

Thinking Beyond the Box: Biomass proposal Needs More Scrutiny

By Tina Clarke

The proposed biomass plant for Greenfield's industrial park is a better way to generate electricity than a coal or nuclear power plant. However, a large biomass plant brings unnecessary problems and risks. Cheaper, better energy solutions are available. We would be wise to pause and ask several important questions before allowing a 47-megawatt incinerator in our back yard.

At first blush, the proposed plant seems like a wonderful solution to the monster crisis of global warming and climate instability. Yet, mortgage-backed securities also looked like a good thing. The deepening economic trauma resulting from excessive trust in private investor schemes reminds us to be skeptical about big, miracle proposals.

The best solutions to climate and energy problems are energy efficient technologies and safe, clean renewable energy sources. Replacing old appliances and technologies with high-efficiency, modern technologies lowers our energy bills as it reduces pollution.

Local government can lead the way in modernizing our energy technologies. High-efficiency street lights, stoplights and parking lot lights can reduce electricity needs by 65-80%, or more. State and local government can work to help residents and businesses make the transition to high-efficiency heating, cooling, refrigeration, lighting, computer and other technologies.

For example, every homeowner and local business should have access to cash rebates and no-interest loans to buy high-efficiency technologies – replacing outdated, inefficient appliances and equipment with energy-efficient models now available.

How far can we go with efficiency? How much money could government help residents and businesses save? In 2003 the Swiss Federal Institutes of Technology determined that it was possible for Europe to reduce energy needs by 80% by 2050 by replacing current technologies with more efficient ones. This is stunning information: Europeans use *half* as much energy, per person, as Americans do. Yet the engineers demonstrated that efficiency could reduce energy needs even more – to a fraction of the energy we use in the U.S.

Subsequent studies have shown that we are economically foolish *not* to improve our energy efficiency by at least 50%.

Then there is the question of clean energy. If we could replace the Mt. Tom coal-burning power plant in Holyoke, or Vermont Yankee nuclear power plant, with a sustainably-harvested, wood-burning biomass plant next door to my house, I'd vote for it. But that's not how energy politics work. A new, large biomass plant means not only adding to the air pollution burden in our Valley, but adding other toxins such as mercury. Even relatively small amounts of additional air pollutants add illness and injury: more asthma attacks, heart attacks and strokes.

In addition, the proposed plant will require truck deliveries of wood. Compared to the total lack of air pollution from a wind turbine, adding more diesel-spewing trucks to our community every day will increase illness, health care costs, lost work days and risk of death from respiratory damage.

There's another reason why the environmental community has been divided over biomass plants: incineration of toxins. It would be nice if biomass plants would only burn wood from respectfully-managed forests, not clear-cuts. But in tight economic times, why would a biomass incinerator company *buy* environmentally-safe wood when trash haulers will *pay* the incinerator to burn construction and demolition debris or other trash? State government has erroneously approved the burning of construction waste -- which can result in hazardous, cancer-causing toxins such as arsenic and dioxins being broadcast into our community environment. Current regulations might restrict the level of toxins now, but what about the future? Who's going to monitor the incinerator, at what taxpayer expense, to protect our health and children?

Creative Massachusetts state government programs to bring energy efficiency into every home, factory, organization and office start looking pretty attractive compared to adding an incinerator in our community. A few dozen wind turbines start to look pretty attractive.

For several years I served on the Renewable Energy Collaborative of the Pioneer Valley Planning Commission and the Franklin Regional Council of Government. I asked a state biomass expert, "What's the smallest size a biomass plant can be and still achieve the high combustion efficiencies of the large plants?" He replied, "10 megawatts."

My partner and I now have 5 kilowatts of electricity-producing solar panels on our roof. What if, in addition to a few dozen wind turbines to the west, and a campaign to improve our community's efficiency overall, 500 more homes and businesses and hospital rooftops could add photovoltaic panels? We'd be a long way to meeting our electricity needs ourselves, with minimal changes and no added pollution.

Given the enormous economic benefits of cleaner air, energy efficiency, cleaner forms of renewable energy such as wind, small hydro and other sources, we should be skeptical about allowing any incineration plant larger than 10 megawatts to be built in our community.

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