



## A 10 Percent National Renewable Electricity Standard Will Create Jobs and Save Consumers Money

A national renewable electricity standard would require electric utilities to supply a minimum percentage of their electricity from renewable sources such as wind, solar, and bioenergy.<sup>1</sup> The U.S. Senate has passed a 10 percent by 2020 national standard three times since 2002.

The Senate's 10 percent national standard is modeled after standards already enacted in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and 17 other states. This standard would reduce natural gas and electricity prices and provide significant economic and environmental benefits for New England.

### Consumer Savings

Thanks to its plentiful wind, solar, and bioenergy resources, New England actually has the potential to generate two-thirds of its current electricity needs from renewable energy. In September 2004, the Union of Concerned Scientists (UCS) examined the costs and benefits of a national 10 percent renewable electricity standard similar to the one passed by the U.S. Senate<sup>2,3</sup> in 2005 and found that New England would increase its total homegrown renewable power to more than 3,600 megawatts (MW) by 2020—enough to meet the needs of nearly 3.2 million typical homes. Doing so would provide 12 percent of the electricity sales in the region. It would also reduce the use of imported coal, oil, and natural gas.

The 10 percent by 2020 standard would increase competition in the marketplace, reducing long-term energy costs for homes and businesses by gradually bringing natural gas and electricity prices down. By 2020, the savings in New England alone would amount to more than \$840 million. Every sector of the region's economy would benefit, with commercial, industrial, and residential customers saving a total of \$450 million, \$230 million, and \$160 million respectively by 2020.

At the national level, the 10 percent standard would save consumers \$28 billion on their electricity and natural gas bills by 2020. A June 2005 U.S. Energy Information

Administration (EIA) study—using more pessimistic renewable energy costs and performance assumptions—still similarly found that this standard would save consumers \$22.6 billion by 2025 while lowering electricity and natural gas prices.<sup>4</sup>

### New England Benefits from a 10 Percent by 2020 National Renewable Electricity Standard

#### Consumer Savings

- \$840 million in lower electricity and natural gas bills

#### Economic Development

- \$1.4 billion in new capital investment, \$118 million in income to farmers and rural landowners, and \$103 million in new local tax revenues

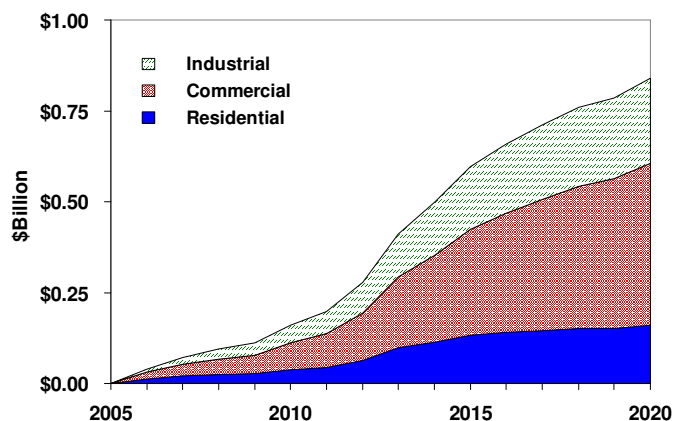
#### Job Creation

- 190,000 new jobs nationwide—nearly twice as many as generating electricity from fossil fuels

#### Healthier Environment

- National reductions of global warming pollution equal to taking nearly 25 million cars off the road, plus less haze, smog, acid rain, mercury contamination, and water use

Cumulative Energy Bill Savings in New England by Sector\*



\*Under a 10 percent by 2020 renewable electricity standard. Excluding transportation.

