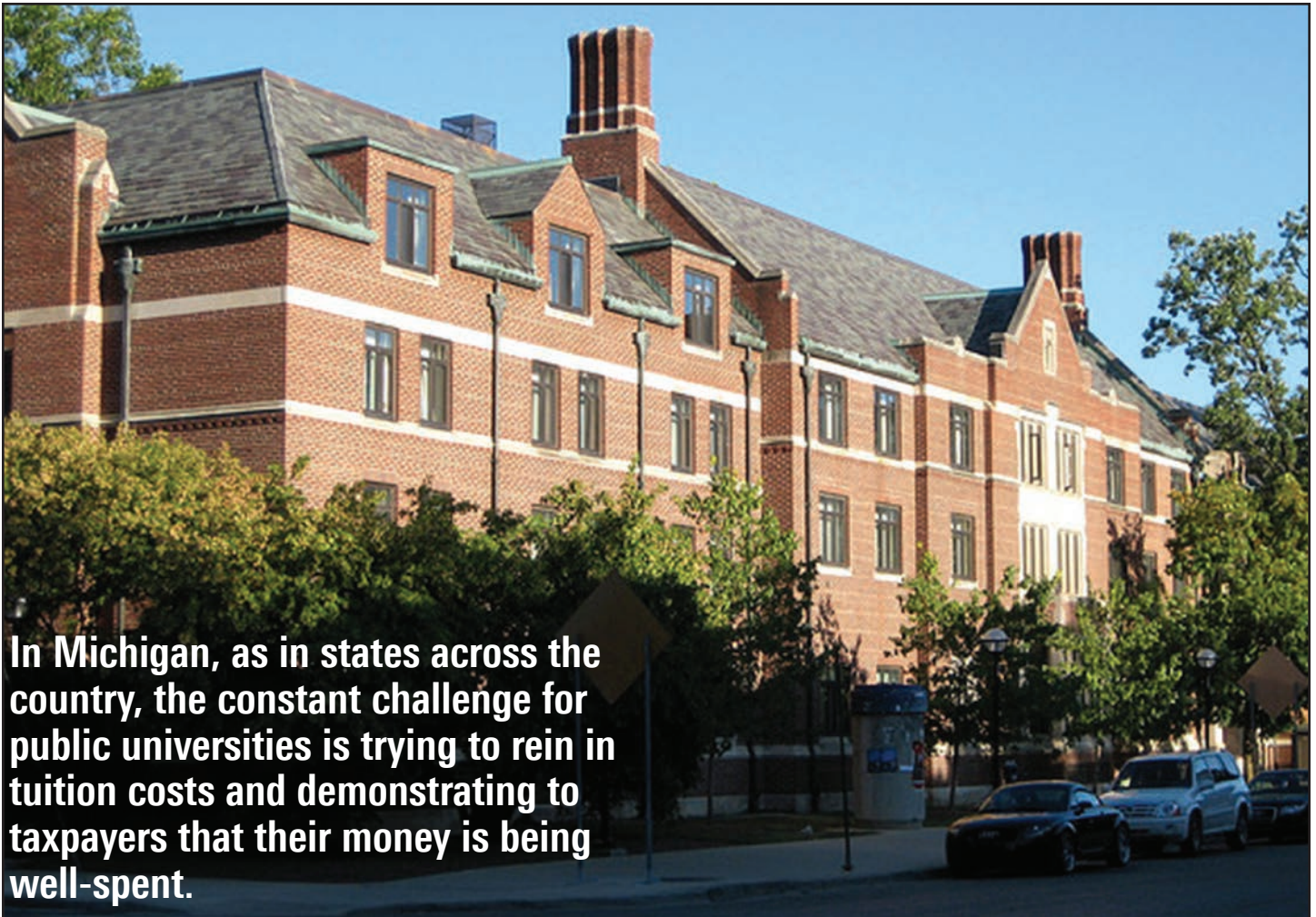




Case Study: Central Michigan University



In Michigan, as in states across the country, the constant challenge for public universities is trying to rein in tuition costs and demonstrating to taxpayers that their money is being well-spent.

