

# Statement of Estimated State Revenue Impact

---

**Date:** February 24, 2014 (As amended February 18, 2014 by the Senate Finance Committee)  
**Bill Number:** S.B. 402  
**Authors:** Peeler, O'Dell, Reese, Pinckney and Campbell

## **Committee Requesting Impact: Senate**

---

### **Bill Summary**

A bill to amend Section 12-6-3377, of the Code of Laws of South Carolina, 1976, relating to tax credits for certain vehicles, so as to disallow the credit to certain vehicles and to provide that the credit expires when the similar federal credit expires; by adding Section 12-6-3378 so as to provide a one thousand dollar tax credit for the in-state purchase or lease of a new qualified hybrid electric vehicle, new qualified battery electric vehicle, or new qualified alternative fuel motor vehicle under 8,500 gross vehicle weight rating, to provide a ten percent credit for the in-state purchase or lease of a new qualified hybrid electric vehicle, new qualified battery electric vehicle, or new qualified alternative fuel motor vehicle over 8,500 gross vehicle weight rating, and to provide the process by which the credit may be claimed; to amend Section 1-11-220, as amended, relating to the fleet management program, so as to provide that the program shall seek to promote the use of clean, domestic, and efficient fuels; to amend Section 1-11-310, as amended, relating to the acquisition of the state fleet, so as to add preference for compressed natural gas, liquefied natural gas, liquefied petroleum gas, and battery electric vehicles when practical; to amend Section 1-11-315, relating to the feasibility of using alternative fuels for the state vehicle fleet, so as to require the Division of Motor Vehicle Management to provide a plan for the replacement of state-owned vehicles with vehicles using alternative fuels, and to require the Division to submit the plan to the General Assembly and Governor; and to amend Section 59-67-585, relating to the use of biodiesel fuel in the state school bus fleet, so as to provide a preference in purchasing hybrid, plug-in hybrid, biodiesel, hydrogen, fuel cell, compressed natural gas, liquefied natural gas, liquefied petroleum gas, battery electric, or flex-fuel school buses when performance, quality, and life cycle costs are comparable to other school buses.

### **REVENUE IMPACT <sup>1/</sup>**

This bill, as amended, is not expected to affect General Fund income tax revenue in FY2014-15. This amended bill, however, is expected to reduce General Fund income tax revenue by an estimated \$1,467,500 in FY2015-16. The amount of the income tax credit is expected to increase over time until the tax credit expires in FY2020-21, but tax credit carry forwards, however, will continue to affect General Fund revenue collections through FY2025-26.

### **Explanation of Amendment (February 18, 2014) – By the Senate Finance Committee**

This amendment would amend the bill, as and if amended, by striking all after the enacting words to make the changes in each of the following sections:

**Section 1.** The tax credit allowed for all qualified hybrid electric vehicles and all qualified battery electric vehicles is not allowed for purchases or conversions made after December 31, 2017. Also, the tax credit allowed for all qualified alternative-fueled vehicles is not allowed for purchases or conversions made after December 31, 2020. The graduated system of credit amounts based on gross vehicle weight (GVW) of the alternative- fueled vehicles remain, but the total amount of all credits claimed by all taxpayers has been capped at \$950,000 per tax year for all qualified alternative vehicles with a GVW up to 8,500 pounds. Tax credits may be claimed on a first-come,

## Statement of Estimated State Revenue Impact

first-served basis as determined by the Department of Revenue. This section takes effect upon approval by the Governor and only applies to purchases made after December 31, 2014. This amended section is expected to reduce General Fund income tax revenue by an estimated \$1,467,500 in FY2015-16, an each fiscal year thereafter through FY2020-21.

**Section 5.** This section would amend Section 59-67-585 to allow the State Department of Education to provide a preference, **when feasible**, in purchasing for the state school bus fleet to use biodiesel, hybrid, plug-in-hybrid, biodiesel, hydrogen, fuel cell, compressed natural gas, liquefied natural gas, liquefied petroleum gas, battery electric, or flex-fuel school buses that are comparable to other available school buses. This amended section is not expected to affect state General Fund revenue in FY2014-15, or the fiscal years thereafter.

