### Statement of Estimated State Revenue Impact

**Date:** April 16, 2013  
(As amended April 10, 2013 by the Economic Development & Natural Resources Subcommittee)

**Bill Number:** H.B. 3644

**Authors:** Loftis, Gagnon, Herbkersman, Lowe, Lucan, *et. al.*

**Committee Requesting Impact:** House Ways & Means Committee

**Bill Summary**

A bill to amend the Code of Laws of South Carolina, 1976, by adding Section 13-1-390 so as to establish within the Division of State Development of the Department of Commerce the Clean Energy Industry Market Development Advisory Council and provide for its membership and functions; to amend Section 12-6-3588, relating to the renewable energy tax credit incentive program, so as to redesignate the program the South Carolina Clean Energy Tax Incentive Program, to revise definitions to extend the credit to additional forms of energy production and operations, to decrease investment thresholds and decrease job creation thresholds for qualifying for the credit and make the credit, previously due to expire December 31, 2015, available through 2019 and to revise credit administration procedures; and to amend Section 12-6-3600, as amended, relating to the income tax credit for corn-based ethanol or soy-based biodiesel production in this state, so as to extend the credit to all liquid fuels derived from renewable sources, make conforming definitions, reduce the amount of liquid fuel eligible for the credit, and to extend the period during which the credit may be claimed through 2019.

**REVENUE IMPACT**

This bill, as amended, is not expected to affect state General Fund revenue in FY2013-14.

**Explanation of Amendment (April 10, 2013) – Economic Dev. & Natural Res. Subcommittee**

This amendment, as and if amended, would strike Section 1, Section 2, and Section 3, and insert the following changes to the original bill.

**Section 1.** This amendment would change the name of the advisory council to “Clean Energy Industry Manufacturing Market Development Advisory Council” to assist in the development of clean energy technology, materials, and products “manufactured” in this State.

**Section 2.** This amendment deletes “small modular reactors” from the types of companies that would qualify for tax incentives, including the ten percent nonrefundable income tax credit of the cost of qualifying investments in plant and equipment in this State for clean energy operations. To receive the credit available to a taxpayer, each taxpayer must notify the Department of Commerce and the Department of Revenue, instead of the State Energy Office.

**Section 3.** This amendment alters the definition of “liquid fuel” to not include “fuels derived from crude tall oil”. Tall oil, also called “liquid rosin” or tallol, is a viscous yellow-black odorous liquid obtained as a by-product of wood pulp manufacture when pulping mainly coniferous trees. Tall oil rosin is used as a component of adhesives, rubbers, inks, and as an emulsifier.

**Explanation of Bill filed February 27, 2013**

This bill would amend Article 3, Chapter 1, Title 13 by adding:

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Statement of Estimated State Revenue Impact

Section 1. This bill would add Section 13-1-390 to allow the Secretary of Commerce to establish a Clean Energy Industry Market Development Advisory Council. The Council would assist in the development of markets for clean energy technology, materials, and products developed by a clean energy industry from this State. The Council shall provide an initial report to the Governor and the General Assembly an analysis of the clean energy industry in the State no later than October 31, 2014. Following the initial report, the Council shall submit by the end of each calendar year an annual report on the clean energy industry activities in this State.

