



MASSACHUSETTS
**DEPARTMENT OF
ENERGY RESOURCES**

Fiscal Year 2024 Annual Progress Report

Leading by Example (LBE) Division,
Department of Energy Resources



Table of Contents

MA Leading by Example Program Overview

LBE Executive Order 594 Overview

EO594 Target: Onsite Fossil Fuel Emissions

EO594 Target: Fuel Oil Use & Energy Use Intensity

EO594 Target: Fleet Electrification

EO594 Target: EV Charging Deployment

EO594 Additional Progress: LEED & Solar

LBE Key Accomplishments & LBE Awards

MA Department of Energy Resources Leading by Example (LBE)

LBE works with state agencies, quasi-public authorities, and public colleges and universities to advance clean energy and sustainable practices that reduce the environmental impacts of state government operations.

LBE State Portfolio

19 Executive Branch Agencies

15 Community Colleges

9 State Universities

5 UMass Campuses

2 Quasi-Public Authorities



89.2 million sq. ft. of buildings



13,435 vehicles

(includes 9,414 non-emergency and 4,021 exempt emergency vehicles)



15.8 million MMBtus annual energy usage



502,472 MTCO₂e onsite fossil fuel emissions

LBE Executive Order 594 Overview

EO594, “Decarbonizing and Minimizing Environmental Impacts of State Government,” applies to all executive branch agencies and institutions of public higher education.

Objective	Executive Order 594 Targets			
	2025	2030	2040	2050
Reduce emissions from onsite fossil fuels*	-20%	-35%	-60%	-95%
Zero emission vehicles (ZEVs) in light-duty state fleet	5% of fleet	20% of fleet	75% of fleet	100% of fleet
Reduce fuel oil use*	-90%	-95%	TBD	TBD
Energy use intensity (site EUI) reduction*	-20%	-25%	TBD	TBD
EV charging stations at state facilities	350 stations	500 stations	TBD	TBD

**Over a Fiscal Year 2004 (FY04) baseline*

New light-duty vehicles: In FY23, all acquisitions of vehicles with a Gross Vehicle Weight Rating (GVWR) of 8,500 pounds or less must be ZEVs. Starting in FY25, all acquisitions of vehicles with a GVWR of 14,000 pounds or less must be ZEVs.

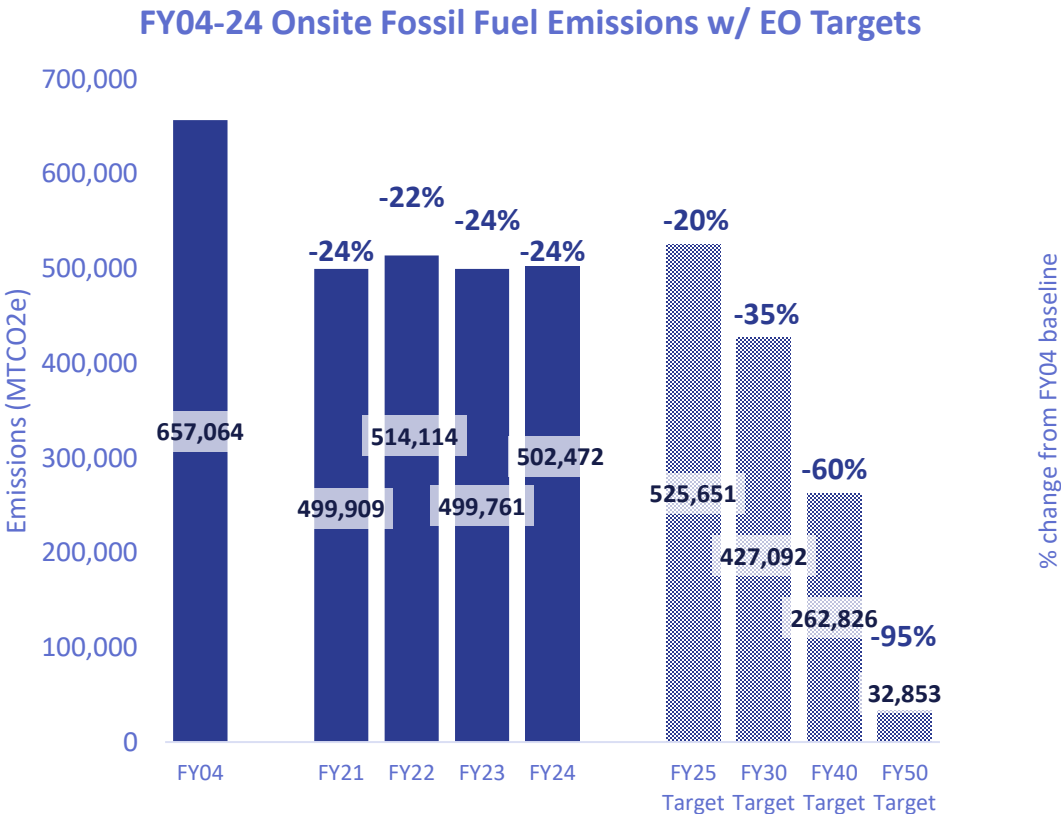
New heavy-duty vehicles: Starting in FY30, all acquisitions of vehicles with a GVWR of more than 14,000 pounds must be ZEVs.

