

Poultry-powered plants pollute more than coal?

Proposed plants in three N.C. counties could release toxic arsenic and lung-damaging fine particles, state officials estimate.

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The novelty of power plants that burn chicken droppings, mandated by North Carolina's new renewable-energy law, has given way to irony: They might be dirtier than the coal plants that environmentalists loathe. A Pennsylvania company, Fibrowatt LLC, plans to build plants powered by poultry litter, the birds' bedding material, in Montgomery, Surry and Sampson counties. Fibrowatt says the plants will give growers a new market for the tons of waste produced in one of the nation's biggest poultry states. But the plants might also release comparatively large amounts of toxic arsenic, lung-damaging fine particles and pollutants that form smog, according to preliminary state estimates and the company's one operating plant, in Minnesota.

Those emissions worry doctors in the mountains of Surry County, who fear their community's need for jobs will overshadow potential health risks. "They're telling our people there's no risk," said Elkin physician William Blackley. "All over the world people are trying to lower these emissions, and yet somebody is proposing to build a plant that will emit enormous amounts in our town, and they say it's not a problem."

Fibrowatt and other plants that burn organic wastes, called biomass, pose a larger question for North Carolina's energy future: Is air pollution an acceptable trade-off for plants that don't contribute to global warming? The Minnesota plant might emit more ozone-forming nitrogen oxides, carbon monoxide and particles per unit of energy than Duke Energy's controversial Cliffside coal-fired power plant, according to a comparison of their state permits. Cliffside, however, will release millions of tons a year of the greenhouse gas carbon dioxide, freeing the carbon that has been locked in coal for millennia. Fibrowatt says its plants will be carbon-neutral because they recycle carbon, an element already present in air, plants and soil.

Environmentalists challenge that claim, and are poised to pounce when the company applies for state air permits. "I've not been through any permitting process that was easy," said Fibrowatt vice president Terry Walmsley.

Arsenic emissions

Anticipating the plants, N.C. air officials modeled a hypothetical poultry-powered plant. The results showed emissions of arsenic, which is part of poultry feed, nearly three times the state standard. The results might be unreliable, state officials say, because they weren't based on a real plant. Arsenic also has a low standard because of its toxicity. Walmsley says Fibrowatt's Minnesota plant has had no arsenic problems. But he acknowledged a "challenging startup" with the plant, which opened in 2007.

Minnesota's Pollution Control Agency said it has pending legal action against Fibrowatt over its air emissions. The agency won't disclose details, but tests last year revealed high emissions of fine particles, which the federal government says increases the risks of heart and lung disease and premature death. Poultry-litter plants would likely emit more nitrogen oxide, carbon monoxide and particle pollution per megawatt than a coal-fired plant, said N.C. air-quality official Donald van der Vaart. Wood, a major part of poultry litter, burns less efficiently than coal. "But will they be able to comply with our rules?" he said. "Yeah, we think they will."

Walmsley said coal/poultry comparisons are unfair because of differences in the size and fuel of the plants. "This is a theoretical comparison. You can kind of jump to the wrong conclusions."

Comparisons may be inevitable as North Carolina expands its use of renewable sources such as the sun and wind. With the state's wealth of farms and forests, biomass is the most abundant and available of the alternative fuels. Biomass has good energy potential, said Michael Regan, an N.C.-based air-quality specialist with the advocacy group Environmental Defense Fund. But he said state regulators need to find ways to lower emissions of both greenhouse gases and pollutants.

Regan doesn't like Fibrowatt's approach, which he said doesn't use the most effective pollution controls. "If the proposed facilities look like the Minnesota facility, then we would have huge concerns," he said.

Concerns in Surry

In the mountains of Surry County, where unemployment has climbed above 13 percent even as vineyards and wineries transform the local economy, some people are worried about Fibrowatt. County leaders have already rezoned the plant site near Elkin and offered \$5 million in tax incentives. But critics say the officials are moving too fast and answering too few questions about the \$190 million plant.

Commissioners' Chairman Craig Hunter said county leaders have studied the plant for nearly three years, visiting the Minnesota plant and similar plants in England. Hunter says a "handful of anti-business activists" don't want to listen to the facts. "We have answered their questions very thoroughly and completely," he said by e-mail. "They did not like the answers from us and the numerous experts and they have chosen to wage a smear campaign using scare-tactic propaganda to further their cause."

Blackley, the Elkin physician, said he's never before taken a stand on an environmental issue. But company and county officials don't mention air pollution at public meetings, he said. After weeks of research, Blackley said he and seven colleagues are particularly worried about dioxins. The compounds form during combustion and may cause cancer and reproductive problems.

"We moved here 30 years ago because it was a safe, clean place, and that's being threatened," he said. "None of the people who are going to be breathing this air are going to be investors."

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