

ICM develops new renewable source of energy from waste

Photos



Courtesy photo

ICM has successfully completed a demonstration run of its gasification system, which converts biomass and other waste products to a clean, usable source of energy.

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COLWICH —

ICM is taking trash and turning it into treasure.

The Colwich-based company recently completed testing of its Biomass Gasification System, which converts waste into a “greener,” renewable source of energy that leaves less of a carbon footprint than fossil fuels.

ICM started testing its gasifier at the Harvey County landfill in 2009 and believes the technology will be used on a national, even global, scale.

“It’s really an environmentally responsible way of taking these fuels and converting them to energy,” said Patrick Ralston, project manager. “...There really is a market for this out in the world.”

He said he is thrilled to be taking part in a local project that has such broad significance.

“Right here in small town Kansas is where this is happening,” he said. “We think this is exciting.”

How it works

Bert Bennett, Ph.D., the project's principal scientist, compared the gasifier process to lighting a fire in the fireplace. Heat is generated, and the fuel (in this case, wood) is turned to ash.

However, in the gasifier, waste is burned, but the process is stopped halfway. Instead of letting it turn to ash, the trash is converted to synthetic gas, which can be used to generate power in industrial and commercial settings.

The design is unique to ICM.

ICM tested 7,000 tons of 13 different types of waste, which are referred to as "feedstocks." Feedstocks tested included wood chips, wheat straw and refuse-derived fuel (this includes junk mail, cardboard and other paper products you throw away).

Ralston said he hopes the successful testing of ICM's Biomass Gasification System will mark a shift in the way people look at creating energy, and provide a more environmentally-friendly way to generate power. "Rather than dig a hole and burying our trash ... let's use that," Ralston said. "Let's see this as a resource, not just a waste product."

ICM is exploring opportunities to market its technology as far away as the Caribbean and Asia.

Although the gasifier originally was supposed to be tested in Sedgwick County, zoning issues led ICM to select Harvey County instead.

Ralston and Bennett said they were impressed by the amount of support they received from the Board of Harvey County Commissioners and others in the county.

"We are just really happy and pleased to be working in Harvey County," Bennett said.

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