

# **OVTP Merit Review EPAct State & Alternative Fuel Provider Data Collection and Management**

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This presentation does not include any proprietary or confidential information.

# Outline

- **Purpose of Work**
- **Approach**
- **Beyond AFVs to Alternative Compliance**
- **Accomplishments**
- **Relevance to DOE Goals & Objectives**
- **Future Activities**
- **Summary**

# Purpose of Work

- **NREL directly supports DOE's responsibility to implement the EPart State & Fuel Provider regulations**
- **Objectives**
  - Collect, store, and analyze data covered fleets submit to comply with EPart state and fuel provider requirements
  - Encourage/empower fleets to go beyond standard compliance requirements to reduce petroleum use
- **Goal: 100% reporting compliance**

# Approach – Overall

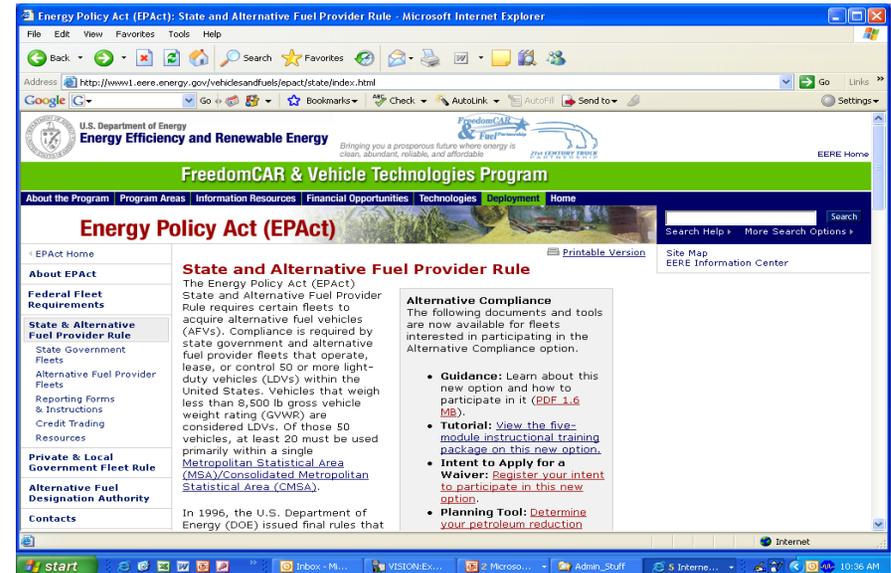
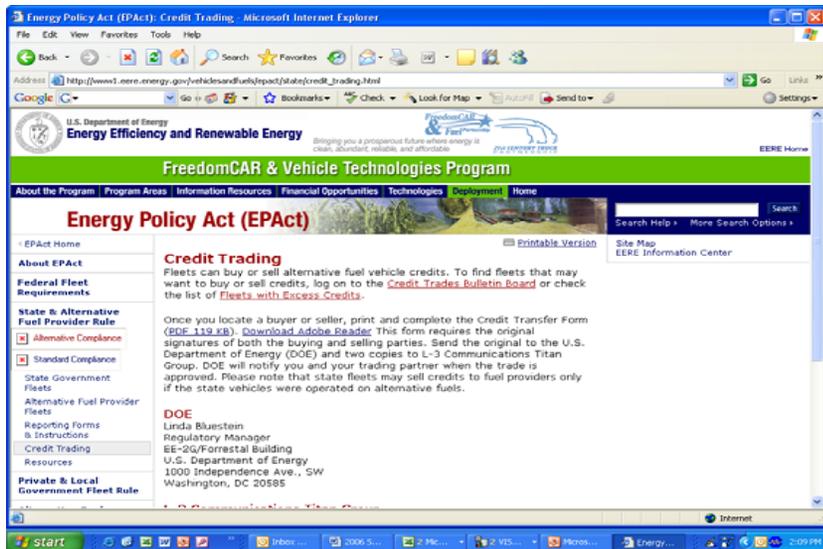
- **Create and maintain a secure, accurate, and flexible data management system**
- **Provide easy-to-use data mining tools to help manage the program**
- **Provide flexible, easy-to-use fleet reporting mechanisms for covered fleets**
- **Provide analysis tools and data to help fleets go beyond just acquiring AFVs**

