

## **“WastAway technology will turn garbage into fuel in Drayton Valley”**

**Dave Cooper, Edmonton Journal**

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A \$22 million project slated for Drayton Valley's municipal landfill site could make burying garbage obsolete and provide energy from the reformed solid waste.

"This has the potential to be a game-changer ... and now my job is to get the material," said Skip Kerr, chief operating officer of CERF, which owns MCL Waste Systems.

The project, which received \$10 million in funding from Alberta's carbon fund, will use technology from Wast-Away LLC of Tennessee. Kerr's company already owns landfills in the province and has contracts to collect waste from many communities, including Drayton Valley, which now produces up to 25,000 metric tonnes per year.

Kerr said his firm should be able to bring in enough additional refuse to provide the 65,000 tonnes needed to make the project economically viable. "We are reaching out to municipalities like Parkland that now send their waste to Ryley. Refuse moves all around the province, and the longest haul I know of is waste from Lake Louise, Banff and Canmore which goes to a landfill just south of Camrose," said Kerr.

He adds the total cost to bring refuse to Drayton Valley and have it handled in the WastAway system will be competitive with other landfill sites.

"All landfills are stressed in regards to tipping fees (cost to deliver and dump), and new landfill cells can cost \$3 million each to construct to the new standards with liners and leachate collection systems," said Kerr.

Kristina Vallee, co-ordinator of the town's Bio-mile, said MCL brought the concept to Drayton Valley "because they know we think outside the box and are always looking for different solutions."

Bio-mile is an industrial park in which various firms - including a sawmill, power plant and bio-composite company - aim to work together "so one

company's waste is another's feedstock. The goal is to be a net-zero park, and that is a very ambitious goal," she added.

Patricia McConkey, president of WastAway Services Canada, said the first step is to separate the refuse and remove recyclable materials.

As the material is ground up, both ferrous and non-ferrous metals are removed, as well as stones and glass. What is left - organics and some plastics - are fed into a high temperature pressure vessel.

"What comes out is sterilized fluff," she said.

The raw waste is fed in continuously and when it leaves the vessel it has been injected with steam, so when it hits the atmosphere the walls of the cells in the material pop and break down.

"Just think of popcorn. The fluff can be compacted into fuel pellets, or burned the way it is. In Tennessee, the demand from the horticultural industry is huge because they use it as a replacement for peat moss and have found it is much better for seedlings," she said.

McConkey is passionate about the need for society to get away from burying its garbage.

"Landfill should be the last option, but for some reason it is the first option in Canada. We think landfills are tried and true, but that is the wrong thinking, it is like people thought smoking was OK back in the 1960s," she said.

Even modern incinerators are better than burying, because the waste can be safely vaporized and provide heat for energy, said McConkey.

"That's what they do in Europe.

But this can be an emotional subject for people. When you talk to them, logic and science go out the window."

Which is why she thinks Drayton Valley's Aspen Integrated Resource Recovery Facility, as the project is called, will become something other communities will be able to study.

The biggest challenge for the project will be finding a buyer for the pellets, which could be used as fuel in coal-fired coal plants and cement kilns.

"Cement companies have found our material is beneficial, and they are interested in reducing their carbon footprint," she said.

While big cement producers in Edmonton and Exshaw are being approached, the power plants might be a harder sell.

Capital Power has examined using the pellets and found that while they have similar heating values to coal from the Genesee mine, the pellets "cannot be pulverized to the same powder-like consistency necessary for use in the facility's boilers without considerable modifications to our coal-handling system," said spokesperson Michael Sheehan.

"Using an alternative fuel that has never been tested in a commercial scale boiler also poses significant risk if equipment were damaged."

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