

**NORTH CAROLINA GENERAL ASSEMBLY
LEGISLATIVE FISCAL NOTE**

BILL NUMBER: House Bill 1636 (Second Edition)

SHORT TITLE: Renewable Energy Tax Credits.

SPONSOR(S): Representative Tolson.

FISCAL IMPACT					
	Yes (X)	No ()	No Estimate Available ()		
	<u>FY 2004-05</u>	<u>FY 2005-06</u>	<u>FY 2006-07</u>	<u>FY 2007-08</u>	<u>FY 2008-09</u>
REVENUES					
General Fund					
Dispensing Credit*		No Estimate Available			
Production Credit **					
- 6 million Gal./Yr Biodiesel	\$0	\$0	(\$175,000)	(\$175,000)	(\$175,000)
-18 million Gal./Yr Biodiesel	\$0	\$0	(\$360,000)	(\$360,000)	(\$360,000)
-96 million Gal./Yr Ethanol	<u>\$0</u>	<u>\$0</u>	<u>(\$3,430,000)</u>	<u>(\$3,430,000)</u>	<u>(\$3,430,000)</u>
Total	\$0	\$0	(\$3,965,000)	(\$3,965,000)	(\$3,965,000)
PRINCIPAL DEPARTMENT(S) & PROGRAM(S) AFFECTED: Department of Revenue					
EFFECTIVE DATE: This act becomes effective for taxable years beginning on or after January 1, 2005 and is repealed effective for taxable years on or after January 1, 2010.					
* While no estimate is available on the number of facilities that will be built due to this credit, if the cost per dispensing facility averages \$50,000, then the credit will be \$7,500 per facility.					
** The fiscal impact shown for the production credit is for 3 currently proposed projects. There is no estimate on the number of additional projects this credit will prompt. See the Assumptions and Methodology section.					

BILL SUMMARY:

This act creates the following tax credits:

- 1) **Credit for dispensing renewable fuel** – The credit is equal to 15% of the cost to construct and install a renewable fuel dispensing facility, but must be taken in three equal annual installments. The credit is taken against franchise and income tax liability.

2) **Credit for producing renewable fuel** – The credit is equal to 25% of the cost to construct and place in service a commercial facility for processing renewable fuel. The credit is taken against franchise and income tax liability in seven equal annual installments.

ASSUMPTIONS AND METHODOLOGY:

Energy Tax Credit Success

According to a February 2001 report of the National Conference of State Legislatures (NCSL) titled “State Alternative Fuel Vehicle Incentives: A Decade and More of Lessons Learned,” state alternative fuel vehicle incentives do not stimulate widespread conversion to alternative fuels.

Based on the report, which has analyzed more than 200 various state incentives around the nation, the successful incentives are:

- Focused on reducing emissions or petroleum use.
- Large enough to entice consumers to buy an alternative fuel vehicle.
- Grant-based in most cases.
- Easy for consumers to receive and for the state to administer.
- Focused on developing a fueling infrastructure in addition to encouraging consumers to buy alternative fuel vehicles.

The best incentives, according to the report, combine all the characteristics into one package. Incentives that fail to meet even one of these criteria are likely to fail to meet their goals.

North Carolina has not had much success with tax credits for building alternative fuel facilities. A corporate income tax credit for the construction of a fuel ethanol distillery was approved in 1979 (GS 105-130.27), but the credit expired in 1998 without being used. Similar tax credits to encourage the construction of a methane gas facility, a peat facility, wind energy devices, and an olivine brick facility were repealed in 1999 without ever being used.

The renewable energy credits in GS 105-129.16A have been used. From April 2003 to March 2004, 11 corporate taxpayers claimed \$636,001 and 222 individual taxpayers claimed \$143,970 in renewable energy credits. These credits can be used for solar, wind, hydroelectric, and biomass projects. Building an ethanol or biodiesel production facility is eligible under this credit, but none have been built.

