Financial Incentives for Clean Vehicles

Implementation Options for the State of New Mexico

A report compiled in accordance with Executive Order 2006-069

July 2007

FINANCIAL INCENTIVES FOR CLEAN VEHICLES

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1. INTRODUCTION

The purpose of this report is to respond to one of the New Mexico Environment Department's (NMED's) responsibilities under Executive Order (EO) 2006-069. The specific action item is as follows:

> *NMED shall work with other state agencies in analyzing financial incentives for clean vehicles, in a manner that supplements the initiatives in Executive Order 05-049. NMED shall submit a report summarizing its findings, including implementation strategies, to the Team, the Clean Energy Development council, and the Governor by July 1, 2007.*[1]

The "Team" referred to in EO 2006-069 is the Climate Change Action Implementation Team.

2. BACKGROUND

Executive Order 2004-019

In Executive Order 2004-019, Governor Bill Richardson declared New Mexico the "Clean Energy State."[2]

In order to take the lead in developing a strong clean energy economy, the State of New Mexico should encourage the use and production of alternative fuels through the use of financial incentives for clean vehicles.

Executive Order 2005-033

In Executive Order 2005-033, Governor Bill Richardson explained that there is a scientific consensus from the Intergovernmental Panel on Climate Change and the National Academy of Sciences that global climate change (global warming) is occurring. It is known that increases in greenhouse gas (GHG) emissions are directly linked to human activities including on-road vehicle transportation. Increases in GHG levels are a main cause of global warming. Governor Richardson explains that, as a result of global warming, the southwestern United States will suffer from "decreased annual precipitation, faster evaporation of surface water supplies, and increased runoff at the end of winter when snowpack will melt faster." EO 2005-033 goes on to explain that, "business leaders, representing corporate energy developers, utilities, insurance companies and others, recognize the need to address the risk of global warming and reduce greenhouse gas emissions in a predictable, enforceable fashion."

Recognizing that the federal government has failed to adequately address the problem of global climate change, Governor Richardson set the following goals for GHG emission reductions for the State of New Mexico in EO 2005-033:

- 2000 levels by the year 2012;
- 10 percent (10%) below 2000 levels by the year 2020; and
- 75 percent (75%) below 2000 levels by the year 2050.[3]

New Mexico Climate Change Advisory Group Report (December 2006)

The New Mexico Climate Change Advisory Group (CCAG) issued a report in December 2006 containing recommendations to reduce GHG emissions. This report offered 69 policy recommendations to accomplish the goal of GHG emission reductions. The report explained that, currently, the transportation sector accounts for approximately 18 percent (18%) of New Mexico's GHG emissions. Transportation and land use emissions are expected to roughly double from the years 1990 to 2020. In the Transportation and Land Use (TLU) section of the report, under the heading "TLU-5 Incentives/Disincentives Options Bundle," the CCAG recommended various policy alternatives that would reduce GHG emissions from the transportation and land use sector.

Among these recommendations is a multi-state "feebate" program. The feebate program would place a fee on relatively high-emission/low fuel economy vehicles and a rebate or tax credit on relatively low-emission/high fuel economy vehicles.

Another recommendation was to change the new vehicle excise tax. A higher excise tax would be charged on relatively high-emitting vehicles and a lower excise tax would be charged for low-emitting vehicles. The amount of revenue obtained from the excise tax would remain the same.

In the TLU section of the report, under the heading "TLU-4 Pay-As-You-Drive Insurance," the CCAG recommended that the state adjust its insurance regulations to allow Pay-As-You-Drive (PAYD) insurance. Also, the CCAG calls for a PAYD pilot to be implemented in 2008. PAYD insurance converts some parts of vehicle insurance policy payments from fixed costs to "per-mile" costs. Though this policy would not specifically encourage the use of clean vehicles, it would discourages unnecessary vehicle travel and thereby reduce emissions. [4]

Executive Order 2006-069

As stated in the Introduction, by Executive Order 2006-069, NMED has been charged with analyzing various financial incentives for clean vehicles in a manner which supplements initiatives described in Executive Order 2005-049.

