

# The Multi-State Medium- and Heavy-Duty ZEV Action Plan: Utility Actions for Advancing Truck and Bus Electrification

AltWheels Fleet Day  
October 3, 2022

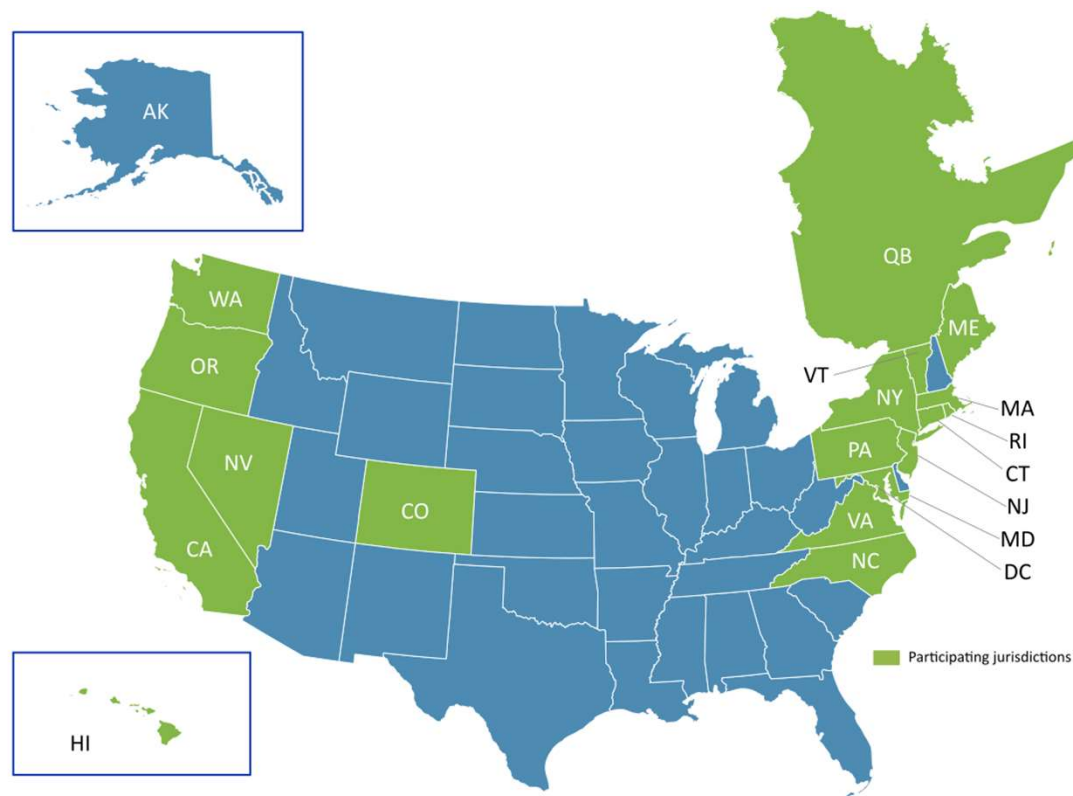


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# Multi-State Medium- and Heavy- Duty (MHD) ZEV Initiative