**Section 6.** This section would repeal Section 12-6-3377 as added by Act 312 of 2006. Since the state income tax credit is linked to the federal income tax credit, Section 12-6-3377 is being amended, because the last of the federal alternative fueled motor vehicle income tax credits is nearing expiration at the close of December 31, 2014. This amended bill would create a separate and distinct state nonrefundable income tax credit by severing the connection between the federal and state income tax codes. This section takes effect January 1, 2015.

### **Explanation of Amendment (February 4, 2014) – By the Senate Finance Committee**

The amendment adopted by the Senate Finance Committee made several changes to the bill as follows:

- The effective date of the bill has been changed to tax years beginning after December 31, 2014. This will push the window for qualified purchases of alternative-fueled vehicles out to tax year 2015. The qualified credits will first appear on taxpayer's income tax returns in FY2015-16.
- The credit amounts have been lowered and changed to a graduated system of credit amounts based on the gross vehicle weight (GVW) of the alternative-fueled vehicle. Table 1 below describes the allowance of the alternative motor vehicle credit based on the gross vehicle weight (GVW) of the motor vehicle.

**Table 1. Allowance of the Alternative Motor Vehicle Credit  
Based on Gross Vehicle Weight (GVW)**

Credit Amount	GVW Bracket
\$500	0 lbs. to 8,500 lbs.
\$100	8,500 lbs. to 13,999 lbs.
\$2,500	14,000 lbs. to 25,999 lbs.
\$5,000	26,000 lbs and over

# Statement of Estimated State Revenue Impact

---

- Vehicle conversions are no longer calculated as ten percent of the cost of a vehicle conversion, but are now based upon a fixed credit amount.

The following is a description of the amended bill by each section.

**Section 1.** This section would add Section 12-6-3378 to allow a resident taxpayer a nonrefundable income tax credit for the in-state purchase or lease of a new qualified hybrid electric vehicle, a new battery electric vehicle, or a new qualified alternative fuel motor vehicle. The nonrefundable income tax credit is based upon the GVW of the alternative motor vehicle as shown in Table 1. A taxpayer may claim the credit for the taxable year in which the vehicle is purchased, leased, or converted. Any unused credits may be carried forward for five years. The credit is not allowed for purchases or conversions made after December 31, 2021.

According to the United States Department of Energy's Long Term forecast of the qualified alternative motor vehicles discussed above, annual growth is forecast to average 11.4% each year by calendar year 2015. Multiplying 413,439 new qualified alternative fuel motor vehicle sales in calendar year 2012 by an annual growth rate of 11.4% for three years yields an estimated 571,567 of new qualified alternative fuel motor vehicle sales in calendar year 2015. After adjusting this figure to South Carolina sales, applying a nonrefundable income tax credit of \$500 per vehicle, and recognizing that an estimated 60% of state taxpayers do not have enough taxable liability to take advantage of the credit, yields a reduction of General Fund income tax revenue of an estimated \$1,714,701 in FY2015-16.

There are several types of heavy duty alternative motor vehicles that would be eligible for the income tax credit or for the cost of eligible cost of conversion. Many of these are commercial trucks. Examples include school, shuttle, and transit buses, refuse trucks, tractors, vans, and vocational trucks used by tradesmen. Any type of vehicle that operates regularly on a fixed-route or within a designated territory would be prime candidates for the use of alternative fuels. Based on a review of the alternative fuel motor vehicle literature, we expect that the first industries to adopt and use alternative fuel vehicles on a large scale will be buses, refuse trucks, and delivery companies, such as FedEx and UPS. Since federal, state, and local governments are not eligible to receive income tax credits, only the private sector will benefit from the income tax credit.

According to the latest data from the U.S. Department of Transportation, Federal Highway Administration, there were 2,500 private and commercial buses registered in South Carolina. This represents nearly one percent of all private and commercial operating buses in the nation. Based on 2,500 privately-operated school and commercial buses and applying a three percent share of all motor vehicles purchases are new qualified alternative fueled motor vehicles and applying a \$2,500 income tax credit based on the GVW of a standard bus yields a reduction of General Fund income tax revenue of an estimated \$187,500 in FY2015-16.

