

Financial Incentives/Disincentives (FID) Bundles for New Motor Vehicles in New Mexico

Introduction

This document is intended to propose two recommendations for a comprehensive Financial Incentives/Disincentives (FID) Bundle for New Motor Vehicles in the State of New Mexico. There will be a FID One (FID1) bundle option and a FID Two (FID2) bundle option. Each bundle will include:

- a Variable Vehicle Excise Tax (VVET) program; and
- a Hybrid Electric Vehicle (HEV)/Alternative Fuel Vehicle (AFV) Income Tax Credit program.

The VVET and HEV/AFV Income Tax Credit programs will be implemented together as a bundle to encourage the purchase and use of lower emission vehicles in New Mexico.

Eligibility

A vehicle must be new in order to qualify for either FID bundle. To qualify for the HEV/AFV Income Tax Credit program, a vehicle must be a new HEV or dedicated AFV (a vehicle only capable of operating on an alternative fuel), have a gross vehicle weight rating (GVWR) of 8,500 pounds or less and achieve, at minimum, a United States Environmental Protection Agency (EPA) estimated fuel economy consistent with the most current Corporate Average Fuel Economy (CAFE) standard for passenger cars, currently 27.5 miles per gallon (mpg), regardless of the vehicle's classification. The two components of the FID bundles are described below.

Variable Vehicle Excise Tax (VVET) Program

The Variable Vehicle Excise Tax (VVET) program included in the FID bundles will encourage the purchase of clean vehicles by charging 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 New Mexico, it is possible that the VVET program could be revenue-neutral or even increase revenue. Currently, all new 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 three percent (3%). Under the FID1 bundle, the excise tax would range from zero percent (0%) to five percent (5%). Under the FID2 bundle, the excise tax would range from one percent (1%) to five percent (5%). The VVET program will 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). Hybrid technology does not necessarily result in remarkable fuel economy and low emissions. Light-duty HEVs are much more fuel efficient and generally have lower emissions than medium and heavy-duty HEVs. For example, the 2007 Chevy Silverado Classic Hybrid is a Bin 8 vehicle (dirtiest bin, see Table 1) with an EPA estimated combined fuel economy of 17 mpg.

HEV/AFV Income Tax Credit Program

The HEV/AFV Income Tax Credit program included in the FID bundles will encourage the purchase of clean vehicles by offering an income tax credit for qualifying HEVs and AFVs. A larger tax credit would be offered to lower emission vehicles and no tax credit would be offered to higher emission vehicles. Under the FID1 bundle, the tax credit would range from zero

percent (0%) to eighty percent (80%) of the incremental cost¹ of purchasing qualifying HEVs and AFVs. Under the FID2 bundle, the tax credit would range from zero percent (0%) to fifty percent (50%).

Structure of the FID One (FID1) Bundle for New Motor Vehicles

Vehicles will be eligible for the FID1 bundle based on their EPA Tier 2 Bin Level.² Beginning in model year 2009, there will be eight (8) permanent Bins. Bin 1 is the cleanest (lowest emissions) and Bin 8 is the dirtiest (highest emissions). Table 1 describes the structure of the FID1 Bundle for New Motor Vehicles including total savings or additional cost for an example vehicle that falls into each EPA Tier 2 Bin Level.

Table 1: Proposed Financial Incentives/Disincentives One (FID1) Bundle for New Motor Vehicles based on EPA Tier 2 Bin Levels³

Bin Level	Excise Tax Amt under the VVET Program (%)	HEV/AFV Income Tax Credit (% of incremental cost)	MY⁴ 2007 Example Vehicle (Vehicle Emission Certification Level)	Total Savings (Additional Cost)
1	0.0	80	Honda FCX (ZEV)	Not available ⁵
2	0.5	75	Honda Civic Hybrid (AT-PZEV)	\$3,321
3	1.0	50	Toyota Prius (AT-PZEV)	\$2,216
4	2.0	25	Hyundai Elantra (PZEV)	\$134
5	3.0	0	Toyota Corolla (LEV)	\$0
6	3.5	0	--	--
7	4.5	0	Toyota Highlander (LEV)	\$(410)
8	5.0	0	Chevy Silverado Classic Hybrid (LEV)	\$(537)

Benefits to a New Mexico Family Purchasing a Lower Emission Vehicle under the FID1 Bundle

Table 2 is an example of the savings a New Mexico family could expect by purchasing a Honda Civic Hybrid under the FID1 bundle.

¹ Incremental cost is the price difference between the HEV or AFV and its closest conventional vehicle counterpart.

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

³ This table is a summary, complete calculations can be found in Appendix A.

⁴ "MY" means model year.

⁵ Pricing information is not currently available for the Honda FCX which is a hydrogen fuel cell vehicle. The Honda FCX is expected to be sold beginning in model year 2008. Without its manufacturers recommended retail price (MSRP) available, the total cost savings cannot be determined at this time.

