

## Tour #1 - October 26<sup>th</sup> 12:30-19:15

Includes afternoon snack

Cost: \$65 (including HST)

Start and End of the tour: the bus will pick you up and drop you off at the London Convention Centre

This tour takes you to three different locations of electricity generation from renewable sources. You will visit and tour a 40 MW Wind Park, an 80 MW Solar Farm – for some time the largest in the world – and a 2.4 MW Landfill – to – Generation Project. For these visit you will be travelling by bus from London to Sarnia and back with stops along the way.

### 1. Suncor Energy Adelaide Wind Power Project

Suncor is committed to increasing renewable energy generation in Canada and building best-in-class wind energy projects.

The Adelaide Wind Power Project – located north of Strathroy, Ontario is a 40 MW project that consists of 18 Wind Turbines and includes meteorological towers, an electrical collection system, and a substation. It generates clean energy in compliance with a 20-year term Feed in Tariff (FIT) power purchase contract from the IESO (formally the Ontario Power Authority).



### 2. Enbridge Sarnia 80 MW Solar Farm

Enbridge's Sarnia Solar Farm is one of the largest photovoltaic generation facilities in Canada covering 1,100 acres with over 1.3 million solar panels. The site was commissioned in 2010. This tour will allow visitors to learn more about the operations of this 80 MW solar farm and environmental projects underway on the site. As the tour involves some walking, please wear appropriate closed toe shoes.



### 3. Waste Management/Bluewater Power Landfill-to-Energy Generation Project

This facility uses methane gas created from the natural decomposition of waste and supplies power to the provincial power grid. The power is being sold to the IESO (formerly the Ontario Power Authority) under a 20-year contract. Electricity generated at the new facility goes to the Ontario grid through Bluewater Power's distribution system.

The gas is collected through wells strategically placed throughout the landfill, and powers three large engines generating about 2.4 megawatts of electricity. The tour will include the engine room, control room and view of the high voltage room through glass doors.



## **Tour #2 – October 28<sup>th</sup> 12:30-16:00**

**Cost: \$35 (including HST)**

**Start and End of the tour: the bus will pick you up and drop you off at the London Convention Centre**

**This tour highlights two very attractive installations around London: the long-established Fanshawe Dam and hydroelectric generator and the ultra-modern WindEEE dome, a unique wind research and test facility.**

### **1. Fanshawe Dam**

This dam located on the eastern edge of London, Ontario. The crest of the dam is 625 metres long. It is 30.5 metres in height and drops the river surface 12 metres. Fanshawe Lake is the reservoir created by the dam. The hydroelectric generator of the Fanshawe Dam generates enough power to run 400 households.<sup>[1]</sup> It is one of three dams on the Thames River.



### **2. The Wind Engineering, Energy and Environment Research Institute (WindEEE)**

This facility was established in 2011 as a clear recognition of novel opportunities in wind research at Western related to the emergence of the world first three-dimensional testing chamber. The WindEEE Dome is the world's first hexagonal wind tunnel. Its large scale structure (25 meters diameter for the inner dome and 40 meters diameter for the outer return dome) allow for wind simulations over extended areas and complex terrain.

By manipulating the outflow and direction of fans the facility is capable of producing time-dependent, straight, sheared or swirl winds of variable directionality. Therefore a large variety of wind fields such as boundary layers, portions of hurricanes, tornados, downbursts, low level currents or gust fronts can be physically simulated.