Also, according to the latest data from the U.S. Department of Transportation, Federal Highway Administration, there are an estimated 179,000 refuse trucks operating in the United States. This figure represents garbage trucks, transfer vehicles, and dedicated recycling vehicles. About 82% are privately-owned refuse trucks and 18% are publically-owned. Less than one-half of one percent of all refuse trucks is alternative fueled vehicles. After adjusting this figure for South Carolina privately-owned vehicles, applying a three percent share of all motor vehicles purchases are new qualified alternative fueled motor vehicles, and applying a \$5,000 income tax credit

## Statement of Estimated State Revenue Impact

---

based on the GVW of a standard refuse truck yields a reduction of General Fund income tax revenue of an estimated \$330,000 in FY2015-16.

Federal Express and the United Parcel Service are currently testing the feasibility of alternative fueled delivery trucks. Federal Express is currently testing all-electric and hybrid electric vehicles in New York City, Los Angeles, and Chicago, as well as CNG trucks in Europe and Latin America. The United Parcel Service is currently testing CNG delivery trucks in Hartford and Westbury, Connecticut. UPS has reported the cost of converting an existing delivery truck to a CNG fueled vehicle at \$15,000 per vehicle. Although testing is still ongoing, it may only be a matter of time before this technology becomes more feasible and accepted.

Collectively, this section is expected to reduce General Fund income tax revenue by an estimated \$2,232,201 in FY2015-16. The use of this credit will expand in the future as additional makes and models of alternative fueled vehicles are released by the automobile manufacturers, additional refueling stations are added statewide, the prices of alternative fueled vehicles come down, advances in the technology of these vehicles continues, and the acceptance of alternative fuel vehicles by the driving public increases.

**Section 2.** This section would amend Section 1-11-220 concerning the objectives of the Fleet Management Program within the Division of Motor Vehicles of the Budget and Control Board to add an objective to promote the use of clean, domestic, and efficient fuels. This section is not expected to affect state General Fund revenue in FY2014-15, or the fiscal years thereafter.

**Section 3.** This section would amend Section 1-11-310(H) to add a preference in purchasing state motor vehicles for the state fleet to include compressed natural gas, liquefied natural gas, liquefied petroleum gas, and/or battery electric vehicles in comparison to other available motor vehicles for purchase. This section is not expected to affect state General Fund revenue in FY2014-15, or the fiscal years thereafter.

**Section 4.** This section would amend Section 1-11-315 by rewriting the section to require the State Budget and Control Board's Fleet Management Office to establish a plan providing for the replacement of state-owned or operated vehicles with alternative fueled vehicles on or before January 1, 2014. The plan must include a proposed timeline for implementation and a cost/benefit model analysis of proposed changes. The plan must be submitted to the General Assembly and the Governor. This section is not expected to affect state General Fund revenue in FY2014-15, or the fiscal years thereafter.

**Section 5.** This section would amend Section 59-67-585 to allow the State Department of Education to provide a preference in purchasing for the state school bus fleet to use hybrid, plug-in-hybrid, biodiesel, hydrogen, fuel cell, compressed natural gas, liquefied natural gas, liquefied petroleum gas, battery electric, or flex-fuel school buses that are comparable to other available school buses. This section is not expected to affect state General Fund revenue in FY2014-15, or the fiscal years thereafter.

**Section 6.** This section would repeal Section 12-6-3377 as added by Act 312 of 2006. Until recently, a resident taxpayer could claim a nonrefundable income tax credit on the in-state purchase or lease of a qualified alternative fueled motor vehicle equal to twenty percent of the allowed federal income tax credit based upon gross vehicle weight. The state credit could range

## Statement of Estimated State Revenue Impact

---

from \$800 to \$8,000 per vehicle based upon the gross vehicle weight of the motor vehicle up to the taxpayer's liability for the applicable taxable year. Since the state income tax credit is linked to the federal income tax credit, Section 12-6-3377 is being amended, because the last of the federal alternative fueled motor vehicle income tax credits is nearing expiration at the close of December 31, 2014. This bill would create a separate and distinct state nonrefundable income tax credit by severing the connection between the federal and state income tax codes.

