NARUC Electric Vehicles State Working Group

SEPTEMBER MEETING

SEPTEMBER 22, 2020

AGENDA (Eastern Time)

3:00 PM	**Welcome and Introductions (5 minutes)** • Agenda review • Roll call, by state
3:05 PM	**Presentation and Q&A: NASEO (10 minutes)** • Cassie Powers, Managing Director at NASEO, will talk about regional efforts through REV West
3:15 PM	**Presentation and Q&A: NESCAUM (10 minutes)** • Kathy Kinsey, Senior Policy Advisor at NESCAUM, will discuss regional coordination in the Northeast as well as the multi-state medium- and heavy-duty ZEV initiative
3:25 PM	**Presentation and Q&A: Great Plains Institute (10 minutes)** • Brendan Jordan, Vice President of Transportation and Fuels at the Great Plains Institute, will discuss multistate efforts in the Midwest
3:35 PM	**Presentation and Q&A: Duke Nicholas Institute (10 minutes)** • Jennifer Weiss, Senior Policy Associate in the Climate and Energy Program at Duke's Nicholas School of the Environment, will review actions in the Southeast
3:45 PM	**Q&A (10 minutes)** • Speakers will take additional questions from working group members
4:00 PM	**Closed Door Discussion (30 minutes)** • Working group members will discuss their own views and the actions their states have taken to date.
4:25 PM	**Next Steps and Announcements (5 minutes)**
4:30 PM	**Adjourn**

Roll Call – Read from Webinar

Working Group Members

States:

- Arizona
- California
- Colorado
- Connecticut
- D.C.
- Florida
- Georgia
- Hawaii
- Illinois
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Missouri
- Nevada
- New Jersey
- New York
- North Carolina
- Ohio
- Oregon
- Puerto Rico
- South Dakota
- Texas
- Vermont
- Washington
- Wisconsin

National/Federal Partners:

- NARUC
- U.S. DOE
- U.S. EPA



Regional Coordination for Transportation Electrification: REV West

Cassie Powers, NASEO
September 22, 2020

About NASEO

- Formed by the states in 1986
- Membership includes the 56 Governor-designated energy policy officials from each state and territory, as well as private sector affiliates
- Facilitates peer learning across states to improve the effectiveness of energy programs and policies
- Serves as a resource for and about State and Territory Energy Offices
- Advocates on behalf of the State Energy Offices with Congress, federal agencies, and private-sector organizations
- Works through topical committees to facilitate peer learning across states to improve the effectiveness of energy policies and programs
- Visit www.naseo.org for more information

Regional Collaboration: REV West

- Memorandum of Understanding signed by governors of eight states
  - Original MOU – 2017
  - Updated MOU – 2019
- Working together to create a seamless EV driving experience across the intermountain west

Key Activities from REV West MOU

Create framework for creating an Intermountain West Electric Vehicle Corridor

Create best practices to enhance EV adoption

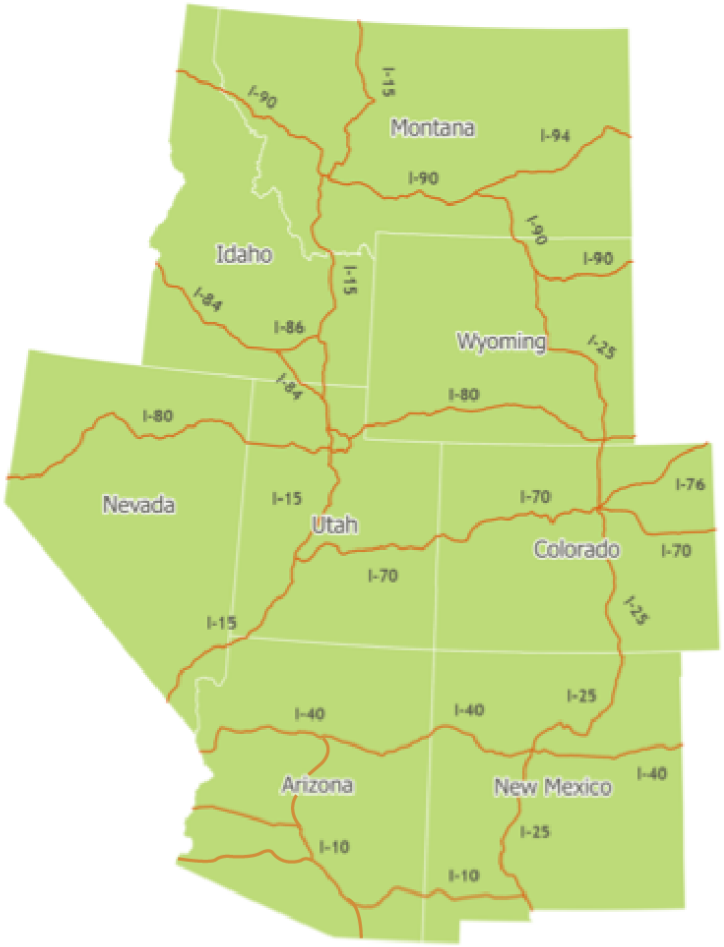
Coordinate on charging station locations to avoid redundancy and "minimize inconsistencies between EVSE

Create Voluntary Minimum Standards

Incorporate EV charging into planning and development processes

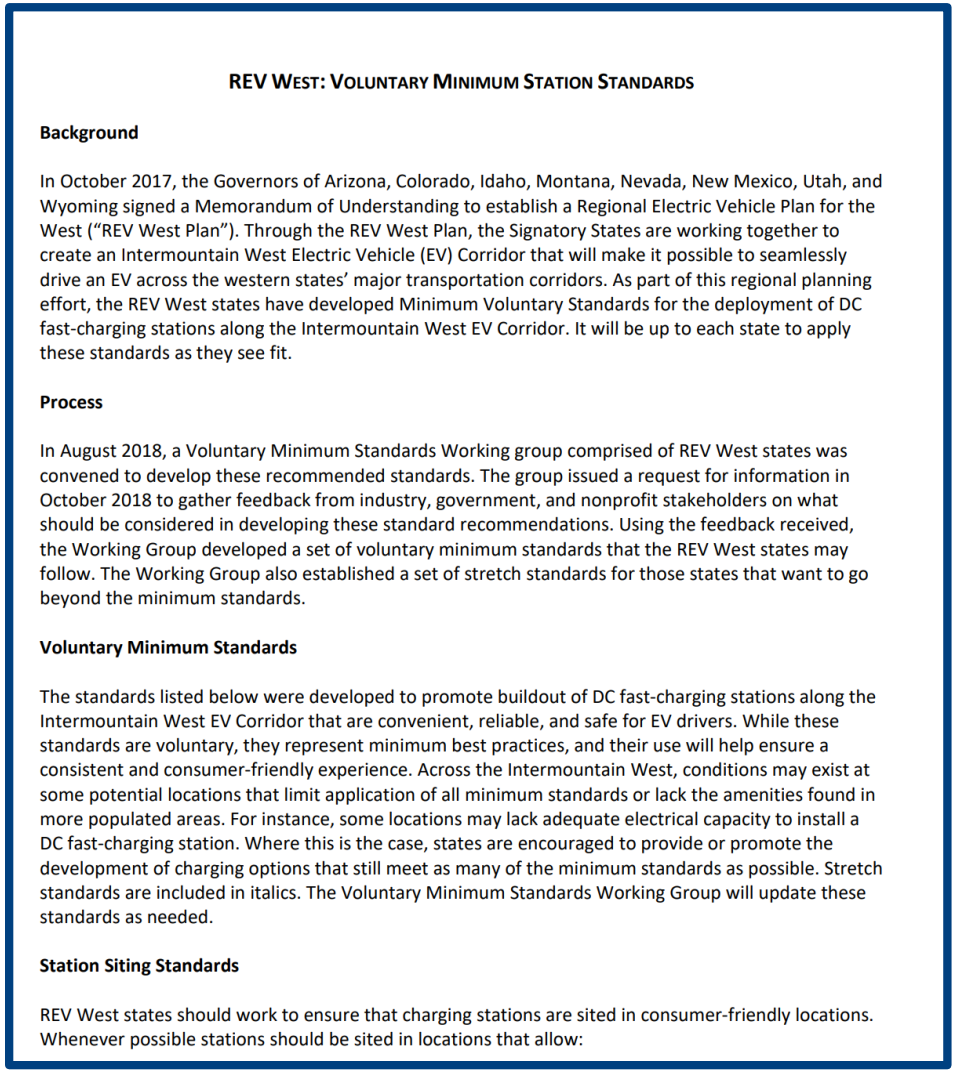
Encourage EV manufacturers to stock and market within REV West