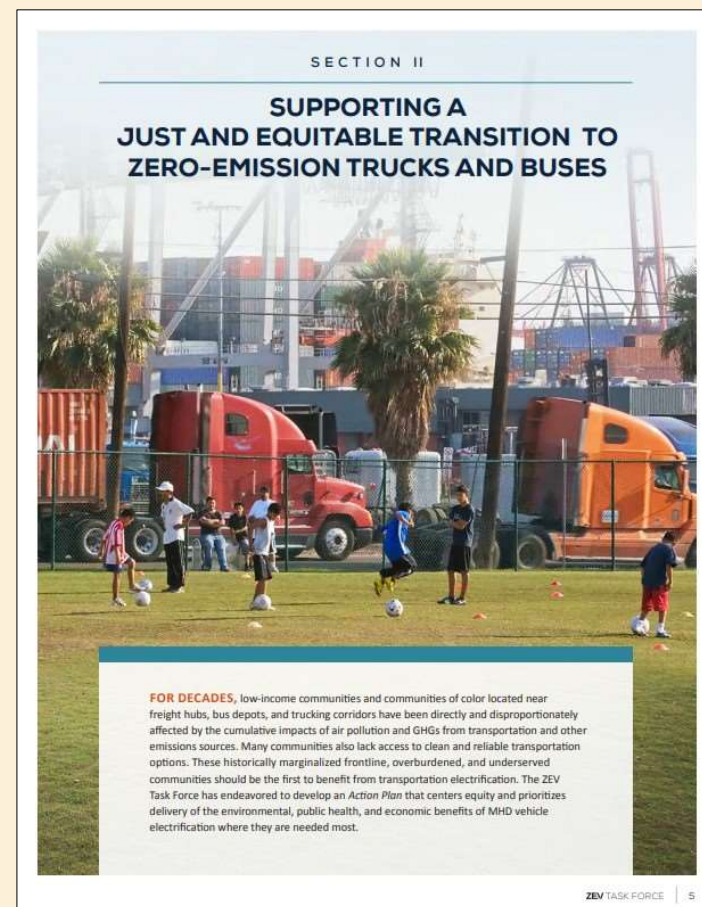
- 🚛 [Multi-State Medium- and Heavy-Duty ZEV Memorandum of Understanding](#) (2020) commits 17 states, D.C., and Quebec to collaborate to advance electrification of trucks, vans, and buses
- 🚛 U.S. jurisdictions collectively represent:
  - 43% of the population
  - 49% of U.S. GDP
  - 36% of Class 2b-8 MHD vehicles
  - 40% of goods (by value) moved by truck
- 🚛 Sets goals for at least 30% of MHD vehicle sales to be ZEVs by 2030 and 100% of sales to be ZEVs by no later than 2050
- 🚛 Directs ZEV Task Force to develop a [Multi-State MHD ZEV Action Plan](#) to recommend policies to support widespread MHD vehicle electrification



# Action Plan Development Process – July 2020 to July 2022

- 🚚 **Equity and Environmental Justice (EJ) Engagement** – Prioritized early and ongoing engagement with national and MOU state-based equity and EJ organizations and received proposed principles and [recommendations](#)
- 🚚 **Stakeholder Advisory Group** – Formed an advisory group including equity and EJ advocates, MHD vehicle manufacturers, charging and fueling infrastructure providers, public and private fleet representatives, environmental advocates, and other experts
- 🚚 **Informational Webinar Series** – Engaged with partners and stakeholders to develop a [webinar series](#) to build knowledge of key issues and barriers to electrification
- 🚚 **Public Utility Engagement** – M.J. Bradley and Associates facilitated an engagement process with utilities from across MOU states to develop proposed [recommendations](#)
- 🚚 **Individual Stakeholder Engagement** – Received feedback on preliminary drafts from equity and EJ organizations, Stakeholder Advisory Group members, and others
- 🚚 **Public Comments on Draft Action Plan** – Released a draft *Action Plan* for a 60-day comment period and received ~40 sets of [comments](#)

See [Multi-State MHD ZEV Action Plan Development Process Summary](#).





# Multi-State MHD ZEV Action Plan

- 🚛 Discusses policy drivers, the MHD ZEV market, barriers to deployment, and opportunities for rapid electrification
- 🚛 Highlights disproportionate impacts on overburdened communities; offers principles for a just and equitable transition; and emphasizes the need for a “whole of government” approach
- 🚛 Features innovative MHD vehicle electrification policies and identifies areas for multi-state collaboration
- 🚛 Includes [65+ recommendations](#) for state policymakers to promote rapid and equitable MHD ZEV deployment
- 🚛 Includes recommendations for local and federal policymakers

## Strategies and Recommendations

- 28 Vehicle Sales and Purchase Requirements
- 30 Vehicle and Infrastructure Purchase Incentives
- 34 Actions for Electric Utilities and Utility Regulators
- 39 Mobilizing Private Capital to Finance Fleet Conversions
- 42 Outreach and Education
- 42 Economic Equity for Workers
- 45 Community Air Monitoring
- 48 Planning for and Deploying Public Charging and Fueling Infrastructure
- 51 Ongoing Multi-State Research and Policy Evaluation

## Appendix

### Local and U.S. Federal Government Recommendations



# The Role of Utilities in Accelerating Truck and Bus Electrification

Addressing a complex set of challenges:

- 🚛 Deliver adequate electric service to fleet depots and along state highways and regional corridors
- 🚛 Assess grid capacity and plan for necessary grid upgrades
- 🚛 Properly sequence investments in “make-ready” charging infrastructure
- 🚛 Develop beneficial commercial electricity rates to incentivize charging during low-cost and low-demand periods

Realizing the full potential of MHD electrification:

- 🚛 Put downward pressure on electricity rates for all ratepayers
- 🚛 Increase integration of renewable energy sources into the grid
- 🚛 Manage electric loads and help fleets capture TCO savings
- 🚛 Assist with achieving MHD fleet electrification at the pace and scale necessary to meet state electrification goals

See [Multi-State MHD ZEV Action Plan](#) at pages 34-39.



