



Agrienergy Producers' Association of Ontario

Agrienergy News

December 2011

In This Newsletter:

Feature of the Month 2

APAO News 3

Government & Reports 7

Biogas News 9

Programs, Events and
Funding 11

Support Biogas in Ontario, Become an APAO Member!



Agrienergy Producers' Association of Ontario

Ferme Geranik

In St-Albert Ontario, you will find Ferme Geranik, a first-generation farm started by Gérald and his wife, Anne-Marie Benoît. The Benoîts bought the farm in May 1977, and hope to one day pass it on to their two sons Jasmin and Christian. Ferme Geranik has 250 heads of Holstein cattle, 135 of which are dairy cows as well as 480 acres of soy, corn, hay and 80 acres of cashcrop. Ferme Geranik is also part of a cheese co-op, which produces a variety of local cheeses from the farm's dairy.

Wanting to diversify their farm, the Benoîts knew that having an anaerobic digester (AD) would allow them to generate a second income without having to expand their operation. "It was also about converting farm organic waste into two other usable products: fertilizer and energy," said Gérald Benoît. In fact, 5,000 tonnes of manure and 5,000 tonnes of organic waste per year are diverted from the landfill and converted into energy and digestate at Ferme Geranik. It also allows the Benoîts to save on energy costs for their farm.

"When installing a biogas system, you need to ask a lot of questions! Inform yourself, visit a lot of farms and be patient, because it takes time," said Gérald Benoît when asked about how the family proceeded to incorporate a biogas system. With the help and guidance of CH-Four Biogas, construction began on the farm's AD in April 2009. Ferme Geranik's AD started producing biogas and heating a few of the farm's buildings, but it wasn't until this past September when they connected to the Hydro One grid that the Benoîts were able to start generating a second revenue. This allowed the Benoîts to employ a new farm employee to help with farming duties, as well as reduce the cost of energy, as they are currently sending 5,000 to 6,000 kW per day to the grid. Ferme Geranik's 1,000 m³ AD is connected to a 2G generator of 374 kW (electrical) and 500 kW (thermal). To maximize production, the Benoîts installed and connected a hydrolyzer to the AD this past fall.



The hydrolyzer allows the organic waste consisting of manure and fats, oils and grease from local restaurants, to pre-decompose before transferring to the AD. This allows for an improved digestion process, therefore producing more biogas. Once this new system will be fully functional, the Benoîts expect to reach full capacity of power production, approximately 8,000 kW per day. In addition to the electricity, heat produced by the generator is used to heat the hydrolyzer, AD, and the farm's buildings including the hot water supply. The Benoîts apply the highly nutritive liquid portion of the digestate to the farm's fields. Having overcome the challenges of certain unexpected occurrences in construction; reserving a place on the grid; and connection to the grid, the Benoîts are happy to have their digester running since it is providing greater security for the farm's future, as they hope to pass it on to their sons.



Agrienergy Producers' Association of Ontario

APAO News

TSSA Update

The Technical Standards and Safety Authority (TSSA) administers the Technical Standards & Safety Act 2000 in Ontario, providing fuel-related safety services associated with the safe transportation, storage, handling and use of hydrocarbon fuels (such as gasoline, diesel, propane and natural gas). Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. TSSA held an open meeting in early December to give an update on digester gas, the procedures for applying for approvals and future developments with respect to codes and standards.

Out of this meeting it was noted that in mid 2012, the TSSA will begin to inspect whole biogas systems, and not just combined heat and power generators as they have done in the past. Code B149.6-11 will be modified to suit biogas plants and an advisory committee has been formed to assist this process. Effective since August 2011, [new application forms](#) (including for Approval of Digester Gas, Biogas, and Landfill Gas Installations) are required to be filled prior construction of AD plants. New rules include:

- Above ground gas lines need to be 316 SS
- Flat and raised flanges cannot be mixed
- Flares need a separate gas supply for pilot ignition with approved fail-safe devices

APAO Submits FIT Program Review

The past few months have been all consuming preparing for the Feed-in Tariff Two Year Review. APAO called upon its members for input to propose solutions to the government that will help grow and sustain the biogas industry in Ontario. Topics including grid connection, contracts, reasonable pricing, Renewable Energy Approval and a government wide biogas strategy formed key topics of our submission. A copy of the APAO FIT Review submission [is available here](#) and through our website.

