Merit Review: EPAct State and Alternative Fuel Provider Fleets

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This presentation does not contain any proprietary or confidential information.
Outline

• Background on SFP Program
• Overview
• Objectives
• Milestones/Activities
• Approach
• Accomplishments/Progress/Results
• Future Work
• Summary
Background on Program


- Promotes AFV Acquisition/Petroleum Replacement

- Began Model Year (MY) 1997

- Annually 300+ State and Fuel Provider (SFP) Entities Must Meet Annual Requirements
SFP Fleets

Circles Represent Fleet Locations
Overview

• Timeline
  – Ongoing Regulatory Compliance Program
  – Arising from EPAct 1992
  – With Subsequent Legislative Amendments
    • Energy Reauthorization Act of 1998 (ECRA)
    • EPAct 2005
    • Energy Independence and Security Act of 2007 (EISA)

• Budget
  – Funding in FY08 ($1.3 M) and FY09 ($1.2M)
  – Funding request for FY10 – ($1.3 M)
Overview (cont’d)

• Barriers
  – Regulatory Limitations
  – Fleets Need to Actively Manage Compliance
  – Lack of Re-Fueling Infrastructure

• Partners
  – Predominantly “Stakeholders” Rather than “Partners”
  – Strong Support from NREL to Help Implement Regulatory Requirements and Provide Tools and Outreach
  – Coordination with Clean Cities Program and Federal Fleets Program
Objectives

- Petroleum Reduction and Replacement
- Implement the EPAct Alternative Fuels Transportation Program
  - Ensure Compliance with Regulatory Requirements for 300 + Fleets
  - Interpret/Analyze Legislative Requirements
  - Collect, Store, and Analyze Data Covered Fleets Submit to Comply with EPAct SFP Requirements
- Encourage/Empower Fleets to Go Beyond Standard Compliance Requirements to Reduce Petroleum Use
- Partnering with Clean Cities & Federal Fleet
Milestones/Activities

• Annual Reporting
• Exemptions and Exclusions
• Interpretative Rulings
• Documentation
• Rulemaking
• Alternative Fuel Petitions
• Reports
• Outreach
Approach

• Strong Focus on Ensuring Fleet Compliance
  – Flexible Options
  – Enhanced Outreach and Education
  – Working with Deficient Fleets

• Careful Development of New Requirements

• Develop Flexible Approaches

• Regulatory Fixes
• Successful implementation of standard compliance regulations supports:
  – Limited demand for Infrastructure
  – AFV acquisitions
  – Compliance Rate Exceeds 95%

• Successful implementation of alternative compliance regulations helps:
  – Create Demand
  – Directly and Immediately Reduce Petroleum Use
Approach (cont’d)

- Outreach and Technical Assistance
- Analysis
- Interpretive Rulings
- Documentation
- Online Tools and Decision Support
Accomplishments/Progress/Results

• Finalized Private and Local Government Fleet Determination (March 08)
• Finalized EPAct Section 704 Report to Congress
• Completed Review and Decision on Alternative Fuel Petition for Acetylene
• Continued Developing EISA Section 133 Proposed Rule
• Completed First Full Year of Alternative Compliance Option
• Reviewed/Approved Second Set of Alternative Compliance Plans – 11 for MY2009
• Addressed Policy Positions
Accomplishments/Progress/Results

- Developed Public Petroleum REduction Planning (PREP) Tool
- Fleet Site Visits
- Developing Regional Workshops
- Updated E85 Toolkit on AFDC website
- New EPAct Website
- Documentation
Accomplishments/Progress/Results

• Deployment Barriers Are Addressed by Regulatory Flexibility
• Deployment of Various Vehicle Technologies Via:
  • Standard Compliance
  • Alternative Compliance
• 40-50 million Gasoline Gallon Equivalents (GGE)
• Virtually 100% Compliance
SFP Accomplishments: Data

Note: MY2008 data not yet complete
SFP Accomplishments: Data

AFVS ACQUIRED BY MODEL YEAR

- MY 1996
- MY 1997
- MY 1998
- MY 1999
- MY 2000
- MY 2001
- MY 2002
- MY 2003
- MY 2004
- MY 2005
- MY 2006
- MY 2007
- MY 2008

- Hydrogen
- Electric
- E85
- LPG
- CNG

NOTE: MY2008 data not yet complete
SFP Accomplishments: Data

Biodiesel Fuel Use and Credits

*Includes all gallons reported

Gallons

- 106 (1999)
- 596 (2000)
- 1182 (2001)
- 1219 (2002)
- 1452 (2003)
- 1714 (2004)
- 2403 (2005)
- 2928 (2006)
- 3014 (2007)
- 3252 (2008)

Credits

- 2928 (2006)
- 3014 (2007)
- 3252 (2008)

Gallons and Credits Awarded:

- 0 (1999)
- 1,000,000.00 (2000)
- 2,000,000.00 (2001)
- 3,000,000.00 (2002)
- 4,000,000.00 (2003)
- 5,000,000.00 (2004)
- 6,000,000.00 (2005)
- 7,000,000.00 (2006)

NOTE: MY2008 data not yet complete
SFP Accomplishments: Data

NOTE: MY2008 data not yet complete
SFP Accomplishments: Data

- High Compliance Level (Virtually 100%)
- Early Technology Adopters
- Fleets Installing Infrastructure
- DOE Collaborating with Industry and Other Labs (Rulemaking Comments, Hearings, Conferences, Other Outreach)

Note: Compliance Data for MY2008 not yet complete, so not included
First Year Results of Alternative Compliance Resulted in a total of nearly 1,482,528 GGE of petroleum reduced, from just 8 fleets.
Future Work

- Additional Site Visits
- Regional Workshops
- Revision of Alternative Compliance Program
- Develop Framework for EPAct Section 509 Report to Congress
- Develop Online Compliance Tools
- Analyze Other Existing Fleets for Potential Coverage
- Issue EISA Section 133 NOPR
- Develop Tool Kits for Best Practices
- GIS Analysis for Fleet Vehicles and Re-Fueling Infrastructure
- Section 509 Report
- Documentation of Processes and Decisions
Summary

• Objectives
  – Petroleum Reduction and Replacement
  – Deploy and Encourage Technology Acquisitions
  – Collect, Store, and Analyze Data
  – Encourage/Empower Fleets to Go Beyond Standard Compliance Requirements
  – Ensuring Compliance with Statutory Requirements
Summary (Cont’d)

• Approach
  – Careful Development of New Requirements
  – Develop Flexible Approaches
  – Extensive Outreach and Technical Assistance
  – Analysis & Interpretive Rulings
  – Documentation
  – Online Tools and Decision Support
• Results
  – Compliance rate of 95%
  – Deployment of Various Vehicle Technologies Via Standard Compliance & Alternative Compliance
  – 40-50 million GGE of Petroleum Replacement Per Year (Conservative Estimate)

• Future Work
  – Enhancing flexibility
  – Streamlining Program
  – Continue Documenting Decisions and Processes
  – Outreach
  – 509 Report