

11/10/09

Ms. Debra A. Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 Fruit Street, Suite 10
Concord, New Hampshire 03301



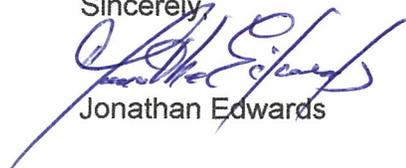
Re: Docket No. DE 09-067, Complaint of Clean Power Development, LLC
Against Public Service of New Hampshire

Dear Secretary Howland:

Least cost pertains to a legal obligation PSNH has in my opinion as a rate payer. The breadth of issues raised by petitioners for intervention has created the potential for a much broader spectrum of issues because they are very much related to the least cost obligation. Issues such as siting, environmental, economic development, fuel availability, forestry practices, public health and welfare are matters that impact least cost.

For the very purpose of the 2025 initiative, why wouldn't these issues be taken up before the PUC in whole to evaluate the entire picture and definition of the law as it pertains to least cost? How can one ignore important issues when evaluating the law pertinent to least cost?

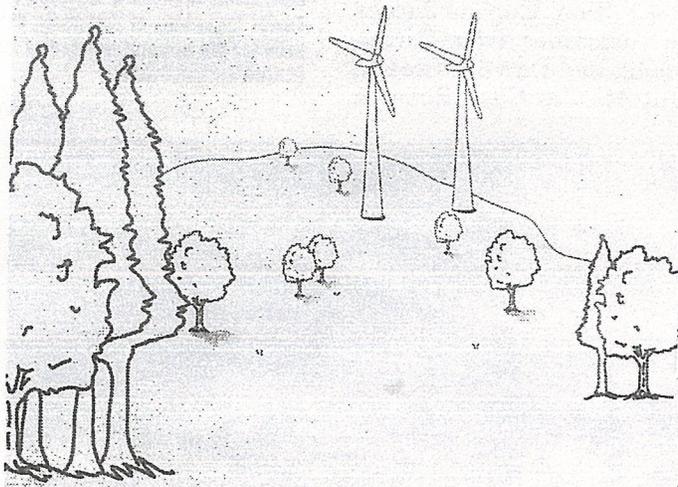
Sincerely,


Jonathan Edwards

cc: Service List, Docket No. DE 09-067

Jonathan Edwards
(property management)
P.O. Box 202
Berlin, NH 03570

Berlin Daily Sun Heliostation 9
11/11/2009



Does a PUC investigation fit within the definition
Of the word "Practicality"?

Take a look at this PSNH ad...

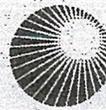
White space is akin to liquidation harvesting.

Review the quote: "By taking practical steps forward,
Like advancing wood and wind powered energy, we are
Preserving today's advantages while building a better
Tomorrow..."

Ask yourself this: Is PSNH really doing what they say they are doing?
Negotiating a rate sheet with a 66 MW plant in Berlin amidst wood
Studies showing sustainability issues seems to be an indication that
PSNH is thumbing its nose at the 2025 initiative, Clean Power,
Concord Steam, a city that's struggling (Berlin), the rate payer and
Forest sustainability.

PRACTICALITY CAN MAKE CLEANER ENERGY A REALITY

Practicality is finding the path to a cleaner energy future. PSNH is pursuing a wide range of solutions to make New Hampshire's energy goals reality. By taking practical steps forward, like advancing wood and wind powered energy, we are preserving today's advantages while building a better tomorrow. That's why PSNH partnered with Lindt & Sprungli to pilot using cocoa bean shells as a renewable fuel source.



**Public Service
of New Hampshire**

The Northeast Utilities System

Visit psnh.com to learn more about our clean energy efforts.

The Berlin Daily

WEDNESDAY, NOVEMBER 11, 2009

VOL. 18 NO. 137

BERLIN, N.H.

752-5858

Berlin tested as site for algae biofuel venture

BERLIN -- We generally think of algae as green slimy matter that invades our fish tanks and boats. But to a team of researchers in Berlin last week, algae is the next generation in biofuels that can help wean the United States from its dependence on foreign oil.

Furthermore, they hope to use wastewater from the city's treatment plant along with carbon dioxide and steam from Clean Power Development's proposed biomass plant to grow the algae here.