Identify and collaborate on funding opportunities



Progress

- Over 90 fast-charging stations built or planned by private and public sectors in region since MOU launch
- Voluntary minimum standards for DC fast charging stations released and promoted in REV West states
- Enhanced coordination between state energy, environment, and transportation agencies to identify regulatory barriers to station development and address infrastructure gaps
- Policy Baseline report released



REV West: Voluntary Minimum Station Standards

Background

In October 2017, the Governors of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming signed a Memorandum of Understanding to establish a Regional Electric Vehicle Plan for the West ("REV West Plan"). Through the REV West Plan, the Signatory States are working together to create an Intermountain West Electric Vehicle (EV) Corridor that will make it possible to seamlessly drive an EV across the western states' major transportation corridors. As part of this regional planning effort, the REV West states have developed Minimum Voluntary Standards for the deployment of DC fast-charging stations along the Intermountain West EV Corridor. It will be up to each state to apply these standards as they see fit.

Process

In August 2018, a Voluntary Minimum Standards Working group comprised of REV West states was convened to develop these recommended standards. The group issued a request for information in October 2018 to gather feedback from industry, government, and nonprofit stakeholders on what should be considered in developing these standard recommendations. Using the feedback received, the Working Group developed a set of voluntary minimum standards that the REV West states may follow. The Working Group also established a set of stretch standards for those states that want to go beyond the minimum standards.

Voluntary Minimum Standards

The standards listed below were developed to promote buildout of DC fast-charging stations along the Intermountain West EV Corridor that are convenient, reliable, and safe for EV drivers. While these standards are voluntary, they represent minimum best practices, and their use will help ensure a consistent and consumer-friendly experience. Across the Intermountain West, conditions may exist at some potential locations that limit application of all minimum standards or lack the amenities found in more populated areas. For instance, some locations may lack adequate electrical capacity to install a DC fast-charging station. Where this is the case, states are encouraged to provide or promote the development of charging options that still meet as many of the minimum standards as possible. Stretch standards are included in italics. The Voluntary Minimum Standards Working Group will update these standards as needed.

Station Siting Standards

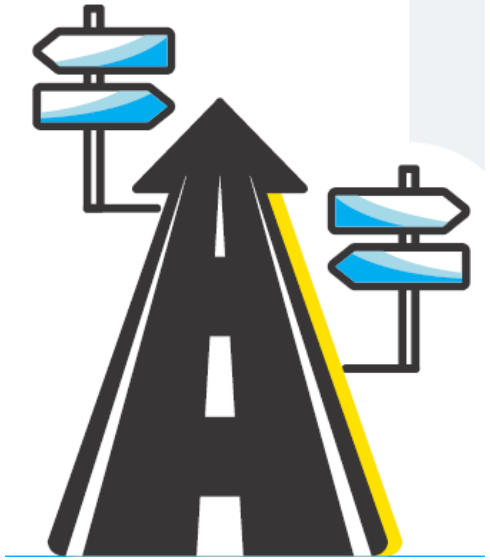
REV West states should work to ensure that charging stations are sited in consumer-friendly locations. Whenever possible stations should be sited in locations that allow:

Progress: CORWest

- Pursued and obtained federal funding to identify barriers, raise awareness, and enhance accessibility in rural and remote areas, and coordinate infrastructure investment through "CORWest" project with Clean Cities Coalitions

Needs Assessment, Tool Aggregation & Strategy Development

Communication, Branding, EV Materials Toolkit

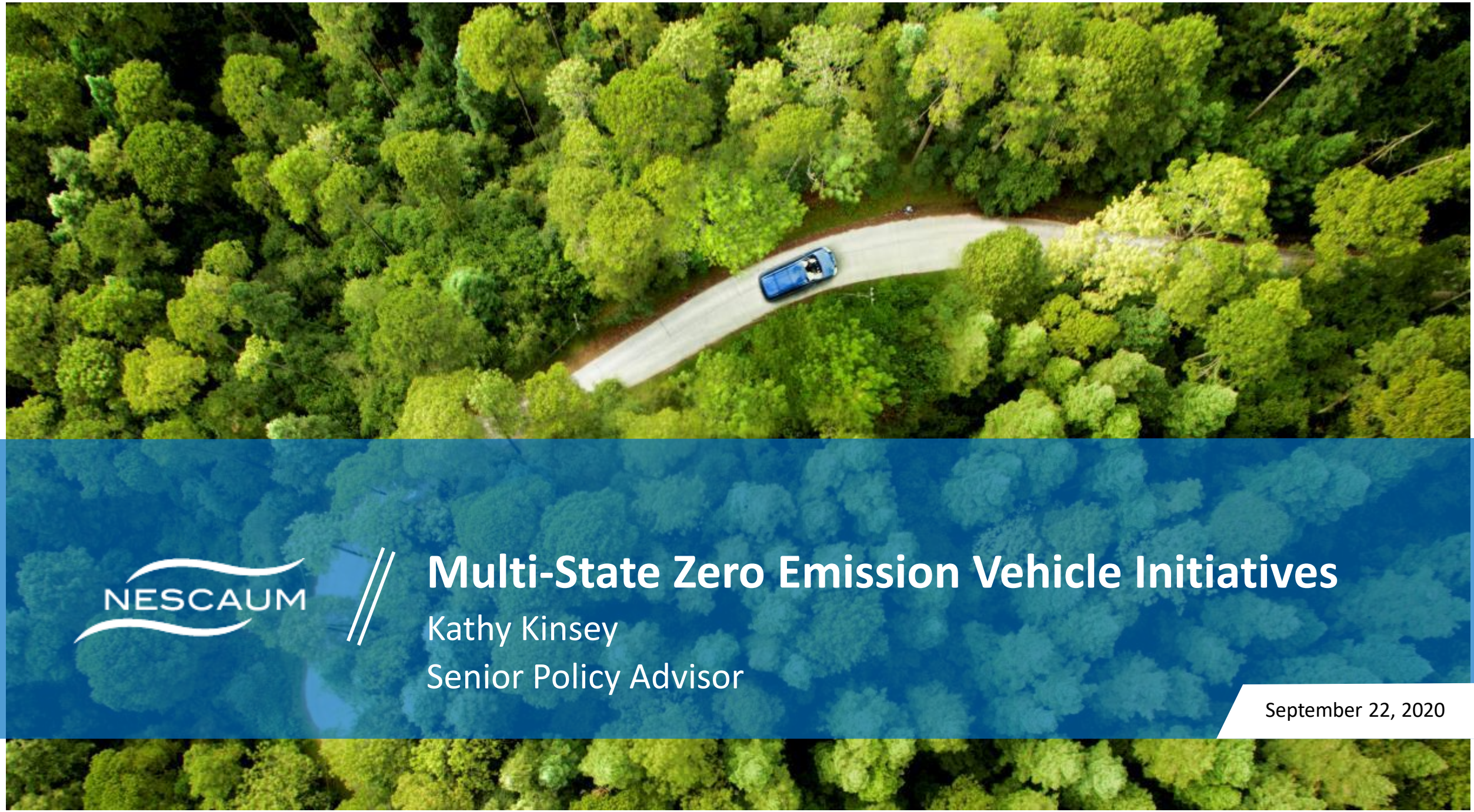


Infrastructure Deployment, Consumer Demand, and Replication

More Information

More information can be found on the REV West webpage here:
https://www.naseo.org/issues/transportation/rev-west

Please contact Cassie Powers, Managing Director of Programs, NASEO with questions (cpowers@naseo.org).



