

23. **FORM 4 PERFORMANCE GUARANTEES**

Facility Guarantee

These performance guarantees will be incorporated into the Project Agreement.

1. Construction Period Guarantee			
	Length of time from Notice to Proceed to Schedule Acceptance Date (days)		
2. Throughput Capacity Guarantee (140,000 tonnes per year)			
	HHV	<u>Tonnes per day</u>	
	11.0 MJ/kg		
	12.0 MJ/kg		
	13.0 MJ/kg *		
	14.0 MJ/kg		
	15.0 MJ/kg		
	* = Design waste HHV		
3. Electricity Production Guarantee* (Annual Average)			
*Not including the Future District Energy System component (See Part 9 to this form, below)			
	Throttle Conditions Proposed (Bar)		
	Throttle Conditions Proposed (°C)		
	Maximum Steam load (kg/hr)		
	<u>HHV</u>	Gross Electrical Output (kWh/tonne)	Net Electrical Output (kWh/tonne)
	11.0 MJ/kg		
	12.0 MJ/kg		
	13.0 MJ/kg		
	14.0 MJ/kg		
	15.0 MJ/kg		

4. Residue Quality and Quantity Guarantee:	
The Average monthly quality and quantity of Residue (to include bottom ash, fly ash, siftings, scrubber residue and all other process residue) from combustion of processible waste:	
	Unburned Combustible Matter (% dry weight – not exceed 3.0%)
	Total Residue (bottom and fly ash) excluding ferrous and other materials (tonne of residue/tonne of processible waste – not to exceed 30%)
	Percent Moisture in Bottom Ash Residue (tonne of residue/tonne of processible waste – not to exceed 25%)
5. Metals Recovery Guarantee (recovery efficiency test)	
	Measured as tonnes ferrous recovered/tonnes ferrous in residue pre-processing – expressed as a percentage
6. Other Material Recovery (Specify material; tonne of material recovered/tonne of material recoverable – expressed as %)	
	Material 1: Non-Ferrous
	Material 2:
	Material 3:
7. Guaranteed Facility Availability	
	the proportion of time the Incinerator Unit is available to process the Regions’ waste within a calendar year time period, expressed as a percentage (minimum requirement is 90% availability or 7,884 hours available in a year)

8. Guaranteed Maximum Emission Limits

Pollutant	Units	YD EFW Proposed Limits	Guaranteed Limit	Environmental Demerit Points
Exceed any Certificate of Approval Limit and Operator cannot receive any bonus payments for that year. Further violations will increase demerit points and demerit points for specific emissions are cumulative with CEM or Stack test demerits listed below. Operator can receive both a negative Performance Adjustment and MOE fines.				75
Continuous Emission Monitoring (CEM) Parameters				
Excludes exceedances during Normal Start-up and Shutdown conditions and Emergency Shutdowns				
Sulphur Dioxide (SO ₂) 24 hour geometric mean exceeds CEM guarantee	mg/Rm ³	35		10
Hydrogen Chloride (HCl) 24 hour arithmetic mean exceeds CEM guarantee	mg/Rm ³	9		10
Hydrogen Fluoride (HF) 24 hour arithmetic mean exceeds CEM guarantee	mg/Rm ³	0.9		10
Nitrogen Oxides (NO _x) 24 hour arithmetic mean exceeds CEM guarantee	mg/Rm ³	180		10
Carbon Monoxide (CO) 24 hour arithmetic mean exceeds CEM guarantee	mg/Rm ³	45		10
Stack Test Parameters				
Mercury (Hg) Stack Test result exceeds Emission Guarantee	µg/Rm ³	15		20
Cadmium (Cd) Stack Test result exceeds Emission Guarantee	µg/Rm ³	7		20
Cadmium + Thallium (Cd + Th) Stack Test result exceeds Emission Guarantee	µg/Rm ³	46		20
Lead (Pb) Stack Test result exceeds Emission Guarantee	µg/Rm ³	50		20
Sum of (As, Ni, Co, Pb, Cr, Cu, V, Mn, Sb) Stack Test result exceeds Emission Guarantee	µg/Rm ³	460		20

TO DESIGN, BUILD, OPERATE AND MAINTAIN AN ENERGY FROM WASTE FACILITY

APPENDICES, FORMS AND SCHEDULES

Dioxins Stack Test result exceeds Emission Guarantee	pg/Rm3	60		20
Total Particulate Matter Stack Test result exceeds Emission Guarantee	mg/Rm ³	9		20
Organic Matter (as methane) Stack Test result exceeds Emission Guarantee	mg/Rm3	49		20
Operational Parameters				
Excludes exceedances during Normal Start-up and Shutdown conditions and Emergency Shutdowns				
Continuous Emission Monitor Monthly Availability	percent	95 %		5
Opacity exceeds CEM guarantee	percent	TBD		5
Any other MOE C of A imposed criteria	TBD	TBD		TBD

- The Owner will assign environmental performance points for guaranteed operating level exceedances during operation, but will exclude exceedances during Normal Start-up and Shutdown conditions and Emergency Shutdowns.

9. Future District Heating System Energy Output Guarantee			
Provide a guaranteed maximum reduction in electrical output resulting from the implementation of the district heating loop. Vendor’s guarantee shall be at peak load conditions of 3.5 MW thermal to the future office buildings in the Energy Park and 3.9 MW thermal load to the Courtice WPCP.			
Maximum anticipated Extraction Steam load for district heating system (kg/hr)			
Extraction Steam Conditions Proposed for district heating system (°C)			
Extraction Steam Conditions Proposed for district heating system (Bar)			
<u>HHV</u>	Gross Electrical Output (kWh/tonne)	Net Electrical Output (kWh/tonne)	
11.0 MJ/kg			
12.0 MJ/kg			
13.0 MJ/kg			
14.0 MJ/kg			
15.0 MJ/kg			