



Focus on Finance

by Linda C. Byus

Renewable portfolio standards: Does nuclear play a role?

As of 2015, the United States has not established a national energy policy to address the issue of greenhouse gas emissions and their effect on climate change. Since the regulation of electricity generation is at the state level, policy in regard to fuel used to generate electricity has also been at the state level. Environmental requirements are usually in the form of “renewable energy” standards and goals. In recent months, renewable portfolio standards (RPS) have been in the news in several states, prompting questions about the goals and effectiveness of such standards. For the most part, the RPS approach to mitigating greenhouse gases and climate change does not address the role of nuclear generation.

The overriding goal of all RPS policies is to reduce greenhouse gas emissions by reducing reliance on fossil fuels to generate electricity. According to the U.S. Energy Information Administration (EIA), 29 states and the District of Columbia have adopted RPSs, and an additional eight states have set nonbinding renewable portfolio goals. The majority of state RPS policies were enacted in the late 1990s and early 2000s. In June 2015, Hawaii updated its legislation, setting a 100 percent RPS by 2045, and Vermont passed a bill creating a 75 percent RPS by 2032. These two standards are the most ag-

gressive in the United States.

According to the EIA, most states with existing RPS policies have recently made major revisions to their original legislation. While Hawaii updated its goal of 40 percent by 2030 to 100 percent by 2045, a number of states have made changes that have reduced or eliminated RPSs. Last year, Ohio froze its RPS of 12.5 percent by 2024 for a two-year period. In January 2015, West Virginia became the first state to repeal its alternative energy standard, and in May, Kansas changed the RPS that it created in 2009 to a nonbinding goal. RPS legislation is also under review in several other states.

The debate about RPSs varies from state to state and is a function of corporate interests and politics, and financial benefit and economics are part of corporate interests and politics. Some states have provisions that limit the magnitude of cost increases while the RPS is in effect, but it does not appear that the cost of electricity to customers is a significant factor.

In order to understand corporate interests, it is necessary to look at what is included in the definition of renewable energy. Many states provide details about what the term “renewable energy” encompasses. Renewables include hydropower, biomass, waste-to-energy, waste heat recovery, conservation, and distributed generation, but the dominant players are solar and wind. Three coal-producing states—Indiana, Ohio, and West Virginia—include provisions for clean coal technology, as well as for nuclear power. The benefit to society of RPS policy is a reduction in greenhouse gas emissions, but the real winners are the corporate

producers of solar and wind generation.

For many of the states that are reevaluating existing RPS policy, the review is based on economics. With RPS policies in place for 10 years or more, some states are looking at the price of electricity, which is increasing, and at how RPS policies have contributed to those price increases. Proponents of RPS policy claim that the development of new renewable generating sources, especially wind and solar, has provided an economic boost in many regions by creating new jobs and bringing in new investment, and that while the price of electricity has risen, state economies have benefited overall.

The technical challenge of renewable energy remains reliability, since renewable sources are dependent on external natural forces that are difficult to predict and impossible to control. The added challenges are transmission and distribution, with generating capability largely dependent on location.

Nuclear power, a reliable, low carbon-emitting source of electricity generation, is the odd man out in states’ RPS policies. If reducing greenhouse gas emissions with a reliable source of generation were the only goal of RPS policy, nuclear power would be a clear winner. But the uranium used for nuclear fuel is a finite material, unlike wind and solar, which are infinite. (The use of breeder reactors, however, would address this problem and extend nuclear fuel supply enormously.) The more compelling argument against including nuclear fuel as a renewable source of electricity is the waste resulting from nuclear power generation. Although nuclear generation does not add to greenhouse gases, it is seen as having a negative environmental impact.

Based on recent legislative activity, it appears that RPS policies are still in flux. While Hawaii has established a renewable generation goal of 100 percent, the long-term goal in other states is 20 to 30 percent. It is likely that both fossil and nuclear generation will continue to be part of the electricity generating mix in the United States for the foreseeable future, but neither will receive the financial and political support inherent in RPS policies. **FoF**

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