# Approach – Secure, Accurate System

- **Oracle database on UNIX server**
- **Access**
  - Online through high security login pages
  - Each fleet sees only its own data
- **Data entry done through online forms**
  - Drop lists, error checking
- **Data input triggers embedded calculations of compliance status, banked credits**

# Approach – Flexible System

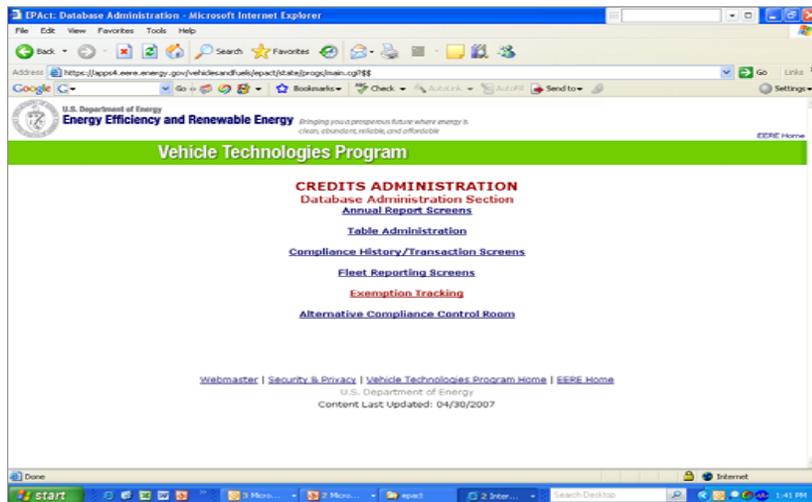
- **Standard Compliance (SC)**
  - AFV and biodiesel credits
  - Exemptions
  - Credit trades
  - Banked credit balance



- **Alternative Compliance (AC)**
  - AFV and biodiesel credits
  - Exemptions
  - Credit trades
  - Banked credit balance

