NASEO
National Association of State Energy Officials

NASEO Buildings Committee Meeting: *State-Owned Buildings as Test Beds (Public Buildings Collaborative #3)*

March 27, 2026

Public Buildings Collaborative: Series Objectives

- To provide a forum for State Energy Offices to discuss programs to support energy efficiency and beneficial electrification in MUSH market and community-serving buildings.
  - Day-to-day implementation
  - Stakeholder engagement processes
  - Funding and financing solutions
- To discuss how public building energy improvement programs have evolved over time and can best align with and prepare for federal incentives.
- To establish strategic partnerships between State Energy Offices and relevant stakeholders, including ESCOs, green banks, and other service providers.
- To share expertise across NASEO's member network.

Public Buildings Collaborative: State Lead-by-Example

- Which agency, if not your own, oversees the energy performance of state-owned facilities? How do your offices interact?
- How does your office help state-owned buildings manage simple payback requirements on energy improvement capital projects?
- If your office administers lead-by-example programs, how does your office measure impact and replicability across building sectors?
- What procurement challenges / financing considerations / administrative hurdles are unique to state agencies, and how does your office address these challenges?

NASEO Buildings Committee: State-Owned Buildings as Test Beds (Public Buildings Collaborative Webinar #3)

Julie Staveland (Moderator)

- Assistant Director, Michigan Department of Environment, Great Lakes and Energy

Eric Friedman

- Leading by Example Director, Massachusetts Department of Energy Resources

Amanda Welch

- Energy Analyst, Oregon Department of Energy

MASSACHUSETTS
DEPARTMENT OF
ENERGY RESOURCES

MA Leading By Example (LBE) Division

NASEO Buildings Committee: State-Owned Buildings as Test Beds

March 27, 2026

Agenda

Who is LBE

What do we do

Targets and Goals

LBE Team

Progress and Planning

Key Takeaways

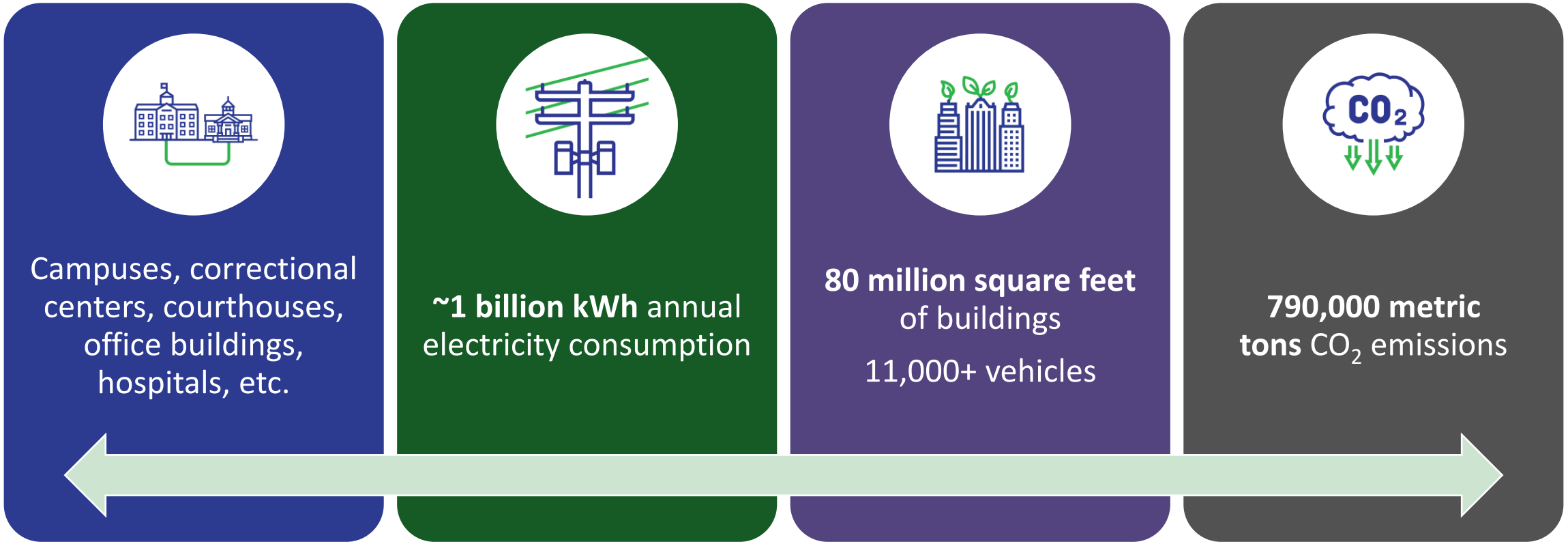
Organizations connecting LBE Programs

What is the Leading By Example (LBE) Division?

LBE works collaboratively 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.

What do we mean by “state government operations”?

