

Welcome to the 2017 Program Kick Off

Frederik Meijer Gardens • Grand Rapids • Jan. 17, 2017 Holiday Inn • Southgate • Jan. 18, 2017 Suburban Collection Showplace • Novi • Jan. 24, 2017



Ken Randazzo

Manager
DTE EO C&I Programs & Energy Partnership



Agenda

- Energy Optimization Overview
- Electric Program Overview
- Gas Program Overview
- Energy Efficiency Program for Business Overview
- Midstream Food Service Overview
 Break
- Business Energy Consultation Overview
- Midstream Lighting Overview
- Retro-Commissioning Overview
- Strategic Energy Plan Overview
- Michigan Saves Financing Overview



Our Service Territory SUPERIOR NTONAGON CO. GER CO. GOGERIC CO. SCHOOLCRAFT DTE Energy® LAKE HURON Know Your Own Power GLADWIN CO. **DTE Electric service territory** HURON CO. MIDLAND DTE Electric area LAKE GENESEE DTE Gas area **MICHIGAN** Electric/Gas overlap within DTE service territory HILLSDALE

LAKE ERIE



History of the Program

- Michigan PA 295 (2008): "Energy Optimization Surcharge" added to all ratepayers' bills to:
 - Help customers save energy, manage costs
 - Help reduce generation, offset new capacity
- The "surcharge" is rebated as cash incentives that:
 - Target specific energy-saving equipment and technologies
 - Encourage energy-efficiency building and systems design
- Legislation signed into law for 2017 updates the existing public act



Impact of energy efficiency

A report by the Michigan Public Service Commission*

- Utility energy efficiency programs across the state exceeded targets by 20% since the mandates were enacted in 2008
- Since 2008, these programs have saved electric ratepayers more than \$5 billion

• In 2015:

- Utilities spent \$262 million on energy efficiency programs
- They are projected to <u>save ratepayers \$1.1 billion</u> over time
- The 4-to-1 ROI has stayed fairly constant the last several years

*2016 Report on the Implementation of P.A. 295 Utility Energy Optimization Programs



Impact of our Program

Since 2009:

- More than \$127 million in cash incentives has been paid to Michigan business customers
- More than
 41,000
 projects
 have been
 completed





Impact of our Program Since 2009:

- Our customers have realized savings of:
 - 5,000 GWh in electricity
 - 13 million Mcf in natural gas
 - \$400 million in total energy costs



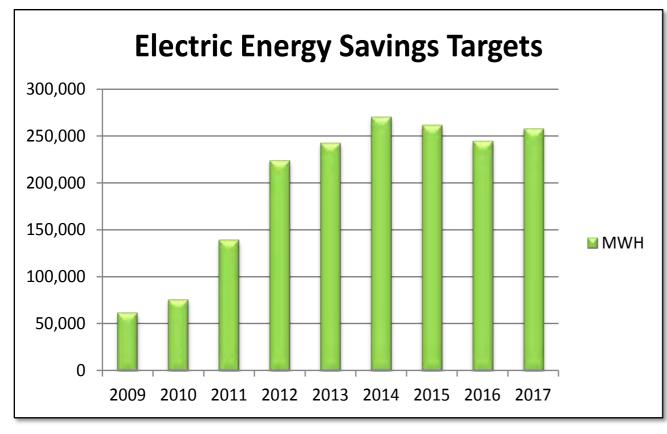
These energy savings translate into 4 million tons of CO₂ not being pumped into the atmosphere

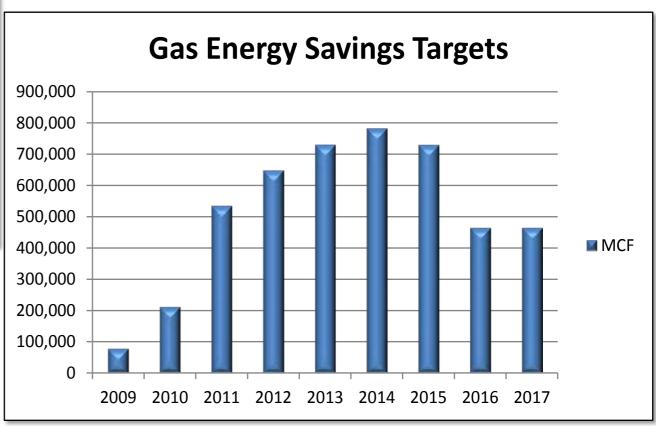
^{*}Household data based on estimates from the U.S. Energy Information Administration. *CO₂ calculations based on U.S. Environmental Protection Agency guidelines.



Impact of our Program

Going forward: Our goals - 2009-2017

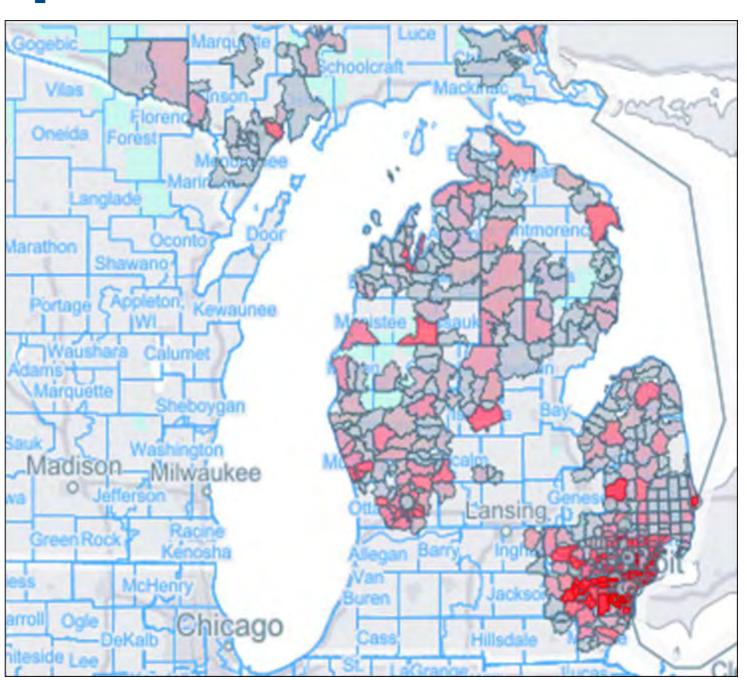






Customer Participation

- Statewide customer participation since the program's launch in mid-2009
 - Brighter colors are areas with a greater opportunity for future savings





Customer Participation

 We track participation by 20 DTE-identified business segments

2016 20 Business Types							
Business Type		Savings					
	Electric (kWh)	Gas (Mcf)	Applications				
Agriculture	112,370.33	39,719.04	24				
Auto (manufacturing)	49,222,274.87	185,762.42	161				
Fabricated Metals	1,499,409.88	497.43	17				
Financial & Real Estate	8,289,685.78	1,638.07	125				
Government	25,737,126.09	23,957.75	202				
Hospitals & Medical	5,045,833.16	24,135.65	85				
Lodging	8,891,468.56	7,521.56	126				
Mining/Construction	992,616.32	62.15	13				
Other Manufacturing	19,358,187.79	229,646.85	223				
Other	21,231,533.74	23,585.19	569				
Petro Chem., Rubber & Plastic	6,266,448.07	26,863.61	19				
Restaurants	4,133,368.66	2,425.29	281				
Retail (Food)	24,641,613.89	4,675.80	384				
Retail (Non Food)	57,011,793.09	2,001.92	1352				
Schools	20,369,400.26	113,211.14	317				
Services	37,165,915.66	53,937.06	723				
Steel & Primary Metals	7,441,742.60	7,595.32	37				
Transport., Comm. & Utilities	7,531,245.23	640.27	33				
Universities	8,263,408.30	42,811.19	98				
Wholesale Trade	2,457,886.22	4,475.56	39				
TOTALS:	315,663,328.51	795,163.27	4,828				



Designated Trade Allies

A specially trained contractor who knows:

- How to access our Program
- How to use the Application to maximize the Program's benefits for customers

Designated Trade Allies are:

 Contractors, suppliers, designers and consultants

More about these specialists later in our program





ENERGY EFFICIENCY

PROGRAM FOR BUSINESS

TE Energy

Success Stories

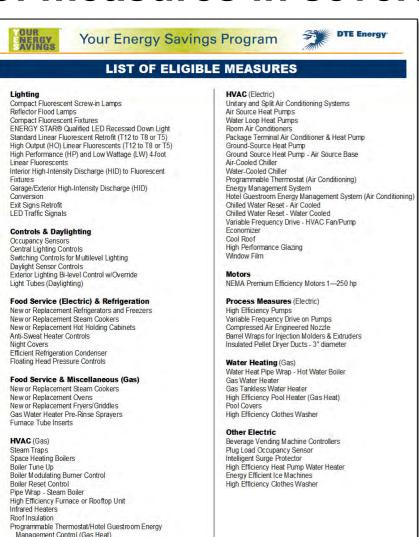




How the Program has grown

When the program was launched in 2009, we offered a handful

of measures in several categories (left).



Demand Control Ventilation

reheat systems)

Chiller Water Reset/Energy Management System/Variable Frequency Drive on Secondary Chilled Water Pump (for gas

program had grown to a massive list of measures in multiple categories (right) and new programs

Industrial 3 Phase High Frequency Battery Chargers Injection Molding Machines atkaged Terminal AC and Heat Pump Exterior LED Lighting Bl-level Control Insulation for Pellet Dryer Duco Programmable Thermostat (AC) No-loss Condensate Drains on Air Comp Refrigerant Charging Correction on KTU AC Refrigerated Air Driver replacing Designant Air Driver Room Air Conditioners Sethero-Setup Controls (Air Continionals) Exterior or Gange HID to LED Lighting Retents: Gange LED Lighting Bil-well Controls: Interior Central Lighting Control Interior Central Lighting Control Interior Lendshood Occupancy and Daylight Sensor Interior Led High Ray Interior LED High Ray Interior LED High Ray Variable Displacement Air Compresso Unitary and Solt Air Conditioning Sys Food Service & Refrigeration By 2017, the Interior Occupancy Sensors Interior Stainwell Lighting Control Miscellaneous Electric Interior Switching Controls for Multilevel Lighting. LED Recommed Down Light Fixture. LED Refrigerated Case Oose Lighting Energy Efficient for Machines LED Traffic and Pedestrian Lights Occupancy Sensors for LED Releigenand Case Lighting ENERGY STAR® Communical Solid Door Freezer te ligent Multi-Socket Surge Protector ENERGY STAR" Commercial Solid Door Refugeralise Tubular Skylights PC Network Energy Management Controls Variable Frequency Drives (VFD) for Process Fans ENERGY STAR® Hot Holding Cable etc. ENERGY STAR® Steam Coulors (Electric) Air Canled Chillen Air Source Heat Pumps Chilled Water Reset - Witter Control Chilled Water Reset - Witter Control Chilled Water Reset with Pump enviol Control Chilled Water Reset with Pump enviol Control VFD on Computer Room AC Supply Fans Floating Head Pressure Control Process Electric Floating Head Pressure Controls LED Metigenated Class Door Lighting Occasionsy Sensors for LED Refrigerated Case Logistry Per-Rimes Expanses (Boston Water Head) Newschie Refrigerated Display Case Door Note of Refrigeration Serving Dur to Lighting Wittinge Reduction Barrel Wrops for Injection Molders and Extraders ned Air Audio with Leuk Repail Closed Loop Warer Source Heit Paintin Compressed Air Audios with Leak Repail Compressed Air Pressure Flow Controller Compressed Air Storage Tank Computer Room Air Conditioning (CRAC) Until Biblioth Compressed Air Depail Blocken Motion replacing Pressures (Air) Motion Blocken Motion replacing Pressures (Air) Motion Blocken Tools replacing Pressures (Air) Blocken Tools replacing Pressures (Air) Blocken Tools replacing Pressures (Air) Blocken Tools replaced (Air) Blocken Tools replace DX Coodensor Cal Conning Strip Curtains on Walk-in Cooler and Freezer Doors EC Motors replacing non-EC Motors Vertiral Night Covers Efficient Chilled Water Purns Walk-in Cooler/Preser Evapositor Fan Motor Efficient Hot Water Pumps Ground-Source Heat Pumps Reduction 2017 Prescriptive Natural Gas Measures rocess Gas Furnace Tube Institute High Efficiency Process Books (Water or Steam). Total Energy Recovery Ventilation Variable Frequency Drives - Secondary Chilled Water Automatic High Speed Doors - Exterior Doors Automate Phila Speed Looks - Extra Control Roll Linkages Control and 02 Prin Control Roll Philagoles Control - Control Roll Philagoles Control Roll Philagoles Control Child Water Reat with Pump en/oil Control Demand Control ed Vertilation Web-Based Ruilding Automation System Boiler/Furnace Tune-up Hot Water and Laundry Books Time-up Domestic Hot Water Boder Time-Up Tourse Air Case Furnoce or Roottop Unit (RTU) Time-up Gas Stotage Water Heater Food Service Guestrooni Energy Management Contro (Gas Hess) High Efficiency Gas Furnace/Unit Meuter Low-Flow Sink Armson Osone Lauptry High Efficiency Space Husting Boiler HVAC Occupancy Sensor for Lange Office Buildings Insulation nsulation Doministic Hot Water Pipe Whap Orcenhouse Host Curtain Orcenhouse Infrared Film Pipe Whap - Steam or Hot Water Boller Linkspolens Boiler Controlli ired Snow Malt Control ENERGY STAR® Steam Cookers (Gas) Optimized Stow Melk Controlls Outside Alt Ventilation Broduction Ozone Laundry System Programmable Therrootst (Gen How) Sension Energy Recovery Ventilation Sension Energy Recovery Ventilation Sension Brophit (Ben How) Steam Thip Repair/Replacement Large Vin Fryers Pre-Rinse Sprayers (Gas Water Heater) Rack Oven Reach-in Refrigerated District Core Doct Retroft Refrigeration Condenser Weste Heat Recovery [Domestic Water Heater/Space Hearing] Truck Loading Dock Smit-

ENERGY EFFICIENCY

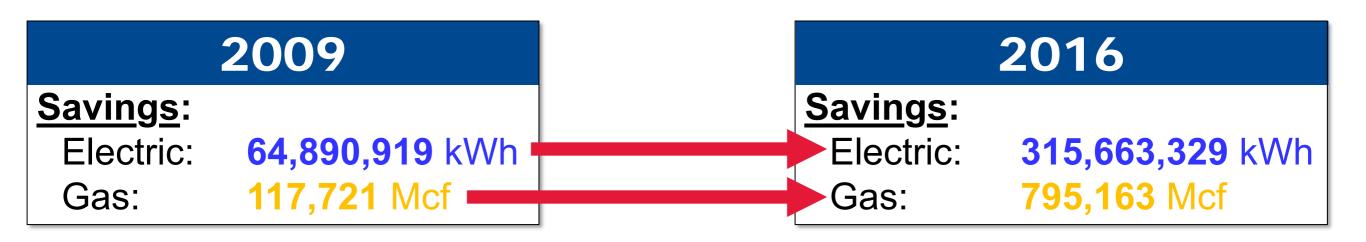
PROGRAM FOR BUSINESS

DTE Energy



How the Program has grown

- •In 2009:
 - The program paid nearly 1,200 Applications
- •In 2016:
 - The program paid more than 4,800 applications
 - ✓ That level of growth was <u>exceeded</u> in both gas and electric savings





Making participation easy

When the program was launched, we offered an Excel-based Application and only basic incentives

Note: If your lighting project is not included as one	of the measures below,	you may sub	mit it as a custo	m measure.
Equipment Type	Incentive	Unit	# of Units	Incentive
Compact Fluorescents and LEDs (Incandescent to C	CFL or LED)			
Compact Fluorescents and LEDs (Incandescent to C CFL - Screw-in (\$ 31 Watts)	©FL or LED) \$1.50	Lamp		
	i i	Lamp Lamp		
CFL - Screw-in (\$ 31 Watts)	\$1.50			
CFL - Screw-in (\$ 31 Watts) CFL - Screw-in (\$ 31 Watts)	\$1.50 \$8.00	Lamp		



Making participation easy

Today, we offer an interactive PDF Application and both Michigan-made and Multi-measure bonuses*

