

Biomass Canada Cluster/AgroBioHeat Joint Virtual Webinar

Panel Discussion - Enabling Factors to Successfully Develop and Deploy a Bioenergy Project in Rural Communities

28 February 2022 | 17:00 -18:00 CET (Online)



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Cereal Farmer & Biomass Producer



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The AgroBioHeat project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 818369. BioMass Canada Cluster is led by the BioFuelNet Canada Network and funded in part by the Government of Canada under the Canadian Agricultural Partnership's AgriScience Program, a federal, provincial, territorial initiative, as well as industry partners.

Webinar Panelists



Olly Harrison, Cereal farmer and biomass producer, England

Olly has multiple farm enterprises ranging from crop production and stores to stables on his farm. He is currently using a 1MW biomass boiler to heat the farm and dry all the grain and wood fuel.



Adam Sherman, Senior Consultant, VEIC, USA

Adam has 18 years of experience in renewable thermal energy sector with a focus on advanced wood heating. His work focuses on wood energy program design and delivery for various state and federal government agencies and technical consulting services for assessing wood fuels and energy project feasibility. He serves on the boards of the Biomass Thermal Energy Council (BTEC) and the Alliance for Green Heat and also serves on the Editorial Board of Biomass Magazine.



Dr. John Gilliland, Director of Global Agriculture and Sustainability, Devenish/Appointed Professor of Practice in Agriculture and Sustainability by Queens University Belfast, Northern Ireland

For the last seven years, John has been Project Leader of the Devenish Lands at Dowth in Ireland, a ruminant and landscape research farm. In 2020, John bid, and secured a farmer led, EIP Innovation grant support, to accelerate seven N. Irish livestock farmers to Net Zero, in a project called ARC Zero. This project was selected as an exemplar and was recently showcased at COP26.

Motivation for organizing this webinar

- **Several farm operations require heat energy:** grain drying, space heating, machinery shops, animal production, and horticulture
 - Fossil fuels (coal, natural gas, propane, diesel) are still used as the primary energy sources for meeting this energy demand
- **Energy prices are increasing** due to the COVID pandemics, rising inflation, geopolitical tensions, the increasing global energy demand and governmental efforts to combat climate change. Examples:
 - Canada: introduction of federal carbon pricing
 - EU: huge increase of natural gas prices, introduction of carbon tax and possible extension of EU-ETS to additional sectors
- **Significant untapped biomass resources** are available in rural areas with a high potential for replacing fossil fuelled energy in a **cost-effective way**
- **Bioenergy is the leading renewable energy production and use in the EU and elsewhere**
- However, market uptake of bioenergy applications for farmers is restrained, often due to a lack of understanding of practical considerations

→ **This webinar aims to highlight enabling factors for bioenergy projects in rural communities through a panel discussion with project owners/developers**



Biomass Canada Cluster

- Established in 2018 and Led by the [BioFuelNet Canada Network](#) with the financial support from Agriculture and Agri-Food Canada's AgriScience Program
- **Overall objective:** Enhance the contribution of **Canadian agriculture** into the **growing Canadian bioeconomy** by **de-risking and commoditizing agricultural biomass** in all regions of Canada, while mitigating and adapting to a changing climate
- The cluster is comprised of **10 activities** with the aim of improving technologies for **producing, processing and distributing feedstocks from agricultural biomass** for low-carbon bioenergy, biofuels and other bio-based products.



The AgroBioHeat Project

- Funded by European Union's Horizon 2020 research and innovation programme under Grant Agreement No 818369
- Granting Authority: European Climate, Infrastructure and Environment Executive Agency (CINEA)
- Duration: 1 January 2019 – 30 June 2022
- Website: www.agrobioheat.eu
- Coordinator: Centre for Research and Technology Hellas (CERTH)

→ Overall aim: support European rural decarbonisation through market uptake of agrobiomass heating solutions

Visit us at: www.agrobioheat.eu  Agrobioheat  #AgroBioHeat  AgroBioHeat



Housekeeping

- The webinar is being recorded and a copy of the recording and slides will be posted on Biomass Canada website (<https://biomass.biofuelnet.ca/>) and AgroBioHeat project website (www.agrobioheat.eu)
- Please type your questions into the Q&A box. We will try to answer as many questions as possible.



Enabling Factors- Successful Development and Deployment of community bioenergy projects

- Project Organization
- Financing
- Biomass Supply, Quality and Pricing
- Public Support and Permitting



Enabling Factor: Project Organization

- **Impact of bioenergy end-use (e.g., grain drying, space heating, etc.) on the community/farm operations**
- **Expertise, expectations, communication and trust between project partners:**
 - **Bioenergy end users, biomass suppliers, contractors, technology providers, financial backers, government, etc.**
- **Decision on the equipment selection**
 - **Price, local availability, performance (emissions / efficiency), local O&M services, etc.**
- **Back-up plan for the bioenergy system**
 - **Natural gas / propane / heating oil fall-back solution needed?**

Enabling Factor: Financing

- **Share / Stake of each partner in the project**
- **Access to public financing (help de-risk the project)**
 - **Grants**
 - **Capital cost sharing**
 - **Incentives on the use of bioenergy (e.g., feed-in tariff)**
- **Access to debt and private financing (improve the monitoring of the success of the project)**



Enabling Factor: Biomass Supply, Quality and Pricing

- **Biomass supply security**
 - **One vs. multiple biomass feedstock?**
 - **Competing uses in the region**
- **Biomass quality**
 - **Is there a deep understanding of biomass quality parameters and their level of variability?**
- **Biomass sourcing & pricing mechanisms**
 - **Own supply?**
 - **Buy-in of biomass suppliers**
 - **Off-take agreement with the bioenergy end users**
 - **Linking biomass prices with fossil fuel price indexes?**

Enabling Factor: Public Support and Permitting

- **Administrative processes (siting, permitting, commissioning) and attracting support from public officials**
- **Understanding of local / regional air emissions regulations**
- **General public acceptance and support**