Definitions and Scope can vary state to state

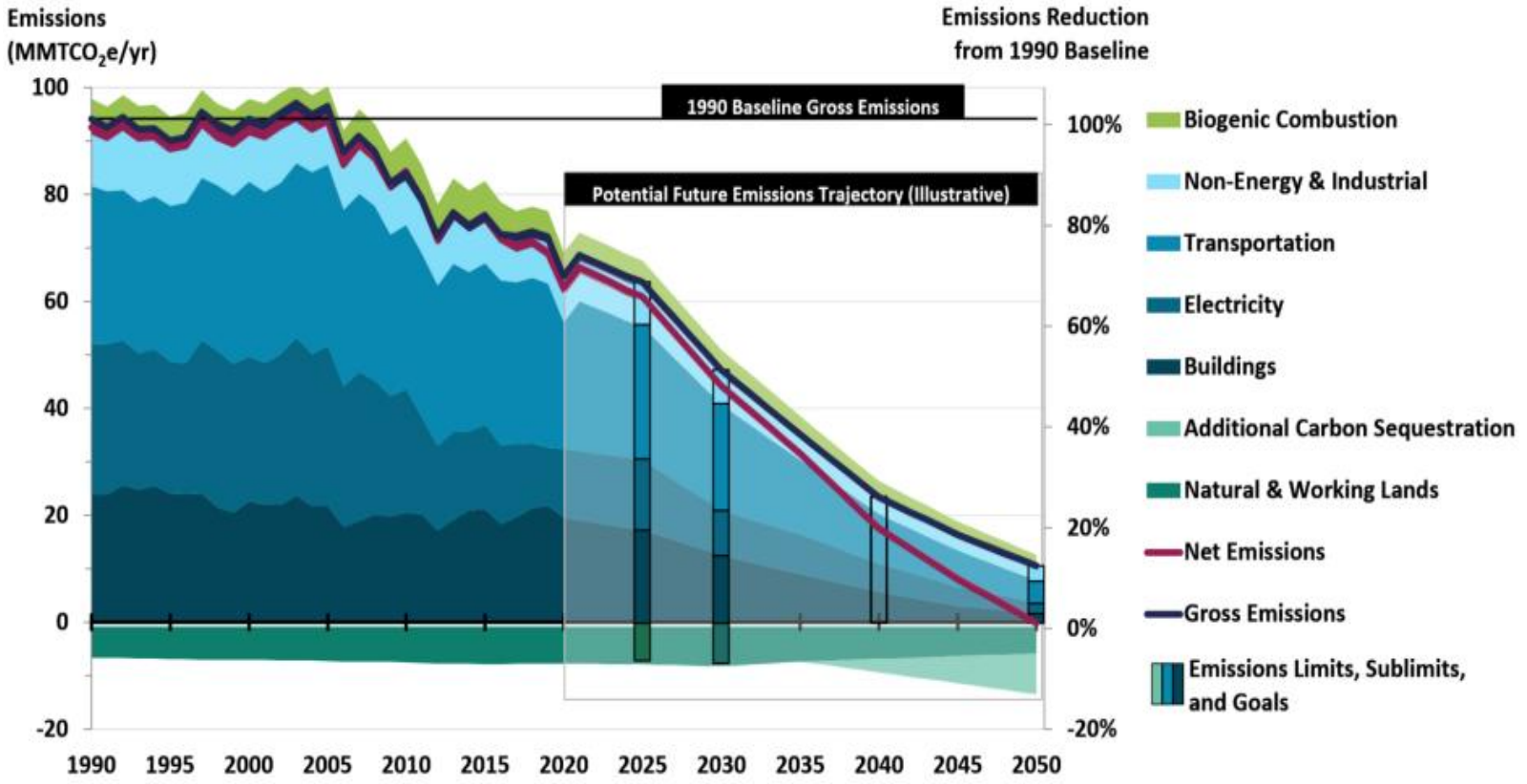


LBE as Sustainability Hub

In Support of State Targets: Decarbonizing & Minimizing Environmental Impacts of State Government

State Clean Energy and Climate Plan for 2050 & Executive Order 594

- Statewide net zero target by 2050
- Sector sub-limits for buildings, transportation, electricity for interim years
- EO 594 sets key emissions and clean energy targets for state gov't. through 2050
- Focus on buildings & Fleets



MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

EO594 Goals & Targets

Objective	2025	2030	2040	2050
Reduce emissions from onsite fossil fuel use	-20%	-35%	-60%	-95%
Reduce fuel oil use	-90%	-95%	TBD	TBD
Reduce Energy Use Intensity (EUI)	-20	-25%	TBD	TBD
Zero emission vehicles (ZEVs) in state fleet	5% of fleet	20% of fleet	75% of fleet	100% of fleet
Total EV charging stations at state facilities	350	500	TBD	TBD

Fleet Electrification: ZEV acquisition requirements begin FY23

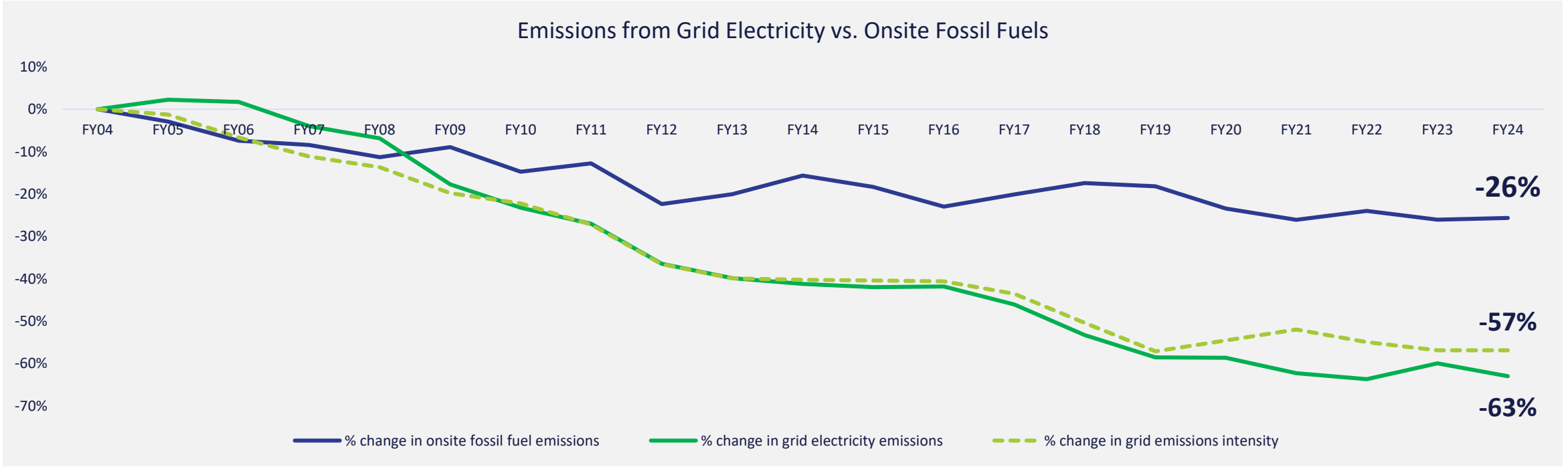
New Construction: require LEED silver, fossil fuel-free heating & cooling, adopt specialized opt-in code

Existing buildings: target fossil fuels, envelope, renewables, energy storage, and resilient design

Other Sustainability: On-site renewables; landscaping, embodied carbon, water & waste

Rationale for shift in focus to onsite emissions

- ❑ Grid emissions have declined significantly due to state policies and market conditions
- ❑ Seventy-five percent (75%) of current state government emissions reductions can be attributed to changes in grid emissions intensity
- ❑ Fossil fuel emissions are most challenging to address, under the direct control of state action, and constitute the majority (and growing) portion of emissions within the state portfolio



MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

How LBE Gets Involved

1. Coordination

- Agency LBE coordinators
- Bi-monthly council meeting
- Annual LBE Awards
- Regular agency check-ins

2. Technical Assistance

1. EO Implementation guidance
2. Fact sheets
3. Policies (e.g. Renewable diesel/domicile EVSE)

3. Funding

- Coordinate across funding opportunities
- LBE grants to address program gaps
- Solar, EVSE, Decarbonization LBE grants