**Section 7.** This act takes effect upon approval by the Governor.

### **Explanation of Bill filed February 20, 2013**

Act 312 of 2006 allowed taxpayers to apply a state nonrefundable income tax credit against the purchase of several types of alternative fueled motor vehicles that were eligible for a federal income tax credit pursuant to Internal Revenue Code 30B. Since then, all of the alternative fueled motor vehicle tax credits have expired except for the purchase of a motor vehicle powered by fuel cells. As a result, this bill would amend Section 12-6-3377 to delete the expired provisions and allow a resident taxpayer to claim a nonrefundable income tax credit on the in-state purchase or lease of a qualified alternative fueled motor vehicle powered by a fuel cell through December 31, 2014. This bill would also add Section 12-6-3378 to reinstate the expired types of alternative fueled motor vehicles from the federal tax code and reinstate the state tax credits without being predicated on the federal tax credits.

Based on latest data available through tax year 2011 (FY2011-12) from the South Carolina Department of Revenue, over \$1,100,000 in alternative fuel tax credits have been claimed by 1,578 taxpayers. The state alternative motor vehicle tax credit was first available for qualified vehicles purchased in tax year 2006. This represented the infancy of the alternative fuel vehicles when the Toyota Prius and the Honda Insight first rolled off the assembly line. According to data from the United States Department of Energy, Environmental Protection Agency, Ward's Automotive Group, and individual automaker's websites, all types of hybrid fueled motor vehicles amounted to three percent of total new motor vehicle sales in calendar year 2012. In 2011, hybrid vehicles amounted to two percent of the new motor vehicle market. This is a market segment that is growing relative to the total motor vehicle market, and therefore, the total amount of state tax credits claimed will grow into the future. The following is a section-by-section analysis of the bill.

**Section 1.** Until recently, a resident taxpayer could claim a nonrefundable income tax credit on the in-state purchase or lease of a qualified alternative fueled motor vehicle equal to twenty percent of the allowed federal income tax credit based upon gross vehicle weight. The state credit could range from \$800 to \$8,000 per vehicle based upon the gross vehicle weight of the motor vehicle up to the taxpayer's liability for the applicable taxable year. Since the state income tax credit is linked to the federal income tax credit, Section 12-6-3377 is being amended, because the last of the federal alternative fueled motor vehicle income tax credits is nearing expiration at the close of December 31, 2014. This bill would create a separate and distinct state nonrefundable income tax credit by severing the connection between the federal and state income tax codes. Table 1 describes the types of alternative fueled vehicles eligible for a tax credit and the allowances of the federal and state alternative motor vehicle credits.

# Statement of Estimated State Revenue Impact

**Table 1. Allowance of the Alternative Motor Vehicle Credit in the United States and South Carolina**

Type of Vehicle	Expiration of Credit	Base Amount of Tax Credit	Base Amount of Tax Credit If Taken Today
<b>United States</b>			
New qualified fuel cell motor vehicle 1/	December 31, 2014	\$4,000 a/	\$4,000
New advanced lean burn technology motor vehicle 2/	December 31, 2010	\$400 b/	\$0
New qualified hybrid motor vehicle 3/	December 31, 2009	\$400 c/	\$0
New qualified alternative fuel motor vehicle 4/	December 31, 2010	\$2,500 d/	\$0
Plug-in conversion 5/	December 31, 2009 *	\$2,500 e/	\$0
<b>South Carolina **</b>			
New qualified fuel cell motor vehicle 1/	December 31, 2014	\$800	\$800
New advanced lean burn technology motor vehicle 2/	December 31, 2010	\$80	\$0
New qualified hybrid motor vehicle 3/	December 31, 2009	\$80	\$0
New qualified alternative fuel motor vehicle 4/	December 31, 2010	\$500	\$0
Plug-in conversion 5/	December 31, 2009	\$500	\$0

**Notes:**

1/ A motor vehicle propelled by power derived from 1 or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel stored on board the vehicle.

2/ A passenger automobile or light truck with an internal combustion engine designed to operate primarily using more air than is necessary for complete combustion of the fuel using direct injection.

3/ A motor vehicle which draws propulsion energy from onboard sources of stored energy which are both an internal combustion engine using consumable fuel, and a rechargeable energy storage system. A consumable fuel means any solid, liquid, or gaseous matter which releases energy when consumed by an auxiliary power unit.

4/ A motor vehicle which is only capable of operating on an alternative fuel. An alternative fuel means compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid at least 85 percent of the volume of which consists of methanol.

5/ A motor vehicle made by a manufacturer (not converted by owner) propelled to a significant extent by an electric motor which draws electricity from a battery which has a capacity of not less than 4 kilowatt hours, and is capable of being recharged from an external source of electricity.

