



EPA-Industry Program Backs Corporate Collaboration To Boost Sustainability

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The Environmental Protection Agency and the United States Business Council for Sustainable Development (US-BCSD) are working to implement a series of programs nationwide that could dramatically change how industry produces and handles wastes by encouraging companies to cooperate, rather than compete regarding resource use. Seeking to create dynamic company partnerships that mimic natural systems, the program is intended to help businesses greatly reduce hazardous and other wastes, curb facility emissions and provide new revenue streams.

Currently in various stages of development in Chicago, Detroit, Seattle and other major metropolitan areas, the By-Product Synergy (BPS) projects attempt to foster relationships that use waste materials or energy from one plant as a raw material or energy source for another company's facility. The programs represent a major rethinking of the industrial economy, and strongly promote the realignment of business toward energy efficient, low environmental impact practices that are the core of corporate sustainability.

Sources say the projects are the first widespread practical application of the largely academic concept of "Industrial Ecology," or the idea that industrial facilities can operate like a natural ecosystem, where wastes are reused within closed-loop systems that maximize resource use and profitability.

According to US-BCSD Executive Director Andrew Mangan, the program is designed to be "an industry investment that can create value for a company," while reducing overall environmental impact and strengthening regional economies. The program doesn't encourage companies to "co-locate" in a certain area, he says, but seeks to find potential relationships between facilities already operating in heavily industrialized areas.

Similar ongoing programs in such diverse areas as Denmark, Kansas City, New Jersey, and the Gulf Coast have already proven the financial and environmental benefit of BPS, Mangan says, and the current expansion of the program involves several of the largest U.S. industrial centers.

The Chicago program is the furthest along of the new projects, Mangan says, and Chicago BPS program staff are currently collecting data on the members' waste streams, raw materials inputs, energy use, transportation, and other key information. The 20-30 member companies will first come together in January for the initial working meeting, and US-BCSD looks to add about 20 more companies each quarter. "It's designed to grow," Mangan says.

The programs in Southeastern Michigan, the Pacific Northwest, and the Cleveland/Columbus area are still in the planning stages, Mangan says, and are currently seeking companies who wish to be involved.

After the data-collection phase, companies come together to discuss their specific goals, as well as

waste disposal or raw materials problems their company is facing, Mangan says. Using the data bank listing other companies' inputs and outputs, representatives can then work out mutually beneficial relationships that enable better resource use and reduce costs.

“There are synergies that exist within a group of companies, but [businesses] don't know about them because they don't have a system to show them,” Mangan explains, adding that the program “creates a platform where [corporations] can feel comfortable exchanging information about their operations that they ordinarily wouldn't tell one another about.” Mangan notes that BPS members are required to abide by disclosure agreements that prevent intellectual property theft or anti-trust issues.

Similar programs already in place in other cities have produced “pretty significant revenue possibilities,” Mangan says, as well as “tremendous energy savings and carbon dioxide reductions.”

For instance, a recent Gulf Coast BPS program within 40 Dow Chemical Company facilities found major synergies with the potential to save 155 million pounds of waste products annually. A World Business Council for Sustainable Development [Case Study](#) on the project notes the program found potential energy efficiencies large enough to save \$15 million and reduce CO2 emissions 108 million pounds annually. Wastes diverted included volatile materials such as spent solvents and hydrocarbons, sodium hydroxide by-products, sulfuric acid wastes, hydrogen by-products and other materials.

A BPS program operating in the Kansas City area since 2004 found similar synergies, states [a US-BCSD brief](#) on the project. The program led to cheaper “collaborative energy buying” by a number of companies and also launched several unique transportation partnerships where multiple companies collaborated to consolidate shipping routes to save on long-distance trucking costs, Mangan says.

The Energy Department helped fund many of the initial energy assessments in the Dow program, Mangan says, and the EPA is putting up one-third of the \$300 million to fund Chicago's BPS program through its Clean Cities program. According to Urban Initiative Coordinator Jennifer Ostermeier, the Clean Cities program is designed to “help tackle the inherent problems of being old industrial cities,” and works to help fund city-wide environmental projects that would not be undertaken without federal funding and support.

The Chicago program, officially entitled “the Chicago Waste to Profit Network,” is also moving forward with support from Mayor Richard Daley, according to [a program brochure](#).

Ostermeier says EPA's funding is designed to jump-start a long-term program. “We want these programs to be sustainable, so when EPA funding goes away, the project can go on.” While she says the agency currently isn't involved in any other BPS programs, she says EPA wants to see it “transferred to other cities.”

Mangan says EPA involvement can be key to the BPS program, as the agency can help navigate the regulatory barriers that exist that can hinder the sale and reuse of some waste products.