



DTE Energy's 2013

Energy Efficiency Program for Business Compressed Air Technical Training

NOTE: The 2014 Application is now available, and contains revised elements; please download from the DTE website: www.dteenergy.com/savenow



Safety First





Agenda:

- 8:30 – 8:35: Introductory Comments
- 8:35 – 11:05: Hank van Ormer, Air Power USA Inc
- 11:05 – 11:30: DTE Energy's Energy Efficiency Program for Business and Case Studies
- 11:35 – 12:30 Visit with Compressed Air vendors



Program purpose

To help **commercial and industrial contractors and customers***:

- **Improve** energy efficiency.
- **Increase** energy efficiency awareness.
- **Reduce** energy consumption.
- **Reward** businesses for installing energy-saving measures.

**Residential and Multi-Family customers do not qualify for this Program*



Since 2009

- *More than **\$52 million** in cash rebates have been paid to Michigan businesses.*
 - **Electric: \$44.4million • Gas: \$6.2 million**
- *More than **18,000 projects** have been completed.*
- *More than **1,297 GWh** and **3.3 million Mcf** have been realized in energy savings.*
- *More than **\$87 million** has been realized in energy savings.*



There are three types of projects

Prescriptive

- **Predetermined** measures and incentives for the installation of various energy efficient improvements.
- Incentives typically average 20% to 50% of the incremental cost.

Custom

- **Capital investment** projects that increase energy efficiency and are **NOT** eligible for a Prescriptive Incentive may qualify as a Custom Measure.
- Custom Incentives are determined on a case-by-case basis and are paid per unit energy saved (ex: \$0.08/kWh and/or \$4/Mcf).

New Construction Major Renovation

- **New facilities/major renovations** of existing facilities or change of use projects.
- Adding load.



About Incentives



For a customer to receive incentives

- Qualified measures must be installed at facilities served by DTE Energy.
- Projects must involve a **capital investment** 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.



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.



Our Program timeline is simple:

Reservation Application

Application Review (may require pre-inspection)

Reservation Letter issued (Proceed with project)

Install Measures

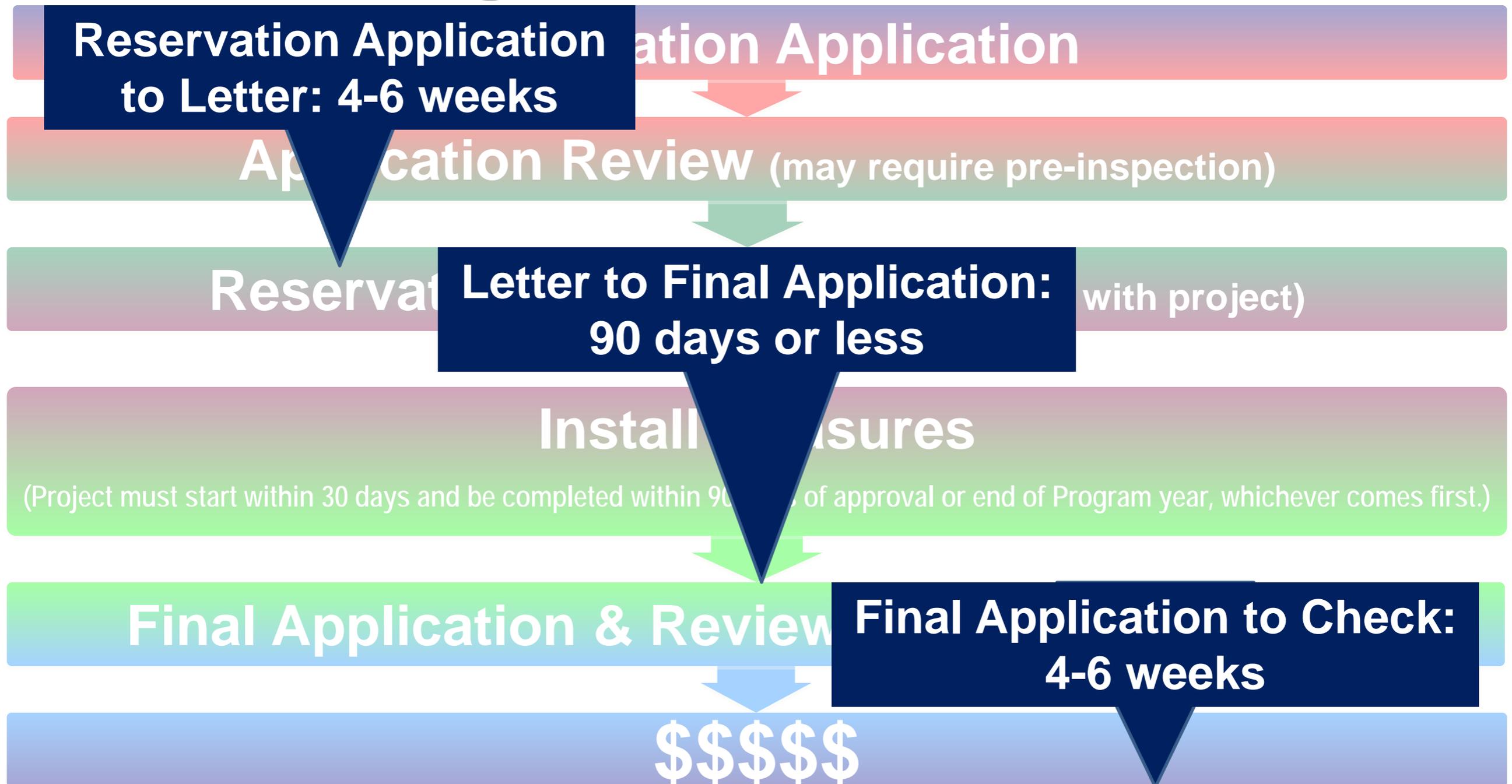
(Project must start within 30 days and be completed within 90 days of approval or end of Program year, whichever comes first.)