\* The tax credit expires during the second quarter after December 31, 2009 in which at least 200,000 plug-in vehicles have been manufactured in the U.S. The tax credit for converting a motor vehicle to a plug-in motor vehicle expires December 31, 2011. The tax credit for a plug-in vehicle conversion is equal to ten percent of the cost of conversion up to \$40,000 per vehicle.

\*\* The amount of the state tax credit is 20% of the qualified federal tax credit pursuant to Section 12-6-3377.

a/ Federal tax credit is \$4,000 per motor vehicle placed in service after December 31, 2009. The tax credit may be increased to \$40,000 based on motor vehicle weight and may receive an additional \$1,000 to \$4,000 per vehicle based upon fuel efficiency standards.

b/ Federal tax credit is \$400 to \$2,400 per motor vehicle based upon fuel efficiency standards. The tax credit may be increased by an additional conservation credit of \$250 to \$1,000 per vehicle by meeting specific lifetime fuel savings of gasoline.

c/ Federal tax credit is \$400 to \$3,400 per motor vehicle and is the sum of the fuel efficiency credit and the conservation credit pursuant to the new advanced lean burn technology motor vehicle tax credit section. Additional credits are available for the incremental manufacturer's suggested retail price of a hybrid vehicle over a comparable vehicle based on gross vehicle weight.

d/ Federal tax credit is 50% of the incremental cost of the manufacturer's suggested retail price for a new qualified alternative fuel motor vehicle over the price of a gasoline or diesel fuel motor vehicle of the same model. An additional 30% federal tax credit is available for qualified vehicles that receive a certificate of authority under the Clean Air Act. The total tax federal tax credit can range from \$2,500 to \$32,000 per motor vehicle.

e/ The base amount of the federal tax credit is \$2,500 per motor vehicle. An additional tax credit of \$417 per battery with a minimum of 5 kilowatt hours of battery capacity plus an additional \$417 for each kilowatt hour of capacity in excess of 5 kilowatt hours of battery capacity, not to exceed a total tax credit of \$5,000 per motor vehicle. The total federal tax credit for each plug-in motor vehicle may not exceed \$7,500 per motor vehicle.

Sources: U.S. Department of the Treasury, Internal Revenue Service, 26 USC Section 30B; South Carolina Department of Revenue, Section 12-6-3377.

## Statement of Estimated State Revenue Impact

---

This section would amend Section 12-6-3377 to delete several types of alternative fuel credits that were eligible for a federal income tax credit pursuant to Internal Revenue Code 30B, but have since expired. The new advanced lean burn technology motor vehicle credit, the new qualified hybrid motor vehicle credit based on the combined city/highway metric or standard pursuant to Internal Revenue Code Section 30B, and the new qualified alternative fuel motor vehicle credit have expired at the federal level, therefore, the state nonrefundable income tax credit for these vehicles has expired as well.

**Section 2.** This section would add Section 12-6-3378 to allow a resident taxpayer a nonrefundable income tax credit for the in-state purchase or lease of a new qualified hybrid electric vehicle, a new battery electric vehicle, or a new qualified alternative fuel motor vehicle. The nonrefundable income tax credit is equal to \$1,000 for a new qualified vehicle under 8,500 GVW; however, the tax credit equals ten percent of the cost of a vehicle conversion or \$1,000, whichever is less. If the new qualified vehicle is over 8,500 GVW, the tax credit equals ten percent of the cost of a vehicle conversion or \$5,000, whichever is less. To qualify for the tax credit, the taxpayer must submit an application for the credit to the South Carolina Energy Office. A taxpayer may claim the credit for the taxable year in which the vehicle is purchased, leased, or converted. A taxpayer is not permitted to claim this credit and the credit pursuant to Section 12-6-3377 for the same vehicle. Any unused credits may be carried forward for five years. The credit is not allowed for purchases or conversions made after December 31, 2020.

