



ENVIRONMENTAL SERVICES  
CITY OF PORTLAND

working for clean rivers



## News Release

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For immediate release

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### **New treatment plant co-generation facility uses biogas to produce renewable energy**

Portland's Columbia Boulevard Wastewater Treatment Plant produces over one million cubic feet of biogas every day. Now the City of Portland can use more than two thirds of that output as fuel to generate electricity and heat for treatment plant operations.

Today, the city dedicated two 850-kilowatt engine-generators fueled by biogas, a natural byproduct of the sewage treatment process. Together, the two engines can generate up 1.7-megawatts of electricity per day, enough to power 1,000 homes. The power will go into the treatment plant's electrical grid to supply about half of the treatment plant's daily energy needs.

Most of the funding for the \$8 million project comes from sewer user fees collected by Portland's Bureau of Environmental Services. Energy Trust of Oregon is providing the city with a \$362,000 cash incentive to offset project costs.

The city will use the Oregon Business Energy Tax Credit program to offset about 25% of the project costs. By reducing the amount of electricity the plant purchases, the city will recover its investment in the project in 12 to 15 years.

"In the past, the treatment plant simply flared off excess biogas, but now we're putting it to a much better use," said Dean Marriott, director of the Bureau of Environmental Services. "This is a good investment in a sustainable project that that will reduce costs for our sewer ratepayers in the long run," Marriott said.

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“The clean energy generated here saves the city more than \$700,000 a year in energy costs and helps reach other important environmental goals, including reducing greenhouse gas emissions,” said John Reynolds, president of Energy Trust’s board of directors. “This project makes good use of something that would otherwise be wasted. We are proud to help this project happen.”

Biogas is produced as sewage solids decompose in the treatment plant’s anaerobic digesters. The Columbia Boulevard plant produces more than one million cubic feet of it every day. Biogas is 50% to 60% methane gas. It must be treated to remove hydrogen sulfide, siloxanes and moisture to make it an effective fuel.

At peak capacity, the co-generation facility will use about 70% of the treatment plant’s daily production of biogas. The facility will generate enough power to reduce the plant’s annual electric bill by about 40%. Last year, the plant paid \$1.8 million for electricity. The co-generation facility also produces heat for the treatment plant’s solids digestion process.

*The Bureau of Environmental Services provides city residents with Clean River programs including, water quality protection, wastewater collection and treatment, and sewer installation.*

*Energy Trust of Oregon, Inc. is an independent nonprofit organization dedicated to energy efficiency and renewable energy development. Energy Trust serves Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas.*