NESCAUM

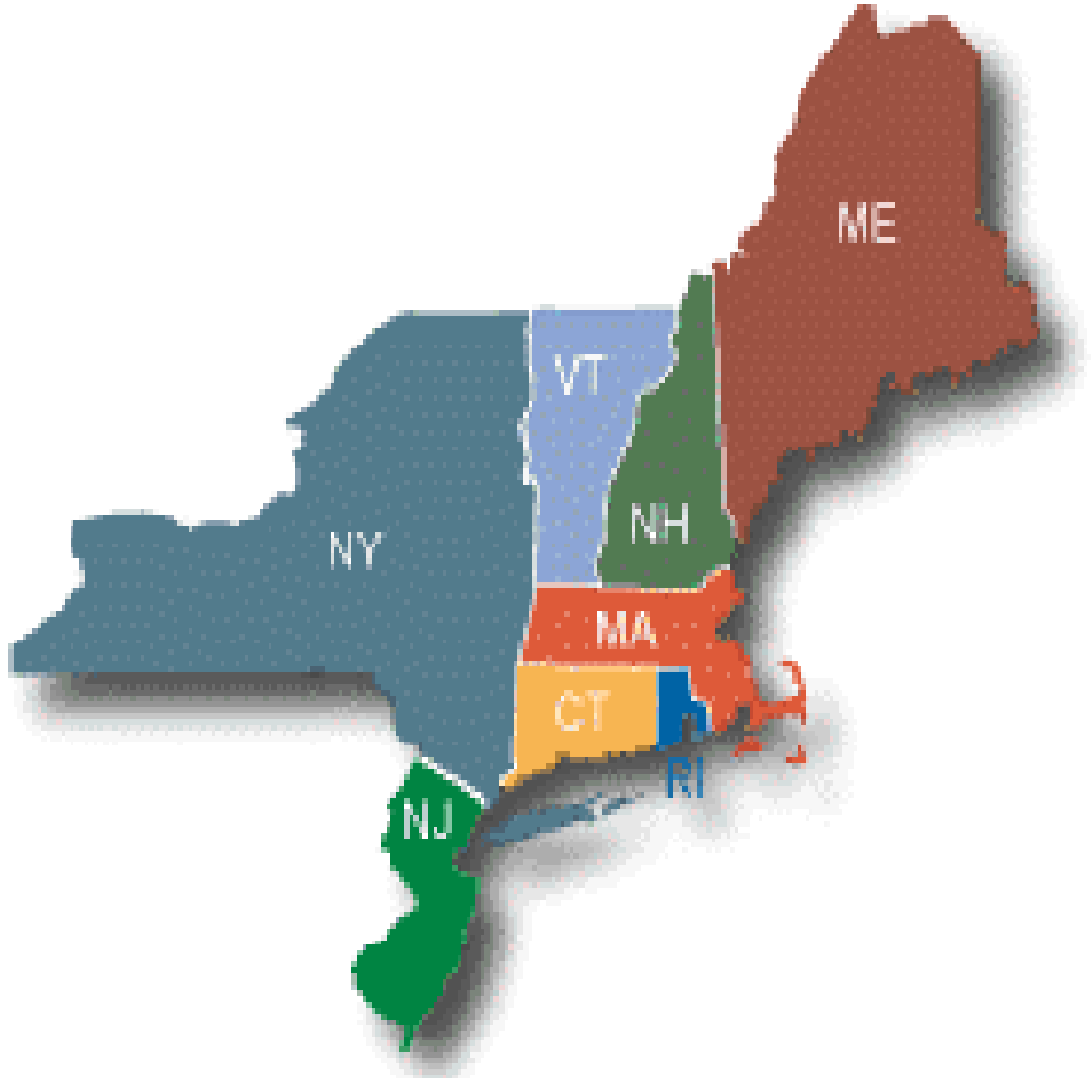
Multi-State Zero Emission Vehicle Initiatives

