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Alternative Fuel Vehicle Tax Incentives and the CLEAR ACT

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Summary

Alternative fuels (non-petroleum fuels such as natural gas and electricity) and advanced technology vehicles face significant market barriers, such as high vehicle purchase price and low availability of refueling infrastructure. In current law, there are tax incentives to encourage the purchase of these vehicles and to build new infrastructure to support them. In the 108th Congress, the Clean Efficient Automobiles Resulting from Advanced Car Technologies Act (CLEAR ACT, H.R. 1054 and S. 505) would have extended and expanded current incentives, and established new incentives. Some CLEAR ACT provisions were inserted into H.R. 6, the comprehensive energy bill.

Introduction. Alternative fuel and advanced technology vehicles face significant barriers to wider acceptance as passenger and work vehicles.[1] Often, these vehicles are more expensive than their conventional counterparts. Further, fueling the vehicles is often inconvenient because the number of refueling stations for alternative vehicles is very small compared to the number of gasoline stations nationwide. However, many of these vehicles have superior efficiency and/or environmental performance compared to conventional vehicles. Thus, there has been significant interest in promoting these vehicles as a response to environmental and energy security concerns.

Currently, there are individual and business tax incentives for the purchase of alternative fuel and advanced technology vehicles and for the installation of alternative fuel infrastructure. There are also federal and state fleet purchase requirements for alternative fuel vehicles. In the 108th Congress, H.R. 1054 and S. 505, the Clean Efficient Automobiles Resulting from Advanced Car Technologies Act (CLEAR ACT), would

[1] Alternative fuels vehicles include vehicles powered by non-petroleum fuels such as natural gas, electricity, or alcohol fuels. Advanced technology vehicles include hybrid vehicles, which combine a gasoline engine with an electric motor system to boost efficiency. For more information on these vehicles, see CRS Report RL30758, *Alternative Transportation Fuels and Vehicles*, and CRS Report RL30484, *Advanced Vehicle Technologies*.

have expanded the existing tax incentives. Because of recent concerns over energy dependence and high energy costs, some language from the CLEAR ACT was inserted H.R. 6, the comprehensive energy bill.[2]

This report discusses current federal tax incentives for alternative fuel and advanced technology vehicles. It also outlines how the CLEAR ACT would change those incentives.

Existing Tax Incentives. Currently, there are two federal tax incentive programs for the purchase of non-conventional vehicles. These are the Electric Vehicle (EV) Tax Credit, and the Clean Fuel Vehicle tax deduction. There is also a deduction for the installation of alternative fuel infrastructure.

Electric Vehicle Tax Credit. For 2005, there is a federal tax credit worth 10% of the purchase price of an electric vehicle, up to a maximum of $2,000. (26 U.S.C. 30) The credit is reduced to $1,000 in 2006, and will be fully phased out after 2006. The credit must be taken in the year the vehicle is purchased.

Clean Fuel Vehicle Tax Deduction. For the purchase of alternative fuel vehicles, as well as hybrid electric vehicles, there is a Clean Fuel Vehicle Tax Deduction (26 U.S.C. 179A). The amount of the deduction is based on the weight of the vehicle. Vehicles under 10,000 pounds gross vehicle weight (i.e. cars and light trucks) qualify for a $1,000 deduction in 2005; those between 10,000 and 26,000 pounds qualify for a $2,500 deduction. Vehicles above 26,000 pounds qualify for a $25,000 deduction. The deduction will be reduced to half of the 2005 value in 2006, with the deduction eliminated after 2006. Until recently, hybrid electric vehicles were not considered "clean fuel vehicles" because the primary fuel for the vehicles is gasoline. However, in May 2002, the Internal Revenue Service (IRS) announced that taxpayers can claim the deduction for hybrids.[3]

Fueling Infrastructure Tax Deduction. Businesses that install alternative fuel refueling infrastructure can claim a tax deduction of up to $100,000. (26 U.S.C. 179A) This deduction is eliminated at the end of 2006.

The CLEAR ACT (108th Congress). The CLEAR ACT would expand and extend the existing tax incentives for non-conventional vehicles. Two versions of the bill were introduced in the 108th Congress and were referred to the House Ways and Means and Senate Finance Committees, respectively. The conference report on H.R. 6 contained several provisions substantially similar to the CLEAR ACT.

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[2] The Senate passed H.R. 6 on July 31, 2003; the House passed the bill on April 11. The conference committee on H.R. 6 issued its report (H.Rept. 108-375) November 17. The House approved the report on November 18. On November 21, a cloture motion on the bill failed in the Senate.

