

NORTH CAROLINA GENERAL ASSEMBLY

LEGISLATIVE FISCAL NOTE

BILL NUMBER: HB 1472 (First Edition) Simplify Renewable Energy Credits

SHORT TITLE: Simplify Renewable Energy Credits

SPONSOR(S): Representatives Hackney, Luebke, and McComas

FISCAL IMPACT

Yes () No () No Estimate Available (X)

FY 1999-00 FY 2000-01 FY 2001-02 FY 2002-03 FY 2003-04

REVENUES

General Fund

see **ASSUMPTIONS AND METHODOLOGY**

PRINCIPAL DEPARTMENT(S) &

PROGRAM(S) AFFECTED: Department of Revenue

EFFECTIVE DATE: This act is effective for taxable years beginning on or after January 1, 2000.

BILL SUMMARY:

The bill repeals a number of energy related corporate and individual income tax credits and creates a new income tax credit for investing in renewable energy property. The credit is equal to 35% of the cost of the property and must be taken over 5 years in equal installments (one year if residential). The credit has a maximum of \$250,000 for nonresidential and \$10,500 for residential. The credit cannot be taken if any other renewable energy credit is taken on the project.

BACKGROUND:

The following credits are repealed by this act:

| Tax Credit for | Eligible Expenditures | Amount %/ Maximum | Type* | Notes |
|---|-------------------------------------|----------------------|------------|--|
| Solar Heating, Cooling, and Hot Water Systems, or Electricity 105-130.23 105-151.2 | Material and installation Costs. | 40% \$1,500 | I C | Covers active and passive solar systems. Full credit is given to any non- structural items used primarily to collect, store, transfer, or control solar energy. Five year carry forward. |

*Type refers to (C) – Corporate income tax credit or (I) – Individual income tax credit

| Tax Credit for | Eligible Expenditures | Amount %/ Maximum | Type* | Notes |
|--|---|----------------------|-------|---|
| Peat Processing Facility 105-130.27A | Installation and equipment costs to construct peat processing facility. | 20% none | C | Peat, partially carbonized vegetable matter, is found in many eastern NC coastal counties. Five year carry forward. |
| Olivine Thermal Storage Brick Facility 105-130.29 | Installation and equipment Costs of construction of a manufacturing plant to produce olivine thermal storage brick | 20% none | C | Olivine is a mineral found in North Carolina. Ceramics and bricks made from olivine hold heat unusually well. Five year carry forward. |
| Methane Gas Facility 105-130.30 105-151.10 | Installation and equipment costs of construction of a facility to produce methane gas from renewable Biomass resources. | 10% \$2,500 | C,I | Methane gas can be produced from animal waste and burned as a fuel to produce heat. No carry forward. |
| Hydroelectric Generator 150-130.33 150-151.7 | Installation and equipment costs of a hydroelectric generator of at least 3 KW capacity. | 10% \$5,000 | C,I | Credit covers dams built at existing dams or free-flowing streams. Eligible installation costs include spillway and other site construction necessary to accommodate the hydroelectric generator. No carry forward. |
| Wind Energy Device 150-130.31 150-151.9 | Installation and equipment costs of a wind powered device for the production of electricity. | 10% \$1,000 | C,I | Must own or control the site at the time the device is installed to claim the credit. No carry forward. |
| Solar Industrial Process Heat 105-130.32 105-151.8 | Installation and equipment costs for solar systems used in a manufacturing process. | 35% \$25,000 | C,I | A manufacturing process is one that produces a product. Service industries such as laundromats, hotels, and restaurants are likely candidates for this credit. |
| Wood Boilers 105-130.26 105-151.5 | Installation and equipment costs of conversion of oil or gas fired industrial boilers to wood use. | 15% none | C,I | Credit does not cover the installation of new boiler systems. Only conversions are eligible. Five year carry forward. |

*Type refers to (C) – Corporate income tax credit or (I) – Individual income tax credit

ASSUMPTIONS AND METHODOLOGY:

The elimination of the credits for peat, wind energy, olivine bricks, and methane will have no fiscal impact on the General Fund. Based on Department of Revenue data from the 1980's and on interviews with the Energy Division in the Department of Commerce, the tax credits for peat, wind energy, olivine bricks, and methane have never been used. The Department of Revenue reported zero use of these credits from 1981 to 1987. (Unfortunately, the Department of Revenue has not tracked these energy credits since 1987.) The U.S. Department of Energy (DOE) reported in 1995 that no electricity was purchased by North Carolina utilities from nonutility facilities using geothermal, wind, solar, or non-wood biomass sources. DOE did report electricity purchases from conventional hydroelectric, wood/wood waste, and municipal waste facilities.

The fiscal impact for the new renewable energy tax credit cannot be estimated. The energy credits that have been most commonly used in North Carolina are for solar energy and for conversion of industrial boilers to wood fuel. Hydroelectric power is prevalent in the state, but it is not known whether these companies have taken the existing state tax credit for hydroelectric generators. The North Carolina Solar Energy Association estimates that 50 to 100 residential solar tax credits are taken each year, but the Department of Revenue has no data to confirm this estimate. Solar advocates believe the number of solar credits will increase due to the Million Solar Roofs Initiative that DOE began in 1997 to install a million solar energy systems on one million U.S. buildings by the year 2010. However, it is uncertain how effective this initiative will be since it did not come with federal tax credits that previously accompanied energy legislation in the late 1970's and early 1980's. North Carolina taxpayers used \$224,004 in tax credits solar hot water heating in FY 1982-83 when a federal tax credit was available. After the federal tax credit ended in 1985, no taxpayer applied for a state residential solar credit in FY 1987-88. At a minimum, if the current trend of 50 to 100 residential solar projects each year continues, the cost of the program could increase approximately \$100,000 to \$200,000 because the maximum credit amount per dwelling increases from \$1500 to \$3500 under this bill.

It is also uncertain whether industrial and nonresidential users will take advantage of the new energy tax credit given that the price per kilowatt hour of electricity produced by alternative energy sources far exceeds the price of electricity produced by conventional sources. In a July 1998 report to the Legislative Study Commission on the Future of Electric Service in North Carolina, the Research Triangle Institute reported the average price per kilowatt hour in North Carolina for commercial customers was 6.45 cents and for industrial customers was 4.79 cents. On the other hand, DOE reported in "Renewable Energy 1998:Issues and Trends" that in 1995 U.S. electric utilities paid the following prices for electricity generated by alternative sources:

| | |
|-------------------------|-------------------------------|
| Solar | 15.80 cents per kilowatt hour |
| Biomass other than wood | 12.31 cents per kilowatt hour |
| Geothermal | 11.77 cents per kilowatt hour |
| Wind | 11.64 cents per kilowatt hour |
| Wood/ Wood Waste | 9.67 cents per kilowatt hour |

In addition to price considerations, some companies may have less corporate income tax liability against which to take a tax credit. The North Carolina corporate income tax rate has been reduced from 7.75% to 6.9 % in the last four years. In addition, many companies have reduced their tax liability by taking advantage of income tax credits provided by the William S. Lee Quality Jobs and Business Expansion Act.

FISCAL RESEARCH DIVISION 733-4910

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