

An Industry Moving to a New Culture

By Tim O'Donnell

As we enter the final year of the first decade of the 21st century, much around us is changing. Even the waste industry is changing. Perhaps considered an industry delivering a necessary but routine service by some—if considered at all—it is in reality on the cutting edge of environmental and energy technology.

A lot of people still think of landfills as “dumps.” Dumps that really were dumps were common in Pennsylvania before 1968. They were unprotected holes in the ground where all kinds of waste were thrown away without a second thought. Dumps began disappearing in 1968 with the passage of the Solid Waste Management Act. Since then, the landfills that replaced dumps have evolved into highly engineered and closely regulated systems designed to protect the environment—and now even to create energy.

Pennsylvanians generate the equivalent of more than a ton of municipal waste annually for every man, woman, and child in the state. It has to go somewhere, of course, and for the last 30 years the professional waste industry in Pennsylvania has taken care of this huge job while building a successful record of protecting the environment.

Landfills are still used to manage much of the trash we all generate, but today the waste industry is increasingly focused on recycling and reuse.

For example, few folks realize that Pennsylvania is second in the nation only to California in the number of landfill gas-to-energy projects.

As the trash in a landfill decomposes, it produces methane gas. This gas was once controlled by burning it off in flares to avoid release into the atmosphere as a pollutant (it's a greenhouse gas). Today, more and more landfills are capturing, processing, and using methane, either to generate electricity or as a direct fuel to power commercial and industrial plants.

That's the ultimate recycling and reuse—turning trash into usable energy while reducing greenhouse gas emissions!

According to the database kept by the U.S. Environmental Protection Agency, Pennsylvania has 37 landfill renewable energy projects. Eight of them have won EPA national awards.

Pennsylvania has become a leader in landfill renewable energy for several reasons. State policies now encourage the development of renewable and alternative forms of energy. In addition, Pennsylvania is fortunate to have many well-managed landfill sites operated by progressive-minded companies.

In the past, recycling of materials such as glass, aluminum, plastic, paper, and cardboard has been largely in the hands of mom-and-pop-scale local programs surviving on government

subsidies. Now that's changing too. Nationally, private waste companies collect and process the majority of residential and commercial recyclables.

Here in Pennsylvania, members of the Pennsylvania Waste Industry Association, which represents private-sector waste haulers, recyclers, and landfill operators, have invested an estimated \$40 million in recycling facilities, equipment, and jobs in just the last few years. Major private-sector recycling facilities are located in Philadelphia, Valley Forge, Allentown, York, and Pittsburgh, among other locations. Another \$23 million in investments is in the pipeline.

Private-market efforts in five western Pennsylvania counties have demonstrated that good service combined with aggressive marketing and public education in areas not mandated for curbside recycling can achieve customer participation in recycling as high as 91 percent—without government subsidies.

Pennsylvania's waste companies are continuing to investigate technologies and techniques that move us from a "disposal" to "recycling-and-reuse" culture. Using landfill-generated methane as a fuel for truck fleets is on the horizon. Landfills not only can continue to generate energy-rich gas for many years after closing but also can provide highly suitable locations for solar-energy fields. The largest solar farm on East Coast, for example, is located at a landfill in Bucks County.

The Pennsylvania Waste Industries Association believes that the sustainable waste solutions we'll need in the future will come from the innovation of private enterprise, not government-subsidized programs. The private-sector waste industry in Pennsylvania at present contributes more than \$3 billion a year to our economy in expenditures, purchasing, and spending from industry wages. As new technologies continue to emerge, the industry's contributions to the economy and to environmental protection are likely to grow even larger.

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