EO594 targets and directives relate to:

- ☐ Onsite fossil fuel emissions
- ☐ Fuel oil usage
- ☐ Buildings & energy performance
- ☐ Renewable energy deployment
- ☐ Fleet electrification & EV charging
- ☐ Budgeting & planning
- ☐ Data tracking & reporting

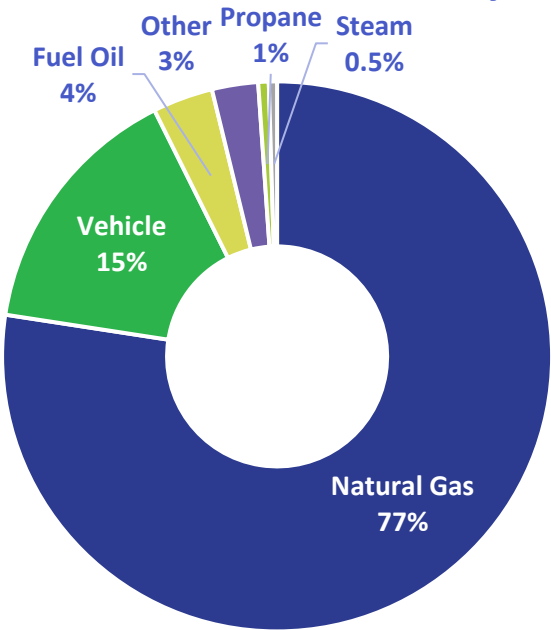
EO594 Target: Onsite Fossil Fuel Emissions

Target: Reduce onsite fossil fuel emissions by 20% in FY25, by 35% in FY30, by 60% in FY40, by 95% in FY50.



As of FY24, the state portfolio has reduced onsite fossil fuel emissions by 24% from the FY04 baseline, surpassing the FY25 target.