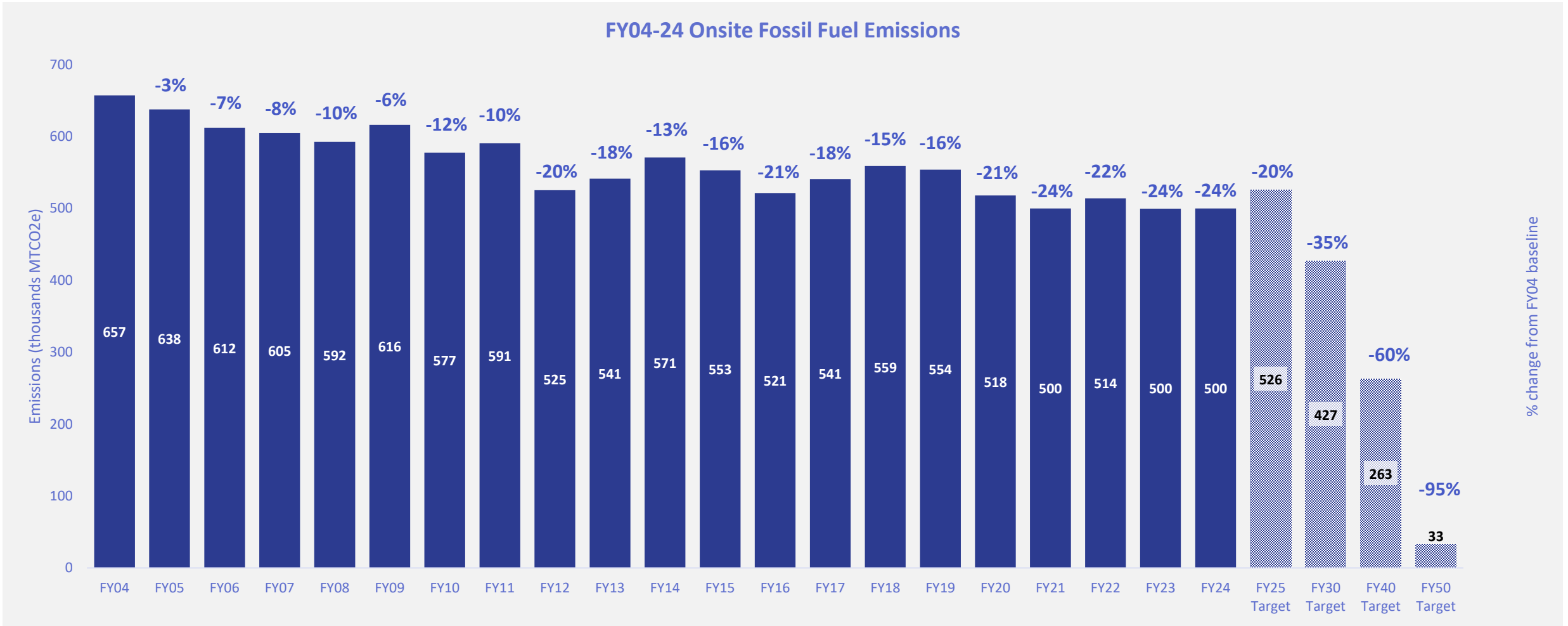
4. Data Tracking, Analysis & Forecasting

- Annual energy consumption from 2004
- Individual agency and whole portfolio
- Building and fleet fuels
- Scope 1 & 2 emissions reporting
- Longer term planning toward goals

Who Does The Work

Name	Title	Email
Eric Friedman	Director	eric.friedman@mass.gov
Sophia Vitello	Data & Project Analyst	sophia.vitello@mass.gov
Morgan Bowler	Clean Energy & Sustainability Coordinator	morgan.bowler@mass.gov
Arianna Zrzavy	Clean Energy Engagement Coordinator	arianna.zrzavy@mass.gov
Nicole Lepre	Electric Transportation Program Manager	nicole.lepre@mass.gov

