

Renewable electricity standards—also called renewable portfolio standards—have emerged as an effective and popular tool for promoting a cleaner, renewable power supply. A renewable electricity standard requires electric utilities to gradually increase the amount of renewable energy sources—such as wind, solar, and bioenergy—in their power supplies. State leadership has demonstrated that renewable standards can reduce market barriers and stimulate new clean energy markets. Because renewable energy can help meet critical goals for fuel diversity, price stability, economic development, our environment, and energy security, a national renewable electricity standard should play a vital role in America’s energy policy.

## Which States have a Renewable Electricity Standard?

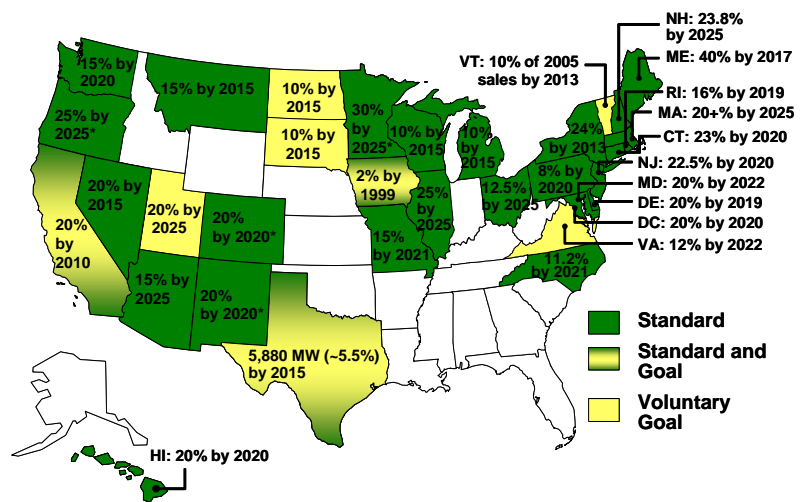
To date, 28 states and Washington D.C. have implemented renewable electricity standards.<sup>1</sup> The number of states adopting renewable standards has more than doubled since 2004. Most recently—on Election Day 2008—Missouri became the third state to pass a renewable standard using a ballot initiative. The ‘Show-Me’ state’s clean energy initiative requires electricity providers to generate 15 percent of their power from renewable energy sources by 2021.

In the last few years, several trends have emerged among state renewable standards. For example, an increasing number of states are adopting higher targets, while many states with existing standards have increased or accelerated their targets. Sixteen states (plus D.C.) now have requirements of 20 percent or more. In addition, more state standards include provisions specifically designed to support solar and/or small-scale renewable energy systems. Nine states standards include technology carve-outs, three states offer multiple credits toward compliance, and four states offer both.

## Renewable Energy Development

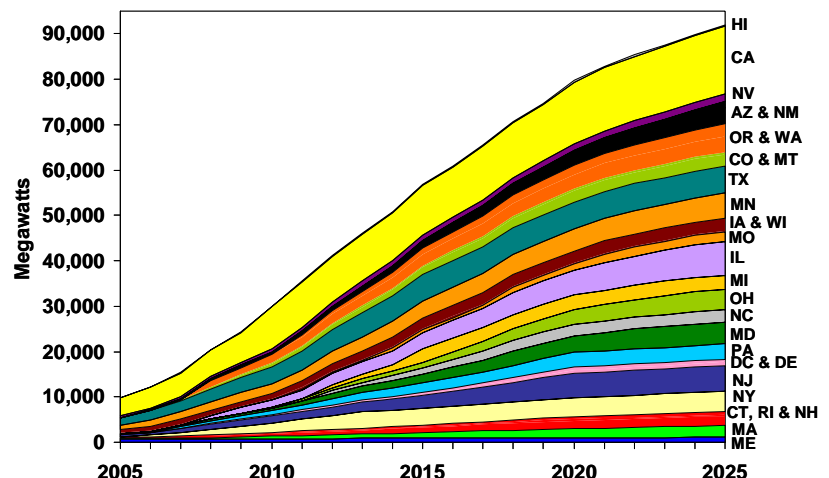
UCS projects that state standards will provide support for 76,750 megawatts (MW) of new renewable power by 2025—an increase of 570 percent over total 1997 U.S. levels (excluding

State Renewable Electricity Standards



\* MN has a 30% by 2020 standard for Xcel Energy, and a 25% by 2025 standard for all other electricity providers. CO and NM have a 20% by 2020 standard for investor-owned utilities, and a 10% by 2020 standard for other utilities. OR has a 25% by 2025 standard for large utilities, and a 5% or 10% by 2025 standard for smaller utilities, depending on their size.