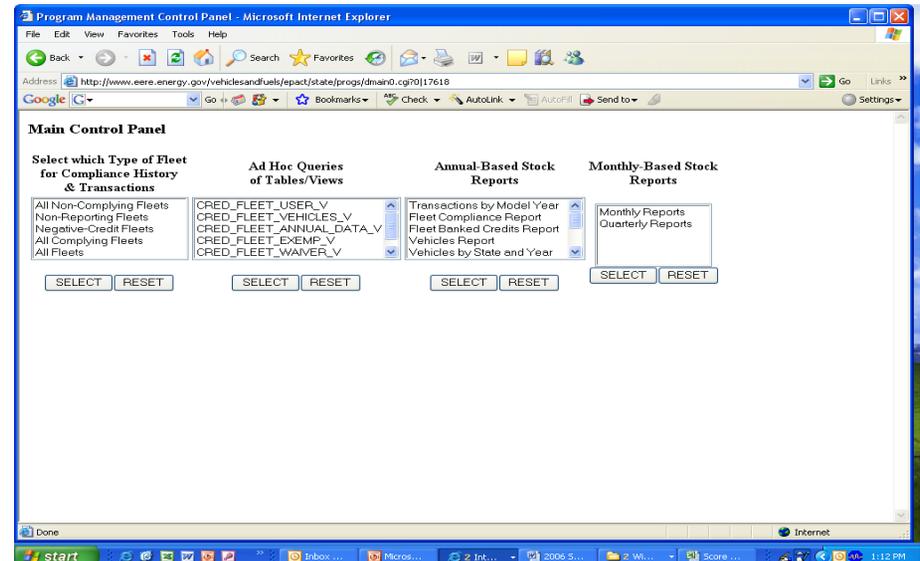
# Approach – Management Tools

- Online control room to access database



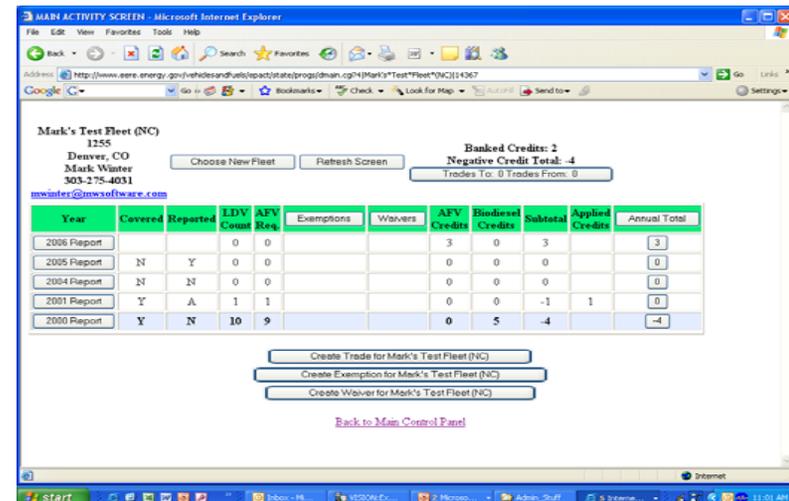
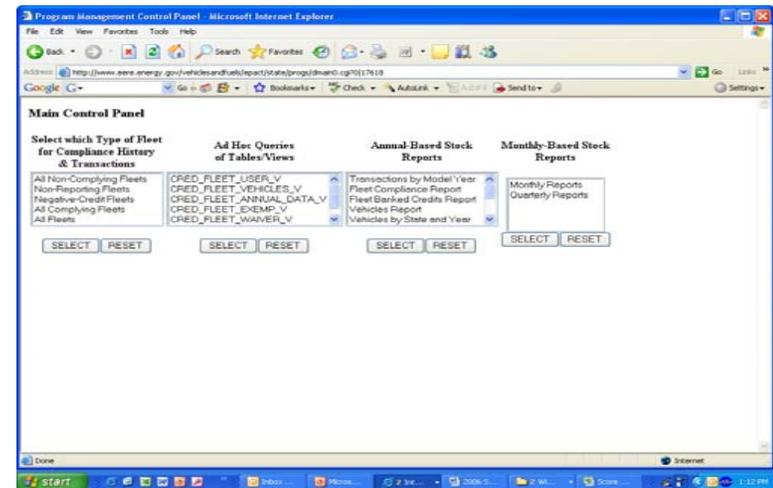
- Track exemption review process
- Track AC process

- Real-time data mining
  - View AFV profiles, biodiesel use, compliance rates
  - Spot potential delinquency trends



# Approach – Management Tools

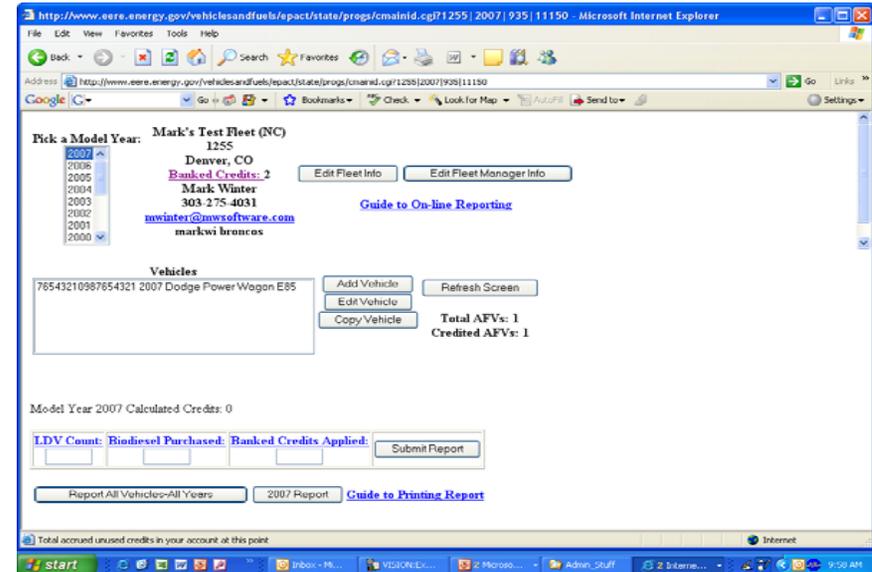
- Review individual fleet compliance history
  - SC banked credits, credit trades, compliance, annual reports
  - AC banked gasoline gallon equivalents, multi-step waiver submission process, compliance
- Execute credit trades
- Execute approved exemptions



