



**2015**

Energy Efficiency Program for Business

**LED Lighting Technologies**

**Technical Training**

June 11, 2015



# **Welcome**

## **Sean McCoy**

### **Outreach Manager**



**Safety First**  
Exits  
Restrooms  
Other site features



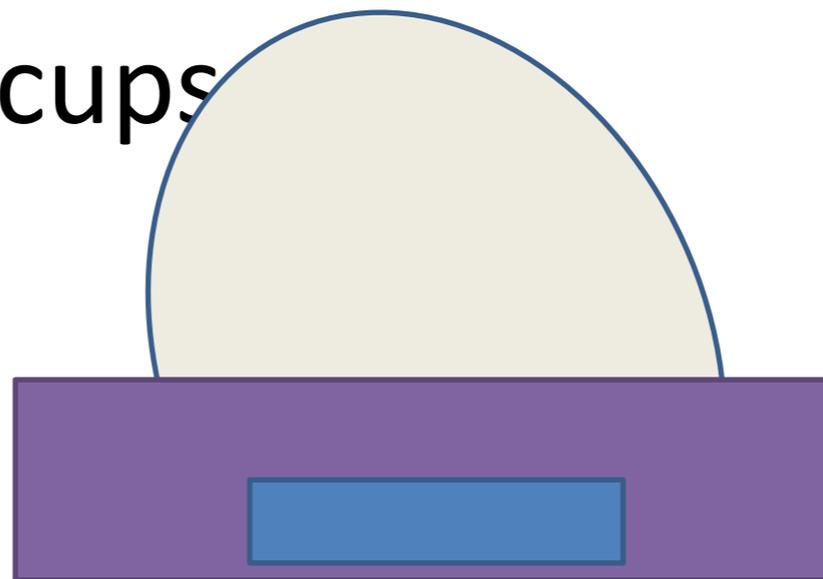
# Kimberly LED Lighting



# **KPL LED Outdoor Area Lighting**

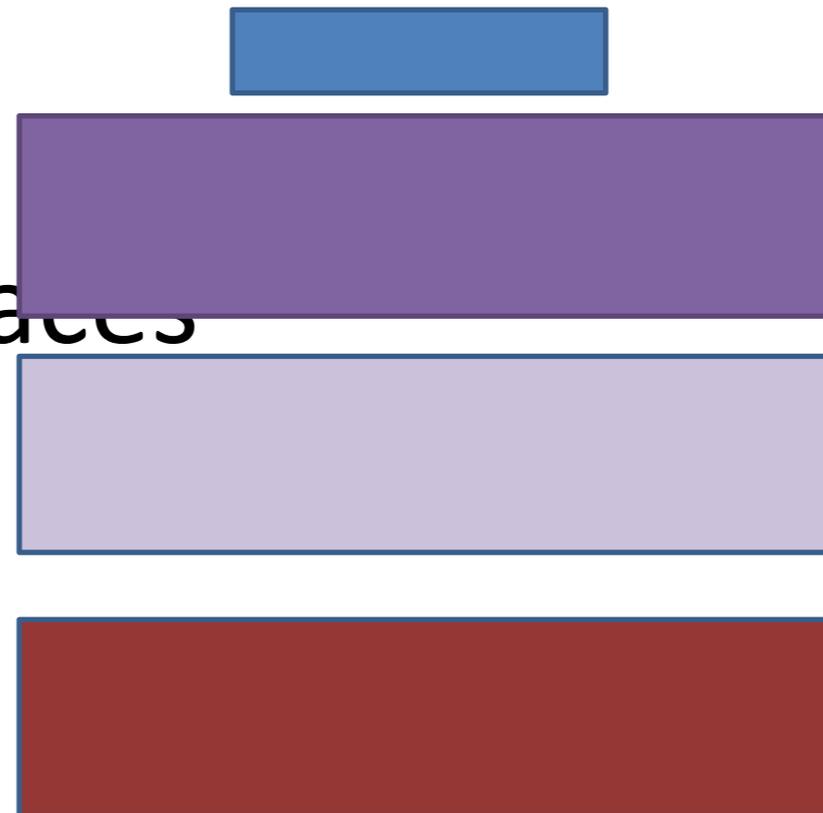
# Single Die Technology

- State of the Industry
- First Generation Hiccups



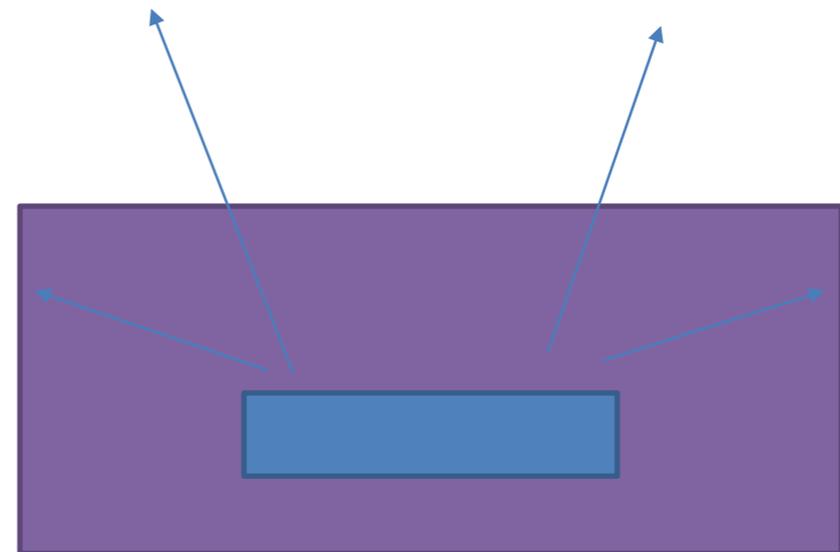
# Single Die Problem 1

- High Junction Temperature (120+ C degrees typical, 150 max)
- Three thermal Interfaces
- 1 Substrate
- 2 Slug
- 3 MCPCB
- Heat Sink



# Single Die Problem 2

- Walled in Plastic/Ceramic Packaging
- Beam Angle Obstruction (20 to 25%)

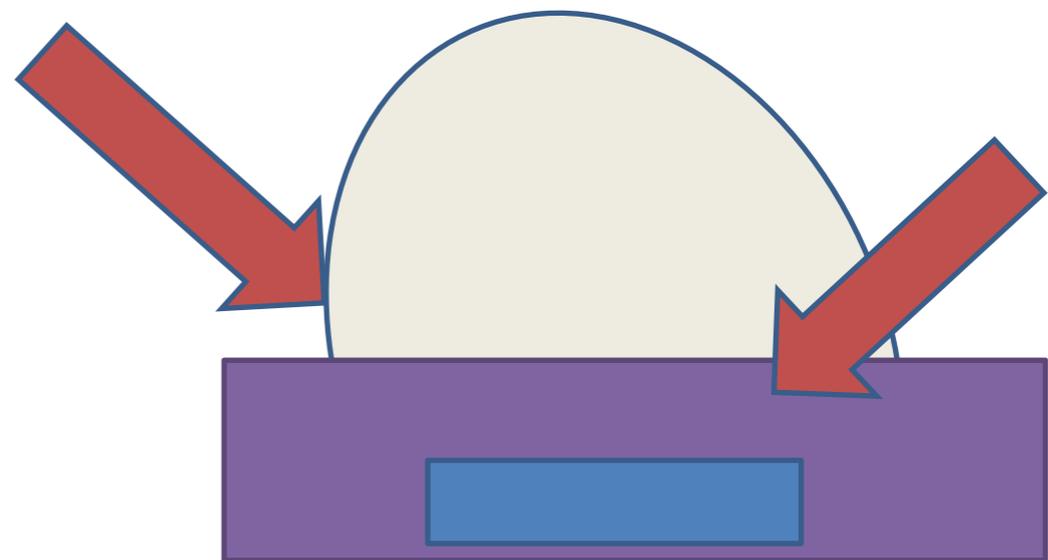


# Single Die Problem 3

- Large MCPCB Series Circuit Footprints
- Large Footprint & Heavy Fixtures
- Subject to mechanical flexing and vibration to cause open circuit paths
- Subject to Thermal flexing to cause open circuit paths
- 30 to 45 lbs and up for 200+ watt fixtures
- Exponential wind loads

# Single Die Problem 4

- Packaging Flaws
- Floating Glass Dome allows VOCs to stain LED Die



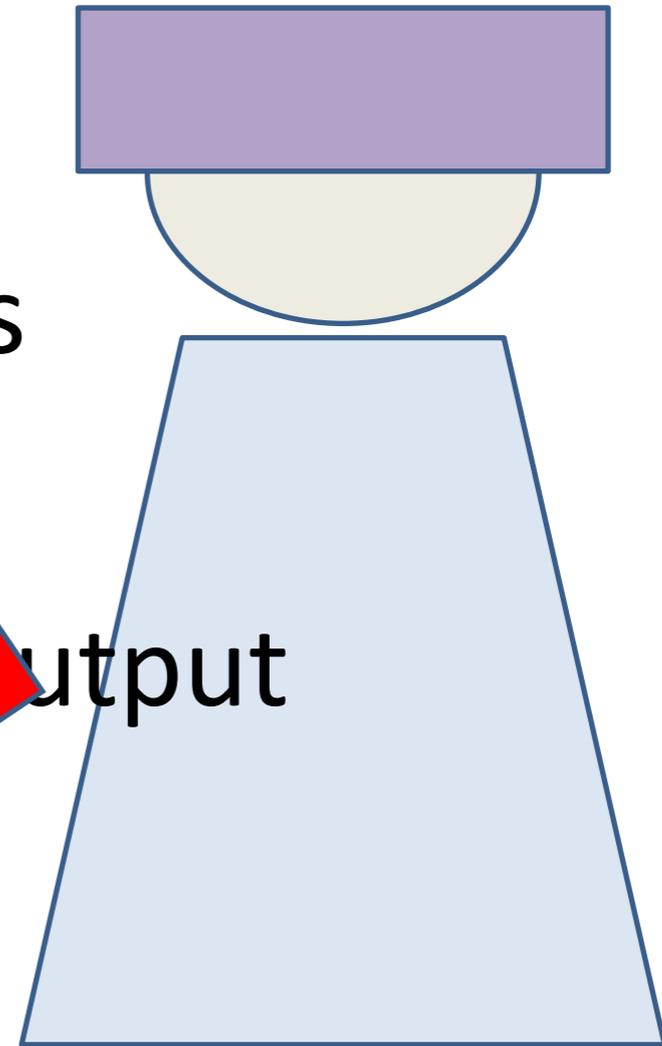
- VOC Volatile Organic Compounds

# Single Die Problem 5

- Wire Bond Failure
- 50/50 chance of
- A closed circuit leading to current overload an remaining leds
- Cascading Catastrophic System Collapse (Current Overload)
- Total system failure

# Single Die Problem 6

- Inefficient Optics
- Plastic TIR or Reflector Lenses
- 30 to 60% reduction in light output
- TIR - Total Internal Reflection



# Results of Single Die Technology

- Large and Heavy Fixtures
- Very Expensive
- High Failure Rate
- Poor Performance
- Poor Return on Investment
- Not a compelling reason to switch

# Kimberly KPL Solutions

- New Generation (3<sup>rd</sup>)
- DCCM - Direct Coupled Copper Mount Technology
- COB Chip On Board

# Solution 1

## Single Die

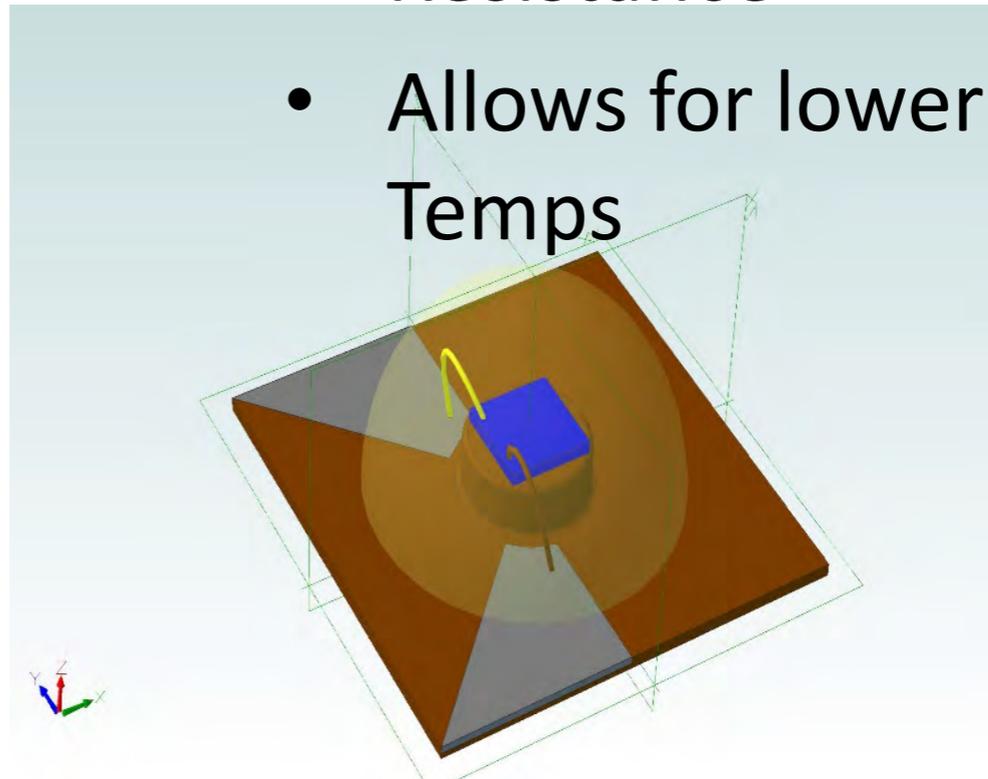
### High Junction Temperature

- 3 thermal interfaces
- Aluminum 200  $\mu\text{W}$
- Increased Thermal Resistance
- Creates Higher Junction Temps

## KPL

### Direct Copper Mount

- LED Chip on Single Copper Substrate
- Copper 400  $\mu\text{W}$
- Decreased Thermal Resistance
- Allows for lower Junction Temps



# Solution 2

## Single Die

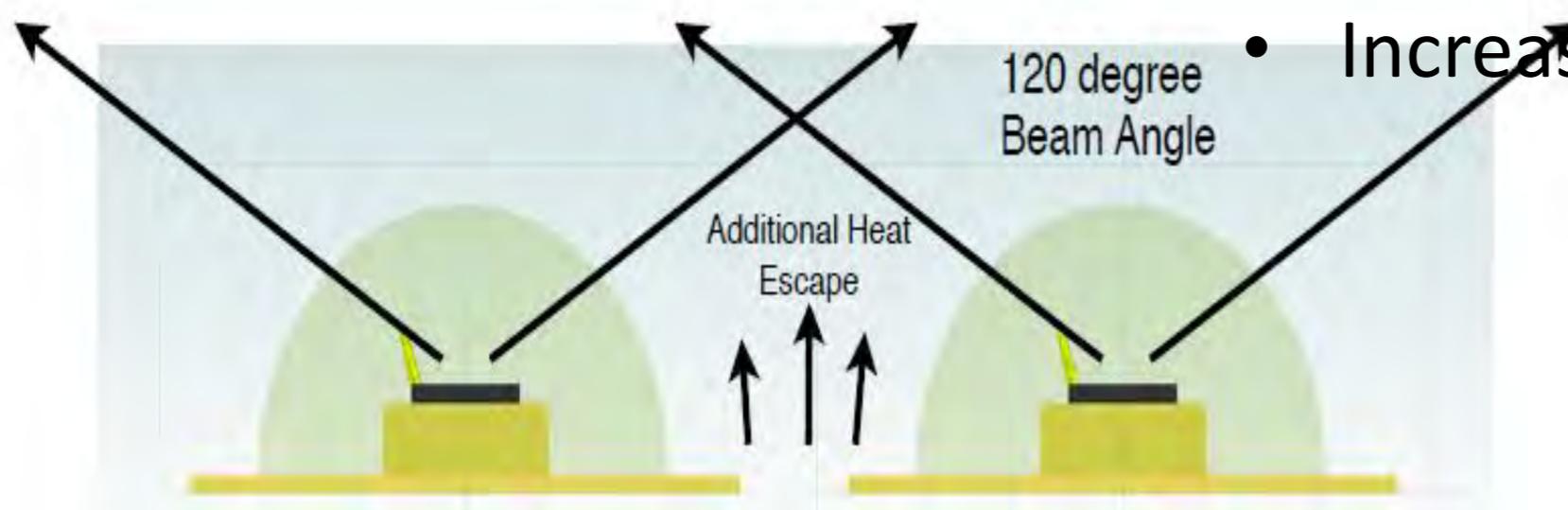
### High Wall Package

- Beam Angle Obstruction
- Blocks 20 to 25 % of light emissions
- Efficacy takes a big hit

## KPL

### Direct Copper Mount

- Raised Copper Dimple
- No package obstruction
- No neighboring Led obstruction
- 100% of emissions escape and fully utilized
- Increase efficacy



# Solution 3

## Single Die

### Large MCPCB Series Circuit Footprints

- Large Footprint
- Large Heavy Fixtures
- Mechanical flexing and vibration
- Thermal flexing
- 30 to 45 lbs and up for 200+ watt fixtures
- Exponential wind loads
- More Material = Higher Costs

## KPL

### COB Chip On Board

- Small compact package
- Lightweight Fixture 18Lbs
- Small Ridged Circuit
- Low Thermal & Mech Flex
- Small wind load 1' x 2' x 3"
- Less Material = Lower Cost

