reach 900,000 EVs on the road by 2030.
- EVICC was created by the 2022 Climate Act to develop strategies to achieve an equitable, interconnected, accessible, and reliable EV charging network throughout Massachusetts.
- EVICC is one of several state efforts related to transportation electrification and the reduction of transportation sector greenhouse gas emissions.
- EVICC is required to submit an Assessment every two years that reviews the current state of EV charging, projects future charging needs, and provides recommendations to support charging network development.
- Significant progress has been made on the recommendations from the Initial Assessment released in 2023, including the passage of "right-to-charge" legislation for condo and homeowner associations, innovative new programs to support charger deployment for hard-to-reach consumers, and a new, one-stop webpage with information on EVs, EV charging, and EV programs.
- The Second Assessment updates the 2030 EV charger deployment benchmark to 46,300 publicly accessible chargers.

# **Assessment Scope**

EVICC and the Second Assessment focus on EV charging infrastructure and related matters, such as the potential electric grid impacts of, customer experience with, and emerging technologies and business models for EV charging. Other topics related to vehicle electrification and reducing transportation sector greenhouse gas emissions are outside of EVICC's purview and, thus, the scope of this Assessment. Policies related to the promotion of electric vehicle adoption, the reduction of vehicle miles traveled, promotion of public transportation, and electrification of public transit fleets, including MBTA vehicles, regional transit authorities, and school buses play a critical role in achieving the Commonwealth's climate, equity, and public health goals. Programs such as DOER's MOR-EV vehicle rebate program,

MassDEP's Fleet Incentive Program, MassCEC's

Accelerating Clean Transportation School Bus

Program, EPA-funded school bus replacement
efforts, and the MBTA's expansion of its battery
electric bus fleet are advancing this transition.

The Commonwealth is committed to continuing to reduce transportation sector greenhouse gas emissions through these and other initiatives.

Continued coordination between EVICC's work on EV charging infrastructure with other transportation electrification and decarbonization efforts will be essential to building a comprehensive, equitable and zero-emission transportation system across Massachusetts.

# **Policy Background**

### 2025/2030 Clean Energy and Climate Plan (CECP) EV and charger targets

Massachusetts is required by law<sup>1</sup> to reduce economy-wide greenhouse gas emissions (GHG) by 85% and achieve net zero in 2050 against a baseline established in 1990. The Secretary of Energy and Environmental Affairs was also required to set limits on GHG emissions for 2025 and 2030, set specific limits for certain sectors of pollution, and produce a comprehensive plan

to achieve the required emissions reductions.<sup>2</sup> The CECPs for 2025/2030 and 2050 establish economy-wide limits and sector-specific sublimits for reducing GHG emissions. For the transportation sector, the EEA Secretary set an emissions sublimit of 34% below 1990 levels for 2030 and 86% below 1990 levels for 2050. (See Table 2.1)

Table 2.1. Summary of GHG Emissions Sublimits for Transportation Sector

	1990	2025	2030	2050
GHG Emissions (MMTCO2e)	30.2	24.9	19.8	4.1
Percent Reduction from 1990		18%	34%	86%

<sup>1</sup>Commonwealth of Massachusetts. An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, 2021 Mass. Acts Ch. 8. (2021 Climte Act) Accessed May 29, 2025. <a href="https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8">https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8</a>.

<sup>&</sup>lt;sup>2</sup>Commonwealth of Massachusetts, "Massachusetts Clean Energy and Climate Plan for 2050," Mass.gov, December 2022. <a href="https://www.mass.gov/doc/2050-clean-energy-and-climate-plan/download">https://www.mass.gov/doc/2050-clean-energy-and-climate-plan/download</a>. As noted in the CECPs for 2025/2030 and 2050, EJ principles will also be considered in the policies and programs that are implemented per the CECPs.

