

**Department of Legislative Services**  
Maryland General Assembly  
2011 Session

**FISCAL AND POLICY NOTE**

Senate Bill 177

(The President, *et al.*) (By Request - Administration)

Budget and Taxation

**Income Tax - Tax Credit for Electric Vehicle Recharging Equipment**

This Administration bill creates a tax credit for 20% of the cost of qualifying electric vehicle recharging equipment. The value of the credit may not exceed the lesser of \$400 or the State income tax imposed in the tax year. The Maryland Energy Administration (MEA) will administer the program and can award a maximum of \$400,000 in credits in tax year 2011, \$500,000 in tax year 2012, and \$600,000 in tax year 2013. In order to offset the reduction of revenues from the credit, the bill requires a transfer of \$400,000 from the Maryland Strategic Energy Investment Fund (SEIF) to the general fund in fiscal 2013, \$500,000 in fiscal 2014, and \$600,000 in fiscal 2015.

The bill takes effect July 1, 2011, and applies to tax year 2011 through 2013.

**Fiscal Summary**

**State Effect:** General fund revenues decrease by \$400,000 in FY 2012 as a result of credits claimed against the personal and corporate income tax. Future years reflect the maximum amount of credits claimed net of SEIF transfers. SEIF revenues decrease by \$400,000 in FY 2013, \$500,000 in FY 2014, and by \$600,000 in FY 2015. Transportation Trust Fund (TTF) and Higher Education Investment Fund (HEIF) revenues will decrease beginning in FY 2012 as a result of credits claimed against the corporate income tax. To the extent MEA does not award the maximum amount of credits, revenue impacts will be less than estimated. General fund expenditures increase by \$40,000 in FY 2012 for one-time tax form changes and computer programming modifications at the Comptroller's Office.

(in dollars)	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
GF Revenue	(\$400,000)	(\$100,000)	(\$100,000)	\$600,000	\$0
SF Revenue	(-)	(\$400,000)	(\$500,000)	(\$600,000)	\$0
GF Expenditure	\$40,000	\$0	\$0	\$0	\$0
Net Effect	(\$440,000)	(\$500,000)	(\$600,000)	\$0	\$0

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

**Local Effect:** Local highway user revenues will decrease beginning in FY 2012 as a result of credits claimed against the corporate income tax. Local expenditures are not affected.

**Small Business Effect:** A small business impact statement was not provided by the Administration in time for inclusion in this fiscal note. A revised fiscal note will be issued when the Administration's assessment becomes available.

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## Analysis

**Bill Summary:** The bill creates a tax credit against the State income tax equal to 20% of the cost of qualified electric vehicle recharging equipment placed in service by a business or individual during the tax year. The credit may not exceed the lesser of \$400 for each recharging system or the State income tax liability in the tax year. Any unused amount of the credit may not be carried over to any other tax year. The credit is limited to 1 recharging system per individual and 30 recharging systems per business entity. A taxpayer can claim the credit only if the electric vehicle recharging equipment qualifies under Section 30C of the Internal Revenue Code (IRC).

Taxpayers seeking the credit must first apply for an initial credit certificate from the Maryland Energy Administration (MEA). MEA can issue a maximum of \$400,000 in credits in tax year 2011, \$500,000 in tax year 2012, and \$600,000 in tax year 2013. MEA may adopt regulations to administer the program; those regulations may also further limit the maximum value of the credit.

The bill requires in fiscal 2013 a transfer of \$400,000 from SEIF to the general fund. The bill also requires a transfer from SEIF to the general fund of \$500,000 in fiscal 2014, and \$600,000 in fiscal 2015. These transfers are to "offset a reduction in revenues from the tax credit" established by the bill. If MEA does not award the maximum amount of credits in tax year 2011, the amount of the SEIF transfer is reduced to the actual amount of credits issued in the tax year.

**Current Law:** No similar State income tax credit exists, although purchases of qualified plug-in hybrid electric vehicles (PHEVs) qualify for both federal and State tax incentives. A federal credit for electric vehicle recharging property can be claimed for property placed in service through December 31, 2011. In addition, the cost of recharging property purchased for business or investment purposes is eligible to be expensed or deducted, typically resulting in a lower federal and State income tax liability. Several states, including Arizona, Colorado, Georgia, Louisiana, New York, Oklahoma, and Oregon, currently offer tax credits for charging infrastructure.

