



# Renewing Louisiana

## What the Senate's National Renewable Energy Standard means for Louisiana

The U.S. Senate passed an energy bill in late April 2002 (HR 4) that contains the first-ever national renewable energy standard, which requires major electric companies<sup>1</sup> to gradually increase sales of electricity from renewable energy sources (wind, solar, bioenergy and geothermal) to about 10 percent by 2020. A U.S. House-passed energy bill contains no such provision. A committee of House and Senate members began meeting to develop a final bill this summer, with plans to bring it to a vote in both bodies this fall.

UCS used a modified version of the U.S. Energy Information Administration's National Energy Modeling System computer model to examine the costs and benefits of the Senate's proposed standard – often called a renewable portfolio standard or RPS.<sup>2</sup> We found that this policy – along with Senate-passed tax credits for renewable energy – will *not change* the energy bills of Louisiana's consumers. In addition, this important national policy will benefit Louisiana residents by addressing one of the biggest threats to the state's economy and ecological heritage: the burning of fossil fuels.

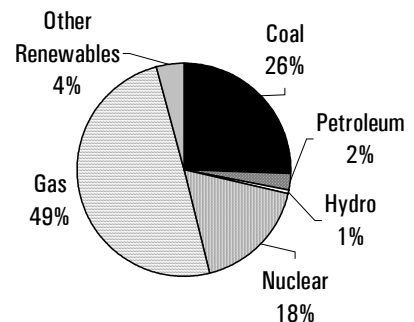
**Current Electricity Mix and Its Impact.** Like the rest of the United States, Louisiana relies heavily on fossil fuels and nuclear power to generate its electricity. All of the nuclear fuel and about 70% of the coal is imported into the state, exporting dollars and jobs in the process. Homegrown renewable energy sources such as landfill gas and bioenergy (plants/energy crops and clean plant wastes such as native grasses or mill wastes) currently provide only 4 percent of the electricity generated in Louisiana.

Louisiana's heavy reliance on fossil fuels for electricity contributes significantly to public health and environmental problems in local communities throughout the state. For example, air pollution from oil and coal-fired power plants aggravates asthma, and causes chronic bronchitis and other respiratory problems, including pre-mature death. Sulfur dioxide emissions cause acid rain, which damages forests, lakes, and buildings. Wastes, such as arsenic and mercury, can contaminate local drinking water supplies and severely disrupt valuable aquatic ecosystems.

The burning of fossil fuels to generate electricity is also the leading source of U.S. carbon dioxide emissions, which trap heat in the atmosphere and are the primary cause of global warming. Unfortunately, Louisiana's residents, economy and rich ecological heritage are at significant risk from the potential impacts.<sup>3</sup> Rising temperatures and sea levels, along with increased intensity of tropical storms, could lead to coastal erosion and an accelerated loss of wetlands, fisheries and freshwater resources. Sea level rise and storm surges would also increase the vulnerability of infrastructure in major seaports like New Orleans and Baton Rouge, and other coastal developments. Heat-waves, disease outbreaks and poorer air quality could place everyone – but particularly the elderly, children and poor populations – at greater risk of illness and death. In addition, many industries that are vital to Louisiana's economy including agriculture, forestry, fishing and tourism could be threatened by the impacts of global warming.

**Renewable Energy Potential and Development.** America is blessed with an abundance of clean renewable resources that can be used to meet our energy needs today and in the future. The United States has the technical potential to generate 4.5 times its current electricity needs from wind, bioenergy and other renewable energy sources. The resource with the greatest potential in Louisiana is bioenergy. While not all of the renewable potential in the state will be developed due to economic, physical and other limitations, the national standard will spur renewable energy development in Louisiana.