Comprising about 38% of total emissions in 2021,<sup>3</sup> the transportation sector is the largest contributor to the Commonwealth's total GHG emissions. The CECPs for 2025/2030 and 2050 proposed achieving the required emissions reductions from transportation by transitioning most vehicles to EVs, and reducing growth in total vehicle miles travelled (VMT) by improving alternatives to personal vehicles, such as public transportation. To achieve the emissions sublimit for the transportation sector, the 2025/2030 CECP set a goal of 200,000 total EVs on the road by 2025 and 900,000 EVs by 2030. The 2025/2030 CECP also outlines the MBTA's goal of transitioning to a 100% zero-emission bus fleet by 2040.

To support those EVs, the 2025/2030 CECP estimated the need for 15,000 public charging station ports by 2025 and 75,000 by 2030. These figures combined public charging stations accessible to all members of the public with

workplace charging stations.

EEA has historically utilized the US DOE Alternative Fuels Data Center (AFDC) to track progress against the 2025/2030 CECP EV charging estimates. However, while the AFDC provides comprehensive data on public chargers, it only reports a small subset of workplace chargers. EVICC has access to data on workplace chargers that have received state incentives, which can be used to supplement the AFDC workplace charging data, but likely still does not represent a complete list of workplace chargers as some workplace chargers may not have received state incentives. Unfortunately, it is likely to remain difficult to compile comprehensive data on workplace charging as many workplace chargers will remain closed to the broader public and/or may not be connected to a network that could provide information on those chargers.

### **Electric Vehicle Charger Types**

**Level 1:** Level 1 equipment provides charging through a common residential 120-volt (120V) alternating current (AC) outlet. Level 1 chargers typically provide 3-5 miles of range per hour.

**Level 2:** Level 2 equipment offers higher-capacity AC charging through 240V (in residential applications) or 208V (in commercial applications) electrical service, and is common for home, workplace, and public charging. Level 2 chargers provide 10-50 miles of range per hour.

**DCFC:** Direct current fast charging (DCFC) equipment offers rapid charging and is commonly utilized at charging stations along heavy-traffic corridors. DCFC equipment can provide between 180-240 miles of range per hour, providing BEVs 80% of charge in 20 minutes to 1 hour.

<sup>&</sup>lt;sup>3</sup>Commonwealth of Massachusetts. Massachusetts Clean Energy and Climate Metrics. Executive Office of Energy and Environmental Affairs. Accessed May 29, 2025. <a href="https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-metrics">https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-metrics</a>.

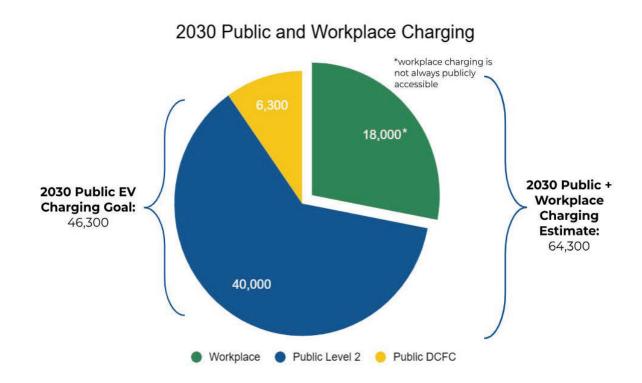
The Second EVICC Assessment utilizes a more advanced methodology and more up-to-date data to estimate 2030 charging infrastructure needs than the 2025/2030 CECP. The Second Assessment estimates a similar overall volume of charging infrastructure needed in 2030 from public charging stations accessible to all members of the public and workplace charging at 64,300, with 40,000 public Level 2 chargers, 6,300 public DCFC,4 and 18,800 workplace chargers in 2030. However, given that workplace charging is not always available to the public and the difficulty in tracking workplace charging, the official state EV charger target will only include fully publicly accessible chargers moving forward, making 46,300 EV chargers the official target for 2030. A summary of these projections is shown in Figure 2.1 below.