# Solution 4

## Single Die

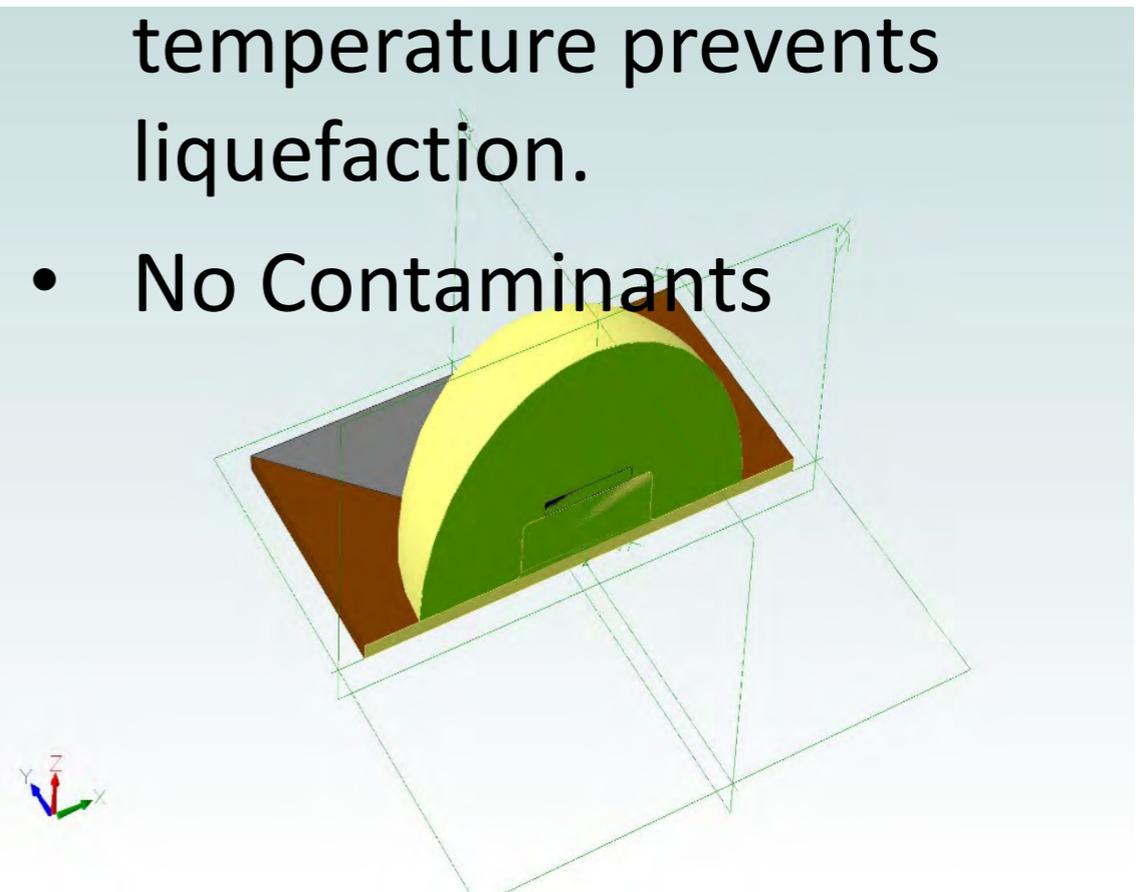
### High Wall Package & Glass Dome

- High Heat liquefies Silicon Encapsulate and loses seal
- High Heat cause convection air flow and vacuum that draws in VOC that stain die.
- Contaminants burn and create visibility obstructions and wire epoxy failure.

## KPL

### Direct Encapsulation

- No Glass Dome
- Silicone Encapsulate is sealed
- Lower operating temperature prevents liquefaction.
- No Contaminants



# Solution 5

## Single Die

### Wire Bond Failure

- When the epoxy fails due to the previous listed problems, the wire bond pulls loose and falls opening or closing the circuit with a loss of light output

## KPL

### Direct Encapsulation

- Lower operating temperature prevents liquefaction.
- Silicone Encapsulate is sealed and stays solid preventing Wire Bond from falling.
- Prevents Series and String failure

# Solution 6

## Single Die

### Inefficient Optics

- Plastic TIR or Reflector Lenses
- Amorphous Material (under a microscope the edges look like mountain ranges)
- 30 to 60% reduction in light output

It's one of the Industry's Dirty Little Secrets

## KPL

### Glass Covers or Lenses

- No substitute for real

# Glass

- 3% diffusion

# Leapfrog the Industry

## Single Die - First Gen

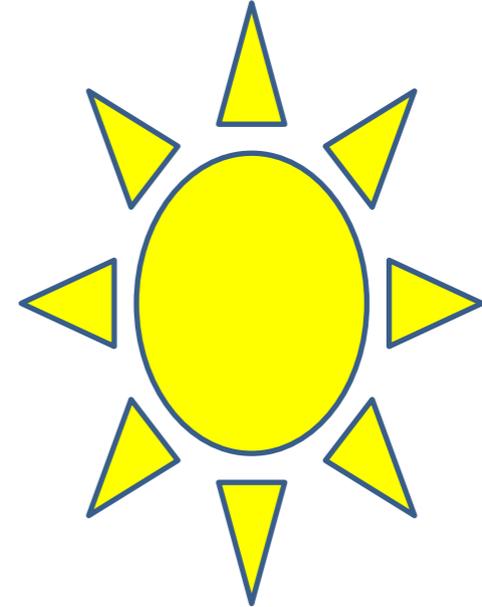
- Burdened with many problems
- High cost of materials
- Poor Performance
- Still Expensive (typically 100 to 300% over existing technology)
- Second Gen is circuit bypass

## DCCM - Third Gen

- Problems Solved
- Lower material cost
- Higher Performance
- Fast R.O.I. (Return on Investment)
- 30%+ lower cost than the competition

# Dirty Secret Number 2

- Lumens



- They don't mean much

# Lumens

- Customers
- Can't See them
- Can't Measure them
- What are they good for?

# Nothing

For a customer

# Performance

- You can only Manage what you can Measure
- Footcandles or Lux
- 1 Footcandle = 10.1 Lux
- A simple inexpensive Light Meter (starting around \$100)

# Performance Comparisons at 26 feet high

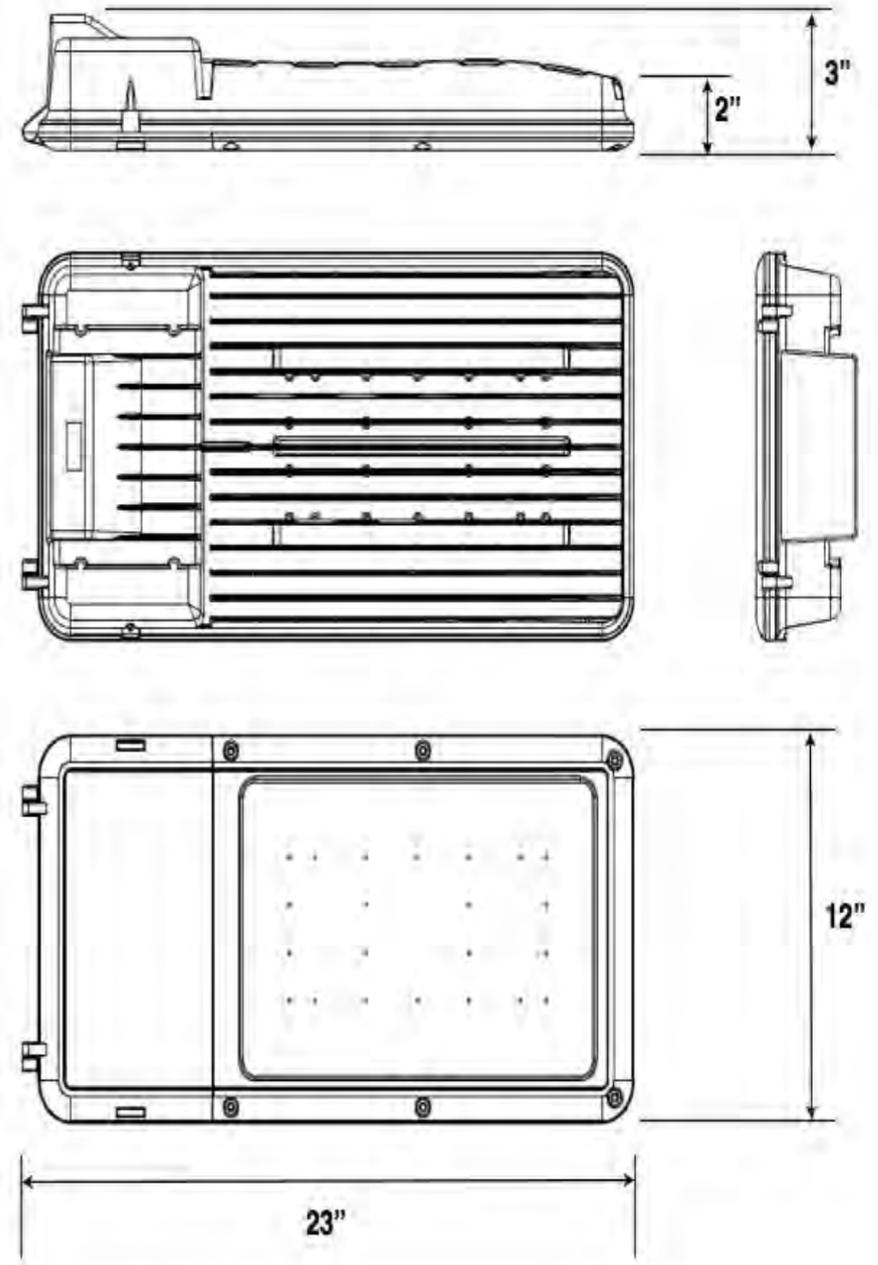
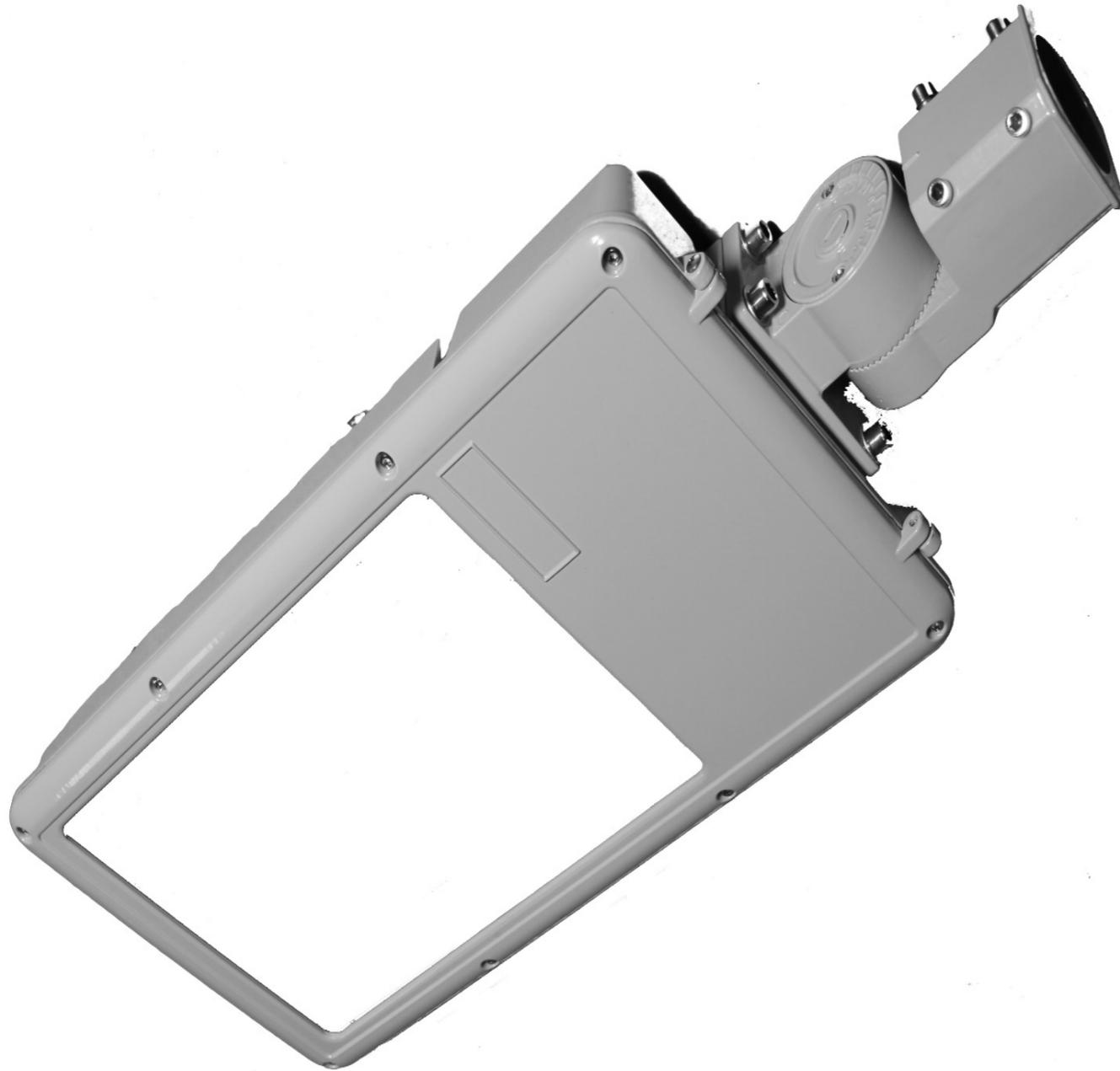
| <b>Product</b>              | <b>Foot-candle Measurement</b> |
|-----------------------------|--------------------------------|
| • Kimberly KPL150 150 Watts | • 4.2                          |
| • Brand A 150 Watt          | • 1.6                          |
| • Brand B 150 Watt          | • 2.4                          |
| • Brand C 150 Watt          | • 2.6                          |

- Deaconess Hospital – 3I Engineering

# The Premier 10000 Watt MH/HPS Replacement

- KPL-250



# KPL250 250 Watt Performance

| Mounting Height (feet) | Foot-candles |
|------------------------|--------------|
| 15                     | 40           |
| 20                     | 29           |
| 25                     | 20           |
| 30                     | 14           |
| 35                     | 11           |
| 40                     | 7            |