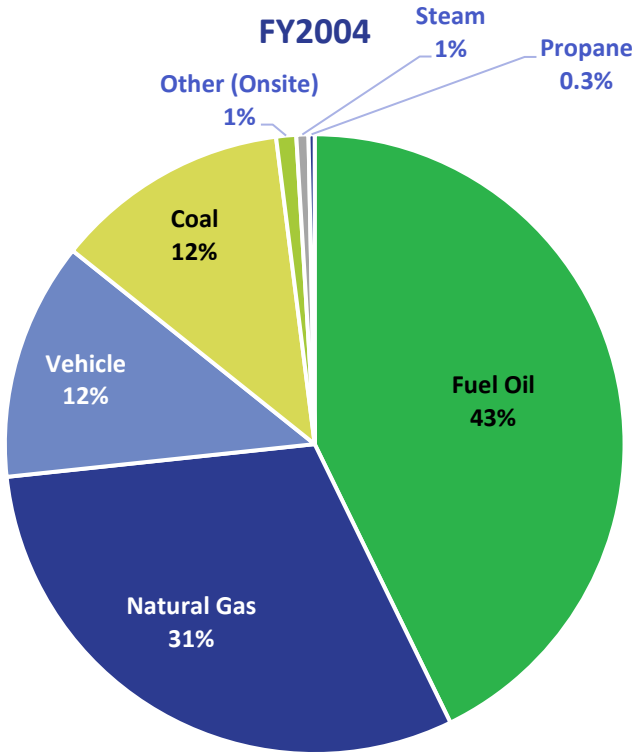
Onsite Fossil Fuel Reduction Progress

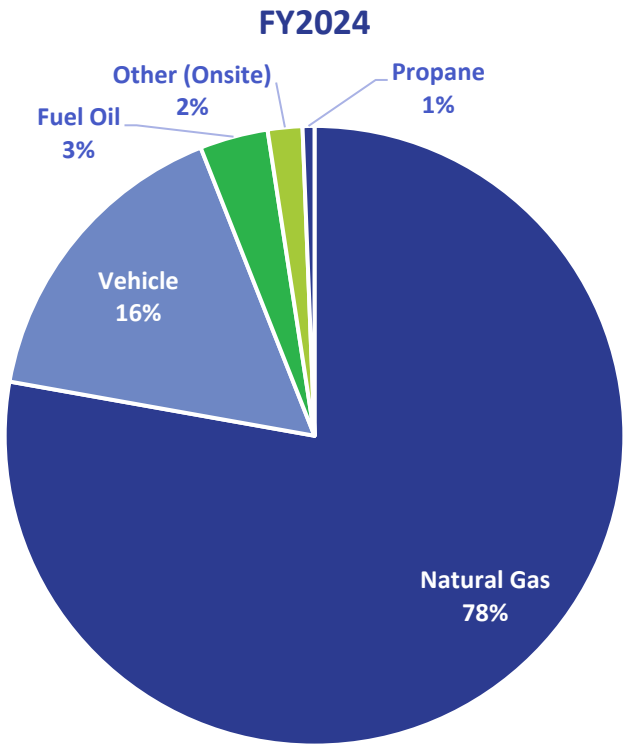


MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

Onsite Fossil Fuel Emissions Sources

Share of onsite fossil fuel emissions has shifted among the fuel sources