Relevant initiatives set forth in Executive Order 2005-049 are numbered as they appear in the Executive Order and are as follows:

1. *All cabinet-level state agencies, public schools (K-12), and institutions of higher education shall take immediate action toward obtaining fifteen percent (15%) of their total transportation fuel requirements from renewable fuels such as ethanol and biodiesel by 2010. All other levels of government – federal, tribal, local – are strongly encouraged to adopt this same goal and move aggressively toward achieving it.*

2. *All cabinet-level state agencies, public schools (K-12) and institutions of higher education shall comply with the requirements of the Alternative Fuel Acquisition Act, Section 12-1B-1 et seq. NMSA 1978, specifically that seventy-five percent (75%) of all vehicles acquired each fiscal year shall be capable of operating on alternative fuels or are gas-electric hybrids. As used in the Act, the term "alternative fuels" includes renewable fuels such as ethanol and biodiesel. All other levels of government – federal, tribal, local – are strongly encouraged to adopt the same goal and move aggressively toward achieving it.*

…

5. *All cabinet-level state agencies shall assess and adjust new vehicle procurement practices and alternative fuel infrastructure, consistent with existing law and the Order, specifically as follows:*

    a. *Procure vehicles, whether alternative fueled or traditionally fueled, that have the highest fuel economy for the intended use. Procurement of smaller, more fuel-efficient four-cylinder light duty truck and four-wheel-drive vehicles shall be emphasized for cargo hauling and off-road conditions, when appropriate. With appropriate exceptions, all vehicles procured for on-road passenger travel shall meet or exceed federal Corporate Average Fuel Economy standards for passenger vehicles.*[5]

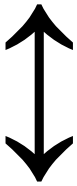
    …

The following section is devoted to analyzing financial incentives that have been or are currently implemented by the State of New Mexico and the federal government, as well as various neighboring states in the Southwest. This analysis is intended to guide and supplement the recommendations of the New Mexico CCAG and the initiatives set in EO 2004-059, as well as provide recommendations for the implementation of new financial incentives for clean vehicles.

3. FINANCIAL INCENTIVES for CLEAN VEHICLES

It is important to understand that vehicles have different emission certification levels. Table 1 describes each vehicle emission certification level in terms of lowest to highest emissions.

Table 1: Vehicle Emission Certification Levels

	Vehicle Emission Certification Level	
	Acronym	**Definition**
Lowest Emissions	ZEV	Zero Emission Vehicle
	AT-PZEV	Advanced Technology Partial Zero Emission Vehicle
	PZEV	Partial Zero Emission Vehicle
	SULEV	Super Ultra Low Emission Vehicle
	ULEV	Ultra Low Emission Vehicle
Highest Emissions	LEV	Low Emission Vehicle

In discussing financial incentives for clean vehicles, it is important to note that many different vehicles fall under the "clean vehicle" category. For example, the Chevy Cobalt, Ford Focus, Nissan Altima, and Toyota Camry are all partial zero emission vehicles (PZEVs). These vehicles are quite common and do not require consumers to purchase a "specialty vehicle" such as a hybrid electric vehicle (HEV), alternative fuel vehicle (AFV), or fuel cell vehicle. Other clean vehicles include advanced technology partial zero emission vehicles (AT-PZEVs). The Toyota Prius Hybrid and the Honda Civic Hybrid are both AT-PZEVs since they use hybrid electric technology which is considered a type of advanced technology. These vehicles have higher incremental costs than their conventional counterparts but are eligible for financial incentives from the federal and state government to help offset this cost. The additional cost of AT-PZEVs is also offset by lifetime fuel savings of the vehicle. It is important to encourage the purchase of clean vehicles in general; it is not necessary to focus solely on specialty vehicles.

There are numerous financial incentives for clean vehicles that the State of New Mexico can consider implementing. These incentives would supplement initiatives set forth by Governor Bill Richardson in Executive Order 2005-049.

3.1 Current Programs in New Mexico

Biodiesel Income Tax Credit

Currently, New Mexico has a biodiesel income tax credit available. The credit provides for income tax incentives for sale of biodiesel fuel. A taxpayer who files a New Mexico income tax return and who has paid the special fuel excise tax in a taxable year is eligible to claim a credit for each gallon of blended biodiesel fuel for which the tax was paid. A tax credit may be carried forward for five years if the credit exceeds the taxpayer's income tax liability for the taxable year. The credit is available from January 1, 2007 through December 31, 2012 and will be phased out as follows:

Table 2: NM Biodiesel Income Tax Credit[6]

Dates	Tax Credit ($/gal)
1/1/07 – 12/31/10	0.03
1/1/11 – 12/31/11	0.02
1/1/12 – 12/31/12	0.01

Hybrid Electric Vehicle Tax Exemption Program

New Mexico has a HEV tax exemption program which runs from July 1, 2004 through June 30, 2009. HEVs with a United States Environmental Protection Agency (EPA) estimated fuel economy of 27.5 miles per gallon (MPG) or greater are exempt from the New Mexico motor vehicle excise tax.[7]

