

Public Private Partnerships in the Municipal Sector

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BioCleantech Forum - Ottawa

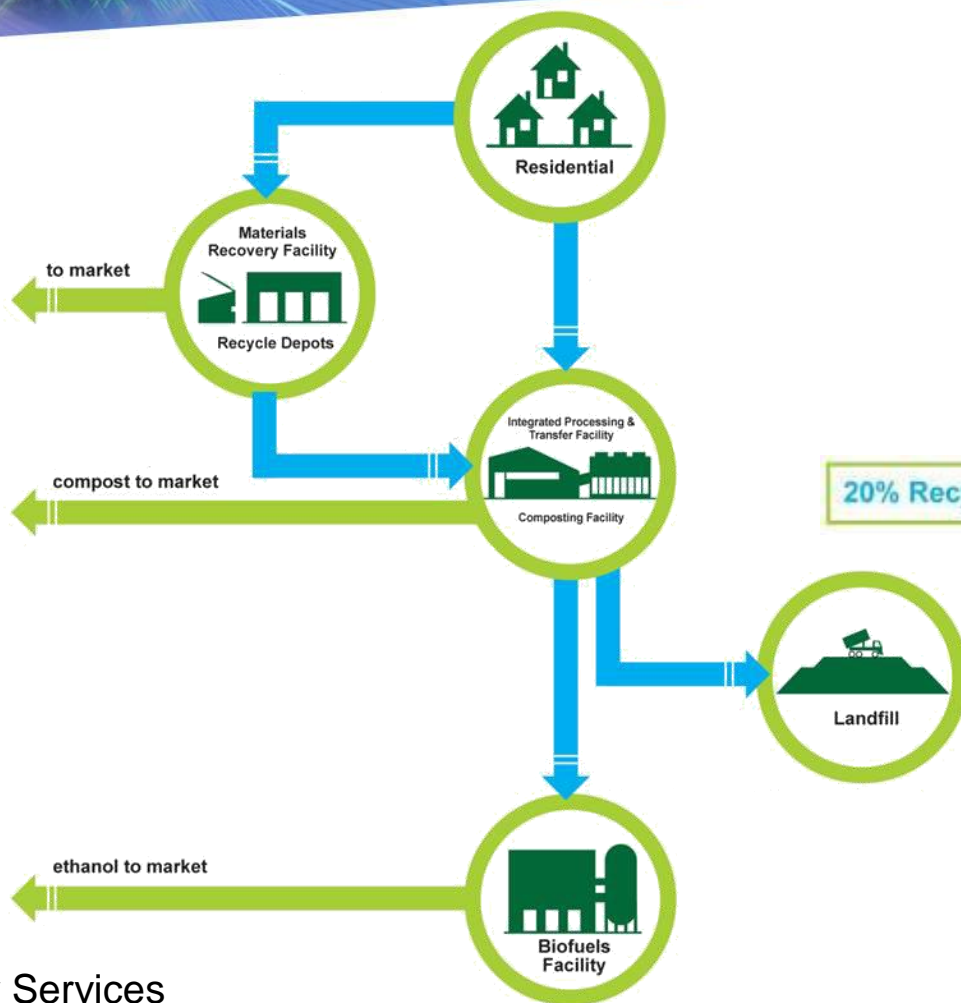
Utility Services
City Operations

Edmonton

10 Year Search for New Landfill



Our Vision - Our Goal



90% residential
waste diversion
from landfill

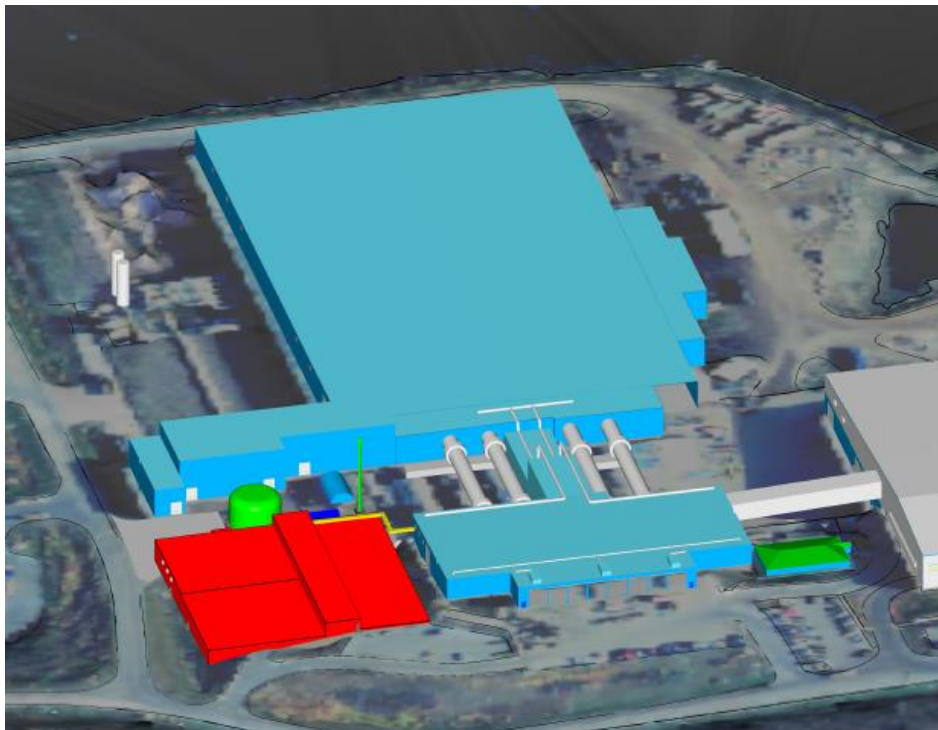
20% Recycled; 40% Composted; 30% Biofuels; 10% Landfill

Edmonton Waste Management Centre

- 550 acres
 - Twelve waste processing facilities