## Economic Benefits for Rural Communities

Increased renewable energy development would also create significant economic benefits for New England, especially in rural communities where many of the renewable energy generating facilities would be located. By 2020, the 10 percent national standard would provide in New England:

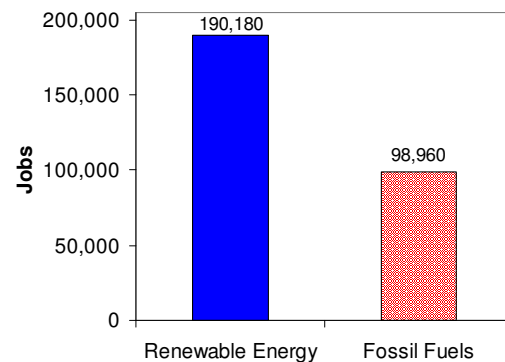
- \$1.4 billion in new capital investment
- \$118 million in income to farmers and rural areas resulting from biomass energy production and wind power land leases
- \$103 million in new property tax revenues for local communities<sup>5</sup>

## New Jobs for New Englanders

Renewable energy development resulting from the 10 percent national standard would create high-paying jobs in New England and throughout the United States. By 2020, the 10 percent standard would generate more than 190,000 jobs nationally in manufacturing, construction, operations, maintenance, and other industries—nearly twice as many as fossil fuels, representing a net increase of 91,220 jobs. Renewable energy would also provide an additional \$5.1 billion in income and \$5.9 billion in gross domestic product in the United States' economy.

A Renewable Energy Policy Project study found that a national commitment to build 50,000 MW of wind power would create 9,330 new manufacturing jobs and nearly \$3.1 billion in investment in New England.<sup>6</sup> By comparison, UCS and EIA analyses have found that a 10 percent national renewable standard would result in the development of 46,000 MW to 82,000 MW of wind power in the U.S. by 2020.

**U.S. Job Creation,  
Renewable Energy\* vs. Fossil Fuels (2020)**



\*Under a 10 percent by 2020 renewable electricity standard

## Public Health and Environmental Protection

Increased renewable energy use would reduce toxic air pollution from power plants that burn coal, oil, and natural gas. It would also reduce carbon dioxide emissions (which cause global warming by trapping heat in the atmosphere) 166 million metric tons nationally by 2020—a reduction of 5.5 percent below “business as usual” levels, equivalent to taking 24.7 million cars off the road. And by reducing the need to extract, transport, and consume fossil fuels, a national renewable standard would limit the damage done to our water and land and conserve our natural resources for future generations.

## A Cleaner, Safer Energy Future

The 10 percent national standard would make New England's energy supply—and the energy supply of the entire United States—more reliable and secure. It would use local energy sources to improve rural economies in New England, create high-skilled jobs, and put energy dollars back into the pockets of New England's consumers. The advantages of renewable energy are so strong, in fact, that analyses by both EIA and UCS show that increasing the national standard from 10 to 20 percent by 2020 would significantly boost all of these benefits. A national standard is a common-sense step away from our dependence on an unstable, dirty fossil fuel supply, and toward a future built on clean, renewable energy.

*For additional information, visit the UCS Clean Energy website at [www.ucsusa.org/clean\\_energy](http://www.ucsusa.org/clean_energy).*

<sup>1</sup> The renewable electricity standard is also known as a renewable portfolio standard or RPS.

<sup>2</sup> UCS used a modified version of the U.S. Energy Information Administration's (EIA) National Energy Modeling System to examine the costs and benefits of increasing renewable energy use by way of a national renewable electricity standard of 10 percent by 2020 and renewable energy tax credits (passed by the U.S. Senate in July 2003 as part of the comprehensive energy bill HR 6). For national results, see the September 2004 UCS report *Renewing America's Economy*. More information about this modeling approach can be found in the October 2001 UCS report *Clean Energy Blueprint*, which is available at [www.ucsusa.org/clean\\_energy/renewable\\_energy/page.cfm?pageID=44](http://www.ucsusa.org/clean_energy/renewable_energy/page.cfm?pageID=44).

<sup>3</sup> An update to our 2004 analysis is currently underway, and is scheduled for release in Summer 2007.

<sup>4</sup> Letter to Senator Bingaman from EIA, June 15, 2005. Results are cumulative net present value (NPV) 2003 dollars, using a seven percent real discount rate.

<sup>5</sup> Results are presented in cumulative NPV 2002 dollars, using a seven percent real discount rate. Job results are for the year 2020.

<sup>6</sup> Sterzinger, G. and M. Svrcke. *Wind Turbine Development: Location of Manufacturing Activity*. Renewable Energy Policy Project, September 2004.