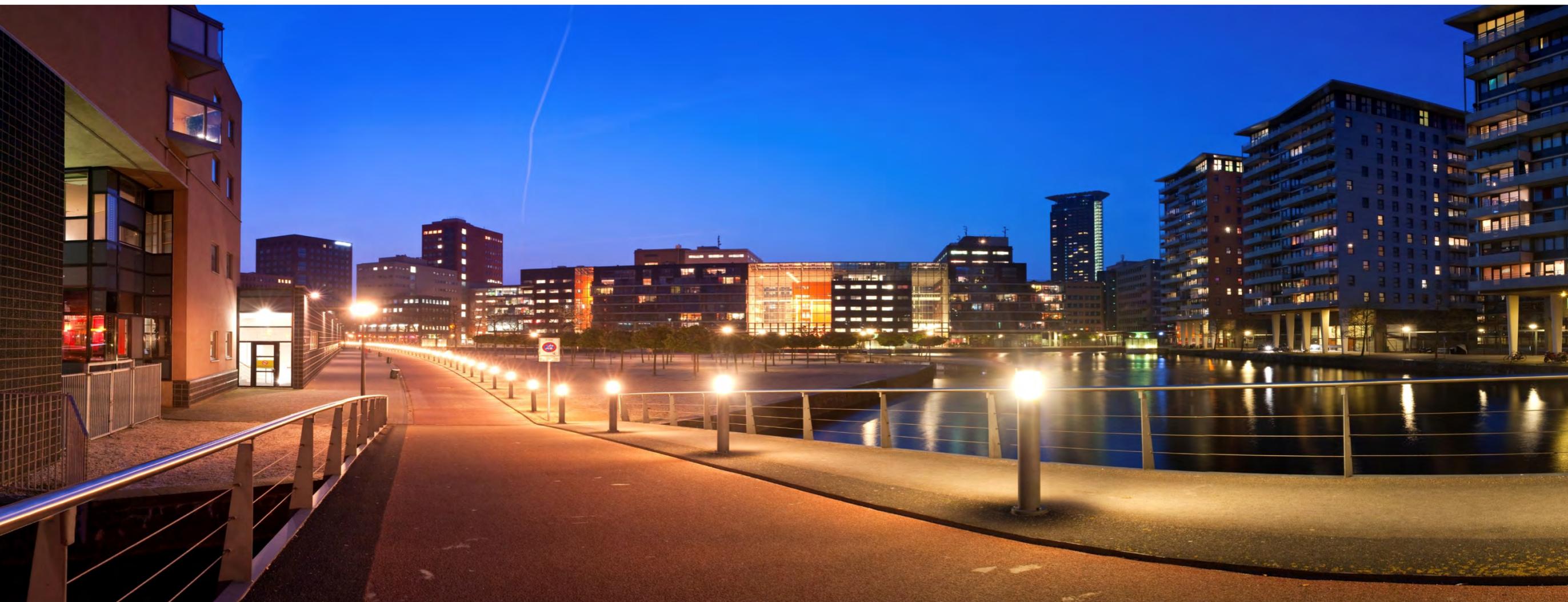


# Synapse



# Smart Wireless Lighting Controls- A Quick Overview

## June 2015



# Why Smart Wireless Lighting Controls

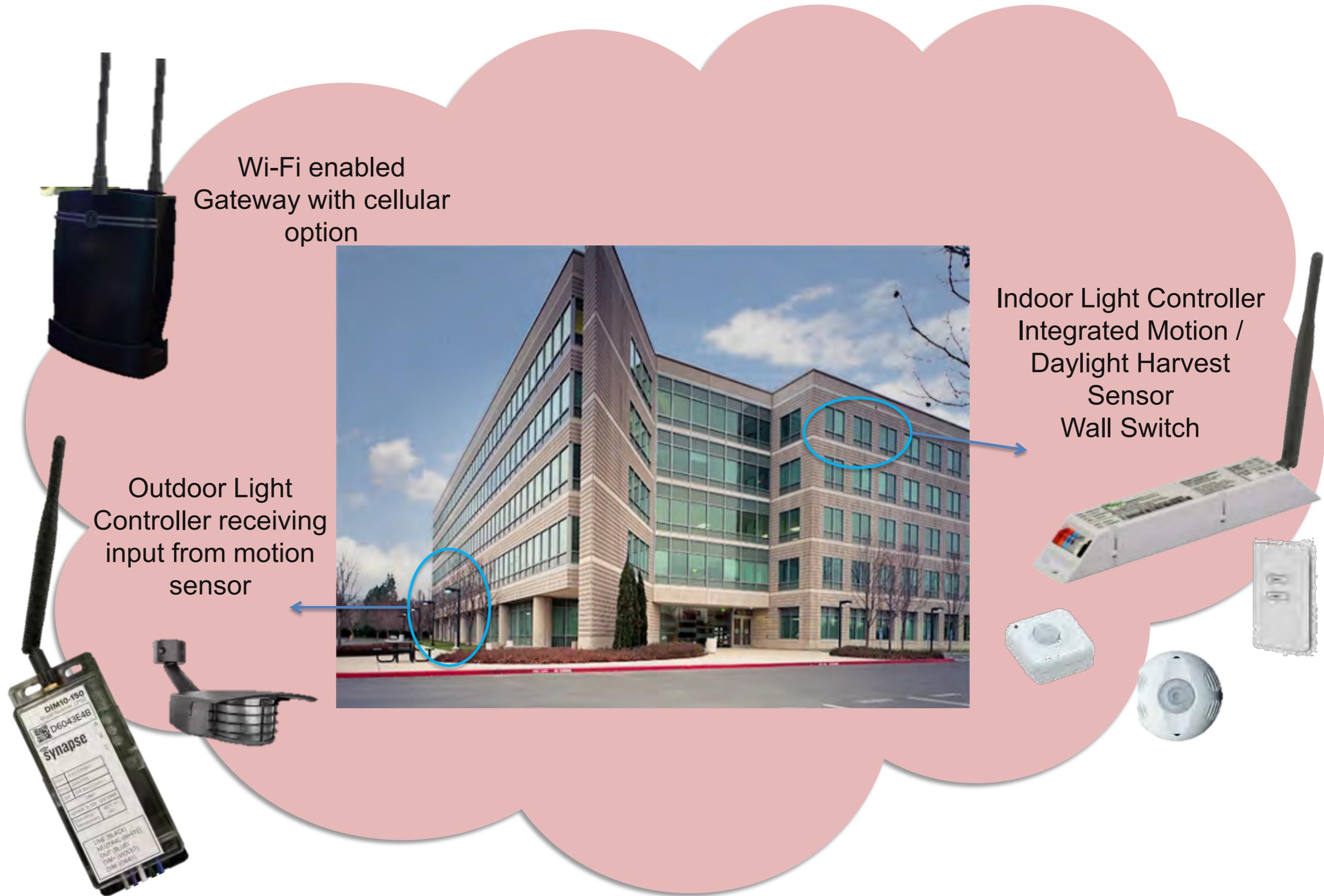
- **Energy Savings**
  - Control single fixtures or banks of lights
  - Responds to more than 'time of day' and provides more than 'on/off' functionality
- **Installation**
  - Survey and Commissioning Tools
  - Flexible enough for site based set up or cloud based configuration
- **Smart**
  - Enhanced load shedding detection
  - No single point of failure



# Wireless Lighting Controls- Potential Savings

- Timers:** up to 40%  
Dim and turn off lights when rooms are unoccupied.
- Photo Sensors:** up to 20%  
Adjust electric light levels to take natural light into account.
- Occupancy sensors:** up to 40%  
Adjust lights based on occupancy detection.
- Task Tuning:** up to 20%  
Dim lights to reduce maximum light levels for each space.
- Personal control:** up to 10%

# Wireless Lighting Control- System Overview



# Smart Wireless Lighting Applications



## Outdoors

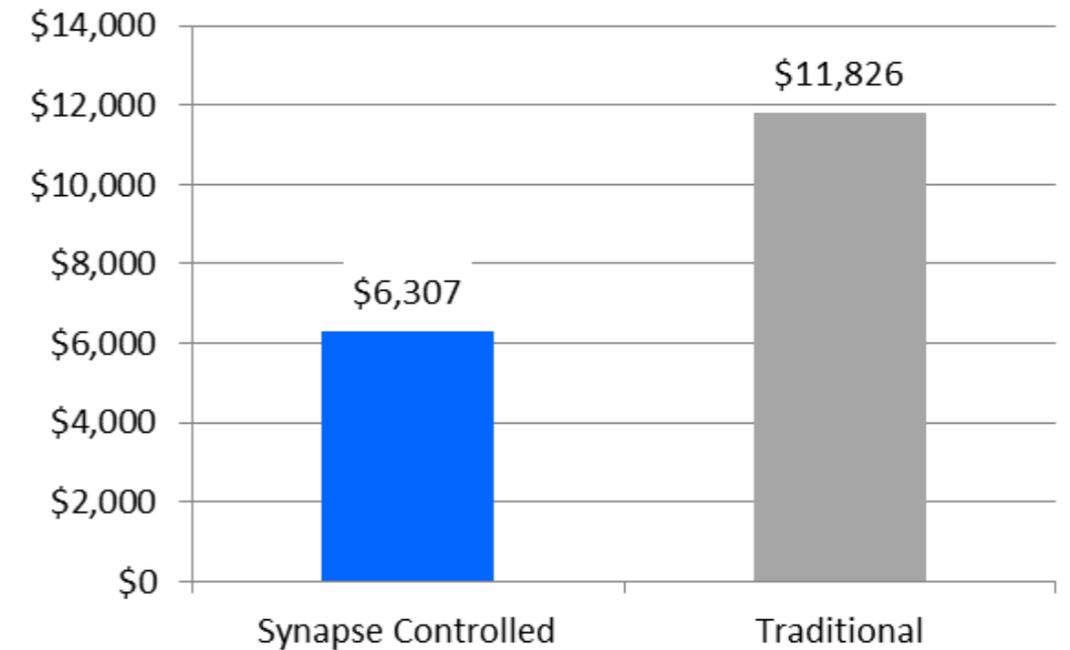
- Parking Lots
- Stadiums
- Garages

## Indoors

- Warehouses
- Office Buildings
- Gymnasiums



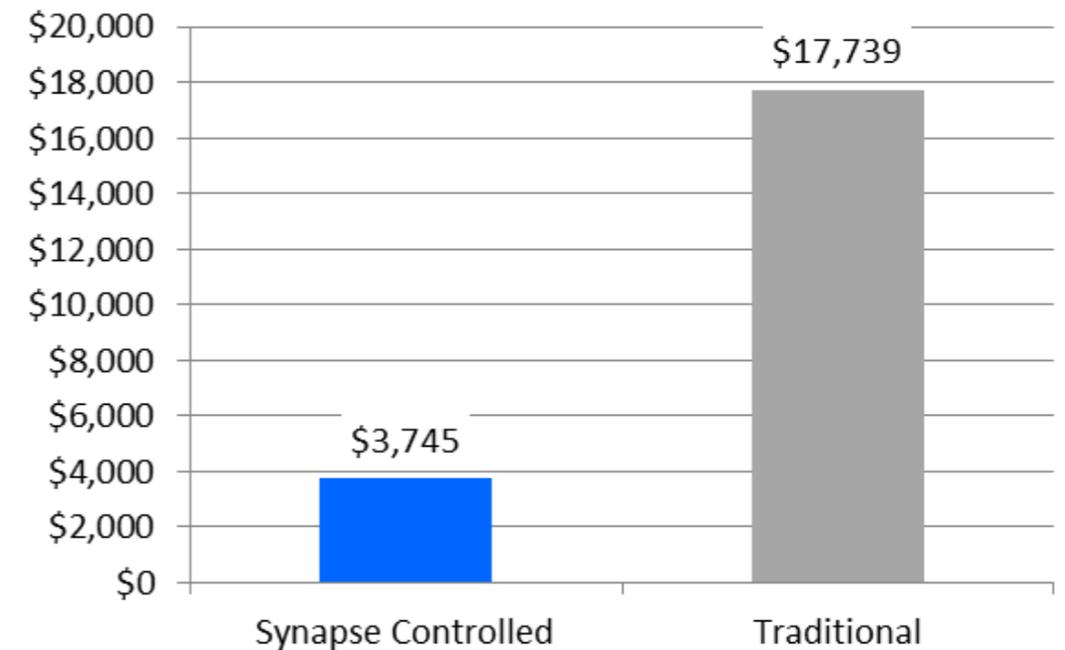
# Outdoor Application Case Example



**Annual Savings of \$110 per fixture, yielding a less than 2 year payback**

- Wireless controllers installed in every pole
- Motion Sensors used to enable additional dimming during off hours
- Sunrise / Sunset fade to maximize savings
- 50 Fixture Parking Lot (all 360 watt)
- Energy Rate \$0.12 per kWh
- Traditional Installation controlled by timer or photo cell

# Indoor Application Case Example



**Annual Savings of \$30 per fixture, yielding a less than 2 year payback**

- Occupancy Sensors with integrated ambient detection enabling daylight harvesting
- Bank control of fixtures cuts installation cost
- RF running through plenum space to maintain seamless appearance

500 Office with LED Troffers (all 45 watts)

- Energy Rate \$0.12 per kWh
- Traditional Installation without controls

# Smart Wireless Lighting Solution and Components

*One Operating Platform... Two Implementation Methods*

## Site Based Solution

- Key Features:
- No Internet Required
- Mobile friendly html5 interface
- Optimal Applications:
- Single-site installations

## Cloud Based Solution

- Key Features:
- Control Anytime, Anywhere
- Secure Cloud
- Optimal Applications:
- Multi-site installations
- Greater than 500-node network
- Benefits:
- Nominal annual software charge
- Integrated dashboard and data analytics

# Local Control Solution

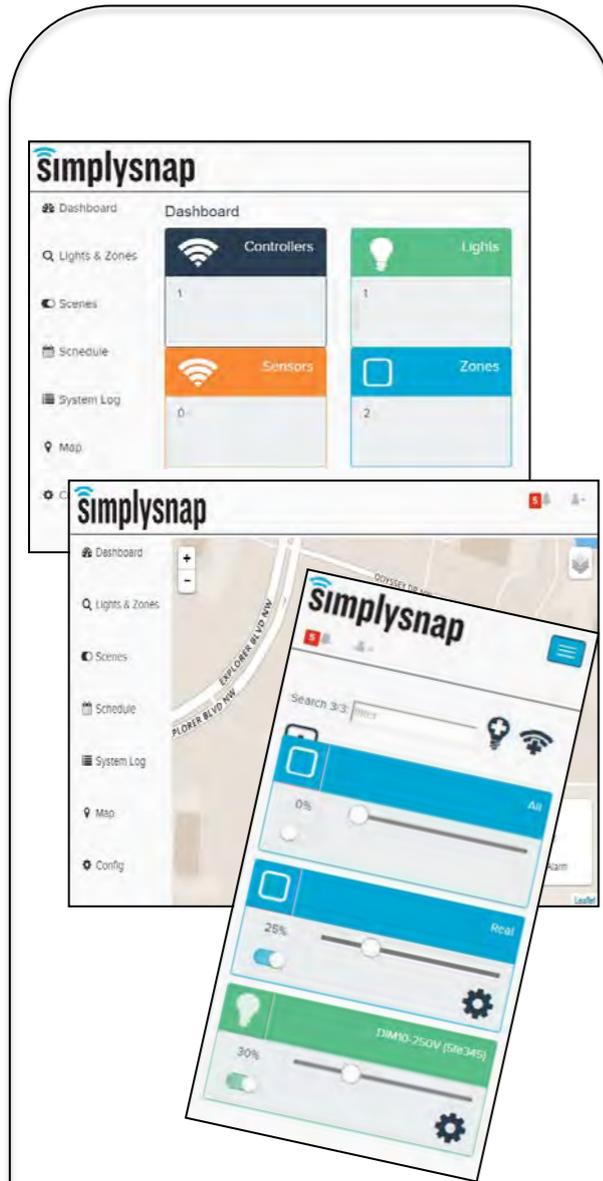
- No Internet Required – Site based control
- html5 mobile application based commissioning and control
- Android Install and commissioning tool
  - Scans QR Code and pulls Mac Address in Phone
  - Latitude and longitude pulled from device and stored with Mac Address
  - Holds Data for Multiple Sites
  - Flags tells you upload to Site Controller Needed
- Multiple Zones, Scenes, Events, and Weekly Schedule
- Data and events stored on local gateway
- Upgradable to Lighting Cloud Solution



## ***Flexibility***

to manage your  
lighting your way

# Local Solution Components



No Internet Required Control

## Site Server



SS420 (Cased)  
SS425 (Board)

Cellular

## Wireless Controllers



LP150-001  
3Amp Relay  
Flying Leads

LP250-11,  
LP280-11

Commissioning Tool  
Android Phone  
Kit Kat OS

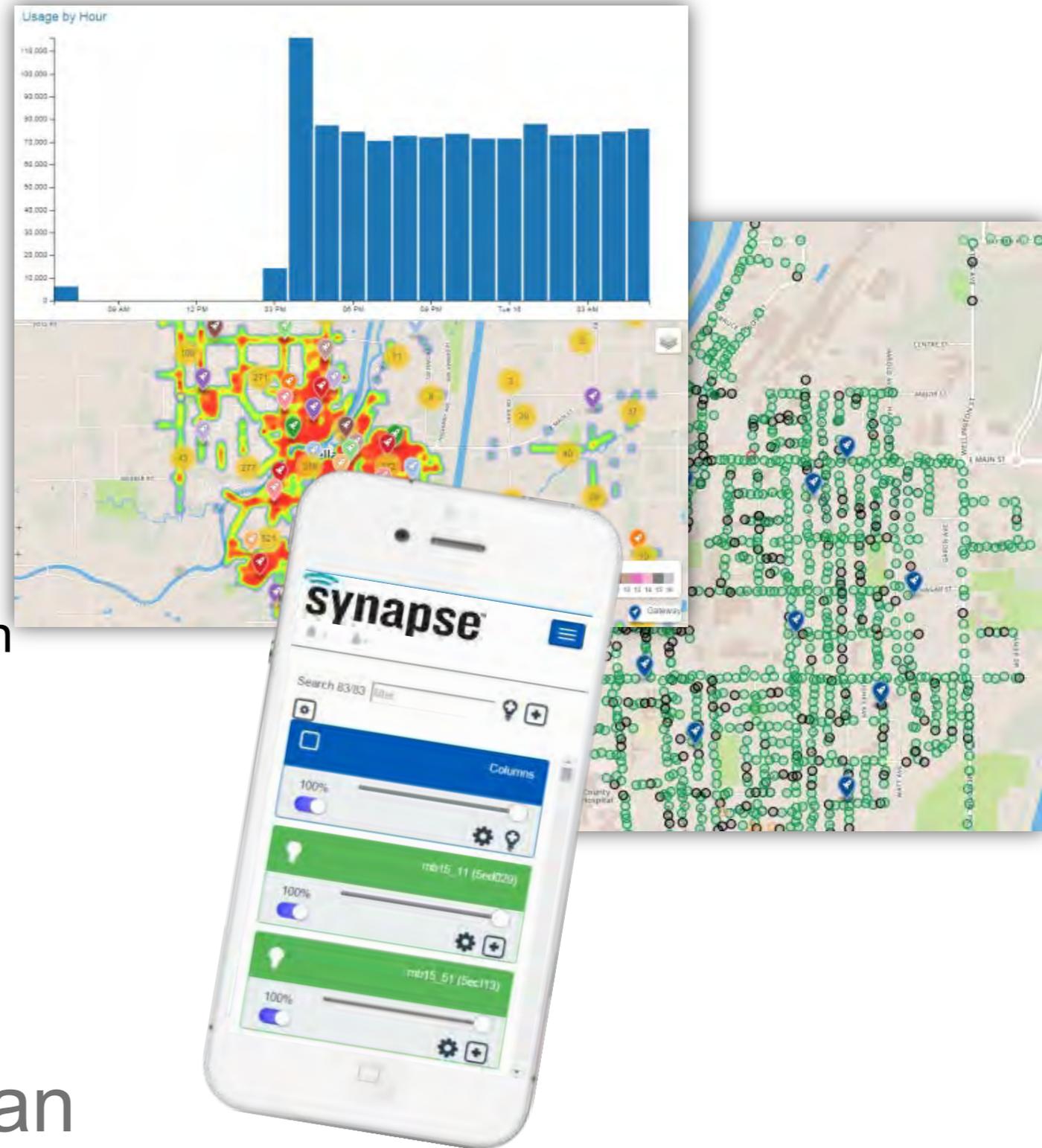


Input  
Output  
Terminal

# Lighting Cloud Control Solution

- **Cloud Based Control**

- Control Anytime / Anywhere
- Dashboards and Reports
- Power Monitoring
- Custom Alarms and Alerts
- Unlimited Zones, Scenes, Events, 365-day calendar
- Map Latitude/Longitude View
- Partners with mobile application
- Integrated Network Topology



## ***Opportunity***

to enhance more than  
just lighting

# Lighting Cloud Control Components



LPSET  
Site  
Initializatio

n

## Gateway



LP420  
(Cased)  
LP425  
(Board)

Cellular

## Wireless Controllers



LP150-001  
3Amp Relay  
Flying Leads

LP250-11,  
LP280-11

Apr-15

Additional Components  
LP201-002  
Sensor

Launch  
5Amp Relay  
Sensor Input  
/ Output



LP301-

Terminal

# Site Controller

- Linux Embedded Appliance running either site specific or cloud based software
  - ARM Cortex-A9, 800MHz
  - 4GB eMMC Flash
  - Wi-Fi 802.11 a/b/g
  - SNAP SM220 20 dBm Radio
  - 100M Ethernet
  - 3G internal cellular modem
    - Planned Certifications
      - Verizon
      - AT&T
      - Rogers carrier
- Industrial Temperature -40°C to +80°C
- Powered via 12-24V DC
  - Barrel Jack
  - Terminal Block



| Solution       | Config.       | Case  | Board |
|----------------|---------------|-------|-------|
| Lighting Local | Standard      | SS420 | SS425 |
|                | with Cellular | SS450 | SS455 |
| Lighting Cloud | Standard      | LP420 | LP425 |
|                | with Cellular | LP450 | LP455 |



