

# Region of Waterloo Waterloo, Ontario, Canada

**avus 800c**  
Biogas

## Fast Facts:

**Location:** Waterloo, Ontario

**Generating Capacity:** 800 kW

**Configuration:** Container Module



## About the Site:

The site of the Region of Waterloo cogeneration project has been used as a Waste Water Treatment Plant for many years. It is estimated that the anaerobic digesters at the existing WWTP produce 4,000 to 7,000 cubic metres (m<sup>3</sup>) of biogas daily. Historically, the biogas was used for sludge heating by burning the biogas in dual-fired boilers (biogas/ fuel oil). The Region of Waterloo Official Plan indicates that the Region will optimize all operations at their existing WWTPs. As well, the Official Plan promotes alternative/renewable energy systems in appropriate locations and it states that the Region will use energy conservation techniques in Regional facilities where ever feasible.

## Application

The electrical power produced is consumed within the WWTP, thereby offsetting power purchases to operate the plant. The heat produced by the engine is used to heat incoming sludge to the digesters and heat the digester buildings when required (mainly in the winter months). 2G Energy also provided a SCR system for emission control, natural gas blending equipment, and jacket and heat exhaust recovery systems. Due to the containerized approach there was no significant materials or waste generated during construction. The containerized approach also had no problem meeting the design condition of overall sound pressure level of 65 dB(A) measure at 10 meters from the CHP Unit.



2G Energy Inc.  
[www.2g-energy.com](http://www.2g-energy.com)  
[sales.us@2-g.com](mailto:sales.us@2-g.com)