

Oral Testimony of Jeff Deyette, Energy Analyst, Union of Concerned Scientists
Before the New Hampshire House Committee on Science, Technology, and Energy

April 13, 2006

Mr. Chairman and Members of the committee: Thank you for the opportunity to appear before you. My name is Jeff Deyette, and I am an energy analyst with the Union of Concerned Scientists. UCS is a nonprofit organization of 70,000 citizens and scientists—including more than 1,000 members here in New Hampshire—working for practical environmental solutions. For decades, UCS has combined rigorous analysis with advocacy to reduce the environmental impacts and risks of energy production and use. We have been a leading analyst of and advocate for renewable energy portfolio standards, playing an active role in discussions of RPS adoption and implementation before legislatures and commissions at the state and federal level.

The RPS has proven to be an effective and affordable policy for stimulating renewable energy development. New Hampshire should adopt an RPS to tap into the wealth of homegrown resources here, and reap the many benefits that clean energy provides. Renewable energy reduces the air pollution caused by burning coal, oil and natural gas to make electricity, and can help prevent the potentially severe consequences from global warming. It reduces our growing dependence on importing natural gas from unstable and unfriendly countries, and creates new revenues and jobs right here in New Hampshire. It can also help stabilize and reduce volatile energy prices. It is on this last point that I will focus my comments.

During their deliberations, the greatest concern of Senators was that the RPS not create any additional undue economic burden on consumers. As a result, the Senate voted in favor of a version of SB 314, which while establishing a target of 11.8 percent renewable energy by 2013, also ‘zeros out’ the RPS’ alternative compliance payment renewable energy certificates prices, effectively creating a voluntary goal.

In the fiscal note for SB 314 (as it was drafted on February 2, 2005), the Public Utility Commission calculated the cost impact using a simple formula based on the maximum price for purchasing RECs via the alternative compliance payment provision. Under this worst case scenario, the PUC found that the RPS could cost consumers as much as 0.15 cents per kilowatt-hour in 2007, or about 95 cents per month for the typical residential consumer.

The concern for electric customers is legitimate, though extensive consumer research indicates that such an increase is well within the range of what the majority of consumers are willing to pay an extra amount for clean, renewable electricity.¹ However, there is good reason to believe that the RPS will have a more modest effect on consumer costs than what the PUC projected, even potentially reducing energy bills in the long run.

For example, the PUC analysis does not take into account the effect that the RPS could have on natural gas consumption and prices. Several recent studies by the U.S. Department of Energy, UCS, and others have demonstrated that the increased use of renewable energy creates

¹ Consumer research also shows that consumers strongly prefer to have a program, such as a renewable electricity standard, where everyone pays to add renewable energy to the mix, rather than rely on voluntary programs alone. Wisner, R. “Using Contingent Valuation to Explore Willingness to Pay for Renewable Energy: A Comparison of Collective and Voluntary Payment Vehicles,” Lawrence Berkeley National Laboratory, August 2003.

competition with natural gas power plants, which reduces natural gas demand and thus puts downward pressure on prices. A reduction in natural gas prices leads to lower electricity costs as well as lower costs for those homes and businesses that use natural gas for heating.

The Lawrence Berkeley National Laboratory evaluated this gas price hedging effect of renewable energy deployment, and developed a simple tool that can be used to evaluate the impact of renewable energy on gas prices without having to rely on a complex national energy model. Applying this tool to SB 314, we find that the increased use of renewable energy could result in average electric rate savings ranging from \$0.1 to \$0.3 per megawatt-hour from 2007 to 2020. This is equal to statewide cumulative discounted electricity bill savings ranging from \$344,000 to \$860,000 through 2020. These are modest, but important savings that would increase should we experience gas price volatility similar to what we've seen in recent years. And as a result of the regional nature of the New England power market, when the development stimulated by SB 314 is combined with the renewable energy supported by other state RPS policies in New England (CT, MA, and RI), the effects are far greater—average electric rate savings range from \$1.3 to \$3.1 per MWh through 2020, and cumulative discounted electricity bill savings range from \$82 million to \$206 million through 2020. New Hampshire gas customers are already going to experience some of these savings thanks to the other state RPS policies. SB 314 would add to these benefits.

In addition to the gas price reduction effect of renewable energy, experience with the Massachusetts RPS demonstrates that longer-term contracts for RECs can greatly reduce REC prices below the level of current spot market prices or the maximum level set by the alternative compliance payment provision.

Massachusetts electric utility distribution companies have relied significantly on the ACP for RPS compliance starting in the 2004 compliance year. This means that Massachusetts consumers are currently paying the highest possible price for RPS compliance. In response, the Massachusetts Technology Collaborative, as the administrator of the state's Renewable Energy Trust fund, has developed a program, called the Massachusetts Green Power Partnership (MGPP), to create contractual mechanisms that provide long-term purchase agreements for RECs. MTC staff have concluded that relative to near-term market prices, long-term purchase deals for RECs are considerably less expensive. Using a competitive solicitation, the MGPP received bids from renewable energy project developers for 10-year REC contracts at prices averaging approximately \$25 per MWh. Compared with the current REC prices of around \$50 per MWh, it is apparent that significant savings are available through long-term REC contracts.

Long-term contracts for electricity, or for bundled electricity and RECs, can deliver even greater savings relative to the PUC calculation. A Berkshires wind project has sold long-term contracts for electricity and RECs for a total price of 7.8 cents per kWh. The current wholesale spot market price is 6.3 cents per kWh. However, the average wholesale market price of electricity in New England for 2005 was 8.1 cents per kWh, with the October market price averaging over 11 cents per kWh. Therefore, this project would have saved New Hampshire residential electric consumers as much as \$2.30 per month in 2005. Its stable price will continue to provide valuable protection for consumers against the risk of price volatility for years to come.

Harnessing renewable energy to provide electricity has broad public support. It provides an opportunity to help leave future generations a legacy of cleaner air, cleaner water, a stable climate, and greater energy independence at little or no cost to ratepayers. I urge the committee members to restore the alternative compliance payment REC prices back to their original levels; thereby creating an effective and affordable renewable energy policy. Thank you.