County generates positive power out of landfill

One landfill’s gas is, well, another’s electricity?

All jokes in bad taste aside, Chester County has jumped into the landfill gas-to-electricity power plant business in a big way.

Pennsylvania’s newest generator of green energy made its debut Tuesday with the grand opening of SECCRA Power — a landfill gas-to-electricity power plant at Southeastern Chester County Refuse Authority’s landfill on Route 926.

About 50 visitors, including two Chester County commissioners, donned earplugs as Richard Cairns, chairman of SECCRA’s board of directors, turned the switch and the giant generator roared to life.

“What was once a nuisance gas is now a resource,” said Cairns of the $2.3 million project that will generate almost a megawatt of power — enough energy to power 500 homes.

Rachel Goldstein, regional manager of the Landfill Methane Outreach Program of the U.S. Environmental Protection Agency, attended the ceremony. “This is the fun part of my job, to see the efforts of groups like SECCRA.”

Methane gas is a natural byproduct of landfills and is usually burned off. As a greenhouse gas, it is 20 times more potent than carbon dioxide in trapping heat in the atmosphere.

The generator that started operations Tuesday will utilize about one-third to one-half of the methane produced at SEC CRA. The plant is planning to start the permitting process to add another generator that will utilize the rest of the gas.

Chester County Commissioners Carol Aichele and Patrick O’Donnell were there for the opening — and seemed impressed with the facility.

“I think the science is fascinating,” said Aichele, “and it’s a way to achieve two objectives — generating energy and reducing greenhouse gases. This landfill is setting an example for other landfills.”

In the grand scheme of things, it’s an amazing accomplishment to see the idea go from the drawing board to a reality.

SECCRA received a $500,000 grant from the Pennsylvania Energy Development Authority in 2005 to help build the plant. It took five years to get the permit, said Cairns, and only six months to build. The plant will provide electricity to PJM Interconnection, a regional transmission organization that coordinates the movement of electricity to 13 states plus the District of Columbia. It is estimated that the landfill will produce methane gas for another 15 years.

And here’s one of the favorite parts of the operation for us:

The sale of electricity and the sale of renewable energy tax credits earned from the project are expected to pay back the full investment in about seven years and then the income will be used to contain costs for SECCRA customers.

Where’s the bad parts of this project? We don’t see a single one.

Kudos to everyone responsible for the project. It’s quite an accomplishment.