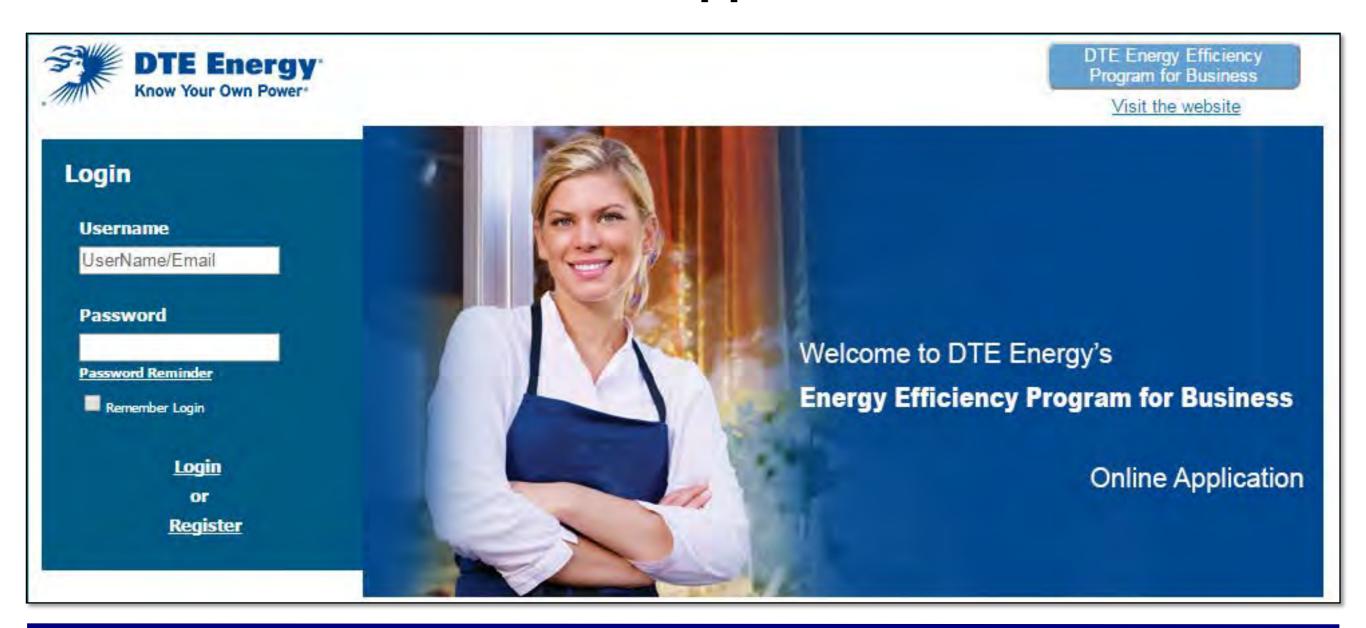
Ref #	Brief Description of Existing Foture Model and New Foture Model	Foliation (A)	Pre-Upgrade Water Fodere (E)	Post-Up- grade Waza/ Foture (CI	Tetal Kijowatta Reduced (D) 1- (A x (B - C) / 1000	Incentive/ NW Reduced (E)	Total Incontivo (Dix E)
EX	1L 400 W HID Fixtures to 1L LED Fixtures	5	455	250	1.025	\$125,00	128.12
LL-17				77 11 77		\$125.00	
LL-18					į.	\$125.00	
LL-19						\$125,00	
otc	Brief Description * DLG Product Code						
U-170						\$250.00	
L-180						\$250.00	
LL-190						\$250.00	
L-730						\$250.00	
11.200						\$250.00	

^{*}More about all of our special offers later in the program



Making participation easy

And we also offer an online Application





Our Programs

Energy Efficiency Program for Business

- Main C&I Program:
 - Electric/Gas
 - Prescriptive/Custom/New Construction
- Midstream Food Service
- Business Energy Consultation
- Midstream Lighting
- Retro-Commissioning
- Strategic Energy Planning



Thank you

Next: A closer look at our Electric C&I Program

ENERGY EFFICIENCY PROGRAM FOR BUSINESS



C&I Electric Program

Philip Guster

Manager
DTE C&I Electric Program

2017 Electric Program Overview



2017 C&I Program Caps

Project	\$250,000	
Customer	\$1,000,000	

Unchanged from 2016





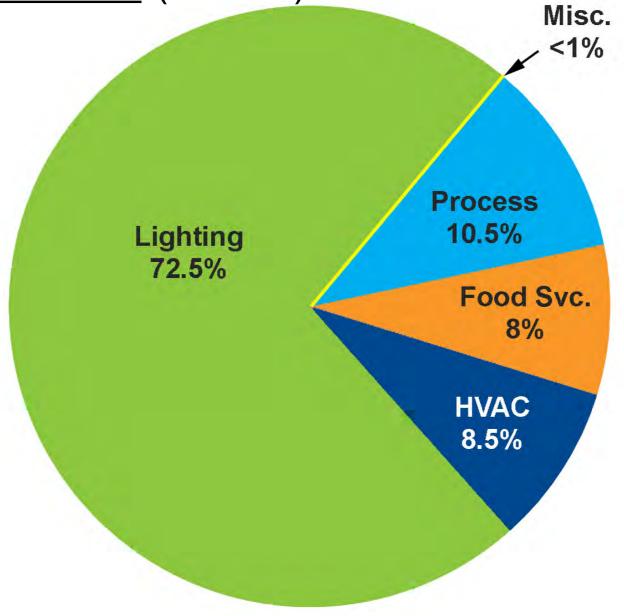
2017 Electric Program Overview

As of November 2016



2016 Participation by Technology

Prescriptive Electric (Dollars)



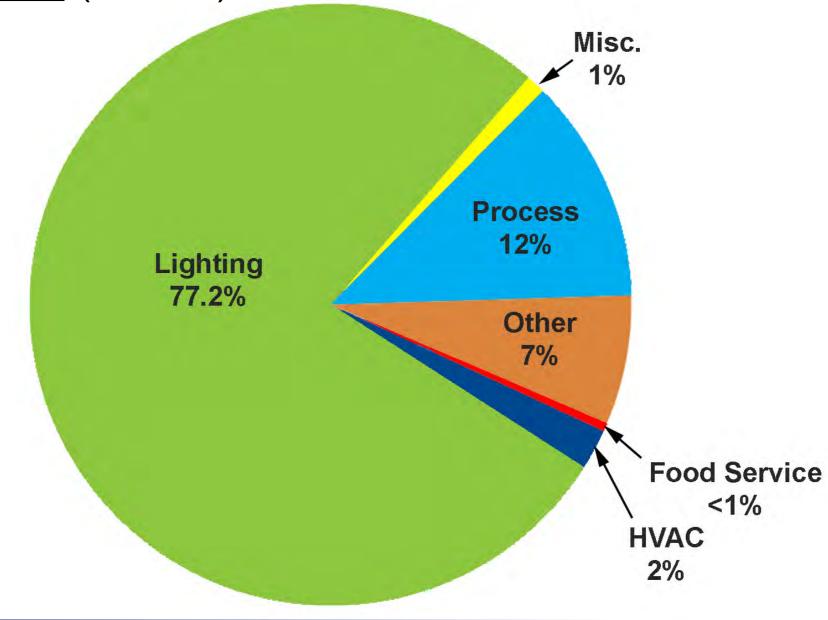
2017 Electric Program Overview

As of November 2016



2016 Participation by Technology

Custom Electric (Dollars)



2017 Electric Program Overview

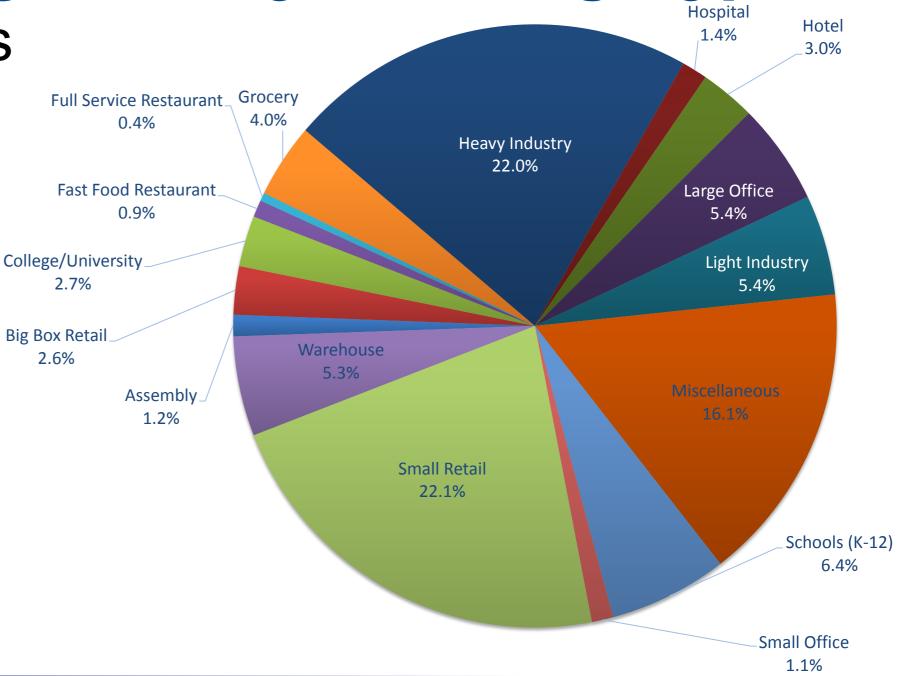


2016 Savings (kWh) by Building Type

Electric projects

 Segment with the highest adoption levels:

Heavy industry
 and small retail
 led the way in
 electric
 projects in
 2016





Program Changes Electric Measures

2017 Electric Program Changes



Measure/Incentive changes

DLC lighting

 LEDs listed by the DesignLights Consortium (DLC) are the new <u>standard</u> measures for certain fixtures

Ref#	Brief Description of Existing Fixture Model and New Fixture Model		# of Fixtures (A)	Pre-Upgrade Watts/ Fixture (B)	Post-Up- grade Watts/ Fixture (D)	Total Kilowatts Reduced (E) = (A x B) – (C x D) / 1000	Incentive/ kW Reduced (F)	Total Incentive (E x F)	7
EX	1L 400 W HID Fixtures to	o 1L LED Fixtures	5	455	250	1.025	\$125.00	128.12	
LL-17							\$125.00		
LL-18							\$125.00		
LL-19							\$125.00		7
DLC	Brief Description *	DLC Product ID							
LL-17D		-					\$250.00		
L-18D							\$250.00		
LL-19D							\$250.00		Īг

To qualify for the DLC incentive, the fixture must be listed on the DLC website (<u>www.designlights.org</u>); the Product ID must be entered on the Application

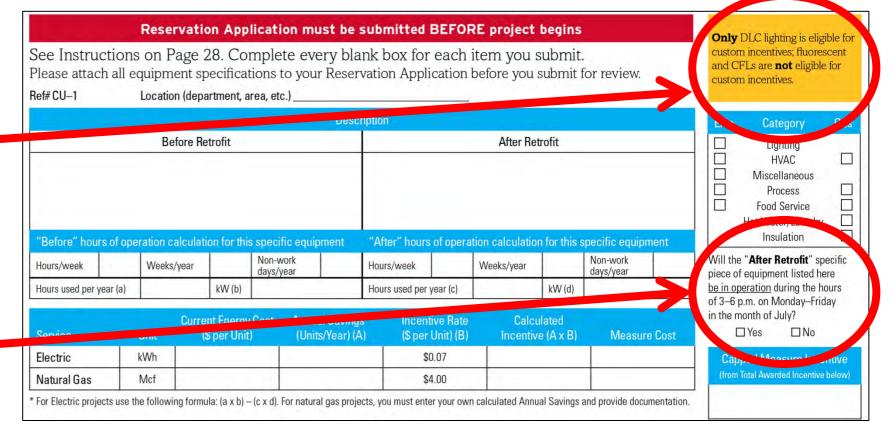
2017 Electric Program Changes



Measure/Incentive changes

Custom measures

- Only DLC-rated lighting is eligible for custom projects
 - CFLs and other fluorescents are not eligible
- Peak energy use duration is now Monday-Friday



2017 Electric Program Changes



Measure changes/addition

Lighting revisions

- LL-3 LED Recessed Downlights
- LO-7 Stairwell Bi-Level Lighting Controls

2016	2017
\$8/ <u>lamp</u>	\$8/ <u>fixture</u>

2016	2017
\$0.30/kWh controlled	\$300/kW controlled

Electric measure addition

Pre-rinse sprayer (electric water heat) = \$30/sprayer

Food Service - Electric and Refrigeration Incentive Worksheet

	Misce	ellaneous				
	Ref#	Equipment Type	Incentive	Unit	# of Units	Total Incentive
×	FE-38	Pre-Rinse Sprayers (Electric Water Heat)	\$30.00	Sprayer		

2017 Electric Program Changes



Measure deletions

Electric - Lighting

- All fluorescent lighting
- All CFL lighting
- All induction lighting
- De-lamping



2017 Electric Program Changes



Measures moved to Midstream Lighting*

Electric - LEDs

- LL-1: LED A-Line Lamps <19 watts
- LL-2: LED A-Line Lamps ≥ 19 watts
- LL-4: LED MR16 Lamps
- LL-5: LED/PAR/BR/R Lamps
- LL-6: LED Candelabra Lamps replacing incandescent candelabra
- LL-7: LED Globe Lamps replacing incandescent globes
- LL-8: LED A-Line Lamps replacing CFL A-Line
- LL-9: LED PAR/BR/R Lamps replacing CFL PAR/BR/R lamps
- LL-10: LED Recessed Down Lights replacing CFL recessed down lights

^{*}You'll learn more about midstream lighting later in our program



Program Examples Electric Projects

2017 Electric Case Study



CASE STUDY

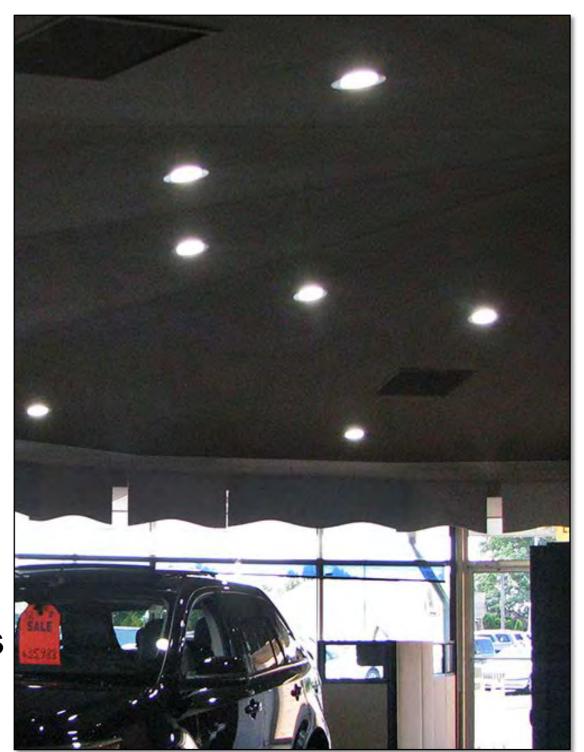
Prescriptive project

Auto Dealership

Lighting

•	Total	project	cos	t	\$102	,216
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- Total incentives...... \$23,434
- Project cost after incentives... \$78,782
- Total electric savings/yr..... \$30,820
- Simple payback...... 2.6 years



2017 Electric Case Study



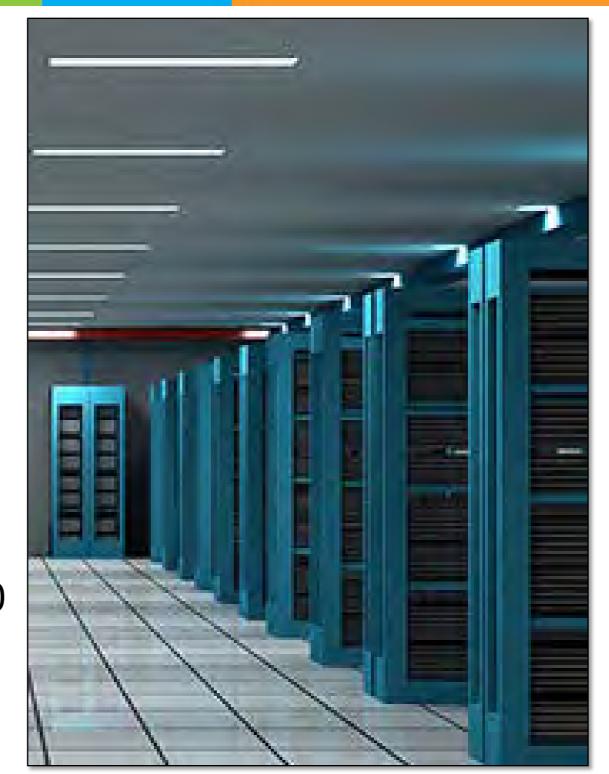
CASE STUDY

Custom project

Data Center

Humidifier changeout

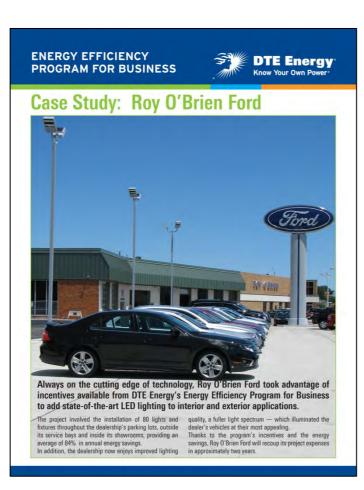
- Total project cost......\$497,959
- Total incentives......\$130,000
- Project cost after incentives...\$367,959
- Total kWh saved/yr..... 1,627,000
- Simple payback......2.8 years