Dispensing Credit

At this time it is not possible to estimate the number of refueling stations that will be built due to this 15% dispensing credit in tax years 2005 through 2009. The General Assembly’s Fiscal Research Division is seeking data from Kansas and Colorado on their experience with similar alternative fuel dispensing credits. Kansas has a credit equal to 50% of the cost of constructing a fueling station up to \$200,000 and Colorado has a 50% tax credit for the cost of construction, reconstruction, or acquisition of a refueling station.

According to the Department of Energy Clean Cities Program, there are two ethanol-refueling stations in North Carolina. Both of these stations are owned by the state and provide services only to N.C. Motor Fleet Management. With regard to biodiesel, the major vendor of this fuel in the state is the Grain Growers Cooperative, Inc (the Cooperative). According to a Cooperative’s representative, the Cooperative purchases around 900,000 gallons of B100 biodiesel fuel annually at a price of \$2.50 per gallon. This fuel is then sold to several biodiesel fueling stations in the state. Based on data from the National Biodiesel Board, there are four retail biodiesel fueling sites in North Carolina, which also operate as conventional gas stations.

What is the fiscal impact to the General Fund for each fueling station that is built with a tax credit? According to information provided by a representative of the Marketing Department of VeraSun Energy in South Dakota, the average cost of constructing a facility for dispensing alternative fuel is approximately \$50,000. This cost includes pumps, storage, and related equipment. Based on this estimate, each dispensing facility would qualify for a tax credit of \$7,500, which will be claimed in three equal annual installments. Since the tax credit begins in tax year 2005, the first credit can be claimed as early as FY 2005-06. Box 1 outlines the fiscal impact associated with construction of one alternative fuel dispensing facility.

Box 1: Fiscal Impact of Constructing one Alternative Fuel Dispensing Facility

	<u>FY 2004-05</u>	<u>FY 2005-06</u>	<u>FY 2006-07</u>	<u>FY 2007-08</u>	<u>FY 2008-09</u>
REVENUES					
Alternative Fuel					
Dispensing Facility	\$0	(\$2,500)	(\$2,500)	(\$2,500)	\$0

Production Credit

This bill proposes a tax credit equal to 25 percent of the costs of constructing and equipping a commercial facility for processing alternative fuel for tax years 2005 through 2009. The entire credit must be taken in seven equal annual installments beginning with the taxable year in which facility is placed in service. Based on information provided by the Grain Growers Cooperative, Inc., there are some initiatives to construct both biodiesel and ethanol production facilities in North Carolina. However, these initiatives are at the early planning stages, and it is unlikely that any significant construction will be completed in 2005. Based on the joint study by AUS Consultants and SJH Company, it takes on average 12 to 14 months to construct an ethanol production facility. The Grain Growers Cooperative, Inc. has indicated that it takes the same time to construct a biodiesel production facility. Based on these assumptions, it is projected that the earliest date when any renewable fuel facility may become operational is July 2006.

There is no estimate of additional facilities that will be constructed due to this credit. The demand for alternative fuel production beyond the three proposed plants is dependant on economic and regulatory factors beyond the control of state government. Rising fuel prices and environmental mandates might increase demand high enough to warrant additional plants.

