BEST RESULTS

Ash Grove Cement Company Turns Landfill Gas to Gold

ONE IN A SERIES OF CASE STUDIES FEATURING BEST BUSINESS AWARD WINNERS

It was, as Paul Ehinger of Metro put it, a "marriage made in heaven." Metro's St. Johns Landfill produced lots of waste methane, and the nearby Ash Grove Cement Company used lots of gas to produce lime.Eventually they got together. Now Ash Grove Cement Company has secured a clean, consistent source of gas, reducing reliance on recycled oil and natural gas. Sales of the methane help offset Metro's landfill operation costs. The partnership makes money. Perhaps most of all, the project reduces air pollution in Portland's damaged airshed by using the methane as a viable source of fuel. This is an intelligent and impressive addition to Portland – truly a BEST project.

The History

For years Metro had been trying to find a use for the methane gas produced at the former St. John's landfill. Landfill methane contributes 22 times more greenhouse gas emissions than CO2. According to EPA, landfills are the largest emitters of methane in the U.S. Until recently, the landfill's operators had burned off the waste gas. Not only did this waste a potential energy source and cause pollution, but it cost Metro almost $300,000 per year.

The Solution

Enter Ash Grove Cement Company, a 117-year-old company with a plant located just over a mile from the former landfill. The company produces lime used in steel mills, pulp and paper plants and water treatment plants in the Northwest. Every day, Ash Grove's three kilns heat 800 tons of raw limestone to 2,300 F. to create quicklime. Until recently, the company fueled the kilns with 6.5 million therms of waste oils and natural gas. Ash Grove management, ever on the lookout for cheaper but still efficient and clean-burning fuels, hoped they'd found it at the landfill.

Making It Work

The concept seemed simple on paper, but proved challenging to execute. First, there were significant technological hurdles to overcome: matching the quantity, quality and consistency of the landfill gas to Ash Grove Cement Company's needs; building a 9,400-foot-long pipeline; and adding compressors and controls. However, economic hurdles were more daunting. The project would require about $2 million. At the time, there was a federal tax credit for development of landfill gas projects, but neither Metro nor Ash Grove Cement could take it.

After many false starts Ehinger was about to scrap the project when a co-worker suggested he approach Palmer Capital, a Massachusetts firm that had been developing landfill gas projects for 18 years. Ehinger contacted Palmer Capital, and the firm signed on. Their experience and capital made the difference. Ash Grove and Palmer formed the Portland Landfill Gas Joint Venture Partners. They split the development costs and received the federal tax credit, just beating the deadline before it expired. The partners pay Metro a little more than 25¢ per million Btus, about one-eighth the cost of natural gas. This covers some, but not all, of Metro's landfill operation costs.

Results

Although not perfect, the landfill methane has proven acceptable for Ash Grove's purposes. Wright said that they have overcome most of the technological hurdles. A programmable logic controller adjusts the gas flow rates, since plant methane requirements can be quite variable. Another project will maximize the generation of methane from the site. In addition to winning a BEST award, the project was named the Landfill Methane Outreach Program's Project of the Year for 1998 by the EPA. "Metro had the gas and we needed it," Wright said. "It's unique for public-private partnerships to develop at all. It's a kudo to those who made it work."

For more information about Ash Grove Cement's landfill methane project, contact Gary Wright at (503) 286-1677.

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HOW TO…Partner with local governments

Regulations, lack of experience and poor communication can slow or stop worthy proposals. How can businesses and local governments work together to make projects move smoothly? Here are a few tips.

1) Have a common goal and stay focused on that. Industry and government agencies have different purposes. When they work together toward a single end, everyone can win.
2) Find an advocate: a project manager in your firm, a consultant or a project partner like Palmer Capital who understands the complexities of your project and your industry and has successfully completed similar projects requiring private industry and government cooperation.
3) If possible, also find an "champion" in local government who will work for creative solutions.
4) Communicate well. Officials are more likely to balk if they lack information.
5) Be flexible. Identify options that not only meet government requirements but actually improve them.
6) Be patient; governments generally move more slowly than businesses. Understand that government officials, who are responsible for public dollars, are not used to – and cannot usually take – business risk.

Clarity, creativity, cooperation and communication will make the government-industry process work much more effectively.