This target will be used as the official state target in future Climate Report Cards. Importantly, the updated EV charger projections included in the Second EVICC Assessment and the refined EV charger target are consistent with the underlying state target of 900,000 EVs on the road by 2030.

### Regulatory context

Massachusetts has formally adopted the Advanced Clean Cars II (ACC II) program along with 11 other states and the District of Columbia, aligning with California's more stringent vehicle emission standards to combat climate change and improve air quality. Under ACC II, auto manufacturers are mandated to incrementally increase the percentage of zero-emission vehicles (ZEVs) sold in the state, starting at 35% for Model Year 2026 and reaching 100% by 2035.

Figure 2.1 2030 Estimated public and workplace charging to meet CECP emissions sublimits



<sup>&</sup>lt;sup>4</sup>Public DCFC includes both the 5,500 ports estimated to support light-duty vehicles and the 800 estimated to support medium- and heavy-duty.

Massachusetts has also adopted the Advanced Clean Trucks (ACT) regulation to align with California's standards to reduce emissions from MHD vehicles. Under ACT, manufacturers are required to achieve a certain level of electric truck sales as a percentage of their overall sales, with that percentage gradually increasing. Manufacturers can average those sales over time and buy and sell credits to meet those requirements. The rule has been adopted in 11 states, including Massachusetts.<sup>5</sup>

In April 2025, the Healey-Driscoll Administration announced enforcement discretion for manufacturers that do not meet minimum electric truck sales required for Model Years 2025 and 2026 under the ACT program.<sup>6</sup>
The enforcement discretion means that manufacturers that do not meet those sales requirements in Massachusetts will receive relief for Model Years 2025 and 2026, provided

they stop a practice known as rationing, where manufacturers withhold internal combustion engine trucks from distributors seeking them.

In May 2025, the U.S. Congress advanced legislation invalidating recent U.S. Environmental Protection Agency waiver decisions under the federal Clean Air Act (CAA). The CAA and waiver decisions form the basis for ACC II and the Advanced Clean Trucks regulation. Due to this and other economic uncertainties instigated by the federal government, the Healey-Driscoll Administration subsequently announced a twoyear pause of light-duty EV sales requirements for manufacturers that do not meet minimum sales. required for Model Years 2026 and 2027 under the ACC II program.<sup>7</sup> During the pause for both ACT and ACC II. manufacturers are still incentivized to continue sales of EVs in Massachusetts and can earn and carry forward credits for future compliance.

<sup>&</sup>lt;sup>5</sup>For a list of states that have adopted California's vehicle regulations, including ACC II and ACT see: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/states-have-adopted-californias-vehicle-regulations.

<sup>&</sup>lt;sup>6</sup>Massachusetts Department of Environmental Protection, Enforcement Discretion for Advanced Clean Trucks Requirements, April 14, 2025, <a href="https://www.mass.gov/doc/act-enforcement-discretion-apr-14-2025/download">https://www.mass.gov/doc/act-enforcement-discretion-apr-14-2025/download</a>.

<sup>&</sup>lt;sup>7</sup>Massachusetts Executive Office of Energy and Environmental Affairs, "Massachusetts Announces Flexibilities for Electric Vehicle Requirements," Mass.gov, May 23, 2025, <a href="https://www.mass.gov/news/massachusetts-announces-flexibilities-for-electric-vehicle-requirements">https://www.massachusetts-announces-flexibilities-for-electric-vehicle-requirements</a>.

### **EVICC Background**

In August 2022, the <u>2022 Climate Act</u> was signed into law. The Act created the Electric Vehicle Infrastructure Coordinating Council (EVICC) to develop a comprehensive plan for an equitable, interconnected, accessible, and reliable EV charging network throughout Massachusetts.

