



NESCAUM Activities on EV Infrastructure Planning

MWCOG Meeting on EV Infrastructure Planning
December 13, 2018

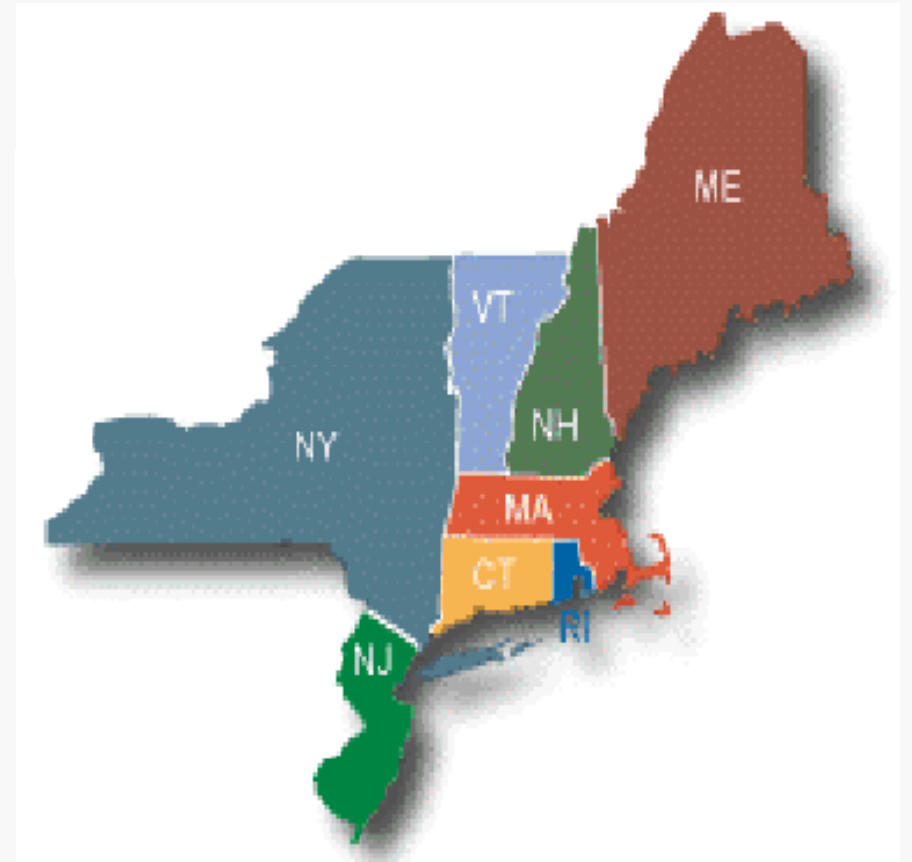
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What is NESCAUM?

Northeast States for Coordinated Air Use Management

A nonprofit association of air quality agencies in the Northeast

Our purpose is to provide scientific, technical, analytical, and policy support to the air quality programs of the eight Northeast states.



Northeast Corridor Regional Strategy
for Electric Vehicle Charging Infrastructure
2018 – 2021



May 16, 2018



The regional strategy is available at:

<http://www.nescaum.org/documents/northeast-regional-charging-strategy-2018.pdf>

Significant New Sources of Infrastructure Funding on the Horizon

While other investments by utilities, OEMs, EVSE providers, and businesses and workplaces are expected (and will be needed to meet state and regional goals), there are three major sources of known funding:

APPENDIX D FUNDS

Under the Volkswagen Settlement, the Northeast Corridor States may invest up to \$108 million on ZEV charging and hydrogen fueling infrastructure.



Pursuant to the VW settlement, Electrify America is investing \$2 billion to promote ZEVs, which will include substantial infrastructure investments in the Northeast Corridor.

UTILITY PROPOSALS

Utilities in the region are starting to invest in transportation electrification, with proposals in DE, DC, MD, MA, NJ, NY and RI, representing an investment of roughly \$750 million.

Why Develop a REGIONAL Strategy?





OBJECTIVE

Provide guidance and direction to ensure that public and private investments are strategically integrated – well-informed, coordinated and complementary

Three Pronged Approach

Northeast Corridor Steering Committee identified overarching issues, key investors and their roles, and priorities for different charging use cases.

