Electric Vehicle (EV) Policy Landscape and Municipal Opportunities

Commonwealth of Massachusetts

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December 14, 2022

Significant EV Policy Developments

- November 2021: Congress passes the Infrastructure Investment and Jobs Act (IIJA), which provides billions in funding for EV-related initiatives
- June 2022: EEA releases Clean Energy and Climate Plan for 2025/2030 calling for 200,000 EVs on the road by 2025 and over 900,000 EVs by 2030
- August 2022: Gov. Baker signs *An Act Driving Clean Energy and Offshore Wind* and *An Act Relative to Massachusetts's Transportation Resources and Climate* which make a number of changes to EV incentive programs and provided funding authorization for EV infrastructure
- August 2022: Congress passes Inflation Reduction Act, extending federal EV tax credit and making a number of changes to encourage point of sale incentives and domestic manufacturing
- August-September 2022: MassDOT submits National EV Infrastructure Plan (NEVI) to USDOT, opening up $63M in federal funds for EV infrastructure along highway corridors in Massachusetts
- November 2022: Governor Baker signs Economic Development bill, providing $50M in funding for electric vehicle charging and $50M for electric vehicle incentives

EVs in the Federal Infrastructure Investment and Jobs Act (IIJA)

- **Overview: IIJA provides billions in funding for EV-related investments**
- $5B in formula funds for National Electric Vehicle Infrastructure Plan
- $2.5B in competitive funds for Charging and Refueling Infrastructure Grant Fund
- $5B for clean or electric school buses
- $13.2B in CMAQ funds with expanded eligibility for micromobility, bikeshare, and electrification of MDHD vehicles
- Additional funding for buses & bus facilities, MDHD electrification near ports, electric or low-emitting ferries, EV supply chain & battery recycling programs

EVs in the Federal Inflation Reduction Act (IRA)

- **Overview: IRA provides for several federal tax credit changes that will impact consumers, dealers, businesses, municipalities and manufacturers**

- Federal Tax Credit changes (Section 30D):
  - Removes per-manufacturer cap and extends EV tax credit for all OEMs through 2032
  - Allows tax exempt entities to claim the tax incentive for the first time
  - New MSRP caps: $55k for sedans, $80k for pickups/SUVs/vans
  - Credit can be transferred to dealership to allow point of purchase incentive
  - Additional domestic manufacturing requirements

- New Commercial EV credit (Section 45W)
  - Commercial EVs will be eligible for tax credits for the first time, until the end of 2032
  - Tax exempt entities can claim the value of the commercial tax credit
  - The eligible credit amount per qualified commercial EV is the lesser of 30% of the sales price or the incremental cost of the vehicle
  - The tax credit is capped at $7,500 for vehicles with a gross vehicle weight rating (GVWR) of less than 14,000 lbs, and capped at $40,000 for vehicles with a GVWR of more than 14,000 lbs
  - There are no battery or mineral sourcing requirements under Section 45W

EVs in the State 2025/2030 Clean Energy and Climate Plan (CECP)

- **Overview: the 2025/2030 CECP calls for EVs to become a majority of new cars sold by 2030 via several targeted strategies, and in addition to the provision of several state supports for EVs**
- Provide more alternatives to personal vehicles through investments in transit, housing, multimodal infrastructure, support for e-bikes
- Electrification of all MBTA buses by 2040
- Implementation of Advanced Clean Cars 2 and Advanced Clean Truck standards
- Reforms to MOR-EV to make the program more accessible and cost-effective
- Focused efforts to address fleets with critical public health and equity benefits, including school buses, vehicles for hire and delivery trucks

EVs in the State "An Act Driving Clean Energy and Offshore Wind" and Funding Bills

- **Overview: Various pieces of state legislation codify many of the components of the CECP, establish incentives for implementation of those components, and create funding sources to afford implementation**

- An Act Driving Clean Energy and Offshore Wind
  - Increases MOR-EV rebate to $3,500.
  - Defines zero-emission vehicle to exclude PHEVs.
  - Creates $1,500 low-income incentive.
  - Provides additional incentive for vehicle trade ins.
  - Creates Intergovernmental Coordinating Council to implement EV charging plan
  - DPU must create plan to electrify TNC vehicles.
  - All MBTA bus purchases must be electric by 2030 and all on road buses must be electric by 2040.
  - Requires RTAs to develop EV rollout plans with goals for electrification of buses.

