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The Economic, Utility Portfolio, and Rate Impact of Clean Energy Development in North Carolina

Final Report

Prepared for

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Executive Summary

North Carolina is a leader among Southern states in developing public policies to foster statewide clean energy development. Between 2007 and 2012, clean energy investment increased 13-fold and generated or saved more than 8.2 million MWh of energy through a combination of renewable energy and energy efficiency projects.

Although these energy impacts have been documented in national energy surveys, the impact the expanding clean energy sector has had on the North Carolina economy has yet to be quantified. To fill the knowledge gap, RTI International and La Capra Associates, Inc. conducted an economic, utility, and rate impact analysis of clean energy development for the North Carolina Sustainable Energy Association (NCSEA).[1]

The analysis had three broad components:

1. RTI reviewed North Carolina's business and investment climate for clean energy development, including the effects of three key state policies: Renewable Energy and Energy Efficiency Portfolio Standard (REPS), renewable energy tax credit, and Utility Savings Initiative.
2. RTI performed a retrospective economic impact analysis of renewable energy and energy efficiency investment on the state economy between 2007 and 2012.
3. La Capra analyzed the rate impacts of clean energy development to date and expected in the future.

Our research findings are as follows:

- North Carolina's clean energy and energy efficiency programs achieved the following:
  - Spurred $1.4 billion in project investment statewide between 2007 and 2012. This was supported by the state at an estimated $72 million.
  - Contributed an estimated $1.7 billion between 2007 and 2012 to the gross state product, including secondary effects. This estimate includes renewable energy project construction and operation benefits, state costs and incentives, reduced conventional energy generation, utility customer fees, and energy efficiency benefits.
  - Created or retained 21,163 job years from 2007 to 2012.
- There is no appreciable rate impact to residential, commercial, and industrial customer groups through 2026 resulting from state renewable energy and energy efficiency policies. By 2026, this switch to clean energy will lead to $173 million in cost savings.
- Over the 20-year period since the start of clean energy policies in North Carolina, rates are expected to be lower than they would have been had the state continued to only use existing, conventional generation sources.

[1] NCSEA posed the research questions in the request for proposal and offered guidance in data collection during the research process. RTI and La Capra conducted the analysis in an independent and objective manner to address the research questions that resulted in the findings of this report.