APAO also prepared a report that addresses the potential for growth of the biogas industry to give context to the opportunities that can be realized here in Ontario. At this time, we would like to thank everyone for their contributions, participation in our surveys and questionnaires that in the end supported this important initiative, and especially the Board of Directors for all their time, calculations and input. Your direct involvement has helped to increase awareness for biogas and make APAO's voice stronger. APAO will continue to be active in this period of review and await the expected launch of a new program in the first quarter of 2012.



Agrienergy Producers' Association of Ontario

Thought Leader Forum: Ontario as a Green Energy Hub

APAO participated in a half-day meeting attended by multiple renewable energy leaders to share perspectives around renewable energy policy in Ontario. The discussion and debated points were focused on the current Green Energy Act (GEA), its goals, measures of success and improvements and the future for the GEA in Ontario moving forward.

OEB Intervenor Status – Renewable Natural Gas (RNG) Application

APAO continues its work as an intervenor on the joint Enbridge and Union Gas applications for Renewable Natural Gas (RNG) to the Ontario Energy Board. Materials continue to be reviewed and key stakeholders contacted to prepare for the hearing process. APAO supports the development of RNG given the right framework as it has the potential to open up greater possibilities for biogas development in Ontario.

Biogas Education – Webinars and Events

APAO will be hosting two webinars on January 20 and 26, 2012 introducing biogas, recent developments and opportunities. To find out more details, visit www.apao.ca Register soon and pass along to your networks!

APAO's Annual General Meeting

APAO's annual meeting will be held on March 6, 2012 in London, Ontario coincident with GTM/Biogas conferences. Here's your opportunity to network, gain new perspectives, see our growth potential and profile your business through sponsorship of your member association. Contact us today!

Innovation Forum

The Innovation Forum is scheduled for March 7, 2012. It is an invitation-only stakeholder workshop designed to explore new markets for biogas, and will examine opportunities for biogas for injection into the natural gas grid, as a transportation fuel, and for stationary heating. Funding is provided by OMAFRA.



Agrienergy Producers' Association of Ontario

APAO News

APAO Nominations for Board of Directors

Do you want to help grow the biogas industry in Ontario? APAO wants to hear from you! We are currently taking nominations for new Board members for the 2012 Board of Directors. We rely on the input and advice of our Board for evaluating and setting priorities, reaching out to new members, and meeting with governments and agencies to ensure our voice is heard. If you have an interest, or know of someone in the biogas industry that will add value to your leadership team, please forward nominations to exec_coord@apao.ca

Note that representation from the following membership categories are available: owners/operators of biogas systems, banks/financial institutions, and technology suppliers.

Growing the Margins and Biogas Conference

APAO staff is assisting in the development of the conference agenda, and the selection of abstracts and guest speakers. Look forward to another valuable conference this coming year and mark your calendar for March 5, 6, 2012!

New Member

APAO is pleased to welcome the Martin Zimmer of Earth Concerns Environmental Contracting Inc. as a new member!

APAO is on Twitter, Facebook and LinkedIn! Participate with the biogas community online!



Twitter - Connect with us on Twitter and follow up-to-date news and views from the Ontario biogas industry and beyond!



Facebook - Join the APAO Facebook community to connect with other members and stay informed about upcoming events.



LinkedIn - Join the APAO LinkedIn group to connect with other members and participate in relevant industry discussions. Please feel free to use this group to ask questions and express concerns related to the Ontario Biogas industry.



Agrienergy Producers' Association of Ontario

Dear APAO Members,

This fast-paced, action-packed year has provided us with the confidence and drive to lead the biogas sector in Ontario to new heights in 2012. Throughout the year, APAO increased the profile of biogas in Ontario through events, tours and workshops, and with our new website and videos. There is now a much greater understanding of the benefits of biogas, although more work lies ahead. With input from our members, we led significant efforts to improve biogas policy and regulation with REA, FIT and Hydro One. With your continued support, we will build on the achievements the APAO gained in 2011 and help realize the full potential for biogas in the future.

From everyone at the APAO, we wish you and your family a happy and safe holiday!





Agrienergy Producers' Association of Ontario

Government and Biogas Reports

Ontario Premier Names New Secretary of the Cabinet

December 5, 2011

Effective since December 12, Fareed Amin became the new Deputy Minister of Agriculture, Food and Rural Affairs, as John Burke left the ministry for his early retirement. Amin will conclude the first scheduled review of the clean energy FIT program on behalf of the Ministry of Energy. [More...](#)

City of Toronto – Request for Expression of Interest (REOI)

The City of Toronto is inviting interested parties to comment on two related upcoming city initiatives for the City's Green Lane Landfill, located in Southwold Township: (1) to sell LFG for purposes other than the generation of electricity for sale to the OPA, and (2) to lease Buffer Lands to companies for the purpose of establishing new businesses in the waste management or agricultural-related sectors. The initiatives are related because the availability of the LFG may increase the viability of the Buffer Land as a new business location.