CHARGING USE CASES

- Home
- Workplace
- Around Town
- On the Road
- Destinations

KEY INVESTORS

- State and local governments
- EVSE Providers
- Utilities
- Automakers
- Businesses

OVERARCHING ISSUES

- Interoperability
- Rate Design
- Signage
- Permit Streamlining
- Pricing Transparency
- Building Codes
- Uptime
- Data Collection
- Future Proofing
- Low-Income/Disadvantaged Communities

Charging Use Case Priorities

Investor Roles

Home: Lower deployment and use costs, especially at MUDs

Utilities: MUDs, offer incentives, conduct outreach
EVSE Providers/Automakers: pilot innovation MUD solutions

Work: Incentivize workplace charging, conduct outreach, recognize business leaders

States: Workplace charging incentives; employer outreach; public fleet EVSE mandates
Utilities: Provide incentives, outreach, EVSE

Around Town: Airports, train stations, strategically located charging hubs, visible long dwell time locations

EVSE Providers/Utilities: DCFC
States: Incentivize/fund L2 at publicly-owned lots and airports, train stations, transit centers

On the Road: Expand DCFC network along interstate and state highway corridors

EVSE Providers: Deploy DCFC network
Utilities: Site selection; make-ready & deploy EVSE
States: Target funding to fill gaps; outreach to site hosts

Destinations: Deploy EVSE at key destinations such as beaches, mountain resorts, state parks, historic sites, etc.

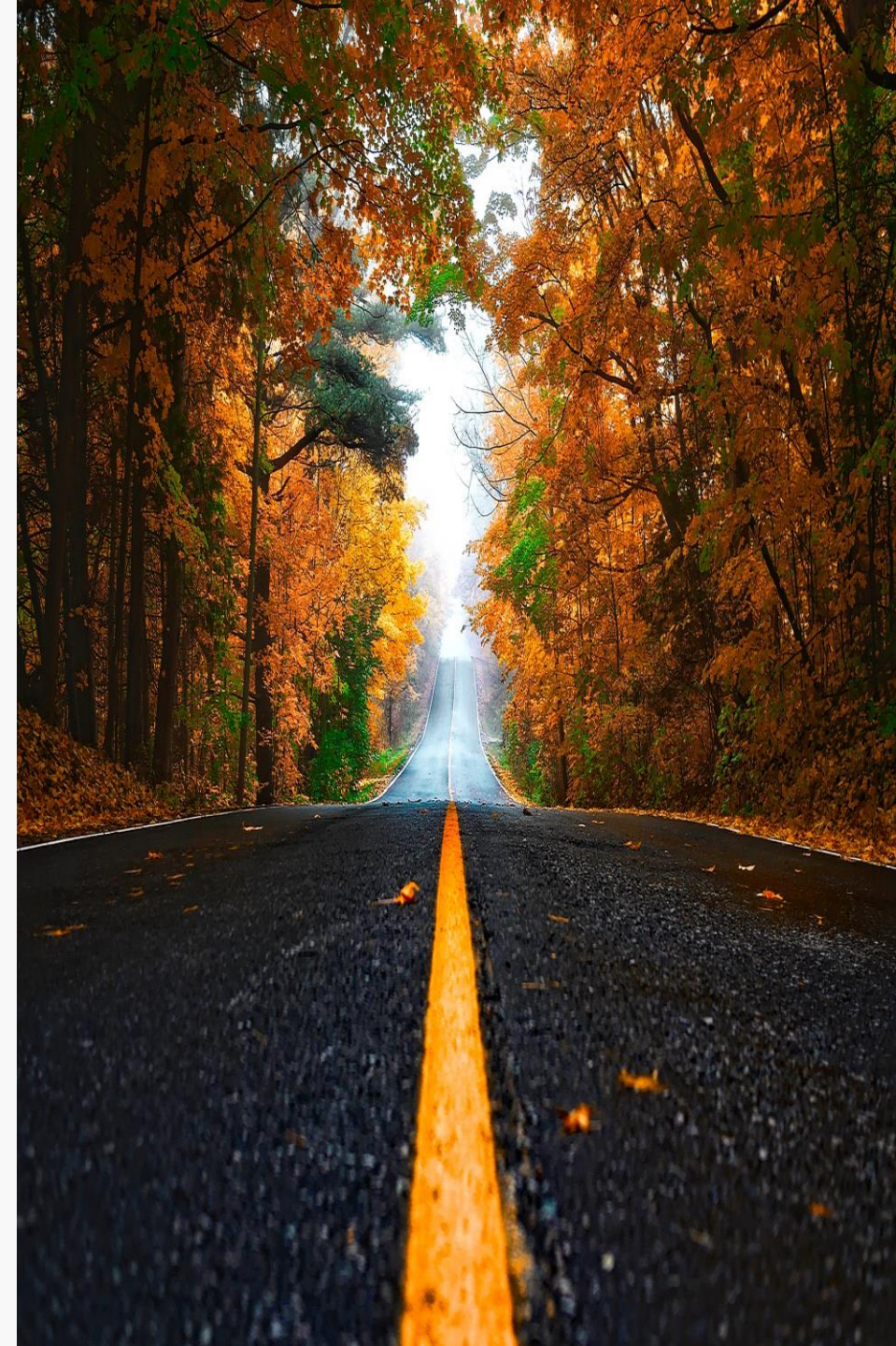
States: Identify key destination locations; provide L2 incentives/funding
EVSE Providers: Install DCFC on destination travel corridors and at publicly owned destination lots