For one such university, those dual challenges have been met through the installation of energy-efficient solutions and equipment – resulting not only in energy savings, but also in being rewarded with cash incentives from DTE Energy through its **Energy Efficiency Program for Business**.

Central Michigan University first began applying for funds through DTE's program in 2009, the first year of the utility's incentives program. Since then, CMU has implemented 23 projects throughout its mid-Michigan campus – ranging from temperature control valves in dorm rooms to exhaust fan balancing in student bathrooms.

According to Michael Walton, CMU's director of Energy and Utilities, the energy savings from those projects came almost immediately. But what really made the program pay

Since 2009, Central Michigan University has completed nearly two dozen energy efficiency projects that qualified for cash incentives under the DTE Energy's Energy Efficiency Program for Business.

off was the university's reinvestment of incentives money into even more energy-efficient initiatives.

"CMU began using the program because of the constant rise in energy prices," Walton said, "and now we're in our fourth and fifth year of reinvesting those program rebates into additional conservation efforts.

"So, by using energy wisely, we're using less of it – and that helps us keep our tuition in check."



Making energy efficiency part of a campus culture

Michael Walton, CMU's director of Energy and Utilities, said he sees the DTE program "as an opportunity to save energy, to be conservation conscious and to make it part of our university culture."

Over the past four-plus years, CMU has received nearly \$125,000 in incentive rebates, all in the area of natural gas efficiencies. First-year savings for all its projects were more than 34,000 Mcf — worth more than \$200,000 in reduced first-year costs.

DTE's Energy Efficiency Program for Business offers incentives in three ways: Prescriptive measures, which are clearly defined equipment, fixtures and materials; Custom measures, which involve projects that don't or can't use the listed Prescriptive measures; and projects that meet New Construction/Major Renovation criteria.

Prescriptive measures tapped by CMU since 2009 have included 15 separate projects involving the installation of Demand Controlled Ventilation systems.

These systems employ occupancy-based carbon dioxide sensors to measure the levels within a given interior area and then modify that level with additional outside air by adjusting the ventilation system accordingly.

Under the DTE program, CMU was eligible for cash incentives based on the square footage of each area in which they installed the sensors. For the 15 separate projects, CMU received \$32,923 and in the process saved 14,244 Mcf and more than \$84,000 in the first year.

Most of CMU's other projects were **custom**, dealing with the challenges of residence halls of varying design, a mix of old and newer infrastructure and unique challenges around the campus. Some custom projects involved multiple locations within the same building.

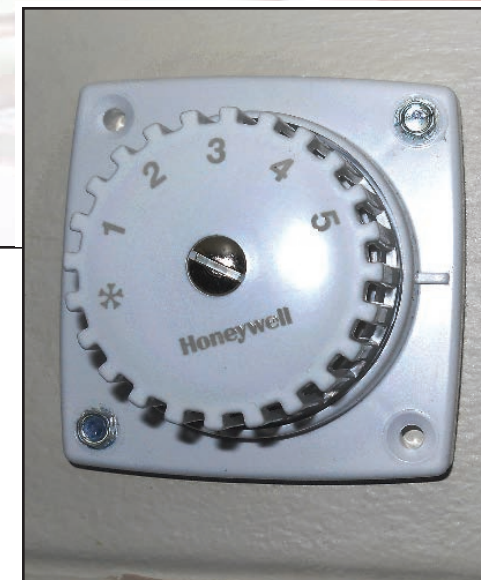
Overall, CMU's custom installations resulted in cash incentives of \$91,596 — and first-year savings of 19,962 Mcf and about \$120,000.

"To give you an idea of the impact of our efforts — and our reinvestment of DTE incentive money," Walton said, "our steam demand today is exactly the same as it was in 2000.