Kathy Kinsey
Senior Policy Advisor

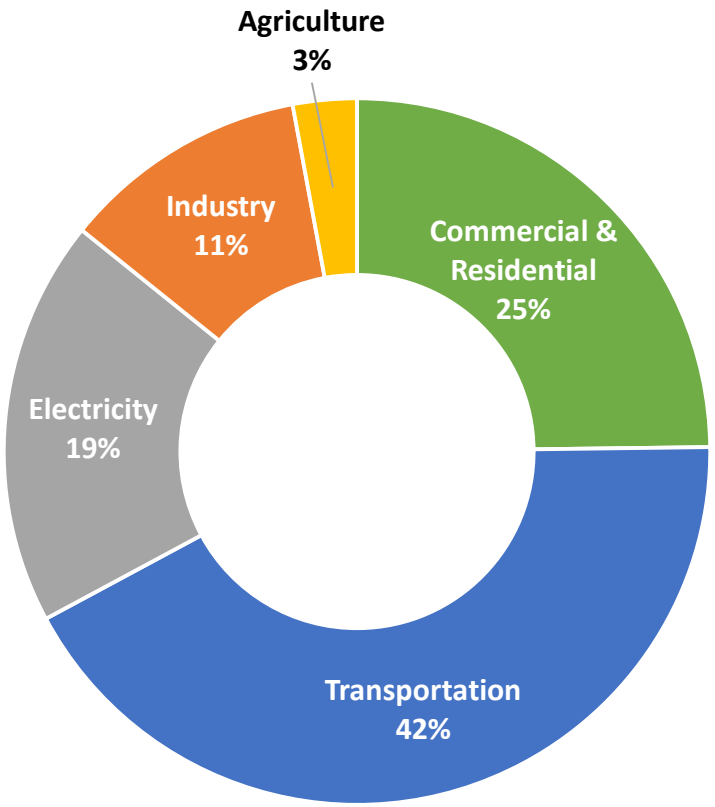
September 22, 2020

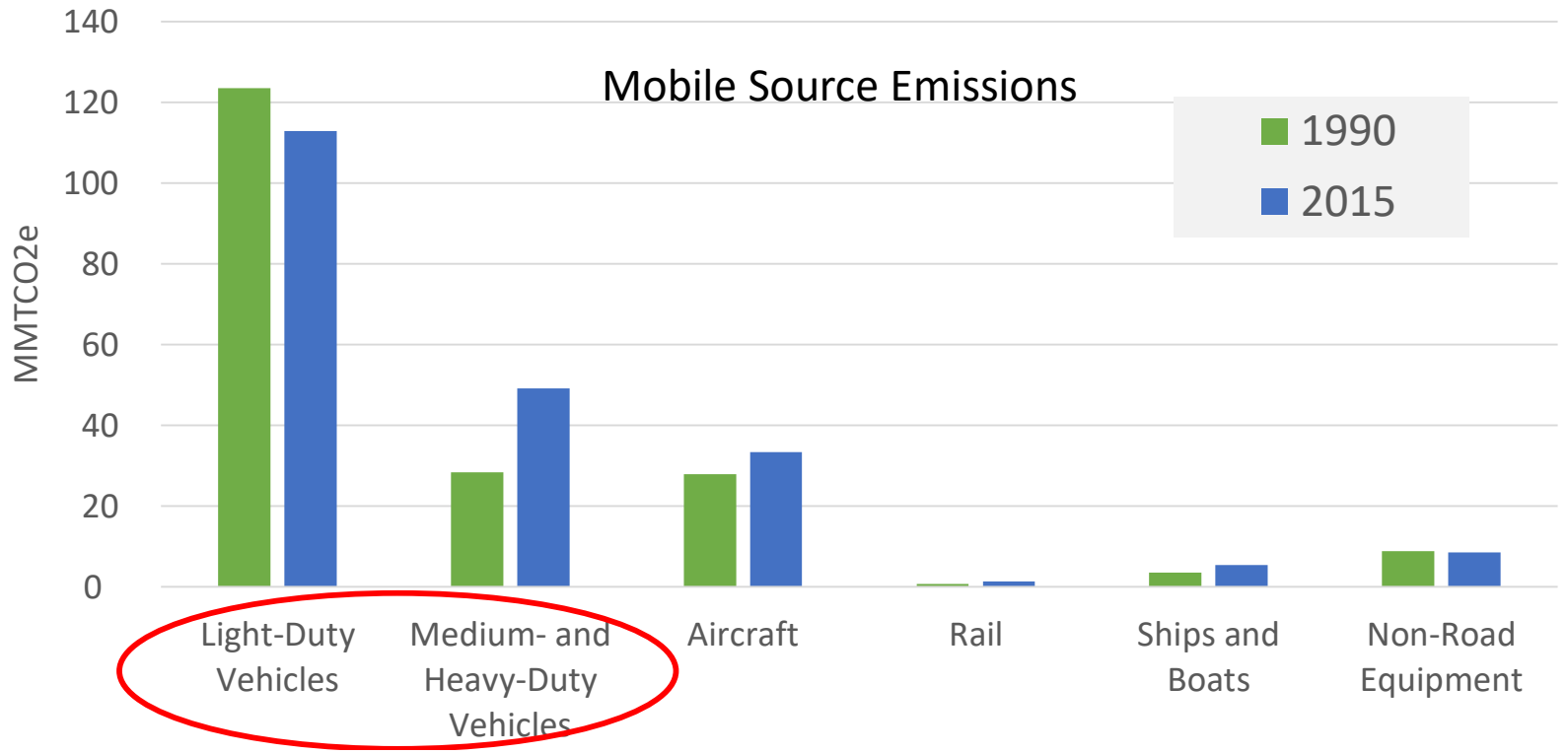
About NESCAUM

- An association of the air pollution control agencies of the six New England states, New Jersey and New York formed in 1967
- Serve as a technical and policy advisor on air quality, climate and clean transportation issues
- Significant focus on transportation electrification
- Seven of eight NESCAUM states have adopted California's motor vehicle emission standards under Section 177 of the Clean Air Act



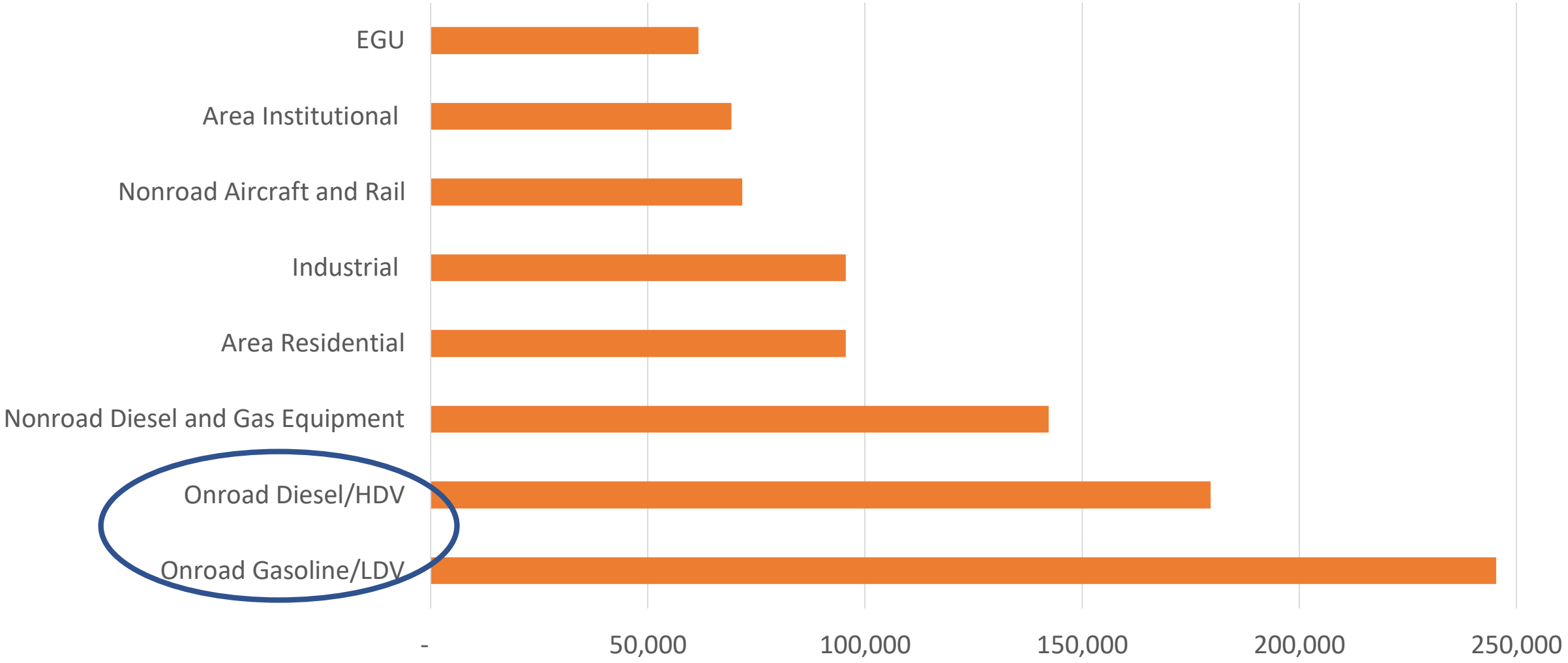
Greenhouse Gas Emissions in the NESCAUM States





Source: State Inventory Tool (2015 emissions)

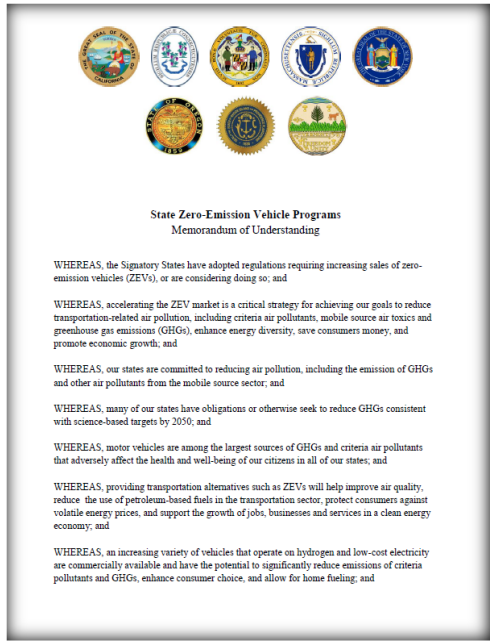
2017 NOx Emissions (Tons) in Mid-Atlantic/Northeast



