OurEnergyPolicy.org

529 14th Street, NW Washington, D.C. 20045 info@ourenergypolicy.org

Decarbonizing the Transportation Industry

Summary of Comments - November 29, 2023

On November 29, 2023, OurEnergyPolicy hosted a discussion on electric vehicles, infrastructure, and federal and state efforts to address carbon emissions from automobiles. Find the recording here.

SPEAKERS

Raffi Freedman-Gurspan
Deputy Dir. of Public Engagement
US Department of Transportation

Justine Johnson
Chief Mobility Officer
Michigan Economic Development Corporation

John Eichberger
Executive Dir.
Transportation Energy Institute

Our Energy Policy is a non-partisan organization. The following represents a summary of comments from the panelists.

Summary of Key Points

- According to the US Environmental Protection Agency (EPA), transportation accounts for about 30%-33% of total national carbon emissions in the domestically.
- Light-duty vehicles are responsible for the majority of carbon emissions in the transportation sector.
- The Bipartisan Infrastructure Law and Inflation Reduction Act created multiple programs to support transportation decarbonization.
- Both alternative fuels and Electric Vehicles are key technologies for reducing emissions from light-duty vehicles.
- The whole-of-government approach taken by the US federal government to tackle climate change prevents siloing and promotes inter-agency collaboration on intersectional decarbonization plans.
- Michigan is an example in state initiatives decarbonizing transportation.

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Federal Transportation Decarbonization Initiatives

- The National Electric Vehicle Infrastructure (NEVI) Program and the Charging and Fueling Infrastructure (CFI) Program both provide state and community funding for EV infrastructure and transportation decarbonization.
- The Congestion Relief Program provides $250 million in competitive funding to advance multi-mobile solutions to reduce congestion and related economic and environmental costs in the most congested metropolitan areas of the US.
- The updated Corporate Average Fuel Economy standard requires an industry-wide fleet average of approximately 49 mpg for regulated vehicles in model year 2026, saving consumers ~$14,000 over the lifetime of a vehicle.
- The Bipartisan Infrastructure Law (BIL) gives tax incentives for purchasing EVs
- The Inflation Reduction Act directly incentivizes improving equity and sustainability in supply chains for critical minerals, which are essential elements of EV batteries.

Electric Vehicle (EV) Infrastructure

- EVs are 40% lower carbon-emitting than Internal Combustion Engine (ICE) vehicles when compared in a life-cycle analysis.
- The US electric grid needs the capacity and transmission capabilities to support the widespread adoption of EVs.
- Investing in charging infrastructure is risky for private enterprises, so public investment is critical for success.
- 80% of EV charging happens at home, so our focus on expanding Direct Current (DC) fast chargers in communities should be balanced with the need for them.
- The EV transition will be measured on pace enough for the utility sector to meet demand. However, the parallel increasing adoption of AI and capacity demand of these data centers is expected to grow faster than utilities are designed to expand.

Michigan Transportation Decarbonization Initiatives

- The State of Michigan aims to be 100% carbon neutral by 2050 and have 100,000 EV chargers by 2030.
- Michigan also aims to keep at least 80% of EV charging during off-peak hours. Currently, 88% occurs during off-peak hours.
- Projects in Michigan aimed at transportation decarbonization include:
  - The first public wireless inductive EV charging road in the US.
  - The first public marine high-speed charger in the US.