I. Biodiesel-Production Facility

The Center for Agribusiness and Economic Development at the University of Georgia has conducted a study on the feasibility of biodiesel production in this state. This study contains an analysis of estimated capital costs associated with the construction of biodiesel production facilities of various capacities. Based on the information provided by the U.S. National Biodiesel Board, two biodiesel-production facilities may be constructed in North Carolina. Filter Specialty Bioenergy, LLC has proposed construction of a 6 million gallon per year biodiesel facility in Autryville. The second proposal is an 18 million gallon a year plant in Rocky Mount constructed by the Grain Growers Cooperative, Inc. The study by the Center for Agribusiness and Economic Development estimated the capital cost of constructing biodiesel facilities with production capacity of 0.5, 3, 15, and 30 million gallons per year. To estimate the potential costs of constructing facilities with the production capacity of 6 and 18 million gallons per year, the average cost per gallon of production capacity was calculated for each category. Based on this computation, the average capital costs associated with constructing a facility with a production capacity of 6 million gallons per year is \$4,900,000. For a facility with production capacity of 18 million gallons per year, the construction costs will be \$10,100,000. According to this estimate, the 6 million gallon facility will qualify for a tax credit of \$1,225,000 taken in seven equal annual installments of \$175,000. The 18 million gallon biodiesel facility will qualify for a tax credit of \$2,525,000 million taken in seven equal annual installments of \$360,714. Since the facilities are not under construction and it will take 12 to 14 months to construct the facilities, it is assumed the credits will be taken in tax year 2006. The earliest fiscal impact on the General Fund for the credits will be FY 2006-07. Box 2 outlines the fiscal impact associated with construction of two biodiesel-production facilities that are proposed for North Carolina, according to the U.S. National Biodiesel Board.

Box 2: Estimated Tax Credit for Constructing Two Biodiesel Production Facilities

	<u>FY 2004-05</u>	<u>FY 2005-06</u>	<u>FY 2006-07</u>	<u>FY 2007-08</u>	<u>FY 2008-09</u>
REVENUES					
6 million Gal. Facility	\$0	\$0	(\$175,000)	(\$175,000)	(\$175,000)
18 million Gal. Facility	\$0	\$0	(\$360,714)	(\$360,714)	(\$360,714)

II. Ethanol Production Facility

According to an employee of the Marketing Department of VeraSun Energy Corporation in Aurora, South Dakota, the average cost of constructing an ethanol-production facility is \$1.00 per gallon of its name plate design capacity. VeraSun Energy estimates the name plate design capacity for the average ethanol plant to be 50 million gallons per year. Therefore, it would cost approximately \$50,000,000 to construct an average-size ethanol facility in North Carolina. According to the Beaufort County Economic Development Commission, the production capacity of an ethanol facility proposed to be constructed in North Carolina is 96 million gallons per year. Based on this estimate, this ethanol production facility would qualify for a tax credit of \$24 million taken in seven equal annual installments of \$3,428,571. According to the Beaufort County Economic Development Commission, several groups have put forward a joint initiative to construct one ethanol-production facility in North Carolina. At present, no facility is under

construction and it would take 12 to 14 months to construct a new facility, thus it is assumed the first credit would be taken in tax year 2006. The earliest fiscal impact on the General Fund for the credit would be FY 2006-07. Box 3 outlines the fiscal impact associated with construction of one ethanol production facility.

Box 3: Estimated Tax Credit for Constructing one Ethanol Production Facility

	<u>FY 2004-05</u>	<u>FY 2005-06</u>	<u>FY 2006-07</u>	<u>FY 2007-08</u>	<u>FY 2008-09</u>
REVENUES					
Ethanol Production Facility	\$0	\$0	(\$3,428,571)	(\$3,428,571)	(\$3,428,571)

III. Farm Income

The use of corn and soybeans in the production of alternative fuels can have both positive and negative impacts on farm income. The corn needed for an ethanol plant will aid local farmers, but increased demand can push up corn prices that hurt cattle feed lot owners. The byproduct of ethanol production is protein rich feed and corn oil that can compete in the same market with soybean meal and soybean oil, thus lowering prices. Yet, the lower cost of high protein feed helps poultry producers. Because of these conflicting economic impacts in the corn and soybean markets, it is difficult to estimate the overall change in farm income from the construction of these plants.

SOURCES OF DATA:

- AUS Consultants/SJH & Company
- Beaufort County Economic Development Commission
- Grain Growers Cooperative, Inc.
- National Conference of State Legislatures
- University of Georgia – Center for Agribusiness and Economic Development
- U.S. Department of Energy Clean Cities Program
- U.S. National Biodiesel Board
- VeraSun Energy Corporation

TECHNICAL CONSIDERATIONS: None

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Signed Copy Located in the NCGA Principal Clerk's Offices