2017 Electric Case Studies







Stop by our C&I program table for a closer look at our Case Studies





Thank you

Next: A closer look at our Natural Gas C&I Program



C&I Natural Gas Program

Bill Clemens

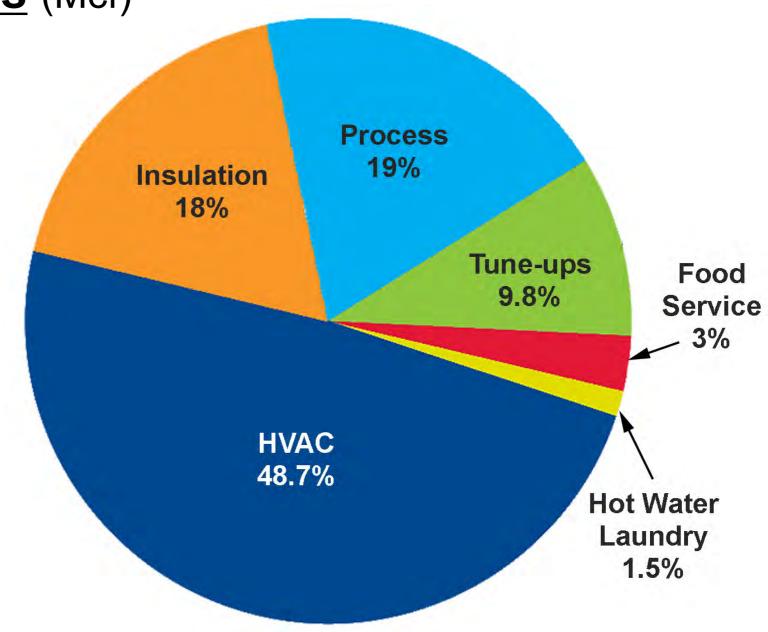
Manager
DTE Energy Efficiency & Business Energy Services



2016 Participation by Technology

Prescriptive Natural Gas (Mcf)

- Measures with the highest adoption levels:
 - HVAC installations and controls represented nearly 50% of gas measures in 2016





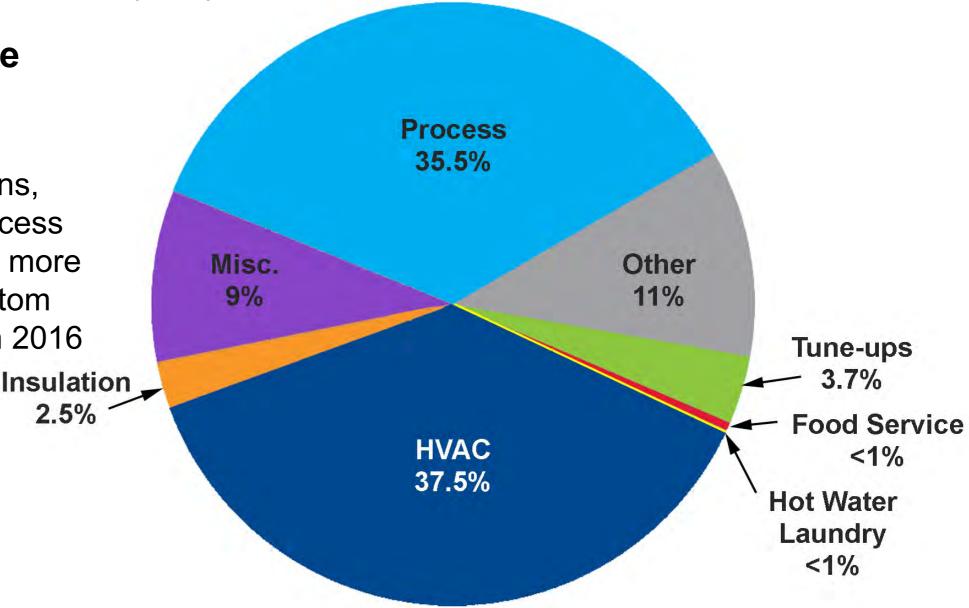
2016 Participation by Technology

Custom Natural Gas (Mcf)

 Measures with the highest adoption levels:

> HVAC installations, controls and process gas represented more than 70% of custom gas measures in 2016

> > 2.5%

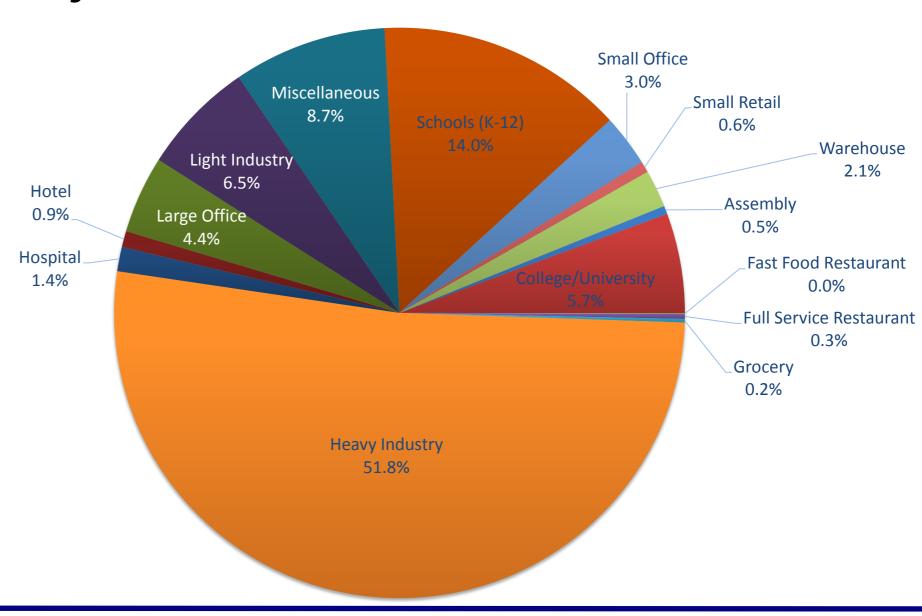




2016 Savings (Mcf) by Building Type

Natural Gas projects

- Segment with the highest adoption levels:
 - Heavy industry –
 which includes
 the Big 3 –
 accounted for half
 of all gas projects
 in 2016





2017 C&I Program Caps

Project	\$200,000		
Customer	\$300,000		

Unchanged from 2016





2017 Gas Program Changes



Measure changes

There were no additions, deletions or other changes to natural gas measures for 2017



Program Examples Natural Gas Projects

2017 Natural Gas Case Study



CASE STUDY

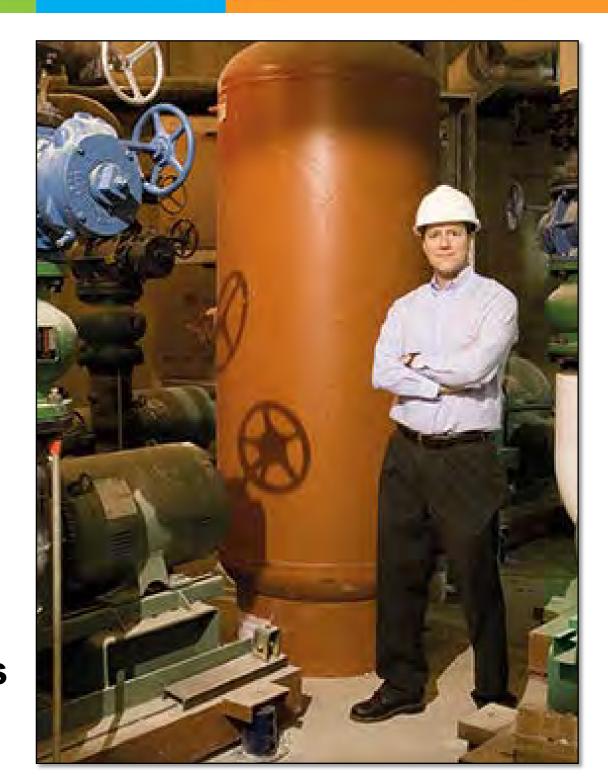
Prescriptive project

Warehouse

Energy Management System

•	Total	project cost	\$59.	780
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- Total incentives..... \$25,000
- Project cost after incentives... \$34,780
- Total Mcf saved/yr..... 8,670
- Simple payback...... 1.1 years



2017 Natural Gas Case Study



CASE STUDY

Custom project

K-12 School

Energy recovery on rooftop/vertical unit ventilation

•	Total	proje	ect	cost	\$75,	008
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- Total incentives......\$19,790
- Project cost after incentives...\$56,010
- Total Mcf saved/yr..... 3,958



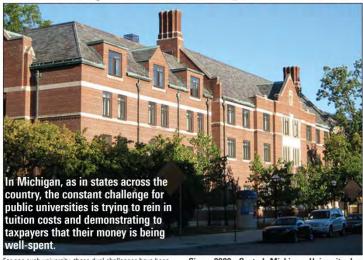
2017 Natural Gas Case Studies







Case Study: Central Michigan University



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 Reviews

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."

ENERGY EFFICIENCY PROGRAM FOR BUSINESS



Case Study: Crittenton Hospital



Founded near the turn of the last century, the original Florence Crittenton Mission in Detroit was part of a nationwide healthcare movement for women and children.

It was launched in 1895 by Charles Crittenton, a businessman and philanthropist, who named the movement after his daughter.

By 1967, the hospital opened its new facility on donated farmland in Rochester — and since then, has continued to expand its footprint and its service to the community.

In 2010, that expansion took the form of the design of a six-story south tower addition to the complex, with the first floor housing support services and receiving; the second floor home to registration, the pharmacy and the residency program; and the rest of the floors used for patient services and private rooms. The six-story addition to Crittenton's Hochester facility added new rooms and other operations.

Also included was a bridge connector to the existing parking deck. The entire project was completed in 2014. To help offset the costs of some of the energy technologies installed in the SSS million, 155,000-square-loot project, Crittenton officials worked with DTE Energy's Energy Efficiency Program for Business to obtain more than \$150,000 in incentives.

Using the Program's New Construction incentives. Crittenton also was able to have a portion of its energy modeling and construction costs reimbursed. The incentives covered energy-efficient lighting and air handling installations throughout the new addition.

Stop by our C&I program table for a closer look at our Case Studies

ENERGY EFFICIENCY PROGRAM FOR BUSINESS



Schools



ENERGY EFFICIENCY
PROGRAM FOR BUSINESS



SAVE MORE rom around the state d shift more money s' Bowen Elementary

Case Study: Whole Foods Market



Which is the same kind of decision the company made when it came to building its new facility in 2013: Instead of installing outdated and inefficient lighting, HVAC systems and refrigeration and cooking equipment, Whole Foods Market officials worked with DIE Energy to identify the latest, most energy-efficient technologies on the market. And then they applied for incentives that would help offset the costs of those technologies.

The chain — the world's largest natural and organic grocer—opened its store on June 5, 2013, with the breaking of a giant loaf of bread replacing the traditional ribbon cutting.

The 26,000-square foot store, located at Woodward and Mark in Details are stored to the control of the control o

Whole Foods Market's new Detroit store used DTE Energy incentives to help offset the cost of energy-saving technologies in the facility. than \$20,000 in energy-efficiency incentives from DTE

than \$20,000 in energy-efficiency incentives from DTE through its Energy Efficiency Program for Business. The company applied for incentives offered in the program's New Construction Application.

Not surprisingly, nearly 60% of incentives involved electric and gas food service technologies, such as refrigeration and freezer equipment and cookers, fryers, ovens and holding cabinets.

Other incentives helped offset the cost of new lighting and sensors throughout the store.

d shift more money s' Bowen Elementary

,000 Mcf in natural gas each year*— and they g money for years to come. energy efficient and control fheir energy costs, riked closely with DTE energy advisors to identify s that could be upgraded, improved or replaced, d from lighting upgrades to HVAC system and that to new food service equipment and new pool

lanti, Michigan schools have made the DTE Energy in for Business part of their annual budget planning, a closer look at how some schools used the wes to help offset their improvement costs.

*Sound on frequent extremen

2017 Program Kick-Off Event



Thank you

Next: A closer look at the main C&I Program

ENERGY EFFICIENCY PROGRAM FOR BUSINESS



C&I Program Overview



About our Program Incentives

2017 Program Overview



For a customer to receive incentives

- Qualified measures must be installed at facilities served by DTE
- Projects must involve a <u>capital investment</u> that results in an improvement in energy efficiency of a system or building
- The equipment installed must be new and meet the specifications spelled out in the Catalog
- For each site, there must be at least one meter that is on an eligible rate schedule
- You must be in good standing with DTE Energy and not be a Residential or Multifamily customer
 - We have an agriculture program for those on a residential meter

2017 Program Overview



These do not qualify for an incentive

- Customers who self-direct (and have opted out of the program)
- Load shifting/demand limiting projects
- Renewable energy projects
- Power quality improvements
- Fuel switching projects
- On-site electricity generation
- Changes in operational and/or maintenance practices or simple control modifications that do NOT involve capital costs



Three types of program incentives

Prescriptive

- Defined measures and incentives for the installation of one-forone energy efficiency improvements
- Incentives average 20%-50% of the incremental cost

Custom

- Capital investment projects that are NOT eligible for prescriptive incentives may qualify
- Incentives are calculated on a case-by-case basis and are paid per-kWh/Mcf of energy saved

New Construction Major Renovation

- New facilities or the major renovations of existing facilities
- Change of use projects
- Adding load

Prescriptive Incentives



Prescriptive

Prescriptive Incentives: How they work

 Pre-determined measures with specific energy savings and cash incentives in these categories:

ELECTRIC

- Lighting
- HVAC
- Miscellaneous
- Process
- Food Service

NATURAL GAS

- Hot Water & Laundry
- HVAC
- Insulation
- Process
- Food Service
- Boiler/Furnace Tune-up

Custom Incentives



Custom

Custom Incentives: How they work

- Capital investment projects that are <u>NOT</u> eligible for a Prescriptive incentive may qualify
- Custom Incentives are determined on a case-by-case basis and are paid per-kWh or per-Mcf

New Construction/ Major Renovations



New Construction Major Renovation

New Construction: How it works

- New facilities or major renovations of existing facilities
- Change of use
- Adding load



New Construction/ Major Renovation Incentives



New Construction Major Renovation

New Construction: Incentives

- Systems Approach
 - Pre-determined measures designed to optimize efficiency of individual systems
 - ✓ Measures found in the prescriptive section of Application
 - ✓ Lighting Power Density found in back of Application
- LEED Design Review Assistance
 - \$1,500 for LEED project certification
- LEED Whole Building Approach
 - Incentives based on three levels of LEED certification

Program Overview



The Timeline

Reservation Application

Reservations are <u>strongly</u> encouraged (and required in some instances) to reserve funds for your projects

Application Review

May require pre-inspection

Reservation Letter Issued

Proceed with project

Install Measures

Project must start within 30 days and be completed within 90 days of approval or end of Program Year, whichever comes first

If your project changes, file a revised reservation application to reserve additional funds

Final Application & Review

Submit within 60 days of project completion; may require post-inspection

Payment

Payment can be made to the customer or to a third party(ies)

Program Overview



The Timeline

Reservation Application

Application Review

May require pre-inspection

Reservation Application to Letter: 4-6- weeks

Reservation Letter Issued

Proceed with project

Install Measures

Project must start within 30 days and be completed within 90 days of approval or end of Program Year, whichever comes first