Recent experience with excise tax exemption programs in the automotive sales industry of New Mexico has shown increased sales of HEVs such as the Toyota Prius. A New Mexico Toyota dealership notes that the Prius is their number one volume vehicle. The Prius also ranks number one in their Primary Market Area in the mid-size sedan segment, outselling the Toyota Camry and Honda Accord. Much of the success of HEV sales can be attributed to the New Mexico excise tax exemption program. Customers often mention state excise tax exemption and federal tax credit programs as key incentives for purchasing a HEV.[8]

Albuquerque's Clean Vehicle Incentives

The City of Albuquerque offers incentives for clean vehicles. Mayor Martin Chávez issued Executive Order 19 which states, "Effective March 1, 2006, purchases of motor vehicles by the City shall be limited to alternative fuel vehicles." Along with this commitment to only purchase AFVs, the City of Albuquerque boasts the following implementation of clean vehicles:

- 1,200 biodiesel-powered city fleet vehicles including trash trucks, fire trucks, and street sweepers;
- 364 ethanol-ready city fleet vehicles;
- 65 percent (65%) of city buses run on compressed natural gas (CNG) or hybrid technology; and
- free parking at any city parking meter for HEVs.[9]

3.2 Regulations Currently Under Consideration for the State of New Mexico

Clean Cars Program

Governor Richardson's Executive Order 2006-069 charged NMED with proposing a clean car standard. The specific action item is as follows:

NMED shall submit to the Environmental Improvement Board ("EIB") a proposal to implement a state clean car standard consistent with clean car standards adopted by other states no later than January 1, 2008. This initiative shall supplement the existing initiatives under Executive Order 05-049.[10]

NMED is developing a state clean car standard consistent with California's Low Emission Vehicle II (LEV II) regulations. Under Section 177 of the Clean Air Act, states are allowed to implement vehicle emission standards set by the State of California that are more stringent than the federal emission standards. The LEV II regulations include several sets of standards for emissions reductions of conventional pollutants and GHGs in new vehicles. Adoption of the clean car standard will reduce smog and GHG emissions and will provide health benefits to New Mexico's citizens.

The group Environment New Mexico issued a report supporting the adoption of the California clean car program in New Mexico entitled "Ready to Roll: The Benefits of Today's Advanced-Technology Vehicles for New Mexico." The Environment New Mexico report makes the following assumptions:

- New Mexico will implement the LEV II regulations in model year 2011;
- New Mexico will adopt the Zero Emission Vehicle (ZEV) component of the LEV II regulations, requiring that 11 percent (11%) of model year 2011 vehicles sold in New Mexico qualify as pure ZEVs, PZEVs, and AT-PZEVs;
- pure ZEVs will be considered marketable by model year 2012; and
- New Mexico's pure ZEV requirements are proportionate to California's based on sales volume.

Under these assumptions, Environment New Mexico produced the following table estimating sales under the LEV II program in New Mexico:

Table 3: Estimated Vehicle Sales in the State of New Mexico under the LEV II Program[11]

Model Year	PZEV	AT-PZEV	ZEV
2011	21,671	5,051	0
2012	23,797	5,754	366
2013	23,797	5,754	366
2014	23,797	5,754	366
2015	24,465	8,202	673

3.3 Financial Incentives in the Private Sector

Incentives from Google and Bank of America

The private sector has initiated financial incentive programs for the purchase of clean vehicles. For example, Google offers a Fuel Efficiency Vehicle Incentive Program which provides employees with $5,000 towards the purchase, or $2,500 towards the lease, of a

fuel efficient car that receives an EPA estimated fuel economy of 45 MPG or greater. Bank of America offers its associates $3,000 toward the purchase of a new HEV.[12]

3.4 Financial Incentive Programs Implemented by States and the Federal Government

Financial incentive programs for clean vehicles have been introduced throughout the country both by states and the federal government.

Financial incentives for clean vehicles include:

1. Tax credits
2. Grants to consumers
3. Rebates from the state government
4. Excise tax exemption
5. Grants for projects
6. Free parking

Any financial incentive should be implemented pursuant to Article IX, Section 14 of the New Mexico State Constitution; specifically that,

> *Neither the state nor any county, school district or municipality, except as otherwise provided in this constitution, shall directly or indirectly lend or pledge its credit or make any donation to or in aid of any person, association or public or private corporation…*[13]

Analysis of the six financial incentives above follows. At the end of each section, a summary of possible New Mexico action is provided to give guidance to implementation options for each financial incentive.

3.4.1 Incentive 1 – TAX CREDIT

Other states, as well as the federal government, have devised tax credit programs that promote the purchase of, or conversion to, clean vehicles.

