

CASE STUDY

Municipal Government



The cities of Warren, Trenton and Detroit (inset) are among more than 100 Michigan communities that have received incentives from the DTE Energy Efficiency Program for Business since 2009.

One of the primary responsibilities of any local government is to spend taxpayer money wisely — while providing the best possible services to that community's residents.

Fortunately, many Michigan municipalities and townships have discovered that using the DTE Energy Efficiency Program for Business is one way to tackle an important area of rising costs: energy.

Working with DTE energy efficiency advisors, officials have been able to control energy consumption in their city halls, in their parking structures, on their streets and in their community facilities — saving money now and into the future.

And by receiving cash incentives from the DTE program for the installation of energy-efficient equipment, officials have been able to reduce the initial investment cost for making those improvements.

More than 100 Michigan cities, townships and villages have taken advantage of the DTE program, and while many projects are similar, if not identical — new LED street lights and the upgrade of other lighting and building HVAC systems — some stand out as quite unique.



For example, the iconic Anna Scripps Whitcomb Conservatory (right) — conducted a complete overhaul of its boiler system: 12 high-efficiency units replacing three older boilers. The project received more than \$35,000 in incentives from the program.

Inside is a look at two Michigan communities that took advantage of the program — Warren and Trenton — and how the incentives for new lighting upgrades helped offset their costs.

Warren's incentives are worth an average of 18% of total community project costs

Over a three-year period, the city of Warren took one of the most aggressive approaches to energy efficiency in Michigan: two dozen individual projects that range from simple lighting upgrades and LED streetlight conversions to the overhaul of the compressed air system in its waste water treatment plant.

For those projects, the city received more than \$263,000 in incentives from the DTE Energy Efficiency Program for Business:

- The installation of CFLs, exterior lighting upgrades, LED exit signs and occupancy sensors took place in the community's two senior citizen housing facilities. The lighting upgrade project was a \$67,000 investment by the city, for which it received almost \$12,400 in DTE cash incentives — offsetting nearly 20% of project costs.
- The 2012 upgrade to lighting in the City Hall parking structure involved converting nearly 180 175-watt HID's with 80-watt induction lamps — and lighting controls. This \$103,000 project received nearly \$23,000 in incentives — offsetting more than 22% of costs.
- The 2014 streetlighting conversion — from Mercury vapor and high pressure sodium lamps to LEDs. This \$145,000 project received nearly \$30,000 in incentives — offsetting 20% of costs.
- The 2014 upgrade of the city's waste water treatment plant's compressed air system, installing a 650 HP VSD air compressor to replace outdated equipment. This \$660,000 project received nearly \$52,000 in incentives — offsetting about 8% of the cost.

Taken as a whole, DTE incentives have offset nearly 18% of Warren's investments in its facilities — a point not lost on Sean Clark, the city's CitiStat coordinator.

“Our city has budgeted about \$2 million over a five-year period to install almost 12,000 new street lights in our city.”



Among other projects, Warren installed a new compressed air system in its wastewater treatment plant (above), new LED street lights and lighting upgrades at its community housing center (right).



“DTE incentives played a large role” in these projects, he said. “(They) helped reduce the project costs and return on investment, to make the projects more attractive and financially viable.

“These added incentives helped reduce the city's return on investment to three years,” he said, adding that the city already has experienced savings of more than \$27,000 a year in energy costs — as well as other savings through “reduced maintenance costs.”

Other substantial savings can be found in the city's on-going installation of LED street lights to replace older Mercury vapor and high pressure sodium fixtures.

“Under the leadership of Mayor James Fouts, our city has budgeted about \$2 million over a five-year period to install almost 5,700 new lights in our city,” Clark said.

Because of the use of DTE incentives, the city expects a payback period of a little more than seven years — and an annual savings of \$500,000 in energy costs.

With that kind of savings, Mayor Fouts already has urged other municipalities to follow his city's lead — both in published interviews and in an interview he did on National Public Radio.

His message: “Work with your DTE representative to analyze potential program incentives and cost reduction projects,” Clark said.

“Then clearly express what your city's goals are and allow DTE to help tailor a program to meet those goals.”

WARREN PROJECT SUMMARY

PROJECT	SAVINGS-ELEC.*	INCENTIVES
Senior Citizen Center	103,020 kWh	\$10,419
City Hall Pkg. Structure	285,419 kWh	\$20,554
Streetlighting upgrade	902,110 kWh	\$52,000
WWTP compressed air	362,166 kWh	\$28,870
Total	1,652,715 kWh	\$111,843

*First-year estimated savings

Trenton's community center upgrades provide insight into a common issue

Among the most common services offered by communities — big and small — are recreational activities. And in many cases, the centerpiece of such activities is a community center.

Featuring ice rinks, indoor and outdoor pools, workout centers, running tracks, gymnasiums, kitchens and meeting and banquet rooms, community centers have incredible energy needs: heating and cooling all year 'round, lighting on at all times of day and night, water heaters, pool heaters, cooking equipment and refrigeration.

You name the energy use and a community center does it.

The city of Trenton has such a facility — the Kennedy Recreation Center — and when it came time to become more energy efficient at the site, city officials worked with DTE to help plan their energy upgrades.