Key Roles

States: Policies to address overarching issues; workplace charging incentives; L2 around town, at publicly owned lots, at airports, train stations, transit centers, destination locations; filling DCFC travel corridor gaps

Electrify America/EVSE Providers: DCFC on travel corridors and strategically placed community charging hubs, at airports, train stations, transit centers; innovative MUD pilots

Utilities: MUD and single family home incentives and EVSE; DCFC at airports, train stations, transit centers, travel corridors; workplace charging incentives, outreach and EVSE deployment; beneficial rate design



Other Activities

NESCAUM is working in several areas to accelerate comprehensive and effective EV charging infrastructure throughout the Northeast corridor.

Permit Streamlining Workgroup

To reduce the time it takes to permit a DCFC by creating simplicity and consistency in the permitting process.

Consumer Experience Workshop

To create a consumer-friendly charging experience through the market power of publicly funded chargers designed for public use.

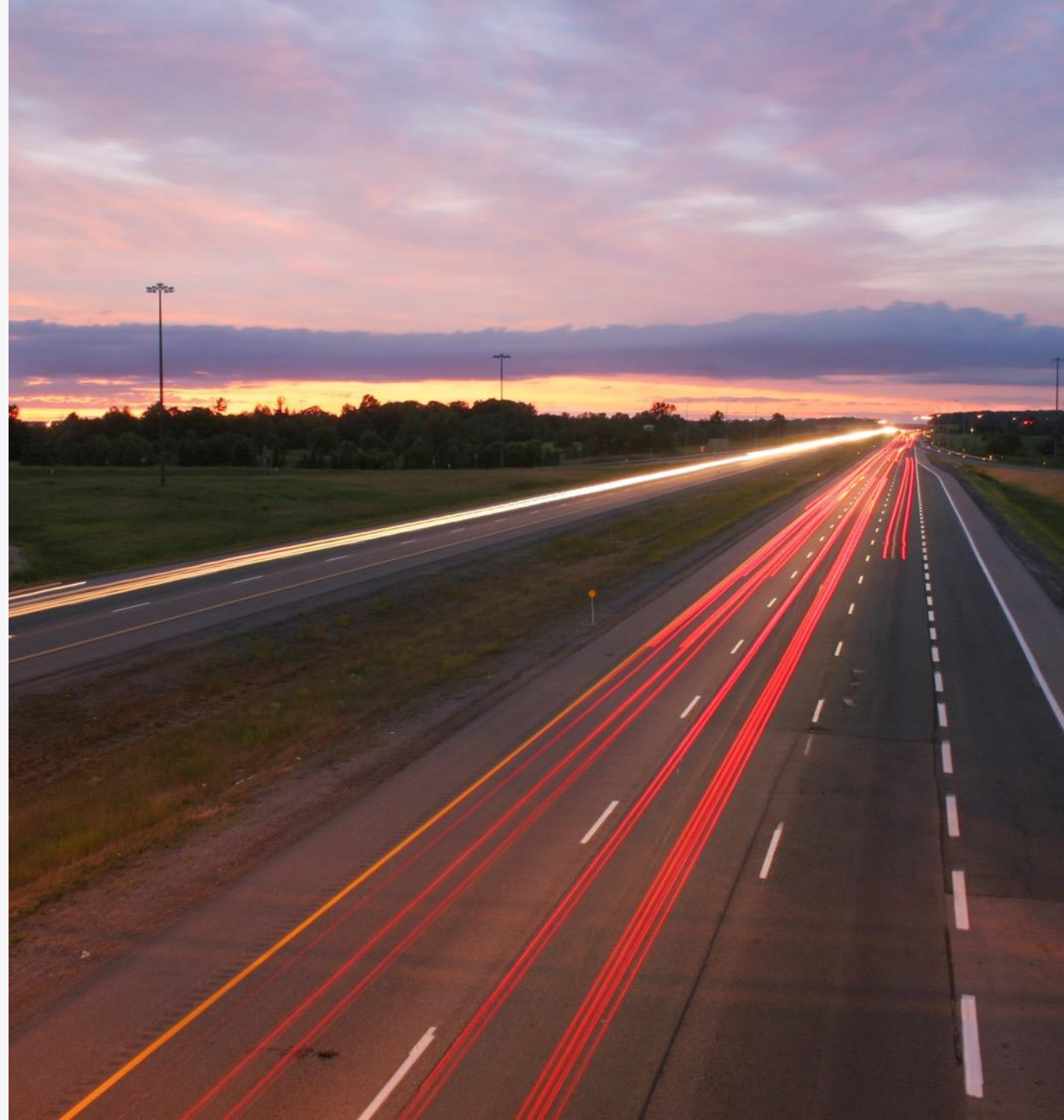
EVSE Interoperability Workgroup

To create a fair and open marketplace for EVSE site hosts and EV drivers, through universal compatibility between EV drivers, EVSE, and EVSPs.

**Thank you for
your time.**

For questions, please contact:

