Greenhouse heating in Canada from Biogas

Over 60% of Ontario's greenhouses are located on the Southern Ontario shores of Lake Erie representing the largest concentration of greenhouses in North America. Seacliff Energy has built a $6.5 million two-stage Anaerobic Digestion facility to treat vegetable and animal waste from local farms and greenhouses to produce heat, electricity and natural fertilizer. Seacliff COLLECTS this waste from nearby farms and greenhouses, generating enough biogas to fuel a power plant.

This plant uses two gas generator sets as part of a combined heat and power solution that meets the need for heat in the greenhouse nurseries involved. Excess heat is pumped to neighbouring greenhouses, while all electricity generated by the plant is sold to the Ontario Power grid. The facility can currently process up to 40,000 metric tons of organic waste per year, set to increase to 100,000 metric tons in phase II.

The facility provides multiple benefits to nearby greenhouses and farms, food processing plants and local residents. Seacliff charges lower fees for local food processing plants to dispose of their organic waste, which reduces food costs and the need to expand nearby landfills. Digestate, a natural fertilizer, can be used by local corn farms.

By using renewable biogas, it will decrease dependence on fossil fuels while reducing emissions of carbon dioxide by about 10,400 tonnes per year. See video on: www.seacliffenergy.com