# GENERAL ASSEMBLY OF NORTH CAROLINA

## Session 2007

## Legislative Fiscal Note

**BILL NUMBER**: Senate Bill 3 (Second Edition)

**SHORT TITLE**: Promote Renewable Energy/Baseload Generation.

**SPONSOR(S)**: Senator Albertson

**FISCAL IMPACT**

| | Yes (x) | No ( ) | No Estimate Available ( ) | | |
|---|---|---|---|---|---|
| | FY 2007-08 | FY 2008-09 | FY 2009-10 | FY 2010-11 | FY 2011-12 |
| **REVENUES: ($ Millions)** | | | | | |
| **Sections 10-12 (State)** | (14.5) | (30.1) | (44.8) | (45.0) | (44.7) |
| **Section 13** | (2.0) | (2.2) | (2.5) | (2.8) | (3.2) |
| **Section 14** | ** See Assumptions and Methodology** | | | | |
| **Section 11 (municipalities)** | (2.5) | (5.8) | (8.1) | (8.0) | (7.8) |
| **EXPENDITURES:** | ** See Assumptions and Methodology** | | | | |

**PRINCIPAL DEPARTMENT(S) & PROGRAM(S) AFFECTED:** Utilities Commission, Department of Revenue, State agencies, county and municipal governments

**EFFECTIVE DATE:** Sections 1,2,5,6,7, and 8 become effective January 1, 2008. Sections 3, 4, 15, 16 become effective when the bill becomes law. The effective date for Section 9 is July 1, 2007. Sections 10, 11, 12, 13, and 14 become effective as provided in those sections.

BILL SUMMARY: Sections 1 through 4 of the Proposed Committee Substitute (PCS) for Senate Bill 3 establish a Renewable Energy and Energy Efficiency Portfolio Standard (REPS) in North Carolina that would include:

- A 12.5% REPS for electric public utilities.
- A 10% REPS for electric membership corporations and municipalities that sell electric power in the State.

- Provisions to encourage the use of solar energy, swine waste, and poultry waste resources.
- Provisions to encourage the implementation of demand-side management and energy efficiency programs.

Sections 5 through 9 amend the cost recovery procedures for electric power suppliers to provide for:

- Recovery of additional costs under the annual fuel charge.
- Ongoing review of construction costs and the inclusion of construction costs in rates.
- Recovery of construction costs for out-of-state electric generating facilities.
- Recovery of project development costs for nuclear facilities.
- Recovery of construction work in progress when reasonable and prudent and subject to an ongoing review by the Utilities Commission

Section 9 maintains the public utility and electric membership corporation regulatory fees at their current level.

Sections 10 through 12 phase out the sales taxes paid by farmers and manufacturers for electricity, piped natural gas, and other fuels.

Section 13 establishes renewable energy and energy efficiency tax credits.

Sections 15 is the severability clause, and Section 16 lays out the effective dates for various portions of the bill.

**ASSUMPTIONS AND METHODOLOGY**:
**Sections 1 through 9** will be administered by the NC Utilities Commission, a receipt supported State entity. While the Commission may require additional staff in the future to administer this bill, any costs associated with that would be covered by receipts generated by the Commission.

**Section 2(g)(4)** allows for an annual rider to recover the incremental costs incurred by an electric company to comply with the REPS requirements. This charge cannot exceed the following per-account annual charges:

| Customer Class | 2008-2011 | 2012-2014 | 2015 and thereafter |
|---|---|---|---|
| **Residential per account** | $10.00 | $12.00 | $34.00 |
| **Commercial per account** | $50.00 | $150.00 | $150.00 |
| **Industrial per account** | $500.00 | $1,000.00 | $1,000.00 |

The bill directs the Utilities Commission to adopt rules regarding this annual assessment.

Government entities fall into the commercial class. To determine the maximum additional cost the State will pay, each utility company was asked to provide the number of government accounts they service, broken down by State, counties, and municipalities. Universities were included in the

State number, while community colleges and local education agencies were included in the county figures. Three major electric companies serve the State: Duke Power Company, Progress Energy Carolinas, and Dominion North Carolina Power. In addition, there are 27 Electric Membership Corporations that provide power to rural areas throughout the State.

The bill does not specifically define "account"; however, in general, there is one account for every meter. Accounts may include buildings, stoplights, streetlights, etc. Progress Energy and Duke Energy both estimate that about half of their State accounts are stoplights. For the purposes of this estimate, it is assumed that the Utilities Commission will adopt rules excluding those types of accounts from the annual assessment. Therefore, only half of the State accounts reported by Progress Energy and Duke Energy are used to calculate the fiscal impact of the bill. It is unknown what portion of Dominion and co-op accounts may be stoplights, and none of the companies provided information regarding county and municipality stoplights, so no adjustment was made to those figures. To the extent that a portion of those figures are stoplight accounts, the cost estimate may be overestimated.