Table 2: Example of Total Savings for a New Mexico Family Purchasing a Clean Vehicle under the FID1 Bundle⁶

Bin Level	Vehicle	MSRP⁷	Savings from Proposed FID1 Bundle	Total Federal Tax Credits	Total Savings	Net Cost of Vehicle
2	Honda Civic Hybrid	\$22,600	\$3,321	\$2,750	\$6,071	\$16,529

The median household income in New Mexico is about \$40,000 per year.⁸ This means that a savings of \$6,071 amounts to over 15 percent (15%) of the median New Mexican household annual income. A savings of over \$6,000 is significant for New Mexico families who want to purchase clean vehicles but find the vehicles cost-prohibitive.

FID Two (FID2) Bundle for New Motor Vehicles

The FID2 bundle uses EPA’s Greenhouse Gas Score⁹ as its criterion for the VVET and HEV/AFV Income Tax Credit programs. EPA’s Greenhouse Gas Score is on a scale from zero (0) to ten (10), where ten (10) is the best as it represents the lowest amount of greenhouse gas emissions. The Greenhouse Gas Score is based on a vehicle’s combined fuel economy and the type of fuel it uses, the higher the fuel economy, the better its Greenhouse Gas Score. The average Greenhouse Gas Score for model year 2007 is five (5).

With the FID2 bundle based on EPA’s Greenhouse Gas Score, its structure differs from that of the FID1 bundle, which uses EPA’s Tier 2 Bin Level. The FID2 bundle rewards higher fuel economy, which generally correlates to lower greenhouse gas emissions per mile. The reason for the change in the structure of the FID2 bundle is to mitigate revenue loss to the state under the program. If the structure for the FID1 and FID2 bundles were the same, the FID2 excise tax rate for any vehicle with a combined EPA estimated fuel economy of 31 mpg or greater would be only 0.5%. Such a low, widespread excise tax rate may result in revenue loss for the State of New Mexico.

Structure of the FID2 Bundle for Motor Vehicles

Table 3 describes the structure of the FID2 Bundle for Motor Vehicles including total savings or additional cost for an example vehicle that falls into each Greenhouse Gas Score.

⁶ This table is a summary, complete calculations can be found in Appendix A.

⁷ “MSRP” means manufacturer’s suggested retail price.

⁸ Information on median household income by state can be found on the U.S. Census Bureau’s website at <http://www.census.gov/hhes/www/income/statemedfaminc.html>.

⁹ Information on EPA’s Greenhouse Gas Score and how it is calculated can be found at <http://www.epa.gov/greenvehicles/about.htm#ghg>.

Table 3: Proposed Financial Incentives Two (FID2) Bundle for New Motor Vehicles based on EPA's Greenhouse Gas Score¹⁰

Greenhouse Gas Score	Grams of CO₂-equivalent per mile	Excise Tax Amt under the VVET Program (%)	HEV/AFV Income Tax Credit (% of incremental cost)	MY 2007 Example Vehicle (Vehicle Emission Certification Level)	Total Savings (Additional Cost)
10	<296	1.0	50	Honda Civic Hybrid (AT-PZEV)	\$2,290
9	296-357	2.0	25	Toyota Corolla Manual (LEV)	\$144
8	358-419	3.0	0	Hyundai Elantra (PZEV)	\$0
7	420-481	3.0	0	Hyundai Sonata (ULEV)	\$0
6 & 5	482-606	3.0	0	Toyota Highlander 4WD 4 Cylinder (LEV)	\$0
4	607-668	4.0	0	Chevy Silverado Classic Hybrid (LEV)	\$(269)
3 & 2	669-793	4.5	0	Ford F150 2WD 8 Cylinder (LEV)	\$(349)
1 & 0	≥794	5.0	0	Jeep Grand Cherokee 4WD 8 Cylinder (LEV)	\$(819)

The Financial Incentives/Disincentives (FID) Bundles for New Motor Vehicles must be User-Friendly

To enhance the success of either FID1 or FID2, it is important to make the program as user-friendly as possible. New Mexicans need to be informed about the VVET and HEV/AFV Income Tax Credit programs when they purchase a new vehicle. The New Mexico Environment Department (NMED) recommends creating an informational brochure or fact sheet to be distributed to auto dealers in the State of New Mexico. The brochure would do the following:

- clearly and concisely explain what the VVET and HEV/AFV Income Tax Credit programs are;
- clearly state that there is now a financial incentive for purchasing new lower emission vehicles and a financial disincentive for purchasing new higher emission vehicles;
- indicate what vehicles are eligible for the FID bundles; and
- explain what steps a citizen needs to take to ensure he or she receives the maximum amount of financial incentives when purchasing a clean vehicle.

¹⁰ This table is a summary, complete calculations can be found in Appendix B

Appendices

Spreadsheets used to analyze the economic impacts of the FID bundles are included as Appendices A and B and are available online at:

http://www.nmenv.state.nm.us/aqb/ghg/FinancialIncentives_CleanCars.html

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