Final Application & Review (may require post-inspection)

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Our Program timeline is simple:





About your Final Application:

- Your Final Application must be submitted within 60 days of completion of your project – and include all supporting documentation.
- Failure to do so could result in delay of payment or cancellation of your Application.



The
2013
**Energy Efficiency
Program for Business**
Catalog & Application

2013 Program Catalog & Application



DTE Energy
Know Your Own Power™

USE LESS.
**SAVE
MORE.**

To get an electronic Catalog and Application

1) visit: dteenergy.com/savenow

2) Then select the “Participate now” link (red circle).

The screenshot shows the DTE Energy website interface. At the top, there is a navigation bar with links for Residential, Business, and About Us. Below this is a menu with options like My Account, Billing/Payment, Save Energy, Start/Stop Service, Problems/Safety, Products/Programs, and Contact Us. The main content area features a large banner for 'Energy Efficient lighting options for your business.' Below the banner, there are four promotional tiles. The third tile, titled 'New incentives for 2013', is circled in red and contains a 'Participate now' link. Other tiles include 'Express Program Incentives for lighting & refrigeration upgrades', 'Free programmable thermostat', and 'Save Energy and Money'.

**Requires Acrobat Reader*

2013 Program Catalog & Application



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To get an electronic Catalog and Application

1) visit: dteenergy.com/savenow

2) Then select the “Participate now” link (red circle)

3) Click to on the icon to download the electronic Program Catalog or interactive PDF Application.