Source: EPA 2017 National Emissions Inventory

NESCAUM

Multi-State Electric Vehicle Initiatives



State Zero-Emission Vehicle Programs
Memorandum of Understanding

WHEREAS, the Signatory States have adopted regulations requiring increasing sales of zero-emission vehicles (ZEVs), or are considering doing so; and

WHEREAS, accelerating the ZEV market is a critical strategy for achieving our goals to reduce transportation-related air pollution, including criteria air pollutants, mobile source air toxics and greenhouse gas emissions (GHGs), enhance energy diversity, save consumers money, and promote economic growth; and

WHEREAS, our states are committed to reducing air pollution, including the emission of GHGs and other air pollutants from the mobile source sector; and

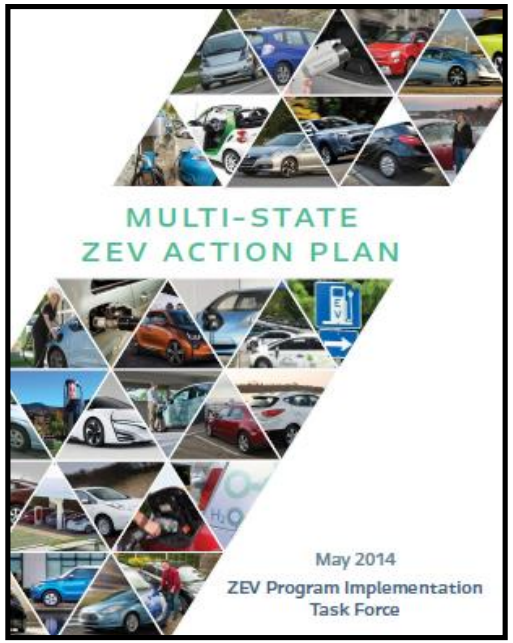
WHEREAS, many of our states have obligations or otherwise seek to reduce GHGs consistent with science-based targets by 2050; and

WHEREAS, motor vehicles are among the largest sources of GHGs and criteria air pollutants that adversely affect the health and well-being of our citizens in all of our states; and

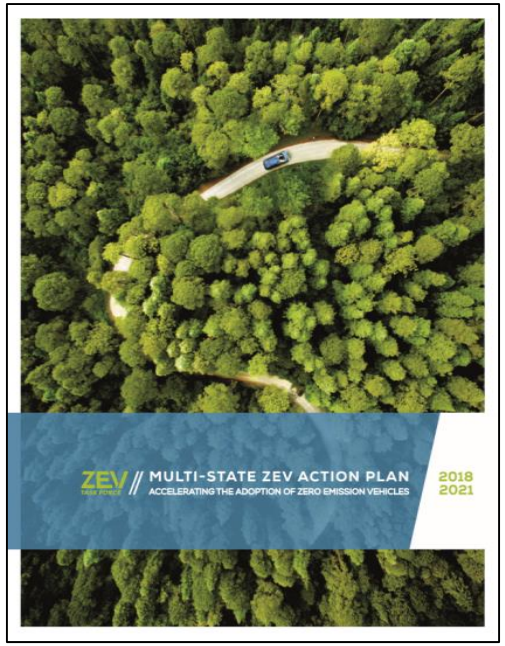
WHEREAS, providing transportation alternatives such as ZEVs will help improve air quality, reduce the use of petroleum-based fuels in the transportation sector, protect consumers against volatile energy prices, and support the growth of jobs, businesses and services in a clean energy economy; and

WHEREAS, an increasing variety of vehicles that operate on hydrogen and low-cost electricity are commercially available and have the potential to significantly reduce emissions of criteria pollutants and GHGs, enhance consumer choice, and allow for home fueling; and

2013
Governors MOU



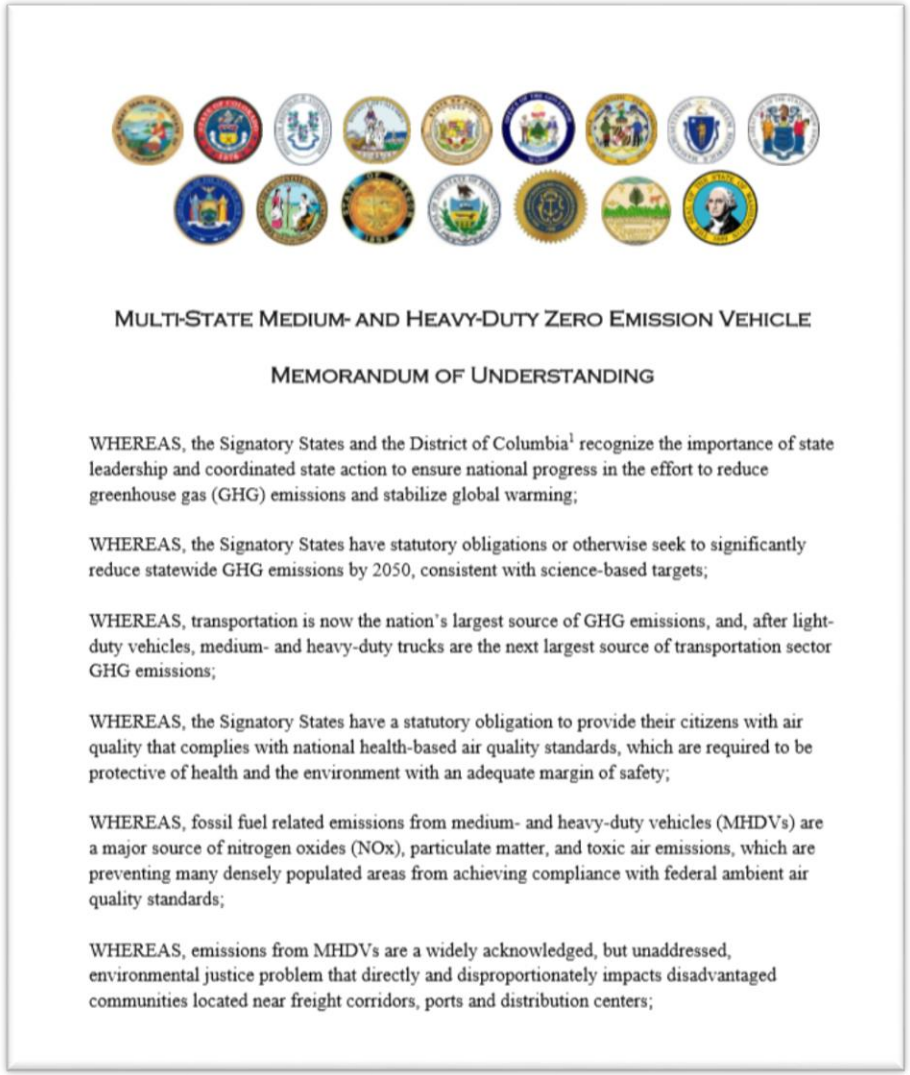
2014
ZEV Action Plan



ZEV Action Plan
2018 – 2021

2018 Regional EV
Charging Infrastructure Plan

Medium- and Heavy-Duty ZEV MOU



MULTI-STATE MEDIUM- AND HEAVY-DUTY ZERO EMISSION VEHICLE

MEMORANDUM OF UNDERSTANDING

WHEREAS, the Signatory States and the District of Columbia[1] recognize the importance of state leadership and coordinated state action to ensure national progress in the effort to reduce greenhouse gas (GHG) emissions and stabilize global warming;

WHEREAS, the Signatory States have statutory obligations or otherwise seek to significantly reduce statewide GHG emissions by 2050, consistent with science-based targets;

WHEREAS, transportation is now the nation's largest source of GHG emissions, and, after light-duty vehicles, medium- and heavy-duty trucks are the next largest source of transportation sector GHG emissions;