There are several types of alternative fueled motor vehicles eligible for a state income tax credit. These include a new qualified hybrid electric vehicle, a new battery electric vehicle, and a new qualified alternative fuel motor vehicle. A new qualified hybrid electric vehicle is defined as a light duty (under 8,500 GVW vehicle listed in the most recent edition of the United States Department of Energy Clean Cities Vehicle Buyer's Guide, or is a heavy duty vehicle (more than 8,500 GVW) with an on board hybrid propulsion system listed in the most recent edition of the United States Department of Energy Clean Cities Guide to Alternative Fuel and Advanced Medium and Heavy Duty Vehicles. Based upon this criterion and data on annual hybrid vehicle sales, there were 361,355 qualified hybrid electric vehicles sold in the United States in calendar year 2012.

A new battery electric vehicle is defined as a vehicle that is used primarily on the public streets, roads, and highways and propelled by an electric motor which draws electricity from a battery which has a capacity of not less than four kilowatt hours and is capable of being recharged from an external source of electricity. The battery electric vehicle may be obtained from an original equipment manufacturer or can be converted to operate as a battery vehicle by a third party. Based upon this criterion and data on annual battery electric vehicle sales, there were 50,622 qualified battery electric vehicles sold in the United States in calendar year 2012.

A new qualified alternative fuel motor vehicle is defined as a vehicle that operates on compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (propane), or hydrogen. The alternative fuel motor vehicle may be obtained from an original equipment manufacturer or can be converted to operate on a qualified alternative fuel by a third party. The third party must possess a current legal Certificate of Conformity from the Environmental Protection Agency's Office of Transportation and Air Quality. Based upon this criterion and data on annual alternative fuel motor vehicle sales, there were 1,462 qualified alternative fuel vehicles sold in the United States in calendar year 2012. Collectively, there were 413,439 new qualified hybrid electric, battery electric, and alternative fuel motor vehicles sold in the United States in calendar year

## Statement of Estimated State Revenue Impact

---

2012.

A taxpayer must weigh the options of buying a new qualified alternative vehicle or have an existing vehicle converted to accept the alternative fuel. There are several deciding factors including:

1. A new qualified alternative fueled motor vehicle will cost more up front. An alternative fueled motor vehicle will cost several thousand dollars more than a conventionally fueled motor vehicle.
2. The conversion of an existing motor vehicle to an alternative fueled motor vehicle can range from \$8,000 to \$12,000, or more, per vehicle.
3. Finding a mechanic that is fully trained and possess all of the necessary certifications and credentials may be difficult. It may cost a repair garage upward of \$100,000 to become a business certified to make vehicle conversions.
4. Finding alternative fuel stations can be difficult. There are less than 1,000 CNG fueling stations across the country. This will hamper the ability of vehicles to take long trips or to reach particular parts of the country.
5. According to the latest figures from the U.S. Department of Energy, *Clean Cities Alternative Fuel Price Report*, the nationwide average price of regular gasoline is \$3.45 per gallon and diesel gasoline is \$3.91 per gallon. The average price of compressed natural gas is \$2.09 per gasoline gallon equivalent.

Based on these points, we believe that a buyer of an alternative fueled vehicle would be better off buying a new alternative fuel vehicle rather than invest in the conversion of an existing conventionally fueled motor vehicle. A buyer would be indifferent if a \$10,000 after market conversion by a third party with a ten percent conversion credit versus buying a new alternative fuel motor vehicle that is priced \$10,000 higher than a conventional motor vehicle.

According to the United States Department of Energy's Long Term forecast of the qualified alternative motor vehicles discussed above, annual growth is forecast to average 11.4% each year by calendar year 2014. Multiplying 413,439 new qualified alternative fuel motor vehicle sales in calendar year 2012 by an annual growth rate of 11.4% for two years yields an estimated 513,076 of new qualified alternative fuel motor vehicle sales in calendar year 2014. After adjusting this figure to South Carolina sales, applying a nonrefundable income tax credit of \$1,000 per vehicle, and recognizing that an estimated 60% of state taxpayers do not have enough taxable liability to take advantage of the credit, yields a reduction of General Fund income tax revenue of an estimated \$3,078,456 in FY2013-14.

There are several types of heavy duty alternative motor vehicles that would be eligible for the income tax credit or for the cost of eligible cost of conversion. Many of these are commercial trucks. Examples include school, shuttle, and transit buses, refuse trucks, tractors, vans, and vocational trucks used by tradesmen. Any type of vehicle that operates regularly on a fixed-route or within a designated territory would be prime candidates for the use of alternative fuels. Based on a review of the alternative fuel motor vehicle literature, we expect that the first industries to



## Statement of Estimated State Revenue Impact

---

adopt and use alternative fuel vehicles on a large scale will be buses, refuse trucks, and delivery companies, such as FedEx and UPS. Since federal, state, and local governments are not eligible to receive income tax credits, only the private sector will benefit from the income tax credit.