The REOI invites potentially interested parties to:

1. identify themselves and describe the scope and scale of their businesses;
2. describe the nature of their interest in the initiatives, i.e. purchasing LFG and/or leasing Buffer Land;
3. (for interest in purchasing the LFG) describe the nature and commercial status of technologies which may be proposed to utilize the LFG;
4. (for interest in leasing Buffer Land, with or without LFG) describe nature of the proposed business and site development to be undertaken on the Buffer Land;
5. comment on appropriate commercial terms for a LFG purchase agreement; and
6. provide suggestions for the information that would need to be included in a future RFP/RFQ for these initiatives.

For more information, please consult the City of Toronto's website for the Call document #9150-11-3271 found under Engineering Services, on this page <https://wx.toronto.ca/inter/pmmd/calls.nsf/professional?OpenView&Start=1>



Agrienergy Producers' Association of Ontario

B.C. Ministry of Agriculture announced significant new upgrades to the Environmental Farm Plan (EFP) and Beneficial Management Practices (BMP) Programs for the 2012 funding year

B.C. Agriculture Research and Development Corporation – December 5, 2011

The ARDCorp, B.C. Ministry of Agriculture, and Agriculture and Agri-Food Canada are removing barriers to encourage farmers to take advantage of the Environmental Farm Plan Program. The main upgrades include: applying for funding months sooner than in previous years; gain access to more funds per project; pool efforts with neighbouring producers with similar projects while preserving the ability to individually access the full cost of shared funding. [More...](#) For more on the BMP program, please [click here](#).

Upgrading Transmission System Creates Over 100 Jobs

Ontario Ministry of Energy – December 13, 2011

As Ontario embarks on upgrading its electricity transmission system, 115 construction jobs will be created in renewing and rebuilding over 80% of the province's aging electricity infrastructure. These upgrades will make it easier to connect more clean energy projects and as part of this Hydro One will upgrade five major transformer stations. [More...](#)

Comments requested on ALR on-farm energy creation (B.C.)

B.C. Ministry of Agriculture – December 20, 2011

The Ministry of Agriculture is inviting British Columbians to contribute to the development of two bylaw standards related to the creation of on-farm energy. One by-law standard will cover anaerobic digestion on farms in the Agricultural Land Reserve (ALR) and the other will cover combined heat and power co-generation in green houses in the ALR. [More...](#)

British Columbia – On-Farm Anaerobic Digestions Benchmark Study

Prepared for the B.C. Agricultural Research and Development Corporation – December 2011

By CH-Four Biogas Inc.

The British Columbia (B.C.) Anaerobic Digestion Benchmark Study evaluates the feasibility of developing on-farm anaerobic digestion (AD) systems at 12 agricultural sites. These sites were chosen to be representative of a broad demographic of B.C.'s agriculture sector. Using information from these sites, this study modeled specifications and parameters to determine the capital and operational costs for AD system development and operation. This included determining necessary energy tariffs and funding amounts to achieve economic viability using the sale of electricity or biomethane as the primary revenue source. [More...](#) (for a copy of the 12 site feasibility studies, please [click here](#))



Agrienergy Producers' Association of Ontario

Marbek NGV Final Report (April 2010)

Presented to Fuels Policy and Programs division of Natural Resources Canada

Marbek's report assesses the potential use of natural gas (biogas) as an alternative fuel across the transportation sector. The report includes a history of key Canadian (federal and provincial) and international programs, trends, environmental impacts and financial analysis and implications. [More...](#)

Biogas News

Anaerobic Digestion: Delivering Growth (U.K.)

Global Bioenergy News – December 1, 2011

As the U.K. announced a slowing rate of economic growth near the end of November, the Anaerobic Digestions and Biogas Association stepped in to discuss why supporting the AD industry would offer the government in driving economic growth and employment. [More...](#)

OSEA's Municipal Green Energy Resources

Ontario Sustainable Energy Association – December 4, 2011

OSEA has launched an online site to help municipalities obtain factual information about their powers and responsibilities in regards to renewable energy development. The site includes useful information on what municipalities need to do to start; the process; and provides examples on what has been working. [More...](#)