Colorado's Tax Credit Program

The State of Colorado implemented a tax credit program in which the Colorado Department of Revenue provides a tax credit to assist in covering the incremental cost of purchasing an AFV or the cost of converting a vehicle to operate on alternative fuels based on the vehicle's emission certification level. The vehicle must be a LEV, ultra low emission vehicle (ULEV), inherently low emission vehicle (ILEV), super ultra low emission vehicle (SULEV), or ZEV. Select HEVs also qualify for the tax credit. The structure of the tax credit program is as follows:

Table 4: Colorado's Tax Credits for the Incremental or Conversion Cost of AFVs by Vehicle Emission Certification Level[14]

Vehicle Emission Certification Level	Tax yrs beginning prior to 1/1/10 (% of cost covered)	Tax yrs 1/1/10 – 1/1/12 (% of cost covered)
LEV	50	25
ULEV or ILEV	75	50
SULEV or ZEV	85	75

Examples of some tax credit amounts awarded by the State of Colorado for select HEVs are as follows:

Table 5: Examples of Colorado's Tax Credits for Select HEVs[15]

Vehicle	Tax Credit ($)
'07 Ford Escape Hybrid (Front Wheel Drive)	1,942
'07 Ford Escape Hybrid (Four Wheel Drive)	1,972
'07 Mercury Mariner	2,269
'06 Toyota Prius	3,285
'06 Honda Insight (Automatic)	4,437
'06 Honda Insight (Manual)	3,765
'06 Honda Civic Hybrid	2,531

Utah's Tax Credit Program

The State of Utah has implemented a tax credit program that runs through December 31, 2010. Under this program, the state of Utah provides a tax credit for 50% of the incremental cost (up to $3,000) for a clean fuel vehicle built by an Original Equipment Manufacturer (OEM). The program also offers a tax credit for 50% of the cost of converting a vehicle to operate on alternative fuels (up to $2,500).[16]

The Federal Government's Tax Credit Program

The federal government offers a tax credit program under Section 1341 of the Energy Policy Act of 2005. Section 1341 allows for the federal government to offer a tax credit for 50% of the incremental cost of purchasing a new dedicated AFV and an additional 30% tax credit for the incremental cost of purchasing a near-zero emission vehicle with a gross vehicle weight rating (GVWR) of 14,000 pounds (lbs) or less. The tax credit program runs through December 31, 2010 and is available for vehicles purchased after December 31, 2005.

The following limits are imposed on the incremental costs for dedicated AFVs.

Table 6: The Federal Government's Incremental Cost Limits for Dedicated AFVs under Section 1341 of the Energy Policy Act of 2005

GVWR (lbs)	Incremental Cost Limit ($)
8,500 or less	5,000
8,501 – 14,000	10,000
14,001 – 26,000	25,000
26,001 or greater	40,000

Section 1341 of the Energy Policy Act of 2005 also offers a base tax credit for purchasing light-duty fuel cell vehicles that have a GVWR of 8,500 lbs or less as follows:

Table 7: The Federal Government's Base Tax Credit for Light-Duty Fuel Cell Vehicles

Date Purchased	Tax Credit ($)
Until 12/31/09	8,000
1/1/10 – 12/31/14	4,000

In addition, Section 1341 of the Energy Policy Act of 2005 offers a fuel economy and conservation tax credit for light-duty HEVs (GVWR of 8,500 lbs and less). In order to qualify for these tax credits, the vehicle must at minimum meet Bin 5 requirements if its GVWR is 6,000 lbs or less, or Bin 8 requirements if its GVWR is between 6,000 and 8,500 lbs. The Bin 5 emission standard has an air pollution score of six (6), where as the Bin 8 emission standard has an air pollution score of three (3). The scores are issued by EPA on a scale from 0 to 10, where 10 is the cleanest. The fuel economy and conservation tax credit program will be phased out after a manufacturer has sold 60,000 qualified vehicles.

The fuel economy tax credit is based on fuel efficiency gains over the model year (MY) 2002 city fuel economy baseline and is disbursed as follows:

Table 8: The Federal Government's Fuel Economy Tax Credit for Light-Duty HEVs

Fuel efficiency (% of 2002 MY baseline)	Tax Credit ($)
125 – 149	400
150 – 174	800
175 – 199	1,200
200 – 224	1,600
225 – 249	2,000
250+	2,400

The fuel conservation tax credit is based on lifetime fuel savings and is disbursed as follows:

Table 9: The Federal Government's Fuel Conservation Tax Credit for Light-Duty HEVs[17]

Lifetime Fuel Savings (gal)	Tax Credit ($)
1,200 – 1,799	250
1,800 – 2,399	500
2,400 – 2,999	750
3,000+	1,000

Summary of Possible New Mexico Action

The State of New Mexico could choose to implement a tax credit program that would encourage the purchase of clean vehicles. Tax credits could be offered for the purchase of clean vehicles based on a variety of criteria such as incremental cost, conversion cost, vehicle emission certification level (ZEV, SULEV, etc.), fuel efficiency, and lifetime fuel savings.