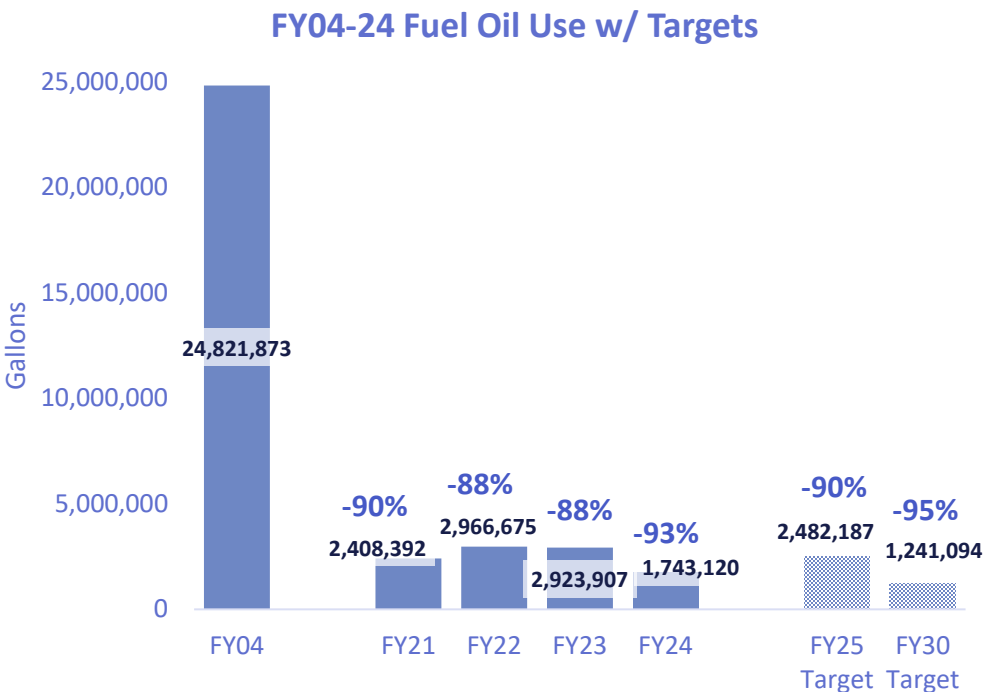
FY24 Onsite Fossil Fuel Emissions by Fuel Type



In FY24, natural gas emissions accounted for the largest share of onsite fossil fuel emissions (77%). Emissions from vehicle fuels accounted for 15% of onsite fossil emissions and fuel oil for 4%. The “Other” category includes fuel used for emergency generation and uses not directly related to standard operations as well as vehicle fuels used for non-car purposes such as jet fuel or marine fuel.

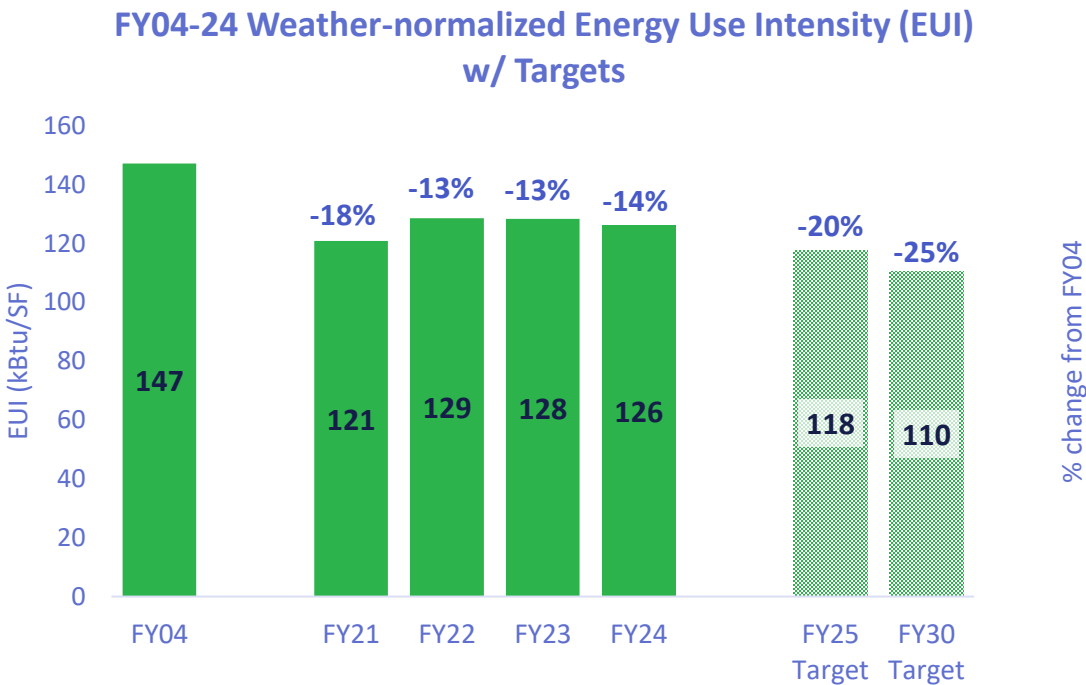
EO594 Targets: Fuel Oil Use & Energy Use Intensity (EUI)

Target: Reduce non-vehicle, petroleum-based oil consumption used to satisfy thermal loads for building and non-building uses by 90% in FY25 and 95% in FY30.