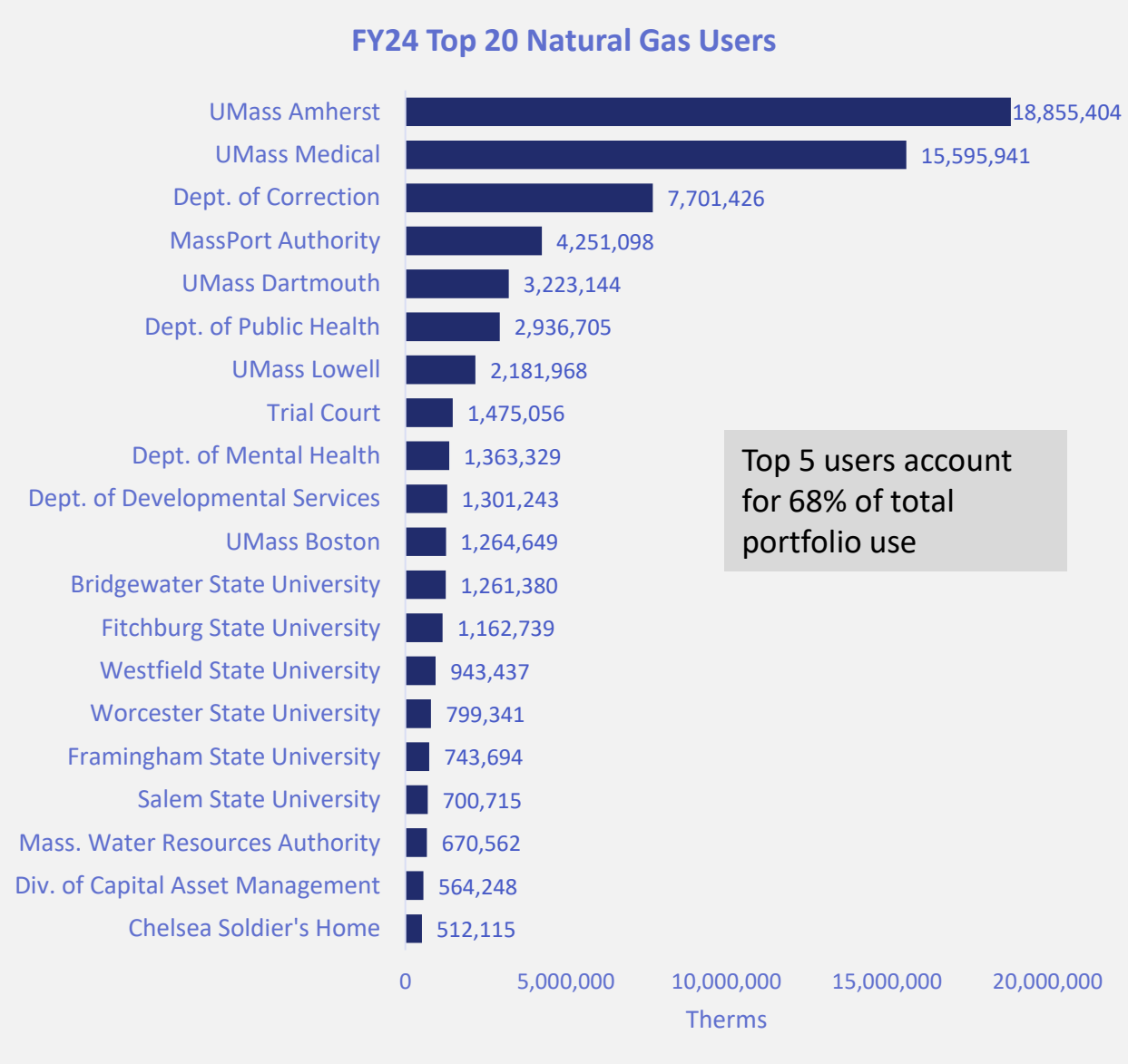


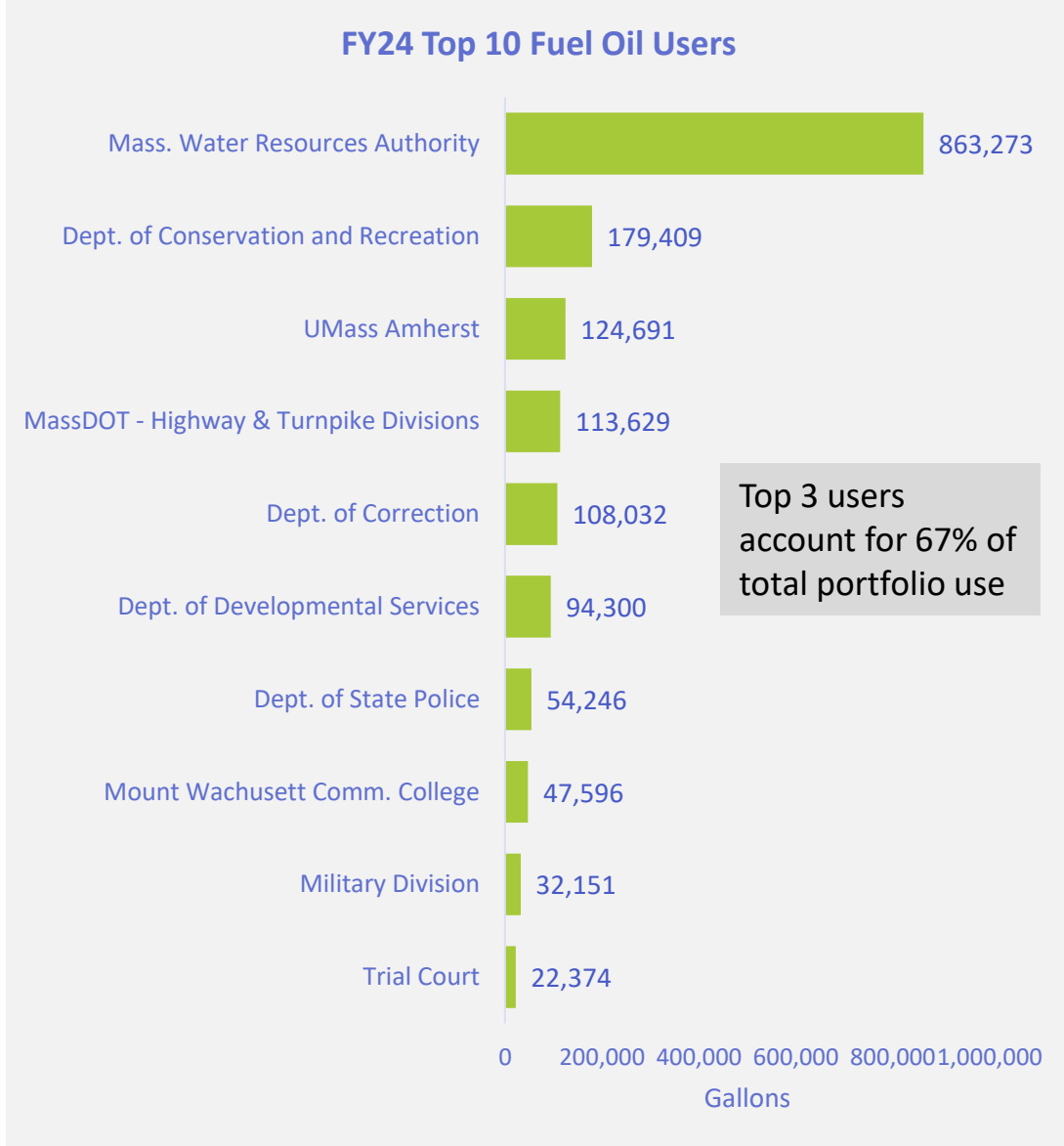


"Other (Onsite)" category includes fuel used for emergency generation and uses not directly related to standard operations

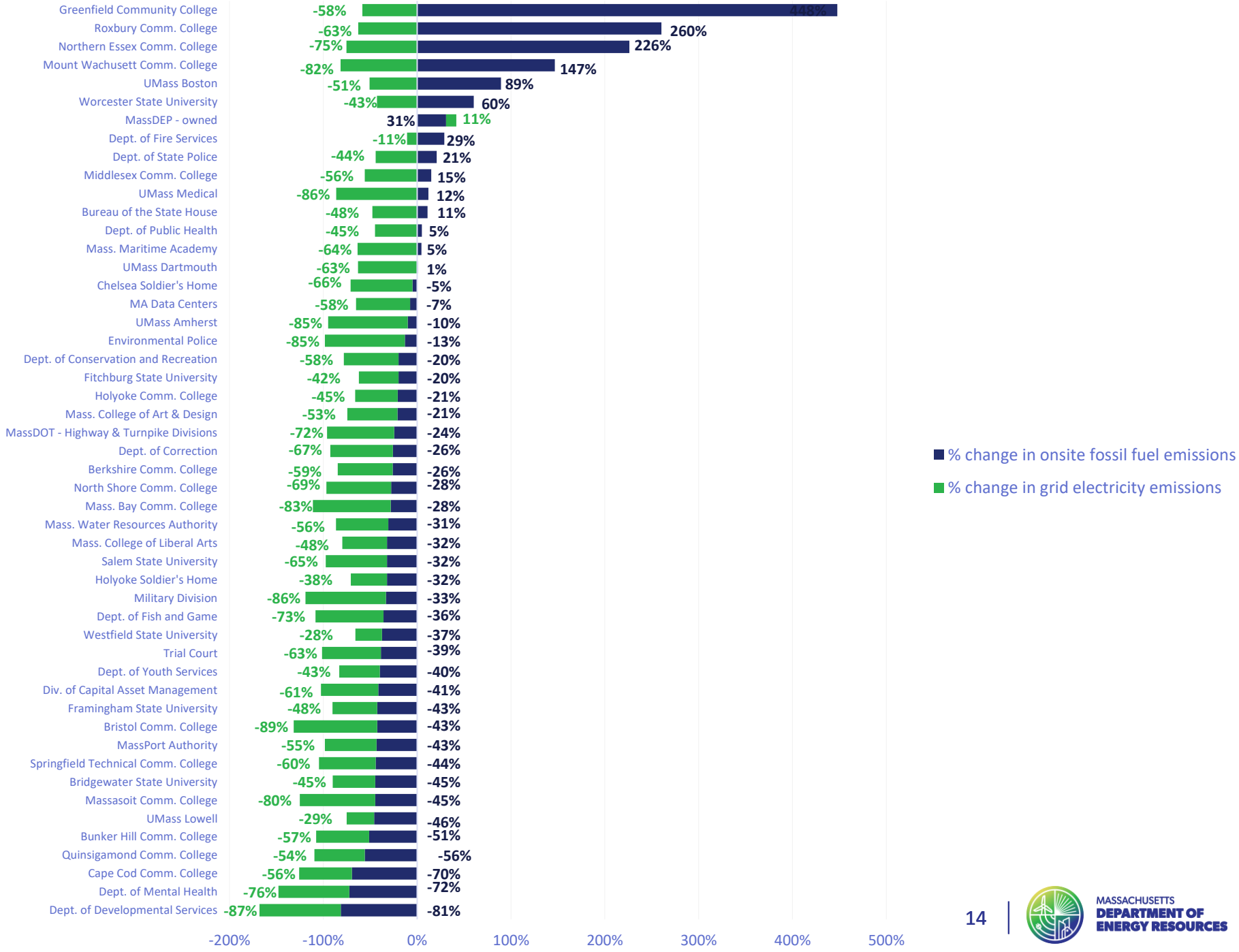
MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

