Opportunities to Address Climate Change through Reauthorization

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Presentation Overview

- Introduction to the Pew Center on Global Climate Change
- Market Failures in Transportation
- Reducing Greenhouse Gas Emissions through Reauthorization
  - Opportunities
  - Key Hurdles
  - Criteria
  - Legislative Provisions
- Pew Center Report Preview
Pew Center Overview

• Founded in May 1998
• Independent, non-profit, non-partisan
• Produces research on policy, economics, science & impacts, and solutions
• Works with policy makers at state, federal, and international levels
• Conducts education and outreach
• Engages the business community through the Business Environmental Leadership Council
Market Failures in Transportation

The Environment, National Security, & Highway Trust Fund
Environmental Costs

- No market price to emit greenhouse gases (GHG) from transportation today
- 27% of GHGs in U.S. are from transportation with over 85% that from surface

“A strong, credible body of scientific evidence shows that climate change is occurring, is caused largely by human activities, and poses significant risks for a broad range of human and natural systems.”

– National Academy of Sciences, 2010
• National security cost
  – $12.38/barrel
  security benefit for reduced consumption

• Incendiary devices from Iran (a petro-state) have killed U.S. soldiers

• DoD says climate change increases risk of conflict
Highway Account Performance

(FY 1957- FY 2009)

- Receipts
- Outlays
- Balance
Reauthorization & Climate Change Link

Annual HTF receipts in billions of U.S. dollars

1980
- Diesel and Special Fuels: $0.28
- Inner Tubes: $0.91
- Miscellaneous: $0.63
- Parts and Accessories: $1.03
- Tires: $0.25
- Use: $0.08
- Trucks, Buses, and Trailers: $0.03
- Lubricating Oil: $0.02
- Gasoline: $0.52

2008
- Diesel and Special Fuels: $1.45
- Inner Tubes: $0.02
- Miscellaneous: $0.39
- Parts and Accessories: $1.04
- Tires: $25.33
- Use: $10.53

Pew Center on Global Climate Change
Reducing Greenhouse Gas Emissions with Reauthorization

Opportunities, Key Hurdles, Criteria, & Legislative Provisions
Opportunities to Reduce GHGs

- **System Efficiency**
  - ITS research
  - 55-MPH speed limit
  - Truck rest area electrification
- **VMT Reductions**
  - Carpool funding eligibility
  - Congestion pricing pilot
- **Fuels**
  - Fuel tax to encourage energy efficiency & less oil consumption

Transportation GHG Reductions
- Fuels
- Vehicles
- VMT
- System Efficiency
Key Hurdles for GHG Reduction Provisions

- The national economy and mood of the public
- Program purpose/structure
  - Desire for consolidation
  - Livability movement
  - Cost-effectiveness
- Insufficient funding (user fee problem)
- Funding distribution
- On and on...
Criteria for GHG Reduction Provisions

- Efficacy of reducing GHG emissions
- Cost-effectiveness ($ per ton of CO$_2$)
- Extent of improving transportation mobility, accessibility, and safety
- Political feasibility
- Flexibility (geographical, implementation)
- Net benefits
- And more...
1. Change user fee structure
2. Support transition to energy-efficient vehicles & low-carbon fuels for state & local governments
3. Enable and incentivize expansion of transportation pricing
4. Establish a transportation research & data collection program for GHGs
5. Fund major performance-based multi-modal program

6. Funding, incentives, & institutional support to for carpooling/vanpooling

7. Establish national, state and/or metropolitan GHG emission reduction targets and a process to meet them

8. $100 million/year program to fund coordination between transportation and land use planning
Reducing Greenhouse Gases from U.S. Transportation

Preview of forthcoming report by the Pew Center on Global Climate Change
Pew Center Report Preview (1 of 2)

- Focuses on U.S. transportation sector
- Authors: David Greene and Steve Plotkin
- Report focuses on technology and policy
  - Technology includes vehicle engines, fuels, system efficiency, and more
  - Policy includes fuel-efficiency standards, pricing, and more
• 3 scenarios analyzed based on 4 criteria
  – Public attitude towards climate change
  – Public policy context
  – Rate of technological progress
  – Energy prices

• Result: *significant* reductions from transportation could be made cost-effectively beginning today
For More Information Visit

www.pewclimate.org