A New Way Forward

Rethinking U.S. Transportation Policy to Fight Global Warming

Preventing the worst impacts of global warming will require us to nearly eliminate carbon pollution from transportation by 2050. Current federal and state transportation policies in the United States often set us back in the fight against global warming. To move toward a carbon-free transportation system, America must adopt a bold new vision for transportation policy.

U.S. Transportation Policy Fails the Climate

By nearly any measure, U.S. transportation policy currently makes progress toward a zero-carbon future more difficult – not easier. A series of common-sense policy principles can guide America toward a zero-carbon transportation system. Current state and federal policies, however, fall far short of those principles.

- **Principle 1: Climate concerns should inform every transportation policy decision.**
  America cannot expect to make climate-smart transportation decisions without setting goals for reducing carbon pollution from transportation.
  The Reality: Climate change is rarely a factor in transportation decision-making.
- **Principle 2: Low-carbon transportation should be at the front of the line for public funding.**
  If the nation is to reduce carbon pollution from our transportation system, we need to invest accordingly.
  The Reality: America spends vastly more on infrastructure for high-carbon modes of travel than low-carbon modes, while bureaucratic hurdles hamper low-carbon transportation investment.
- **Principle 3: People should be rewarded for making low-carbon transportation choices.** Tax policies and market structure should reward decisions to use low-carbon modes of travel.
  The Reality: The tax code provides incentives that encourage driving and often limits the growth of innovative travel models. U.S. gasoline taxes fail to compensate society even for the cost of highways, let alone impacts such as pollution, congestion and noise that driving inflicts on society.
- **Principle 4: Carbon-intensive vehicles and fuels should be phased out.** A transition to vehicles capable of running on zero-carbon sources of energy is a prerequisite for eliminating carbon pollution from transportation.
  The Reality: Current fuel standards do not take full advantage of recent technological advances in energy efficiency and zero-emission vehicles.
- **Principle 5: Public policy should encourage climate-friendly communities.** Communities that are designed to encourage walking, biking, transit and shared mobility create opportunities for low- or zero-carbon transportation.
  The Reality: Public policies often hamstring the creation of climate-friendly communities
- **Principle 6: Public policy should foster innovation.** By fostering and shaping innovation to maximize potential climate benefits, cities and states can help lay the groundwork for a transportation system that reduces carbon pollution.
  The Reality: Key state and federal policies hamper innovation by failing to account for changing circumstance or by locking officials into practices of a previous generation.

Policies and technologies have evolved since Henry Ford and the Model T, above, but the basic assumptions, institutional structures, traditions and folkways – the genetic code – of U.S. transportation policy are little different than they were a century ago.

Below, a self-driving Uber travels the streets of Pittsburgh. The advent of new technologies, like autonomous vehicles, will require major revisions to current transportation policy.

FRONTIER GROUP

For a list of policy recommendations, please see our accompanying factsheet, "50 Steps Toward Carbon-Free Transportation," or the full report at www.frontiergroup.org

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Building a Zero-Carbon Transportation System

America has the tools it needs to transition to a zero-carbon transportation system – and to do it in time to prevent the worst impacts of global warming.

Among those tools are:

- **Repowering Vehicles:** Efficient electric vehicles that can be powered by clean, renewable electricity are entering the marketplace faster than the hybrid cars of a decade ago and technology continues to improve, removing barriers to electric vehicle adoption.
- **Urbanization and Smart Growth:** American cities, especially their downtowns, are experiencing a renaissance, driven by a growing desire for walkable living.
- **Shared Mobility:** An explosion of technology-enabled services – from carsharing to bikesharing to Lyft and Uber – has begun to revolutionize transportation in many cities. Services such as carsharing have already been shown to reduce vehicle ownership, driving and carbon pollution, and smart public policies can help to ensure that other shared mobility services deliver benefits as well.
- **Public Transportation:** Public transportation reduces vehicle travel (and greenhouse gas emissions) by about 10 percent in U.S. cities, and cities across the country are considering bold plans to expand access to high-quality transit.
- **Reallocating Space:** Cities in the United States and around the world are reallocating space formerly devoted to cars to other public purposes, helping to fuel increased use of low-carbon modes of transportation.
- **Smart Pricing:** Americans typically pay nothing to drive on most roads and enjoy the lowest gas taxes in the industrialized world, encouraging excessive driving and congestion. Smart pricing policies can reduce congestion and encourage the use of low-carbon modes of travel.
- **Walking and Biking:** Americans prefer walking to any other mode of transportation, according to a recent survey, and the number of people traveling by bicycle in many cities has grown dramatically in the last decade.
- **Information Technology:** Advances in technology are enabling Americans to plan, schedule and pay for trips via low-carbon modes as easily as traveling by car.

In addition, **autonomous vehicles** can be deployed in ways that can support efforts to reduce greenhouse gas emissions – especially if they facilitate the use of shared mobility services, vehicle electrification and smart pricing, and if public policy limits any increases in vehicle travel resulting from automation.

Driverless cars can potentially be deployed in ways that can be supportive of efforts to reduce greenhouse gas emissions – especially if they facilitate the use of shared mobility services, vehicle electrification and smart pricing, and do not undermine other emission-reduction strategies.