Actually, the first project undertaken at the site was in the first year of the DTE program, 2009; a modest project that upgraded some of the lighting in the ice arena.

In 2015, though, a massive, \$569,000 overhaul of the entire facility was tackled — for which the city received more than \$37,000 in cash incentives from the DTE Energy Efficiency Program for Business.

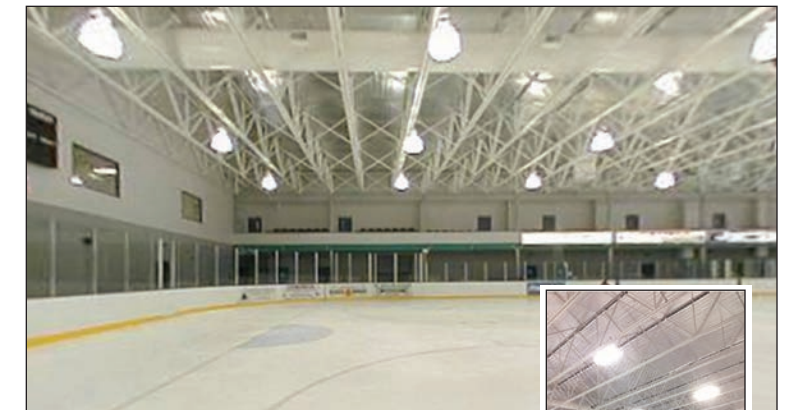
The scope of this project also included these major lighting upgrades, which qualified for incentives offered by the DTE program:

- The replacement of exterior metal halide fixtures with LEDs.
- The installation of interior LEDs and CFLs.
- The installation of LED downlights.
- The upgrade from T8 fluorescents with HPT8s.
- The replacement of exterior HID's with LEDs/induction lighting.
- The installation of lighting controls.

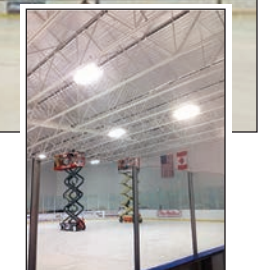
Because of the extent of the project, the city also received four special bonuses: 20% Multi-Measure (electric), 20% Multi-Measure (gas), 15% Michigan-Made and 20% LED Lighting special.

TRENTON PROJECT SUMMARY

PROJECT	SAVINGS-ELEC.*	SAVINGS-GAS*	INCENTIVES
2009 Lighting upgrade	12,936 kWh		\$1,575
2015 Projects	224,209 kWh	1,709 Mcf	\$36,000
Total	237,145 kWh	1,709 Mcf	\$37,575



Work at Trenton's Kennedy Recreation Center has ranged from ice rink lighting (above) to pool heating (right) to other lighting upgrades and HVAC projects — and even controls on vending machines.



For Tim Beaker, Business Operations Manager for Trenton's Parks and Recreation Department, the involvement of DTE in the city's projects was a natural process.

“All the rebates made it possible for us to accomplish more (than originally planned),” he said, adding that since their installation, the lighting upgrades have resulted in “a positive change in our energy bills.”

In addition, the impact on improved maintenance at the facility “has been the best improvement we've experienced so far,” Beaker said.

And what advice would he give other communities?

“Make sure you do your homework and ask many questions,” he said, adding that the city already has more projects pending for the site; projects that could qualify for up to another \$36,000 in incentives from DTE.

“We are constantly evaluating our options,” Beaker said.

*First-year estimated savings

About our Program

The DTE **Energy Efficiency Program for Business** offers a comprehensive set of incentives for both electric and natural gas users designed to help you invest in energy efficient technologies.

Here are three ways to save:



PRESCRIPTIVE

Are you replacing light fixtures with newer energy-efficient models?

Upgrading your refrigeration and food service equipment?

Check out the **Prescriptive Incentives** section of our Catalog and Application.

Prescriptive Incentives cover a wide variety of energy-efficient improvements, including: lighting, controls, HVAC, refrigeration and more. Incentives are based on quantity, size and efficiency of the equipment.

- Prescriptive incentives are available for many common energy efficiency measures.
- Incentives are based on predetermined energy savings.
- Prescriptive incentives typically average 20% to 50% of the incremental cost of the equipment or services provided.

CUSTOM

Can't find your project in the Prescriptive Incentive section?

Then consider applying for **Custom Incentives**, which are for projects that involve less common or more complex technologies than our list of prescriptive equipment.

Custom Incentives are based on the first year of energy savings (kWh and/or Mcf).

- Custom incentives are offered for capital investment projects that are NOT eligible for a Prescriptive incentive.
- Incentives are determined on a case-by-case basis and are paid per unit energy saved.
- Custom incentives are capped at 50% of project costs.

NEW CONSTRUCTION

Are you building a new facility, changing the usage of space or adding load? Then our **New Construction and Major Renovation Incentives** are available to assist you:

- **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** incentive is designed to encourage LEED certification.

- New Construction/Major Renovation incentives are available for new facilities, the renovation of existing facilities or a change of use project, such as converting a warehouse into an office complex.
- Incentives also are available for adding load.

Contact Us

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**Funds will be awarded on a first-come, first-served basis; program based on availability of funding and may end at any time; certain other conditions apply*