 - Two major research facilities
 - Closed Landfill
 - Sewage biosolids storage/recycling lagoons
- Nine contractors, partners, tenants
- Over 500 employed today

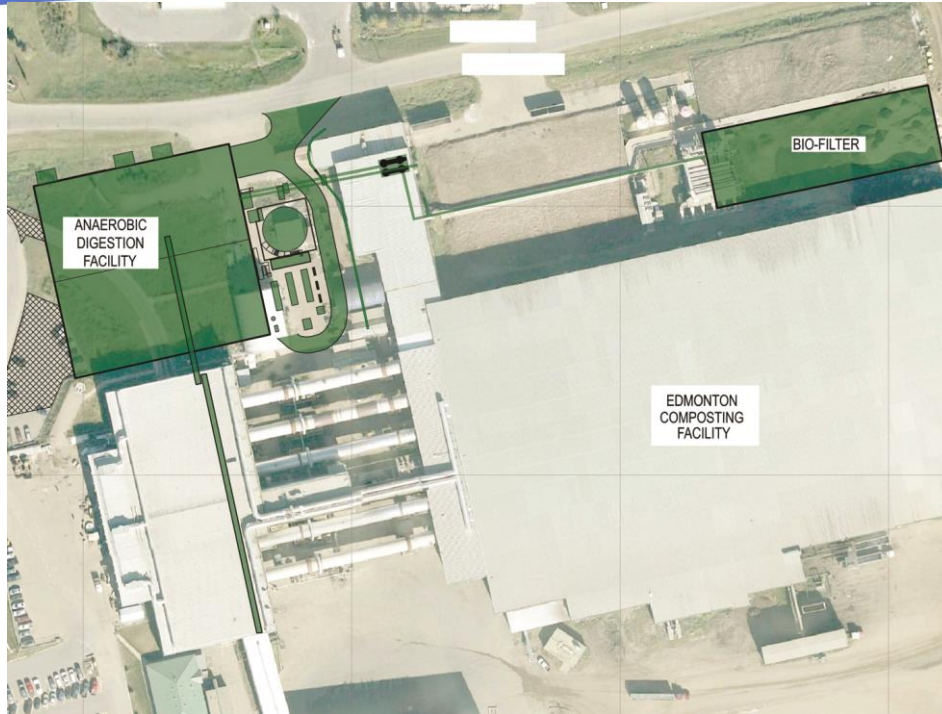
Organics Processing

Future Anaerobic Digestion Facility



- Process up to 48,000 tonnes of organic solid waste per year
- Generate renewable energy
- Produce quality compost
- Reduce greenhouse gas emission
- Partnership with University of Alberta
- Funding through ERA
- Supports City's environmental strategic plan "The Way We Green"

