# VEHICLE TECHNOLOGIES PROGRAM

EPAct Alternative Fuel Transportation Program

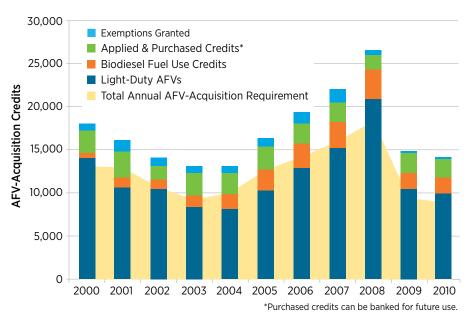
State and Alternative Fuel Provider Fleet Compliance Annual Report



# Fleet Compliance Results for MY 2010/FY 2011

The U.S. Department of Energy (DOE) regulates covered state and alternative fuel provider (SFP) fleets under the Energy Policy Act of 1992 (EPAct), as amended. For model year (MY) 2010, the compliance rate for the 291¹ covered SFP fleets was 100%. Fleets used either Standard Compliance or Alternative Compliance. The 279 fleets that used Standard Compliance exceeded their aggregate MY 2010 acquisition requirements by 61%. The 12 covered fleets that complied using Alternative Compliance exceeded their aggregate MY 2010 petroleum-use-reduction requirements by 89%. Overall, DOE saw modest decreases from MY 2009 in biodiesel fuel use credits earned and in the number of light-duty vehicles (LDVs) acquired. Compared to years before MY 2009, these rates were far lower. Because covered fleets acquired fewer new vehicles overall in MY 2010, the requirement for alternative fuel vehicles (AFVs),² which is proportional to new acquisitions, also dropped.

### **Standard Compliance Methods**



# **Standard Compliance**

Covered SFP fleets operating under Standard Compliance (10 CFR Part 490, Subpart C or D) achieve compliance by acquiring alternative fuel vehicles, purchasing biodiesel for use in mediumor heavy-duty vehicles, and/or applying banked credits earned previously or acquired from other covered fleets. In MY 2010, covered SFP fleets earned a total of 11,815 AFV-acquisition credits.<sup>3</sup> These 279 fleets:

- Acquired 10,232 light-duty AFVs.
- Earned 1,583 biodiesel fuel use credits through the purchase of over 5.5 million gallons of pure biodiesel (B100).<sup>4</sup>
- Applied 1,362 banked credits.

As a whole, the fleets operating under Standard Compliance went beyond compliance, exceeding their compliance requirements by approximately 61%.

<sup>&</sup>lt;sup>1</sup>Some reporting entities represent one agency or business; others constitute fleet operations for an entire company or state.

<sup>&</sup>lt;sup>2</sup> AFVs include any dedicated, flexible-fuel, or dual-fuel vehicle designed to operate on at least one alternative fuel. These fuels are defined or designated as alternative fuels: methanol, denatured ethanol, and other alcohols; blends of 85% or more of methanol, denatured ethanol, and other alcohols with gasoline or other fuels; natural gas and liquid fuels domestically produced from natural gas; liquefied petroleum gas (propane); coal-derived liquid fuels; hydrogen; electricity; biodiesel (B100); fuels (other than alcohol) derived from biological materials; and P-Series fuels.

<sup>&</sup>lt;sup>3</sup> This number of credits equals the number light-duty AFVs acquired plus the number of biodiesel credits earned.

<sup>&</sup>lt;sup>4</sup>The credits awarded for biodiesel purchase and use do not necessarily reflect the total amount of biodiesel purchased because each fleet may apply its biodiesel use to meet no more than 50% of its annual AFV-acquisition requirement.

# **Vehicle Acquisitions**

Acquiring AFVs is typically how covered fleets comply. Under Standard Compliance, 75% of covered LDVs that state fleets acquire must be AFVs while 90% of covered LDVs that alternative fuel providers acquire must be AFVs.

AFV-acquisition requirements are determined by multiplying a fleet's number of newly acquired, non-excluded LDVs by the applicable percentages. In MY 2010, the number of covered-fleet light-duty AFV acquisitions was 10,232,

an amount relatively unchanged from the previous year but still a nearly 50% decrease from MY 2008. Flexible-fuel vehicles accounted for nearly 94% of these acquired LDVs.

