

RENEWABLE ENERGY: Mass. decision raises questions about biomass incentives in other states (Monday, July 12, 2010)

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Anti-biomass plant advocates scored a big win last week when Massachusetts unveiled plans to restrict when and how the smokestacks of wood-burning power plants could be counted in its renewable portfolio standard (RPS).

Now a coalition of environmental groups are hoping that the move by the Bay State and the study that prompted it to act will focus the national debate on when biomass plants might be considered eligible for green credits in a national climate and energy bill.

Just weeks after a state-commissioned report on biomass emissions upended long-standing assumptions about the carbon benefits of wood-burning plants as compared to coal-fired plants in Massachusetts, the state's Office of Energy and Environmental Affairs said it plans to craft new regulatory hurdles for biomass plants seeking to be counted for the state's RPS.

The new study gives the state "a deeper understanding that the greenhouse gas impacts of biomass energy are far more complicated than the conventional view that electricity from power plants using biomass harvested from New England natural forests is carbon neutral," Ian Bowles, Massachusetts' secretary of Energy and Environmental Affairs, told the state's Department of Energy Resources commissioner last week. He directed the agency to impose tighter standards on how biomass plants could obtain green credits.

The study, conducted by the Manomet Center for Conservation Sciences, indicates that burning wood for energy generally results in greater emissions of greenhouse gases per unit of energy than using fossil fuel, based on the efficiency of tapping each resource. Switching from coal to biomass could actually increase the state's carbon emissions 3 percent by 2050, the report says (*greenwire* June 11).

But those numbers depend on a variety of environmental factors, including what sort of trees are used to power such plants and how forestland is managed, the authors wrote. If biomass plants utilized tree limbs left over from timber harvests, for example, 97 percent of all released carbon emissions could be recaptured by 2050, the authors noted. For Massachusetts, however, that situation would be unlikely, since there would likely not be enough resources left over from timber harvests to meet biomass plant demands, according to the study.

Fight to spread to other states

A Massachusetts-based advocacy group that had gathered enough signatures to put a ballot initiative before state voters this November nixed its plans after it got word of the Bowles letter. The group, Stop Spewing Carbon, plans to take its fight elsewhere. It would disqualify biomass from being classified as "renewable."

Meg Sheehan, the chairwoman of the Stop Spewing Carbon campaign, is planning on lobbying on Capitol Hill next week in the hopes that lawmakers will look to Massachusetts as a template on how to approach biomass plants' emissions when drawing up the details of a national renewable energy standard. Ideally, she said, utility-scale biomass plants should not be eligible at all.

She plans to speak with Senate staffers to "try to ensure that Sen. [Jeff] Bingaman's [D-N.M.] energy bill or any climate bill like Sen. Olympia Snowe's [R-Maine] or any other that includes a renewable energy standard" does not include biomass plants, she said.

She won't be alone. The Biomass Accountability Project, Save America's Forests, Biofuelwatch, the Energy Justice Network, the Buckeye Forest Council and Cascadia Ecosystem Advocates will be joining her, she said. The groups' agenda includes talking about what they contend are harmful effects of biomass plants and the ways in which such utility-scale plants could harm forests.

Though their lobbying campaign had been mapped out before Bowles' letter last week, the groups hope that the Massachusetts action will resonate with their message.

"It is a good coincidence that Massachusetts plans to make this ruling," said Carl Ross, executive director of Washington, D.C.-based Save America's Forests.

But if the Massachusetts action sparks similar regulatory reactions in other states and reduces state incentives for biomass plants, that could be a serious blow to the biomass industry and its competitiveness, said Bob Cleaves, the president and CEO of the Biomass Power Association. If that happens, "the country will not achieve its renewable energy goals, period," he said.

A push toward much higher efficiency

Bowles' letter directed his state's regulators to develop a way to calculate life-cycle greenhouse gas emissions, better define what sort of wood waste would be used in biomass plants, and set out rules that would ensure "maximum practicable efficiency" for biomass -- largely backing biomass plants that produce both heat and power.

"The specific standards will be developed by [the Massachusetts Department of Energy Resources] through the regulatory process, and it remains to be seen whether any biomass facilities other than CHP will be able to meet them," said Massachusetts Office of Energy and Environmental Affairs spokesman Robert Keough, referring to combined heat and power biomass plants. Bowles said in his letter that in order for biomass plants to be eligible, they will need to be able slash greenhouse gas emissions by 50 percent within two decades when compared with electricity from other available standard electricity-generating sources, including natural gas plants.

Biomass plants, eyed as a central way to help the county move away from coal-fired plants, have generally been considered to be "carbon neutral," since trees absorb carbon and then naturally decompose, releasing the carbon in the process which could be taken up by new trees and plants in turn that could later fuel the plants. National and state policies have hinged on the assumption that burning the wood in biomass plants would just speed up the process.

But recently, opinions have changed. A group of 90 scientists penned a letter to Congress in May urging it to accurately account for carbon dioxide emissions in future laws geared toward reducing greenhouse gas emissions.

And currently, U.S. EPA is performing a scientific review of how it will quantify the emissions from biomass plants and is weighing if it will regulate those plants' greenhouse gases alongside those from other stationary sources starting next year.

Other regions may need different measures

Sheehan and other critics of biomass plants maintain that some of the principal conclusions from the watershed Manomet study can translate to other states in the region, and even nationally. However, the study authors were careful to note that their findings were bound to the Bay State and that the rate of tree growth and decay, the types of trees available in a given region, and how the land was managed, among other environmental factors, would likely affect the life cycle of greenhouse gases and the promise of biomass plants elsewhere in the country.

"This study was for Massachusetts, and it's kind of unique to the biomass resource base in that state and its specific energy needs," said Ned Stowe, a policy associate on sustainable biomass and energy with the Environmental and Energy Study Institute. "There is a huge surplus of biomass available in the Southeast," he said. Out West, he cautioned, "you might have millions of acres of beetle-killed pine trees that represent a fire hazard. In those contexts, states should follow their own analysis of their resource space."

Though Cleaves blasted the Massachusetts action and has taken issue with some of the underlying assumptions in the Manomet study, as well as those of a recent Environmental Working Group report on the national impacts of biomass plants on forestry and emissions, he said he remains unconcerned about how the state's efforts may affect the national conversation on biomass.

"Our view of the situation in Massachusetts and how it affects the federal debate is that the situation in Massachusetts has been percolating for the better part of a year or two, and during that time period, we've had both House and Senate renewable energy legislation that has come out and treated biomass quite favorably and promoted biomass," he said. "I don't see that stopping."