If New Mexico decides to implement a tax credit program for the purchase of HEVs, it should consider only allowing light-duty HEVs to participate in the program, as they tend to produce significantly lower emissions than medium and heavy-duty HEVs. New Mexico could also allow only those HEVs with higher fuel economies to participate. New Mexico currently allows only those HEVs with an EPA estimated fuel economy of 27.5 MPG or greater to participate in its excise tax exemption program.

If New Mexico decides to implement a tax credit program for the purchase of AFVs, it should consider offering the credit solely to dedicated AFVs. This will prevent the unintended consequence of offering an incentive for the purchase of a vehicle capable of operating on an alternative fuel without the guarantee of the vehicle ever actually being operated on an alternative fuel.

3.4.2 Incentive 2 – GRANTS to CONSUMERS

Other states as well as cities have provided grants to consumers to offset the incremental cost of purchasing AFVs and HEVs, or to offset the cost of converting a vehicle to operate on alternative fuels.

Texas' Senate Bill 12 Legislation

The Texas Legislature sent Senate Bill 12 (SB 12) to Governor Rick Perry for his signature on May 30, 2007. On June 8, 2007, Perry signed this bill into law. This bill allows the Texas Commission of Environmental Quality to provide repair and replacement assistance under the Low-Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program (LIRAP). Vehicle owners are eligible for assistance if their income is 300 percent (300%) or less of the federal poverty level and they own a vehicle that is more than 10 years old or failed an emissions test within 15 months of an application for assistance. The new vehicle must cost less than $25,000.

This program will lead to the replacement of some of the oldest vehicles on the road in Texas and reduce GHG emissions. Grants available under SB 12 are as follows:

Table 10: Grants Available for Clean Vehicles under Texas' SB 12[18]

Vehicle Type	Grant ($)
Replacement HEV of current or previous model year	3,500
Replacement conventional car of current or previous three model years	3,000
Replacement conventional truck of current or previous two model years	3,000

The City of Vacaville, California's Grant Programs

In California, the City of Vacaville provides grants up to $7,000 to offset the incremental cost of purchasing a CNG vehicle. As of April 2007, 72 people have participated in the program.[19] The City of Vacaville also offers an electric vehicle (EV) buy-down program which provides up to $6,000 to residents of Vacaville toward the purchase or lease of a new freeway capable EV from an OEM. As of July 2004, over 100 residents have taken advantage of EV buy-down program.[20]

Grants Available under the LMD component of California's REMOVE II Program

California's San Joaquin Valley provides grant incentives for the purchase of clean vehicles through the Light and Medium-Duty Vehicle Incentive (LMD) component of its REMOVE II Program. The amount of the grant varies from $1,000 to $3,000 per vehicle depending on the vehicle's emission certification level as well as its size. Grants are available for the purchase of ZEVs, SULEVs, PZEVs, AT-PZEVs, and ULEVs. The vehicle is required to operate on an alternative fuel, or use an electric or hybrid electric engine and have a GVWR of less than 14,000 lbs. So far, the LMD component of the REMOVE II program has resulted in 43,000 lbs of emission reductions since the program was implemented in 2001.

The structure of the LMD grant program is as follows:

Table 11: Grants Available under the LMD Component of California's REMOVE II Program[21]

	Amount of Grant for each Vehicle Class ($)	
Vehicle Emission Certification Level	**Light-Duty Vehicles (< 8,500 lbs GVWR)**	**Medium-Duty Vehicles (8,501 – 14,000 lbs GVWR)**
ZEV	3,000	3,000
SULEV	2,000	3,000
PZEV, AT-PZEV	2,000	N/A
ULEV	1,000	2,000

Summary of Possible New Mexico Action

The State of New Mexico could choose to implement a consumer grant program that encourages the purchase of clean vehicles. Grants to consumers for the purchase of clean vehicles could be awarded based on the same criteria for a tax credit program, including incremental cost, conversion cost, vehicle emission certification level (ZEV, SULEV, etc.), fuel efficiency, and lifetime fuel savings.

If grants are to be available for the purchase of HEVs, New Mexico should consider only allowing light-duty HEVs to participate in the program, as they tend to produce significantly lower emissions than medium and heavy-duty HEVs. New Mexico could also allow only those HEVs with higher fuel economies to participate.