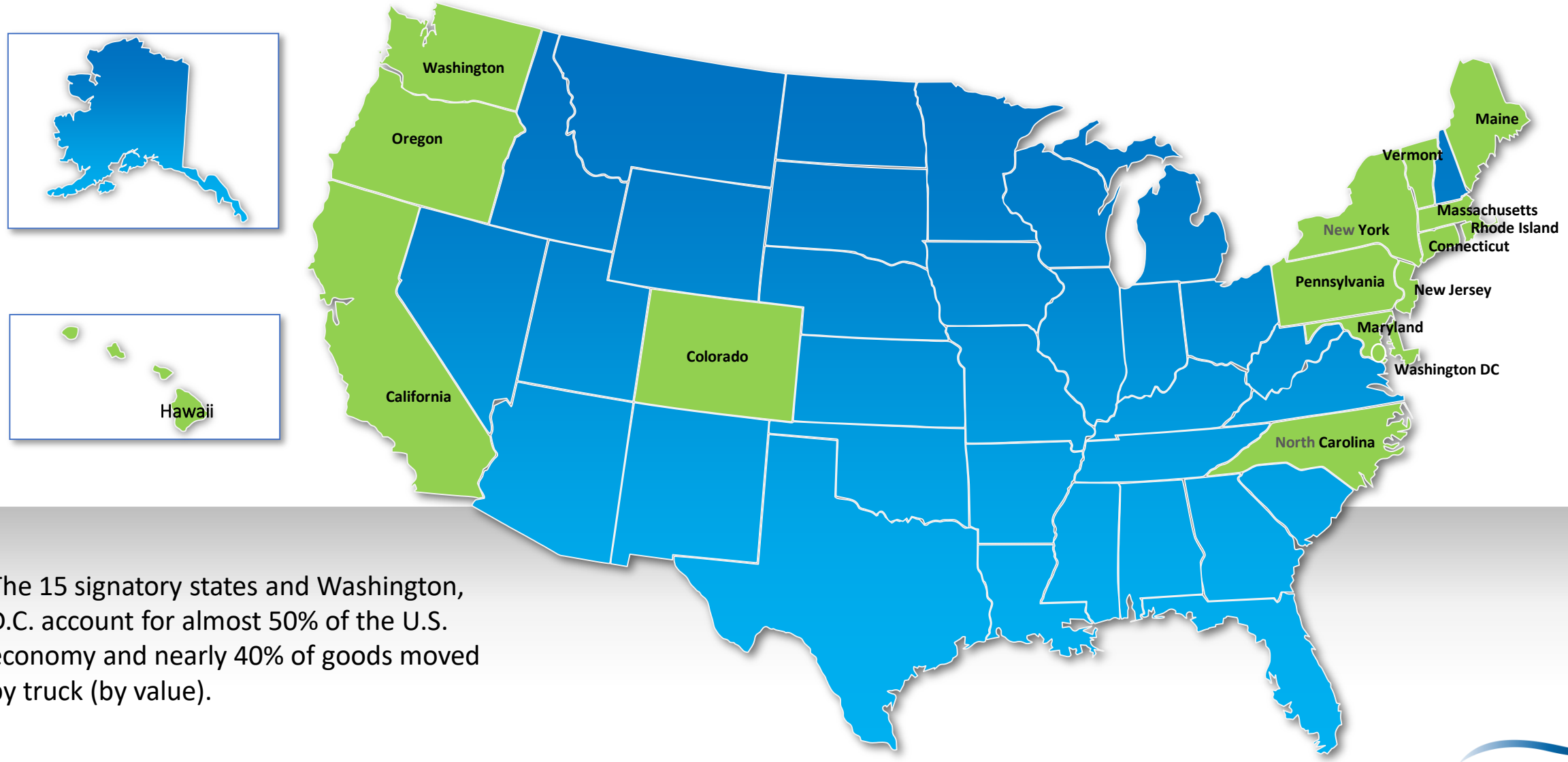
WHEREAS, the Signatory States have a statutory obligation to provide their citizens with air quality that complies with national health-based air quality standards, which are required to be protective of health and the environment with an adequate margin of safety;

WHEREAS, fossil fuel related emissions from medium- and heavy-duty vehicles (MHDVs) are a major source of nitrogen oxides (NOx), particulate matter, and toxic air emissions, which are preventing many densely populated areas from achieving compliance with federal ambient air quality standards;

WHEREAS, emissions from MHDVs are a widely acknowledged, but unaddressed, environmental justice problem that directly and disproportionately impacts disadvantaged communities located near freight corridors, ports and distribution centers;

- Announced in July 2020.
- Builds off success of 2013 MOU and ZEV Action Plans for passenger cars and trucks.
- Commits signatories to work together to foster a self-sustaining market for zero emission trucks and buses.
- Sets sales goals: 30% of new truck and bus sales to be zero-emission by 2030 and 100% by 2050.
- Emphasizes deployment of zero-emission trucks and buses to benefit disadvantaged communities.
- Directs the existing multi-state ZEV Task Force to develop and implement a MHD ZEV Action Plan.

MHD ZEV MOU SIGNATORIES



The 15 signatory states and Washington, D.C. account for almost 50% of the U.S. economy and nearly 40% of goods moved by truck (by value).

Sources:
U.S Bureau of Economic Analysis https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1;
FHWA Freight Analysis Framework https://faf.ornl.gov/faf4/Extraction1.aspx

NESCAUM

FIRST STEP – STAKEHOLDER OUTREACH

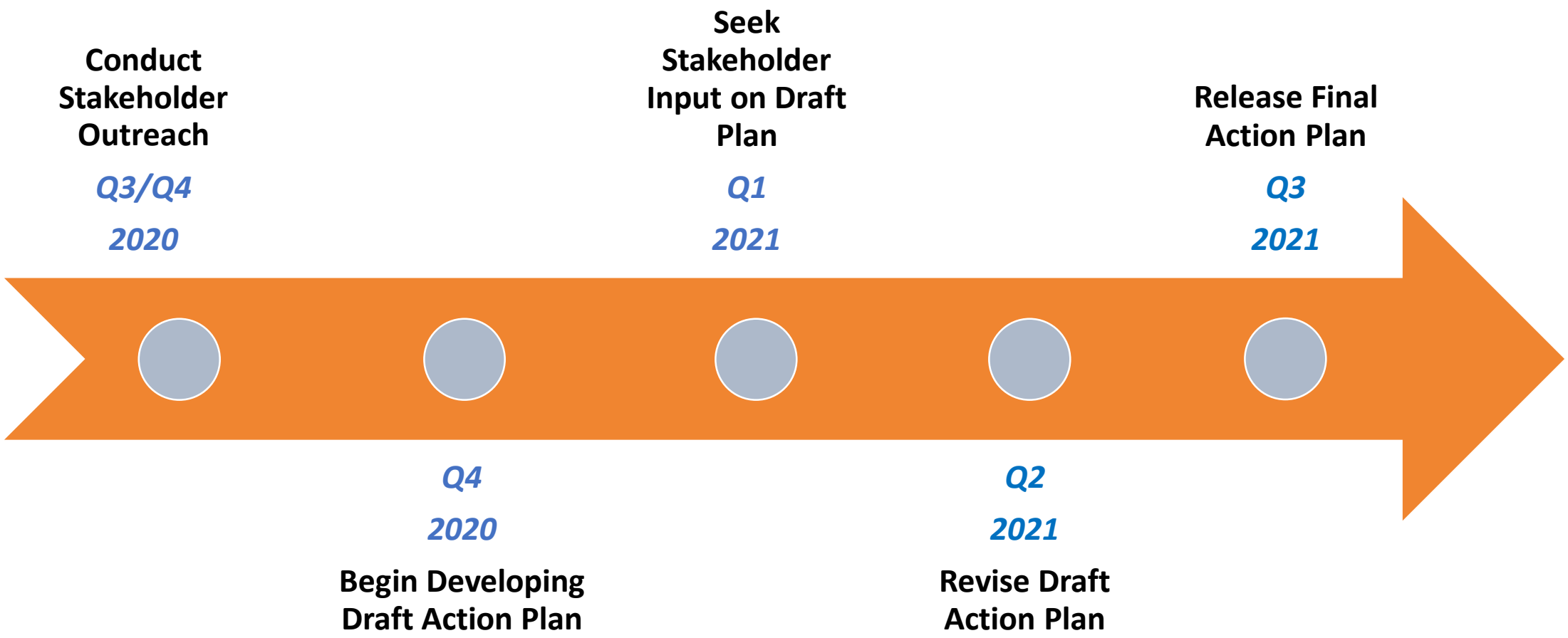
- Disadvantaged/EJ Community Advocates
- Truck and Bus Manufacturers
- Battery Manufacturers
- Trucking Companies
- EVSE Providers
- Utilities
- Commercial Fleets
- Environmental Advocates
- Labor Unions