EVICC is required to submit an Assessment to the legislature on the Commonwealth's EV charging strategies every two years, starting in August 2023. Each Assessment must contain, but is not limited to the following:

- Assessment of the present condition of, and future needs for, road and highway electrification;
- Estimates of the number and type of EV charging stations in public and private locations;
- Suggestions for optimal locations for EV charging stations in urban, suburban, and rural locations and low- and moderate-income communities:
- Discussion of present and projected future costs and methods of financing those costs;
- Discussion of technological advances in charging stations and related infrastructure;
- Discussion of strategies to maintain EV charging stations in full and continuous working order;
- · Recommendations to assist governmental and

- private sector officials in installing charging stations and related infrastructure, equipment, and technology; and
- · Identification and discussion of current policies and recommendations for policies, laws, and regulatory actions to facilitate deployment of charging stations and related infrastructure.

EVICC's membership is established by the 2022
Climate Act and comprises a comprehensive
group of state officials with an interest in EV
charging, as well as the Metropolitan Area
Planning Commission and the chairs of the Joint
Committee on Telecommunications, Utilities and
Energy. EVICC is chaired by the Executive Office of
Energy and Environmental Affairs.

Since May 2023, EVICC has held monthly public meetings to plan for the biannual assessments, share updates on state charging programs and policies, and provide presentations on EV charging industry and technology developments. Minutes and presentations from past EVICC monthly meetings, along with other resources from the council, can be found on the EVICC website.

# **Progress Since the Initial Assessment**

In August 2023, EVICC filed its <u>Initial Assessment</u> with the General Court of Massachusetts (Initial Assessment). Key takeaways from the Initial Assessment included:

- Deployment of EV charging infrastructure needs to be accelerated to meet the Commonwealth's 2030 climate goals
- Current EV incentive programs offered by government agencies and the utilities are confusing to customers
- EV charger reliability is a concern for EV drivers
- Limited electric grid capacity poses challenges to deploying EV chargers

 Massachusetts should prioritize investments in charger access for hard-to-reach consumers like tenants, low- and moderate-income residents, rural communities, and EJ populations.

The Assessment recommended certain actions be taken by the legislature, state agencies, and EVICC to address these takeaways. A selection of recommendations and progress made in addressing those recommendations can be found in Table 2.2.

Table 2.2. Progress Since Initial Assessment

### **Takeaway**

# Deployment of EV charging infrastructure needs to be accelerated to meet the Commonwealth's 2030 climate goals.

#### Recommendation

EEA will lead the EVICC in developing a plan to use the \$50 million in the Charging Infrastructure Deployment Fund. This plan will be developed consistent with the recommendations in this initial assessment and will draw from future EVICC findings.

The EVICC will refine its assessment of charging station needs by providing focused attention on the need for public fast charging to support long-distance trips, including on peak travel days.

### **Progress**

The Healey-Driscoll Administration awarded \$50 million to initiatives to build out EV charging infrastructure across Massachusetts, increase access to charging infrastructure for more residents, electrify the state fleet, improve operation of public charging stations, manage the impact of charging infrastructure on the electric grid, and provide charging solutions for difficult to electrify vehicle types.

With its consultants, EVICC completed analysis of public fast charging infrastructure needed to support long-distance travel. A summary of this analysis can be found in Chapter 4.

### Recommendation

### **Progress**

Current EV incentive programs offered by government agencies and the utilities are confusing to customers.

The EVICC will consider establishing a transportation clearinghouse website for information on EVs, EV chargers, and funding opportunities for stakeholders in the Commonwealth.

MassCEC developed a new, one-stop webpage for EV programs and information on <u>Clean</u>
<u>Energy Lives Here</u>. MassCEC also launched a call center to answer questions about EVs and incentives. Additional webpages will be added to MassCEC's Clean Transportation page.

EV charger reliability is a concern for EV drivers

Legislation should require publicly accessible EV chargers to register with DOS so that they can be regularly inspected; DOS will develop new regulations to ensure that publicly accessible EV chargers are registered, inspected, and tested.

The 2024 Climate Act requires DOS to develop regulations to (1) inventory EV charging stations and (2) ensure the accuracy of pricing and volumes of electricity purchased at public EV chargers.