Bill Gabler, project manager for Clean Power, said he believes there is an oppor-

tunity to create something unique here in Berlin by taking a waste product and turning it into a valuable commodity.

"It's the right thing to do," he said.

Simply Green Biofuels of Portsmouth has an agreement to open a distribution center next to the Clean Power plant and to provide biofuel to power its equipment and back-up generation. Start-up burners, onsite equipment, and back-up building heat will all run on pure B100 biofuel. The company also hopes to supply biofuel to local logging trucks delivering to the site

see **ALGAE** page 7

ALGAE from page one
and back biofuel available to local distributors.

But the project that really has the two companies excited is a joint venture to develop a commercial pilot project to grow algae that can be converted into oil.

Simply Green President Andrew Kellar and field researcher Jonathan Spencer were in Berlin last Thursday with Gabler to take samples of wastewater from the city's sewer treatment plant to test. The trio met with the press and Berlin Mayor David Bertrand to discuss the project.

Kellar explained that a lot of research is being done on biofuels these days - some by the University of New Hampshire Biodiesel Group which they are working with on this project.

The location of the Clean Power plant near the city's treatment plant is ideal. The plan is to use the nutrient-rich waste water, carbon dioxide from the biomass plant's smoke stack as well as steam from the plant to grow algae in modular stacking containers.

Kellar said the most promising

technology removes the water from algae and then uses a catalytic depolymerization process to produce diesel fuel. Unlike other biofuels, the diesel produced by this process can run in ordinary engines without any conversion required.

Once the oil is removed, the left over algae can be burned as biomass although Gabler stressed Clean Power could not burn algae without going through the permitting process.

Compared to other biofuel sources, algae is very productive. Soy yields approximately 50 gallons per acre annually. In contrast, Kellar said algae can get up to 10,000 per acre annually.

The samples taken from the city's wastewater by Kellar and Spencer will be examined to see the strains of algae and to test the oils in the algae.

Gabler said if the project goes forward, it would require the purchase of additional land beyond the 11-acre site Clean Power is purchasing from the city. But he and Kellar estimated it would produce up to 25 additional jobs. It would also put the city in the forefront of the national push to develop renewable energy sources.

Mass. rethinking plans for wood-burning power plants

Opponents seek to place limits on emissions [Steve Liddane](#) Associated Press / November 8, 2009

[E-mail this article](#)

Text size - +

The Patrick administration is rethinking its support of wood-burning power plants, a key element of its long-term strategy to wean the state off fossil fuels.

COMMENTS

Wood, also known as biomass, has long been part of the state's portfolio of renewable energy sources, along with solar, wind, and geothermal.

But some environmental activists say biomass plants could lead to the clear cutting of forests while pumping more carbon dioxide into the air than coal plants, adding to global warming. That criticism has ramped up recently in Western Massachusetts.

The administration has already invested \$1 million to jump-start four proposed wood-burning plants in Russell, Greenfield, Springfield, and Pittsfield as it tries to meet the goal of producing 15 percent of the state's energy needs from renewable sources by 2020.

State Environmental Affairs Secretary Ian Bowles says the administration now wants more information about the possible negative effects of the wood-burning plants.

"Difficult questions about biomass have arisen in the past year," Bowles said. "We are asking those hard questions and asking them in a way that no other states have asked them."

Bowles said he wants more information about the greenhouse gases the plants emit and how they can be operated while also maintaining forests. Bowles is ordering a six-month study of the issue as the Department of Energy Resources develops new regulations for biomass facilities.

Biomass technology was included with solar and wind energy when the state developed its "renewable portfolio standard" in 2002. The portfolio requires utilities and other electricity suppliers to deliver an increasing percentage of renewable energy to their customers - a move designed to provide financial incentives for developers of green energy sources in Massachusetts.

But Meg Sheehan, an attorney based in Cambridge, calls biomass "a false solution to the climate change crisis."

"They are trying to convince the public that this is clean and green when it is neither," she said. "It is an incinerator that burns wood." Sheehan is pushing a ballot question that would severely restrict the amount of carbon dioxide the plants can emit. If supporters can gather enough signatures, the question would appear on the 2010 ballot.

