

### Lebanon Debuts Largest Renewable Energy Plant Of Its Kind

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6:04 PM, Oct 13, 2016



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LEBANON, Tenn. - A new energy plant launched in Wilson County has created a revolutionary way to convert trash into energy and make the City of Lebanon some money in the process.

With the launch of a new plant, Lebanon now has the largest renewable energy plant of its kind in the world. Every spare tire in Wilson county, along with scrap wood from businesses within a 20-mile area, will be converted into energy through a process called gasification

"It saves the city money, helps the landfill's space, helps everybody out," said Rockwood Operations Manager Grant Chambers. His company is partnering with the city to help with the process.

On Thursday, Lebanon showed off its new status in green waste energy, giving tours of its new plant to people and city officials from across the world.

"This is huge," said Lebanon Mayor Phillip Craighead, "it's a game changer not only for Lebanon, but Wilson County and Tennessee."

With the city landfill less than a decade away from capacity, the plant will save 16 million pounds of waste every year.

The wood and tires will first come to a staging area where they get chipped down to a usable size. Then the material is sent up the road for gasification.

"We do give it enough oxygen at that stage to turn it from chemical energy to thermal energy," said theoretical physicist and PHG Energy Director of Research and Development Deon Potgieter.

A series of chemical processes converts 95 percent of the waste to hot water.

"Now we're going to take that hot water create energy for the waste water treatment plant," explained PHG Energy Chief Operating Officer Chris Koczaja.

Eventually, the hot water crosses the street to power the water treatment plant next door, reducing electricity costs by two-thirds.

"We're able to take a section of the sewer plant offline which will save us a quarter million dollars," said Mayor Craighead.

The remaining five percent of the waste turns into what's known as bio-char. The city plans to sell that to local farmers to help fertilize their crops.

It's a huge milestone for the smaller community, and people around the world are starting to notice.

"There's a connection between waste and energy that most people don't see," Koczaja said.

The plan will save landfill space, while saving money. And forge a future of green energy for the city and the local companies on board.

"Now that manager (of a company contributing waste) can call their headquarters and say 'we're green!'" Mayor Craighead said.

A big part of this is a public-private partnership. One example is with Rockwood, who will supply the \$800,000 chipper for the city to use, so the city will not have to pay for its own piece of equipment.

The project cost the city \$3.5 million to build, and officials said it is just the beginning. They want some city facilities to eventually be able to function completely off-the-grid.

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