

CASE STUDY: Energy Efficiency Is Good For Business

United Technologies Corporation Connecticut Facilities

Pacing Ahead

By 2018, United Technologies Corporation's (UTC) 15 Connecticut facilities have the goal to reduce energy consumption 15 percent, saving an estimated 54 million kilowatt-hours of power over a three-year period—equivalent to powering more than 6,000 homes with electricity for a year.

UTC estimates the energy-savings measures will save the company \$1.1-\$2.3 million in annual operating expenses, improving its global competitiveness and bottom line. To achieve a 15 percent reduction over three years, UTC's annual target ratchets up by two percent a year.

Eversource invited UTC into the strategic alliance because "utilities get the biggest bang for the buck by working with industrial partners. Each year we earn enhanced incentives based on annual targets, and that results in an annual bonus dividend from the utility," West said. "The incentives from this collaboration will enable UTC to further invest in industrial efficiency projects."

"This agreement supports UTC's long-running efforts to understand how much energy we use and where we use it, in order to identify significant energy savings opportunities," said Sean West, Program Manager for Environment, Health and Safety at UTC. "Our long-term goal is to apply what we've learned through our agreement with Eversource to our facilities around the world."

A key benefit of its partnership with Eversource, West explained, is keeping UTC focused on efficiency throughout the natural ebbs and flows in the business cycle. By providing a fresh set of eyes to seek new energy savings opportunities, Eversource has helped to identify additional efficiencies that may have otherwise been overlooked.

To help reach its goal in Connecticut, UTC created an internal cross-functional team that spanned across various Connecticut locations and business units. This team has already met and identified several ways to potentially save 1.2 million kilowatt-hours of electricity annually at its Windsor Locks facility.

Among the many components of the three-year plan are:

- Installing new LED interior and exterior lighting systems.
- Adding "cool roofs" with white, heat-reflecting materials and installing energy-saving window tint to buildings to lower energy costs.
- Completing HVAC upgrade projects that include chiller optimization, HVAC retro-commissioning and a water chiller study.
- Conducting several studies to ensure optimal use of compressed air, sometimes called the "third utility" in manufacturing, after electricity and natural gas.
- Developing an educational program to increase energy efficiency awareness and behavioral changes among UTC facilities managers and general staff.

FARMINGTON, CONNECTICUT



Renovated open floor space design with state-of-the-art building controls and LED lighting

"At UTC, we know that sustainability works, and is a smart business and environmental decision. That's why we are committed to investing in energy efficient, green buildings for our employees, communities and customers."

- John Mandyck
*Chief Sustainability Officer
for UTC*



 **United
Technologies**

Energy savings continued on back ▶

Let the Energy Savings Continue:

UTC's commitment to energy efficiency reflects a culture focused on "eliminating waste, no matter where it is," West said. "It's been our way of doing business for decades."

UTC recently announced the company's new 2020 sustainability goals, which place UTC on track to reduce greenhouse gases 80 percent by 2050 in support of the climate goals set forth by the United Nations. Starting three decades ago, UTC was among the very first companies to begin tracking resource usage with the aim of lowering consumption and emissions. And since 1997, UTC has tripled its revenues while reducing its greenhouse gasses by 34 percent, primarily by saving energy. The three-year agreement between UTC and Eversource will support UTC's broader sustainability efforts to innovate and meet the growing demand for sustainable products, solutions and operations.

The agreement with UTC is Eversource's largest energy efficiency effort to-date. Eversource currently has similar large-scale efforts underway with the University of Connecticut, Massachusetts Institute of Technology and Boston College.

United Technologies Corp. provides high-technology systems and services to the building and aerospace industries. Its businesses include Pratt & Whitney, UTC Aerospace Systems, UTC Climate, Controls & Security and Otis.

UTC Quick Facts

Type of Project:	3-year agreement with utility to increase efficiency
Investment:	Estimated investment in energy-efficiency technology \$15 million over three years
Payback period:	To be determined / ongoing project
Savings:	\$1.1-\$2.3 million annually



The interior of a LEED-certified office building at UTC's headquarters in Farmington, CT



UTC Leadership Center is a multi-use facility with an energy monitoring system that tracks and displays energy use by floor, with real-time data displayed in the lobby.

**GET STARTED
SAVING
TODAY:**

Combined Heat and Power and Waste Heat to Power could supply 20 percent of U.S electric capacity by 2030

The Alliance for Industrial Efficiency is a growing coalition of business, labor, and non-profit organizations that advocate for policies that increase U.S. manufacturing competitiveness through industrial energy efficiency, especially the use of Combined Heat and Power (CHP) and Waste Heat to Power (WHP). To date, the Alliance has focused on improving financing for CHP and WHP, increasing demand for CHP and WHP, and incorporating CHP and WHP in the Environmental Protection Agency's Clean Air Act rules.

For more information go to alliance4industrialefficiency.org or call 202.365.2194

