



2013 AWARDS FOR ENGINEERING EXCELLENCE

Award of Merit Harvest Energy Garden



Consultant

Opus DaytonKnight Consultants Ltd.

Owner/Client

Harvest Power Inc.

Category

Municipal

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The Harvest Energy Garden, in Richmond, BC, uses an innovative High-Solids Anaerobic Digestion (HSAD) technology to process solid organic waste material into biogas and high quality compost. The Harvest Energy Garden is the first facility of this kind in North America.

The HSAD technology was developed in Germany by Grossmann Ingenieur Consult GmbH (GICON) and the technology has been tested and commercialized in Germany. This technology is new and transformative due to its ability to accept high solids organic material such as mixed food and yard waste, and produce high quality biogas in the range of 70 – 85% methane.

Owned and operated by Harvest Power Canada Ltd., the Harvest Energy Garden is located at the Fraser Richmond Soil & Fibre composting operation in Richmond. Commissioning started on schedule in November 2012, with full operation by April 2013.

Opus DaytonKnight worked with GICON and Harvest Power since late 2009 to deliver the project through design, construction and commissioning. At design capacity, the facility will process approximately 30,000 tonnes of mixed food and yard waste annually, and will generate over 8.0 million kWh of renewable, GHG neutral, electrical energy for sale to BC Hydro.

The economic, social and environmental benefits of the Harvest Energy Garden are enormous. The facility will contribute to reduced carbon emissions of approximately 23,000 tonnes of CO₂ equivalent annually, while generating reusable products and renewable energy for local markets. With the opening of this facility, food and yard waste will no longer be “waste”.