Other opponents of wood-burning plants include Dr. James Wang, president of the Hampden District Medical Society. He released a letter last month saying the proposed biomass plant in Russell presents "an unacceptable threat to the health of the citizens of the Pioneer Valley."

Biomass plant owners say it's unfair to lump in wood-burning plants with coal-burning plants.

They argue that every megawatt of power produced by wood-burning plants replaces a megawatt produced by a coal plant. They also argue that unlike coal, trees left standing can absorb the carbon dioxide released when wood is burned. And the trees cut down for fuel can be replanted.

Bowles said the state is planning a public meeting in Western Massachusetts in late November to hear concerns about the biomass plants.

He said he expects the state to eventually approve stricter regulations on the plants.

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READER COMMENTS »

BRATTLEBORO -- Would burning wood on a large scale to produce electricity be a boon or a bane?

It depends on who you talk to.

On one side of the divide, proponents of biomass plants point to reducing our reliance on fossil fuels, taking advantage of a local fuel source, creating new jobs and reinvigorating the forest industries.

Those who oppose the burning of wood point to its low efficiency, air pollution, the exploitation of our forests for short-term gain.

"Big biomass plants are horrible," said Chris Matera, the founder of Massachusetts Forest Watch, which opposes a wood-to-electricity power plant in Greenfield, Mass. "They use massive amounts of wood to produce a small amount of electricity."

Burning wood for electricity is only 25 percent efficient.

Matera also believes that district heating systems, such as the one Brattleboro Thermal Utility is exploring, is not a solution to the country's energy needs, especially when it comes to global climate change.

The claim that burning wood is "carbon neutral" is "total nonsense," said Matera.

"Burning wood takes a few minutes but it can take 50 to 100 years for a tree to come back," he said.

Thus, burning wood adds carbon dioxide to the atmosphere faster than it can be reabsorbed.

But Adam Sherman, the program director of the Biomass Energy Resource Center in Montpelier said district heating systems and large-scale biomass-to-electricity projects shouldn't be lumped together.

"A big inefficient power plant -- that's scary," said Sherman.

While a 50-megawatt power plant, such as the one proposed for Greenfield, needs at least 500,000 tons of wood a year, a small thermal utility, such as the one proposed for Brattleboro, would use 12,000 to 16,000 tons a year.

District heating systems are "a very appropriate use of local forest resources at a much higher efficiency at a scale that is much more appropriate to certain communities," said Sherman.

In Vermont, 42 schools are heating with wood chips, including Brattleboro Union High School. Other locations include the Vermont State House and state offices, the government complex in Waterbury, the hospital in Newport and Middlebury College.

"In Vermont we have created a track record and a path forward on how we can utilize our precious forest resources," said Sherman.

But, added Sherman, any project needs to move forward "with the utmost care, scrutiny and due diligence on sustainability, availability and the reliability of the resource base. The amount of wood that can be sustainable is a very finite amount."

While Sherman and Matera disagree on some points, they both agree that burning wood for electric power generation is not sustainable.

Large-scale biomass plants would leave nothing for cordwood, pellets or woodchips, said Sherman.

"You've exhausted every single drop of sustainability at no more than 25-percent efficiency," he said. "But to say any kind of biomass use would trigger massive change is absurd." According to a wood fuel study conducted by BEREC, said Sherman, conservative estimates reveal there is up to 1 million tons of wood above and beyond the current yield that could be burned.

When burning biomass for any use, whether electric generation or heating and hot water, what really needs to be taken into account is the full cost of the impact on the environment, said James "Jae" Edmonds, the chief scientist for Pacific Northwest National Laboratory's Global Change Research Institute on the campus of the University of Maryland.

"Whether it's fossil fuels or chopping down the forest, carbon is carbon to the atmosphere," he said.

Biomass as a carbon-neutral fuel source is relative to land use practices, said Edmonds.

Web Site: http://www.reformer.com/localnews/ci_13673659 **Category:** Forestry>Biomass

EnergyRegion: Vermont **Ad Running:** 10/30/2009-11/29/2011 **Ad Posted:** 10/30/2009 8:12:03 PM **Ad Viewed:** 756 times