Letter to Final Application: 90 days or less

Final Application & Review

Submit within 60 days of project completion; may require post-inspection

Payment

Final
Application
to Check:
4-6 weeks

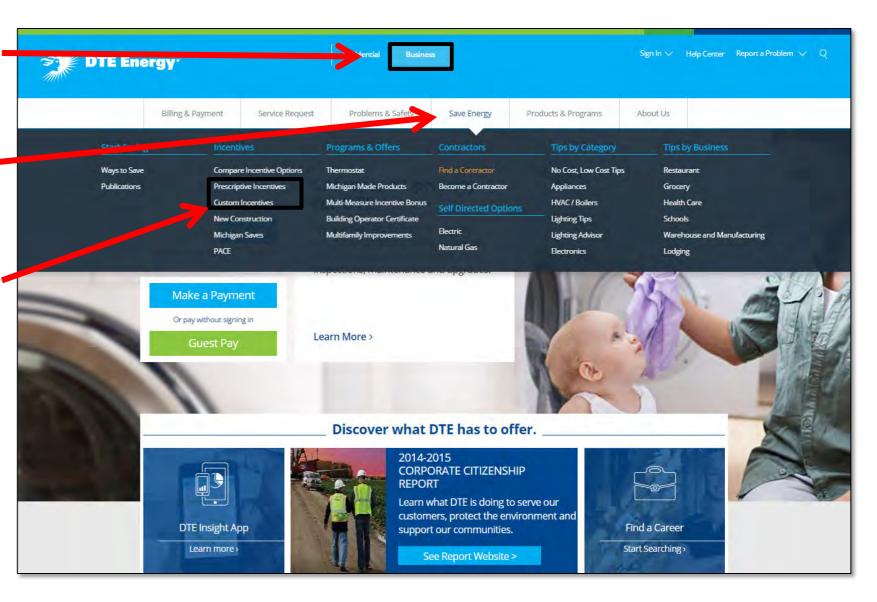


About our Catalog & Application



How Customers can download

- 1. Enter <u>dteenergy.com/savenow</u> into your browser
- Select **Business** at the top of the page
- Hover over the -Save Energy tab
- 4. Select **Prescriptive** or **Custom** incentives the dropdown box





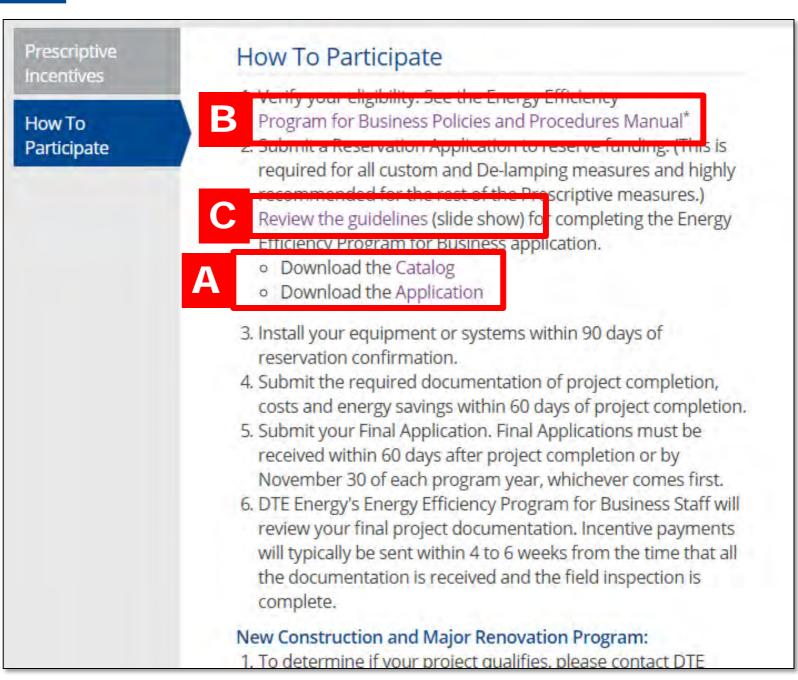
How **Customers** can download

Energize your operating efficiency. Click on 5. Business incentives that help you install cost-effective energy saving equipment. How to **Participate** Compare Incentive Options Electric and natural gas business customers can take advantage of prescriptive incentives to install energy-efficient lighting, controls, HVAC, refrigeration, food service equipment and more Prescriptive Incentives for qualified improvements in situations that require a retrofit or equipment replacement. stom Incentives These incentives are paid based on the quantity, size and efficiency of the equipment. Participate now. New Construction Michigan Taves 100% Natural Gas Reserved 4 100% Electric Reserved 2016 Rebate Funds Available Here are the PACE funding gauges 100% 2016 Rebate Funds Available **4 100%** Prescriptive Prescriptive Incentives Incentives Examples of specific improvements that qualify for prescriptive incentives include: low To Compact fluorescent fixtures articipate LED A-Line lamps



How Customers can download

- 6. Download:
 - A The Catalog or the Application (PDF)
 - B The Policies and Procedures Manual (PDF)
 - C How to use the Application? Click on Review the Guidelines slide show





How Trade Allies can download

Visit our <u>Trade</u> <u>Ally</u> website!

Stick around this afternoon to learn about this site – *and more* – at our Designated Trade Ally training



About our Catalog



Catalog

- Prescriptive specifications
- Custom specifications
- Agriculture specifications

New Construction/Major Renovation specifications

- Systems Approach
- LEED Whole Building Approach
- LEED Design Review Assistance







About our Catalog



Catalog

Contains detailed specifications for every prescriptive measure offered in the 2017 Program

PE-31 - Barrel Wraps for Injection Molders and Extruders

Incentives are available for installing insulating blankets on the barrels of extruding or injection molding machines. Blankets must be installed on previously un-insulated barrels. Include summary sheet identifying machine, circumference of heater band, width between thermocouples and calculated blanket square footage. Incentive is per square foot.



About our Application



Application

Prescriptive/custom measures

Agriculture measures

 Residential customers <u>must</u> use the stand-alone Ag Application

New Construction/Major Renovation measures:

- Systems Approach integrated into prescriptive worksheets:
- LEED Whole Building Approach
- LEED Design Review Assistance



ENERGY EFFICIENCY PROGRAM FOR BUSINESS



Using our Application



Application

Use it as a:

Reservation Application

and a

Final Application

NOTE: Funds <u>must</u> be reserved for all custom projects, LEED Certification Assistance and for certain prescriptive measures.

We **encourage** customers to submit a Reservation Application for **all** projects





Application

By using the PDF Application, you can simply fill out forms, select measure quantities on your worksheets – and the Application will:

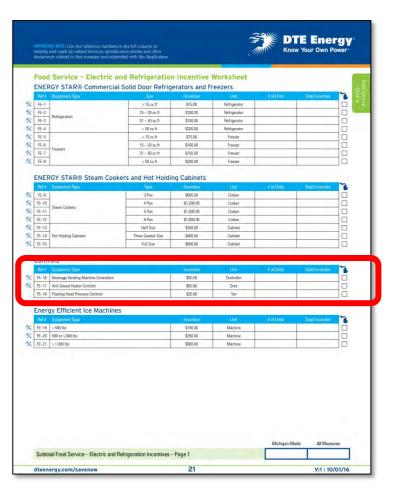
- Perform all the calculations
- Calculate any Multi-measure bonus
- Add up any Michigan-made bonus
- Total all incentives
- Launch your email and attach itself
 You need to hit "send"





Prescriptive incentives

- There are worksheets for every measure
 - ○New Construction/Major Renovation measures (part of the Systems Approach) are now on these worksheets – ID'd with this icon: <a> ≦
- Calculations are made automatically
- Check the Michigan-Made box(es) for measures that qualify



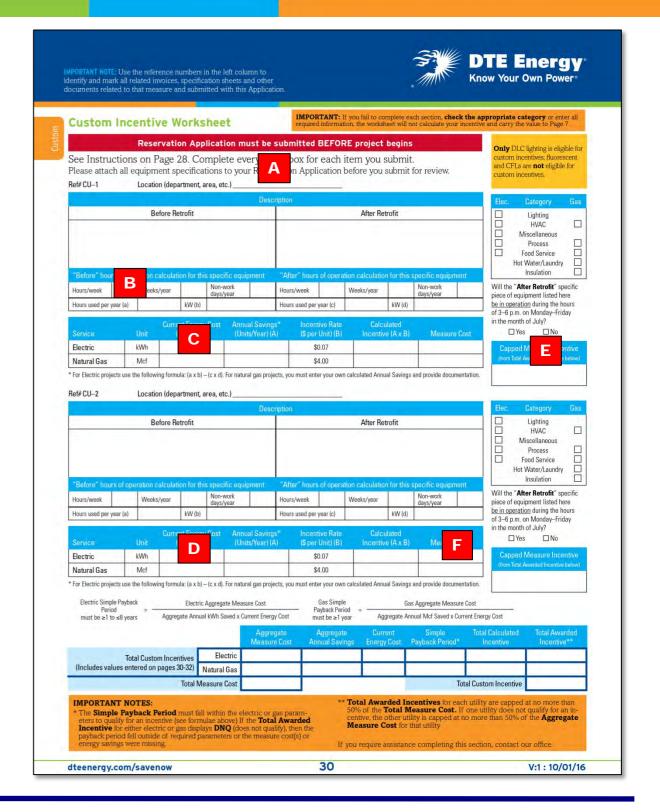
Con	trols				
Ref	# Equipment Type	Incentive	Unit	# of Units	Total III artive
FE-1	6 Beverage Vending Machine Controllers	\$50.00	Controller		
FE-1	7 Anti-Sweat Heater Controls	\$50.00	Door		
FE-1	8 Floating Head Pressure Controls	\$20.00	Ton		



Custom incentives

You must enter:

- A Location: building name, etc.
- B Hours: before & after (including your method of calculation)
- C kW (before and after)
- D Current Energy Costs
- **E** Times of operation
- F Measure Costs





Agreement

This Final Application
Agreement details the Terms
and Conditions of the Program
and must be agreed to when
submitting a Final Application
You agree to the terms when
the <u>customer</u> signs the
Application



Final Application Agreement

The energy optimization measures listed within are being/have been installed in a qualifying time frame, at a qualifying facility and are not for resale. Additional Program terms and conditions can be found in the Policy and Procedures Manual available at deenergy.com/savenow.

I understand that in the event this Application received a reservation, that reservation is not a guarantee of payment. Incentive payment will be based upon the Final Application meeting the Program terms and conditions, and the availability of funds.

Selected terms and conditions include:

- Final Applications and all required documentation must be received within 60 days of project completion or by Nov. 30, 2017, whichever comes first. Incomplete Applications, missing documents or Applications submitted after that date will result in the project being cancelled.
- 2. The Program has a limited budget. Applications will be processed until allocated funds are reserved or spent
- 3. All equipment must be purchased and installed prior to submitting the Final Application.
- Applicant agrees to inspection and measurement activities by DTE Energy or its representative of both project payment and equipment installation for up to five years from the date of equipment installation.
- Incentives may be taxable and the Applicant is solely responsible for the payment of any resulting taxes. Incentives will be reported to the IRS, unless the Applicant is exempt.
- The Applicant may be required to refund some or all of the incentives if the measures do not remain (or were not) installed for a period of five (5) years or the end of the product life, whichever is less.
- 7. Materials removed, including lamps and PCB ballasts, must be permanently taken out of service and disposed of in accordance with federal and state laws or regulation and local codes and ordinances. The Applicant is responsible for being aware of any applicable codes or ordinances. Information about hazardous waste disposal can be found at www.epa.gov/wastes.
- 8. For certain measures, the incentive amount will be determined based on the estimated energy savings. The Applicant may be required to provide documentation on energy savings calculations and assumptions. DTE Energy will make the final determination of the energy savings and thus the incentive amount to be paid.
- DTE Energy has no obligations regarding and does not endorse or guarantee any claims, promises, work or equipment made, performed or furnished by any contractors or equipment vendors that sell or install any energy efficiency measures.
- 10. Payment of incentives under the Program and/or evaluation of Applications for incentives shall not deem DTE Energy or any of its affiliates, employees or agents ("DTE Energy Parties") to be responsible for any work completed in connection herewith. Applicant fully releases DTE Energy Parties from any and all claims it may have against DTE Energy Parties in connection with this Application, the incentives or the work performed in connection with them. In addition, Applicant agrees to defend, indemnify and hold DTE Energy Parties harmless from and against any and all claims, losses, demands or lawsuits by any third parties arising in connection with this Application, the payment or nonpayment of incentives or any work performed in connection with them.
- 11. DTE Energy reserves the right to associate with your business and participation in the incentive Program for promotion and advertising purposes. See the Policies and Procedures Manual for more on promotional co-branding
- 12. Applicant acknowledges that Federal Energy Regulatory Commission (FERC) Order issued on June 1, 2012, at Docket No. ER11-4081-000 ("FERC Order") approves of the inclusion of energy efficiency resources as planning resources in a utility's resource adequacy plan (all italicized terms as defined in the FERC Order). Accordingly, Applicant and DTE Energy agree that all such rights afforded with respect to energy efficiency resources, including but not limited to the right to identify them as a planning resource so as to include them in a resource adequacy plan, shall inure exclusively and fully to DTE Energy. Applicant agrees that it will not claim ownership in such energy efficiency resources for purposes of identifying them as a planning resource in accord with the FERC Order or include them in a resource adequacy plan.

I have read and understand the measure specifications and Program Guidelines set forth in the Application and the Program Policy and Procedures Manual and agree to abide by those requirements, Furthermore, I concur that I must meet all eligibility criteria in order to be paid under this Program and not receive incentives from any other utility for the same project.

I certify that the information on this Application is true and accurate. I acknowledge and understand that it is necessary for DTE Energy to store, use and share the information contained in this Application, as well as information collected in connection with this project, including but not limited to my business name, address, account number and energy consumption data ("Customer Data") for various purposes. Therefore, I hereby authorize DTE Energy to collect, store and use the Customer Data for internal purposes and to present me with other energy saving opportunities. I further authorize DTE Energy to share the Customer Data with third party vendors/contractors who are doing work on DTE Energy's behalf.

dteenergy.com/savenow

6

V:1:10/01/16

Using our Application



Submission

Electronically submit your **Reservation** Application and/or your **Final** Application

Automatically:

- 1. Your email will be launched
- 2. Our email address will be inserted
- 3. The subject line will be entered
- 4. Your Application will be attached Attach any other supporting documentation
- 5. Hit **send**

Note: Double check the **blue boxes** to ensure that your incentives have been totaled correctly



ENERGY EFFICIENCY PROGRAM FOR BUSINESS



Special Offers

Special **Offers**



Take advantage of these 2017 offers

Michigan-made Bonus: Now 10%

Multi-Measure Bonus: Now capped

Michigan Saves: More on that later

Building Operator Program: Tuition reimbursement

Midstream Food Service: More on that later

Streetlighting Program: Community Lighting

Project Greenlight: Collaboration with Detroit

You can find these and other fact sheets on your flash drive



2017 Multi-Measure Incentive Bonus



About our **Designated Trade Allies**

Designated Trade Allies



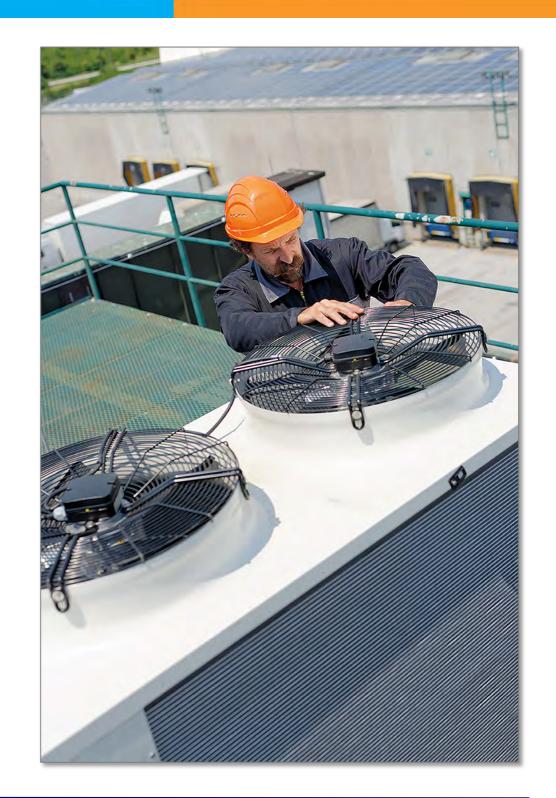
Designated Trade Ally

A specially trained contractor who knows:

- How to access our Program
- How to use the Application to maximize the Program's benefits for customers

Designated Trade Allies are:

Contractors, suppliers, designers and consultants

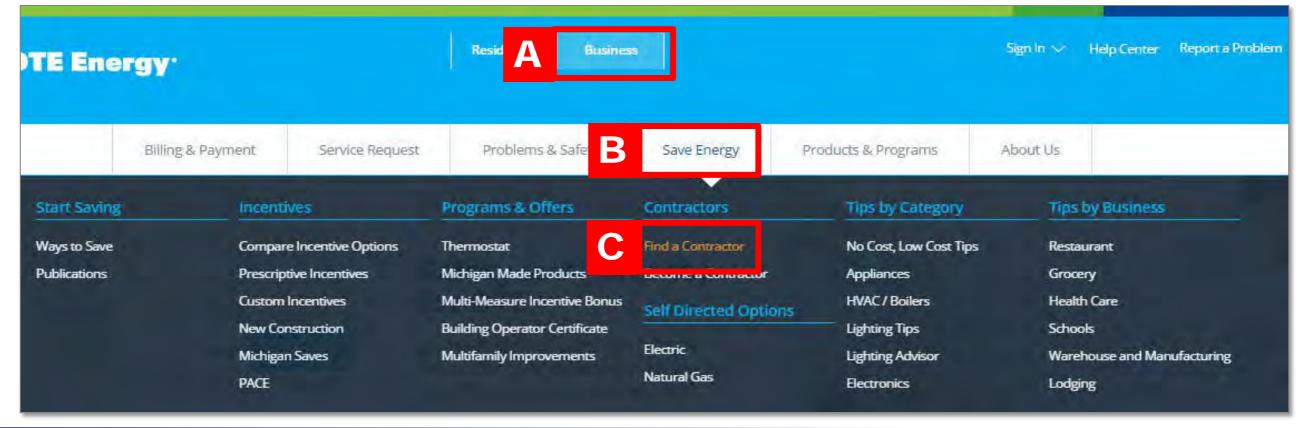


Designated Trade Allies



How to find a Designated Trade Ally

- 1. Type dteenergy.com into your browser
 - A SelectBusiness at the top of the page
- B Hover over the Save Energy tab
- C Click on Find aContractor inthe dropdown





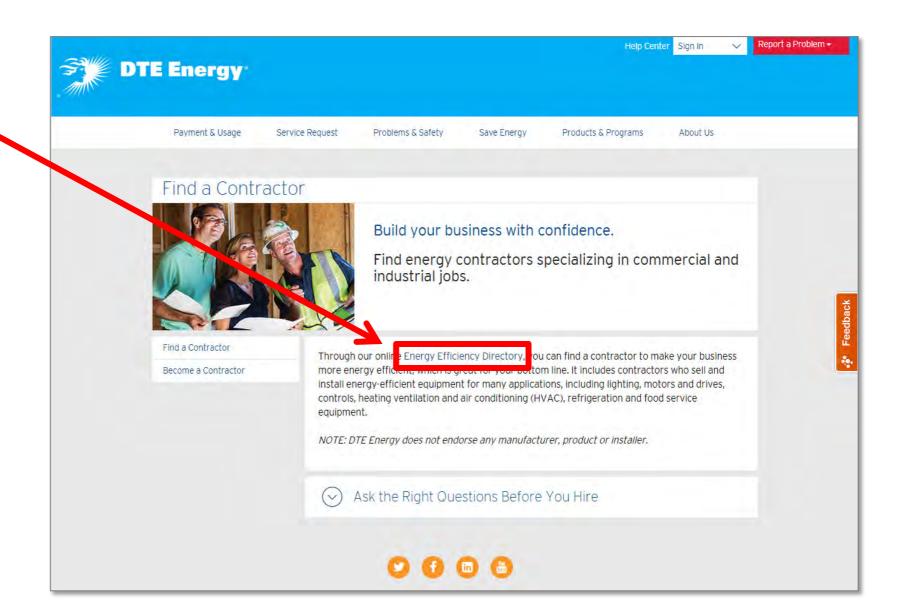
How to find a Designated Trade Ally

2. Click on

Energy

Efficiency

Directory link

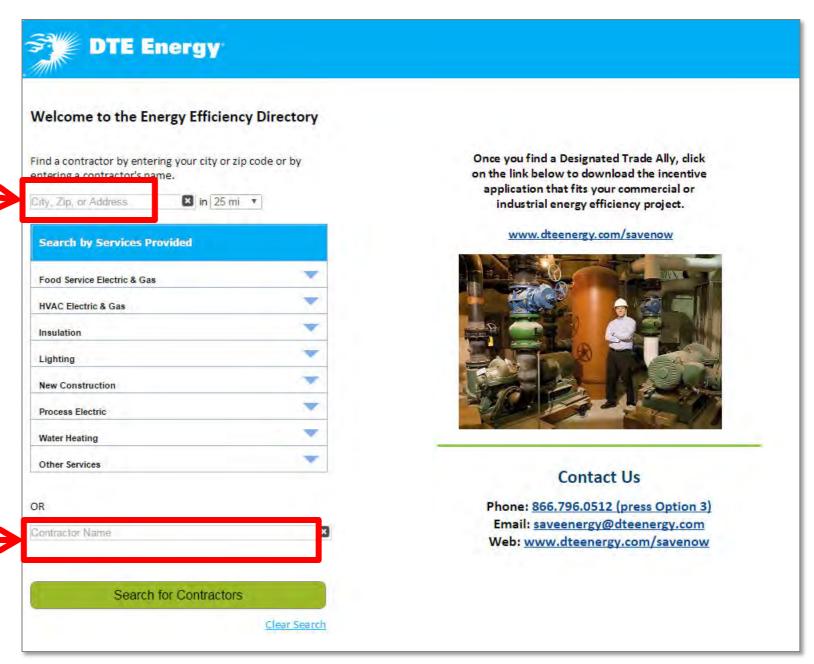




How to find a Designated Trade Ally

You can then search by Location (cityor ZIP) and Program Type

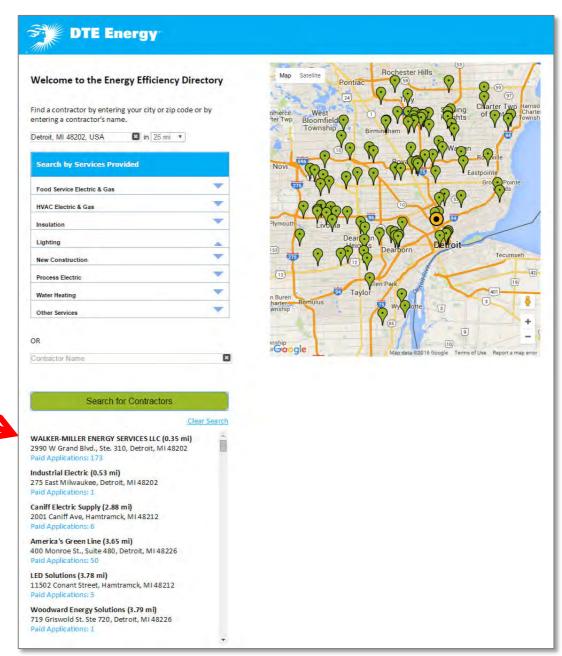
You can search by Contractor
 Name





How to find a Designated Trade Ally

5. Once you narrow your search, you can view a list of contractors in your area



2017 Program Kick Off Event



Thank you

Next: A closer look at our new Food Service Midstream Program



Midstream Food Service

Alison Jaworowski

DTE Program Manager

Courtney Baum

Outreach/Energy Advisor



What is it?

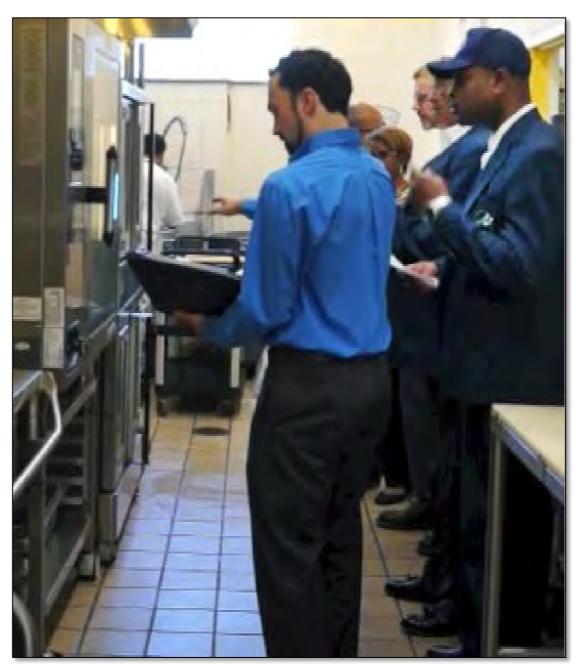
- Our <u>midstream</u> program offers energy-efficient equipment at a discounted price at the point of sale to a Trade Ally or a customer
- For this program, certain commercial kitchen equipment are eligible for the discounts
 - Look for our sticker
- The sales are made by participating food service equipment distributors





For the *Customer*: How does it work?

- 1 Identify the equipment you want to upgrade
- Contact one of our participating distributors (visit our website)
- The sale is made at a discounted price and no additional paperwork is required





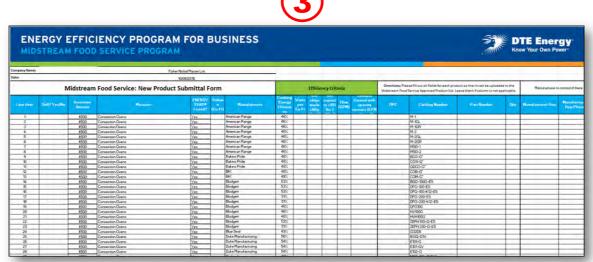
For the *Distributor*: How does it work?

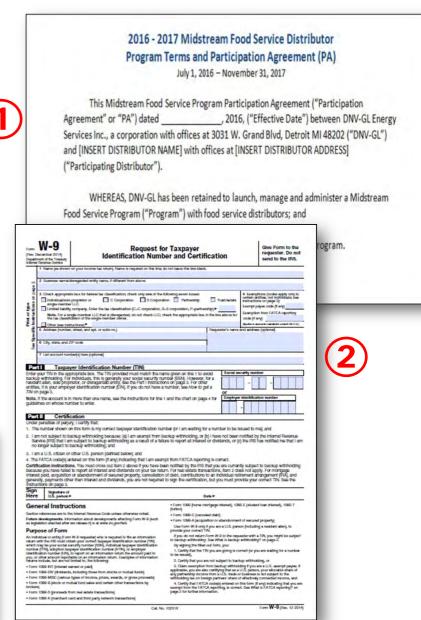
- 1 Verify that the customer has a DTE electric or gas commercial account
 - Using our real-time verification portal
- (2) Sell the equipment at the discounted price
- (3) Show the DTE rebate on the customer's invoice
- 4) Collect the rebate plus a bonus on each item sold



Becoming a Distributor is easy!

- 1) Sign a Participation Agreement
- 2) Send us a copy of your W9
- 3 Submit a product submittal sheet with information for eligible products that you will sell







What are the program Benefits?

Customer

Quality equipment

Name brand/ENERGY STAR®-rated

No paperwork

No applications, no submissions

Quick purchase

Arrive, buy; perfect for breakdowns

Immediate discount

Know your discount up front

Pay-and-go

No hassle experience

Distributor

Enhanced foot traffic

Will bring in new customers

Simple paperwork

Submit our form once a week

Bonus for sales

You'll know what you'll earn

Direct rebate payments

We issue you a rebate/bonus check

Collect-and-collect

Get a sale, collect a bonus



What kind of discounts?

A select number of energyefficient electric/gas commercial kitchen equipment is eligible

Natural Gas Incentives ENERGY STAR® Steam Cookers								
Equipment Type	Incentive	Unit						
Steam Cookers (5-pan)	\$1,500.00	Cooker						
Steam Cookers (6-pan)	\$1,800.00	Cooker						
Ov	ens							
Equipment Type	Incentive	Unit						
ENERGY STAR® Convection Ovens	\$500.00	Oven						
Combination Ovens	\$1.800.00	Oven						

Electric Incentives ENERGY STAR® Commercial Refrig. & Freezers Equipment Type Size Incentive Unit < 15 cu. ft. \$75.00 Refrigerator 15 -30 cu. ft. \$100.00 Refrigerator Refrigerators Refrigerator 31-50 cu. ft. \$150.00 >50 cu. ft. \$200.00 Refrigerator < 15 cu. ft. \$75.00 Freezer \$100.00 15 -30 cu. ft. Freezer Freezers 31-50 cu. ft. \$150.00 Freezer >50 cu. ft. \$200.00 Freezer ENERGY STAR® Steam Cookers/Hot Holding Cabinets **Equipment Type** Size Incentive Unit \$900.00 Cooker 3-pan \$1,200.00 Cooker 4-pan Steam Cookers \$150000 5-nan Cooker

Stop by our table to see the full list of eligible equipment and rebates.



What kind of bonuses?

Distributors can receive up to a \$75 bonus for <u>every item</u> sold through this program

The amount of the bonus is based on the value of the incentive –
 not the price of the item



Point-of-Sale Bonus							
Incentive Value	Bonus						
< \$500	\$50						
> \$500	\$75						



What kind of paperwork?

- The dealer submits a point-of-sale data sheet each week
- The Energy Efficiency Program for Business team processes incentives and bonuses and sends you a check*

OrderID	ContractorID Distr	ibutor Distributo	r_Address Invo	pice					
	Date_of_Sale	Model_Number	Manufacturer	Individual_Units	s_Sold [Distributor	r_Portion		
	Customer_Portion I	Point_Of_Sale_C	ompany_Name	Point_Of_Sale_0	Company	_Address	Facility_Ty	pe End	_User_Name
		End U	ser_Address E	End_User_City	End Use	r State	End-User-Z	IPCode	Bonus Amount



Visit our website: dtefoodservice.com

We've built a website just for you:

The Midstream customer and the Midstream distributor





Visit our website: dtefoodservice.com

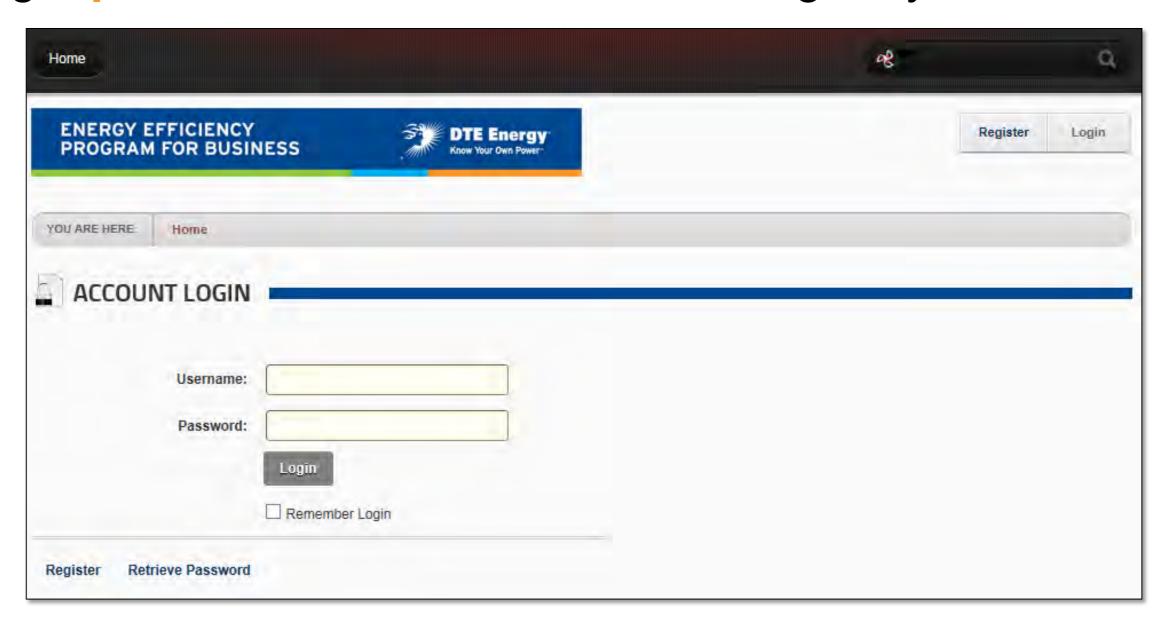
Including a portal to confirm a customer's eligibility





Visit our website: dtefoodservice.com

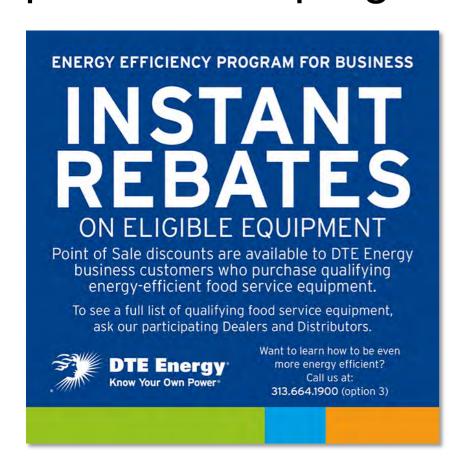
Including a portal to confirm a customer's eligibility