[3] Further, taxpayers who purchased hybrids in previous years may file an amended return to claim the deduction.

The CLEAR ACT contains the following key provisions:

- create a new tax credit for the purchase of fuel cell vehicles;
- expand and extend the existing electric vehicle (EV) purchase tax credit;
- replace the existing clean fuel vehicle tax deduction with an alternative fuel vehicle tax credit;
- create a new tax credit for the purchase of hybrid electric vehicles;
- replace the existing deduction for the installation of refueling infrastructure with a tax credit; and
- create a new tax credit for the retail sale of alternative fuel.

As introduced, the House and Senate versions of the CLEAR ACT were identical.

Fuel Cell Vehicle Purchase Tax Credit. The CLEAR ACT would provide a tax credit for the purchase of a fuel cell vehicle. The credit increases with the gross vehicle weight (GVW) of the vehicle, as shown in **Table 1**. Passenger vehicles that achieve at least 50% better fuel economy than a comparable conventional vehicle also qualify for an additional tax credit of between $1,000 and $4,000, depending on overall fuel economy and the year of purchase. All three versions of H.R. 6 contain similar provisions, but the maximum credit for passenger vehicles is lower. Further, the credit would expire earlier under both versions of H.R. 6 (after 2011 for the Senate version, and after 2012 in the House and Conference versions, as opposed to after 2013 in the CLEAR ACT).

Table 1. Fuel Cell Vehicle Purchase Tax Credit

	Gross Vehicle Weight			
	Up to 8,500 pounds	8,501 to 14,000 pounds	14,001 to 26,000 pounds	Over 26,000 pounds
CLEAR ACT	$4,000 to $12,000, depending on fuel economy and year of purchase	$10,000	$20,000	$40,000
H.R. 6 (Conference, House, and Senate Versions)	$4,000 to $8,000, depending on fuel economy	$10,000	$20,000	$40,000

Electric Vehicle Purchase Tax Credit. Under the act, the new EV tax credit would be structured similarly to the fuel cell vehicle credit discussed above. There are two key differences, however. First, instead of the fuel economy credit given for fuel cell vehicles, EVs would qualify for a range/payload credit. If the vehicle is capable of carrying a payload of 1,000 pounds or is capable of traveling 100 miles on a single charge, an additional credit is provided. Second, the credit would expire after 2009. In addition

to the EV credit, low-speed[4] EVs qualified for a credit equal to 10% of the purchase price up to a maximum of $1,500. The Senate version of H.R. 6 would also extend and expand the EV credit. However, the amount of the credit would vary slightly, and the credit would expire earlier (after 2006 as opposed to after 2009). The House and conference versions of H.R. 6 would repeal the phaseout of the credit, but would not change the amount of the credit, nor would they extend the credit beyond 2004.

Table 2. Electric Vehicle Purchase Tax Credit

	Gross Vehicle Weight			
	Up to 8,500 pounds	8,501 to 14,000 pounds	14,001 to 26,000 pounds	Over 26,000 pounds
CLEAR ACT	$4,000 to $6,000	$10,000	$20,000	$40,000
H.R. 6 (Senate Version)	$3,500 to $6,000	$10,000	$20,000	$40,000

Alternative Fuel Vehicle Tax Credit. The CLEAR ACT would replace the existing clean fuel vehicle tax deduction with a credit for the purchase of a new alternative fuel vehicle (AFV). The new credit would be equal to a percentage of the incremental cost of the AFV, subject to certain maximum dollar amounts. The incremental cost is the difference between the cost of the AFV and its conventional counterpart. Under the act, the applicable percentage would be 50% of the incremental cost plus an additional 30% if the vehicle met certain emissions requirements. The maximum credit is based on the weight of the vehicle, as shown in **Table 3**. The Senate and conference versions of H.R. 6 would also establish an alternative fuel vehicle credit, but the applicable percentages would be lower (40% of incremental cost, plus an additional 30% if certain emissions requirements were met). The House version of H.R. 6 would not create a new tax credit for alternative fuel vehicles, but would eliminate the phaseout of the existing clean fuel vehicle deduction.

