

Using Manure to Generate Electricity

01 March 2009 Janet McNeill

In working to make our world "cleaner and greener," qualities such as intelligence, innovation, boldness, persistence, common sense, ingenuity - and a regard for small rather than grandiose projects - are needed. Brothers Fritz and Paul Klaesi of Fepro Farms near Cobden have demonstrated all these qualities in spades.

I first learned about their unique operation in the CBC Fifth Estate episode "The Gospel of Green," and was fascinated to learn about this innovative project in our area. The day I visited the farm to chat with Paul Klaesi was the very one that their Hydro hook-up finally went "live" - so now Fepro farm is selling energy created on-site, to Hydro One.

The farm has 300 Holstein cattle, and what the Swiss-born brothers have done is create a manure digester and methane-powered generator to take the "poop" and turn it into enough energy to power 300 homes. Grease (not French fry oil) from grease traps in restaurants in Ottawa and Toronto is now also added to their energy mix.

The two brothers have been working on this innovative technology for 10 years now. The road to becoming an independent producer of electricity hasn't been smooth, exactly, but Paul Klaesi, who has a masters degree in high voltage application and a Swiss high voltage inspections degree, has always been confident of their project's soundness.

In chatting with Mr. Klaesi, I learned that, although the two brothers have had to face down daunting bureaucratic and regulatory mazes, they chose to persist and to navigate their way through these many challenges. Along the way, Paul helped co-found the AgriEnergy Producers' Association of Ontario, a group for farmers involved in producing energy. Cooperation among APAO members has helped streamline the process of having farms connect to the Hydro grid. In future, farmers who set out to do what's been done at Fepro Farms will find inter-connection issues considerably more straightforward.

The Klaesi brothers have had quite a bit of support along the way from OMAFRA - the Ontario Ministry of Agriculture, Food and Rural Affairs. In 2007, they won a Premier's Award for Agri-Food Innovation Excellence - including a \$50,000 cash prize. Clearly, their efforts have been noticed and supported in "high places."

When I asked Paul Klaesi why he thinks there is so much more energy-related innovation in Europe than in Canada, he replied that in North America there seems to be an obsession with bigness. Europeans seem more inclined to recognize the power of many small things adding up incrementally to a large contribution. He cited the presence of solar panels on barn roofs in Switzerland and Germany, and the fact that many homes in Germany have solar panels on their roofs. He's a big believer that smallness rather than bigness is what's needed, and he also believes firmly that dealing properly with energy "streams" such as manure and grease is a necessity.

The AgriEnergy group is a member of the Ontario Sustainable Energy Association (OSEA), a group that supports Ontario's Green Energy Act.

Asked to give advice to would-be innovators, Paul Klaesi is liable to say, "Just take the plunge."

Ralph Waldo Emerson said, "Do not follow where the path may lead...go instead where there is no path, and leave a trail." The Klaesi brothers are definitely local trailblazers!

You can watch a video about the Klaesi farm at <http://tiny.cc/Aghoi>.

On April 23rd, ORI will be cooperating with the Marguerite Centre in a public showing of "The Gospel of Green" in Pembroke. For more information, contact Amber at (613) 732-9925 or amber@margueritecentre.com

Janet McNeill is a member of the Ottawa River Institute, a non-profit, charitable organization based in the Upper Ottawa Valley. ORI is supported by the Ontario Trillium Foundation, local donors and volunteers. This article is 15th in a series on energy innovators in the Ottawa Valley. Previous articles in the series can be found on the Ottawa River Institute Web site