17 of the 27 Electric Membership Corporations responded to the request for information regarding the number of government accounts they serve. Of those, eight reported accounts by category (the others either reported one total, or provided a State number and a local number). To determine the estimated total number of government accounts for the remaining 10 co-ops, the percentage of active meters that are government accounts was calculated for each of the 17 co-ops that responded. The average of those percentages (0.47%) was then applied to the number of active meters for each of the remaining 10. To calculate the number of accounts by type for the 10 non-respondents and the nine co-ops that did not categorize their accounts, the number of accounts in each category for the eight that reported was totaled, and a percentage of the total for each category was determined. That percentage was then applied to the total number of accounts. To the extent that these calculations under- or over-estimated the number of accounts, the costs shown will be over- or under-estimated.

**Estimated Government Accounts by Power Company**

| Company | State | County | Municipality |
|---|---|---|---|
| Duke Energy Carolinas | 2,119 | 2,503 | 3,942 |
| Progress Energy | 2,014 | 3,073 | 4,080 |
| Dominion NC Power | 403 | 2083 | |
| NC Assoc. of Electric Cooperatives | 1325 | 1,485 | 504 |
| **Total Accounts** | **5,861** | **9,144** | **8,526** |
| Per Account Cap on REPS Rider | $50 | $50 | $50 |
| **Estimated Maximum Expenditure** | **$293,070** | **$457,209** | **$426,300** |

Accounts included in the State category include State agencies and programs supported by the General Fund, Highway Fund, federal funds, or receipts. At this time, no data is available regarding how many of the reported accounts are agencies supported by the General Fund; therefore, no estimate is available regarding the impact of this section on General Fund appropriations. In addition, no data is immediately available delineating the accounts by county or specific municipality. Therefore, only an estimated aggregate amount for those account types is shown.

**Section 5** allows for the recovery of additional costs under the annual fuel charge, not to exceed 2% of the electric company's total retail jurisdictional gross revenues for the preceding calendar year. No estimate is available regarding the potential cost of this section to government entities.

**Section 10** would phase out the current sales tax rate of 2.83% on sales of electricity to manufacturing industries and manufacturing plants for use in connection with their operation and to farmers to be used by them for farming purposes as follows:

- Effective July 1, 2007, reduces the rate from 2.83% to 1.89%.
- Effective July 1, 2008, reduces the rate from 1.89% to 0.94%.
- Effective July 1, 2009, exempts these sales from tax.

The general rate of tax on sales of electricity is 3%. Sales of electricity to an aluminum smelting facility are taxed at the rate of 1%, but this rate expires for sales made on or after October 1, 2007. Last session, in S.L. 2006-66, the tax on sales of electricity to manufacturing industries and manufacturing plants was reduced from 2.83% to 2.6%, effective July 1, 2007. This bill repeals the reduction enacted last session and replaces it with the 1.89% rate provided in this section of the bill. This rate applies to manufacturers and farmers. The rate is reduced to 0.94% effective July 1, 2008 and eliminated effective July 1, 2009.

According to the Department of Revenue, the amount of tax collected in this category for FY 2005-06 was approximately $32.1 million. The amount of tax collected for FY 2006-07 is projected to be $32.9 million. The impact of phasing out the tax for future years is estimated by applying projected percentage changes in sales of electricity to the current amount of tax collected and prorating the amount of tax to account for the rate reduction.

According to the U.S. Energy Information Administration (EIA), sales of electricity in the industrial sector are projected to increase by 0.7% in FY 07-08. Similar increases are projected for the following four years. The projected percentage increase is applied for each year to project the amount of tax that would be exempted. This amount is then prorated by the percentage of the rate reduction for each year of the phase-out to determine the amount of sales tax on electricity that would be exempted under the bill.

**Section 11** would phase out the tax imposed on piped natural gas received by a manufacturer for use in connection with the operation of the manufacturing facility and on piped natural gas received by a farmer to be used for any farming purpose, other than preparing food, heating dwellings, and other household purposes.

The excise tax on piped natural gas is based on a tiered rate structure. Rates are lower for those consumers who use a greater volume. The NC Public Utilities Commission reported that the excise tax on piped natural gas sold to large industrial customers generated approximately $18.6 million during FY 2005-06. A small additional amount of tax revenue is related to consumption by farmers. Natural gas providers were unable to provide an estimate for farming consumption, however, the amount of piped gas excise tax collected from farmers is expected to be less than $1 million annually. Projections for future years are based on EIA estimates for sales of natural gas. The projected amounts are then prorated to reflect a three-year phase-out.

Of the total amount of the piped gas tax collected, half of the tax attributable to activity within municipal boundaries is distributed to municipalities. The percentage of overall piped gas collections distributed to municipalities is approximately 40%. This analysis assumes that manufacturing facilities are located within municipal boundaries to a greater extent than other piped natural gas consumers and uses 45% as the portion distributed to municipalities.

