

Killing Two Birds with One Load of Manure

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Two important environmental issues have garnered a lot of attention in the last few years.

One is our power supply. Last August's blackout that shut down much of Ontario and much of northeastern U.S. clearly demonstrated the tenuous state of our supply of electricity. Now we hear Dalton McGuinty's government is wavering on its commitment to close pollutant-spewing, coal-powered hydro plants, because we simply don't have the power sources to replace their output.

Another issue is our vast over supply of agricultural animal waste. Let's calla cow-pie a cow-pie -- there is way too much manure out there.

According to a CBC Radio report, North America must deal with more than five million tons of farm manure every day. Ever-tightening regulations restricting the amount of manure that can be put on a specific area of land present a challenge to farmers and environmentalists are watching with -- appropriate vigilance ever since the Walkerton disaster.

Both of these issues are involved when we look at some experiments being carried out in at least two areas of the country. Scientists, environmentally-minded companies and farmers are working together to demonstrate biodigesters, also known as anaerobic digesters, in both Thunder Bay and Saskatchewan.

The idea seems simple: these devices process manure, producing methane gas -- which is then used as an energy source to make electricity -- and high-quality, safe fertilizer. It is suggested that many farm operations, outfitted with a digester, would produce enough electricity to power that farm and several dozen neighbouring homes. We already know that the technology is in operation which allows individual electricity generator plants -- windmills, for example --to be hooked in to the electric grid in a way that allows the operator to both take from and contribute to the electricity supply, as necessary.

The Thunder Bay project -- "Community EcoEnergy" -- involves EcoEnergy Corp., Thunder Bay Farmers Co-op and PASCOL Engineering. According to the EcoEnergy Web site, their anaerobic digester "will process animal manure and organic waste from a local dairy farm. When completed, the unit will process manure from 500 dairy cows and produce electricity (and) provide odour and pathogen control."

The company adds, "Our current design can handle waste from most agricultural operations, including dairy, beef, sow, chicken, turkey and horses, as well as municipal sewage waste."

In 2002, The Canadian Institute for Environmental Law and Policy released a study, Green Power Opportunities for Ontario, commissioned by Ontario Legislative Alternative Fuels Committee, the Toronto Renewable Energy Co-operative and the David Suzuki Foundation. It notes that the City of Toronto already operates "a plant to generate power by burning the gas from sewage digesters." The study adds that using "biogas" to generate electricity has "benefits which make utilization of this resource a high priority."

The Green Power study adds that "In 2001, the Ministry of Agriculture, Food and Rural Affairs estimated the potential for animal manure gas at 500MW, enough to power 160,000 homes." It warns though, that at the time the study was carried out, the costs of farm-based biodigesters seemed prohibitive.

The Thunder Bay project aims to solve that problem. EcoEnergy and other proponents of the concept, insist that biodigester operators can break even on their investment within a few years. Maybe so. But the other advantages -- just ask people who sat in the dark for days last summer, or the folks who live in Walkerton -- are so obvious that it seems apparent the provincial government, which is well aware of these developments, should be helping to fund the things right now. It's an opportunity for them to get their -- well, their unprocessed biodigester resource material -- together on two key environmental issues.

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