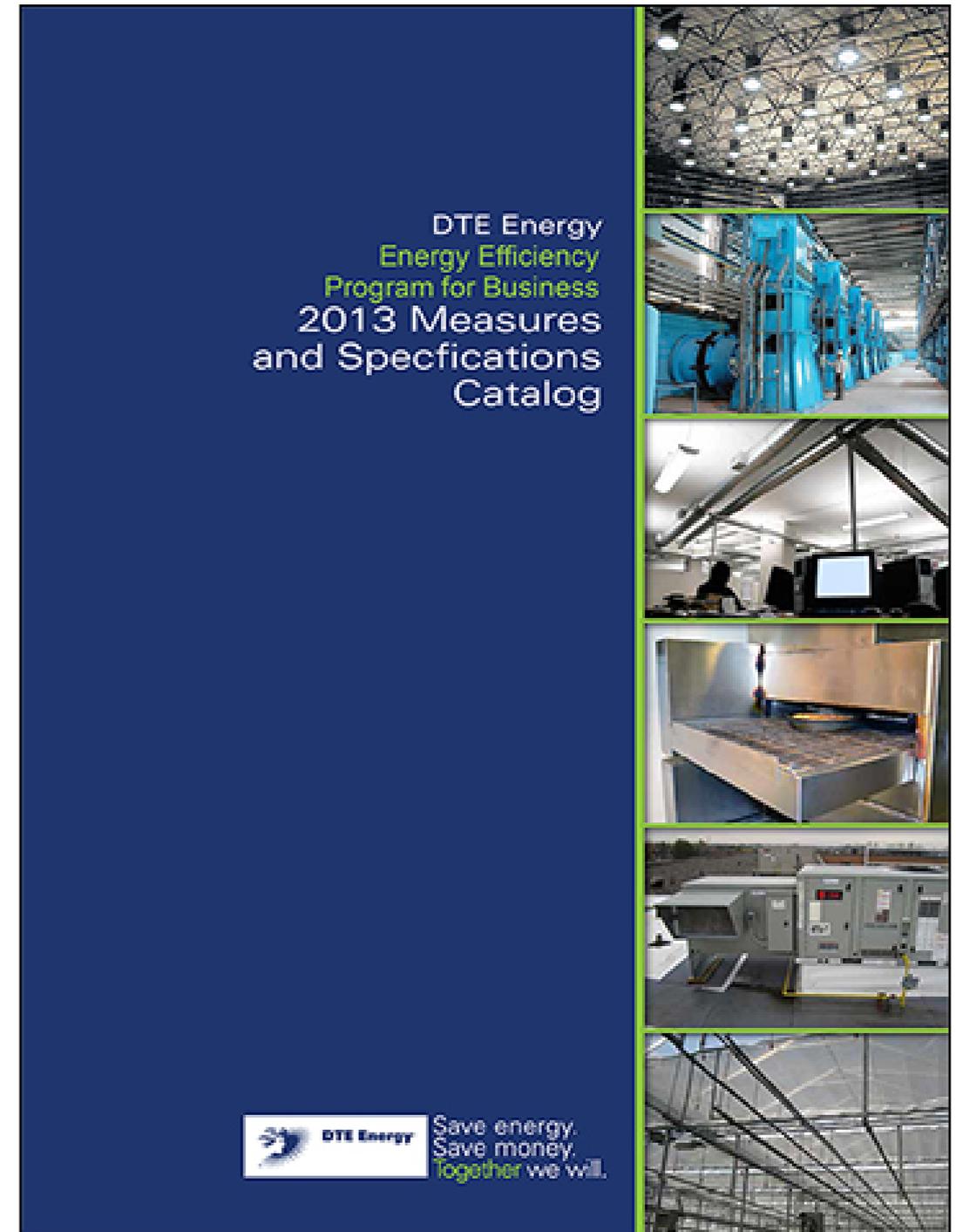
The screenshot shows the DTE Energy website's 'How To Participate' page. The page is titled 'DTE Energy - How To Participate' and features a navigation menu with options like 'My Account', 'Billing/Payment', 'Save Energy', 'Start/Stop Service', 'Problems/Safety', 'Products/Programs', and 'Contact Us'. The main content area is titled 'How To Participate' and includes a section for 'Prescriptive and Custom Incentives' with two numbered steps: 1. Verify your eligibility. See sections P.3 through P.5 in the Energy Efficiency Program for Business Policy and Procedures Manual* and 2. Submit a Reservation Application to reserve funding. (This is required for all custom and De-lamping measures and highly recommended for the rest of the Prescriptive measures.) Below the steps, there are two download links: 'Download application*' and 'Download catalog*'. A red circle highlights these two links. To the right of the download links, there is a text box that says 'Review the guidelines for completing the Energy Efficiency Program for Business application'. On the far right, there is a sidebar with a 'Save energy. Save money. Together we will.' banner and two gauges showing '2012 Rebate Program Status' for 'Electric Installations' (Paid 30%, Active 98%) and 'Gas Installations' (Paid 80%, Active 98%).

*Requires Acrobat Reader



About our Catalog

- It includes specifications and details for every **Prescriptive** incentive measure.
- It includes specifications and details on how to submit a **Custom** project.
- Use it as a desktop reference for all your projects.
- To get a print copy, contact us at:
saveenergy@dteenergy.com
or call us at **866-796-0512** (press option 3).





About our Application

- Use it as a **Reservation** Application

and

- Use it as a **Final** Application

NOTE: Funds **must** be reserved for all custom projects and lighting projects that involve de-lamping.

We **encourage** you to reserve funds for all **prescriptive** projects.

