

University of Florida
Economic Impacts of Renewable Energy and Energy Efficiency Policies

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Description: PURC is engaging in three new research projects that will provide important information for policy makers in Florida. The projects are:

Economic and Job Impacts of State Renewable Energy and Energy Efficiency Policies

This project will provide empirical estimates of state renewable energy and energy efficiency policies on economic development and jobs. Proponents of state and federal policies promoting renewable energy and energy efficiency policies often assert that the policies will have positive impacts on jobs, specifically the so called green jobs.

Electric Grid Impacts of State Renewable Energy and Energy Efficiency Policies

This project will provide an estimate of the impacts of renewable energy policies on the electric grid. It will fill a gap in the literature for Florida, which as to date focused on the impacts on electricity generation.

Effects of Energy Commodity Profit Margins on Effectiveness of Energy Efficiency Programs

This project will test an assumption that is built into many state energy policies and that is held by many policy makers at the national level, namely that utilities would improve consumer energy efficiency practices if utility prices were decoupled from utility profits.

Budget: \$150,000.00

Universities: University of Florida

External Collaborators: NA

Progress Summary

Work has continued on evaluating the effects of Renewable Portfolio Standards (RPSs) on state-level employment. These policies have become a popular policy in state capitals across the country. As of 2010, 36 states and the District of Columbia had adopted programs which fall under the RPS umbrella. The reasons often cited for the adoption of these programs include; increasing the share of electricity generation from renewable sources, thus lowering greenhouse gas emissions and reducing the threat of global climate change; increasing security by moving towards national energy independence; and creating job growth by dedicating expenditures towards industries or technologies not represented within a state's current mix of employment opportunities. These outcomes are supported by a vast *ex ante* literature which forecasts results using input-output analysis and economic forecasting models.

The purpose of this project is to approach the employment claim from a purely *ex post* perspective and measure the effect an RPS has on state-level employment. Initial results suggest a best-case scenario where every job created by an RPS is equally offset by job losses elsewhere in the state. Alternative specifications suggest a worsening employment situation with net job loss in those states which adopt an RPS. Additional results suggest that RPSs do not significantly increase the amount of energy generated from renewable sources in these states. This appears because the establishment of these guidelines is done with little enforcement of realistic and intermediate targets, making the policy an 'empty promise'. The effectiveness of alternate programs, such as mandatory green power purchasing

programs, suggests that the ‘field of dreams’ mentality that surrounds RPSs may be misguided and other options might exist which help satisfy some of the same goals.

Annual Progress Report

Initial work on the effect of renewable portfolio standards (RPS) has been completed. This includes the literature review, data collection, and data analysis concerning the effect of RPS implementation on state-level employment. An initial version of the results was presented during a seminar given to Ph.D. students studying regulation at the University of Florida on April 19, 2011. Feedback was received and incorporated into the project. The updated version of the paper was written and presented to the FESC 2011 Summit. This generated additional comments and revisions which were added to the paper. During the 2012 Public Utility Research Center (PURC) Annual Conference, PURC’s Executive Committee requested the opportunity to review the paper prior to submission to an academic journal. The most current version of the paper was submitted to each Executive Committee member. Substantive comments were received from one member. This led to follow-up discussions concerning the research design and potential avenues for improving the paper. Several suggestions have been incorporated into the paper which is now being edited prior to submission to *The Journal of Regulatory Economics*. Following submission of the peer-reviewed article, attention will be given to the remaining projects outlined in the description.