NEXT STEP – Action Plan Development

The MHD ZEV Action Plan developed by the Task Force will consider the need for a range of market-enabling actions such as:

- Incentives for vehicles and infrastructure;
- Adoption of regulatory standards (e.g., California's Advanced Clean Trucks Regulation);
- Utility actions to support infrastructure buildout and beneficial rate design;
- Measures to increase the use of zero emission trucks and delivery vans in densely populated areas;
- Innovative financing models and new funding sources;
- Actions to encourage fleet purchases; and
- Uniform standards and data collection requirements.

Tentative Timeline



Resources for Truck and Bus Electrification

- Navigant, Ceres, the California Trucking Association. *The Road to Fleet Electrification: Eight ways utilities, regulators and policymakers can enable fleet operators to electrify commercial transportation and reduce carbon emissions.* May 2020.

  https://www.ceres.org/resources/reports/road-fleet-electrification
- Whited, Melissa; Frost, Jason; Havumaki, Ben. *Best Practices for Commercial and Industrial EV Rates*. Synapse Energy Economics, Inc, May 2020.
  https://www.synapse-energy.com/sites/default/files/Best-Practices-Commercial-Industrial-EV-Rates_18-122.pdf
- Fitzgerald, Garrett, and Chris Nelder. *DCFC Rate Design Study.* Rocky Mountain Institute, 2019.
  http://www.rmi.org/insight/DCFC-rate-designstudy
- Cynthia Shahan, Cleantechnica, *West Coast Electric Utilities Map Out I-5 Electric Truck Charging Sites. June 2020.*
  https://cleantechnica.com/2020/06/25/west-coast-electric-utilities-map-out-i-5-electric-truck-charging-sites/

NESCAUM

For questions, please contact:

Kathy Kinsey // kkinsey@nescaum.org

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NICHOLAS INSTITUTE
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Transportation Electrification Coordination in the Southeast

NARUC EV Working Group
September 22, 2020

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Nicholas Institute for Environmental Policy Solutions

Our Mission Statement:

To help decision makers create timely, effective, and economically practical solutions to the world's critical environmental challenges.

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Electrifying the Southeast

- Over 97 million people
- 580,000 square miles
- Over 18,000 miles of coastline (plus, mountains, lakes, cultural destinations)
- Home to light, medium and heavy duty vehicle manufacturers

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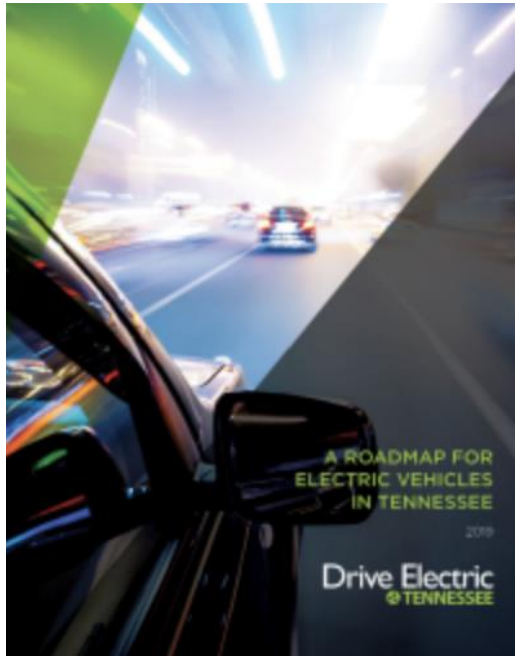
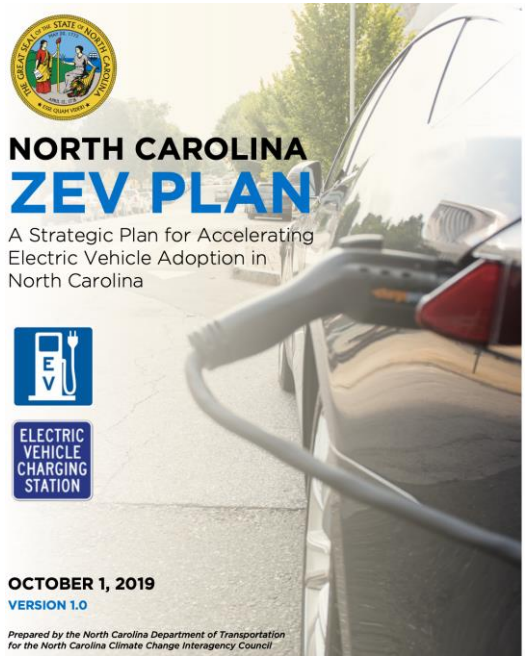
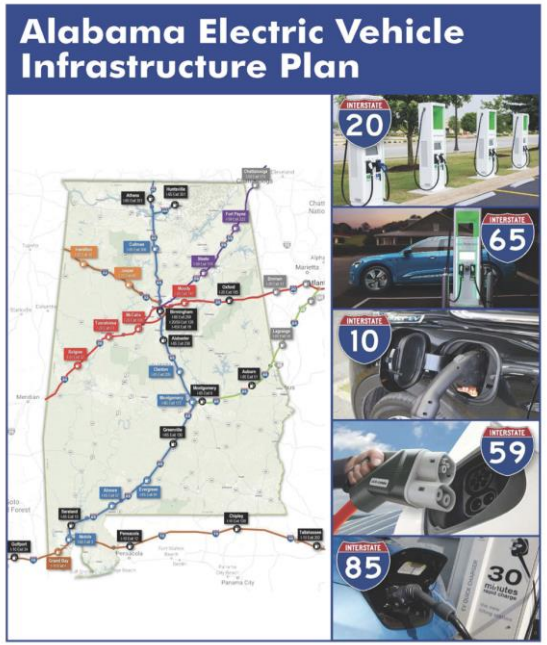
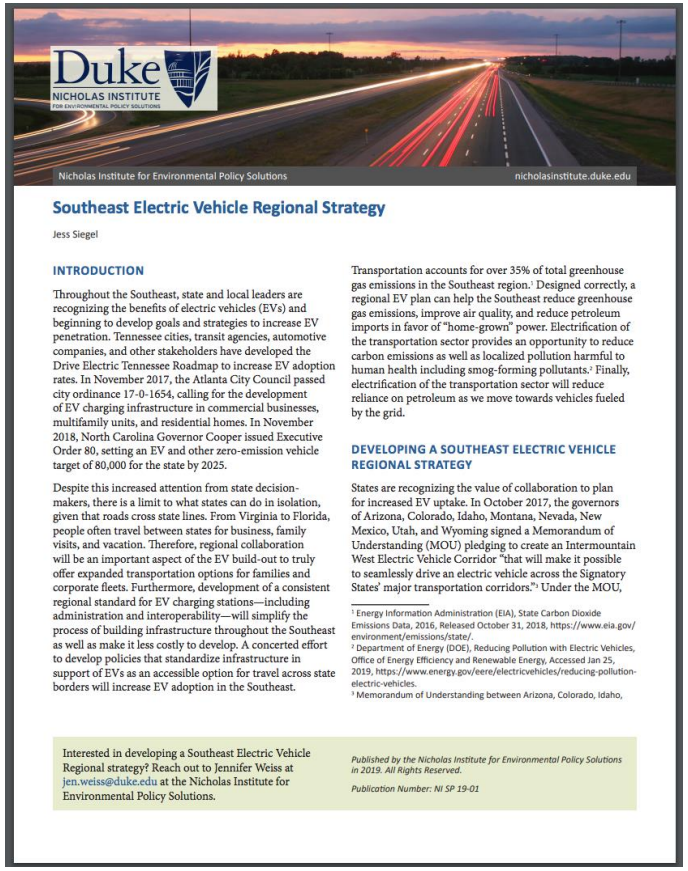
State-focused Initiatives







