



Anaerobic digestion is a promising technology for processing organic residuals generated both on and off farm.

## ANAEROBIC DIGESTION REGULATORY SCOPING AND RESEARCH

**Client:** British Columbia Ministry of Environment

Anaerobic digestion is a means of processing organic residuals that reduces waste volume, allows for energy production, and is suited to management of farm wastes such as manure as well as municipal organic residuals like food wastes.

While anaerobic digestion is growing in popularity in many other parts of the world, it is still uncommon in British Columbia (BC) in part due to uncertainties in environmental permitting requirements for new anaerobic digestion facilities. Given the potential environmental benefits of reduced waste volumes, increased nutrient management, and energy capture from anaerobic digestion, the BC Ministry of Environment was seeking information as the foundation for development of a regulatory framework for anaerobic digestion systems. The Ministry was especially interested in the nexus of agricultural and urban industrial waste management, as co-digestion of on- and off-farm wastes could improve project economics and lead to wider adoption.

SYLVIS reviewed existing environmental permitting regulations for anaerobic digestion systems in a variety of jurisdictions across Canada, the United States and the European Union, with specific attention to streamlined processes for the regulation of on-farm systems processing limited off-farm waste. SYLVIS then summarized the main themes of these regulations including specific rules for process requirements and re-use of the resulting nutrient-rich digestate. The summary also cross-compared local gas and electricity prices in each jurisdiction to investigate economic drivers.

SYLVIS also contacted anaerobic digestion project proponents for on- and off-farm anaerobic digestion systems in BC to gauge the benefits and barriers for anaerobic digestion.

SYLVIS synthesized the information gathered and prepared a summary document providing recommendations for regulation of anaerobic digestion in BC. This information provided the background required for the Ministry of Environment to move forward in development of a regulatory framework for anaerobic digestion.

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