Section 30C of IRC allows taxpayers to claim a credit for the cost of installing qualified alternative vehicle recharging property to be used in a trade or business of the taxpayer or installed at the principal residence of the taxpayer. In tax year 2009 and 2010, the value of the credit is temporarily increased. The credit for qualifying business/investment property placed in service at each location is generally equal to the lesser of 50% of the property's cost or \$50,000 (30% and \$200,000, respectively for hydrogen refueling property). The maximum credit for personal use property is limited to \$2,000 (\$1,000 for hydrogen refueling property). Qualified alternative fuel vehicle property is any property (other than a building or its structural components) used to store or dispense specified alternative fuels, including electricity, into the fuel tank of a motor fuel vehicle if the storage or dispensing is at the point where the fuel is delivered. The credit can be claimed for property placed in service before January 1, 2012, except for hydrogen property, which must be placed in service before January 1, 2015. The federal Joint Committee on Taxation estimates that about \$200 million in total credits will be claimed in federal fiscal 2010 through 2014. More information about the federal credit and additional eligibility requirements can be found in IRS publication *8911 Alternative Fuel Vehicle Refueling Property Credit*.

**Background:** Generally, there are two types of vehicles capable of drawing energy from an electrical outlet (1) electric vehicles (EVs); and (2) PHEVs. The difference between the two vehicles is that a PHEV is capable of operating using a gasoline or other fuel-powered internal combustion engine in combination with, or separate from, an electric motor. While EVs have been around for more than a century and are experiencing a resurgence in popularity and sales, PHEVs have only been produced in limited quantities for purchase by the public. Many major auto manufacturers are planning to make EVs and PHEVs available for purchase in 2011 and 2012. One PHEV model, the Chevy Volt, and one EV model, the Nissan Leaf, are currently available for purchase in limited areas of the country. In addition, there are dozens of smaller manufacturers of EVs and PHEVs, as well as companies that convert standard hybrid electric vehicles to PHEVs. Hybrid-electric vehicles (HEVs) such as the Toyota Prius and Honda Insight have been sold since 1999. These vehicles generate electricity during operation, which then can be used to reduce the use of gasoline during various parts of the driving cycles. HEV sales decreased by 6% in 2010; totaling 274,763 or about 2% of total vehicle sales nationwide.

#### *Promotion of Electric Vehicles in Maryland*

In order to incentivize the purchase of EVs in Maryland, Chapter 490 of 2010 established a three-year motor vehicle excise tax credit of up to \$2,000 for the purchase of PHEVs. The credit is available for qualified vehicles titled from October 1, 2010 through June 30, 2013. Chapter 490 required transfers totaling \$2,505,600 from SEIF to the Transportation Trust Fund in fiscal 2011 through 2013.

In addition, a total of \$4.3 million in credits was claimed in fiscal 2001 through 2004 under an income tax credit for qualified HEVs that expired July 1, 2004. A recent analysis estimated that state tax incentives raised total HEV sales by 6% from 2000 to 2006.

In addition, Chapters 491 and 492 of 2010 authorize EVs to ride in high-occupancy vehicle lanes regardless of the number of occupants. Finally, MEA awarded \$1 million in federal stimulus funds in 2010 to two organizations and Baltimore City that plan to build 65 EV charging stations throughout the State.

### *Proposed 2011 Legislation*

The Administration has introduced two other legislative proposals related to electric vehicles. SB 176/HB 167 would create an Electric Vehicle Infrastructure Council to help prepare the State for the rapid integration of electric vehicles into Maryland communities. As proposed, the council would develop strategies relating to the development of metering and charging infrastructure, home charging requirements, streamlining permits, updating building codes and parking rules, electricity demands and grid stability, incentives to increase consumer adoption of electric vehicles, and public education.

SB179/HB164 would require the Public Service Commission (PSC) to establish, by regulation or order, a demand response pilot program for electric customers to recharge electric vehicles during off-peak operating hours. PSC must make every effort to involve at least two electric companies in the pilot program and must include incentives for residential, commercial, and governmental customers to recharge electric vehicles. These incentives are intended to increase the efficiency and reliability of the electric distribution system and lower electricity rates at times of high demand.

### *Strategic Energy Investment Fund*

Chapters 127 and 128 of 2008 created the Maryland Strategic Energy Investment Program, and the implementing SEIF, in an effort to decrease energy demand and increase energy supply to promote affordable, reliable, and clean energy. The fund's primary source of revenues is proceeds from the sale of carbon dioxide (CO<sub>2</sub>) allowances under the Regional Greenhouse Gas Initiative. Notwithstanding the transfers enacted by Chapter 490 of 2010 to offset the cost of the PHEV tax credit, money received by SEIF from CO<sub>2</sub> auctions are required by statute to be distributed to energy efficiency and conservation programs (at least 46%), electricity rate relief (23%), energy assistance programs (17%), renewable and clean energy education and outreach (up to 10.5%), and administrative expenses (up to 3.5%, not exceeding \$4.0 million). Recent budget reconciliation action has altered the distribution of funds through fiscal 2012 to provide additional funds for energy assistance programs.