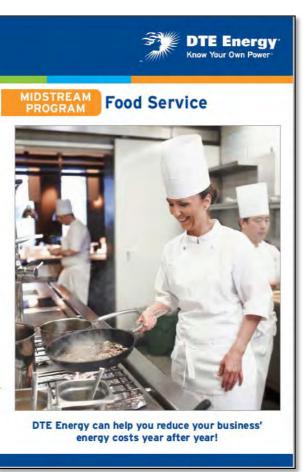




Visit our website

And we provide dealers with marketing materials to help you promote the program







Brochure

Fact Sheet

Product Clings

Other POS materials are available; ask us for details

2017 Program Kick-Off Event



Thank you

Next: A BREAK, a drawing and then a closer look at our Business Energy Consultation (BEC) Program



Business Energy Consultation

Greg Garland

Manager

DTE Energy Efficiency & Business Energy Services

Scott Alan Davis

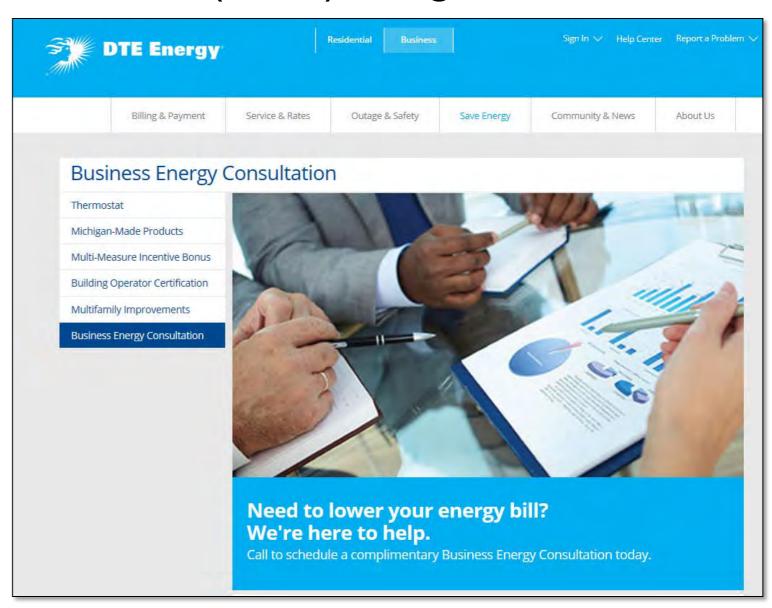
Program Manager



What it is

The Business Energy Consultation (BEC) Program:

- Is a free Direct-Install
 Program aimed at small business customers
- During our visit we:
 - Perform a facility analysis
 - Install low-cost energysaving measures
 - Provide information on other DTE energy efficiency programs

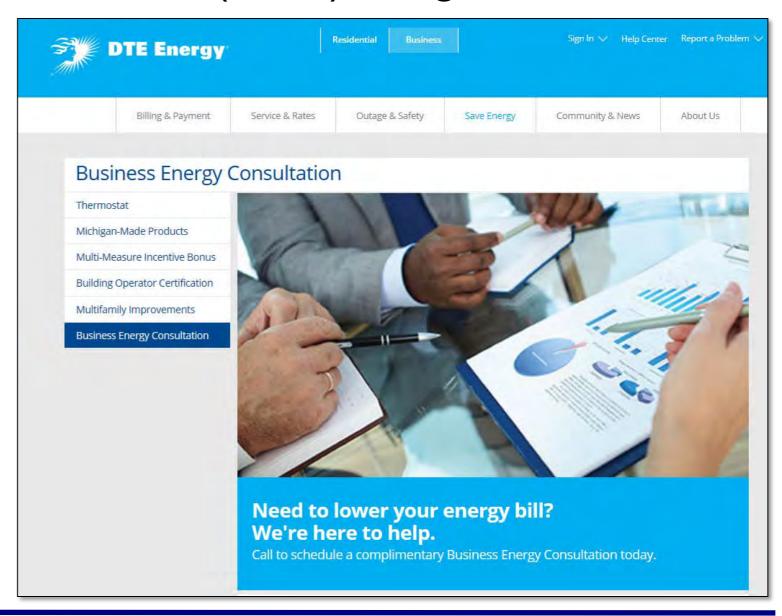




How it works

The Business Energy Consultation (BEC) Program:

- Helps small business customers:
 - Improve energy efficiency
 - Increase energy efficiency awareness
 - Reduce energy consumption
 - Install energy-saving measures





How it works

Step 1

Energy Advisor outreaches to business customer to generate interest

Step 4

Customer saves money on energy bill

BEC

Program Process

Step 3

Energy Educator conducts install at business

Step 2

Call Center Representative contacts interested business to schedule the BEC appointment



What it provides

ELECTRIC MEASURES

LED Bulbs
Occupancy Sensor
Exit Sign Retrofit Kit



NATURAL GAS MEASURES

Aerator 1.0
Pre-rinse Spray Valve
Foam Pipe Wrap
Commercial Thermostat





A program example

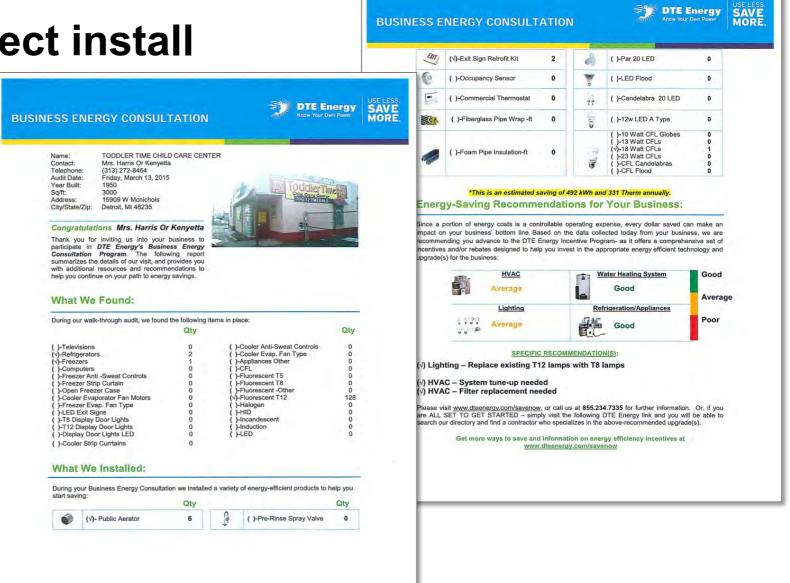
Toddler Time Child Care Center

Annual Savings from direct install

- 492 kWh
- o 33.1 Mcf

Recommendations

- o Lighting:
 - ✓ Replace existing T12 lamps with T8 lamps
- o HVAC:
 - ✓ System tune-up needed and filter replacement needed





Program performance

Accomplished since 2014:

o Completed consultations: 5,265

o Mcf saved: 43,969

o MWh saved: 16,295











Program performance

2016 report:

- Completed installs: 1,661
- Electric savings:
 - Target = 4,254 MWh
 - Achieved = 4,409 MWh
- Gas savings:
 - Target = 7,859 Mcf
 - Achieved = 8,377 Mcf
- New office: Grand Rapids (gas)
 - Additional savings
 - ✓ Target = 11,500 Mcf
 - ✓ Achieved = 13,510 Mcf











Program participation

By Business Segment

Convenience

- o Liquor Store
- o Party Store
- o Grocery Store
- o Gas Station

General

- o Office Space
- Warehousing/Manufacturing
- Car Repair
- Retail Store (No refrigeration)
- o Car Wash
- Laundromat

Service

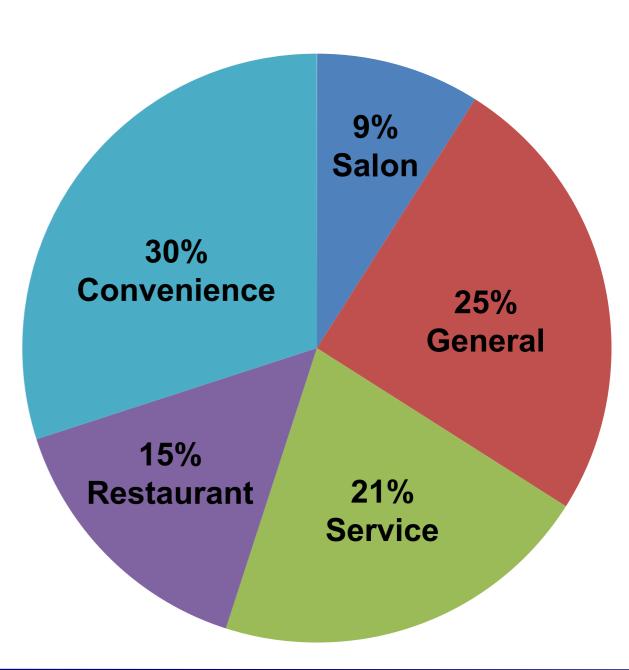
- o Funeral Home
- o Church/Ministry
- o Community Center
- o Halls
- o Day Care
- o Schools

Restaurant

- o Bar
- o Restaurant
- Family Dining

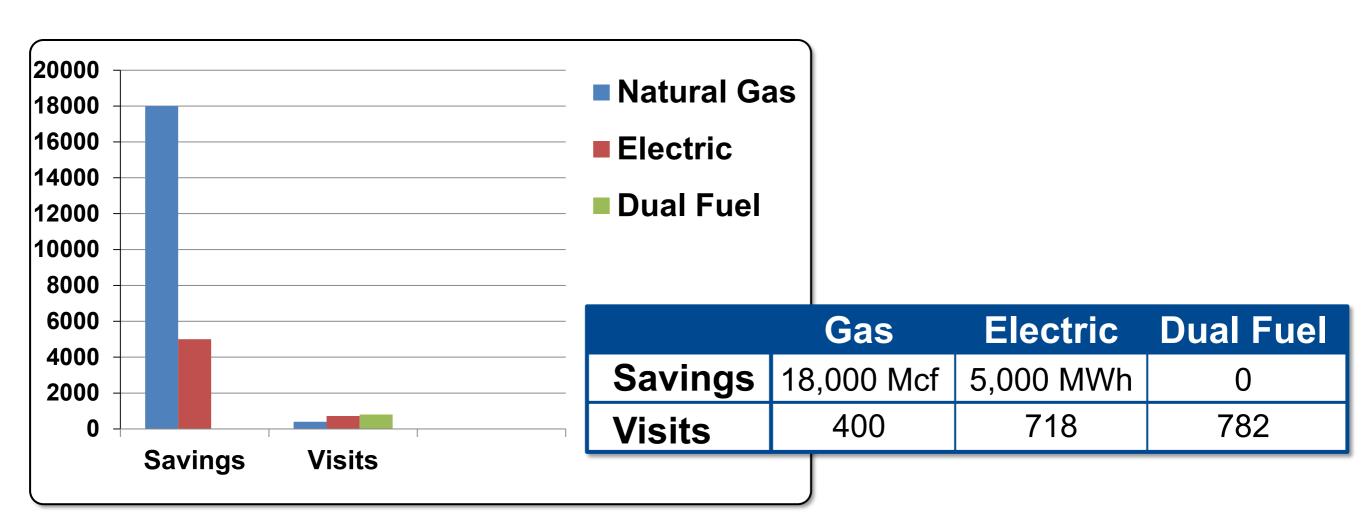
Salon

- o Barber
- Beauty Salon
- o Spa





Program goals



2017 Program Kick-Off Event



Thank you

Next: A closer look at our Midstream Lighting Program



Midstream Lighting Program

Alison Jaworowski

DTE Program Manager

Kate Buck

Program Manager



What is it?

The Midstream Lighting Program partners with electrical distributors to provide point-of-sale rebates on qualified LED

lighting products for eligible customers





Program Overview

- Enables participating distributors to provide **point of sale** rebates for eligible DTE Commercial customers
- Participation is designed to be easy
- Business customers simply purchase qualifying products at participating distributors and product is instantly discounted at the point of sale
- NO PAPERWORK required by the customer



Participating distributors

These 8 area distributors are currently participating:



















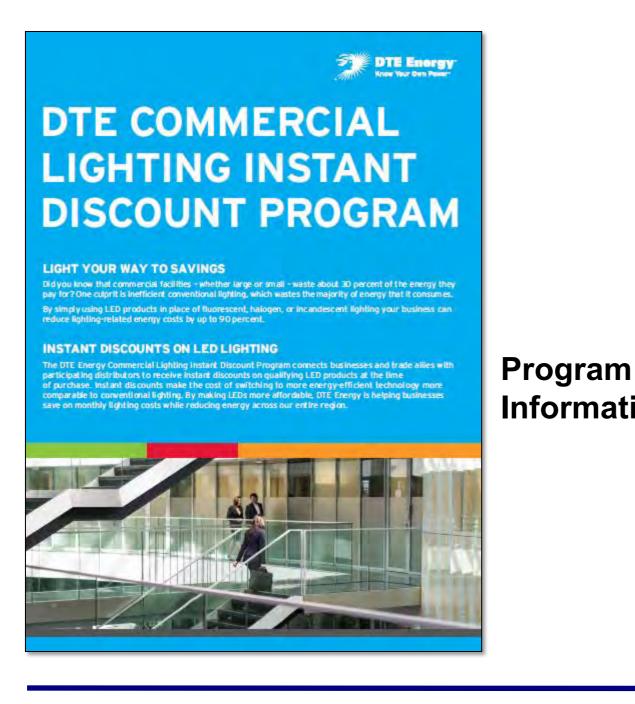
2017 Measures and Incentives

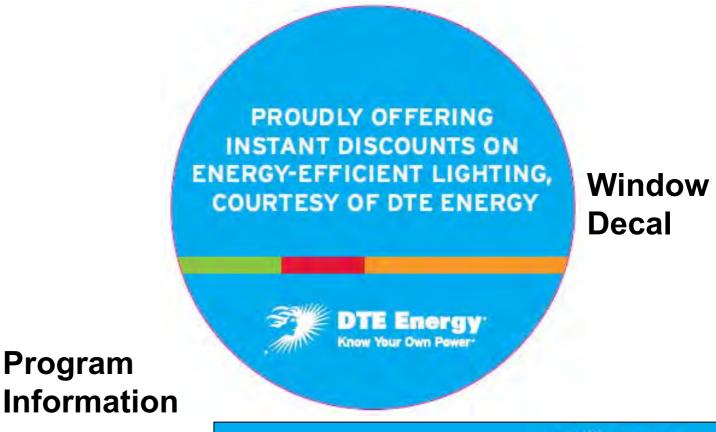
Eligible DLC Listed LED Products	Rebate Amount	LED Wattage (W)	
4' LED T8	\$4.00		
2' LED T8	\$3.00		
Exterior Wall Packs			
175W Equivalent	\$20.00	0-48	
250W Equivalent	\$35.00	49-114	
400W Equivalent	\$55.00	115+	
Exterior Floods			
175 W Equivalent	\$20.00	0-48	
250 W Equivalent	\$35.00	49-114	
400W Equivalent	\$55.00	115+	
Additional Eligible Products	Rebate Amount		
Interior Occupancy Sensors	\$20.00		
Ceiling Mount Interior Occupancy Sensors	\$50.00		

Eligible ENERGY STAR® Certified LED Products	Rebate Amount
A-Line <19W	\$5.00
A-Line >19W	\$8.00
LED Candelabra	\$5.00
LED Globe	\$6.00
LED MR16	\$5.00
BR30	\$8.00
BR40	\$8.00
R30	\$8.00
PAR20	\$8.00
PAR 38	\$8.00
PAR30	\$8.00
R40	\$8.00
R20	\$8.00
LED Retrofit Light Kits	\$8.00