"That means that even as we've grown as an institution, we've actually reduced our carbon footprint.

"And today," Walton said, "our retrofitting team is always looking to integrate new technologies in everything we do — which is all part of our commitment to energy conservation."

One CMU project involved the installation of upgraded bathroom exhaust systems in the dormitories.



In CMU's East Quad dormitory, more than 1,200 new control valves were installed on its fin-tube room heaters.



About CMU's on-going energy efficiency efforts

For Michael Walton, CMU's director of Energy and Utilities, energy efficiency has become a way of life for the university.

In addition to identifying specific upgrades that need to be addressed around campus, he said he put together a permanent retrofitting team whose task is to constantly keep an eye out for more savings.

"The team is always looking to put a building back in shape with new technology," he said.

"Maybe it's demand control ventilation or better exhaust fans or pipe insulation.

"We just keep talking about (efficiency) everyday," he said. "It's now a culture of talking about it."

And if his team finds an opportunity?

"It takes us less than four minutes to apply (for incentives) with DTE," Walton said.

"That's how much we believe in the program, how well we know the program.

"And how much we want to continue using the program."



CMU projects since 2009

PROJECT		INCENTIVE	SAVINGS*	SAVINGS†
Temperature Control Valves	4 projects	\$52,467	12,562 Mcf	\$75,372
Exhaust Fan Project	1 project	\$25,000	6,864 Mcf	\$41,184
Steam Trap Survey	1 project	\$12,090	n/a	n/a
Demand Controlled Ventilation	15 projects	\$32,923	14,244 Mcf	\$85,464
Steam Pipe Insulation	1 project	\$1,085	238 Mcf	\$1,428
De-stratification Fans	1 project	\$954	298 Mcf	\$1,788
Total	23 projects	\$123,434	34,206 Mcf	\$205,236

*First-year savings †Approximate

ENERGY EFFICIENCY PROGRAM FOR BUSINESS

About the Program

Through DTE's **Energy Efficiency Program for Business**, companies like yours — big and small, manufacturing and service, sole proprietorships and corporations — can apply for cash incentives to help offset the cost of energy-saving equipment and technologies.

The **Energy Efficiency Program for Business** offers a comprehensive set of incentives for both electric and natural gas users, helping you invest in energy efficient technologies, saving you energy and money — today and into the future.

Our online Catalog provides specifications about each incentive offered, and our online Application provides step-by-step instructions on how to apply for those incentives.

The incentives fall into three categories:

Prescriptive Incentives

Prescriptive Incentives provide customers with predetermined incentive rebates for the installation of specific energy-efficient equipment — including, but not limited to: lighting, controls, HVAC, refrigeration and food service equipment. Incentives are provided for qualified improvements and equipment commonly installed in a retrofit or equipment replacement situation. Prescriptive incentives are paid based on quantity, size and efficiency of the equipment.

Custom Incentives

When customers cannot find a prescriptive measure that fits their projects, they can apply for **Custom Incentives**. This program provides cash rebates for measures installed in qualified projects that are less common or more complex than prescriptive measures. Custom incentives are paid based on the first year of energy savings (kWh and/or Mcf).

New Construction and Major Renovation Incentives

If a customer is building a new facility, changing the usage of space or adding load, **New Construction and Major Renovation Incentives** are available to assist them with off-setting the cost of energy-efficient upgrades, allowing them to save on operating costs long term. There are three categories of new construction incentives:

- **Systems Approach** incentives are predetermined to optimize the energy efficiency of individual systems.
- **LEED Whole Building Approach** incentives are based on energy savings validated by LEED.
- **LEED Design Review Assistance** is a flat rate incentive designed to encourage LEED certification.

Contact Us

We are available to help you understand the incentive requirements and available resources for this and other energy-efficiency projects. Call to check your eligibility and learn how to make DTE's **Energy Efficiency Program for Business** work for you.

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NOTE: Programs based on availability of funding and may end at any time.