Prioritization of Higher Energy & Fuel Users



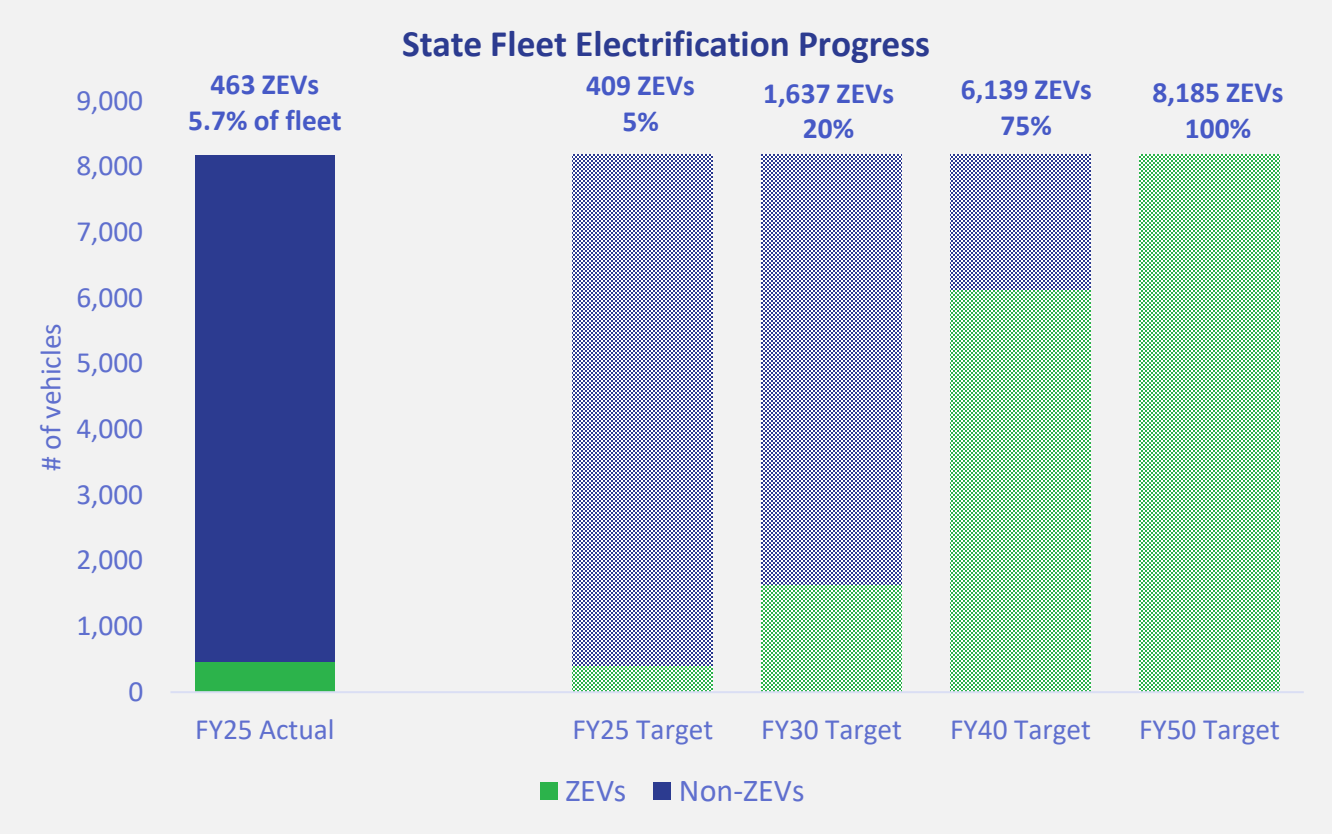


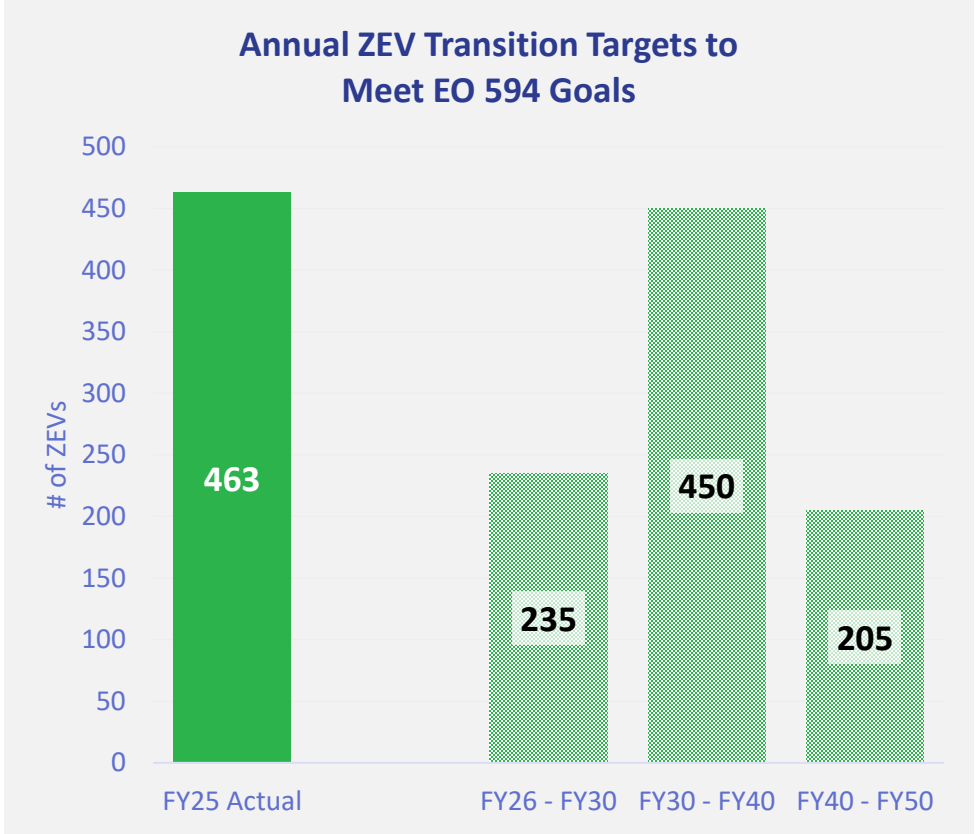
FY04-24 Changes in Onsite Fossil Fuel & Grid Electricity Emissions



MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

Fleet Electrification Progress



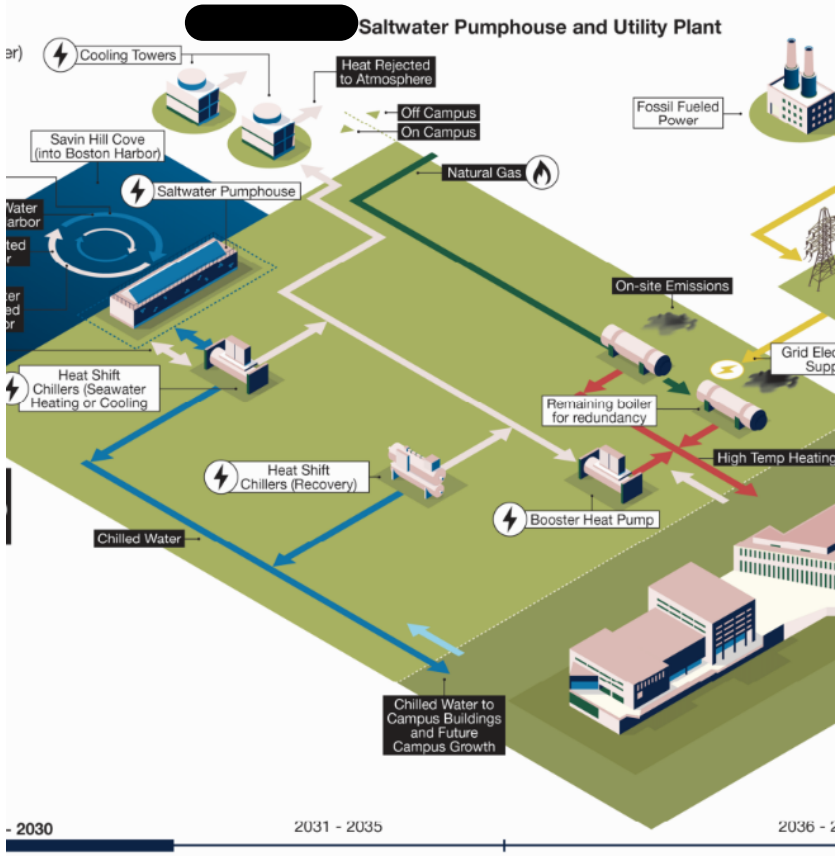


ZEVs (zero-emissions vehicles): includes battery electric and plug-in hybrid electric vehicles

MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

Decarbonization Innovation

- Decarbonization roadmaps, often part of master planning
- $15 million LBE Decarbonization Implementation grants at UMass campuses and other entities
  - Waste heat to steam heat pump
  - Expansion of existing ground source project to add buildings
  - Heat shift chillers to utilize existing seawater pump house toward LTHW
- Target Phase Approach
  - Leverage new construction / existing building funding / equipment replacement



Key Program Considerations

- High level coordination across all of state government – breaking down silos
- Variety of ongoing engagement
- Set overall policy and targets
- One stop shop for funding opportunities, guidance, technical assistance
- Develop targeted funding support to fill gaps

Peer Exchange Cohorts (1)

U.S. Dept. of Energy Better Buildings Better Plants – States Bi-Monthly Convening

When: On-line meetings every other month – 90 Minutes

What: Various issues mostly related to state building portfolios

Who: states participating in Better Buildings Challenge, that are a BBC goal achiever, or through the BBC Initiative

Contact: Nina Wuerch Christina.Wuerch@ee.doe.gov

Electrification Coalition State Fleet Cohort

When: Online meetings every every month – 75 minutes

What: Topics related to state fleet electrification & charging

Who attends: Multiple states (state fleet managers, DOT reps, state sustainability reps)

Contact: Carolyn Bidó (cbido@electrificationcoalition.org)

Peer Exchange Cohorts (2)

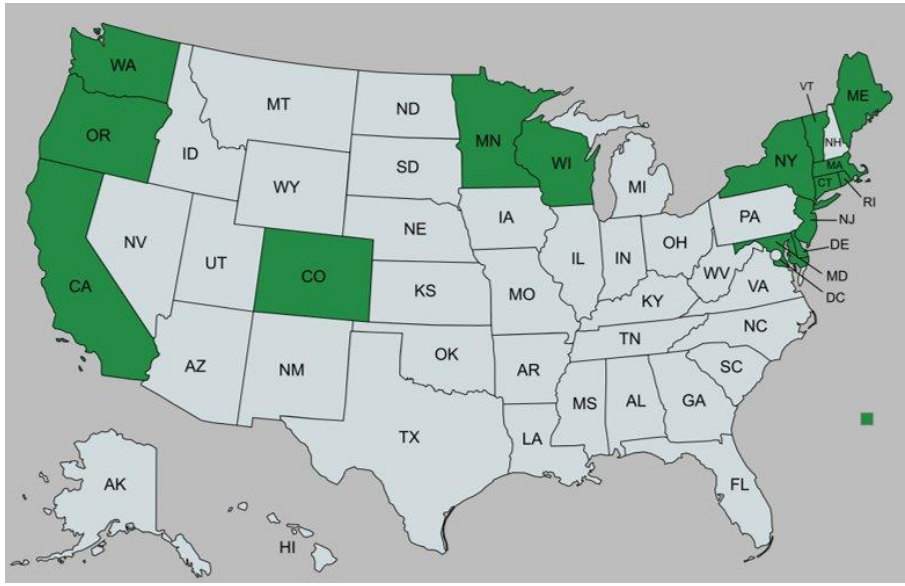
National LBE Cohort (continuation of US Climate Alliance)

When: Every other month 60 minutes

What: Variable Topics TBD by group

Who: New England, NY, NJ, DE, MD, DC, MN, WI, CO, CA, OR, WA

Contact: Winston Thompson: winston.thompson@wisconsin.gov
Arianna Zrzavy: Arianna.Zrzavy@mass.gov (to join MS Teams)



Northeast LBE Peer Group

When: Variable in person meetings

What: In depth discussions on LBE topics

Who: CT, MA, ME, NY, RI, VT (NJ?)

Contact: Eric Friedman: eric.friedman@mass.gov

MASSACHUSETTS
DEPARTMENT OF ENERGY RESOURCES

Thank You!

Oregon Department of **ENERGY**

Oregon's State Building Strategy

NASEO Buildings Committee

Amanda Welch

March 27, 2026

OREGON DEPARTMENT OF ENERGY

OREGON DEPARTMENT OF ENERGY

Leading Oregon to a safe, equitable, clean, and sustainable energy future.