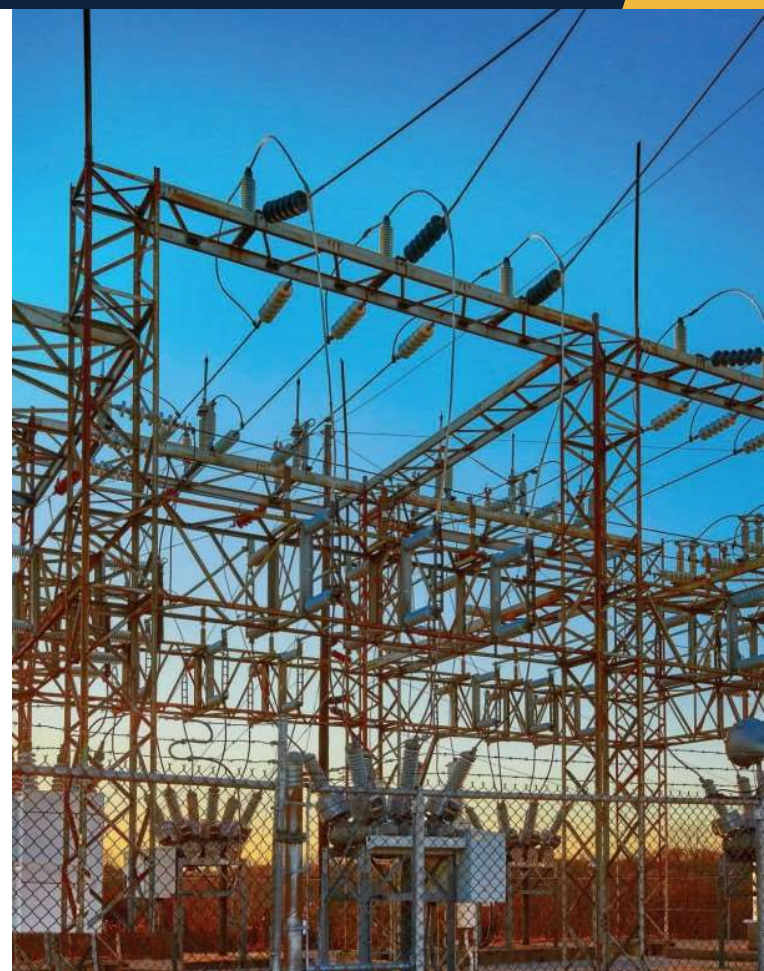
Swan Island MHD Charging Site in Portland, OR

# Recommendations for Utilities and Utility Regulators

Utility regulators should consider:

- 🚚 Requiring utilities to adopt targets for deployment of “make-ready” and other charging infrastructure that align state electrification goals, regulatory requirements for MHD ZEV penetration, and overburdened and underserved community priorities;
- 🚚 Removing barriers and regulatory uncertainty to expansion of the EVSE sector;
- 🚚 Directing utilities to conduct assessments of grid capacity by identifying MHD customer fleets, fleet plans for electrification, and needs and costs for upgrading the grid and serving new interconnections;
- 🚚 Requiring utilities to streamline standard interconnection review processes and timelines; and
- 🚚 Providing utilities with flexibility to employ different charging infrastructure ownership models and future-proof “make-ready” investments to serve anticipated future EVSE deployment.

See [Multi-State MHD ZEV Action Plan](#) at pages 34-39.





## Recommendations for Utilities and Utility Regulators cont.

Utilities should consider:

- 🚚 Establishing fleet services programs with a single point of contact to provide comprehensive technical assistance;
- 🚚 Offering on-bill financing and repayment for MHD ZEVs and charging infrastructure and prioritize financing for fleets with fewer capital resources;
- 🚚 Offering revenue-generating V2G services and enable vehicle-to-building services for electric school buses and other MHD ZEV fleets that are valued consistent with traditional grid services;
- 🚚 Adopting a range of commercial rate structures and customer incentive programs that meet MHD ZEV fleet needs and provide clear benefits to all ratepayers and the electric grid;
- 🚚 Prioritizing investments in overburdened and underserved communities by establishing requirements for deployment of charging infrastructure; and
- 🚚 Developing and making hosting capacity maps available to fleets, EVSE providers, and planning agencies.

See [Multi-State MHD ZEV Action Plan](#) at pages 34-39.



Volvo NRV ZEV Logistics Transport Truck

# Thank You!

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For references and photo credits, see pages 57-59 of the [Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan](#).