**synapse**<sup>®</sup>

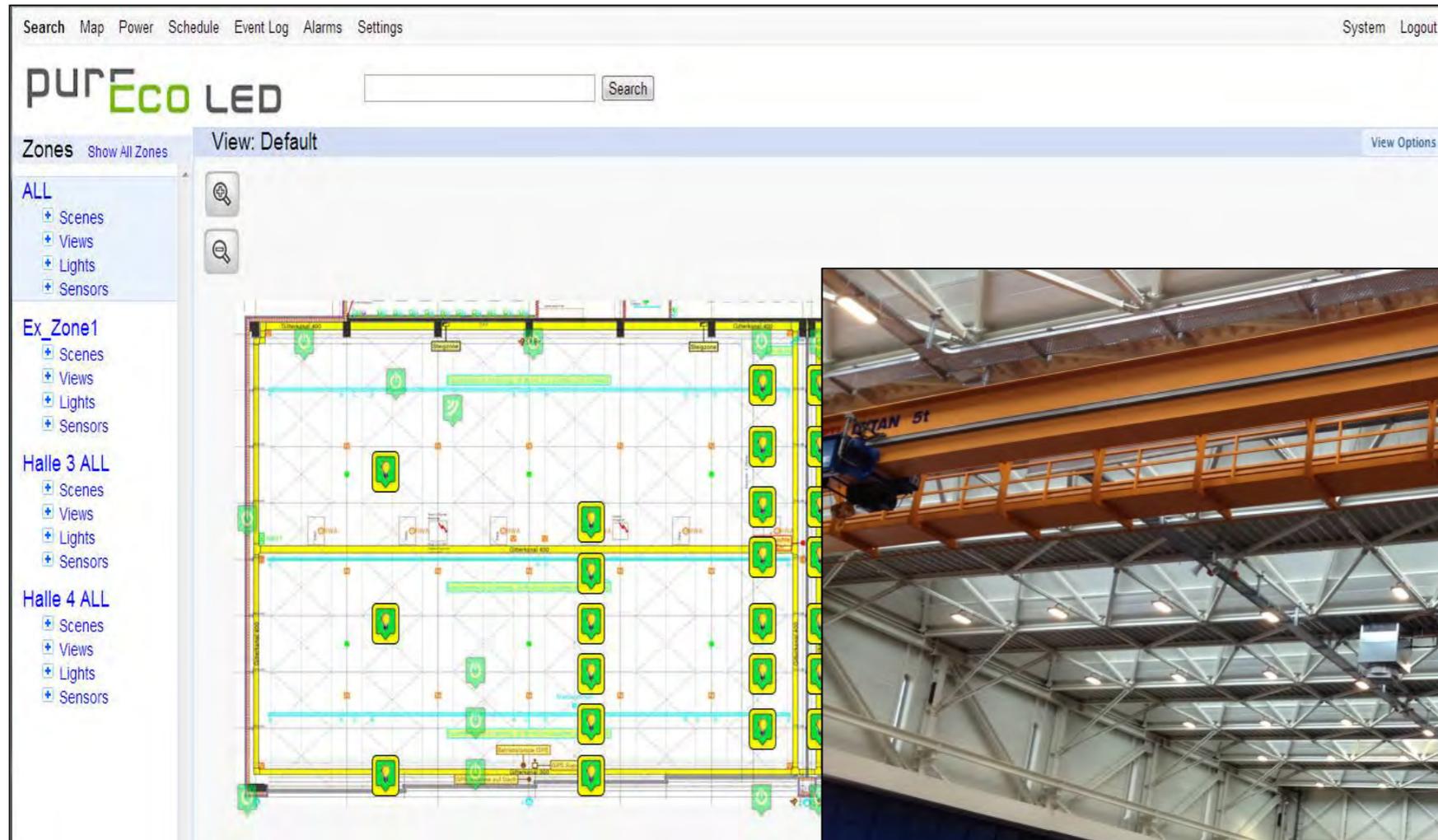
Intelligent Wireless  
Lighting Solutions

Proven Solutions for the Internet of Things

*Technology to take Lighting further*

# Appendix

# Warehouses (High Bays)



# Big Box Store Parking Lots

Search Map Power Schedule Event Log Alarms (1) Settings

**SNAP Lighting** BETA

Search

Zones Show All Zones View: Default

- ALL
  - Scenes
  - Views
  - Lights
  - Sensors
- ZoneA
  - Scenes
  - Views
  - Lights
  - Sensors
- ZoneB
  - Scenes
  - Views
  - Lights
  - Sensors
- ZoneC
  - Scenes
  - Views
  - Lights
  - Sensors

Locator Show

Search Map Power Schedule Event Log (28) Alarms Settings

**SNAP Lighting** BETA

Search

Zones Show All Zones View: Site Map

- ALL
  - Scenes
  - Views
  - Lights
  - Sensors
- Perimeter
  - Scenes
  - Views
  - Lights
  - Sensors
- South Lot
  - Scenes
  - Views
  - Lights
  - Sensors

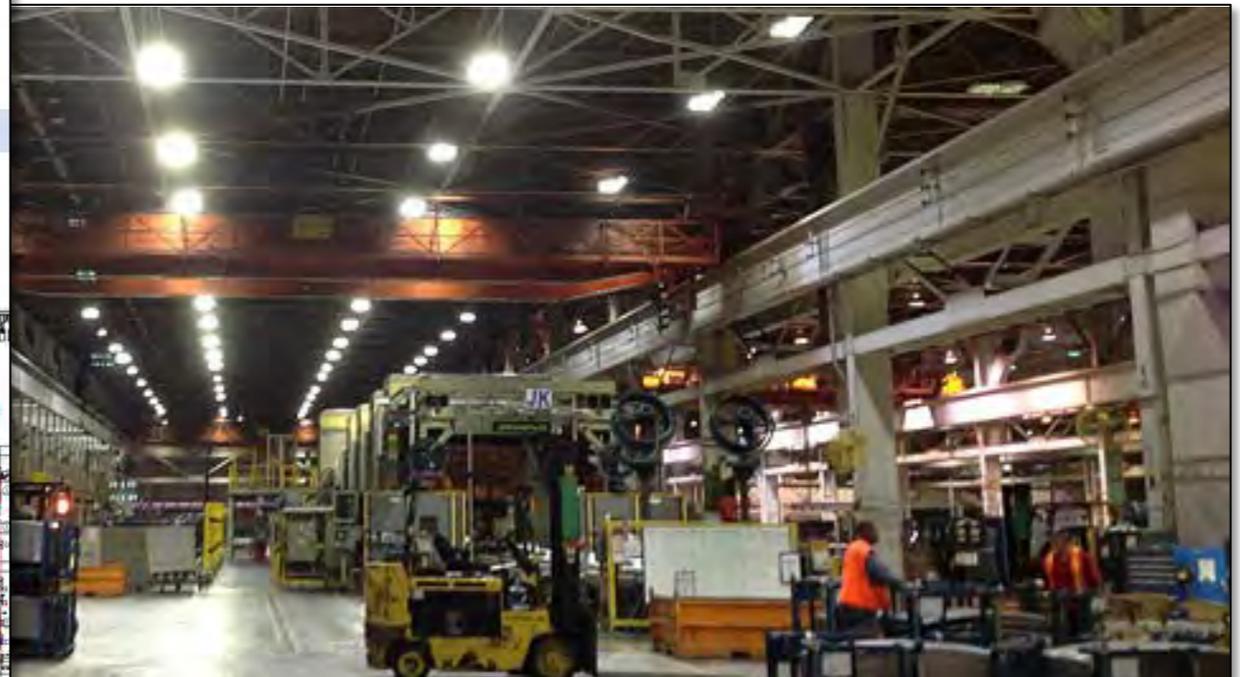
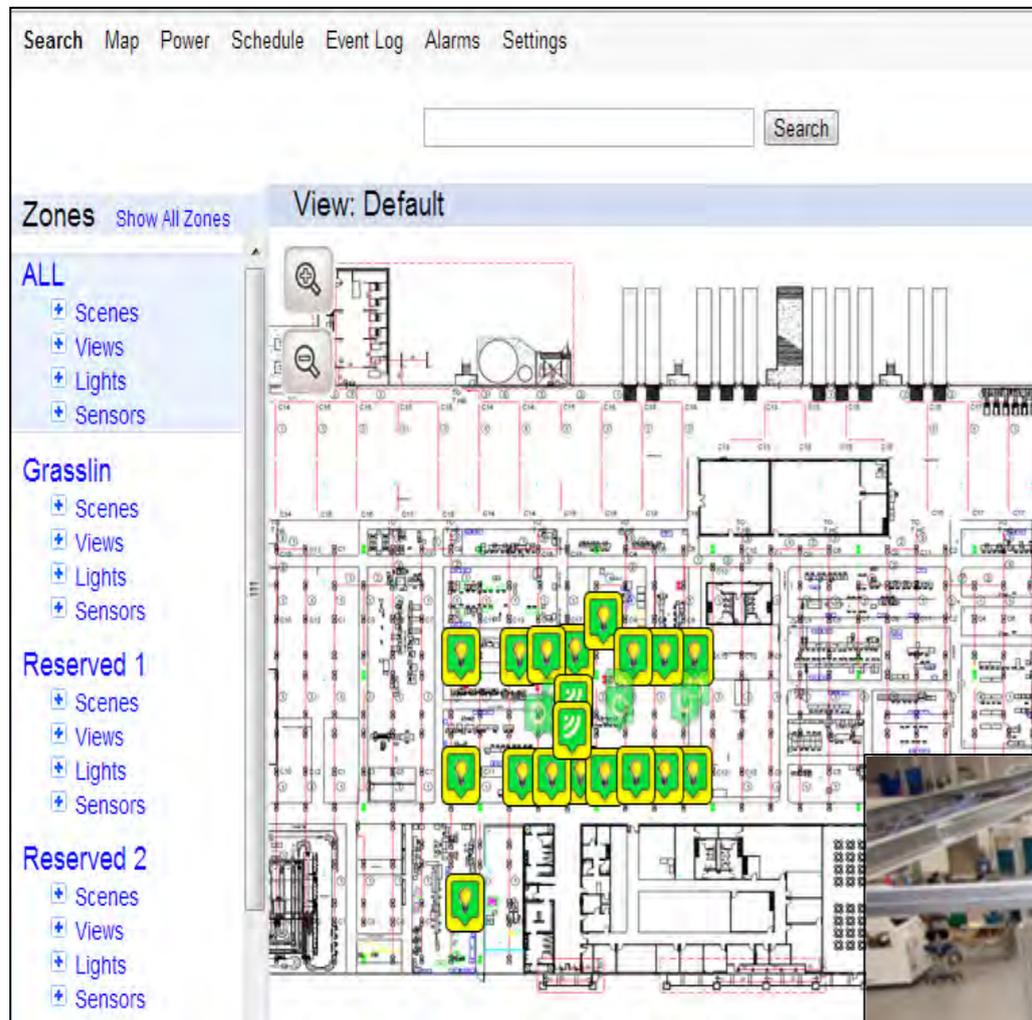
Locator Show

# Emergency Stairwells

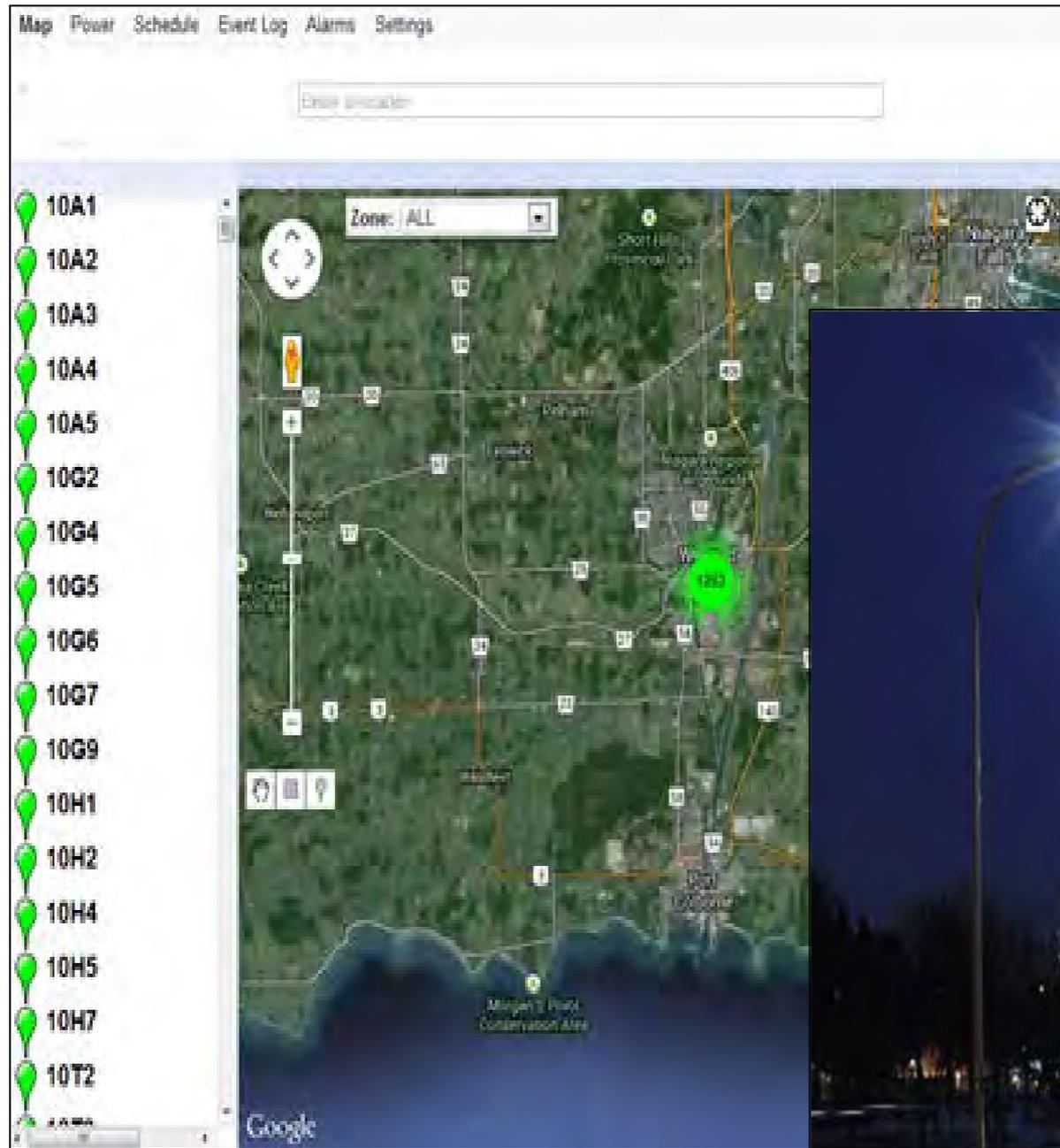
The screenshot displays the SNAP Lighting BETA software interface. At the top, there is a navigation bar with links for Search, Map, Power, Schedule, Event Log, Alarms (52), and Settings. The main header includes the SNAP Lighting BETA logo and a search box. Below the header, the interface is divided into a left sidebar and a main content area. The sidebar lists various zones: ALL, STAIRWELL1, STAIRWELL2, STAIRWELL3, and STAIRWELL4, each with sub-options for Scenes, Views, Lights, and Sensors. The main content area shows a 3D perspective view of a building's stairwell structure, with floors numbered from 14 to 21. A 'roof access' point is labeled '4C.D9.B0'. The interface includes zoom controls and a 'Locator Show' button at the bottom left.