Separately, EEA is required to develop regulations to (1) monitor EV charger utilization, (2) monitor EV charger reliability, and (3) require data sharing by public EV chargers.

DOS and EEA are currently developing regulations to address these requirements. More information on these efforts can be found in Chapter 6.

Limited electric grid capacity poses challenges to deploying EV chargers. The EVICC will continue work with the Grid Modernization Advisory Council, utilities, and other stakeholders to proactively manage the grid impacts of expanded EV charging infrastructure.

The 2024 Climate Act required a new grid planning process to accommodate forecasted EV charging demand.

Further, funded by \$6.9 million from EVICC, MassCEC launched its Vehicle-to-Everything Demonstration program to deploy bidirectional charging infrastructure to improve grid resilience, reduce energy costs, and increase renewable energy integration. With \$6 million from EVICC, MassCEC also launched the Mobile Charging Solutions program providing non-grid tied charging options for MHD fleets to address capacity constrained areas and minimize MHDV load on the grid.

Additionally, EVICC's consultant team analyzed the impact of forecasted EV demand on the electric distribution grid in 2030 and 2035.

A summary of this analysis can be found in Chapter 5.

Takeaway	Recommendation	Progress
Massachusetts should prioritize investments in charger access for hard-to-reach consumers like tenants, low- and moderate-income residents, rural communities, and EJ populations.	The Healey-Driscoll Administration will work with the legislature to pass "right to charge" legislation that will help tenants and people living in condominiums install charging infrastructure.	The 2024 Climate Act passed into law a "right to charge" for condominium owners.
	DOER will work with municipalities to develop guidance and support for programs to expand curbside charging and overnight charging infrastructure for tenants and garage orphans.	Funded by \$12.3 million from EVICC, MassCEC launched a new program to support municipalities install on-street charging, and to develop a guidebook to support all municipalities in developing on-street charging programs.

# **New EVICC responsibilities**

On November 21, 2024, Governor Maura Healey signed into law the 2024 Climate Act. The 2024 Climate Act included several provisions which expanded EVICC's responsibilities and membership. As a result, EVICC's membership grew to include representatives from MassCEC and DOS.<sup>8</sup>

In addition to its existing statutory responsibilities, EVICC is now required to (1) monitor the overall effectiveness of public and private initiatives involved with EV chargers in the Commonwealth; (2) support compliance with the National Electric Vehicle Infrastructure Formula Program; and (3) ensure signage on highways and on streets adjacent to charging locations.<sup>9</sup>

The EVICC Assessment is now required to include an estimate of the number of medium- and heavy-duty EV chargers required to meet the Commonwealth's climate requirements. EVICC is also required to report on its efforts to lead and direct EV charger deployment in each assessment. The EVICC Assessment must now also include a forecast of all EV charging demand (i.e., charging for light-, medium-, and heavy-duty vehicles) throughout the Commonwealth for the

next 10 years and estimate electric distribution grid impacts, identifying areas of the grid that may require modification due to such impacts.<sup>11</sup>

After the submission of the EVICC Assessment to the General Court, EVICC is required to work with DOER and MassDOT to identify potential areas for DCFC and fleet charging hubs along major corridors within six months of the issuance of the Assessment. Last, the electric distribution companies are required to identify distribution system upgrades necessary to meet the 10-year EV charging demand included in the EVICC Assessment and to file a plan for the construction of necessary upgrades with the DPU within 12 months of the issuance of the EVICC assessment.<sup>12</sup>

EVICC takes its statutory responsibilities seriously and has worked to expeditiously incorporate these changes into its monthly meetings and this Assessment.

<sup>&</sup>lt;sup>8</sup>An Act Promoting a Clean Energy Grid, Advancing Equity, and Protecting Ratepayers, ch. 239, §§ 100–101, Acts of 2024 (Mass.), <a href="https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239">https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239</a>. DOS Commissioner Rodrigues was serving on the council as the representative of EOED as of the effective date of the 2024 Climate Act; thus, EOED was required to identify an additional individual to serve on the council.