# **Light-Duty AFV Acquisitions**



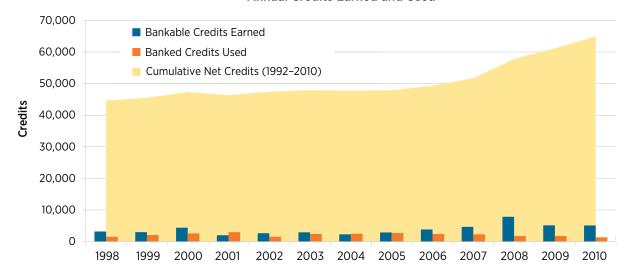
#### **Credit Use and Acquisition**

Covered fleets earn bankable credits by acquiring more AFVs than are required in a given model year. These fleets may then use these credits to address future AFV-acquisition requirements, or they may sell the credits to fleets that have acquired an insufficient number of AFVs. In MY 2010, fleets exceeded their

AFV-acquisition requirements and earned 5,111 credits. Fleets also used 1,360 banked credits to comply with EPAct—a 23% decrease from MY 2009. There were 31 transactions between covered fleets involving the transfer of 1,090 banked credits, which could be used to help fleets meet their AFV-acquisition requirements.

The number of credits exchanged in MY 2010 more than doubled compared with MY 2009 (496 credits) even though the number of transactions actually decreased by one in MY 2010 (31) compared to MY 2009 (32).

#### **Annual Credits Earned and Used**



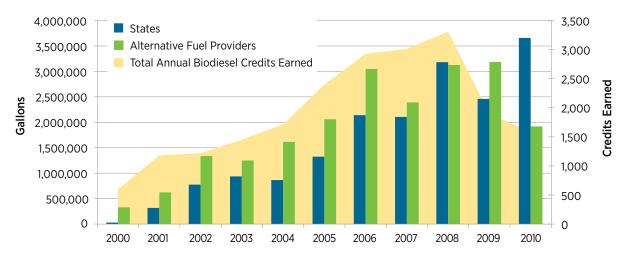
#### **Biodiesel Fuel Use**

Covered fleets may earn one biodiesel fuel use credit for each 450 gallons of pure biodiesel (B100) or one biodiesel fuel use credit for every 2,250 gallons of 20% biodiesel blends (B20)<sup>5</sup> they purchase for use in medium- or heavy-duty vehicles (10 CFR sections 490.701-702). In MY

2010, covered fleets reported using over 5.5 million gallons of B100 in B20 blends, allowing covered fleets to earn a total of 1,583 biodiesel fuel use credits. The credits awarded likely do not reflect the total amount of biodiesel purchased because each fleet may apply its biodiesel

use only to meet no more than 50% of its annual AFV-acquisition requirement. Without this limit, biodiesel fuel use credits would have exceeded 12,200 in MY 2010.

#### Annual Biodiesel (B100) Use and Biodiesel Credits Earned



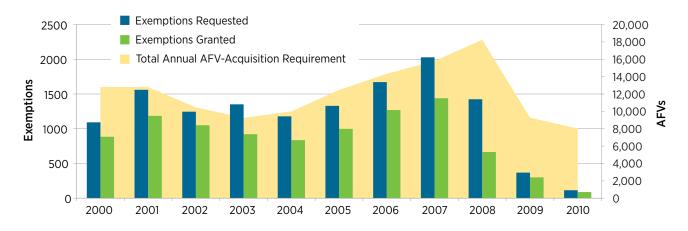
### **Exemptions**

Overall, granted exemptions<sup>6</sup> represented 1% (total number of exemptions granted/total AFV-acquisition requirements) of fleet compliance credit activity in MY 2010. Fleets received 88 vehicle exemptions—the lowest total recorded for the program and merely 10% of the annual

average of exemptions granted since 2000. In MY 2010, only 12 fleets requested exemptions, a few less than in MY 2009 when only 15 fleets requested exemptions, and still a significant decrease from MY 2008 when 33 fleets requested exemptions. A more significant decrease

in MY 2010 occurred in the number of exemptions requested (221) compared with the number of exemptions requested in MY 2009 (368) and MY 2008 (1,424). The number of exemptions requested for MY 2010 was the program's lowest since 2000, with the average being 1,215.

