

# Durham York Energy Centre Demonstrated Performance\*



Next-generation boiler technology. The high-temperature and high-pressure design provides superior energy recovery that exceeds the Covanta EfW fleet average for 2014.

## Energy Recovery Efficiency - KWH/Tonne

**Covanta Fleet 2014: 744**

**DYEC Performance: 910**



The first EfW facility in North America to use three NO<sub>x</sub> control strategies (Very Low NO<sub>x</sub>, advanced infrared combustion controls and selective non-catalytic reduction (SNCR)). NO<sub>x</sub> performance is below the Environmental Compliance Approval (ECA) limit.

## NO<sub>x</sub> Emissions Performance mg/rm<sup>3</sup>

**ECA Emission Limit: 121**

**DYEC Performance: 115**



Substantial diversion of both ferrous and non-ferrous metals through advanced metal recovery systems to capture these valuable materials.

## DYEC Metal Recovery (tonnes)

**Ferrous: 2055**

**Non-Ferrous: 310**



Multiple test results that show dioxin and furan levels well below the allowable limit.

## PCDD/F Emissions Performance mg/rm<sup>3</sup>-TEQ

**ECA Emission Limit: 60**

**DYEC: 24.6**



A local workforce that has undergone extensive training and preparation enabling world class operations, evidenced by 1 hour of downtime during month-long operational acceptance testing period of 1,439 hours.

## Operation vs Downtime During Testing

**Hours of Operation: 1,439**

**Hours of Downtime: 1**



Residue testing that shows <0.8% unburned carbon, proving exceptional combustion of materials has occurred.

## Residue Test, % Unburned Carbon

**Test Requirement: <3%**

**DYEC Performance: <0.8%**

\*For Acceptance Testing period, except for metals recovery figures.

# Durham York Energy Centre Compliance Testing

A compliance test program was conducted at the Durham York Energy Centre (Facility) during the acceptance test period. ORTECH Consulting Inc. provided field sampling to meet requirements set forth in an approved compliance plan. A summary chart of the test results for comparison with emission limits outlined in Schedule C – Performance Requirements of the Environmental Compliance Approval (ECA) are presented below. Observations from this data including an assessment of continuous emissions monitoring system (CEM) data that is available on line since September are:

- The Ministry of Environment and Climate Change's emissions requirements are among the lowest in the world for an EfW facility, including the European Union Industrial Emission Directive (IED) standards.
- The advanced air pollution control system utilizing dry recirculation is achieving results below the emission limits for particulate, mercury, cadmium, lead, hydrogen chloride, sulfur dioxide, and dioxins / furans.