**Section 12** would phase out the privilege tax imposed on a manufacturing industry or plant that purchases fuel to operate the industry or plant by reducing the tax rate from 1% to 0.67%, effective July 1, 2007, from 0.67% to 0.34%, effective July 1, 2008, and from 0.34% to 0%, effective July 1, 2009.

Farmers are exempt from sales tax on purchases of fuel. Manufacturers are exempt from sales tax on fuel, but they are subject to a privilege tax equal to 1% of the sales price of the fuel. This section would phase that tax out over three years.

The NC Department of Revenue estimates that the privilege tax on manufacturing fuel generated approximately $2.3 million in FY 2005-06. Inflation estimates from Moody's Economy.com are used to estimate the change in tax revenue for future years. The impact of this tax exemption is also prorated to reflect the 3-year phase-out.

**Section 13** enacts new G.S. 105-130.49 and new G.S. 105-151.31 to provide corporate and individual income tax credits for taxpayers that build or manufacture energy-efficient homes, as defined in the bill. The taxpayer must document the home's energy efficiency. The amount of credit is $1,000 for a new federally qualified energy-efficient home, or $2,000 for a new state-certified energy efficient home, but not both. The credit may not exceed the amount of corporate or individual income tax imposed for the taxable year reduced by the sum of all credits allowable, except tax payments made by or on behalf of the taxpayer. Any unused portion of a credit may be carried forward for the succeeding five years. The credit is effective for taxable years beginning on or after January 1, 2007, and expires for taxable years beginning on or after January 1, 2012.

A fiscal estimate for this section was developed using data provided by the State Energy Office. They stated that in 2006, 1,942 federally certified energy-efficient homes and 50 NC Healthy Built Homes were constructed. Based on this information plus information on new construction starts as projected by Moody's economy.com and previous year growth in the Federal Energy Star program, it was estimated that in FY2007-08 tax credits taken would equal $2.0 million.

This estimate assumed that all tax credits generated by the bill would be taken in the tax year they were generated. It was also assumed that the tax credits would have a modest stimulative effect on the construction of energy-efficient homes. Finally, it was assumed that growth in the NC Healthy Built Home program would mirror growth in the federal Energy Star program.

**Section 14** would allow a tax credit to a taxpayer that makes an eligible contribution to a nonprofit organization organized under section 501(c)(3) of the Code. An eligible contribution is a contribution designated by the taxpayer to be used for investing in renewable energy property and used by the nonprofit organization for investing in renewable energy property. Renewable energy property includes the following machinery and equipment or real property:

- Biomass equipment that uses renewable biomass resources for biofuel production of ethanol, methanol, and biodiesel; anaerobic biogas production of methane utilizing agricultural and animal waste or garbage; or commercial thermal or electrical generation from renewable energy crops or wood waste materials. Renewable biomass resources are organic matters produced by terrestrial and aquatic plants and animals, such as standing vegetation, forestry and agricultural residues, landfill wastes, and animal wastes.
- Hydroelectric generators
- Solar energy equipment
- Wind equipment

The amount of the credit would be equal to a portion of the credit for investing in renewable energy property that the nonprofit organization would be allowed if the nonprofit organization was subject to tax. The amount of the credit for investing in renewable energy property is 35% of the cost of the property placed in service. The credit must be taken in five equal installments, beginning with the taxable year in which the property is placed in service. The credit may not exceed $2,500,000 per installation (the maximum credit amount is less for residential property). The portion allowed to each taxpayer is equal to the percentage of the total costs for which the nonprofit organization would have been eligible for a credit which were covered by the taxpayer's eligible contribution.

The tax credit may be taken against either the franchise tax or the individual or corporate income tax. The election is binding and any carry forwards of a credit must be claimed against the same tax. The credit may not exceed 50% of the tax against which it is claimed. Any unused portion of the credit may be carried forward for five years. The credit is effective for taxable years beginning on or after January 1, 2007. Although this credit does not have a sunset, the credit under G.S. 105-129.16A expires for renewable energy property placed into service on or after January 1, 2011.

There is no data on the number of taxpayers that might donate to nonprofits for renewable energy purposes. Likewise, the total dollars donated cannot be estimated. It should be noted, the language in this section does not preclude a taxpayer who contributes to a 501(c)(3) organization for the purpose of purchasing renewable energy property from taking both a deduction against taxable income plus claiming a tax credit.

**SOURCES OF DATA:** NC Utilities Commission; NC Department of Revenue; State Energy Office; U.S. Department of Energy; Moody’s economy.com

**TECHNICAL CONSIDERATIONS**: The July 1, 2007 effective date for energy tax reductions would not allow sufficient time for providers to make necessary adjustments to implement the changes. Natural gas providers have also indicated that they would need language requiring customers to identify themselves to the provider as eligible manufacturers or farmers in order to receive the preferential rate. Section 14 does not make clear how the portion allowed each taxpayer is to be calculated.

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