Benefits of Regional EV Collaboration



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Nicholas Institute for Environmental Policy Solutions nicholasinstitute.duke.edu

Southeast Electric Vehicle Regional Strategy

Jess Siegel

INTRODUCTION

Throughout the Southeast, state and local leaders are recognizing the benefits of electric vehicles (EVs) and beginning to develop goals and strategies to increase EV penetration. Tennessee cities, transit agencies, automotive companies, and other stakeholders have developed the Drive Electric Tennessee Roadmap to increase EV adoption rates. In November 2017, the Atlanta City Council passed city ordinance 17-0-1654, calling for the development of EV charging infrastructure in commercial businesses, multifamily units, and residential homes. In November 2018, North Carolina Governor Cooper issued Executive Order 80, setting an EV and other zero-emission vehicle target of 80,000 for the state by 2025.

Despite this increased attention from state decision-makers, there is a limit to what states can do in isolation, given that roads cross state lines. From Virginia to Florida, people often travel between states for business, family visits, and vacation. Therefore, regional collaboration will be an important aspect of the EV build-out to truly offer expanded transportation options for families and corporate fleets. Furthermore, development of a consistent regional standard for EV charging stations—including administration and interoperability—will simplify the process of building infrastructure throughout the Southeast as well as make it less costly to develop. A concerted effort to develop policies that standardize infrastructure in support of EVs as an accessible option for travel across state borders will increase EV adoption in the Southeast.

Transportation accounts for over 35% of total greenhouse gas emissions in the Southeast region.[1] Designed correctly, a regional EV plan can help the Southeast reduce greenhouse gas emissions, improve air quality, and reduce petroleum imports in favor of "home-grown" power. Electrification of the transportation sector provides an opportunity to reduce carbon emissions as well as localized pollution harmful to human health including smog-forming pollutants.[2] Finally, electrification of the transportation sector will reduce reliance on petroleum as we move towards vehicles fueled by the grid.

DEVELOPING A SOUTHEAST ELECTRIC VEHICLE REGIONAL STRATEGY

States are recognizing the value of collaboration to plan for increased EV uptake. In October 2017, the governors of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming signed a Memorandum of Understanding (MOU) pledging to create an Intermountain West Electric Vehicle Corridor "that will make it possible to seamlessly drive an electric vehicle across the Signatory States' major transportation corridors."[3] Under the MOU,

[1] Energy Information Administration (EIA), State Carbon Dioxide Emissions Data, 2016, Released October 31, 2018, https://www.eia.gov/environment/emissions/state/.
[2] Department of Energy (DOE), Reducing Pollution with Electric Vehicles, Office of Energy Efficiency and Renewable Energy, Accessed Jan 25, 2019, https://www.energy.gov/eere/electricvehicles/reducing-pollution-electric-vehicles.
[3] Memorandum of Understanding between Arizona, Colorado, Idaho,

Interested in developing a Southeast Electric Vehicle Regional strategy? Reach out to Jennifer Weiss at jen.weiss@duke.edu at the Nicholas Institute for Environmental Policy Solutions.

Publication Number: NI SP 19-01

- Coordinated network of charging infrastructure
- Accessibility of EVs in rural communities.
- Voluntary minimum standards for EV infrastructure
- EV-ready building codes
- Economic development opportunities
- Regional plan for marketing, education, and outreach that promotes EV adoption in the region

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https://nicholasinstitute.duke.edu/publications/southeast-electric-vehicle-regional-strategy

Southeast Coordination

- Southeast EV Information Exchange
  - State Energy Offices
- Southeast Regional EV Partnership
  - Academic, Industry, NGOs, Utilities
- Southeast Regional EV Initiative (SE REVI)
  - Governor's offices, DOTs, state agencies
- Electrify the South

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Southeast EV Information Exchange

- Led by Southeast State Energy Offices
  - Facilitated by NASEO and Nicholas Institute
- Share information and best practices
- Identify potential areas for collaboration
  - EV Infrastructure
  - Education and outreach
  - Policy development
- Promote EV solutions in rural and low-income communities

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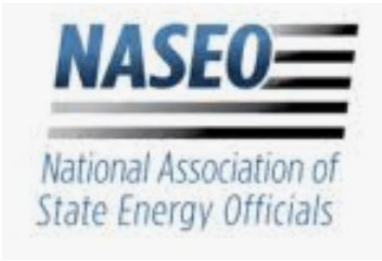
Southeast Regional EV Partnership



Proposed: Southeast Regional EV Initiative (SE REVI)

Voluntary agreement, signed by SE Governors:

Promote and enable EV adoption in the Southeast to provide new economic opportunities for the states, helping to grow an already vibrant auto manufacturing industry and promoting zero emission vehicle (ZEV)-based tourism

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https://www.electrifythesouth.org

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Questions??

Jen Weiss
Senior Policy Associate
jen.weiss@duke.edu
504-606-8148

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Peer Discussion – Commissioners and Commission Staff Only

Facilitators

- Working Group Chair Maria Bocanegra and Illinois Commerce Commission Staff
- Working Group Vice-chair Jason Stanek and Maryland Public Service Commission Staff

Discussion Questions

- What challenges do you anticipate will emerge for commissions around regional coordination?

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- Do you expect that your commissions would be interested in getting involved in regional efforts? If so, how?

Discussion Questions

- What challenges do you anticipate will emerge for commissions around regional coordination?
- Do you expect that your commissions would be interested in getting involved in regional efforts? If so, how?
- Do your state regulations prohibit utilities from cost-sharing on federal grant projects? If so, how has your commission dealt with these issues?

Upcoming EV SWG Calls: Always on a Tuesday, 3-4:30pm ET / 12-1:30pm PT

- Next webinar: **October 27: *State policy development***
  - Dates for your calendar: **November TBD** (likely annual meeting session), **December 15** (*moved from 12/22*)
- Annual Meeting **Nov 5-6 & 9-11**
  - Concurrent Session: **Nov 10th- *Preparing for Commercial Fleet Electrification: Where will EV fleet growth occur and how will that affect charging infrastructure buildouts?***
- EVSWG Listserv: NARUC-EVSWG@lists.naruc.org
- Presentations and recordings of past EVSWG events: www.naruc.org/cpi-1/energy-infrastructure-modernization/electric-vehicles/