As of FY24, the state portfolio has reduced fuel oil usage by 93% from the FY04 baseline, surpassing the FY25 target. To meet the FY30 target, the portfolio must reduce fuel oil use by 502,026 gallons.

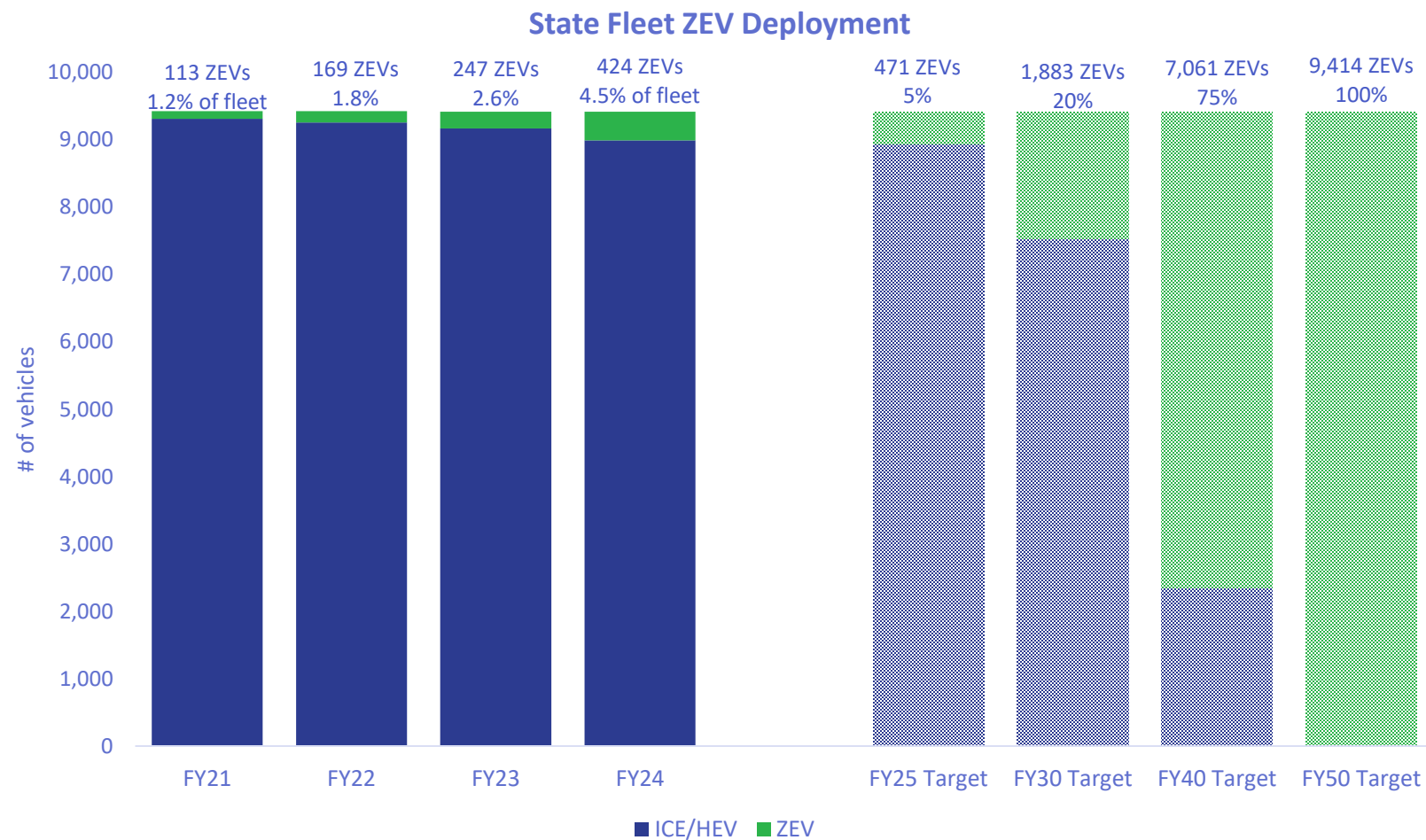
Target: Reduce EUI by 20% in FY25 and by 25% in FY30.