Table 3. Maximum Alternative Fuel Vehicle Tax Credit (Percentage Based on Incremental Cost)

	Gross Vehicle Weight			
	Up to 8,500 pounds	8,501 to 14,000 pounds	14,001 to 26,000 pounds	Over 26,000 pounds
CLEAR ACT	50%-80%, up to $5,000	50%-80%, up to $10,000	50%-80%, up to $25,000	50%-80%, up to $40,000
H.R. 6 (Conference and Senate Versions)	40%-70%, up to $5,000	40%-70%, up to $10,000	40%-70%, up to $25,000	40%-70%, up to $40,000

[4] A low-speed vehicle is one which is street-legal, but only on roads with a posted speed limit of 35 miles per hour or less.

To qualify for the credit, the vehicle is required to be a "dedicated" AFV. This means that the vehicle must not be capable of operating using conventional fuel. This provision is a response to criticisms of previous AFV requirements or incentives that included "dual fuel" vehicles.[5] In many cases, those who purchased dual fuel vehicles actually operated them solely on gasoline. Because some fuels that qualify as alternative fuels (e.g., methanol) must be blended with a small amount of gasoline, vehicles using these fuels qualify for a prorated tax credit.

Hybrid Electric Vehicle Tax Credit. Under the CLEAR ACT, the existing clean fuel vehicle deduction for hybrid electric vehicles would be replaced with a tax credit. The amount of the credit is based on several factors. For passenger vehicles, these factors include the percentage of power provided by the electrical components in the hybrid system and any fuel economy improvements over conventional vehicles. For heavy-duty vehicles (over 8,500 pounds), the factors are the power supplied by the electrical system, and the emissions performance of the vehicle. In the case of heavy-duty vehicles, the extra credit for emissions performance would have be phased out between 2003 and 2007. The range of potential credits for each vehicle weight are shown in **Table 4**. The Senate version of H.R. 6 would establish a similar credit, but with different levels. The House version of H.R. 6 contains no similar provision. The conference version of H.R. 6 would establish a credit for hybrids, but the system for calculating the passenger vehicle credit would be based on fuel economy and fuel savings, while the heavy duty vehicle credit would be a percentage (based on fuel economy) of the incremental cost, up to a set maximum.

Table 4. Hybrid Vehicle Tax Credit

	Gross Vehicle Weight			
	Up to 8,500 pounds	8,501 to 14,000 pounds	14,001 to 26,000 pounds	Over 26,000 pounds
CLEAR ACT	$250 to $4,000	$1,500 to $5,500	$4,000 to $13,750	$6,000 to $22,000
H.R. 6 (Senate Version)	$250 to $4,000	$1,500 to $6,000	$4,000 to $15,000	$6,000 to $24,000
H.R. 6 (Conference Version)	$400 to $3,400	up to $7,500	up to $15,000	up to $30,000

Alternative Fuel Refueling Infrastructure. The CLEAR ACT replaces the existing deduction for the installation of alternative fuel infrastructure with a tax credit. The credit would have be equal to 50% of the purchase or installation cost of the refueling property, subject to a maximum dollar amount. In the case of retail property, the maximum credit is $30,000. For residential property, the maximum is $1,000. Further, for sites that supply hydrogen fuel, property used to produce the fuel on-site would also qualify. The credit would expire after 2013 for hydrogen infrastructure; for all other fuels,

[5] A dual fuel vehicle is one capable of operating using either an alternative fuel or a conventional fuel, such as gasoline.

the credit would expire after 2009. The Senate version of H.R. 6 would provide the same tax credit, but would expire earlier (after 2011 for hydrogen infrastructure and after 2006 for all other fuels). The House version of H.R. 6 contains no similar provision. The conference report would extend the existing deduction through the end of 2008 (the end of 2011 for hydrogen infrastructure).

Alternative Fuel Sales Credit. In addition to the above credits, the CLEAR ACT provides a credit for the retail sale of alternative fuel. Under the act, the credit is equal 30 to 50 cents per gasoline equivalent gallon (GEG)[6] of alternative fuel sold, depending on the year. The credit would expire after 2013 for hydrogen, and after 2008 for all other fuels. The Senate version of H.R. 6 would establish a credit at the same levels, but the credit for all fuels would expire after 2006. The House and conference versions contain no similar provision.

Lean-Burn Vehicle Credit. The conference version of H.R. 6 would also establish a tax credit for the purchase of passenger vehicles with "lean-burn" engines. By and large, vehicles that qualify would be diesel-powered vehicles that meet certain emissions and fuel economy standards. The tax credit would range from $400 to $3,400, based on fuel economy and fuel savings.

[6] Because fuels vary in energy content, an amount of fuel with equivalent energy of one gallon of gasoline is used for comparison.