<sup>&</sup>lt;sup>9</sup>An Act Promoting a Clean Energy Grid, Advancing Equity, and Protecting Ratepayers, ch. 239, § 104, Acts of 2024 (Mass.), <a href="https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239">https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239</a>.

<sup>&</sup>lt;sup>10</sup>An Act Promoting a Clean Energy Grid, Advancing Equity, and Protecting Ratepayers, ch. 239, § 102, Acts of 2024 (Mass.), <a href="https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239">https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239</a>.

<sup>&</sup>quot;An Act Promoting a Clean Energy Grid, Advancing Equity, and Protecting Ratepayers, ch. 239, § 104, Acts of 2024 (Mass.), https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239.

<sup>&</sup>lt;sup>12</sup>An Act Promoting a Clean Energy Grid, Advancing Equity, and Protecting Ratepayers, ch. 239, § 103, Acts of 2024 (Mass.), <a href="https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239">https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239</a>.

# **Development of the Second Assessment**

EVICC is tasked with writing a formal assessment every two years outlining strategies that will result in an equitable, interconnected, accessible, and reliable EV charging network in Massachusetts. The Initial Assessment was published in August 2023 and the Second Assessment will be presented to the General Court by August 11, 2025. EVICC has continuously discussed topics for inclusion in the Second Assessment internally and externally over the past two years, but work on the Second Assessment began in earnest in August 2024 and concluded in August 2025.

### Second Assessment Workplan

EVICC Chair Joshua Ryor provided EVICC members and the public a memorandum outlining a workplan for the Second Assessment, including a proposed outline of the Assessment, new technical analysis and qualitative work to be completed, and a work schedule. The workplan was presented and discussed at the August 7, 2024 EVICC meeting and formally adopted by EVICC at the September 4, 2024 EVICC meeting.<sup>13</sup>

### **Public Engagement**

In addition to discussions and presentations at EVICC and Technical Committee<sup>14</sup> meetings, EVICC held four public hearings in geographically diverse regions of the state to gather feedback from the public and key stakeholders. Feedback from the public hearings helped inform recommendations throughout the Second Assessment and, in particular, Chapter 6 on Consumer Experience. The hearings provided an avenue to share information with the public about EVICC's work since 2023 and on the state's suite of EV charging programs and initiatives. A summary of the public feedback received during the publib hearings is available online.<sup>15</sup>

### Public Hearings

- · New Bedford March 27, 2025
- · Worcester March 31, 2025
- · Holyoke April 3, 2025 (Hybrid)
- · Boston April 8, 2025 (Hybrid)

Other stakeholder engagement included directly soliciting feedback on Massachusetts' existing EV charging programs and the draft Second Assessment from various industry and advocacy stakeholders and a 3-hour hybrid EVICC meeting to review the draft Assessment and to solicit public input on July 9, 2025.

<sup>&</sup>lt;sup>13</sup>Josh Ryor and Katie Gronendyke, Final 2024–2025 EVICC Workplan Memorandum, Massachusetts Executive Office of Energy and Environmental Affairs, August 28, 2024, https://www.mass.gov/doc/final-2024-2025-evicc-workplan-memorandum/download.Mass.gov

<sup>&</sup>lt;sup>14</sup>The EVICC Technical Committee is comprised of state agencies and EV charger technology and network providers. The committee met on a biweekly basis from November 2024 through June 2025 to discuss matters of interest to both state agencies and EV charging companies, including real-time charging station data sharing and EV charging fee guidance, among other topics.

<sup>&</sup>lt;sup>15</sup>Massachusetts Executive Office of Energy and Environmental Affairs, Electric Vehicle Infrastructure Coordinating Council (EVICC) Meeting Slide Deck, May 7, 2025, pp. 15-22, https://www.mass.gov/doc/evicc-meeting-deck-may-7-2025/download.