

# REOI Staff Report Submissions Update

For August 13, 2003 Meeting



# Outline of Report

- ◆ Purpose
- ◆ Recommendations
- ◆ Background
- ◆ Comments
- ◆ Next Steps
- ◆ Conclusions

# Purpose of Report

- ◆ Provide summary of REOI results
- ◆ To be considered in conjunction with the report on the workplan and timing of the EA and next steps in the procurement process
- ◆ Report for information only

# Background

- ◆ In response to April 14, 15, 16 City Council meeting where Council adopted recommendations to:
  - ◆ Issue REOI and report back in September on the results of the REOI and workplan for the EA process
- ◆ Vendors in database informed and various media outlets

# Background

- ◆ Issued June 2 and closed July 14
- ◆ 190 Vendors in database informed of the REOI
- ◆ Advertised in various media outlets

# Comments

- ◆ Purpose of the REOI
  - ◆ identify potential vendors
  - ◆ signal to marketplace Toronto's intentions
  - ◆ solicit information to help define systems
  - ◆ provide vendors opportunity to comment on screening and evaluation criteria
- ◆ Not a pre-qualification for next steps

# Comments

- ◆ REOI Scope open to all technologies except:
  - ◆ Landfill
  - ◆ Incineration

# General Results

- ◆ Total Submissions
  - ◆ 50
- ◆ Originally in Database
  - ◆ 33
- ◆ New to Database
  - ◆ 17
- ◆ Duplicates
  - ◆ 1
- ◆ Canadian Firms
  - ◆ 26
- ◆ US Firms
  - ◆ 15
- ◆ International firms
  - ◆ 9

# General Results

- ◆ Biological
  - ◆ Anaerobic - 8
  - ◆ Aerobic - 3
  - ◆ Other - 1
- ◆ Physical - 5
- ◆ Chemical - 4
- ◆ Thermal
  - ◆ Gasification - 24
  - ◆ Pyrolysis - 5

# General Results

- ◆ Complete Systems
  - ◆ 40
- ◆ Components
  - ◆ 10
- ◆ Unique Technology Suppliers
  - ◆ 46
- ◆ Not relevant to REOI
  - ◆ 3

# Proposed Capacities

- ◆ 1,200 - 814,000 tpa
- ◆ <20,000 highly source separated
  - ◆ electronics, packaging, construction waste
- ◆ >20,000 processing mixed waste stream

# Existing Plants

Anaerobic Digestion	5 commercial (13.5K to 80K tpa) 3 demo (3K to 30K tpa)
Aerobic Digestion	13 commercial (4.5K – 210K tpa)
Physical	8 commercial (30K – 300K tpa) 2 pilots one a 900 LB Batch process
Chemical	2 pilot (capacity not specified)
Gasification	20 commercial (8K – 216K tpa) 4 demonstration (3K – 9K tpa) 12 pilot (0.45K – 7.2K tpa)
Pyrolysis	3 commercial (1.5 t/hr – 100 tpa) 3 pilot (70 kg/hr – 50 tpd)

# Front-End Processing

- ◆ 38 proposed front-end processing as necessary or beneficial
  - ◆ metals, glass, some plastic - removed
  - ◆ hand sorting or mixed-waste MRF
- ◆ 13 did not **require** front-end
  - ◆ 5 - recovered recyclables at back-end
  - ◆ remaining 8 - ATT

# Diversion Potential

- ◆ Biological Processes
  - ◆ 50% - 90%
  - ◆ 90% required back-end thermal
  - ◆ Otherwise generally 50% - 60%

# Diversion Potential

- ◆ Physical & Chemical Processes
  - ◆ 85% - 90% diversion
  - ◆ no plant information provided
- ◆ Physical
  - ◆ assumes 65% biomass, 35% recyclable
- ◆ Chemical
  - ◆ 90% turned into building panels

# Diversion Potential

- ◆ Thermal - 70% to 100% diversion
  - ◆ markets for residuals required
    - slag, ash (encapsulation)
    - building industry, roads
  - ◆ Otherwise 10% - 15% residual

# Screening/Evaluation Criteria

- ◆ Received good feedback
- ◆ Will be used in development of next steps
  - ◆ Limiting scope - fewer vendors to bid
  - ◆ Feedstock expansion - biosolids?
  - ◆ Plant Scales - increase?
  - ◆ Public Acceptability - how measure?
  - ◆ Financial - clarifications

# Differences to Incineration

- ◆ Received several comments
  - ◆ Operating temperature
  - ◆ Oxygen in system - less
  - ◆ Gas produced - amount and type
  - ◆ Environmental Controls - smaller
  - ◆ Products and residuals - slag vs. ash
  - ◆ Pre-treatment requirements

# Next Steps

- ◆ Companion report
  - ◆ EA Timeline
  - ◆ RFQL/RFP Timeline
- ◆ Vendor Forum - Fall 2003
  - ◆ Technology presentations
  - ◆ Only for vendors who submitted REOIs

# Conclusions

- ◆ REOI Achieved goals
  - ◆ interest in marketplace
  - ◆ intentions for RFQL/RFP
  - ◆ information on potential systems
  - ◆ Feedback on screening/evaluation
- ◆ Continued analysis of reports

# How to get more information

- ◆ Submissions available for review at the Urban Affairs Library
- ◆ Summary spreadsheets were e-mail to the group
- ◆ Consultants doing more detailed analysis