According to the latest data from the U.S. Department of Transportation, Federal Highway Administration, there were 2,500 private and commercial buses registered in South Carolina. This represents nearly one percent of all private and commercial operating buses in the nation. Based on 2,500 privately-operated school and commercial buses and applying a three percent share of all motor vehicles purchases are new qualified alternative fueled motor vehicles and applying a \$5,000 income tax credit yields a reduction of General Fund income tax revenue of an estimated \$375,000 in FY2013-14.

Also, according to the latest data from the U.S. Department of Transportation, Federal Highway Administration, there are an estimated 179,000 refuse trucks operating in the United States. This figure represents garbage trucks, transfer vehicles, and dedicated recycling vehicles. About 82% are privately-owned refuse trucks and 18% are publically-owned. Less than one-half of one percent of all refuse trucks is alternative fueled vehicles. After adjusting this figure for South Carolina privately-owned vehicles, applying a three percent share of all motor vehicles purchases are new qualified alternative fueled motor vehicles, and applying a \$5,000 income tax credit yields a reduction of General Fund income tax revenue of an estimated \$330,000 in FY2013-14.

Federal Express and the United Parcel Service are currently testing the feasibility of alternative fueled delivery trucks. Federal Express is currently testing all-electric and hybrid electric vehicles in New York City, Los Angeles, and Chicago, as well as CNG trucks in Europe and Latin America. The United Parcel Service is currently testing CNG delivery trucks in Hartford and Westbury, Connecticut. UPS has reported the cost of converting an existing delivery truck to a CNG fueled vehicle at \$15,000 per vehicle. Although testing is still ongoing, it may only be a matter of time before this technology becomes more feasible and accepted.

Collectively, this section is expected to reduce General Fund income tax revenue by an estimated \$3,783,456 in FY2013-14. The use of this credit will expand in the future as additional makes and models of alternative fueled vehicles are released by the automobile manufacturers, additional refueling stations are added statewide, the prices of alternative fueled vehicles come down, advances in the technology of these vehicles continues, and the acceptance of alternative fuel vehicles by the driving public increases.

**Section 3.** This section would amend Section 1-11-220 concerning the objectives of the Fleet Management Program within the Division of Motor Vehicles of the Budget and Control Board to add an objective to promote the use of clean, domestic, and efficient fuels. This section is not expected to affect state General Fund revenue in FY2013-14.

**Section 4.** This section would amend Section 1-11-310(H) to add a preference in purchasing state motor vehicles for the state fleet to include compressed natural gas, liquefied natural gas, liquefied petroleum gas, and/or battery electric vehicles in comparison to other available motor vehicles for purchase. This section is not expected to affect state General Fund revenue in FY2013-14.

**Section 5.** This section would amend Section 1-11-315 by rewriting the section to require the

## Statement of Estimated State Revenue Impact

---

State Budget and Control Board's Fleet Management Office to establish a plan providing for the replacement of state-owned or operated vehicles with alternative fueled vehicles on or before January 1, 2014. The plan must include a proposed timeline for implementation and a cost/benefit model analysis of proposed changes. The plan must be submitted to the General Assembly and the Governor. This section is not expected to affect state General Fund revenue in FY2013-14.

**Section 6.** This section would amend Section 59-67-585 to allow the State Department of Education to provide a preference in purchasing for the state school bus fleet to use hybrid, plug-in-hybrid, biodiesel, hydrogen, fuel cell, compressed natural gas, liquefied natural gas, liquefied petroleum gas, battery electric, or flex-fuel school buses that are comparable to other available school buses. This section is not expected to affect state General Fund revenue in FY2013-14.

**Section 7.** This act takes effect upon approval by the Governor.



---

Frank A. Rainwater  
Chief Economist

**Analyst:** Martin

<sup>11</sup> This statement meets the requirement of Section 2-7-71 for a state revenue impact by the BEA, or Section 2-7-76 for a local revenue impact or Section 6-1-85(B) for an estimate of the shift in local property tax incidence by the Office of Economic Research.