Distributor POS marketing materials









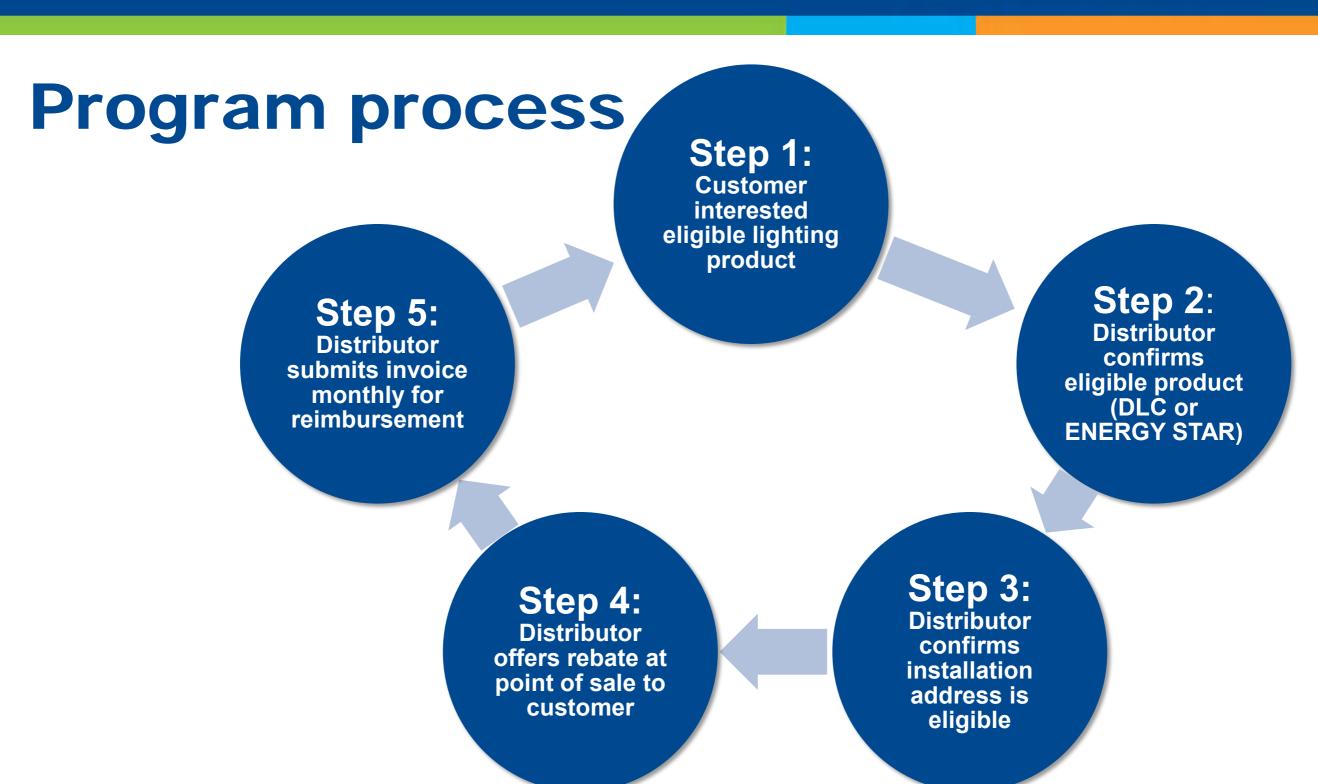
Eligibility requirements

- Non-residential customers
- Installation address must be a DTE customer
- Distributors and contractors must serve commercial and industrial customers
- Orders of all sizes
- Must be ENERGY STAR®-certified or DesignLights

Consortium®-listed



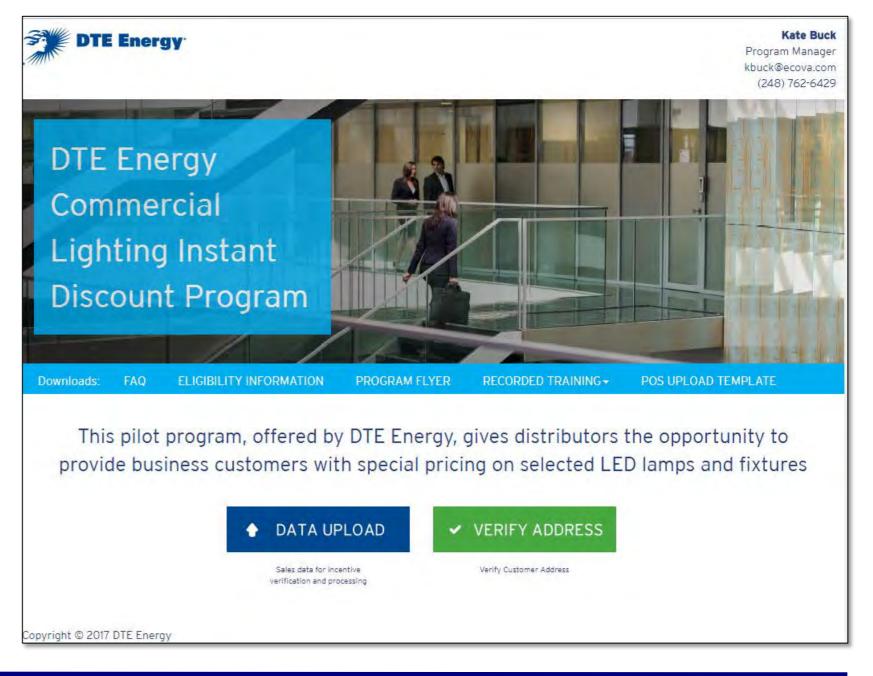






Program portal

Participating distributors have access to a portal that provides and instant check to determine eligibility





Program Overview

- More than 75,700 LED lamps, fixtures and occupancy sensors rebated from October 2015 through December 2016
- Savings of 5,588 MWh achieved
- Paid more than \$500,000 in rebates
- Secured strong base of local distributor participation
- Many success stories
 - Example: North Branch Schools retrofitted entire school district with TLEDs rebated through the program
 - A total of 10,000 lamps were retrofitted





To learn more

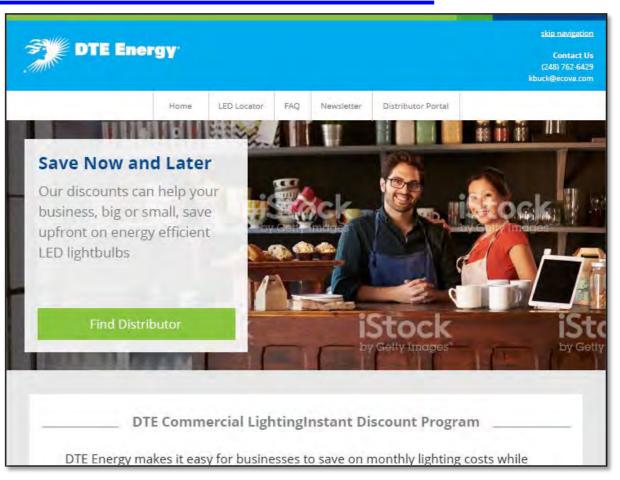
For more information on the program and how to become a participating distributor, visit the new program website:

dtecommercialinstantdiscount.com

or contact Kate at:

Kbuck@Ecova.com

248.762.6429



2017 Program Kick-Off Event



Thank you

Next: A closer look at our Retro-Commissioning

Program



Retro-Commissioning

Philip Guster

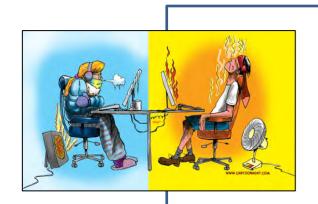
Manager, DTE C&I Electric Program

Alexis Smith

DTE Program Manager



What is Retro-Commissioning?



A systematic process to improve an existing building's performance through the identification of operational improvements that will **increase occupant comfort** and **save energy**.



Can often resolve problems that occurred during design or construction and address problems that have developed throughout the building's life.



Typical energy savings between 4-6 % of annual usage.



What is DTE Energy offering?

- Fully funded (free) retro-commissioning study for commercial and industrial gas and electric customers
 - Collaborating with Consumers Energy to include DTE gas customers in CE electric territory

How is it offered?

- An expert engineering team identifies no/low cost energy saving measures with a total simple project payback period of 18 months or less.
- 2. Customers implement the energy saving measures of their choice to meet the minimum program spend requirement
- 3. Energy savings are validated through measurement and verification (funded by the Program)



Who Qualifies?

DTE Electric commercial and industrial customers with:

Peak demand ≥ 300 kW

Facility size ≥ 75,000 square feet

A willingness to spend the minimum commitment to implement energy efficiency recommendations with a simple payback of 18 months or less



Customer Commitment

If assessment cost* is ≤ \$20,000

 Customer must be willing and able to spend a minimum of \$5,000 on installing EE opportunities identified in assessment

If assessment cost* is > \$20,000

 Customer must be willing and able to spend a minimum of \$15,000 on installing EE opportunities identified in assessment

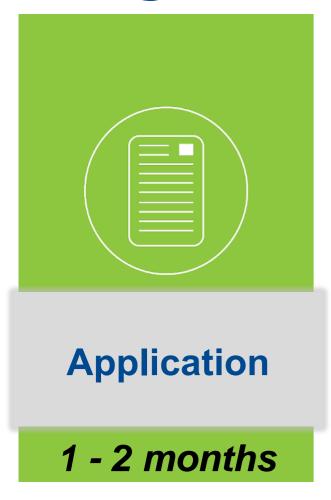
If assessment cost* is > \$40,000

 Customer must be willing and able to spend a minimum of \$25,000 on installing EE opportunities identified in assessment

^{*}Assessment costs are fully funded by DTE Energy



Program Process









- All projects expected to complete in less than 12 months
- Verification of customer energy savings is provided



Consider Retro-Commissioning if...

- 1. You have a **limited budget** for energy improvement projects
- 2. You are seeking a **low-cost**, **quick payback**, **high ROI way** to save
- 3. You want to maximize benefits from your existing controls (BAS/BMS/EMS)
- 4. Your facility team receives frequent hot or cold calls or comfort issues
- 5. Your facility **space use has changed** over time
- You have a facility with multiple zones and operating schedules



Consider Retro-Commissioning if...

- 7. Your facility was **never (or not recently) commissioned** for energy savings
- 8. Your team has **ideas or hunches of how to save energy**, but does not have **enough time or funding** to investigate further
- 9. You have hired **multiple contractors** to design, install, and maintain your facility systems, equipment, and controls
- 10. Your controls and HVAC optimization are not your highest priority now
- 11. You need to fine-tune the energy performance of your facility



Common measures

Electric ECMs and Energy Savings					
Measure Category and Name	% Program Savings (kWh)	% Program Savings (Cumulative kWh)			
Schedule AHU for Space	24%	24%			
Economizer and Outdoor Air Control	14%	38%			
Duct Static Pressure Reduce/Reset	13%	51%			
Other	8%	59%			
Chilled Water Temperature Reset	7%	66%			
Supply air temperature reset	7%	73%			
Balance airside	4%	77%			
Schedule Heaters	3%	81%			
Schedule Fan Powered/VAV Boxes	3%	84%			
Reduce Ventilation	3%	86%			
Condenser water temperature reset	3%	89%			

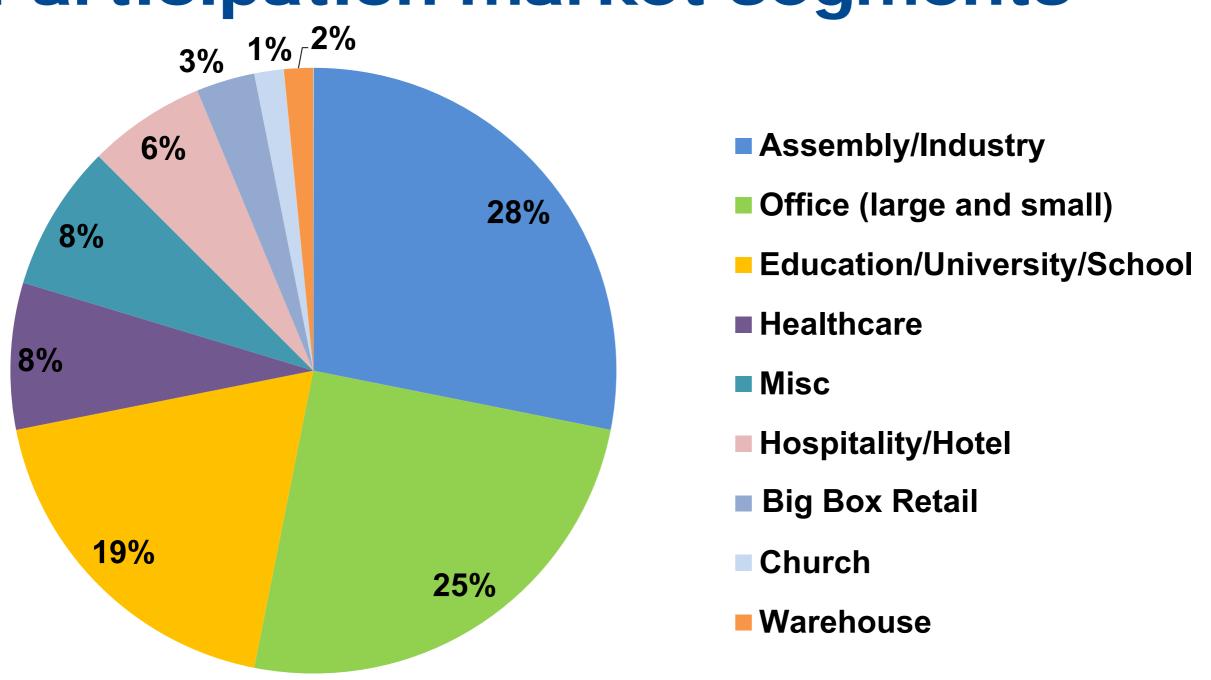


Participation

RCx Project Type (1,000 sq. ft.)	Avg elec savings (kWh)	Avg gas savings (Ccf)	Avg. cost savings (\$/yr.)	Avg. customer spend (\$)	Avg. payback period (yr.)
50-150	84,800	5,200	\$12,050	\$6,780	0.6
> 150	335,000	16,200	\$30,740	\$12,750	0.5



Participation market segments





Program providers

Program has 14 approved service providers

Aramark Management Services
Burton Energy Group
Cascade Energy
CB&I Environmental & Infrastructure
Energy Design Service Systems
Energy Sciences
Environmental Systems Design

Grumman/Butkus Associates
Hill Mechanical Services
Limbach Company
Newman Consulting Group
Peter Basso Associates
Plug Smart
Sieben Energy Associates



Next Steps

If you're interested in <u>learning</u> more about the Program

Visit our website

dteenergyrcx.com

Contact
Alexis Smith
asmith@nexant.com
630.480.8149

If you're interested in applying to the Program

Download an application from our website

<u>dteenergyrcx.com</u>

and select

a Service Provider

If you're interested in <u>becoming</u> a Service Provider

Contact
Alexis Smith
asmith@nexant.com
630.480.8149

2017 Program Kick-Off Event



Thank you

Next: A closer look at our Strategic Energy Plan



Strategic Energy Plan

Patrick Ryan

DTE Energy Partnership & Services Smart Team



Strategic Energy Plan Guide

Goal: To assist you in creating an Energy Management

Programs for your business

- Standard methods
- o Who's it for?
- o Flexible
- First steps

Assess Performance & Set Goals

Create Action Plan

Recognize Achievements

Evaluate Progress

7-12% Energy Savings (on average by year 3*)

Image: ENERGY STAR's Guidelines for Energy Management
https://www.energystar.gov/buildings/about-us/how-can-we-help-you/build-energy-program/guidelines
*Using Energy Star or ISO 50001-based programs



Strategic Energy Plan Guide

	Energy Mangement Program Scorecard						
	Steps	Task / Tool	Check (Yes, No, or In Progress)	Score	Total Score	Max Score	% Implemented
		Institute Energy Policy	In Progress	1			
1	Make a Commitment	Designate Energy Team (Director, Energy Managers & Champion)	No	0	2	6	33%
		Create Energy Management Handbook	In Progress	1			
		Gather and Track Energy Use	No	0			
		Create Baseline	No	0		10	30%
2	Assess Performance	Data In EM Toolbox	In Progress	1	3		
		Benchmark	In Progress	1			
		Perform Energy Assessments	In Progress	1			
		Determine Goal Scope	No	0		6	0%
3	Set Goals	Estimate Potential Savings	No	0	0		
		Enter Goals In EM Toolbox	No	0			
		Evaulate Potential Projects	In Progress	1		6	33%
4	Create an Action Plan	Select Projects	In Progress	1	2		
		Determine Roles and Resources	No	0			
		Communicate	In Progress	1			
5	Implementation	Training	In Progress	1	3	6	50%
		Execute and Manage Projects	In Progress	1			
		Evaulate Results	No	0		8	0%
6	Evaluate Progress	Identify Anomalies	No	0	0		
0	Evaluate Progress	Root Cause Analysis for Setbacks	No	0			U/0
		Establish Corrective Actions	No	0			
7	Recognize Achievement	Use Performance Dashboard To Provide Reconigition	No	0	0	4	0%
		Energy Newsletter	No	0			
	Total Energy Management Program Score			10		46	22%