Our Mission

The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

What We Do

On behalf of Oregonians across the state, the Oregon Department of Energy achieves its mission by providing:

- A Central Repository of Energy Data, Information, and Analysis
- A Venue for Problem-Solving Oregon's Energy Challenges
- Energy Education and Technical Assistance
- Regulation and Oversight
- Energy Programs and Activities

Building Portfolio Overview

- Diverse portfolio
  - 300+ buildings
  - Offices, prisons, hatcheries, hospitals, etc.
  - Variation in age, climate zone

Lead-by-Example Framework

- **State Energy Efficient Design (SEED) Program**: baseline + lifecycle tool
- **Oregon Public Facilities Alliance (OPFA):** collaboration engine
- **Building Performance Standard (BPS):** policy alignment “north star”
- **Dashboard**: transparency + tracking
- **Strategic Energy Management (SEM)**: energy coaching
- **Oregon State Energy Strategy (OSES):** future policy
- **State Agency Energy Savings Revolving Fund:** reinvestment tool

OREGON DEPARTMENT OF ENERGY

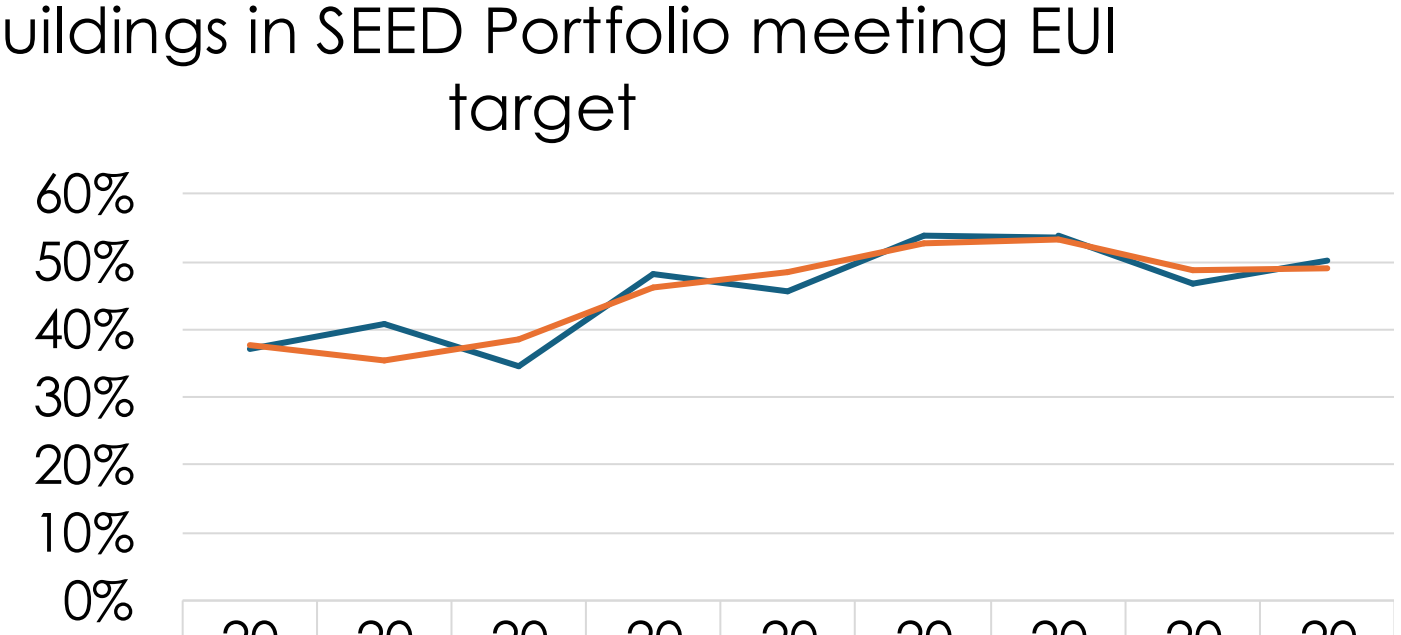
How We Demonstrate in Buildings

- **Operational**: HVAC tuning, schedules, control optimization
- **Retrofit:** LEDs, heat pumps, VFDs, control upgrades
- **Audit-driven:** Repairs/replacements producing measurable savings
- **Behavior + Management:** O&M documentation, energy management practices
- **Capital:** Investments aligned with emissions targets

OREGON DEPARTMENT OF ENERGY

State Energy Efficient Design Program

- Portfolio-level tool to see across buildings in all agencies
- Provides baselines, EUI targets, emissions tracking and progress metrics
- Unified statewide framework



	2015	2016	2017	2018	2019	2020	2021	2022	2023
NON-WEATHER NORMALIZED	37%	41%	35%	48%	46%	54%	54%	47%	50%
WEATHER NORMALIZED	38%	35%	38%	46%	49%	53%	53%	49%	49%

OREGON DEPARTMENT OF ENERGY

Oregon Public Facilities Alliance (OPFA)

- Statewide collaborative platform
- 70+ facility + energy staff across 18 agencies
- Troubleshoot issues
- Share practices
- Coordinate for BPS

OREGON DEPARTMENT OF ENERGY

Examples from the Field:
Night Walks

DAS DEPARTMENT OF ADMINISTRATIVE SERVICES

- After-hours walkthroughs before equipment shuts off
- Verify HVAC is turning off per schedule
- Identify plug loads left on overnight
- Document exterior and interior lighting left on
- Corrective action coordination w/ electricians

OREGON DEPARTMENT OF ENERGY

Examples from the Field:
Steam Trap Upgrades

Image credits: Associated Press

- Identified and replaced 39 failed steam traps
- $3,900 in Energy Trust incentives
- Estimated $55,000 annual utility savings
- 53,700 therms saved annually

OREGON DEPARTMENT OF ENERGY

Examples from the Field:
BAS Migration Debugging

- Complex BAS migration where old and new systems interact
- Issues uncovered include permission errors, sensors showing “OK” but not actually working, and severe data latency
- Staff are addressing issues one at a time, resolved 7 issues since July

Ground Reality

- Aging infrastructure
- Staffing shorts and reactive maintenance pressures
- Limited funding
- Disconnect between operations and finance
- Fragmented data, aging building automation system (BAS), or no BAS at all

How ODOE Helps

Barrier	How ODOE Helps
Aging infrastructure; unclear priorities	Planning guidance + lifecycle analysis
Staffing shortages; reactive maintenance	Trainings, hands-on support, SEM coaching
Limited funding	Incentive coordination + revolving fund
Fragmented data; inconsistent system records	Statewide Facility Condition Assessment + centralized inventory
Siloed or disconnected planning	OPFA as a safe, collaborative, problem-solving environment

New Tools in The Toolbox

- **Facility Condition Assessment + Statewide Inventory**
  - Statewide view of building systems
    - Includes equipment, maintenance needs, manuals, O&M documents, supplier contracts
  - Enables proactive upgrades
- **State Agency Energy Savings Revolving Load Fund**
  - Agencies retain 100% of net energy savings for reinvestments
  - Self-financing tool
  - Fills gap outside capital cycles

OREGON DEPARTMENT OF ENERGY

Putting It All Together

What this means for Oregon

- Demonstration projects show what works in real buildings
- SEED and dashboards make progress transparent and comparable
- OPFA turns insights into shared solutions across agencies
- New tools strengthen planning and reinvestment

OREGON DEPARTMENT OF ENERGY

Thank you!

Amanda Welch

Amanda.WELCH@energy.oregon.gov