Transforming Transportation in America's Zero-Carbon Action Plan

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Strategy 1: Electrify Surface Transportation

Lew Fulton
Transportation targets

- LDVs: 50% ZEVs by 2030, 100% by 2040
- Trucks: 30% ZEVs by 2030, 100% by 2050
- Low carbon fuels carbon intensity reduction:
  - 15% by 2040, 100% by 2050
- Ongoing improvements in ICE vehicle fuel economy
- Manage car and truck VMT growth
- Improvements in air, shipping and rail energy intensity and management of VMT, with some alt fuels
The result is a deep cut in transportation energy, and especially fossil energy.
Summary Policy Recommendations for LDVs

We recommend a foundational policy of a national LDV ZEV mandate of a minimum of 30% percent by 2030 and 100 percent by 2040.

This policy should be supported by a suite of other policies, including:

• Incentives as a subsidy or feebate that phases out over time, for example as EVs pass 10 percent of a particular vehicle market segment.
• Include an incentive for used EVs, avoiding potential for gaming the system through multiple resales.
• Increase Corporate Average Fuel Economy (CAFE)/GHG standards to keep pace with the ZEV mandate and also increase the efficiency of conventional vehicles as a transitional emissions reduction option
• Invest in charging infrastructure through federal investments
• Government fleet EV purchase requirements to demonstrate buy in
Strategy 2: Reduction in Single Occupancy Vehicle Use

Robert Noland
Reductions in vehicle travel also needed

Reducing vehicle-miles of travel (VMT) can be challenging but can be achieved by:

- Increasing the occupancy of passenger vehicles
- Switching to lower carbon modes of travel
- Replacing trips with telecommunications

We have a goal of a 25% VMT per capita reduction and this will lead to large co-benefits as well:

- Reductions in vehicle crashes
- Less noise from traffic
- Reductions in criteria pollutants
- Improvements in community livability and access for disadvantaged communities

Many of these policies require local implementation, but Federal policy can provide incentives
More efficient transit options

Transit investments need to be made in more densely populated cities and specific corridors

- This will increase carbon efficiency of existing transit modes which also need to be electrified
- Increased development along transit corridors and stations (e.g. transit-oriented development, TOD) can improve efficiency
- Ride-hailing competes with but can also complement transit service

Policies needed:

- Federal funding incentives for municipalities to remove zoning regulations to allow mixed-use and transit-oriented development
- Funding from Federal sources can be directed to most efficient corridors
Improve the safety of local streets

Making streets safer for pedestrians, cyclists and new micromobility modes
• Can replace some local vehicle trips and provide alternative options for access to transit

State policy often makes it impossible to improve local street safety
• Most State DOTs focus on improving traffic flow
• Any conversion requires extensive study to examine consequences on traffic flow
• This can be a roadblock to beneficial street safety improvements that also encourage greener travel
• Federal guidance can provide states information on reducing the regulatory requirements blocking safer streets
Provide choices to people

Expansion of mobility choices gives people the option to choose greener modes of travel

• Federal funding should be provided to local areas to make streets safer for all users, such as protected infrastructure for cyclists, e-bike, e-scooters and other micromobility modes
• Transportation Alternative set-aside program allows this, but many states shift funding to traditional projects; this flexibility should be eliminated and funding for alternatives needs to be increased
The role of telecommunications and the web

New experiences with working at home are showing the benefits and costs to millions of workers

• Can potential reduce work trips, shopping trips, long-distance business trips, and some health-care trips
• Offers the opportunity to increase access for many without adequate transportation, but some have inadequate broadband and hardware

Policy can be aimed at enhancing broadband service, especially in ex-urban and rural areas

• Employer tax-credits could be provided for employers to provide adequate hardware to employees for working at home
Scope of the Zero Carbon Action Plan policy recommendations

• Additional considerations for policy development and implementation

• Importance of an equitable transportation decarbonization pathway that provides benefits for communities underserved by the current transportation system, as well as those overburdened by pollution from the transportation sector
• National ZEV sales requirements for cars
  • (at least 30% of new sales by 2030 and 100% by 2040)
• ZEV sales mandate and fleet purchase requirement for medium- and heavy-duty vehicles
• Tightened fuel economy & GHG standards for all new cars and trucks
• Incentives for ZEV purchases and investments in charging and fueling infrastructure
• Low-carbon fuel standards covering all fuels for road vehicles and airplanes
• Increase access to transit, walking, bicycling, new mobility modes, telecommunications, pooled ride-hailing services, and other low-carbon choices in order to reduce vehicle miles travel and vehicle dependence
Upcoming Webinars (Eastern Time)

Buildings
November 9
12:00 – 1:00 pm

Equitable & Just Transition
November 10
3:00 – 4:00 pm

Policy & Implementation
November 12
1:00 – 2:00 pm

Materials
November 17
1:00 – 2:00 pm

Industry
November 18
3:00 – 4:00 pm

Food & Land-Use
November 24
3:00 – 4:00 pm