Natural gas for transportation roadmap launched

Canadian Natural Gas Vehicle Alliance – December 9, 2011

The Canadian trucking, oil and gas, manufacturing and transportation industries met with government representatives during a facilitated meeting by Natural Resources Canada to launch the implementation of a roadmap that will guide market development for natural gas as a transportation fuel in Canada. [More...](#)



Agrienergy Producers' Association of Ontario

We must stand together for green energy

Ontario Federation of Agriculture – December 16, 2011

By Mark Wales

In response to the discussion generated by the OFA's December 5 post, Wales reiterates the importance of supporting green energy so that farmers can have greater opportunities as consumers of energy and to protect the health and well being of rural Ontario. Wales provides a short history of the Green Energy Act and the OFA's stance regarding renewable energy. [More...](#)

Renewable Natural Gas To The Natural Gas Pipeline – The Basics

BioCycle – December 2011

By Dr. Diane L. Saber

Saber describes in detail how local gas distribution and transmission pipeline companies are increasingly adopting renewable natural gas (RNG) and from start to finish, how the process occurs. [More...](#)

Bullfrog Power Becomes One of Canada's First Certified B Corporations

Utility Products Magazine – December 14, 2011

Bullfrog Power received certification as one of Canada's Founding B Corporations by B Lab- a non-profit, which supports socially and environmentally conscious businesses. [More...](#)

GTM/Canadian Farm and Food Biogas Conferences Program and Online Registration

GTM/Biogas Conference

Preliminary programs and online registration is now available for the March 5-6 conferences in London, Ontario. [More...](#)

ThermoEnergy ARP Technology: Test Results Demonstrate Cost-Effective Recovery of Ammonia from Wastewater in Agricultural Biogas Production

ThermoEnergy Corporation – December 19, 2011

ThermoEnergy Corp., announced it successfully completed field and laboratory tests to prove its Thermo ARP (Ammonia Recovery Process) system can efficiently recycle wastewater from agricultural AD/biogas plants into fertilizer and chemicals. The tests were carried out on behalf of major U.S. biogas developers. [More...](#)



Agrienergy Producers' Association of Ontario

Farming the benefits of biogas at Ledgecroft

AgriNews – December 2011

In this article, Glenn Green is interviewed on Ledgecroft Farms' anaerobic digester and the benefits the farm has reaped from it. Detailing a long process by which the Green family undertook, with perseverance the Green's are happy with the opportunities the AD has brought to the farm, and are investigating a second FIT contract. [More...](#)

Programs, Events and Funding

CEPP Funding Available for Biogas Projects

The Community Energy Partnerships Program is continuing to accept applications for grants available for biogas/biomass/landfill gas projects, offering either \$75,000 or \$200,000 for 10.1-500 kW and 501-10,000 kW projects, respectively. An exception exists for applicants who fall under the "corporate co-operatives" category, who may apply for up to \$500,000 of project soft costs associated with the development of renewable energy projects over 10 MW. For more information on the grant's overview, eligibility, funded activities, rules and application, please [click here](#).

Walmart - Evergreen Grants

Application deadline: January 31, 2012

Walmart and Evergreen have come together to offer a national program to fund community-based initiatives such as (but not limited to): Environmental workshops and educational events; Community skills sharing workshops; and Aquatic stewardship projects. Funding of up to \$10,000 may be offered. [More...](#)

FCM's Green Municipal Fund

Federation of Canadian Municipalities

New funding applications are now being accepted for capital projects in the energy, transportation, waste and water sectors, as well as for plans, feasibility studies and field tests. [More...](#)



Agrienergy Producers' Association of Ontario

OSEA FIT Webinar Series: The straight facts on Hydro One connection issues

January 12, 2012 at 10am

Online

Ian Mondrow, partner and lawyer at Gowlings, will share his expertise on Hydro One practices during this webinar to help participants move their project forward. Problems connecting their project in regards to cost estimate inflation, misidentifying connection work and other issues will be discussed. Participants will have the opportunity to share their own cases, ask questions, and contribute to OSEA's strategy for next steps including briefing the Minister of Energy and other collective actions. [More...](#)

1st Philippine International BioEnergy Conference

January 12-13, 2012

Manila, Philippines

Participants from farming, plant producer, investment, financing and academic groups will have the opportunity to discuss:

- A best practice approach to biofuels and biomass
- Opportunities and challenges
- Critical aspects of the Philippine bioenergy industry
- Investment in the Philippine bioenergy industry [More...](#)

Introduction to Biogas – APAO Webinar

January 19, 2012

Online

APAO will be holding a webinar on January 19, from 12:00-1:30PM, at no cost, to provide participants with information on whether biogas would be a good fit for their farming operation. Subjects to be discussed include:

- Introduction to biogas, the technology, and benefits
- Examples of working Ontario projects
- Financial overview and financing options
- What's stopping you? A look at a few considerations
 - Size matters
 - Connecting to the grid
 - Environmental approvals
 - Planning with safety in mind



Agrienergy Producers' Association of Ontario

- An overview of co-ops
- Time for questions and answers

Participants may [register here](#).

