

New Rules May Cloud the Outlook for Biomass

By Tom Zeller Jr.

July 9, 2010

An energy technology that has long been viewed as a clean and climate-friendly alternative to fossil fuels is facing tough new regulatory hurdles that could ultimately hamper its ability to compete with renewable power sources like wind and solar.

Dozens of biomass power plants, which typically burn plant or tree matter to generate electricity, are already in operation in a variety of states, like California, Michigan and Maine. In most cases, those plants have qualified for some form of renewable energy tax incentives or other benefits, as states used them to diversify their power portfolios.

But a long-simmering debate in Massachusetts questioning the environmental benefits of biomass has culminated in new rules that will limit what sorts of projects will qualify for renewable energy incentives there. If other states or even Congress, which is writing energy legislation of its own follow suit, it could have wide implications for biomass developers, as well as for states trying to meet renewable energy production targets.

Ian A. Bowles, the Massachusetts secretary for energy and environmental affairs, instructed the Department of Energy Resources on Wednesday to draft new regulations that would impose stricter standards for biomass projects seeking to qualify for state incentives.

The new proposals would, among other things, require the projects to provide “significant near-term greenhouse gas dividends.” Mr. Bowles also called for **clear definitions of “residues” and “waste wood”** that is, the branches and other debris, left behind after timber and agricultural harvests, that provide the primary feedstock for many biomass plants.

The state also plans to **develop careful carbon accounting rules for biomass power, and to throw its greatest support behind plants that produce both heat and power, which are considered more efficient than ones that generate only power.**



There is opposition to a proposed biomass power plant in Russell, Mass. Critics of the technology fear the use of wood products for fuel would create a rapacious industry and threaten forests. Matthew Cavanaugh for The New York Times

Mr. Bowles said he hoped to have a draft of the new standards by the fall, and final regulations in place by the end of the year. The proposed changes in Massachusetts come just weeks after a study commissioned by the state suggested that careful regulation was needed to prevent biomass development from having a negative effect on New England forests, and on the climate generally.

“Our policy should reflect this current science by moving to support the development and operation of facilities that have the greenhouse gas profile needed to fulfill our emission-reduction mandates,” Mr. Bowles said in his letter to state energy regulators.

Industry representatives warned that the new rules could hinder efforts to meet renewable energy goals, and to reduce greenhouse gas emissions over all. But environmentalists welcomed the move, saying it would protect forests and foster responsible development of electricity generated with biomass materials.

Biomass power a \$1 billion industry in the United States, according to the Biomass Power Association, a trade group based in Maine has long been considered both renewable and carbon-neutral on its most basic level. Trees and plants can be replanted, its proponents point out, and while they emit carbon dioxide when burned, they absorb it while alive, resulting in no net gains in greenhouse gases.

The technology has long held substantial allure for state and federal regulators seeking to diversify energy portfolios. California, Maine, Michigan, New Hampshire, Oregon, Vermont and Washington are among the states that make heavy use of biomass.

“I am not aware of any state that has a renewable portfolio standard that doesn’t include biomass,” said Bob Cleaves, the president of the Biomass Power Association.

He added that several states in the Southeast had been preparing plans to use biomass as well, saying that without it the states would fail to meet their renewable energy requirements.



Ian Bowles, Massachusetts energy secretary, has called for new rules for biomass plants seeking to qualify for state incentives. Suzanne Kreiter/The Boston Globe

But many environmental groups say that the benefits of biomass power and all forms of energy derived from organic sources, including biofuels are realized only in carefully controlled circumstances. The cycle of carbon emission and absorption also unfolds over long periods of time that need to be carefully monitored.

By providing incentives without strict rules governing which materials are burned and how they are harvested, governments risk creating a rapacious industry that could gobble up whole forests, critics warn. That could ultimately increase the amount of carbon dioxide being released into the atmosphere one of the problems that renewable energies are supposed to address.

“Whether you call it biomass or simply chopping down trees, it’s still deforestation,” said Franz A. Matzner, climate legislative director for the Natural Resources Defense Council in Washington, which supports the sensible use of biomass power. “Burning trees for energy is an age-old practice that we know can cause some pretty bad effects if we don’t get our heads around doing it the right way.”

At the national level, critics have lambasted energy reform legislation currently being considered in Congress because it excludes careful carbon accounting for biomass projects. In May, a group of 90 scientists sent a letter to Congressional leaders urging them to consider “the importance of accurately accounting for carbon dioxide emissions from bioenergy in any law or regulation designed to reduce greenhouse gas emissions from energy use.”

Mr. Cleaves said that rules like those being proposed in Massachusetts could be devastating for biomass developers.

“This business is hard enough,” he said. “The margins are so small.”

But he also said that biomass producers were committed to sustainable practices and healthy forests. He asserted that state-level regulations already in place were adequate to prevent the sort of nightmare situations that some environmentalists fear.

“The public can’t lose faith in our technology,” Mr. Cleaves said. “If we’re going to get a benefit as a renewable energy source, the ratepayer obviously has to get something that’s green.”