If New Mexico decides to implement a grant program for the purchase of AFVs, it should consider offering the credit solely to dedicated AFVs. This will prevent the unintended consequence of offering an incentive for the purchase of a vehicle capable of operating on an alternative fuel without the guarantee of the vehicle ever actually being operated on an alternative fuel.

3.4.3 Incentive 3 – REBATES

Colorado's State Rebate Program

The State of Colorado has implemented a rebate program for the purchase of clean vehicles for state fleets and tax-exempt organization fleets. The Colorado Department of Revenue provides a rebate for the incremental cost of purchasing AFVs or for the cost of converting vehicles to operate on alternative fuels. The vehicles must be used by the state, a political subdivision of the state, or a tax-exempt organization. The vehicles must be used for official business of the entity. There is a limit of $350,000 in rebates for each entity per state fiscal year. The amount of the rebate depends on the emission certification level of the vehicle as well as the date in which the costs for the vehicle were incurred and is as follows:

Table 12: Rebates Available in Colorado to State or Tax-Exempt entities for Clean Vehicles[22]

	Amount of Rebate for each Vehicle Emission Certification Level (% of incremental or conversion cost)		
Date Cost was Incurred	**LEV**	**ULEV or ILEV**	**SULEV or ZEV**
7/1/98 – 6/30/06	50	75	85
7/1/06 – 6/30/09	25	50	75
7/1/09 – 6/30/11	0	25	50

Summary of Possible New Mexico Action

The State of New Mexico could choose to implement a rebate program in which state entities and/or tax-exempt organizations would be eligible. This would encourage the purchase of clean vehicles for the state fleet as well as larger organizations throughout New Mexico. The rebate program would help meet the specific goal set in EO 2005-049 that at least 75 percent (75%) of the vehicles acquired each fiscal year by the state, public schools (K-12), and institutions of higher education, be capable of operating on alternative fuels or be gas-electric hybrids. Implementation of this rebate program would help the state government to lead by example in demonstrating its commitment to reducing GHG emissions through the use of clean vehicles.

3.4.4 Incentive 4 – EXCISE TAX EXEMPTION

Arizona's Excise Tax Exemption Program

The State of Arizona has implemented an excise tax exemption program for clean vehicles. The State of Arizona offers an excise tax exemption for AFVs if they were originally manufactured as a diesel vehicle and converted to operate on alternative fuels. The equipment used for the conversion is also exempt from the excise tax.[23]

Summary of Possible New Mexico Action

As mentioned in the "Current Programs in New Mexico" section of this report, New Mexico currently has an excise tax exemption for HEVs that have an EPA estimated fuel economy of 27.5 MPG or greater, which runs through June 30, 2009. New Mexico auto dealers have seen the positive impact that excise tax exemption programs have had on HEV sales. The State of New Mexico could choose to extend and modify the current tax exemption program to run past June 30, 2009.

One option would be to implement a variable vehicle excise tax program, based on a vehicle's EPA Tier 2 Bin emission level, which would charge a reduced excise tax rate on lower emission vehicles and an increased excise tax rate on higher emission vehicles. Depending on the type of vehicles purchased in the state, it is possible that this variable vehicle excise tax program could be revenue neutral or even increase revenue. Currently, all HEVs with an EPA estimated fuel economy of 27.5 MPG are exempt from the vehicle excise tax and all other vehicles are charged a rate of 3 percent (3%). The variable vehicle excise tax program would focus on rewarding the purchase of lower emission vehicles, not simply rewarding the type of technology used to power the vehicle (such as hybrid electric technology). The reason for this is that not all hybrids are created equal. As is evident in Table 13 below, not all HEVs generate reduced emissions (take the Chevy Silverado Classic Hybrid for example). In model year 2009, there will be eight EPA Tier 2 Bins. Bin 1 vehicles are the cleanest (lowest emissions) and Bin 8 vehicles are the dirtiest (highest emissions). An example of a variable vehicle excise tax program that could be implemented in New Mexico beginning July 1, 2009 on the basis of EPA Tier 2 Bin emission level is found below in Table 13.

Table 13: Possible Variable Excise Tax Program for Clean Vehicles that could be implemented in New Mexico Beginning July 1, 2009[24]

	EPA Tier 2 Emission Level	Excise Tax Amount (%)	Example of a Model Year 2007 Vehicle in this Category (Vehicle Emission Certification Level)
Lowest Emissions	Bin 1	0	Honda FCX (ZEV)
	Bin 2	0.5	Honda Civic Hybrid (AT-PZEV)
	Bin 3	1	Toyota Prius (AT-PZEV)
	Bin 4	2	Hyundai Elantra (PZEV)
	Bin 5	3	Toyota Corolla (LEV)
	Bin 6	3.5	--
	Bin 7	4.5	Toyota Highlander (LEV)
Highest Emissions	Bin 8	5	Chevy Silverado Classic Hybrid (LEV)

3.4.5 Incentive 5 – GRANTS for PROJECTS

Other states have implemented incentive programs which award grants to projects that encourage the use of clean vehicles.

