



U.S. Department of Energy Study Shows State Renewable Electricity Standards Are Affordable

On average, monthly household electricity bills could increase by just 38 cents

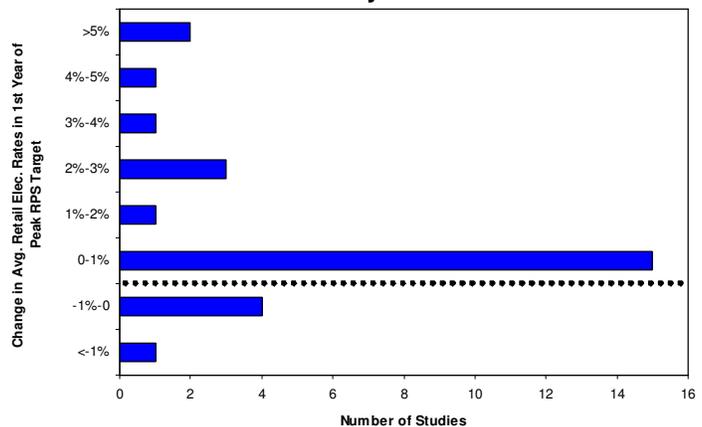
State renewable electricity standards (also known as a renewable portfolio standard, or RPS) are generally expected to have minimal rate impacts, according to a recent study by the U.S. Department of Energy (DOE).¹ A renewable electricity standard—currently found in twenty-one states and the District of Columbia—requires electric utilities to gradually increase the amount of renewable energy sources, such as wind, solar, and bioenergy, in their power supplies. The DOE study finds that, on average, state standards will result in a monthly electricity bill increase of just 38 cents for a typical residential household. Since the study does not analyze the effect of increased renewable energy use on natural gas markets, which several studies have found would lower demand and prices by increasing competition,² the overall energy bill impacts from state renewable electricity standards would likely be even lower.

The analysis—conducted by the DOE’s Lawrence Berkeley National Laboratory—compares the results from 28 state or utility-level renewable electricity standard cost studies completed since 1998. It finds that 70 percent of the studies reviewed project retail electricity rate increases of no greater than one percent. Six of the studies result in cost *savings* for electricity consumers (Figure 1).

Two of the studies surveyed found rate increases of greater than five percent. However, one uses cost assumptions for renewable energy that are higher than most analysts project. The other assumes that the state standard it analyzes would result in large amounts of solar energy, which is currently more costly than other renewable technologies.

The conclusion that state standards are expected to result in modest electricity rate impacts is consistent with findings of previous analyses of a national renewable electricity standard by the Energy Information Administration (EIA) and Union of Concerned Scientists (UCS). A 2005 EIA study found that a 10 percent by 2020 national standard would lower electricity and natural gas prices, saving consumers \$22.6 billion by 2025.³ In addition, a 2004 UCS analysis found that increasing a national standard to 20 percent by 2020 would save electricity and gas consumers \$49.1 billion.⁴

Figure 1. Distribution of Impacts on Average Retail Electricity Rates



Source: LBNL

The DOE report also reviews the projected public benefits found in the cost studies. All of the studies that consider the larger economic effects of state renewable electricity standards found that they will result in job creation and economic growth. Many of the studies also quantify the expected reductions in carbon dioxide emissions resulting from RPS policies, demonstrating that renewable energy is a cost-effective strategy for reducing the heat-trapping gases that contribute to global warming.

¹ Chen, C., Wiser, R. and M. Bolinger, *Weighing the Costs and Benefits of State Renewables Portfolio Standards: A Comparative Analysis of State-Level Policy Impact Projections*, LBNL-61850, March 2007.

² Wiser, R., M. Bolinger, and M. St. Clair. *Easing the Natural Gas Crisis: Reducing Natural Gas Prices through Increased Deployment of Renewable Energy and Energy Efficiency*. LBNL-56756. January 2005.

³ Letter to Senator Bingaman from the U.S. Energy Information Administration’s (EIA), June 15, 2005.

⁴ UCS. *Renewing America’s Economy*. Cambridge, Mass: UCS. September 2004.