Anaerobic Digestion Facility



Three Elements of the Waste to Biofuel Project



Waste to Biofuels
Enerkem owns and
operates


Research and
Innovation
Alberta
Innovates/
Enerkem/
City

RDF processing
City owns and
operates

Refuse Derived Fuel (RDF) Process for Waste to Biofuel



Utility Services
City Operations



World's first commercial
MSW-to-biofuels and
chemicals facility

ENERKEM ALBERTA BIOFUELS

- Capacity: 38 million litres per year
(i.e. 1 X standard Enerkem system)
- Feedstock: 25-year agreement with City of Edmonton
for 100,000 dry tonnes of MSW per year
- Products: Biomethanol, cellulosic ethanol

Need for On-going Innovation Advanced Energy Research Facility

- Established with Alberta Innovates and City of Edmonton investment
 - Plug-and-play facility to encourage technical innovation
 - Attracting investment new R&D and piloting projects
 - Accelerates development of new technologies
-
- **R&D Bench Scale Laboratory**
 - **Advanced Energy Research Facility**



Utility Services
City Operations



Community Relations & Education

Tours at the Edmonton Waste Management Centre

- Grade 4 – Curriculum
- Post Secondary Institutions
- Public

Presentation to over 13,000 students and adults per year

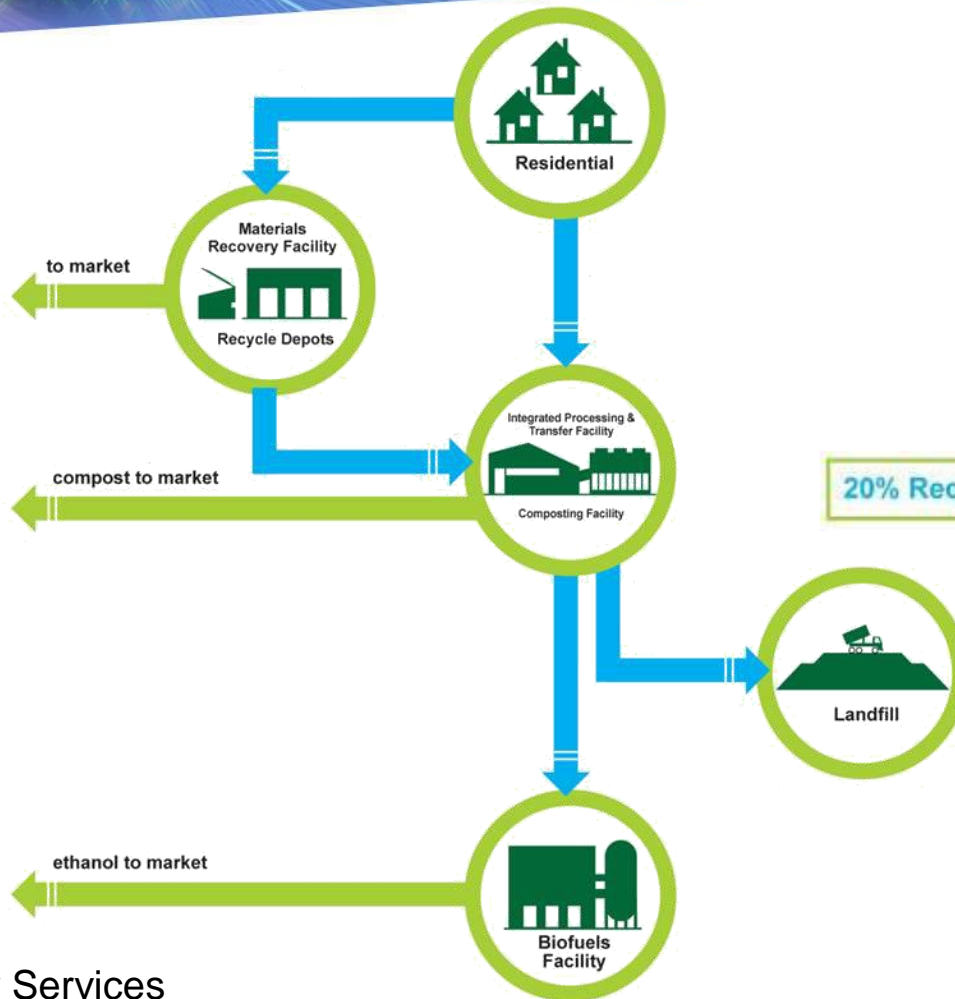


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Thank You

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Edmonton