

How does Transportation Fit into Cap and Trade?

Senate: Dirksen G11
House: 2105 Rayburn

Drew Kodjak, Executive Director

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Overview

- About the ICCT
- Global review of fuel economy and GHG emission standards.
- How to address transport and climate change?
 - Modeling results of CO₂ cap and trade policies show modest impact on transport sector.
 - Cost effectiveness studies of vehicle fuel economy improvements consistently show low cost CO₂ reductions widely available.
- A major policy advancement is underway in the regulation of biofuels / low carbon fuels.

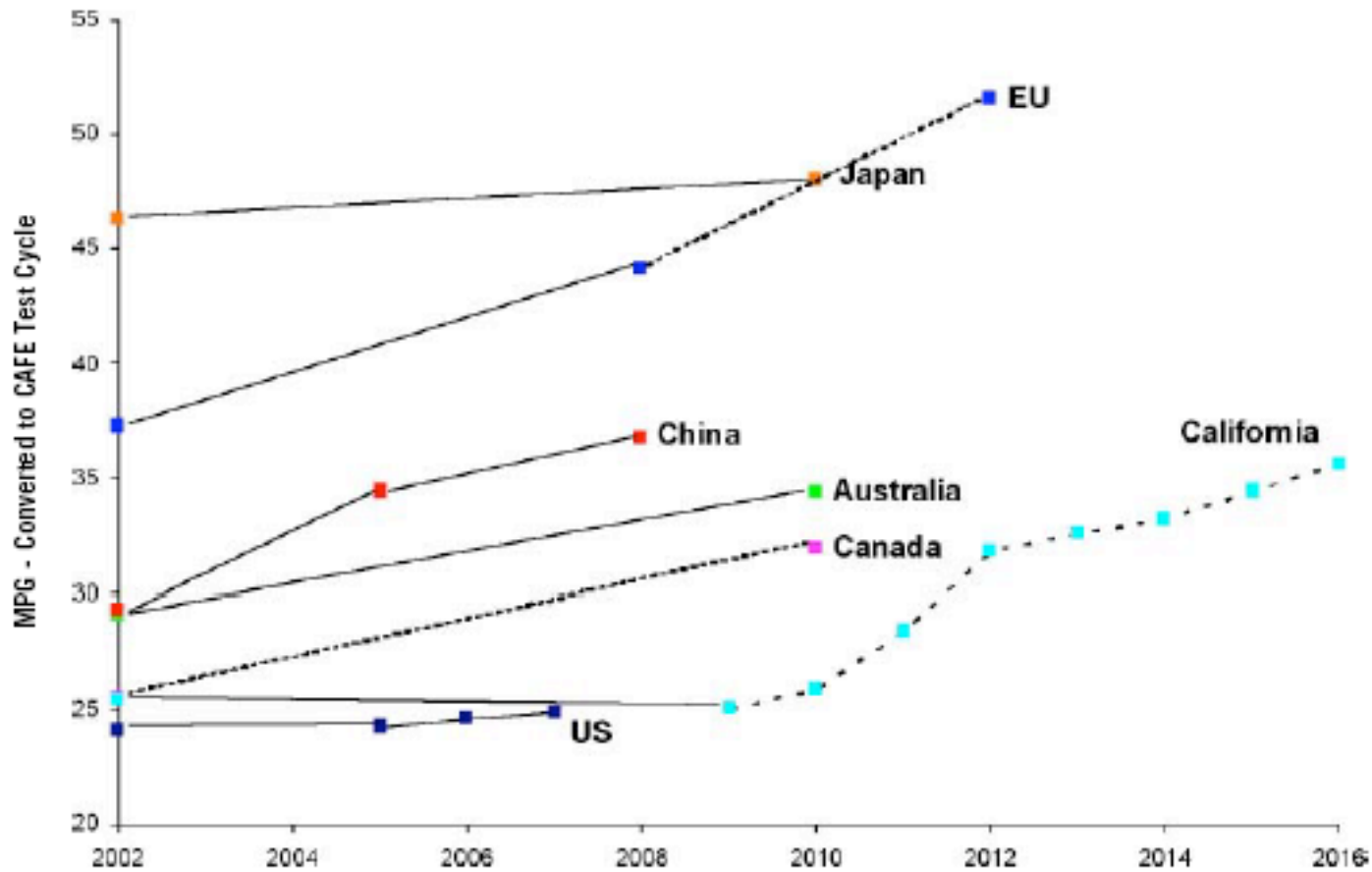
ICCT Background

- The goal of the International Council on Clean Transportation (ICCT) is to dramatically reduce conventional pollutant and greenhouse gas emissions from personal, public and goods transportation in order to improve air quality and human health, and mitigate climate change.
- The Council is made up of about 25 leading regulators and experts from around the world that participate as individuals based on their experience with air quality and transportation issues.
- The ICCT promotes best practices and comprehensive solutions to improve vehicle emissions and efficiency, increase fuel quality and sustainability of alternative fuels, reduce pollution from the in-use fleet, and curtail emissions from international goods movement.



