

**DRAFT ODOUR REPORT**  
**TORONTO HYDRO ENERGY SERVICES INC.**  
**ASHBRIDGES BAY BIOGAS COGENERATION PLANT**

Toronto Hydro Energy Services Inc. (TH Energy) is proposing to construct and operate a Biogas Cogeneration Plant located at 7 Leslie St., Toronto, Ontario, which is adjacent to the Ashbridges Bay Treatment Plant (ABTP). The Biogas Cogeneration Plant (Cogeneration Plant) is classified under O.Reg. 359/09 as a Biogas Facility, and will use biogas produced in existing digesters at the ABTP to generate electricity and thermal energy in the form of hot water. The Cogeneration Plant will generate electricity under the Ontario Power Authority's Feed-in-Tariff (FIT) Program. The thermal energy generated by the Cogeneration Plant will be sent to ABTP for process heating requirements.

The biogas is produced by anaerobic digestion of the biodegradable material in municipal sewage waste at the ABTP facility, and is comprised primarily of methane and carbon dioxide, with the remainder being nitrogen, oxygen and traces of volatile organic compounds and hydrogen sulphide. Currently, biogas from ABTP digesters is used to generate hot water and steam in ABTP site boilers.

Welded biogas pipes leading to the TH Energy Cogeneration Plant will be installed across a shared property line with the ABTP and remain within process piping and equipment until combustion in the engine generators and subsequent discharge to atmosphere. Biogas arriving at the site will pass through a treatment system, which may require periodic flaring to combust any odourous compounds, depending on the final equipment design. Therefore, there will be no fugitive odour emissions during typical operation of the Cogeneration Plant.

Odourous compounds within the biogas are trace concentrations of volatile organic compounds and hydrogen sulphide. Controlling these types of odours is typically accomplished through incineration or combustion, which will be achieved within the reciprocating engine generators and flare at the Cogeneration Plant. The exhaust gases from the engine generators will exit through separate stacks located 13.5 m above the roof and 23.5 m above grade to allow for proper dispersion of the exhaust gases. If required, a 3 m tall flare would be located east of the Cogeneration Plant building. Therefore, there are no odour emissions anticipated from the proposed TH Energy Biogas Cogeneration Plant.