Grants for Clean Vehicles Available in California

The California Air Resources Board (CARB) and the California Energy Commission (CEC) are charged with developing a plan to disburse $25 million in grants to projects that promote the use and production of alternative fuels as well as AFVs. Grants will be given to projects which will encourage a move to clean vehicles for public and private fleets in the State of California.[25]

California's Carl Moyer Memorial Air Quality Standards Attainment Program provides grants for the incremental cost for purchasing "cleaner than required" heavy-duty diesel engines and equipment. Heavy-duty diesel engines are major sources of oxides of nitrogen (NO_x) and particulate matter (PM) emissions. Up to $140 million in funds are available annually. Funds are distributed by local air pollution control districts (APCDs) and air quality management districts (AQMDs) throughout California.[26]

Summary of Possible New Mexico Action

The State of New Mexico could choose to implement a grant program which would help finance projects that encourage the purchase of clean vehicles. The amount of the grant could be determined according to the overall impact the proposed program would have on GHG emission reductions.

3.4.6 Incentive 6 – FREE PARKING for CLEAN VEHICLES

Free Parking for Clean Vehicles in California and Utah

Select cities have implemented programs to provide free parking for clean vehicles. In California, the cities of Sacramento, Los Angeles, Hermosa Beach, and Santa Monica offer free parking for AFVs, the City of San Jose offers free parking for HEVs, and the Los Angeles Airport offers free parking and recharging for EVs. In Utah, Salt Lake City offers free metered parking for AFVs.

Summary of Possible New Mexico Action

The State of New Mexico could encourage the expansion of the current free HEV parking program in the City of Albuquerque to include dedicated AFVs. Also, the state could choose to implement a free parking program for clean vehicles in other cities such as Las Cruces and Santa Fe. Free parking programs would encourage the purchase of clean vehicles for those living and working in cities with metered or fee parking.

4. BENEFITS for the STATE of NEW MEXICO

The implementation of any or all of these financial incentives would encourage the purchase of clean vehicles and alternative fuels as well as help achieve GHG emission reduction goals set by EO 2005-033. Increased use of clean vehicles and alternative fuels will lead to the benefits outlined by Governor Bill Richardson in EO 2005-049 including "reduced GHG emissions, improved air quality, agricultural economic growth, and greater energy security by reducing our dependence on foreign oil." The implementation of these financial incentives for clean vehicles will help establish New Mexico as a leader in taking significant actions to reduce its GHG emissions and demonstrate New Mexico's commitment as the "Clean Energy State."

5. ACRONYMS and ABBREVIATIONS

AFV – Alternative Fuel Vehicle
APCD - Air Pollution Control District
AQMD - Air Quality Management District
AT-PZEV – Advanced Technology Partial Zero Emission Vehicle
CARB - California Air Resources Board
CCAG – Climate Change Advisory Group
CEC - California Energy Commission
CNG – Compressed Natural Gas
EIB – Environmental Improvement Board
EO – Executive Order
EPA – United States Environmental Protection Agency
EV – Electric Vehicle
GHG – Greenhouse Gas
GVWR – Gross Vehicle Weight Rating
HEV – Hybrid Electric Vehicle
ILEV – Inherently Low Emission Vehicle
LEV – Low Emission Vehicle
LIRAP – Low-Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program
LMD – Light and Medium-Duty Vehicle Incentive (Part of the REMOVE II Program)
MPG – Miles per Gallon
NEV – Neighborhood Electric Vehicle
NM - New Mexico
NMED – New Mexico Environment Department
NO_x - Oxides of Nitrogen
OEM – Original Equipment Manufacturer
PAYD – Pay-As-You-Drive Insurance
PM - Particulate Matter
PZEV – Partial Zero Emission Vehicle
REMOVE II – Reduce Motor Vehicle Emissions II
SULEV – Super Ultra Low Emission Vehicle
TLU – Transportation and Land Use
ULEV – Ultra Low Emission Vehicle
ZEV – Zero Emission Vehicle

6. DEFINITIONS

Advanced technology partial zero emission vehicle (AT-PZEV) – a vehicle that meets SULEV tailpipe emission standards, has a 15 year/150,000 mile emissions warranty, has zero evaporative emissions and includes advanced technology components. For example, HEVs and CNG vehicles would qualify as an AT-PZEV.