As of FY24, the state portfolio has reduced weather-normalized energy use intensity (EUI) by 14% from the FY04 baseline. From FY22 to FY24, EUI has remained relatively constant.

EO594 Target: State Fleet Electrification

Target: Transition 5% of fleet to electric in FY25, 20% in FY30, 75% in FY40, 100% in FY50.



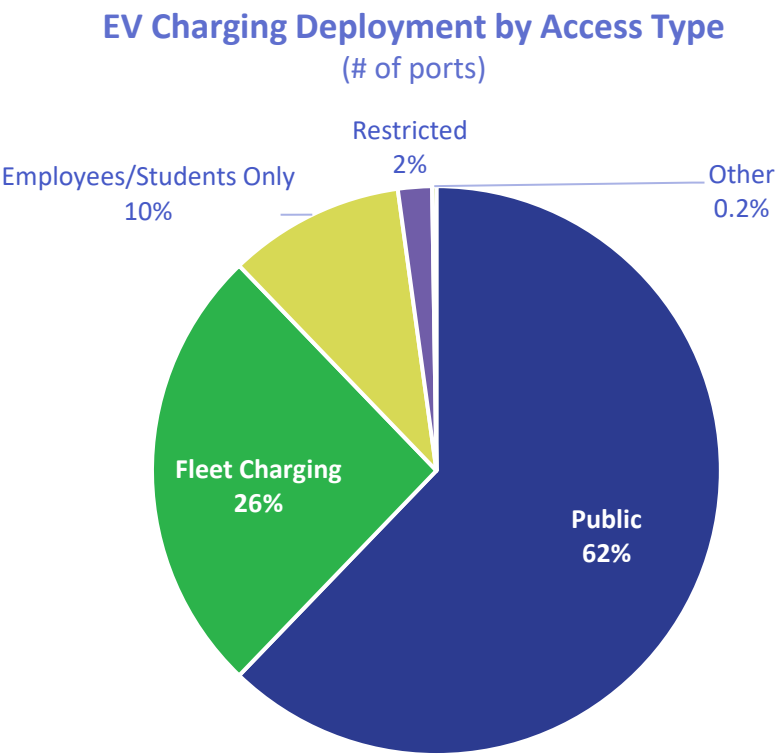
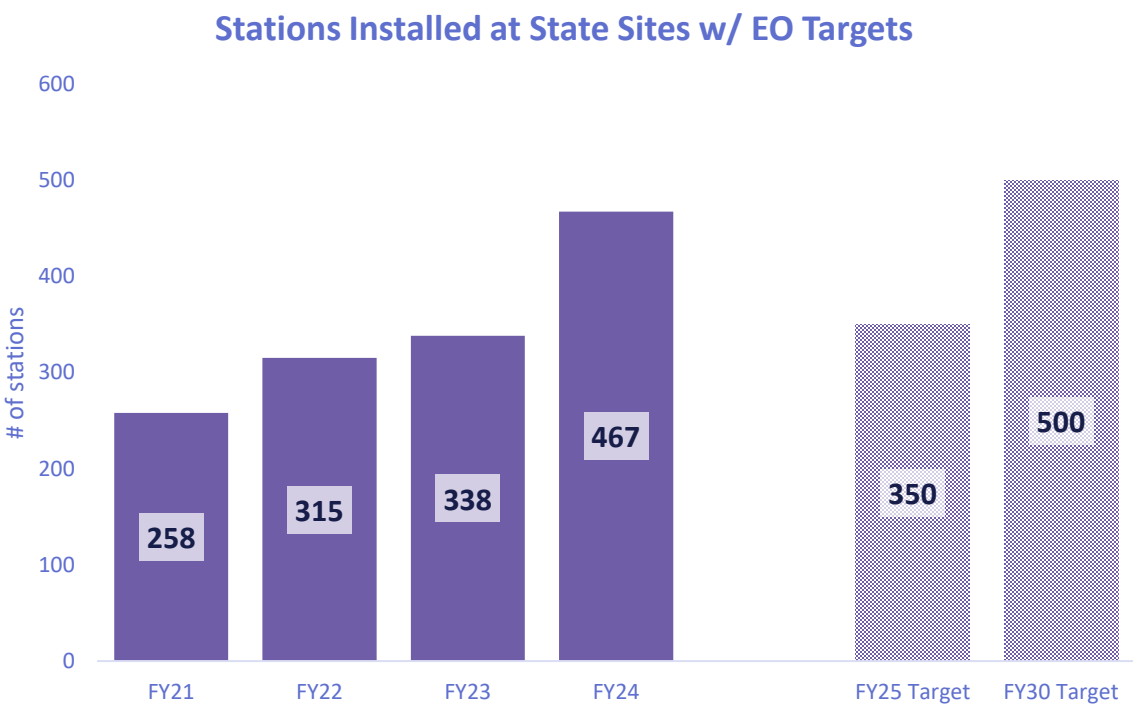
As of FY24, **about 4.5% of the state fleet is electric**. This includes battery electric and plug-in hybrid vehicles, as well as electric neighborhood and utility vehicles. To meet the FY25 fleet electrification target set in EO594, the state fleet must transition about 47 additional vehicles to electric.