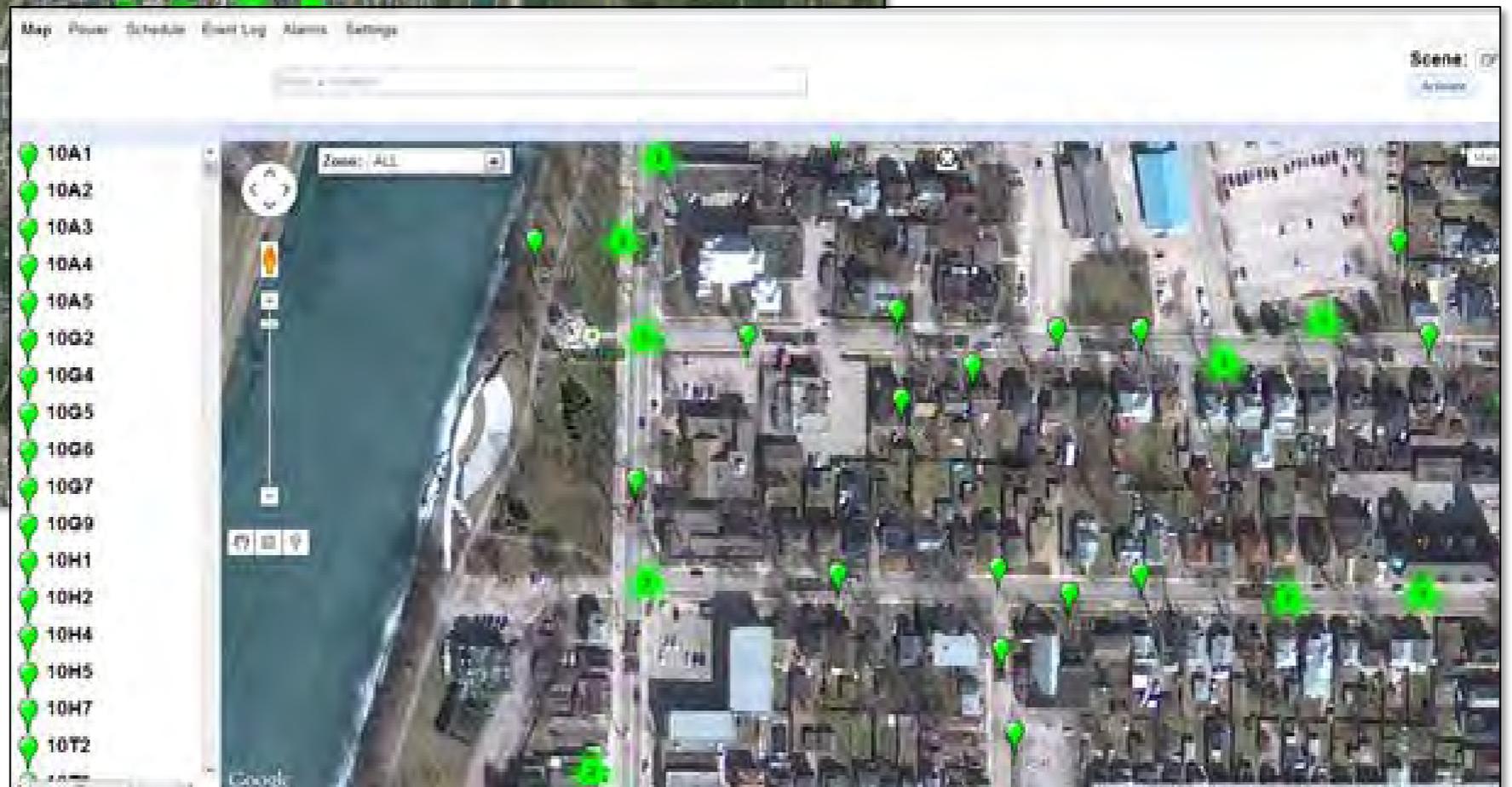
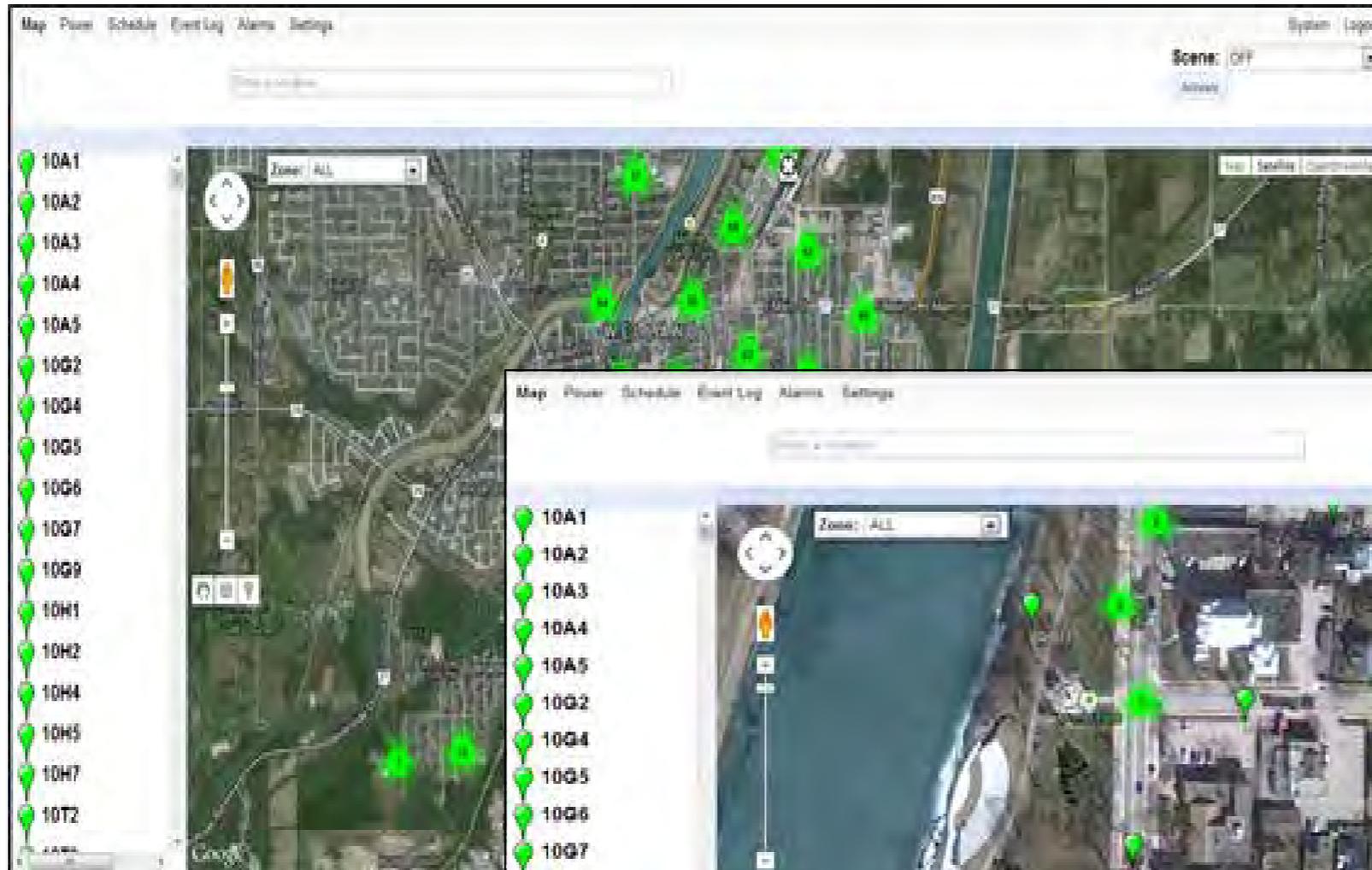
# Manufacturing Plants



# Municipalities



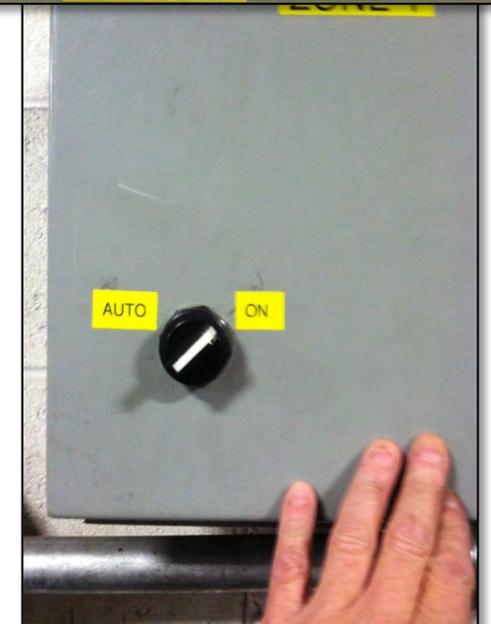
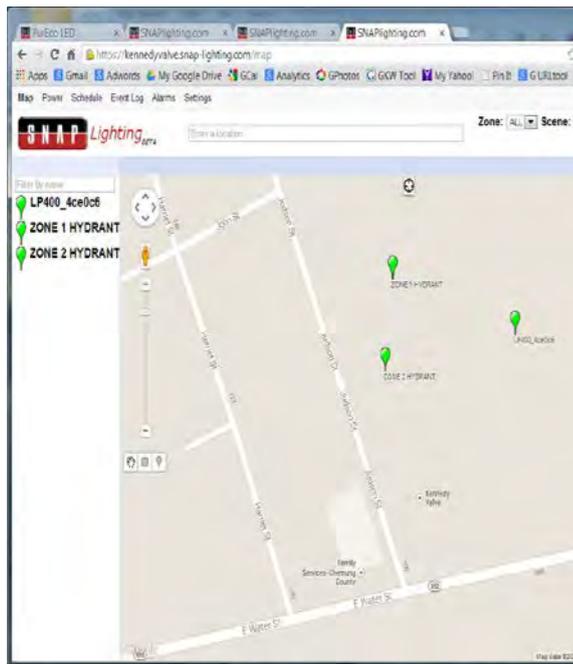
# Municipalities – Zoom In



# Controlling Contact Relays

*“It will save us tens of thousands (\$\$\$)*

- annually.” – Facilities Mgr*
- Use the Switch Relay to control Contact Relays
- Control the Relay that controls the





# ToggLED

# TOGGLED®

Better Light. Made Right.™



## LED Lighting Trends

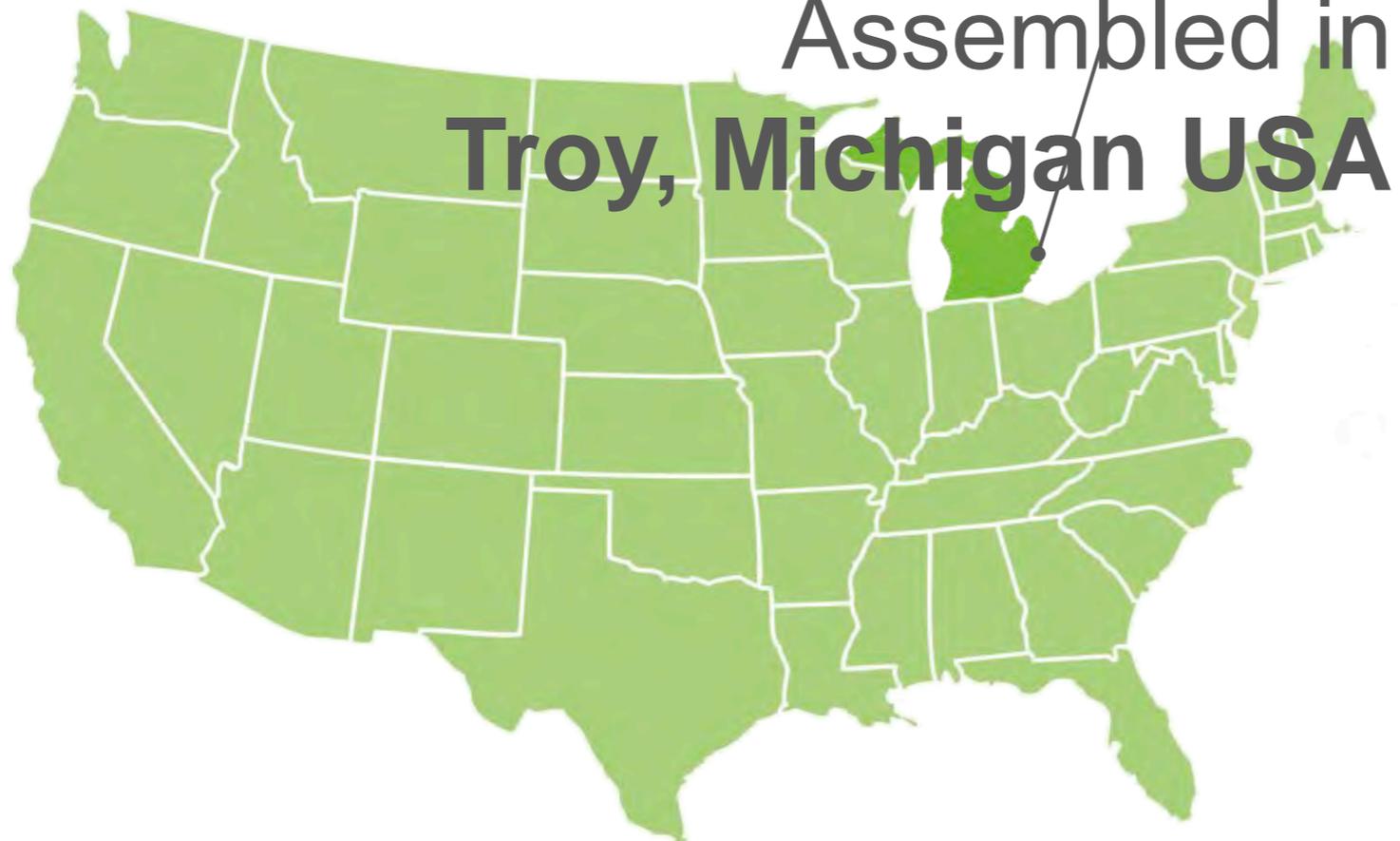
**TOGGLED**<sup>®</sup>



Focused on  
**Next-generation  
solid-state lighting  
technology**

Designed and  
Assembled in

**Troy, Michigan USA**



# Intellectual Property

62

PATENTS ISSUED

30<sup>+</sup>

PATENTS PENDING

35<sup>+</sup>

LICENSEES TO THE  
PATENT PORTFOLIO

# Our Products



Clear



Diffuse



Wide beam angle



# Market Growth Factors

- Increased interest by the channels in pushing LEDs to consumers
- Declining price points
- LEDs provide the best lighting solution.



TOGGLED®



# Residential Surpasses Commercial

- Overall LED is 2% penetrated as of Q1 2015. Once new technology penetration hits 5% -10% market penetration accelerates.
- Rapid growth of LED adoption expected to jump market penetration to 35% - 40% in 2016

# LED Market Trends

- The US LED lighting market is anticipated to grow 25% per year through 2019.
- The North American LED lighting market at \$4.8 billion in 2012 is anticipated to go to \$42 billion by 2019.



TOGGLED®



Video

Monroe Schools and DTE  
Project



# WattStopper

# **WattStopper Wireless Networks**

*An open wireless platform for connecting, communicating, and controlling the commercial building and unconditioned spaces from the electrical infrastructure experts.*

**Legrand Building Control Systems**

# AIC wireless control networks

Built inside the Tridium Niagara Framework

- Supported by over 15,000 trained integrators and service providers.
- Internet Protocol technology; Browser Interface
- Wireless control system for
  - HVAC Controls
  - Lighting
    - Outdoor lighting
    - Garage Lighting
    - High Bay
  - Electrical, Gas and Water Monitoring.
- Control Engine with Trending and Alarms
- 802.15.4 Radio supporting IPV6



Tridium Open JACE 6-E



# BULIT®

- **Basic Utility Light Intelligent Transceiver**
- **Photocell replacement, Twist Lock**
- **On board CT for current and voltage monitoring**



**Powered through NEMA 1 Twist lock  
/277/480 VAC**

**ability**



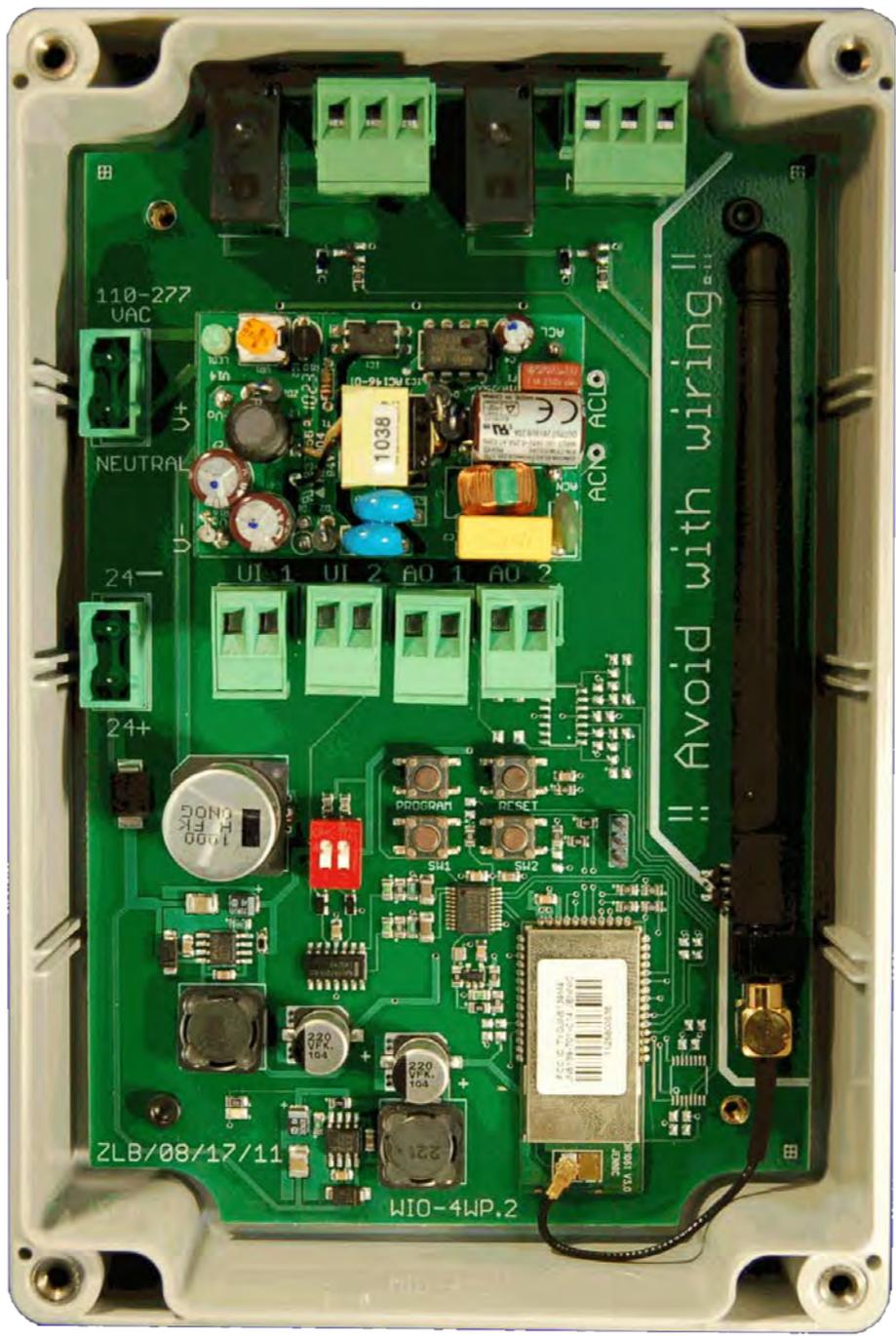
\* Q4 2014

**Zero cross switching**

- **0-10V Dimming\* with ANSI C136.41**

# WIO-6WP

Digital  
Outputs 2  
Analog  
Outputs 2  
Universal  
Inputs 2



# Lighting:

**Individual fixture or zone based controls**

- Flexible deployment based upon ROI or control needs.
- Twist lock, remote mount, or fixture integrated solutions.
- Remote inputs for Sensors / Switches
- Occupancy Sensors, Photocells and overrides