## *Federal Alternative Vehicle Subsidies*

Many researchers and analysts, including the National Academy of Sciences, have concluded that the United States has compelling reasons to reduce its consumption of oil for geopolitical and national defense reasons and to reduce emissions of carbon dioxide and pollutants for environmental reasons. In recent years, there has been increasing focus in the tax code on energy conservation and renewable energy production standards. While the federal Joint Committee on Taxation (JCT) notes that economists generally agree that the most efficient means of addressing pollution would be a direct tax on the pollution-causing activities, the more indirect approach of targeting tax credits for certain technologies has been utilized. Nonetheless, JCT states that many provisions of federal law provide for tax credits for investments in, or expenditures on, certain assets that reduce the consumption of conventional fuels and the attendant pollutants and emissions of gases related to atmospheric warming. JCT notes that the design of tax benefits is important to how close they will come, individually, and collectively, to achieving their intended consequences in a cost-effective and efficient manner. Important policy decisions include what to subsidize and how much, and only by equalizing tax provisions with the same policy (*i.e.*, paying the same price for fossil fuel displacement) will the incentives be technologically neutral and cost effective.

In addition to the federal tax credits for HEVs and PHEVs and related alternative fuel tax credits, recent federal legislation provides up to \$1.7 billion in tax credits for advanced energy investments, including advanced vehicle production; direct loans of up to \$25 billion to automobile manufacturers for the development of advanced vehicle technologies; and up to \$4 billion in loan guarantees for the development of innovative green technologies. A recent analysis by the National Research Council of the National Academy of Sciences concluded that subsidies of tens to hundreds of billions of dollars will be needed if PHEVs are to achieve rapid penetration of the U.S. automotive market and even with these efforts, PHEV vehicles are not expected to significantly impact oil consumption or carbon emissions before 2030. A recent analysis by Resources for the Future, an environmental economics think tank, concluded that subsidies of HEVs and PHEVs will have little effect on fleet fuel economy, overall energy usage, or vehicle miles traveled primarily due to the interaction with corporate average fuel economy standards.

**State Revenues:** The bill establishes a credit against the State income tax for qualified electric vehicle recharging equipment for tax years 2011 through 2013 and requires, assuming the maximum amount of credits is awarded, a transfer of \$400,000 from SEIF to the general fund in fiscal 2013, \$500,000 in fiscal 2014, and \$600,000 in fiscal 2015. These revenue transfers are intended to offset general fund revenue reductions resulting from the credit. However, tax credits are generally claimed in the fiscal year following the tax year in which they are earned. As a result, and based on the transfers from SEIF,

general fund revenues will decrease by a net of \$400,000 in fiscal 2012 and by \$100,000 in each of fiscal 2013 and 2014. General fund revenues will increase by \$600,000 in fiscal 2015.

In addition, a portion of corporate income tax revenues are distributed to HEIF and TTF. All SEIF revenues will be transferred to the general fund. HEIF and TTF revenues will decrease to the extent credits are claimed against the corporate income tax.

To the extent MEA awards less than the amount of credits in any given fiscal year, revenue impacts will be less than estimated. MEA did not respond to Legislative Services' request for an estimate of the fiscal impact of this legislation.

**State Expenditures:** The Comptroller's Office reports that it will incur a one-time expenditure increase of \$40,000 in fiscal 2012 to add the tax credit to the income tax forms. This amount includes data processing changes to the SMART income tax return processing and imaging systems and systems testing.

**Local Revenues:** Baltimore City, counties, and municipalities receive a portion of corporate income tax revenues to support the construction and maintenance of local roads and other transportation facilities. Local highway user revenues will decrease beginning in fiscal 2012 as a result of credits claimed against the corporate income tax.

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### Additional Information

**Prior Introductions:** None.

**Cross File:** HB 163 (The Speaker, *et al.*)(By Request – Administration) – Ways and Means.

**Information Source(s):** Comptroller's Office, Joint Committee on Taxation, Internal Revenue Service, National Academy of Sciences, Resources for the Future, Department of Legislative Services

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