From FY23, the share of EVs in the state fleet grew by 177 vehicles or nearly 2% of the total fleet.

*ZEV (zero-emission vehicle) includes battery electric, plug-in hybrid electric, and neighborhood and utility electric vehicles

EO594 Target: EV Charging Deployment

Target: Reach 350 EV charging stations deployed at state sites in FY25 and 500 in FY30.

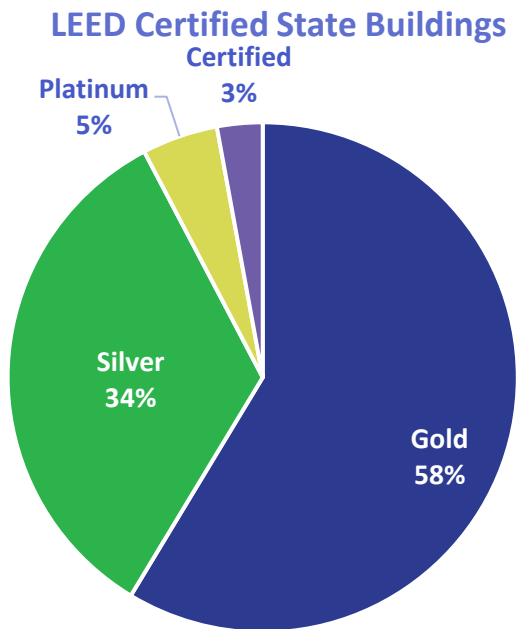


As of FY24, there are **467 active and installed EV charging stations** (828 charging ports) at state sites, surpassing the FY25 target set in EO594 early. Of the 828 ports, 62% are for public use, 26% for state fleet use, 10% for employee or student use, and about 2% for other or more restricted access uses.

From FY23, the number of EV stations increased by 129 stations or 38%.