Biogas News and Opportunities - APAO Webinar

January 26, 2012

Online

APAO will be holding a webinar on Thursday, January 26 from 12:00-1:30PM, at no cost, to inform participants on biogas industry developments and help them plan for the future. The webinar will include:

- A short video introduction
- A biogas strategy for Ontario
 - How much energy can we get from biogas?
 - Role of municipalities, food processors
 - What the Ontario government is saying about biogas
- FIT price review
- Environmental approvals – process to streamline applications
- Grid connections update
- Time for questions and answers

Participants may [register here](#).

2012 Agri-energy Forum

January 26-27, 2011

Abbotsford, British Columbia

The annual Agri-Energy Forum will be held at the Pacific Agriculture Show in Abbotsford, B.C to discuss topics including anaerobic digestion, renewable energy support programs and project financing. [More...](#)

Renewable Energy Investment and Grid Development Strategy Conference

The Canadian Institute's Energy Group – January 30-31, 2012

Toronto

The Canadian Institute's Energy Group will be holding a conference on Renewable Energy Investment and Grid Development Strategy on January 30 to 31, to discuss:

- The latest policy and project updates concerning Ontario's green energy landscape
- Strategies to integrate the growing renewable energy supply into T & D grids – Understand how the



Agrienergy Producers' Association of Ontario

existing infrastructure will have to adapt

- How to secure financing for all stages of municipal, community and Aboriginal renewable energy projects
- First-hand, industry perspectives on successfully navigating Ontario's Feed-in-Tariff and project approval programs
- Effective stakeholder engagement strategies to increase public awareness and move projects forward efficiently
- Innovations in smart grids, energy storage and renewable generation technologies that will facilitate the success of our power system in the years to come.

[More...](#)

Growing the Margins & Canadian Farm and Food Biogas Conferences and Exhibitions

March 5-6, 2012

London, Ontario

The annual GTM and Biogas Conferences and Exhibitions will once again be held this year, following the success of their 2009 and 2010 conferences. The GTM will explore new technological, operating, policy, regulatory, financial and other challenges and opportunities facing farms and related industries while the Biogas Conference will provide information on new research and technologies, projects and programs including opportunities to use off-farm source organics. [More...](#)

APAO's Annual General Meeting

March 6, 2012

London, Ontario

Save the date for APAO's annual meeting to be held on March 6, 2012 in London, Ontario (coincident with GTM/Biogas conferences). This event will present a great opportunity to network, see our growth potential and profile your business through sponsorship of your member association. Contact us today for more information.

Seventh AgSTAR National Conference: Got manure? Enhancing Environmental and Economical Sustainability

March 27-29, 2012

Syracuse, New York

Registration is now open for the U.S. Environmental Protection Agency's AgSTAR annual conference, which



Agrienergy Producers' Association of Ontario

will take place in Syracuse, NY. AgSTAR is pleased to be co-hosting this year's conference with Cornell's PRO-DAIRY Program, the New York State Energy Research and Development Authority, and the U.S. Department of Agriculture - Natural Resources Conservation Service. The event will be held in conjunction with a trade show organized by PRO-DAIRY at the Holiday Inn Syracuse-Liverpool, New York, on March 27-28, 2012. The conference will include technical presentations on a variety of topics related to anaerobic digestion and expanded networking events. Also planned is a tour of local anaerobic digestion systems that will take place on Thursday, March 29. [More...](#)

NABEC-CSBE/SCGAB Annual General Meeting and Technical Conference

July 15-18, 2012

Lakehead University, Orillia, Ontario

The Northeast Agricultural and Biological Conference (NABEC) and the Canadian Society for Bioengineering (CSBE/SCGAB) will be holding a joint Ecological Engineering Conference and AGM on July 15. As part of the conference, half-day professional development workshops geared toward practicing professionals, government and industry representatives and students will be able to receive Professional Development credit from their engineering associations. Components of the workshops include: Biogas – Technical Approaches to Farm-Based Systems; Composting Facilities – Design Challenges and Solutions; Energy Crop Production; and Nanotechnology – Practical Solutions in Agriculture, Food and Biological Systems. [More...](#)