Comparison of fuel economy and GHG emission standards

normalized by CAFE-converted mpg

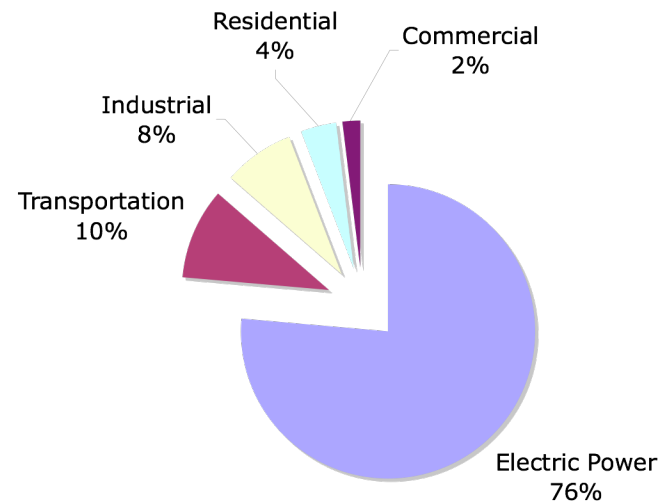


Notes: (1) dotted lines denote proposed standards
 (2) MPG = miles per gallon

Modeled Results of Cap and Trade

- U.S. CO₂ inventory by sector in 2006.*
 - Electricity (40%),
 - Transport (33%),
 - Res.,Com., Ind. (27%).
- Pie chart shows modeled impacts of \$7/ton in 2025 per NCEP recommendations. (2004).
- \$7/ton = 5 cent per gallon of gas

CO₂ Reductions by Sector in Economy-wide Cap and Trade (2025)

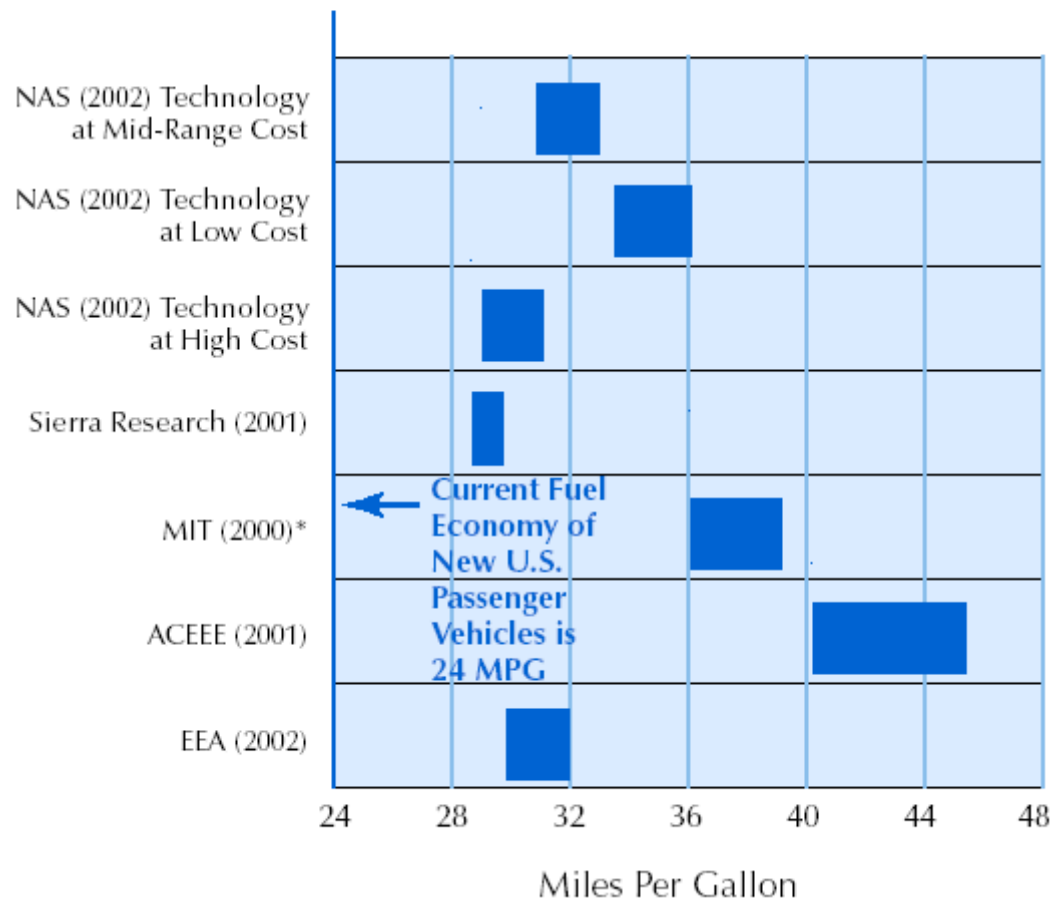


Source: NCEP 2004.

Engineering Analyses Find Cost Savings from Fuel Economy Improvements in Vehicles.

Cost-Effective Fuel Economy Levels

Bars show range of cost-effectiveness with gasoline prices at \$1.50 and \$2.00 per gallon.



- Various engineering analyses since 2000 find no net cost to the consumer from various levels of improvement in vehicle fuel economy.

- This translates into zero to negative \$/ton for CO₂ improvements.

Source: NCEP 2004

Low Carbon Fuel Standard

- Europe, California, England.
- Applies to all transportation fuels.
- Performance-based
- Discourages high-carbon fuels
 - Tar sands or coal-to-liquids.
- Differentially rewards clean fuels
 - Prefers biodiesel from grease over corn ethanol from coal-fired plants.
- Allows the market to choose winners.
- Creates a very large, long-term market, so raising capital for new investments will be far easier.



Final Thoughts

- Globally, many countries have established supplemental policies to address negative impacts from transport.
- An economy wide cap-and-trade program will not achieve substantial GHG reductions from transport without supplemental policies (CAFE, GHG emission standards).
- If consumer fuel savings are accounted for when considering cost effectiveness, these supplemental policies become the low hanging fruit.
- In the United Kingdom, Europe Commission, and California, biofuels policies are undergoing a major change in order to address climate change as well as oil security.