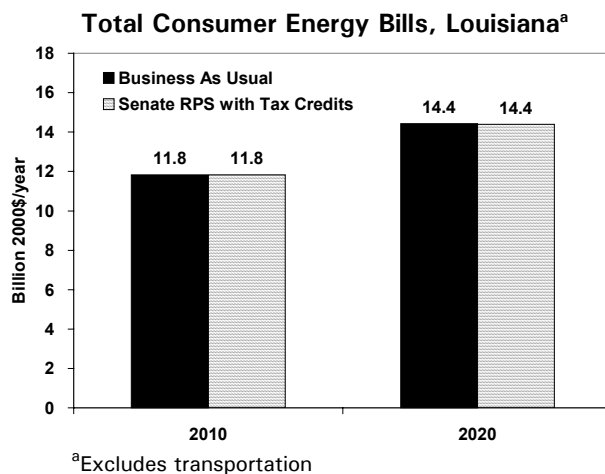
Louisiana's Electricity Mix, 2000



UCS analysis found that under the national standard, Louisiana would increase its total renewable power to 550 megawatts (MW) – enough electricity to meet the needs of over half a million typical homes. Louisiana’s bioenergy resources would power the majority of this development.

**Renewable Energy Standard Benefits.** The renewable electricity standard will provide important health and environmental benefits to Louisiana residents. Nationally, the renewable energy standard will reduce about 27 million metric tons of carbon emissions a year by 2020. This reduction, in concert with other efforts to curtail greenhouse gas emissions, will help to slow the impacts of global warming in Louisiana. By reducing fossil fuel use throughout the region, the renewable standard will also reduce harmful air pollution, and the water and land impacts from extracting and transporting these resources.

The national standard and renewable energy tax credits passed by the Senate would result in slight savings to Louisiana consumers on long run energy costs. Increased competition from renewable energy leads to lower natural gas prices, offsetting the incremental costs of meeting the renewable energy standard in the state. Total annual consumer energy bills (not including transportation) would be essentially the same as under business as usual through 2010, and \$30 million or 0.2 percent lower in 2020.<sup>4</sup> The cumulative consumer savings through 2020 would be over \$90 million.<sup>5</sup>



In the future, natural gas is projected to fuel much of the new electricity generation built in the United States without additional policies for renewable energy. This increase in demand for natural gas may lead to natural gas prices that are higher and more volatile than those used in our base case analysis. In this event, the renewable energy standard would help to stabilize natural gas prices and increase overall consumer energy bill savings.<sup>6</sup>

### Providing a clean, safe energy future

A national renewable energy standard would make Louisiana’s energy supply more reliable and secure, and help to address the main cause of global warming. It would diversify the fuel mix using energy produced within the state. The renewable energy standard proposed by the Senate is a sensible step toward a balanced approach to meeting future energy demands with renewable technologies, and is far more responsible than continuing to rely on polluting or dangerous power sources. Renewable energy is ready to provide Louisiana with a clean, safe energy future.

*The Union of Concerned Scientists is a nonprofit partnership of scientists and citizens combining rigorous scientific analysis, innovative policy development, and effective citizen advocacy to achieve practical environmental solutions. For more information, visit our web site at [www.ucsusa.org/energy](http://www.ucsusa.org/energy).*

<sup>1</sup>Small utilities and publicly-owned utilities are exempted.

<sup>2</sup>More information about UCS’ modeling approach can be found in the October 2001 report *Clean Energy Blueprint: A Smarter National Energy Policy for Today and the Future*, which is available at [www.ucsusa.org/energy/blueprint.html](http://www.ucsusa.org/energy/blueprint.html).

<sup>3</sup>More information about climate change impacts in Louisiana can be found in the October 2001 UCS report *Confronting Climate Change in the Gulf Coast Region*, which is available at [www.ucsusa.org/gulf/index.html](http://www.ucsusa.org/gulf/index.html).

<sup>4</sup>Results presented are in 2000\$. Cumulative results are in net present value using an 8 percent real discount rate.

<sup>5</sup>The House and Senate energy bills include renewable energy tax credits worth between \$2.6 billion (Congress’ estimate) and \$5.2 billion (UCS’ estimate) over the next 10 years. The bills also include 10 years’ worth of subsidies for fossil fuel and nuclear power totaling about \$9.1 billion in the Senate bill and \$28 billion in the House bill. The taxpayer costs of the additional subsidies for renewable energy and conventional fuels were not included in the analysis. (Note: these dollar figures are *not* discounted.)

<sup>6</sup>UCS examined the effects of a renewable standard on an alternative scenario where wholesale natural gas prices are 35 percent higher by 2020. In this case, cumulative consumer energy bill savings from the renewable standard would be 4.5 times greater.