EO594 Additional Progress

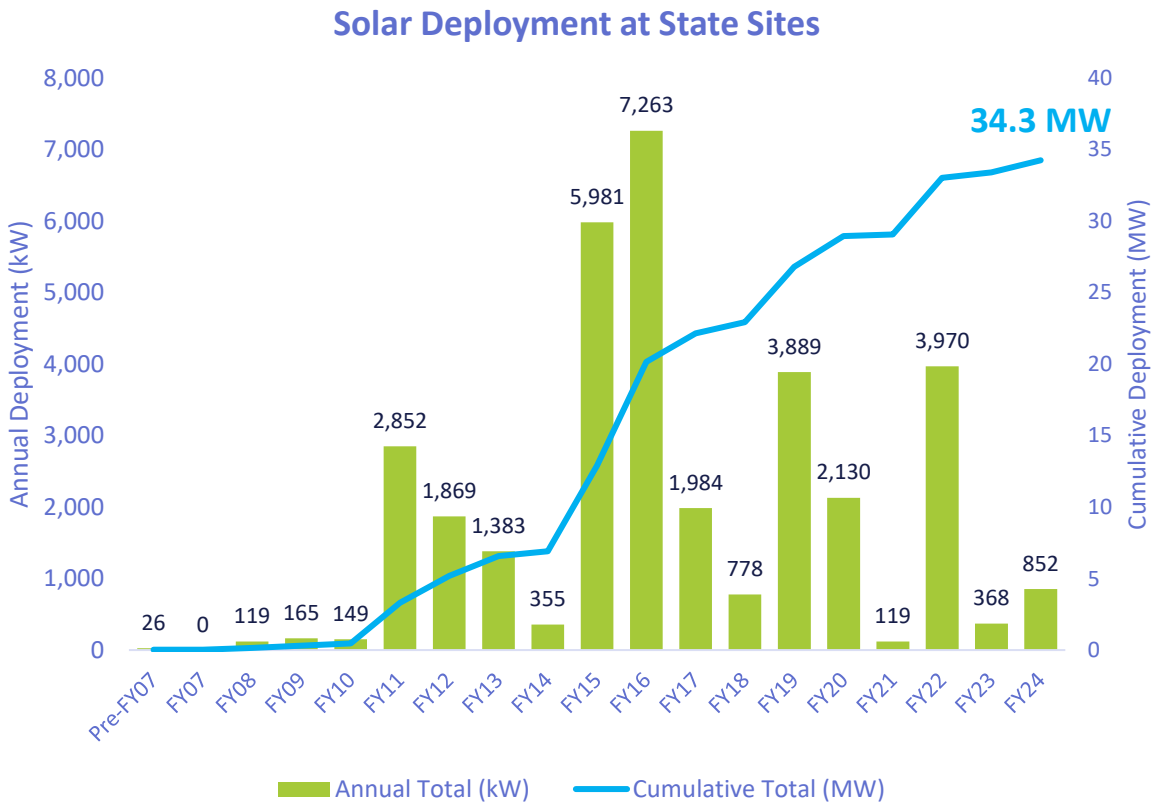
State LEED Buildings



As of FY24, there are **104 LEED certified buildings** in the state portfolio, accounting for over 12.4 million square feet of space. Of these 104 buildings, 63% are at the highest level of Platinum and Gold, 34% at silver, and 3% are certified. These LEED buildings are distributed across 37 entities and represent a variety of sectors, including transportation, higher education, public safety, and others.

In FY24, 4 state buildings became LEED certified (248,000 SF).

On-site Solar Deployment



As of FY24, there are 34.3 MW of solar capacity installed at state sites. Solar canopies make up over half of the capacity (55%) while ground-mounted systems account for 19% and rooftop PV for 25%.

LBE Key Accomplishments & LBE Awards

Integrated Solar Grant Program



In FY24, LBE launched a \$1.2-million Leading by Example **Integrated Solar Grant Program** for eligible state entities to increase the installation of solar canopy systems that include electric vehicle charging and battery storage deployment efforts at state facilities.

The Program supports the financial viability of integrated solar canopy projects at state facilities. LBE utilizes the term “integrated solar” to refer to solar canopies that advance broader statewide and LBE goals beyond electricity generation.

As of the end of FY24, the grant has awarded over \$750,000 to support the deployment of more than 1 MW of solar canopy capacity and the installation of 10 electric vehicle charging ports across two state sites (Framingham State University and Massachusetts State Police).

2024 LBE Awards Recipients by Category

Category	Award Recipients	
Agency	Office of Vehicle Management (OVM)	Massachusetts State Police (MSP)
Municipality	City of Malden	Town of Warwick
Individual	Tara Gallagher, Salem State University	Katherine Moses, City of Lowell