# Dashboards:

## WattStopper® Wireless



Front End

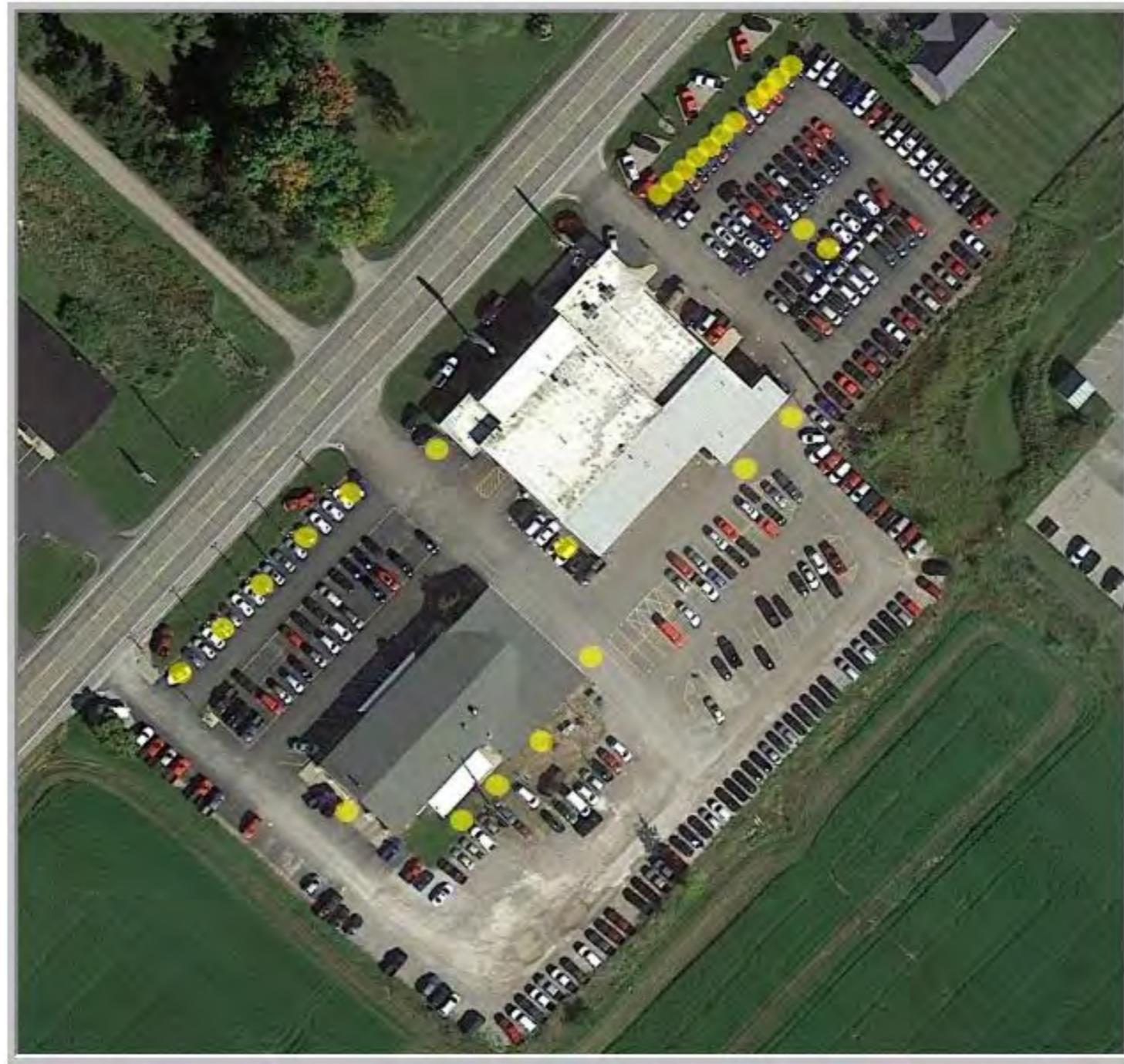


Mobility

# Dashboards:



# Dashboards:



# Dashboards:



# Dashboards:

## Product Design: Extensibility (WattStopper)

### Benefits:

Programmable Dimming

Intrusion / Security Alert

Full Brightness

Text Message

Permanent Power Recording

Real-Time, Onsite Control

# **WattStopper Wireless Networks**

*An open wireless platform for connecting, communicating, and controlling the commercial building and unconditioned spaces from the electrical infrastructure experts.*

**Legrand Building Control Systems**



**Sean McCoy**  
Outreach Manager



## **What we hope to accomplish:**

- **Provide updated Overview of the Program**
  - New for 2015
  - New mid-year LED measures
  - New, Continuing & Expiring offers
  - About incentives
  - LED Lighting Opportunities
  - How to get started
- **Provide answers to your questions**

# 2015 Mid-Program Changes



**DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

## New for 2015



## For 2015:

- **Facility Caps** have been eliminated for both Natural Gas and Electric projects.

- **Project Caps** have been increased for both Natural Gas and Electric projects.

- **Customer Caps** have been increased for both Natural Gas and Electric projects.

## 2014 Caps

| Cap Level | Electricity | Natural Gas |
|-----------|-------------|-------------|
| Facility  | \$750,000   | \$200,000   |
| Project   | \$200,000   | \$100,000   |
| Customer  | \$750,000   | \$200,000   |

## 2015 Caps

| Cap Level | Electricity | Natural Gas |
|-----------|-------------|-------------|
| Project   | \$250,000   | \$200,000   |
| Customer  | \$1,000,000 | \$300,000   |



## For 2015:

- Custom Incentives have been increased for Natural Gas projects.

| Custom Incentives | 2014       | 2015       |
|-------------------|------------|------------|
| Electric          | \$0.07/kWh | \$0.07/kWh |
| Natural Gas       | \$3.50/Mcf | \$4/Mcf    |

# 2015 Program Notice



**DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

## Important for 2015:

- The 2015 Program Year **ends Nov. 30.**
- This means:
  - No Reservations extend beyond Nov. 30.
  - Final Applications **must** be submitted within 60 days of project completion or Nov. 30, whichever comes first.
  - Incomplete Final Applications face cancellation.
  - Any Application submitted after Nov. 30 will be canceled.

**Prescriptive and Custom Incentive Application Checklist**

This form **MUST** be included with any Reservation and/or Final Application.  
If this is a New Construction or Major Renovation project, please use that Application, which can be found online at: [dteenergy.com/savenow](http://dteenergy.com/savenow).

Submittal Date \_\_\_\_\_ Application Number (if known) \_\_\_\_\_  
Is this a revised Application?  yes  no

Mail, tax or email completed forms and required documentation with itemized invoices to: **DTE Energy's Energy Efficiency Program For Business**  
P.O. Box 11289  
Detroit MI 48211  
Fax: 877.607.0744  
Phone: 866.796.0512  
Email: [savenenergy@dteenergy.com](mailto:savenenergy@dteenergy.com)  
Web: [dteenergy.com/savenow](http://dteenergy.com/savenow)

**Reservation Application**  
Fill out this side when reserving incentives

**Final Application**  
Fill out this side when project is completed

**Required Attachments**

| Reservation Application                                             | Final Application                                                                     |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <input type="checkbox"/> Customer Information ..... 3               | <input type="checkbox"/> Customer Information ..... 3                                 |
| <input type="checkbox"/> Contractor Information ..... 4             | <input type="checkbox"/> Contractor Information ..... 4                               |
| <input type="checkbox"/> W9 Tax Information Form (customer) ..... 3 | <input type="checkbox"/> W9 Tax Information Form (if different than customer) ..... 4 |
| <input type="checkbox"/> Michigan-Made Affidavit(s) (if applicable) | <input type="checkbox"/> 3rd Party Payment Authorization* ..... 4                     |
|                                                                     | <input type="checkbox"/> Signed Final Application Agreement ..... 5                   |
|                                                                     | <input type="checkbox"/> Manufacturers' Specifications                                |
|                                                                     | <input type="checkbox"/> Itemized Invoices                                            |
|                                                                     | <input type="checkbox"/> Michigan-Made Affidavit(s) (if applicable)                   |

**Incentives Worksheets**

| Reservation Application                                           | Final Application                                                 |
|-------------------------------------------------------------------|-------------------------------------------------------------------|
| <input type="checkbox"/> Lighting ..... 7                         | <input type="checkbox"/> Lighting ..... 7                         |
| <input type="checkbox"/> HVAC - Electric ..... 10                 | <input type="checkbox"/> HVAC - Electric ..... 10                 |
| <input type="checkbox"/> Miscellaneous Electric ..... 17          | <input type="checkbox"/> Miscellaneous Electric ..... 17          |
| <input type="checkbox"/> Process Electric ..... 18                | <input type="checkbox"/> Process Electric ..... 18                |
| <input type="checkbox"/> Food Service - Electric ..... 20         | <input type="checkbox"/> Food Service - Electric ..... 20         |
| <input type="checkbox"/> HVAC - Gas ..... 22                      | <input type="checkbox"/> HVAC - Gas ..... 22                      |
| <input type="checkbox"/> Hot Water & Laundry ..... 23             | <input type="checkbox"/> Hot Water & Laundry ..... 23             |
| <input type="checkbox"/> Insulation ..... 24                      | <input type="checkbox"/> Insulation ..... 24                      |
| <input type="checkbox"/> Process Gas ..... 24                     | <input type="checkbox"/> Process Gas ..... 24                     |
| <input type="checkbox"/> Boiler/Furnace Tune-up ..... 25          | <input type="checkbox"/> Boiler/Furnace Tune-up ..... 25          |
| <input type="checkbox"/> Food Service - Gas ..... 26              | <input type="checkbox"/> Food Service - Gas ..... 26              |
| <input type="checkbox"/> Custom ..... 29                          | <input type="checkbox"/> Custom ..... 29                          |
| <input type="checkbox"/> Boiler/Furnace Tune-up Addendum ..... 32 | <input type="checkbox"/> Boiler/Furnace Tune-up Addendum ..... 32 |

Reservation Application Date \_\_\_\_\_ Final Application Date \_\_\_\_\_  
Expected Completion Date\*\* \_\_\_\_\_ Actual Completion Date\*\*\* \_\_\_\_\_  
\*\*Project funds will only be reserved for 90 days from date of Reservation and no Reservation will extend beyond Nov. 30, 2015.  
\*\*\*Application must be submitted within 60 days of completion date or by Nov. 30, 2015, whichever comes first.

This interactive Application will automatically calculate all incentive totals on each worksheet - which you can then submit electronically to our office. You also can download this Application, print it out and complete it manually. You then can either mail or fax it to our office.  
**You must complete all applicable pages before sending or submitting this Application to our office.**  
[Go To Page 36 For Submission Instructions](#)

Reservation Application Date

Expected Completion Date\*\*

\*\*Project funds will only be reserved for 90 days from date of Reservation and no Reservation will extend beyond Nov. 30, 2015.

Final Application Date

Actual Completion Date\*\*\*

\*\*\*Application must be submitted within 60 days of completion date or by Nov. 30, 2015, whichever comes first.



# **New LED Measures**

(effective March 1, 2015)



## New measures

### ELECTRIC - LIGHTING

- **Interior combined occupancy & daylight sensors**
  - $\leq 500$  watts = **\$20/sensor**
  - $> 500$  watts = **\$50/sensor**
- **LED candelabra** – **\$5/lamp**
- **LED globe** – **\$6/lamp**
- **LED A-line replacing CFL A-line** – **\$0.75/lamp**
- **LED PAR/BR/R replacing CFL PAR/BR/R** – **\$1/lamp**
- **LED recessed can reflectors replacing CFL can** – **\$2/lamp**
- **Interior stairwell lighting controls** – **\$0.30/watt controlled**
- **Exterior dimming timer controls** – **\$0.06/watt controlled**



## New Offers



## Custom 20% Bonus offer

- A 20% bonus on gas and electric\* custom applications.
  - Deadline for Reservation Application: **Aug. 31**
  - Deadline for Final Application: **Oct. 31**
- This fact sheet can be downloaded at: [dtetradeally.com](http://dtetradeally.com).

*\*Only electric projects in which the equipment will operate during peak hours are eligible. Other conditions apply.*

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**

**DTE Energy®**  
Know Your Own Power®

### 2015 Custom Incentive Special

Get a 20% bonus on gas and electric projects

**Apply now!**  
For a limited time, our Energy Efficiency Program for Business is offering a 20% bonus on all natural gas and electric\* Custom projects. Reservation Applications are **required** for this special offer and must be submitted by **Aug. 31** — and before work begins. Work must be completed and a Final Application submitted by **Oct. 31**.

**About this limited-time offer**  
We are offering a 20% incentive bonus on the following:  
• All natural gas Custom projects  
• Only electric Custom projects in which the equipment involved will be in operation during peak hours in the month of July. (See the check box at right, which is located on the custom incentive pages.)

**How to apply**  
To apply for the special offer:  
• Download the most recent version of the 2015 Program Application and complete all customer and project information.  
• Complete the Custom worksheet(s) starting on Page 29 — then follow these steps:  
1. On Page 6 (below), identify that portion of the subtotal (D1) that are custom incentives and multiply the figure by 20% (.20).  
2. Manually enter that dollar value below.  
3. Manually enter the following bonus code:  
**2015 Custom 20% Bonus.**  
*The Application will automatically add the bonus to your base incentive.*

**Important note:**  
More than one bonus offer **cannot** be requested on the same measures offered in this custom special — such as the LED 20% Bonus. The customer must choose the bonus that best meets his/her needs.  
This offer **may** be combined on the same application with the **Multi-Measure, Michigan Saves** financing and the **20% High Bay** bonuses (as long as the High Bay and Custom measures are not the same).

**Contact Us**  
e-mail: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com) fax: 877.607.0744  
phone: 866.796.0512 (press option 3 and mention Custom bonus 2015) mail: DTE Energy Efficiency Program for Business  
web: [dteenergy.com/savenow](http://dteenergy.com/savenow) P.O. Box 11289  
Detroit, Michigan 48211

**Page 6**

Will the "After Retrofit" specific piece of equipment listed here be in operation during the hours of 3-6 p.m. on Monday-Thursday in the month of July?  
 Yes  No  
NOTE: This checkbox applies only to electric custom requests.

2015 Custom 20% Bonus (1.20)

\*NOTE: Program based on availability of funding and may end at any time. June 2015



## High Bay 20% Bonus offer

- A 20% bonus on specific high bay lighting measures.\*
  - Deadline for Reservation Application: **Aug. 31**
  - Deadline for Final Application: **Oct. 31**
- This fact sheet can be downloaded at: [dtetradeally.com](http://dtetradeally.com).

\*Other conditions apply.

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**

**DTE Energy**  
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### 2015 High Bay Lighting Special

Get a 20% bonus on specific measures

**Apply now!**  
For a limited time, our Energy Efficiency Program for Business is offering a 20% bonus for **High-Bay Lighting** projects involving certain Prescriptive measures.

Reservation Applications are **required** for this special offer and must be submitted by **Aug. 31** — and before work begins. Work must be completed and a Final Application submitted by **Oct. 31**.

**About this limited-time offer**  
We are offering a 20% incentive bonus on certain **prescriptive** measures (see table at right). *All other Program terms and conditions still apply.*

**How to apply**  
To apply for the special offer:

- Download the most recent version of the 2015 Program Application and complete all customer and project information.
- Complete the worksheet on Page 8 for the measures being installed (see reference numbers at right to find the qualifying measures) — then follow these steps:
  1. On Page 6 (below), take the subtotal of incentives for those measures (D1) and multiply the figure by 20% (.20).
  2. Manually enter that dollar value below.
  3. Manually enter the following bonus code:  
**2015 High-Bay 20% Bonus.**

The Application will automatically add the bonus to your base incentives.

**Important note:**  
More than one bonus offer **cannot** be requested on the **same** measures offered in this high-bay special — such as the LED 20% Bonus. The customer must choose the bonus that best meets his/her needs.

This offer **may** be combined with the **Multi-Measure, Michigan-Made, Michigan Saves** financing and the **20% Custom** bonuses.

| LED Lighting Measure                   | Reference numbers |
|----------------------------------------|-------------------|
| • Interior HID to Fluorescent Fixtures | 8-1 — 8-8         |
| • Pulse Start Metal Halide             | 8-9 — 8-12        |
| • Interior LED or Induction High Bay   | 8-13 — 8-15       |

Use the reference numbers to find these measures on Page 8 of the Program Application.

**Contact Us**

|                                                                                |                                                  |
|--------------------------------------------------------------------------------|--------------------------------------------------|
| e-mail: <a href="mailto:saveenergy@dteenergy.com">saveenergy@dteenergy.com</a> | fax: 877.607.0744                                |
| phone: 866.796.0512 (press option 3 and mention Custom bonus 2015)             | mail: DTE Energy Efficiency Program for Business |
| web: <a href="http://dteenergy.com/savenow">dteenergy.com/savenow</a>          | P.O. Box 11289                                   |
|                                                                                | Detroit, Michigan 48211                          |

\*NOTE: Program based on availability of funding and may end at any time. June 2015



# Continuing Offers



## Agriculture measures

- A special package of measures and incentives designed for Michigan's agricultural and dairy farmers and commercial greenhouse owners.
- Incentives are available for upgrades in areas of irrigation systems, refrigeration, dairy equipment, grain dryers, greenhouse equipment and fans and pumps.
- Use this special application.

Energy Efficiency Program for Business

DTE Energy<sup>®</sup>  
Know Your Own Power<sup>®</sup>

2015 Agriculture Incentives  
Specifications and Application

Michigan's farms are the backbone of one of the most important sectors of our state's economy – and DTE Energy is reaching out to Michigan farmers to help them save energy and money in their operations.

Through its Energy Efficiency Program for Business, DTE has put together energy efficiency measures that are among the most common found on Michigan agricultural and dairy farms and in commercial greenhouses.

In this Application, Michigan farmers can apply for cash incentives that will help pay for equipment upgrades in areas of irrigation systems, refrigeration, dairy equipment, grain dryers, greenhouse equipment and fans and pumps.

We've made the application process as easy as possible for those who get up early and stay up late feeding our nation.

Inside, you'll find detailed descriptions of each energy-saving measure and then worksheets that will automatically calculate the incentives you can receive for installing those measures.

| Inside this Application                   |       |
|-------------------------------------------|-------|
| Overview .....                            | 2     |
| Checklist .....                           | 3     |
| Customer Information .....                | 4     |
| Contractor Information .....              | 5     |
| Final Agreement .....                     | 6     |
| Specifications .....                      | 7-10  |
| Worksheets .....                          | 11-12 |
| Lighting Specifications & Worksheet ..... | 13    |
| How to Submit .....                       | 14    |

dteenergy.com/savenow 1 V2:02/01/15



## Michigan-Made bonus

- Receive a **15% bonus** for any installed equipment that is 50% manufactured and/or assembled in Michigan (excluding packaging).
- The Michigan-Made fact sheet and manufacturer's affidavit can be downloaded at: [dtetradeally.com](http://dtetradeally.com).