# Annual Exemptions Requested and Granted Compared to Total AFV-Acquisition Requirement



<sup>&</sup>lt;sup>5</sup> For more information on how biodiesel fuel use credits are calculated, read "Earning Biodiesel Fuel Use Credits Under Standard Compliance" on the EPAct website at www.eere.energy.gov/vehiclesandfuels/epact/pdfs/biodiesel\_guidance.pdf.

<sup>&</sup>lt;sup>6</sup> Exemptions are detailed in "Exemption Requests under the EPAct State & Fuel Provider Fleet Program; 10 C.F.R. §§ 490.308 and 490.204," which is available on the EPAct website at www.eere.energy.gov/vehiclesandfuels/epact/pdfs/exemption\_guide.pdf.

# **Alternative Compliance**

MY 2010 marked the third year for covered SFP fleets to participate in DOE's Alternative Compliance option to comply with their EPAct requirements. EPAct 2005 established Alternative Compliance, and the option was put in place by final rulemaking in March 2007 for initial application in MY 2008. Under Alternative Compliance, fleets may employ petroleumreduction measures in lieu of acquiring AFVs under Standard Compliance. Examples of these petroleum-reduction measures are included in the pie chart to the right. Fleets must obtain a waiver from DOE for the upcoming model year (in this case, MY 2011). To receive a waiver, fleets must submit to DOE an intent to apply for a waiver from Standard Compliance. Then they must file an official waiver application that includes a plan showing how they intend to reduce their fleet's petroleum consumption.

#### Plans and Achievements in MY 2010

DOE approved waiver applications for 14 fleets to participate in Alternative Compliance for MY 2010. Twelve of the fourteen fleets were able to meet their required fuel reductions for MY 2010. The 12 fleets' total required petroleum-use reduction for MY 2010 was 1,804,075

gasoline gallon equivalents (GGE). Their total planned petroleum-consumption reduction was a little more than 3 million GGE, and in the aggregate, the 12 fleets far exceeded the requirement, reducing petroleum consumption as a group by 3,495,943 GGE. The 12 fleets achieved this amount of reduction and met their petroleum-consumption reduction goals by:

- Using alternative fuels (40.3% petroleum reduction achieved)
- Using biodiesel blends (54.3% petroleum reduction achieved)
- Acquiring and using hybrid electric vehicles (1.6% petroleum reduction achieved)
- Employing fuel economy measures in conventional vehicles (0.4% petroleum reduction achieved)
- Reducing vehicle miles traveled (2.3% petroleum reduction achieved)
- Limiting engine idling time (1.0% petroleum reduction achieved).

# **Notices of Intent**

In MY 2010, DOE received 47 notices of intent to apply for a waiver from Standard Compliance for MY 2011. This is 9 more

notices of intent than were received in MY 2009 for MY 2010 compliance. This number of notices of intent is the largest number received to date.

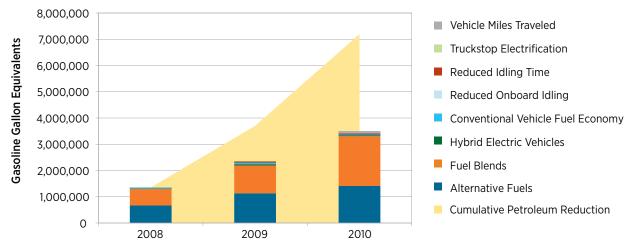
### Conclusion

In MY 2010, covered fleets successfully met their Standard Compliance requirements. Their efforts included acquiring 10,232 AFVs and consuming over 5.5 million gallons of pure biodiesel (B100). The 12 fleets operating under Alternative Compliance reduced petroleum consumption by more than 3.4 million GGE. All fleets have filed their annual reports, and all fleets are currently in credit compliance.

#### What Is FPAct?

The Energy Policy Act of 1992 (EPAct) was passed by Congress to reduce the nation's dependence on imported petroleum. Provisions of EPAct require certain fleets to purchase AFVs. DOE administers these requirements through its Alternative Fuel Transportation Program, Federal Fleet Requirements, and Alternative Fuel Designation Authority.

#### Petroleum Reductions Achieved by Alternative Compliance Strategy



Front page photo from © General Motors



For more information, visit www.eere.energy.gov/vehiclesandfuels/epact or contact the Regulatory Information Line at 202-586-9171 or regulatory.info@nrel.gov.

DOE/GO-102012-3507 • March 2012