Energy Efficiency
Program for Business

DTE Energy Save energy.
Save money.
Together we will.

2013 Program Application

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For New Construction and Major Renovation projects,
download our NC/MR Application at dteenergy.com/savenow
If you have questions about other projects and the appropriate
application to submit, contact us at 866-796-0512 (press option
3) or email us at saveenergy@dteenergy.com

PROGRAM APPLICATION



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We have worksheets for every type of **prescriptive measure** offered in the program.

Simply complete all relevant areas.

HVAC – Electric Incentive Worksheet

Ground Source Heat Pumps

Check the **Michigan-Made** box only if the piece of equipment for which you are seeking an incentive meets the Michigan-Made bonus specifications **and** you can provide the manufacturer affidavit.

Equipment Type	Size Category	Qualifying Efficiency	Incentive (per ton) (C)
Ground-Source Heat Pump (GSHP)	≤ 135,000 Btu/h (11.3 tons)	17 EER	\$22.50
		19 EER	\$30.00
Ground Source Heat Pump (replacing Air Source Heat Pump)	≤ 135,000 Btu/h (11.3 tons)	17 EER	\$150.00
		19 EER	\$175.00

Equipment Type & Qualifying Efficiency Category	Make and Model	EER	kW/ton Full Load	kW/ton IPLV	Unit Size (tons) (A)	Quantity (B)	Incentive Per Ton (C)	Incentive (A*B*C)

HVAC Electric

HVAC Controls

Measure Name	Size	Incentive	Unit	# of Units	Total Incentive
Programmable Thermostat (Air Conditioning)	ALL	\$20.00	Thermostat		
Chilled Water Reset with Pump on/off Control	ALL	\$5.00	1,000 Sq. Ft. Conditioned Space		
Setback-Setup Controls (Air Conditioning)	ALL	\$20.00	1,000 Sq. Ft. Conditioned Space		
Hotel Guestroom Energy Management Control (Air Conditioning)	ALL	\$30.00	Room		

HVAC Occupancy Sensor for Large Office Building

Measure Name	Size	Incentive	Unit	# of Units	Total Incentive
HVAC Occupancy Sensor, Large Office Building w/AV System	ALL	\$30.00	1,000 Sq. Ft.		
HVAC Occupancy Sensor, Large Office Building w/WAV System	ALL	\$5.00	1,000 Sq. Ft.		

Michigan-Made All Measures

Subtotal HVAC – Electric Incentives – Page 2		
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To download an interactive application, go to: dteenergy.com/savenow



For Custom projects:

- The interactive PDF will:
 - Automatically allocate the incentives proportionally to each eligible item for **Multi-Measure** calculations on Page 6 (you **must** check the category (i.e. Lighting))
 - Automatically calculate the **Michigan-Made** bonus for each checked item

Custom Incentive Worksheet

Must be submitted BEFORE project begins

See Instructions on Page 26 ("Custom Specifications"). Complete every blank box for each item you submit.

Item 1

Description		Elec.	Category	Gas
Before Retrofit	After Retrofit	<input type="checkbox"/>	Lighting	<input type="checkbox"/>
		<input type="checkbox"/>	HVAC	<input type="checkbox"/>
		<input type="checkbox"/>	Miscellaneous	<input type="checkbox"/>
		<input type="checkbox"/>	Process	<input type="checkbox"/>
		<input type="checkbox"/>	Food Service	<input type="checkbox"/>
		<input type="checkbox"/>	Hot Water/Laundry	<input type="checkbox"/>
		<input type="checkbox"/>	Insulation	<input type="checkbox"/>
Hours used per year	Hours used per year			

Service	Unit	Current Energy Cost (\$ per Unit)	Annual Savings (Units/Year) (A)	Incentive Rate (\$ per Unit) (B)	Calculated Incentive (A x B)	Measure Cost
Electric	kWh			\$0.08		
Natural Gas	Mcf			\$4.00		

Michigan-Made
 Capped Measure Incentive (from Total Awarded Incentive below)

Item 2

Description		Elec.	Category	Gas
Before Retrofit	After Retrofit	<input type="checkbox"/>	Lighting	<input type="checkbox"/>
		<input type="checkbox"/>	HVAC	<input type="checkbox"/>
		<input type="checkbox"/>	Miscellaneous	<input type="checkbox"/>
		<input type="checkbox"/>	Process	<input type="checkbox"/>
		<input type="checkbox"/>	Food Service	<input type="checkbox"/>
		<input type="checkbox"/>	Hot Water/Laundry	<input type="checkbox"/>
		<input type="checkbox"/>	Insulation	<input type="checkbox"/>
Hours used per year	Hours used per year			