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**  **DTE Energy**  
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### 2015 Michigan-Made Incentive Bonus

**Install products manufactured/assembled in the state: get a 15% bonus**

DTE Energy's *Michigan-Made* bonus is designed to reward customers who use Michigan-made products in their energy-efficiency projects — while also helping boost our state's economy.

#### What's eligible

Business customers who install *Michigan-Made* products at their locations in 2015, will qualify for a **15% bonus** on each eligible measure installed.

Most Prescriptive measures are eligible for this offer if they meet the following conditions:

- The purchased product(s) must have been at least **50% manufactured and/or assembled** in Michigan (exclusive of packaging and installation).  
**IMPORTANT NOTE:** The installation of a product is **not** considered "assembly."
- An **affidavit is provided** by the manufacturer of each product installed, attesting to the product/measure meeting the *Michigan-made* criteria. (Affidavits are available from participating manufacturers.)
- You **must** attach the affidavit to the Application. (If the Application is filed electronically, the affidavit(s) should be attached to the email submission.)
- You **must** attach the manufacturer's spec sheet, showing the product and where it is manufactured/assembled. (If the Application is filed electronically, the specification sheet(s) should be attached to the email submission.)

#### How to apply

To receive a *Michigan-Made* bonus in addition to base incentives:

- Download and complete the latest version of the 2015 Program Application from our website: [dteenergy.com/savenow](http://dteenergy.com/savenow).
- Find a list of *Michigan-Made* manufacturers on our website.
- Check the *Michigan-Made*  box for each incentive that meets the requirements (above).
- The interactive PDF Application will calculate the *Michigan-Made* bonus automatically.
- Complete your project and submit your Final Application by **Nov. 30, 2015**.  
(Applications submitted after Nov. 30, 2015, will be canceled.)

**PURE MICHIGAN**  
Business Connect

#### Contact Us

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

email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com)  
phone: 866.796.0512 (press option 3 and mention the 2015 Michigan-Made bonus)  
web: [dteenergy.com/savenow](http://dteenergy.com/savenow)  
fax: 877.607.0744  
mail: DTE Energy's Energy Efficiency Program for Business  
P.O. Box 11289  
Detroit, Michigan 48211

\*Program based on availability of funding and may end at any time.



## Multi-Measure bonus

- Receive a **20% bonus** on multiple categories submitted on the same Application.
  - No single category can be more than 75% of the Application.
  - **Ex:** you install a new furnace and also install insulation – and neither incentive is more than 75% of the total.
  - The PDF Application automatically calculates the percentages and enters the incentives.
- This fact sheet can be downloaded at: [dtetradeally.com](http://dtetradeally.com).
- Food Service/Health-Fitness customers: Get another 10% bonus!

### ENERGY EFFICIENCY PROGRAM FOR BUSINESS



## 2015 Multi-Measure Incentive Bonus

**Install more than one category of measures and receive a 20% bonus**

DTE Energy's *Multi-Measure* bonus is designed to promote the installation of energy-efficiency measures from more than one category per application, thereby further reducing energy consumption and saving business customers even more money.

**How it works**  
Under this program, if no single category of measures is more than 75% of the total value of the Application, the customer receives a **20% bonus on the entire Application**.

**What qualifies for the bonus**  
To be considered for the *Multi-Measure* bonus, projects must involve measures from at least two of the following categories that appear in the *Energy Efficiency Program for Business* Application:

|                                                     |                                                 |
|-----------------------------------------------------|-------------------------------------------------|
| <b>ELECTRIC</b>                                     | <b>GAS</b>                                      |
| <input type="checkbox"/> Lighting                   | <input type="checkbox"/> Hot Water & Laundry    |
| <input type="checkbox"/> HVAC                       | <input type="checkbox"/> HVAC                   |
| <input type="checkbox"/> Food Service/refrigeration | <input type="checkbox"/> Food Service           |
| <input type="checkbox"/> Process Electric           | <input type="checkbox"/> Process Gas            |
| <input type="checkbox"/> Miscellaneous              | <input type="checkbox"/> Boiler/furnace tune up |
|                                                     | <input type="checkbox"/> Insulation             |

**NOTE:** Custom projects are also eligible, based on these same categories.

**How to apply**  
To receive a *Multi-Measure* bonus in addition to base incentives:

- Download and complete the latest version of the 2015 Program Application from our website: [dteenergy.com/savenow](http://dteenergy.com/savenow).
- The interactive PDF Application will calculate the *Multi-Measure* bonus automatically.
- Submit your Application and complete your project by **Nov. 30, 2015**. (Applications submitted after Nov. 30, 2015, will be canceled.)

**Contact Us**  
We are available to help you understand the incentive requirements and available resources for projects under the *Energy Efficiency Program for Business*.<sup>\*</sup> Call to check your eligibility and learn how to make DTE Energy's Program work for you.

email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com)  
phone: 866.796.0512 (press option 3 and mention the 2015 Multi-Measure bonus)  
web: [dteenergy.com/savenow](http://dteenergy.com/savenow)  
fax: 877.607.0744  
mail: DTE Energy's Energy Efficiency Program for Business  
P.O. Box 11289  
Detroit, Michigan 48211

<sup>\*</sup> Program based on availability of funding and may end at any time.



### Project Example

1. A customer enters measures under Lighting category (prescriptive and/or custom) that would receive a \$10,000 DTE Energy incentive.
2. The customer adds a measure(s) from a second category, such as HVAC-Gas (prescriptive/custom), to the same Application, for a \$4,000 incentive.
3. The total of the Application is \$14,000 — and the largest category (Lighting) represents only 71.4% of the total.
4. The customer receives a 20% bonus based on \$14,000 in total incentives: or an **additional \$2,800!**

Total incentives ~~before~~ bonus: \$14,000  
Total incentives **after** bonus: \$16,800

# 2015 Continuing Program Offers



**DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

## 0% Financing from Michigan Saves

- Get 0% financing for up to \$50,000 on projects submitted for incentives through our Program.
- For more information and to apply, download this fact/worksheet at: [dtetradeally.com](http://dtetradeally.com)

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**  **DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

### Get 0% financing on your Michigan Saves loan

Apply for energy efficiency incentives through DTE Energy and get a 0% interest rate on your project

DTE Energy — in partnership with **Michigan Saves** — is offering 0% financing on up to \$50,000 for an energy efficiency project that receives prescriptive measure incentives through its **Energy Efficiency Program for Business**. Simply indicate below that you've applied for the loan through **Michigan Saves** and attach this form to your incentives Application.

To qualify for a loan through **Michigan Saves**, you must use a **Michigan Saves**-authorized contractor. To find one, visit [michigansaves.org](http://michigansaves.org).

#### How to apply for incentives and the special loan rate

1. Is your project pre-approved for financing through Michigan Saves?  
**YES:** Then complete this worksheet and include it with your **Reservation Application** for incentives through DTE's **Energy Efficiency Program for Business**.  
**NO:** Then contact **Michigan Saves**, find an authorized **Michigan Saves** contractor and get pre-approved for a loan.
2. Download the latest version of our Application and submit it as your **Reservation Application**.
3. Once **Michigan Saves** approves financing and you have a **Reservation Letter** from DTE, you have 90 days — or until **Nov. 30, 2015**, whichever is first — to complete the project.
4. DTE pays the incentive after the **Final Application** has been submitted within 60 days of completion of the project.

#### Important Notes

- If the project listed on your Application to **Michigan Saves** involves applying for incentives from another utility in addition to applying for incentives from DTE Energy, you **must** indicate that below.
- The \$50,000 loan limit applies to the entire project; it will not double if you receive incentives from two utilities.

Yes, my project involves applying for incentives with another utility named below. By signing my name at the bottom of this form, I hereby authorize DTE Energy and/or its designees to discuss with the other utility both of my applications.  
I understand that my account information will not be exchanged.

Other utility's name: \_\_\_\_\_

Total incentives requested from the other utility: \$ \_\_\_\_\_

#### Customer Information

|                                 |                                      |       |     |
|---------------------------------|--------------------------------------|-------|-----|
| Name of Customer's Business     | Michigan Saves Loan Application Date |       |     |
| Name of Business Contact Person | Michigan Saves Loan Amount: \$ _____ |       |     |
| Contact Phone #                 | Contact Email                        |       |     |
| Installation Address            | City                                 | State | ZIP |
| Account Holder's Signature      | Date                                 |       |     |

**NOTE:** The information above **must** match the information on the Reservation Application in order to be processed. Only prescriptive measures qualify for this offer. Attach this document to your Reservation Application in order to qualify for the 0% financing offered through **Michigan Saves**.

  
**FINANCING**

#### Who is Michigan Saves?

Michigan Saves is a non-profit organization dedicated to making energy improvements easier for all Michigan energy consumers by offering affordable financing and other incentives available through grants and partnerships with private sector lenders.

#### Why should I consider Michigan Saves?

**Easy:** Time is money in a small business. That's why we have someone to walk you through the process so you spend less energy on a hassle-free credit approval and more energy on your business.

**Affordable:** We understand the margins on your business are never as big as they need to be. That's why we work hard to make sure the return on your energy investment begins to pay off as fast as possible. In some cases, the return on your investment can be as soon as one year.

**Smart:** Replacing old, expensive equipment is an investment in your business that will lower operating costs and utility bills.

To get started, find a **Michigan Saves**-authorized contractor at [michigansaves.org](http://michigansaves.org)



## Building Operator Certification Program

- **Tuition reimbursement:**
  - Gas or Electric Certification: \$650
  - Combined Gas/Electric: \$950
- Only customers with facilities larger than 50,000 square feet are eligible.
- Building professional must attend, pass and become certified in Level I or Level II certification course.
- The worksheet is available for download at: [dtetradeally.com](http://dtetradeally.com).  
*(Other conditions apply; see worksheet for details)*

Energy Efficiency Program for Business 

### 2015 Building Operator Certification Program Reimbursement Guidelines and Application

DTE Energy – in partnership with the Michigan Energy Office, Consumers Energy and the Lansing Board of Water and Light – offers tuition reimbursement for Building Operator Certification training through its Energy Efficiency Program for Business. Only DTE customers with facilities larger than 50,000 square feet are eligible to participate in the tuition reimbursement program.

To be reimbursed through this program, a building professional must attend, pass and become certified in the Level I or Level II certification course administered by the Midwest Energy Efficiency Alliance (MEEA).

For terms and conditions of the reimbursement program, see below.



Building Operator Certification® (BOC) is a nationally recognized training and certification program focusing on energy efficient building operations and preventative maintenance procedures. Facilities with BOC graduates are proven to save energy, have lower energy bills, and offer an improved comfort for occupants. More than 11,000 professionals have earned BOC credentials through the program.

The Level I BOC training includes nearly 74 hours of classroom and project work (7.4 CEUs) in building systems operation and maintenance. The Level II BOC training includes nearly 60 hours of classroom and project work (6.1 CEUs) in building systems operation and maintenance. To become certified, participants must pass an exam at the end of each training day and complete three assigned projects.

#### Terms and Conditions

As an eligible customer of DTE Energy, I agree to allow participation by my company in the Building Operator Certification (BOC) Training program. The program requires that a representative of my company attend, pass and become certified in the Level I or Level II certification course as administered by the Midwest Energy Efficiency Alliance (MEEA).

I understand that I am responsible to pay MEEA in full for all costs associated with this training program. The training consists of courses that should be attended in person by the attendee. In addition to the coursework, the attendee is required to complete projects as assigned by the instructor. All courses and projects must be completed successfully in order to receive a passing grade and achieve final certification.

I understand that I must register for the program with the MEEA separately from this agreement. Registration information may be found on the MEEA website at [www.boccentral.org](http://www.boccentral.org).

A customer may have no more than five employees attend per course, no more than one employee per facility, and DTE Energy must be the electric and/or natural gas provider for the facility. The amount of the rebate, if any, will be determined by the type of service that DTE Energy provides to the facility. Upon receipt of final certification for each attendee, the approved reimbursement in the amounts listed on the reverse side of this form will be paid by DTE Energy to the customer. Customer understands and agrees that the payment of rebate funds is dependent on the availability of program funds and the compliance by customer with all requirements.

I certify that the information in this agreement is true and accurate. By signing this application (on the reverse side), I am applying to receive a partial reimbursement of tuition costs in the amounts listed on the reverse side. I consent to DTE Energy receiving a copy of this signed agreement and the data contained on it to verify eligibility and process payments. DTE Energy will send notification of approval or denial of rebate to the attendee.

Upon meeting the requirements for completion of the training and submitting proof of final certification, reimbursement checks will be sent from DTE Energy based on the availability of program funds and compliance with all requirements.

Any expenses incurred by the participating company or its attendees in conjunction with the program will not be reimbursed by DTE Energy. DTE Energy reserves the right to cancel the reimbursement program for any reason at any time.

By signing the reverse side of this form, you agree to all terms and conditions of this program as listed above.



## Gas-only App

Only certain common **prescriptive** measures\* are included:

- **Boiler/Furnace Tune-up** *(w/addendum)*
  - Space Heating Boiler
  - Process Boiler
  - Domestic Hot Water
  - Furnace/RTU
- **HVAC**
  - Boilers & Furnaces
  - Infrared Heaters
  - HVAC Controls
- **Insulation**
- **Process**

Available for download at: [dtetradeally.com](http://dtetradeally.com).

Energy Efficiency Program for Business

DTE Energy<sup>®</sup>  
Know Your Own Power<sup>®</sup>

### 2015 Program Special Application

for Boiler/Furnace Tune-ups  
and Prescriptive HVAC Natural Gas Projects

This Application can be used for boiler and furnace tune-ups and certain common Prescriptive measures involved in Natural Gas projects; these and other Program measures also can be found in the main Program Application. This Application is to be used for projects completed with a Final Application submitted during the 2015 Program Year (January 1, 2015 – November 30, 2015).

|                                                                                          |    |
|------------------------------------------------------------------------------------------|----|
| <b>Section 1 – Application</b>                                                           |    |
| Incentive Application Checklist.....                                                     | 2  |
| Customer Information.....                                                                | 3  |
| Contractor Information.....                                                              | 4  |
| Third Party Payment Authorization.....                                                   | 4  |
| Final Application Agreement.....                                                         | 5  |
| Incentive Summary, Final Agreement Information<br>and Account Holder Signature Page..... | 6  |
| <b>Section 2 – Incentive Worksheets</b>                                                  |    |
| Boiler/Furnace Tune-up Incentive Worksheet.....                                          | 7  |
| HVAC Gas Incentive Worksheet.....                                                        | 8  |
| Insulation Incentive Worksheet.....                                                      | 8  |
| Process Gas Incentive Worksheet.....                                                     | 8  |
| Boiler/Furnace Tune-up Addendum.....                                                     | 9  |
| How to Submit Your Application.....                                                      | 13 |



# Expiring Offers



## Door Gasket bonus for Restaurants

- Get double the incentive – from \$2.50 to \$5 per linear foot – on gaskets installed by restaurant owners.
  - Gaskets must be installed on walk-in coolers and freezers (minimum door height ≥ 79")
  - Must be installed in restaurants served by DTE Electric.
  - Final Applications must be submitted by **June 30.**
- This fact sheet can be downloaded at: [dtetradeally.com](http://dtetradeally.com).

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS** **DTE Energy®**  
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**2015 Walk-in Door Gasket Bonus for Restaurants** LIMITED-TIME OFFER

**Restaurant owners: double your incentive on door gaskets for coolers and freezers**

Keeping food fresh — and keeping energy costs down — are constant struggles for today's restaurateur. But the good news is that restaurant owners can control and even reduce costs by installing simple energy efficiency measures — such as new door gaskets on their coolers and freezers.

Which is where this offer comes in: For a limited time, DTE Energy is doubling the incentive — from \$2.50 to \$5 per linear foot — on gaskets installed on walk-in coolers and freezers (minimum door height ≥ 79") used in restaurants served by DTE Electric.

To qualify, Final Applications must be submitted by June 30, 2015.

**Restaurant electrical use**

Restaurant operations are extremely energy-intensive, with the bulk of demand coming from the kitchen — in both cooking and refrigeration.

According to ENERGY STAR®, a typical restaurant spends \$3.99 per square foot annually on energy. At right is a look at typical restaurant electricity usage.\*

**How to Apply**

- Download the latest version of the 2015 Program Application.
- Complete the information on your Application (Pages 2-3).
- On Page 6 — on the first line under "Other Special Offers":
  1. Enter: **2015 Door gasket bonus:**
  2. Enter: **number of linear feet**
  3. **Multiply: that number by \$5**
  4. Enter: **the result at the far right.**
- Submit your Final Application within 60 days of project completion — but no later than June 30, 2015.

**Page 6**

|                             |                         |  |                  |  |  |
|-----------------------------|-------------------------|--|------------------|--|--|
| Process Gas                 |                         |  |                  |  |  |
| Boiler/Furnace Tune-Ups     |                         |  |                  |  |  |
| Food Service — Gas          |                         |  |                  |  |  |
| Subtotals                   |                         |  |                  |  |  |
| 20% Multi-Measure Bonus     |                         |  |                  |  |  |
| 15% Michigan-Made Bonus     |                         |  |                  |  |  |
| Incentive Subtotal          |                         |  |                  |  |  |
| Other Special Offer — Code: | 2015 Door gasket bonus: |  | lin. ft. x \$5 = |  |  |
| Other Special Offer — Code: |                         |  |                  |  |  |
| Other Special Offer — Code: |                         |  |                  |  |  |
| Total Incentives Requested  |                         |  |                  |  |  |

**Contact us today!**

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

email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com) fax: **877.607.0744**

phone: **866.796.0512** (press option 3) mail: **DTE Energy's Energy Efficiency Program for Business**

web: [dteenergy.com/savenow](http://dteenergy.com/savenow) P.O. Box 11289  
Detroit, Michigan 48211

\*Offer based on availability of funding and may end at any time. 1/28/15



## Food Service Multi-Measure – additional 10% bonus

- Get an additional **10% bonus** on Multi-Measure projects submitted by those who own restaurants, grocery and convenience stores.
- This is in addition to the **20% Multi-Measure bonus\***
- Use this special application.
  - Reservations or Final Applications must be submitted by **June 30**.