# Approach – SC Reporting Mechanisms

- Three mechanisms

- Online form
- Spreadsheet: Sent to database administrator (DBA) who uses auto-upload feature
- Hard copy: Sent to DBA who uses online forms



The screenshot shows a web browser window displaying the "MODEL YEAR 2006 ANNUAL REPORT" for "Mark's Test Fleet (NC)". The report includes a summary table with the following data:

Covered Status:	LDV Count:	AFV REQ:	Exemptions:	Waivers:	AFV Credits:	Biodiesel Purchased:	Biodiesel Credits:	Sub Total:	Applied Credits:	Calculated Credits:
0	0	0			3		0	3		3

Below the summary table is a "Vehicle Summary for Model Year 2006" table:

Number	Model Year	Make	Model	Category	Engine Config.	VIN	Date Acquired	Fuel Type	Conversion Mode	Conversion Date	Light Duty	Zip Code	Internal ID
123334	2006	AVS	Chevrolet	Auto	Ded	12345678901234567	05/02/06	CNG	OEM		Y	99999	
123336	2006	AVS	Chevrolet	Auto	Ded	12345678901234599	05/02/06	CNG	OEM		Y	99999	
124051	2006	Ford	F150	LDPu	Flex	1FTPX12V16KC16666	03/10/06	E85	OEM		Y	75633	

- Report fully/partially any time of year
- Online and phone help

# Approach – SC Reporting Mechanisms

- **Submitting exemption requests**
  - Written requests submitted to DOE
  - DOE reviews, makes decision
  - Data entry triggers recalculation of fleet status—compliance, banked credits
  - Review process managed with Exemption Tracker
- **Submitting trade request**
  - Process similar to exemptions

# Beyond AFVs to Alternative Compliance

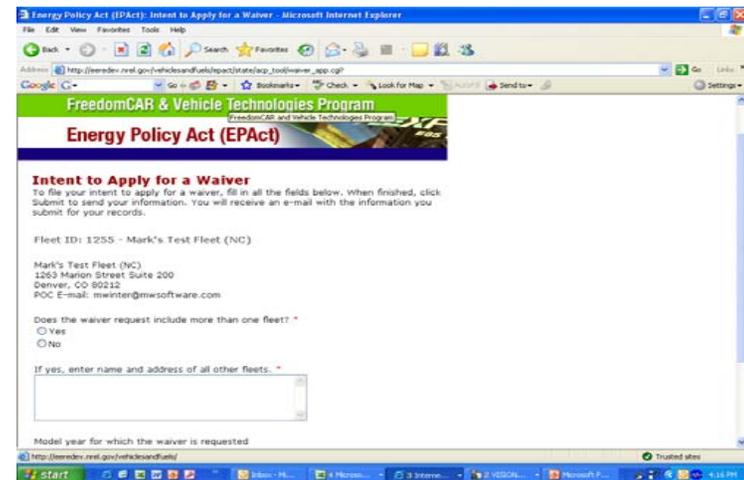
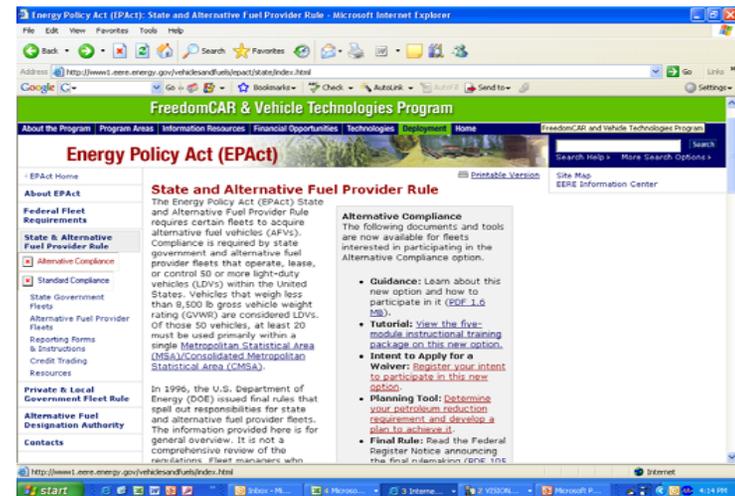
- **Mandating AFVs has limitations**
  - Availability of AFV and fuel
  - Use of alternative fuels in flex-fuel AFVs
- **Alternative Compliance**
  - Aimed more directly at goal of reducing use of conventional fuels
  - Wider array of technology options available to meet compliance requirements