Service	Unit	Current Energy Cost (\$ per Unit)	Annual Savings (Units/Year) (A)	Incentive Rate (\$ per Unit) (B)	Calculated Incentive (A x B)	Measure Cost
Electric	kWh			\$0.08		
Natural Gas	Mcf			\$4.00		

Michigan-Made
 Capped Measure Incentive (from Total Awarded Incentive below)

Item 3

Description		Elec.	Category	Gas
Before Retrofit	After Retrofit	<input type="checkbox"/>	Lighting	<input type="checkbox"/>
		<input type="checkbox"/>	HVAC	<input type="checkbox"/>
		<input type="checkbox"/>	Miscellaneous	<input type="checkbox"/>
		<input type="checkbox"/>	Process	<input type="checkbox"/>
		<input type="checkbox"/>	Food Service	<input type="checkbox"/>
		<input type="checkbox"/>	Hot Water/Laundry	<input type="checkbox"/>
		<input type="checkbox"/>	Insulation	<input type="checkbox"/>
Hours used per year	Hours used per year			

Service	Unit	Current Energy Cost (\$ per Unit)	Annual Savings (Units/Year) (A)	Incentive Rate (\$ per Unit) (B)	Calculated Incentive (A x B)	Measure Cost
Electric	kWh			\$0.08		
Natural Gas	Mcf			\$4.00		

Michigan-Made
 Capped Measure Incentive (from Total Awarded Incentive below)

* The Total Calculated Incentive is awarded for each energy service (electric or natural gas) based on the Simple Payback Period for that energy service. For electric items, it must be greater than or equal to one year and less than or equal to eight years. For natural gas items, it must be equal to or greater than one year. If one or more of your items contains both electric and natural gas savings, please contact us for assistance. See formula at right to calculate Simple Payback Period.

Simple Payback Period = $\frac{\text{Measure Cost}}{(\text{Annual kWh/Mcf Saved} \times \text{Electricity/Natural Gas Cost})}$

** Total Custom Incentives may not exceed 50% of the Total Measure Cost, or the Aggregate Measure Cost of the respective utility if the other utility does not qualify for an incentive.

	Aggregate Measure Cost	Simple Payback Period*	Total Calculated Incentive*	Total Measure Costs	Total Awarded Incentive**
Total Custom Incentives (Includes values entered on pages 27-29)					
	Electric				
	Natural Gas				

To download an interactive application, go to: dteenergy.com/savenow

Custom



The Final Application

Page 6 contains the **Incentive Summary, Final Agreement Information and Account Holder Signature** area.

In the interactive PDF:

- Incentives are automatically entered from each completed page.
- **Michigan-Made** incentives are entered from each completed page – and then totaled and calculated for the 15% bonus.
- Prescriptive and Custom incentives for each category are totaled and, if no single category is more than 75% of the total, that figure is calculated for the 10% **Multi-Measure** bonus.

Incentive Summary, Final Agreement Information and Account Holder Signature Page

Measure Category	Prescriptive Total (A)	Custom Total (B)	Michigan-Made Total	Multi-Measure Total (A + B)	Multi-Measure Percentage
Lighting					
HVAC – Electric					
Mod. Electric					
Process Electric					
Food Service – Electric					
HVAC – Gas					
Hot Water & Laundry					
Insulation					
Process Gas					
Boiler/Furnace Tune-Ups					
Food Service – Gas					
Subtotals			C1	D1	D1
10% Multi-Measure Bonus				D2	D2
15% Michigan-Made Bonus			C2		C2
Incentive Subtotal					
Other Special Offers					
Other Special Offer – Code:					
Other Special Offer – Code:					
Other Special Offer – Code:					
Total Incentives Requested					

The figures in this table will self-populate in the electronic version of this Application. In a paper version, the values must be entered manually.