- An Act Relating to Economic Growth and Relief for the Commonwealth
  - Appropriates $50M for EV incentives and $50M for EV infrastructure grants

- Massachusetts Transportation Bond Bill (TRAC)
  - Authorizes $200M in bonding authorization for electric vehicle programs (e-bikes, vehicles for hire, delivery trucks, school buses, etc)

EVs in the MassDOT-Highway's non-NEVI Programs

- **Installed 50 kW DCFC stations in I-90 Service Plazas circa 2017.**
  - Charlton East & West
  - Lee East & West
  - Framingham & Natick

- **Public Charging Stations Installed/To Be Installed under CMAQ Goods & Services Contract and Make-Ready Programs**
  - Installed
    - Level-II Stations at Park & Rides. Whately, Greenfield, Bourne, New Bedford & Harwich.
    - 62.5 kW DCFC: Bridgewater Service Plazas and Lexington Service Plaza
    - 125 kW DCFC: Greenfield Tourist Info Ctr/RMV
  - To be installed
    - Level-II stations at Park & Rides: Barnstable & Plymouth
    - 62.5 kw DCFC: Newton, Plymouth and Barnstable Service Plazas.

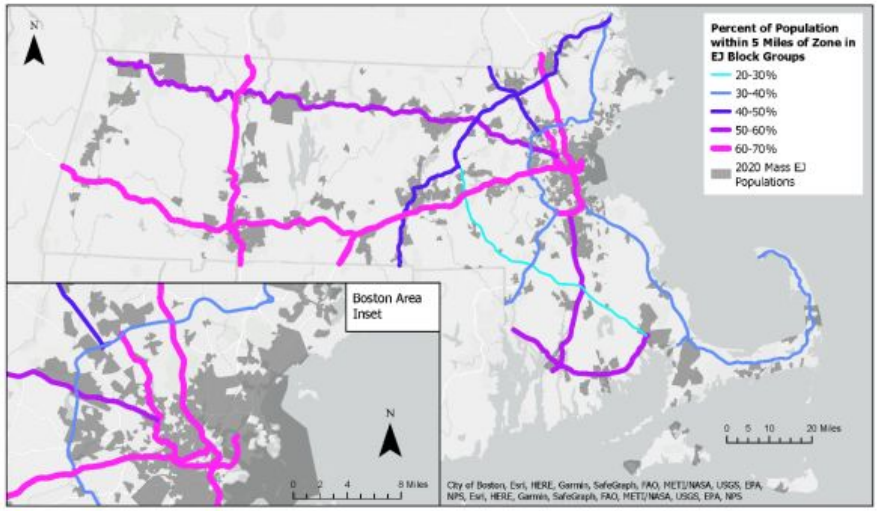
- Electric Vehicle Charging Stations | Electric Vehicle Charging Stations | MassDOT Open Data Portal (arcgis.com)

EVs in the State's NEVI Plan

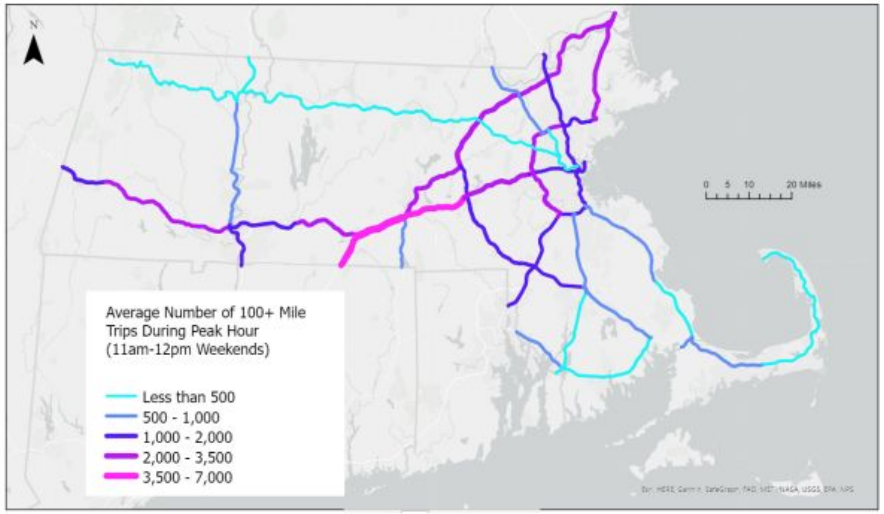
- **MassDOT's NEVI program approved by Federal Highway in September 2022. Allowing for the planning and programming of funding over five-year program, including**
- **NEVI guidelines and approved plan focus first on designated alternative fuel corridors. Requirements include four, 150 kW DCFC stations, every 50 miles along those corridors.**
- **NEVI formula funds will first be used to eliminate 50-mile gaps on the EV alternative fuel corridor network in Massachusetts to ensure a complete network.**
- **Additional NEVI funds will then be used to focus on zones within the AFC network where there is the most unserved demand, with higher priority given to zones with high percentages of environmental justice communities.**
- **Deployment Plan for Massachusetts | Mass.gov**

EVs in the State's NEVI Plan

Percent of Population in EJ Communities by Electrification Zone



AFC Network Corridors by Volume of Long-Distance Trips



EVs in the State's NEVI Plan

Final Zone Ranking

The final overall ranking for the electrification zones was determined by combining the demand rank and equity rank. For ties, U.S. Interstates were given priority over non-Interstates. Two ties remain.