Section 2. This bill would amend Section 13-6-3588 to update references from “renewable” to “clean” energy products. The Clean Energy Tax Incentive Program was established to provide tax incentives to companies to companies in the solar, wind, geothermal, and other renewable energy industries in South Carolina. This bill would expand the types of clean energy industries to include hydrogen, energy storage, small modular reactors, and energy efficiency industries. Hydrogen is widely produced and used in the U.S., and is now being considered for use in transportation markets. There is enough hydrogen produced in the U.S. each year to power about 30,000,000 cars or about 5-8 million homes. Most hydrogen is used for oil refining, food production, treating metals, and producing ammonia for fertilizer. Nearly all hydrogen (99%) is transported through approximately 1,213 miles of pipeline in the U.S., mainly for oil production. Most of the hydrogen pipelines; therefore, are located in Texas and Louisiana. The availability of hydrogen resources is potentially large, but the challenge will be to produce it economically and create an infrastructure to move and deliver the product to the end user. Energy storage systems would be items such as fuel cells. This technology relies on a high level of hydrogen purity and thus entails a higher cost. According to the U.S. Department of Energy, there are more than 50 types of commercial fuel cells being sold in a competitive market reaching nearly one billion dollars in sales. Small modular reactors are essentially mobile nuclear reactors containing small amounts of radioactive elements. Although the potential energy gains are large, however, the risks associated with potential hazardous events may outweigh the rewards of such a system. Based upon information from the U.S. Department of Energy and the S.C. Department of Commerce, there are presently no commercial or industrial producers of hydrogen, fuel cells, or modular reactors located within South Carolina.

Currently, qualified taxpayers are eligible to receive a ten percent nonrefundable income tax credit of the total cost of the taxpayer's qualifying investments in plant and equipment for clean energy operation. This bill would lower the investment threshold from $500,000,000 in new qualifying plant and equipment and replace it with a graduated investment scale based upon county tiered designations as follows:

<table>
<thead>
<tr>
<th>County Designation</th>
<th>Minimum Investment Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier IV</td>
<td>$50,000,000</td>
</tr>
<tr>
<td>Tier III</td>
<td>$100,000,000</td>
</tr>
<tr>
<td>Tier II</td>
<td>$150,000,000</td>
</tr>
<tr>
<td>Tier I</td>
<td>$200,000,000</td>
</tr>
</tbody>
</table>

This bill also lowers the job creation level from one and one-half job for every $500,000 of capital investment to at least one full-time job for every $1,000,000 of capital investment that each pays at least 125 percent of this State's average annual median wage. The length of time a qualifying may receive the tax credits is extended an additional five years from December 31, 2015 to December 31, 2020.
Statement of Estimated State Revenue Impact

**Section 3.** This bill amends Section 12-6-3600(A)(1) and (2) to replace the terms "ethanol" and "biodiesel" with the term "liquid fuel" to include additional types of clean energy fuels. The term "liquid fuel" also refers to fuel that will power an internal combustion engine and is derived from algae, cellulose, natural gas, used oil, waste oil, or yellow grease and used as a substitute for gasoline or diesel fuel. Currently, a taxpayer may receive an income tax credit equal to 20 cents a gallon of corn-based ethanol or soy-based biodiesel produced for sixty months ending not later than December 31, 2016. Also, a taxpayer may receive an income tax credit equal to 30 cents a gallon for production of noncorn ethanol or nonsoy oil biodiesel produced for sixty months ending not later than December 31, 2016. This bill would extend the production credits to all liquid fuels and extend the ending date of receiving the tax credits to no later than December 31, 2019. Also, the amount of liquid fuel produced annually at a qualified liquid fuel facility is reduced from not more than 25,000,000 gallons to 10,000,000 gallons for sixty months ending not later than December 31, 2016. Currently, beginning January 1, 2017, an ethanol or biodiesel facility must receive an income tax credit of seven and one-half cents a gallon of ethanol or biodiesel for new production for a period not to exceed 36 consecutive months. This bill would replace "ethanol" and "biodiesel" with the term "liquid fuel" and extend the start date by three years to 2020.

According to the U.S. Department of Energy and the S.C. Department of Commerce, there are presently no commercial or industrial producers of hydrogen, fuel cells, or modular reactors located within South Carolina. Since these industries are not present, there is not a likelihood of the income tax credits being claimed by these companies. Also, because the additional types of liquid fuels are not currently produced in South Carolina and the use of these liquid fuels and technology is in its infancy, this bill is not expected to affect state General Fund revenue in FY2013-14.

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Frank A. Rainwater  
Chief Economist

**Analyst:** Martin

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"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 of Section 6-1-85(B) for an estimate of the shift in local property tax incidence by the Office of Economic Research.

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