- For the Michigan-Made bonus:
 1. By category, enter only those incentives that meet the Michigan-Made criteria and total (C1)
 2. Then, multiply the total by .15 and enter into C2 and again in C2 at the far right
- For the Multiple-Measure bonus:
 1. Subtotal each category (A+B)
 2. Total all categories and enter in D1

3. Then, calculate the percentage of each category against the total (divide each category by D1). If no single category is 75% or more of the total, proceed to Step 4; otherwise enter \$0 in D2

4. Multiply D1 by .10 and enter into D2 and again in D2 at the far right.

Total all incentives in D1, D2 and C2 and enter in Incentives Subtotal. Enter any other Program Special Offer bonuses where indicated (you must attach the worksheet from each offer) and manually enter the incentive value in the space(s) provided.

Final Agreement Information and Account Holder Signature

DTE Project Number _____

Total Project Cost _____ Actual Completion Date _____

DTE Account Holder Name (print) _____ DTE Account Holder Title _____

DTE Account Holder Signature _____ Date _____

For final applications, sign and submit only **after** all equipment has been installed. A customer signature is required for payment. Signed applications received by fax or email will be treated the same as original applications received by mail. See Page 30 for submission instructions.

By signing this form, I agree to all terms and conditions listed on page 5.

6 To download an interactive application, go to: dteenergy.com/savenow

PROGRAM APPLICATION



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USE LESS.
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Electronically submit your **Reservation Application** and/or your **Final Application**.

Automatically:

- Your email will be launched,
- our email will be inserted,
- the subject line will be entered and
- your Application will be attached.

At that point, **you also can attach any other documents** to the email.

To submit your Reservation Application*

1. Complete the Application (Pages 2-4).
 - a. Ensure that you have completed the Reservation Application checklist (Page 2).
 - b. Ensure that you have completed the Customer information (Page 3).
 - c. Ensure that you have completed the Contractor and, if applicable, Third Party Payment information (Page 4).

2. Complete all relevant worksheets for your project.
3. Print and mail your Reservation Application to:

DTE Energy's Energy Efficiency Program for Business

P.O. Box 11289
Detroit, MI 48211

or

Fax to: 877.607.0744

or

[Submit electronically by clicking here](#)

SUBMIT

* A Reservation Application may not be required for your project, but is strongly encouraged to set aside funds. Submission of a Reservation Application does not guarantee that funds will be available.

To submit your FINAL Application

1. Complete or confirm all information in on Pages 2-4.
2. Complete and have account holder sign Final Application Agreement (Page 5)
3. Complete or confirm all relevant worksheets for your project.
4. Print and mail your FINAL Application to:

DTE Energy's Energy Efficiency Program for Business

P.O. Box 11289
Detroit, MI 48211

or

Fax to: 877.607.0744

or

[Submit electronically by clicking here](#)

SUBMIT



About **Compressed Air Opportunities**



2013 Incentives

These are the current incentives offered for various compressed air technologies through DTE's **Energy Efficiency Program for Business**:

Compressed Air			
Equipment Type		Incentive	Unit
Compressed Air Engineered Nozzle		\$100.00	Nozzle
Compressed Air Pressure Flow Controller – Reservation Application Required		\$4.00	HP
Compressed Air Audit with Leak Repair – Reservation Application Required prior to leak repair		\$35.00	SCFM
VSD Air Compressor – Reservation Application Required		\$80.00	HP
Compressed Air Cycling Dryers	Refrigerated Thermal Mass	\$0.30	SCFM
	Refrigerated Variable Speed Compressor	\$1.00	SCFM
	Refrigerated Digital Scroll	\$1.00	SCFM



Sample Air Compressor Projects

Prescriptive:

- **Replace 1-50 hp unit with 1-50 hp variable speed compressor**
 - Cost: **\$28,100** • Annual savings: **163,800 kWh** • Incentive: **\$4,000**
- **Compressed Air Audit with Leak Repair**
 - Cost: **\$8,500** • Annual savings: **73,000 kWh** • Incentive: **\$4,270**

Custom:

- **Replace 60 hp unit with 40 hp variable speed compressor**
 - Cost: **\$39,000** • Annual savings: **186,400 kWh** • Incentive : **\$14,900**
- **Replace 50 hp unit with 2-30 hp variable speed**
 - Cost: **\$35,100** • Annual savings: **73,738 kWh** • Incentive : **\$5,899**

ENERGY EFFICIENCY PROGRAM FOR BUSINESS



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**If you have questions or would like help
completing your Application,
please contact our office**

Email

saveenergy@dteenergy.com

Phone

866-796-0512 (press option 3)

Fax

877-607-0744

Website

dteenergy.com/savenow