# Beyond AFVs to Alternative Compliance

- **Fleets**

- Apply beforehand to participate in AC option
- Maintain Alternative Compliance vehicle (ACV) inventory online
- Submit written annual report after year is over

- **NREL enters data into database and assists DOE to determine if compliance is achieved**



# Beyond AFVs to Alternative Compliance

- AC planning tool available online for covered fleets electing AC option

**Energy Policy Act (EPAct) Alternative Compliance Planning Tool Step 1**

**Alternative Compliance Planning Tool**  
Step 1: Determine Your Petroleum Reduction Requirements

Answer the following questions to determine your petroleum reduction requirement. After filling in the fields, click Save Inputs and a summary of your results will appear in the box at right.

**Note:** If you have an approved intent to apply for a waiver, you may check your current [Alternative Compliance Vehicle \(ACV\) Inventory](#) by clicking the button below. If your intent to apply for a waiver has not been approved, the button does not appear.

For what **model year** (MY) are you applying? 2008

How many **ACVs** are currently in your fleet? 2006

How many **alternative fuel vehicles (AFVs)** would you have been required to acquire this MY under Standard Compliance? 34

How many ACVs will be retired before the MY? 23

ACV Inventory 2017

What is the **average fuel use per light-duty vehicle (LDV)** in your fleet? 12

[Save Inputs](#)

**Energy Policy Act (EPAct) Alternative Compliance Planning Tool**

U.S. Department of Energy  
Energy Efficiency and Renewable Energy

**FreedomCAR & Vehicle Technologies Program**

**Energy Policy Act (EPAct)**

**Alternative Compliance Planning Tool**

Alternative Compliance allows state and alternative fuel provider fleets to reduce petroleum consumption in lieu meeting the alternative fuel vehicle acquisition requirements of 10 CFR Part 490. This tool helps fleets determine their petroleum reduction requirement and create a plan for meeting it. Users can choose from the following methods to meet their requirement.

- Alternative Fuels
- Hybrid Electric Vehicles
- Fuel Blends
- Fuel Economy
- Vehicle Miles Traveled Reduction
- Truck Stop Electrification
- Idling Time Reduction
- Onboard Idle Reduction

To get started, log in using the ID and password issued for Standard Compliance reporting.

User Name:

Password:

[Log In](#)