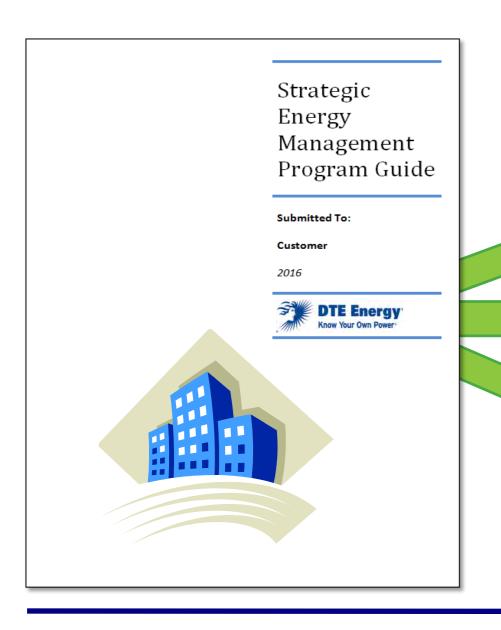
- Cycle & 7 steps
- Scorecard
- Deliverables





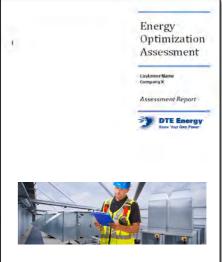
Strategic Energy Plan

Appendix deliverables: Supporting Tools



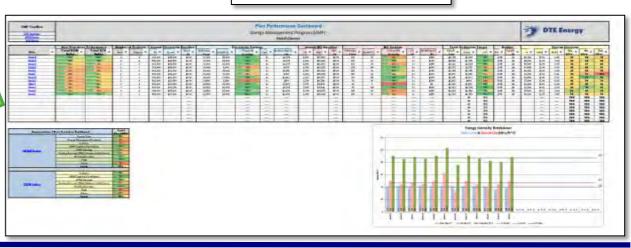


Energy Management Handbook Template



Energy Assessment Reports

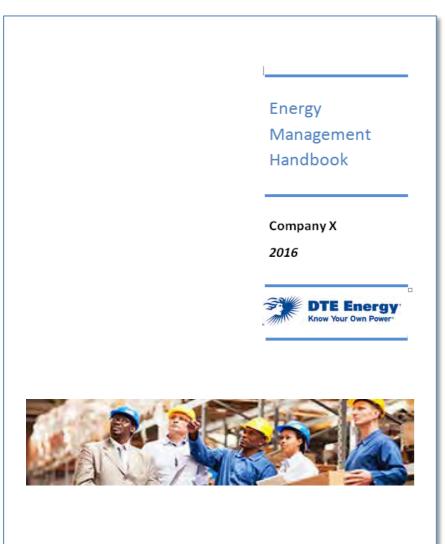
Energy Management Toolbox





Strategic Energy Plan

Appendix deliverables: Energy Management
Handbook Template



Technical Considerations

Not "fill-in-the-blank"

Training Guide for Employees



Strategic Energy Plan

Appendix deliverables: Energy Assessment Reports

Executive Summary

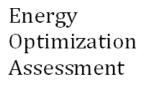
- List of potential energy efficiency projects (from EM Toolbox)
- Estimated energy savings
- Estimated EO rebates (if applicable)

Utility Analysis

- kWh and weather data trends
- Energy usage breakdown estimate
 - ✓ Lighting, HVAC, Kitchen, Overhead, etc.

Estimated Energy Savings

- Lighting
- o HVAC
- Kitchen & Cooking Equipment
- Other



Customer Name Company X

Assessment Report

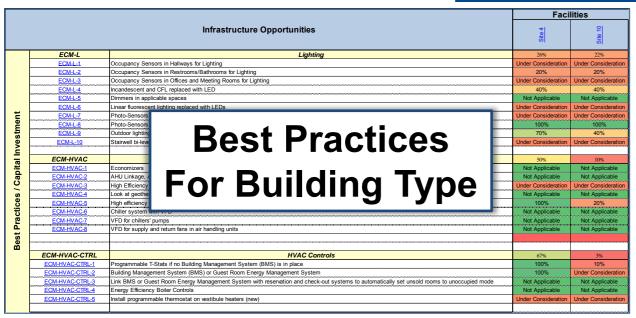






Strategic Energy Plan

Appendix deliverables: Toolbox





	Best Practices Performance Rating		Electricity Scorecard	NG Scorecard	Total Scorecard	Energy	Intensity Sco	recard
Site ▼	Total BOMI Index	Total ECM Index	% Target kWh Reduction ▼	% Target MCF Reduction ▼	% YTD	Elect kBtu/ft^ ▼	NG kBtu/ft^	Total kBtu/ft^2 ▼
Facility 1	59%	64%	85%	24%	72%	40	50	90
Facility 2	59%	65%	93%	60%	86%	41	44	85
Facility 3	44%	38%	79%	23%	67%	39	47	86
Facility 4	36%	31%		4	34%	43	45	88
Facility 5	28%	31%	Corpor	ate	60%	44	50	94
Facility 6	35%	4 <mark>6</mark> %			35%	43	63	105
Facility 7	32%	4 <mark>7%</mark>	Corpor Metric	81%	41	35	76	
Facility 8	29%	42%	MICLIN		22%	46	50	96
Facility 9	35%	45%	85%	0%	67%	39	45	84
Facility 10	31%	49%	111%	133%	115%	42	41	83
Facility 11	38%	31%	72%	21%	62%	36	45	81
Facility 12	82%	73%	111%	30%	93%	38	50	88



Energy Management Toolbox

Energy Partnership & Services (EP&S) solution to overcome the energy management challenges associated with managing multiple facilities

File System Structure

(1 Excel file + 2 PDFs manuals)

- Tools built on Microsoft Excel
- Navigation table
- Benchmarking tools for recommended best practices specific to the customer business type
- Project tracking tools
- Corporate Performance Dashboard
- Checklist
- User Manual
- Administrative Manual

EM Toolbox Index Table

Allows the user to navigate through all the benchmarking and roadmap tables from a central location

Energy Management (EM) Toolbox Index Table Customer Name	DTE Energy
Evaluation Matrix	Facility Roadmap Tables
BOMI Matrix	Facility 1
ECM Matrix	Facility 2
Summary Tables	Facility 3
Performance Dashboard	Facility 4
	Facility 5
	Facility 6
	Facility 7
	Facility 8
	Facility 9
	Facility 10
	Facility 11
	Facility 12
Checklists	
BOMI & ECM Checklist	
Roadmap Assessment Checklist	
	Facility Roadmap Template



Strategic Energy Plan

Our commitment:

As part of the Strategic Energy Plan, DTE EP&S will:

- Offer guidance in creating and implementing your Energy Management Program
- Create an Energy Management Toolbox populated with the latest energy saving technology tailored to your facilities
- Provide one Energy Assessments to provide an example of how to use the tools provided
- Provide an Energy Management Handbook Template as a guide to creating your own training material for employees
- Provide Technical Assistance and training as required



Strategic Energy Plan

Your commitment:

The SEMPG is *free* – however, you must:

TIME: Commit time for setting up and maintaining the program and tools

 Create and administer an Energy Management Program, as well as evaluate and update the program to reflect changing needs and priorities using the guide and tools provided to them by DTE Energy

PEOPLE: Staff (at least one person) to maintain the files and program

- Be willing to share utility data (usage) for facilities.
- Make a commitment to the "Program"
 - You do not have to commit to implementing any projects

2017 Program Kick-Off Event



Thank you

Next: A closer look at Michigan Saves

ENERGY EFFICIENCY PROGRAM FOR BUSINESS





Michigan Saves

Todd O'Grady

Program Coordinator

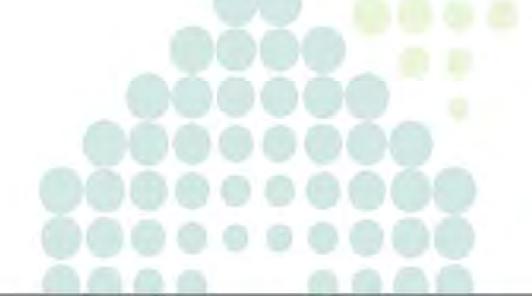
Michigan Saves Business & Public Sector Energy Financing Program

2017



What is Michigan Saves?

















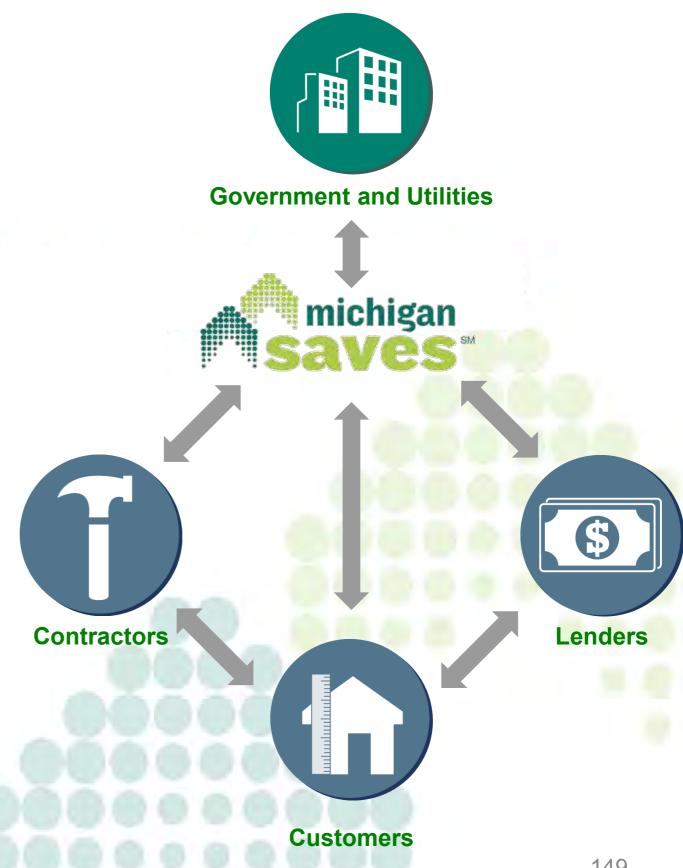






How we work...

- Nonprofit organization staffed by management contract
- Process driven by research and stakeholders
- Loss reserve for lenders
- Oversight of authorized contractors
- Program guidelines and quality control
- Demand for energy efficiency through outreach and incentives





What can Michigan Saves do for you?



Business Energy Financing

Number of Leases 670

Value of Leases \$18,503,336

as of Dec. 2016

Financing for energy-efficiency and renewable-energy improvements

- Equipment financing agreement secured with UCC filing
- Equipment financing from \$2,000 to \$300,000
- Available to all types of businesses
- Fast, easy process
- Below-market rates, starting at 5.99% with flexible terms up to 60 months
- 0% interest for DTE Customers
- Prefunding available, up to 75% of cost
- 1.99% contractor fee

Number of authorized contractors: 300





"In the end, we were convinced by the numbers. We did this project to save money, and we've been really happy with the project."

— Sam BahouraLiberty Food Center

Business Energy Financing

- DTE Energy in partnership with Michigan Saves is offering special financing to commercial electric and natural gas customers for prescriptive and custom projects.
- Qualifying projects may be eligible for:
 - 0% financing on up to \$50,000 for up to 24 months
 - 1.99% financing on up to \$150,000 for up to 60 months for municipalities and K–12 schools
 - 2.99% financing on up to \$150,000 for up to 60 months



The actual interest rate buy down amount cannot be greater than the total amount of the incentives awarded on the Application. Other conditions apply.



Turnkey Process for Business

Find contractor & identify work scope

Apply for financing & execute agreement

Contractor completes work & is paid by lender



Eligible Measures

- Lighting
- HVAC
- Refrigeration
- Kitchen / cooking equipment
- Controls and preventative maintenance
- Insulation, windows, and doors
- Custom measures, with whole building audit



List of eligible measures are available online!



Lenders

Ascentium Capital

- Markets Served All Commercial programs
- Quote Tool https://icalcpayment.com/Default.aspx?s=mis3886200286
- Online Application https://ascentiumcapital.com/applyonline/PrimaryApplication.asp
 x?cb=Y&icp=mis3886200286
- www.ascentiumcapital.com

TEAM Financial

- Markets Served All Commercial programs
- Online quote tools and credit application coming soon
- www.teamfinancialgroup.com



Public Sector Energy Financing

- Installment purchase agreement as authorized under Michigan law
- Energy-efficiency and renewableenergy upgrades
- Building/property must be government-owned
- No new construction or remodeling
- Conditions:
 - Maximum per-project installment purchase agreement value: \$10 million
 - Rates: Typically between 3% and
 4%
 - Term: Up to five years





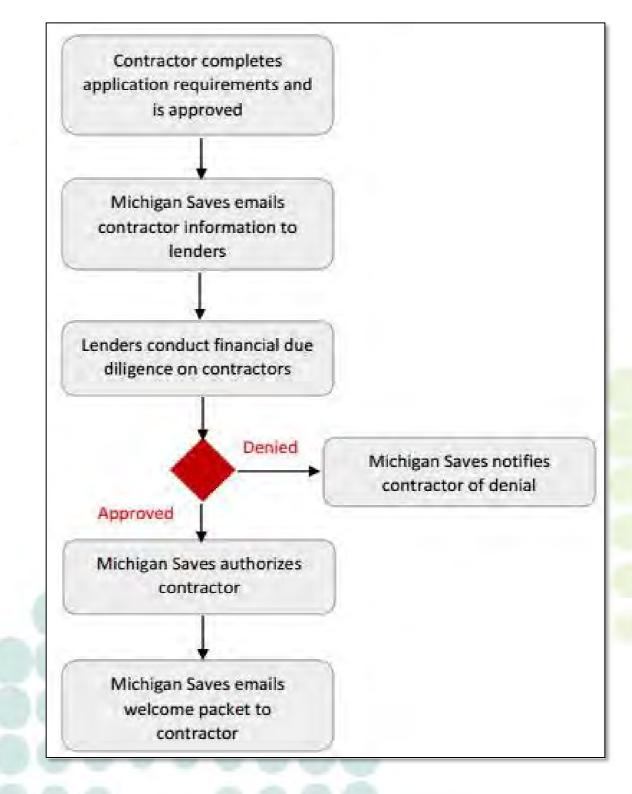
Public Sector vs. Business Programs

	Public Sector	Business
Transaction size	\$5,000 to \$10M	\$2,000-\$300,000
Application only (no financials)	Up to \$100,000	Up to \$250,000
Financials required (if over \$ amount)	2 years financial statements and current budget	2 years tax returns or financial statements
Credit decision	2-4 business days	1-2 business days
Rental/Leased Space?	No (must be on/attached to government property)	Yes
Pre-funding?	No	Yes (minimum \$5,000)



Becoming an authorized contractor

- 1. Complete contractor application
- 2. Attend training session
- 3. Receive authorization from Michigan Saves
- 4. Review contractor welcome packet
- Begin promoting financing to customers





Program Reporting

1. Specification Sheet/Project Record

Reports facility characteristics and project details

2. Certificate of Completion

- Verifies project completion
- Signed by customer & contractor
- Attach to Spec Sheet

- 3. Utility Incentive Form
- Reports the types of utility incentives received
- Attach to Spec Sheet



Online Contractor Portal (OCP)







160

QA - Site inspections

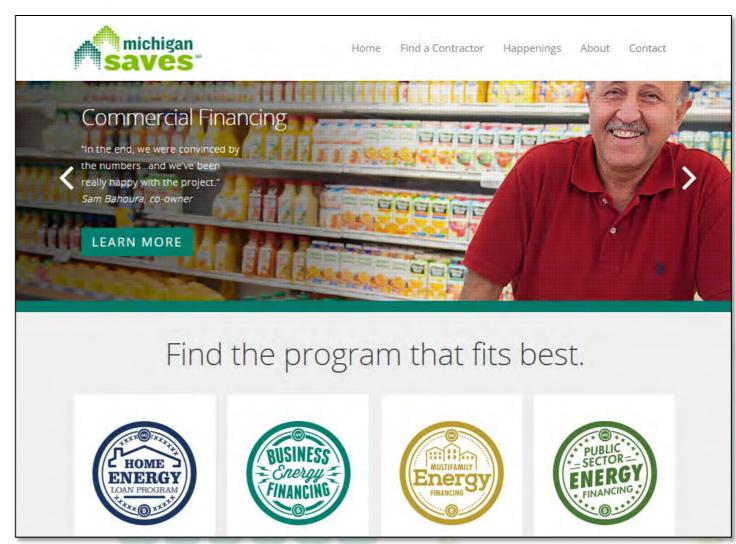
- Inspect projects against Specification Sheet
- Will try to coordinate with lender, utilities and other programs to avoid multiple inspections at single location
- Each contractor's first project is site-inspected
- After first inspection, Michigan Saves inspects 5% of complete projects



Important Resources

MichiganSaves.org

- Online contractor application and instructions
- Program Guidelines
- Eligible Measures List
- Program updates



All can be found on the

Commercial Contractor Resources Page



Resources and Contacts



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