Final Overall Ranking of Electrification Zones

Electrification Zone	Overall Rank	Demand Rank	Equity Rank
I-90_East	**1**	1	2
I-90_West	**2**	3	3
I-93	**3**	6	4
I-91	**4**	7	5
I-495_North	**5**	2	11
US-3_South	**6**	15	1
I-95	**7**	4	14
I-195	**7**	10	8
SR-24	**8**	12	6
I-395	**9**	9	10
I-495_South	**10**	5	15
US-3_North	**11**	8	12
SR-2_East	**11**	13	7
SR-2_West	**12**	14	9
SR-3_US-6	**13**	11	13

EVs in the State's NEVI Plan

- **Five-Year Program Plan based on rankings and objectives.**

Illustrative DCFC Build Using NEVI Funds (High Estimates of Port Requirements)

Year of NEVI funds (FFY)	Number of ports built	Description
2022 – 2023	44	Build to fill 50-mile gaps on all Interstate AFCs
2024	28	Build to fill 50-mile gaps on all non-Interstate AFCs
2025	20	Build additional ports to meet 2025 demand in highest-ranked zones
2026	-	With projected cost levels, remaining NEVI funds will cover operating and maintenance expenses. If costs are lower than projected, additional ports will be built to meet 2025 demand working in zone rank order.

Illustrative DCFC Build Using NEVI Funds (Low Estimates of Port Requirements)

Year of NEVI funds (FFY)	Number of ports built	Description
2022 – 2023	40	Build to fill 50-mile gaps on all AFCs
2024	32	Build additional ports (16) to meet 2025 demand in zones, plus additional 16 to meet post-2025 demand in highest ranked zones
2025	20	Build additional ports to meet post-2025 demand in next highest ranked zones
2026	-	With projected cost levels, remaining NEVI funds will cover operating and maintenance expenses. If costs are lower than projected, additional ports will be built to meet post-2025 demand working in zone rank order.

Municipal Opportunities: Existing Municipal EV Programs in Massachusetts

- **MassCEC's Accelerating Clean Transportation ("ACT") School Bus** program serves to leverage EPA funding, provide gap funding and spur additional deployment, provide necessary technical assistance, prep for full-fleet electrification
  - Deployment Grants: flexible funding for school bus fleets. First round included up to $2M/school bus fleet. Technical assistant will guide the EV bus deployment process. Includes support for ESB charging station planning, infrastructure deployment, and data collection. Future funding rounds are anticipated
  - Fleet Advisory Services: Free electrification planning: feasibility designs, financial models, procurement plans, EPA grant application support. Open for applications now

- **MassCEC ACT for All** program provides grants for electrification projects that support LMI consumers and environmental justice communities. Additional round of grant funding coming this spring

- **DEP's MassEVIP** program provides additional $7,500 incentive for tax-exempt entities to purchase a BEV

- **DOER's MOR-EV Trucks** program provides an incentive for the purchase of medium/heavy-duty vehicles, with incentives ranging from $7,500 to $90,000 depending on vehicle class

Municipal Opportunities: New and Forthcoming

- **IRA**: Municipalities, via dealerships, can now benefit from the federal tax credit under Section 30D or new commercial vehicle tax credit under Section 45W
- **IIJA**: Provides a total of $5B in funding for electric school buses over a five year period. MassCEC's ACT School Bus provides additional technical support and grant funding for installation of infrastructure to support electric school buses
- **Congestion Mitigation and Air Quality (CMAQ)**: Grant funding available for micromobility and e-bikes; Req for MassDOT to fill this in/update, add detail about timeline, if possible
- **MassDOT's NEVI Plan**: Req for MassDOT to fill this in or eliminate
- Future additional grant funding opportunities are anticipated to be available upon establishment and approval by the electric vehicle intergovernmental coordinating council. EEA will stay in communication through the spring as progress gets underway

Consumer Opportunities: New and Forthcoming

- **IRA**: increases funding available for consumer purchase of EVs IF vehicles qualify under domestic manufacturing requirements
- **MOR-EV**: rebate values are increased and will be available at the point of sale; new $1,500 low-income incentive
- Both **MOR-EV and IRA** provide new incentives for used vehicles
- EEA anticipates future additional grant funding opportunities for vehicle for hire drivers, e-bikes, EV infrastructure