Energy and Clean Technology Alert: States Define the Future of Renewable Electricity Use

7/7/2009

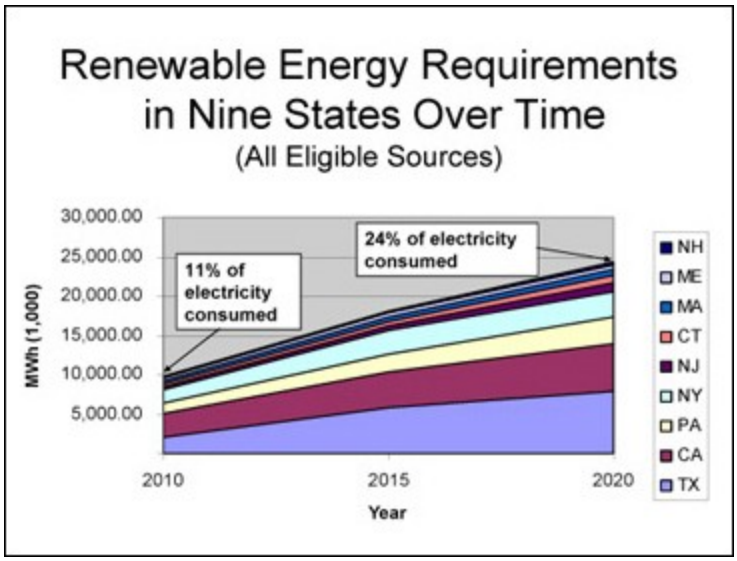
By David O'Connor

Recent actions in the U.S. Congress, in combination with actions over the last decade in a majority of states, have made it clear that, in the years ahead, an increasingly greater share of the electricity consumed in the United States will be produced using renewable fuels. If enacted, energy legislation now under consideration in both the U.S. House and Senate would create minimum requirements for the use of renewably generated electricity throughout the United States, and would allow states to maintain or enact their own requirements in excess of the federal standards.

This remarkable policy consensus is the product of renewable energy requirements enacted in recent years in a majority of states. As de Tocqueville rightly named them, these "laboratories of democracy" have together provided a template for a federal renewable energy standard, and a clear indication of the profound transformation that that standard will have on America's electricity use.[1]

Renewable Portfolio Standards (RPS) are legal requirements that electric utilities and other electricity providers obtain a minimum percentage of their total electricity supply from generation sources that use renewable fuels. RPS enumerate the specific generation technologies that are judged to be "renewable," the percentage of total electricity consumption that must be supplied with eligible fuels, and the mechanisms that are permitted to achieve compliance, such as the use of renewable energy credits (RECs) and "alternative compliance payments."

RPS have been passed and signed into law in 29 of the 50 states.[2] Among a selection of nine states with some of the greatest renewable energy requirements, approximately 11% of all electricity consumed in those states will be generated using renewable fuels by 2010, and by 2020, renewable fuels will provide at least 24% of all electricity consumed.[3]



Over the last decade, a clear and consistent design has emerged for RPS, despite differences in details imposed state to state. This design now provides the template for the RPS included in each of the federal energy bills. State RPS include roughly similar definitions of renewable fuels, and the eligible technologies that use them, consumption requirements that must be met with them, and the mechanisms that may be used to achieve compliance.

For example, most states include wind, solar, biomass, hydro, biofuels (under some conditions), and marine or hydrokinetic renewable generation among eligible technologies. The majority of states employ multi-tiered volume requirements to categorize eligible technologies based on the vintage of the generation facility and the type of fuel source. For example, the most highly valued credits (often referred to as Class I resources) tend to be reserved for new energy facilities that generate electricity from the most "environmentally friendly" sources, particularly solar and wind generation. A significant number of states contain provisions that permit the use of energy efficiency savings to meet a certain percentage of RPS volume requirements. All RPS set volume requirements as a percentage of total electricity consumption that incrementally increases over time.[4]

Finally, most state RPS programs allow for the creation, trading, and banking of RECs to achieve compliance. The trading and banking of RECs achieve compliance at the lowest cost by allowing suppliers to purchase only as much renewable energy as they are required to use, while being able to shop for the lowest price for RECs being sold by renewable generators. In addition, many states allow for compliance through the use of a so-called "alternative compliance payment," which approximates the value of an REC and effectively sets an upper limit on the price that a supplier would be willing to pay to purchase an REC and achieve compliance.

Following the lead of state government, both the U.S. House of Representatives and the U.S. Senate are considering legislation that would create a federal renewable portfolio standard. In the House, legislation sponsored by Rep. Henry Waxman (D-California) and Rep. Ed Markey (D-Massachusetts), the American Clean Energy and Security Act of 2009 (Waxman-Markey bill), which includes RPS, was recently enacted by a vote of 219-205.[5] In the Senate, legislation

sponsored by Jeff Bingaman (D-New Mexico), the American Clean Energy Leadership Act of 2009 (Bingaman bill), which also includes RPS, was recently reported out of the Committee on Energy and Natural Resources by a vote of 15-8.[6] Rather than preempt the state RPS programs, each of these bills allows states to maintain their RPS programs, so long as the suppliers also meet at least the minimum federal requirements (the so-called federal "floor") for renewable generation in every state. Furthermore, in both bills, the agencies charged with administration of the federal RPS are directed to examine state RPS to identify and make use of their "best practices."