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APPENDIX

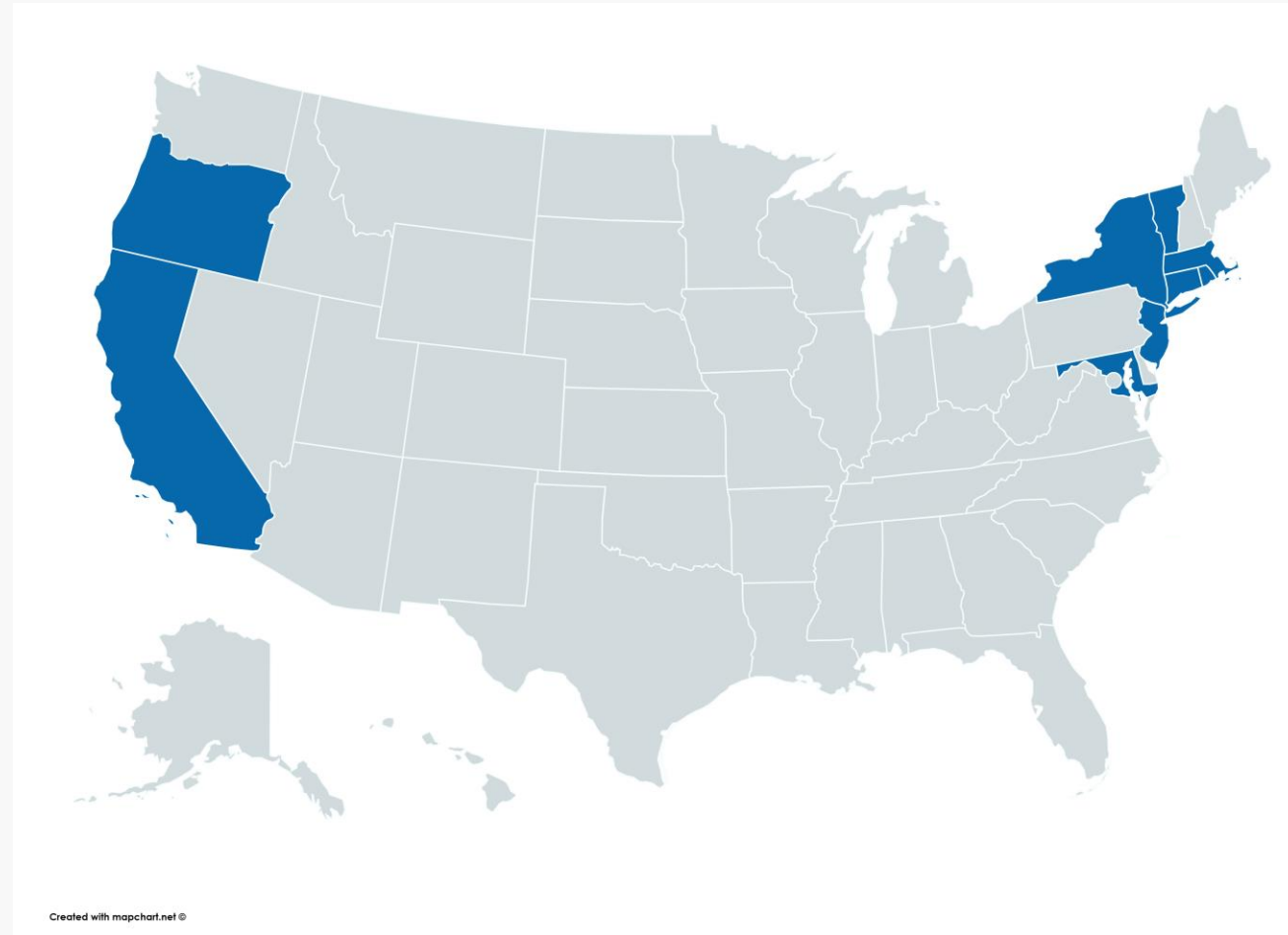
The Multi-State ZEV Task Force

Nine states working together to identify and remove barriers to ZEV adoption

Formed in 2013 in a Governor's Memorandum of Understanding

Facilitated by NESCAUM










All Task Force Member states have adopted California's ZEV requirements per CAA §177



State Greenhouse Gas Emissions Targets

fig. 4 STATE GREENHOUSE GAS EMISSIONS TARGETS

States have committed to ambitious GHG reduction goals, typically resulting in 80% reductions by 2050.

		2020	2030	2050
	CALIFORNIA	0% Below 1990 levels	40% Below 1990 levels	80% Below 1990 levels
	CONNECTICUT	10% Below 1990 levels	45% Below 2001 levels	80% Below 2001 levels
	MARYLAND	25% Below 2006 levels	40% Below 2006 levels	90% Below 2006 levels
	MASSACHUSETTS	25% Below 1990 levels		80% Below 1990 levels
	NEW JERSEY	0% Below 1990 levels		80% Below 2006 levels
	NEW YORK		40% Below 1990 levels	80% Below 1990 levels
	OREGON	10% Below 1990 levels		75% Below 1990 levels
	RHODE ISLAND	10% Below 1990 levels	45%* Below 1990 levels	80% Below 1990 levels
	VERMONT**	10% Below 1990 levels	50%*** Below 1990 levels	75% Below 1990 levels