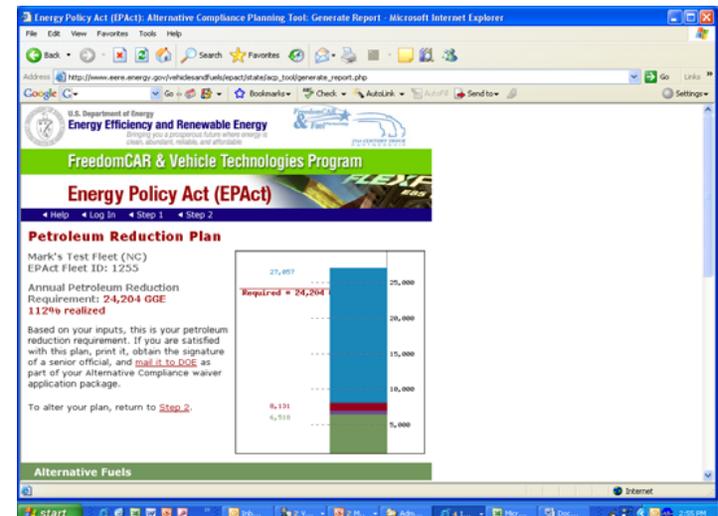
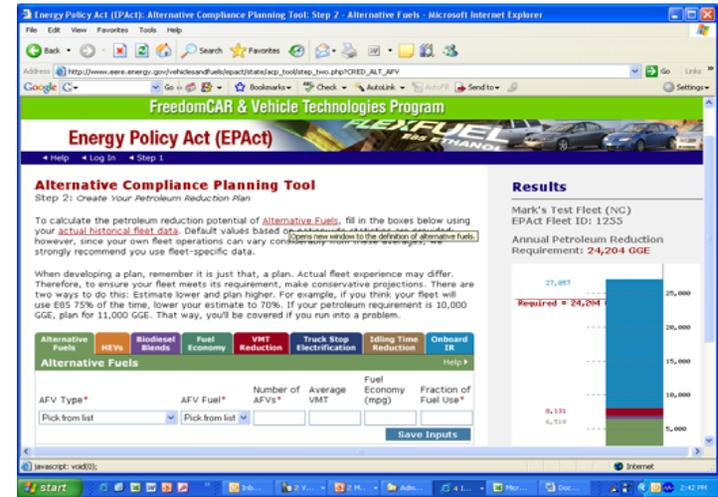
[Remind me of my User Name/Password](#)

[EPAct Home](#) | [FreedomCAR and Vehicle Technologies Home](#) | [EERE Home](#) | [U.S. Department of Energy](#)  
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Content Last Updated: 04/30/2007

- Fleets can use tool to:
  - Calculate AC fuel reduction requirement
  - Maintain ACV inventory

# Beyond AFVs to Alternative Compliance

- Fleets use tool to create fuel use reduction plan
- Fuel use reduction tabs for:
  - Alternative fuels
  - Hybrid electric vehicles
  - Biodiesel blends
  - Fuel economy
  - Vehicle miles travelled Reduction
  - Truck stop electrification
  - Idling time reduction
  - Onboard idle reduction



# Accomplishments – 100% Compliance Goal

- **99% compliance rate since 1997**
- **More than 4,000 SC annual reports**
  - Generally, 75% online reporting, 20% spreadsheets, 5% hard copy submission
- **306 exemptions**
- **238 trade transactions – 8,975 credits traded**
- **25 AC waiver intents for MY2008**
- **9 AC waiver requests for MY2008**

# Relevance to DOE Goals & Objectives

- **NREL directly supports DOE's responsibility to implement the EAct State & Fuel Provider regulations**
  - Creates and maintains the tools/analysis to manage the EAct S&FP program
  - Provides communication link with covered fleets
  - Creates and maintains reporting tools, planning tools, and help desk for fleets

# Relevance to DOE Goals & Objectives

- **Successful implementation of standard compliance regulations supports**
  - Demand for alternative fuel infrastructure (AFVs, refueling stations)
  - Near-term petroleum reduction, to the extent the alternative fuels are used
- **Successful implementation of alternative compliance regulations helps**
  - Create demand for advanced vehicles and fuels and energy efficient technologies (hybrid electric vehicles, fuel cell vehicles, non-petroleum based fuels, idle reduction, etc.)
  - Directly and immediately reduce petroleum use

# Future Activities

- **Complete implementation of AC option**
  - Intents to Apply, Waiver Request - working
  - Integration of AC Reports:
    - *database redesign done and procedures established*
    - *database modifications underway; to be completed August 2008*
- **Energy Independence and Security Act of 2007 (EISA)**
  - Amends EPLAct 2005
  - Support DOE's upcoming rulemaking process to establish EISA credits
  - Create procedures and modify database, fleet reporting mechanisms, and management tools
  - Implement in FY2009

# Summary

- **Continue support of DOE responsibility to implement EPA Act legislation**
- **Continue to provide secure, accurate, flexible approach for fleets and real-time data mining to support management**
- **Maintain 99% compliance rate**
- **Complete AC implementation August 2008**
- **Incorporate changes for EISA 2007 in FY09**
- **Provide tools and resources to help fleets go beyond requirements to increase petroleum reductions**