The general structure of the Renewable Electricity Standards (RES) as they are known in the Bingaman and Waxman-Markey bills are similar, though not identical, to one another. While sharing similar structures and eligibility requirements, there are some differences in eligible technologies, volume requirements, and compliance mechanisms. The Waxman-Markey RES designates as eligible a greater variety of technologies than the Bingaman RES, including technologies that utilize biogas, biofuels, wastewater treatment gas, coal methane at the mouth of mines, and waste-to-energy processes. Furthermore, both bills permit the use of energy efficiency savings to meet a portion of the renewable use requirements. This indicates the value federal lawmakers place on the benefits of allowing this less expensive means to be used to meet the use requirements.

Waxman-Markey also imposes greater use requirements on electricity producers than the Bingaman bill, as is evident in the following year-by-year comparison:

A Comparison of House and Senate Renewable Electricity Use Requirements

Years	Waxman-Markey % (of Total Sales)	Bingaman % (of Total Sales)
2012[7]	6	3
2013	6	3
2014	9.5	6
2015	9.5	6
2016	13	6
2017	13	9
2018	16.5	9
2019	16.5	12

2020	20	12
2021-2039	20	15

To meet compliance requirements, both bills allow utilities to produce renewable energy, purchase RECs, or make alternative compliance payments. The clear delineation in each bill that a federal REC will be defined as one megawatt hour of electric generation using an eligible renewable fuel will help achieve consistency between federal and state compliance. Nevertheless, federal RECs will not be synonymous with state RECs because state definitions of eligible fuels and technologies will differ from federal definitions in many cases, even if only slightly. The Bingaman bill sets the price for alternative compliance payments at $21/MWh, $4 less than the $25/MWh price included in the Waxman-Markey bill, a small difference that is likely to be easily resolved in a conference committee on the two bills.

This is not to say that administration and enforcement of federal RES will be simple or easy. The current versions involve oversight by multiple agencies which will have to grapple with how to integrate and accommodate the requirements of multiple state RPS with federal requirements. Complicating this challenge will be the difficulty of measuring and crediting energy efficiency savings as a means to achieve federal renewable use requirements.

With action now complete on the Waxman-Markey bill in the House, it remains to be seen how the current Senate version of RES will change as it moves through to passage. Every indication so far is that there will be convergence on the key design elements: eligible fuels and technologies, use requirements, and the price of alternative compliance payments. The RES is one policy on which there is very little disagreement in the Congress. Thus, the shape of the final federal RES is already reasonably clear. This degree of consensus is testimony to the wide acceptance and demonstrated effectiveness of state RPS. This consensus insures that renewable portfolio standards, as demonstrated by the states and soon to be required by the federal government, will result in a historic and permanent change in the character and environmental impact of electricity generation in the United States.

Endnotes

[1] de Tocqueville, Alexis; *Democracy in America*, Garden City, N.Y.: Doubleday, 1975.

[2] The 29 states include: AZ, CA, CO, CT, DE , HI, IA, IL, KS, MA, MD, ME, MI, MN, MO, MT, NC, NH, NJ, NM, NV, NY, OH, OR, PA, RI, TX, WA, WI and Washington, DC. RPS "goals" which do not have the strength of enforceable use requirements have been enacted in five other states (ND, SD, UT, VT, and VA).

[3] "Leading states" in this instance includes California, Texas, and the large Northeastern states (Pennsylvania, New York, New Jersey, Connecticut, Massachusetts, Maine, and New Hampshire).

[4] Particular states, however, permit certain technologies that are inconsistent with the standard that is emerging. Pennsylvania, for example, allows coal-related technologies that recycle coal waste or contribute to energy efficiency as eligible for volume requirements. For an overview of the Pennsylvania Alternative Energy Portfolio Standard program, please click here.

[5] For more information on this vote, see: "Climate Bill Passes Key Procedural Hurdle in House," *The Wall Street Journal*, 26 June 2009, by clicking here.

[6] For more information on this vote, see: "Bingaman: Clean-Energy Bill Clears First Hurdle," Press Release from Senator Jeff Bingaman, 17 June 2009, by clicking here.

[7] It should be noted that the Bingaman bill implements a volume requirement of 3% beginning in 2011 rather than 2012, as it imposes a standard one year prior to the Waxman-Markey bill (implemented beginning in 2012).

If you have any questions about the new regulations or the regulatory process, please call your Mintz Levin service professional or any of those listed below.

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