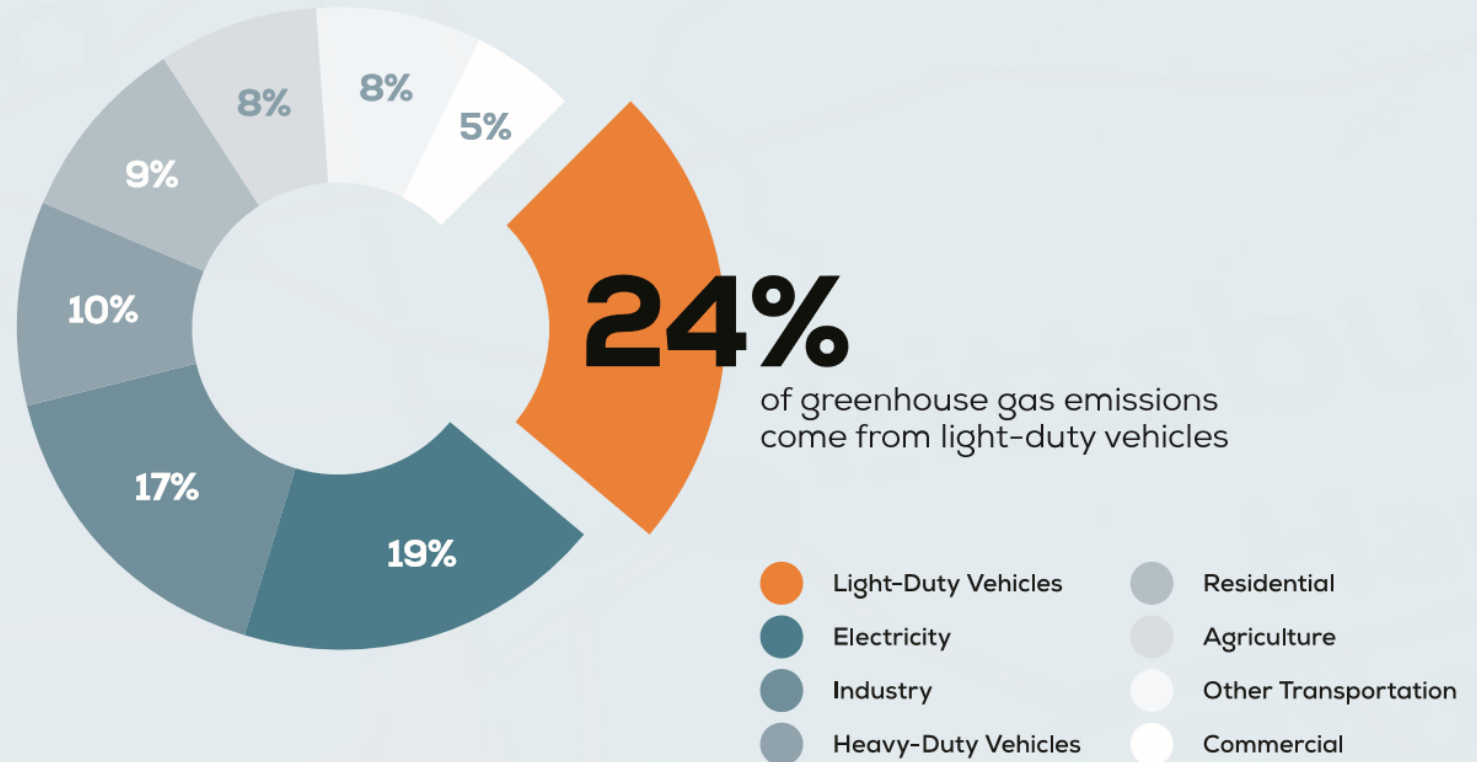
Transportation GHG Emissions

fig. 3

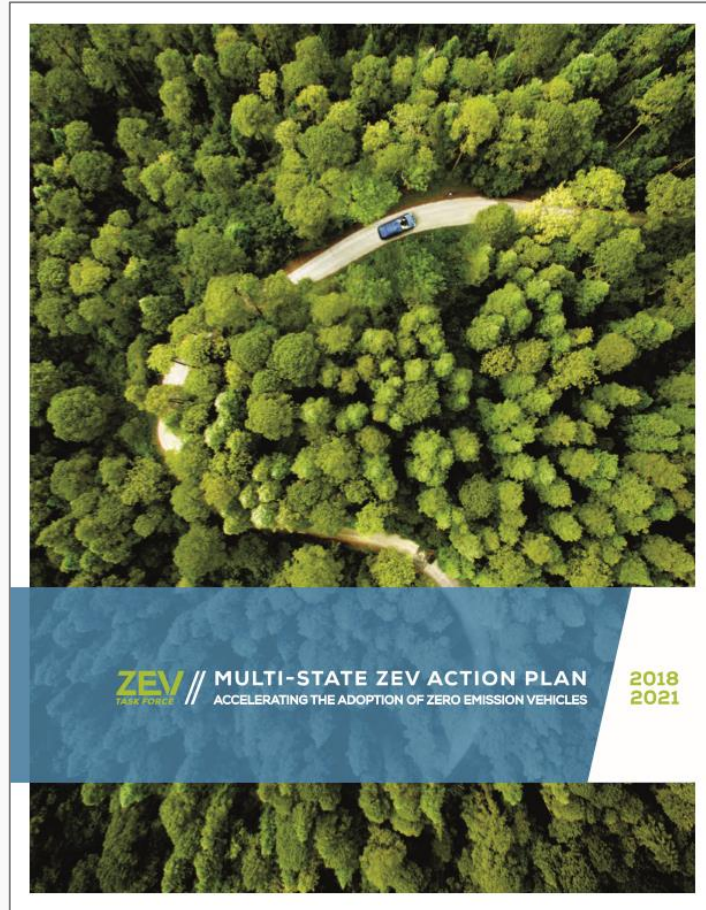
2015 GHG EMISSIONS IN THE NINE MOU STATES

Light-duty vehicles are the single largest contributor to greenhouse gas emissions in the states.

Data Source:
2018 State Inventory
Tool (EPA)



Multi-State ZEV Action Plan



80 market-enabling actions for states, automakers, dealers, utilities, charging and fueling companies, and other key partners

The Five Focus Areas:

1. Consumer Education and Outreach
2. Charging and Hydrogen Fueling Infrastructure
3. Consumer Purchase Incentives
4. Light Duty Fleets
5. Dealerships