Renewable Energy Expected From State Standards\*



\* Projected development assuming states achieve annual renewable energy targets.

hydro). This represents enough clean power to meet the electricity needs of more than 47 million typical homes. The standards in California, Illinois, Minnesota, New Jersey, and Texas create the five largest markets for new renewable energy growth in the country. By 2025, new renewable energy production from all state standards will reduce annual carbon dioxide emissions—the heat-trapping gas primarily responsible for global warming—by more than 183 million metric tons. This level of reduction is equivalent to taking 30 million cars off the road or planting 44 million acres of trees—an area larger than Washington State.

## Success in the States

While most state standards have been enacted too recently to fully evaluate their effectiveness, a number of studies have found that renewable electricity standards are and will continue to be a primary driver of new renewable energy generation in the United States.<sup>ii</sup> In fact, half of all U.S. wind development between 2001 and 2006 has resulted from state standards.<sup>iii</sup> Minnesota's electric utilities have acquired more than 1,800 MW of wind and bioenergy as a result of their requirements. In addition, Colorado's largest utility—Xcel Energy—is several years ahead of schedule in meeting its requirement. Wisconsin utilities had secured enough renewable resources to meet their targets through 2011 before they were increased in early 2006, and Iowa has met and greatly exceeded its relatively low requirement. But the most successful standard so far may belong to Texas.

Signed into law in 1999, the original Texas standard required 2,880 MW of renewable electricity generating capacity (2,000 MW from new resources) to be developed by 2009. Texas exceeded this target nearly four years ahead of schedule, and—as a result of this early success—the legislature increased the new capacity requirement in August 2005 to 5,000 MW by 2015. With more than 7,100 MW of wind capacity installed as of the end of 2008, the state has once again exceeded its target several years early. The Texas standard has been effective, in part, due to the availability of good renewable energy resources, strong political support and regulatory commitment, targets that are high enough to trigger new market growth, and significant financial penalties for non-compliance.<sup>iv</sup>

In states where utilities divested generation and credit-worthy power marketers have not emerged (as in the Northeast), or where utilities have had credit problems (as in Nevada), new renewable energy projects are experiencing difficulties in obtaining contracts and financing. These states are addressing the issues by creating new supplemental mechanisms, such as using state agencies to provide financing or credit price guarantees.

## A National Renewable Electricity Standard is Needed

Renewable energy can help meet critical national goals for fuel diversity, price stability, economic development, and improving our environment, public health, and energy security. In addition, survey after survey shows that Americans strongly favor clean renewable energy sources and national policies to support them. State leadership has demonstrated that renewable electricity standards can reduce market barriers and stimulate new clean energy markets. These state commitments are an excellent start, but a renewable standard should now become a cornerstone of America's national energy policy.

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<sup>i</sup> For detailed information on state renewable electricity standard programs and other state policies to promote renewable energy, see UCS website, [http://www.ucsusa.org/clean\\_energy/solutions/big\\_picture\\_solutions/state-clean-energy-policies.html](http://www.ucsusa.org/clean_energy/solutions/big_picture_solutions/state-clean-energy-policies.html).

<sup>ii</sup> See UCS website, [http://www.ucsusa.org/clean\\_energy/solutions/renewable\\_energy\\_solutions/experts-agree-renewable.html](http://www.ucsusa.org/clean_energy/solutions/renewable_energy_solutions/experts-agree-renewable.html).

<sup>iii</sup> Wisner, R. "Renewables Portfolio Standards: An Introduction to State Experience." Lawrence Berkeley National Laboratory (LBNL). NCSL Clean Energy and Air Quality Working Group, May 3, 2007.

<sup>iv</sup> Wisner, R., and O. Langniss. *The Renewables Portfolio Standard in Texas: An Early Assessment*. LBNL. November, 2001.

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

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