



E3: ECONOMY · ENERGY · ENVIRONMENT
SUPPORTING MANUFACTURING LEADERSHIP THROUGH SUSTAINABILITY

DTE Energy and Goodwill's Green Works, Inc. A Sustainable Model for Community and Environment Case Study

HISTORIC COMMITMENT

Founded in 1903, Detroit-based DTE Energy (DTE) is the largest utility in Michigan serving 2.1 million customers in Southeast Michigan through its subsidiary electric utility Detroit Edison and 1.2 million customers in Michigan through the natural gas utility known as Michigan Consolidated Gas.

In 2010, DTE began serving as a major corporate champion of the U.S. Environmental Protection Agency's Economy, Energy, and Environment (E3) pilot demonstration in Southeast Michigan. The E3 Program is an initiative designed to help companies thrive in a new business era focused on sustainability and working together, to promote sustainable manufacturing and economic growth throughout the United States. The Detroit pilot is the third demonstration site in the nation, joining Columbus, Ohio, and San Antonio, Texas.

Environmental stewardship in the Greater Detroit Region is nothing new to DTE. The company has demonstrated leadership in several Department of Environmental Quality (DEQ) voluntary programs including the Michigan Business Pollution Prevention Partnership, and the Michigan Clean Corporate Citizen Program. The DTE -River Rouge facility was recognized in 2008 and 2011 as a Neighborhood Environmental Partner (NEP). The DTE-Belle River facility received the NEP award in 2009.

For the past 68 years, DTE and Goodwill Industries of Greater Detroit (GIGD) have worked together in Detroit to provide services to the community that include a positive transitional work experience for Goodwill trainees by reclamation of surplus goods and equipment, and the liquidation of surplus, obsolete and scrap materials and equipment.

In January 2010, this long-time community-based affiliation between the DTE and GIGD moved to the next level by launching a new 501c3 company Goodwill's Green Works, Inc. (Green Works). The new enterprise occupies a 96,000-square-foot state-of-the-art single stream recycling facility on Lynch Road in Detroit. Green Works provides opportunities for Goodwill Detroit's clients to hone the skills learned in their classrooms. The Transitional Work Experience has trainees working right along side the Green Works' work force. This experience enhances a trainees' resume to enable them to secure better job opportunities and promote individual growth. Establishing a long-term relationship with Green Works has allowed DTE to focus on its core business, while maximizing the recovery and disposition of materials and equipment, leading to significantly reduced costs and improved environmental performance.



RESULTS ORIENTED

Energy

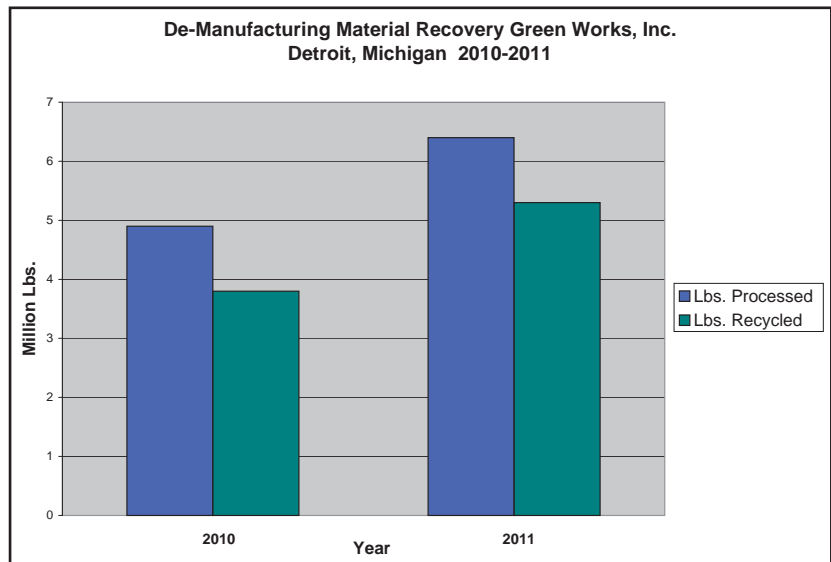
This unique relationship demonstrates a sustainable model that integrates the economy, the environment and social equity into a strong community framework. Green Works enrolled in DTE's commercial and industrial energy optimization program called Your Energy Savings. Through this program, Green Works was able to identify energy savings opportunities and to implement energy efficient technology in their facility with assistance from DTE experts.

Green Works began implementing the recommendations from DTE energy experts in early 2010. Utility cost for an 8 month period in 2010 was \$89,384 and for the same period in 2011 the cost was \$88,496. During this time Green Works saved enough energy to pay for a 2nd shift at the facility and still experience a nearly \$900 savings in utility costs from 2010 to 2011.

Environment

The current asset recovery services Green Works provides to DTE has also resulted in the reclamation and re-use of materials, resulting in land fill avoidance, cost savings to DTE, and revenue stream enabling Green Works to increase their mission touches.

The environmental benefit from the above activities include the reduction of greenhouse gas emissions, reduced impacts resulting from virgin raw material and mineral extraction, reduced energy consumption, landfill avoidance, and a system application that improves both human and ecosystem health.



Economy

The long-term economic and social equity benefits may be difficult to measure, however, pride in workmanship and ownership of product and process are key components of a sustainable and competitive system. During an eight month period in 2010, 24 Transitional Work Experience trainees worked side-by-side with Green Works employees to source separate, de-manufacture, and recycle equipment and materials for DTE. During the same period in 2011, 37 Transitional Work Experience trainees were engaged in similar skill-specific activities. All individuals who contribute to the strength, flexibility, and duration of this system are integral to sustaining healthy, productive and profitable enterprises such as DTE and Green Works.



The key sustainable results from this partnership include:

- New business opportunities, capital and clients for the services that Green Works provides.
- Training and work force development to support de-manufacturing and materials recovery.
- Enhanced economic, environmental, and human health benefits in the community.

FUTURE PROSPERITY

In December 2010, the U.S. Environmental Protection Agency's E3 Program and the U.S. Department of Commerce International Trade Commission highlighted DTE and Green Works during the Sustainable Manufacturing American Regional Tour in Detroit <http://trade.gov/competitiveness/sustainablemanufacturing/SMART.asp>

The future of manufacturing is rapidly changing. Innovative and collaborative approaches to products and problem-solving relating to natural resource management and social equity will be key to making progress toward economic growth. The sustainable relationships between customers, suppliers, and government will define the future path of commerce in the U.S. and the world.

The leadership to sustain prosperity through positive environmental and social action such as that demonstrated by DTE and Green Works will be crucial to the health and success of future generations.

** The Michigan DEQ is currently partnering with the U.S. Environmental Protection Agency's E3 Program and others to pilot an E3 demonstration in Southeast Michigan to leverage services and funding sources to support energy optimization, economic growth and sustainable manufacturing practices in the region. For information regarding Michigan's E3 Project contact: Laura Rauwerda, DEQ at rauwerdal@michigan.gov.*

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