Alternative fuel vehicle (AFV) – a vehicle which is capable of operating on an alternative fuel.

Alternative fuels – fuels which can replace gasoline such as ethanol, biodiesel, or compressed natural gas.

Bin 5 requirement – EPA emission standard based on California's standards under the LEV II program. It is more stringent than EPA's Bin 8 requirement.

Bin 8 requirement – EPA emission standard that is less stringent than Bins 1 – 7.

Biodiesel – able to be mixed with traditional petroleum diesel and is usually derived from vegetable oils.

Clean vehicles – vehicles that emit less GHGs than traditional their conventional counterparts.

Compressed natural gas (CNG) vehicle – a vehicle that operates solely on compressed natural gas.

Conversion cost – the cost of converting a traditionally fueled vehicle to operate on an alternative fuel.

Dedicated alternative fuel vehicle (AFV) – a vehicle that operates solely on an alternative fuel.

Freeway capable electric vehicle (EV) – an EV which is capable of traveling at freeway speeds, as opposed to a neighborhood electric vehicle (NEV) which usually has a top speed of 35 miles per hour.

Hybrid electric vehicle (HEV) – a vehicle with at least two power sources that receives at least some of its power from an electric source.

Incremental cost – the difference in cost between an AFV or HEV and the same model traditionally fueled vehicle.

Low emission vehicle (LEV) – a vehicle that meets the least stringent emission standard for all vehicles sold in California in 2004 and beyond.

Partial zero emission vehicle (PZEV) – a vehicle that meets SULEV tailpipe emission standards, has a 15 year/150,000 mile emissions warranty and has zero evaporative emissions.

Super ultra low emission vehicle (SULEV) – a vehicle that is 90 percent (90%) cleaner than the average new model year vehicle.

Ultra low emission vehicle (ULEV) – a vehicle that is 50 percent (50%) cleaner than the average new model year vehicle.

Zero emission vehicle (ZEV) – a vehicle with zero tailpipe emissions and is 98 percent (98%) cleaner than the average new model year vehicle.

ENDNOTES

[1] Governor Bill Richardson's Executive Order 2006-069.

[2] Governor Bill Richardson's Executive Order 2004-019.

[3] Governor Bill Richardson's Executive Order 2005-033.

[4] New Mexico Climate Change Advisory Group's Final Report, December 2006

[5] Governor Bill Richardson's Executive Order 2005-049.

[6] New Mexico Senate Bill 463, 2007.

[7] New Mexico Statutes 7-14-6.

[8] Information obtained from Matt Calavan of Beaver Toyota, Santa Fe, NM through electronic communication, June 8, 2007.

[9] Information obtained from the "Green Goals" section of the City of Albuquerque's website at http://www.cabq.gov/sustainability/green-goals.

[10] Governor Bill Richardson's Executive Order 2006-069.

[11] Environment New Mexico's report entitled "Ready to Roll: The Benefits of Today's Advanced-Technology Vehicles for New Mexico, Spring 2007."

[12] Additional information about Google and Bank of America's clean vehicle incentive programs for their employees can be found at http://www.google.com, http://www.bankofamerica.com, and http://www.hybridcars.com/corporate-incentives.html.

[13] Complete language can be found in Article IX, Section 14 of the Constitution of the State of New Mexico "Aid to private enterprise; veterans' scholarship program; student loans; job opportunities; affordable housing."

[14] Colorado Revised Statutes 39-22-516.

[15] See http://www.revenue.state.co.us/fyi/html/income09.html for more information.

[16] Utah Code 59-7-605 and 59-10-127.

[17] Section 1341 of the Energy Policy Act of 2005.

[18] Texas Legislature 80(R) SB 12

[19] See the City of Vacaville's Compressed Natural Gas (CNG) Vehicle Incentive Program, available at http://www.cityofvacaville.com/departments/public_works/__documents/cng%20program.pdf .

[20] See the City of Vacaville's EV Incentive Program, available at http://www.cityofvacaville.com/departments/public_works/__documents/EV%20Program.pdf .

[21] See the LMD component of California's REMOVE II Program available at http://www.valleyair.org/transportation/removeII/LMD%20Handout%20REMOVE%20II.pdf .

[22] Colorado Revised Statues 39-33-101 through 39-33-106.

[23] Arizona Revised Statutes 42-5159.

[24] More information on EPA Tier 2 Bin emission standards can be found at http://www.epa.gov/greenvehicles/detailedchart.pdf

[25] California Assembly Bill 1811, 2006.

[26] California Health and Safety Code, Section 44280.