*\*To qualify, all measures must be submitted on the same Application – and no single category can be more than 75% of the Application.*

ENERGY EFFICIENCY PROGRAM FOR BUSINESS  **DTE Energy**  
Know Your Own Power®

### Special offer for the Food Service industry

A limited time offer: get additional 10% bonus on Multi-Measure projects

For a limited time, DTE Energy's Energy Efficiency Program for Business is offering an *additional 10% bonus* on projects submitted by DTE food service business customers who qualify for the 20% Multi-Measure Bonus.\*

This offer is available to customers who own and operate restaurants and grocery and convenience stores in DTE's service territory.

Your most common electric and gas energy-saving upgrade measures are available through this offer.

To qualify for the 20% Multi-Measure bonus, your project must include measures from more than one category (such as lighting and HVAC), in which no single category represents more than 75% of total incentives.

A special Application has been created for this offer that contains the specific measures and that will also automatically calculate the additional bonus. (See below).

**Reservation or Final Applications must be submitted by June 30, 2015.**

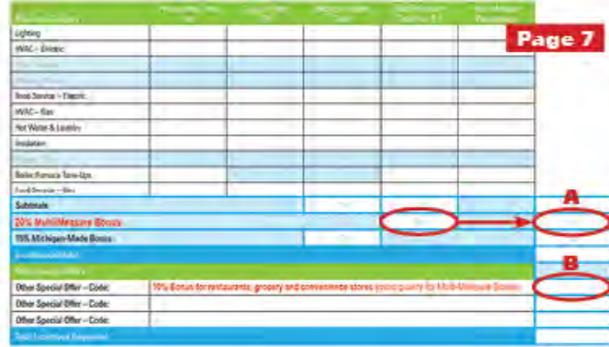
Work must be completed within 90 days of a reservation; and a Final Application must be submitted within 60 days of project completion. For more information about this offer, contact our office.

**How to apply**

To receive the 10% bonus:

- Download the 2015 Special Bonus Application for Restaurants and Grocery Stores.
- Complete all relevant worksheets.
- On Page 7, the interactive Application automatically will calculate your Multi-Measure bonus **(A)**.
- The Application will then automatically calculate the additional 10% bonus and add it to the total **(B)**.





**Contact us today!**

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

email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com) fax: 877.607.0744

phone: 866.796.0512 (press option 3) mail: **DTE Energy's Energy Efficiency Program for Business**

web: [dteenergy.com/savenow](http://dteenergy.com/savenow) P.O. Box 11289

Detroit, Michigan 48211

\*Offer based on availability of funding and may end at any time. 9/1/2015



## Health/Fitness Multi-Measure – additional 10% bonus

- Get an additional **10% bonus** on Multi-Measure projects submitted by those who own health clubs and fitness centers.
- This is in addition to the **20% Multi-Measure bonus\***
- Use this special application.
  - Reservations or Final Applications must be submitted by **June 30**.

*\*To qualify, all measures must be submitted on the same Application – and no single category can be more than 75% of the Application.*

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**

**DTE Energy®**  
Know Your Own Power®

### Special offer for Health, Fitness Clubs

**A limited time offer: get additional 10% bonus on Multi-Measure projects**

For a limited time, DTE Energy's Energy Efficiency Program for Business is offering an *additional 10% bonus* on projects submitted by DTE health club and fitness center business customers who qualify for the 20% Multi-Measure Bonus.\*

This offer is available to customers who own and operate health clubs and fitness centers in DTE's service territory.

Your most common electric and gas energy-saving upgrade measures are available through this offer.

To qualify for the 20% Multi-Measure bonus, your project must include measures from more than one category (such as lighting and HVAC), in which no single category represents more than 75% of total incentives.

A special Application has been created for this offer that contains the specific measures and that will also automatically calculate the additional bonus. (See below).

**Reservation or Final Applications must be submitted by June 30, 2015.**

Work must be completed within 90 days of a reservation; and a Final Application must be submitted within 60 days of project completion. For more information, contact our office.

**How to apply**

To receive the 10% bonus:

- Download the 2015 Special Bonus Application for Health Clubs and Fitness Centers.
- Complete all relevant worksheets.
- On Page 7, the interactive Application automatically will calculate your Multi-Measure bonus (**A**).
- The Application will then automatically calculate the additional 10% bonus and add it to the total (**B**).

Page 7

|                                         |                                                                                       |  |  |  |          |
|-----------------------------------------|---------------------------------------------------------------------------------------|--|--|--|----------|
| Lighting                                |                                                                                       |  |  |  |          |
| HVAC - Electric                         |                                                                                       |  |  |  |          |
| Mech. Electric                          |                                                                                       |  |  |  |          |
| Process Electric                        |                                                                                       |  |  |  |          |
| Pool Service - Electric                 |                                                                                       |  |  |  |          |
| HVAC - Gas                              |                                                                                       |  |  |  |          |
| Hot Water & Laundry                     |                                                                                       |  |  |  |          |
| Insulation                              |                                                                                       |  |  |  |          |
| Process Gas                             |                                                                                       |  |  |  |          |
| Electric/Furnace Time Up                |                                                                                       |  |  |  |          |
| Subtotal                                |                                                                                       |  |  |  |          |
| <b>20% Multi-Measure Bonus</b>          |                                                                                       |  |  |  | <b>A</b> |
| <b>10% Multiple Multi-Measure Bonus</b> |                                                                                       |  |  |  | <b>B</b> |
| Total Incentives                        |                                                                                       |  |  |  |          |
| Other Special Offer - Code:             | 10% Bonus for health clubs and fitness centers (only qualify for Multi-Measure Bonus) |  |  |  |          |
| Other Special Offer - Code:             |                                                                                       |  |  |  |          |
| Other Special Offer - Code:             |                                                                                       |  |  |  |          |
| Description/Measure:                    |                                                                                       |  |  |  |          |

**Contact us today!**

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email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com) fax: 877.607.0744

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Detroit, Michigan 48211

\*Offer based on availability of funding and may end at any time. 9/1/2015

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## LED Lighting Special: 20% bonus

- We've increased incentive rates on certain prescriptive LED measures by 20%.
  - Interior Linear LED
  - Interior LED/Induction High Bay
  - Exterior Garage HID to LED/Induction retrofit (annual operating hours = 8,760)
- Reservation Application is required, and must be submitted by **June 30**.
- Work must be completed and Final Application submitted by **Aug. 28**.
- This fact sheet can be downloaded at: [dtetradeally.com](http://dtetradeally.com).

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**  **DTE Energy<sup>®</sup>**  
Know Your Own Power<sup>®</sup>

### 2015 LED Lighting Special

Take advantage of this limited-time, 20% bonus

**We've increased our incentives!**  
For a limited time, DTE Energy's Energy Efficiency Program for Business has increased the incentive rates for LED Lighting by 20% — for certain Prescriptive measures.

Reservation Applications are **required** for this special offer and must be submitted by **June 30** — and before work begins.

Work must be completed and a Final Application submitted between **March 1 and Aug. 28, 2015**.

**About this limited-time offer**  
The features of this limited-time offer are:

- Prescriptive incentives have been increased by 20% for the LED lighting measures listed at right (follow the reference numbers to find the measures on the Program Application).
- All other Program terms and conditions still apply.

**How to apply**  
To apply for the special incentives offered:

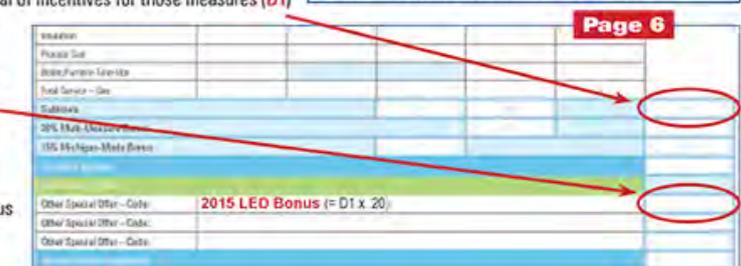
- Download the most recent version of the 2015 Program Application and complete all customer and project information.
- Complete the worksheets for the measures being installed (see reference numbers at right to find the qualifying measures).
- On Page 6, take the subtotal of incentives for those measures (D1) and multiply the figure by 20% (.20).
- Manually enter that dollar value below.
- Manually enter the bonus code: **2015 LED Bonus**.
- The Application will automatically add the bonus to your basic incentives.

**Measures that qualify for the 20% LED bonus\***

| LED Lighting Measure                                                                  | Reference numbers |
|---------------------------------------------------------------------------------------|-------------------|
| Interior Linear LED                                                                   | 7-25 — 7-30       |
| Interior LED/Induction High Bay                                                       | 8-13 — 8-15       |
| Exterior Garage HID to LED/Induction Retrofit (annual operating hours equal to 8,760) | 8-19 — 8-21       |

\* Use the reference numbers to find these measures in the Program Application. The first number is the page, the second number is the measure.

**Page 6**



**Contact us today!**  
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phone: **866.796.0512** (press option 3) mail: **DTE Energy's Energy Efficiency Program for Business**  
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Detroit, Michigan 48211

\*Offer based on availability of funding and may end at any time.



## Program overview



## Since 2009:

- Nearly **\$102 million** in cash rebates has been paid to Michigan business customers:
  - Electric: **\$87 million**
  - Gas: **\$15 million**
- More than **32,000 projects** have been completed.
- And our customers have realized savings of:
  - **1,837 GWh** in electricity.
  - **4.7 million Mcf** in natural gas.
  - **\$220 million** in total energy costs.

*...and those numbers continue to grow in 2015*



## The impact of saving energy

- *Our customers have realized savings of:*
  - **1,837 GWh** in electricity.
    - That translates into:  
**1,296,304 tons of CO<sub>2</sub> equivalent**
  - **4.7 million Mcf** in natural gas.
    - That translates into:  
**274,689 tons of CO<sub>2</sub> equivalent**



## 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**

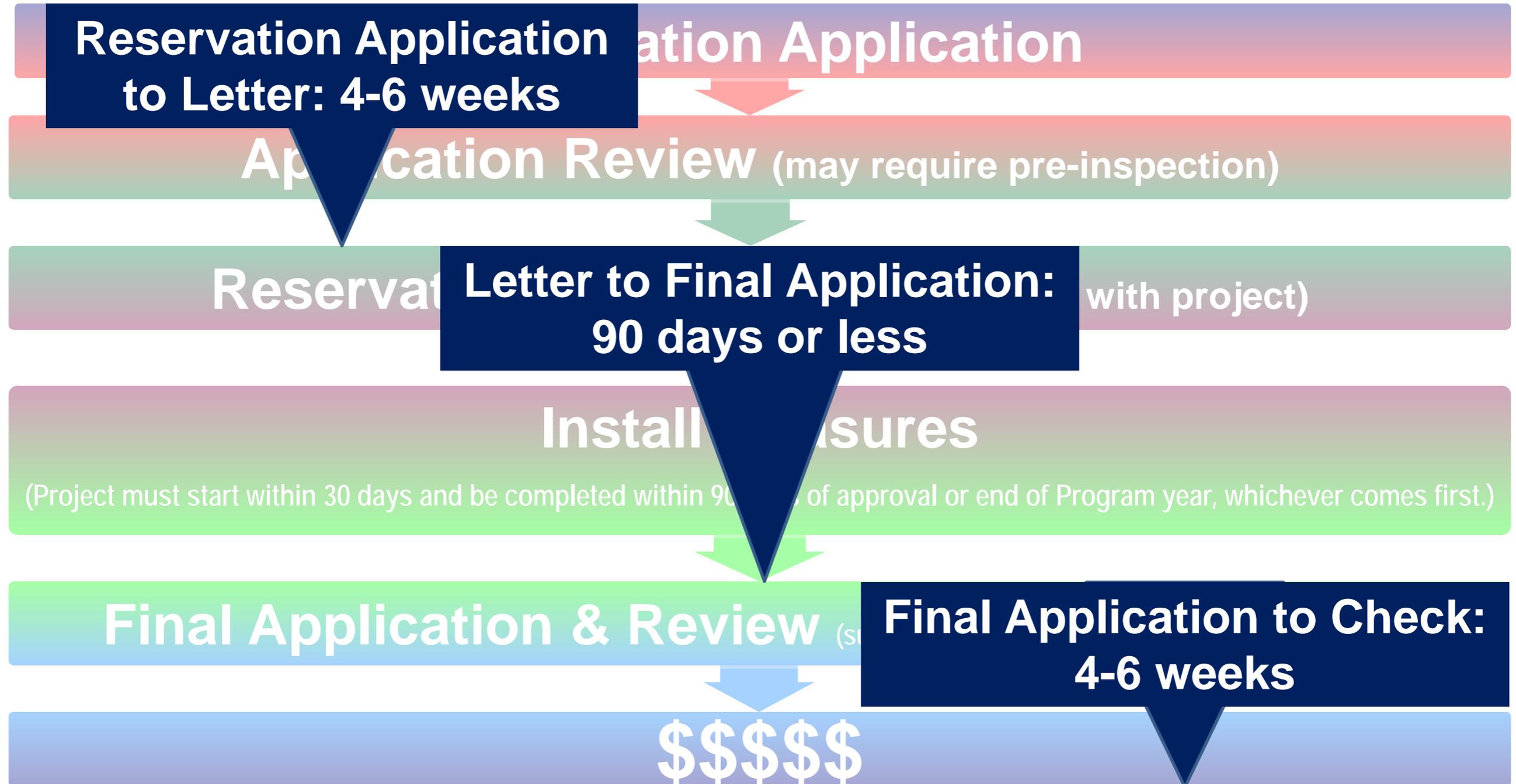
(Project must start within 30 days and be completed within 90 days of approval or end of Program year, whichever comes first.)

**Final Application & Review** (submit within 60 days; may require post-inspection)

**\$\$\$\$\$**

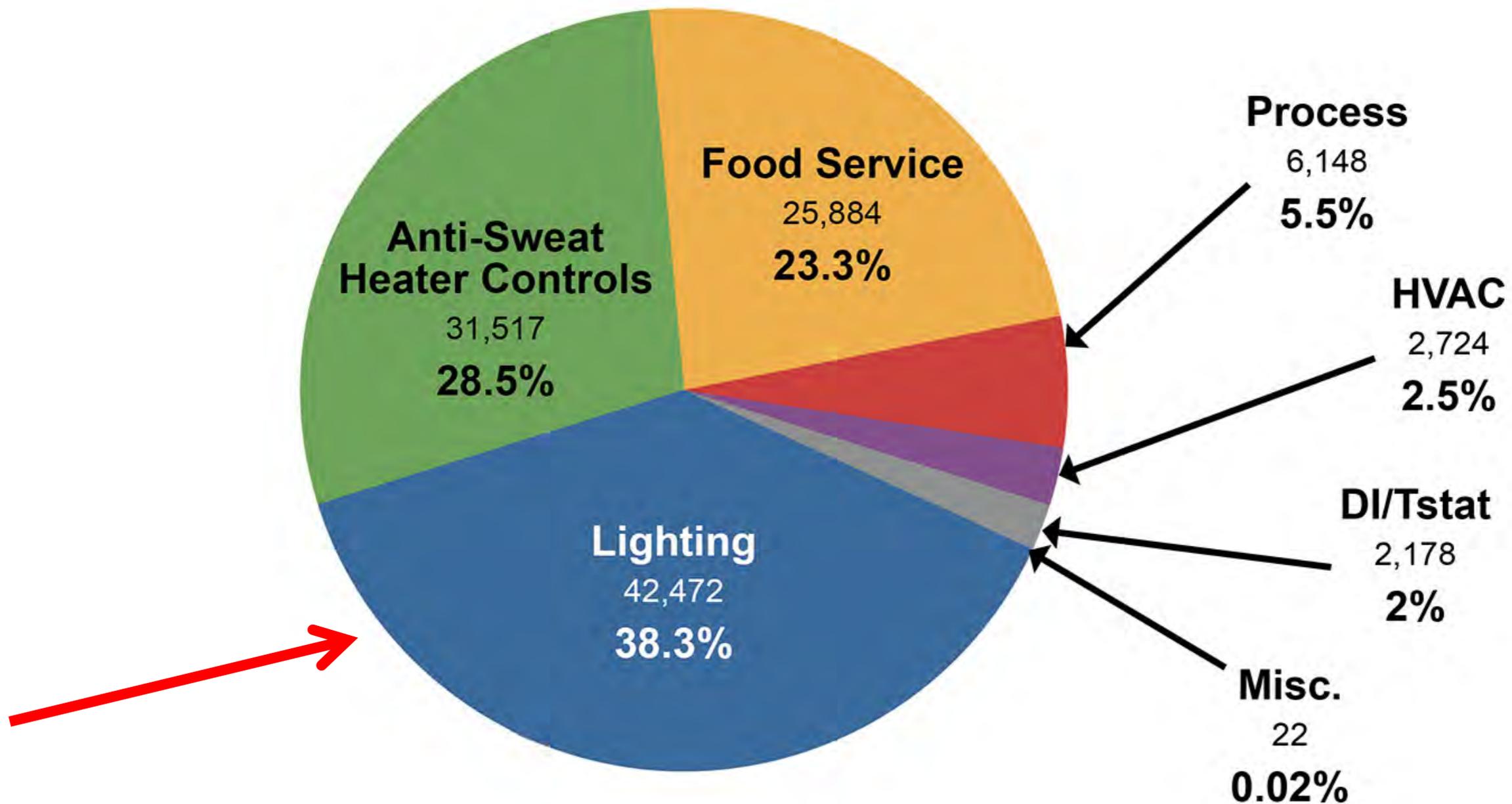


## Our Program timeline is simple:



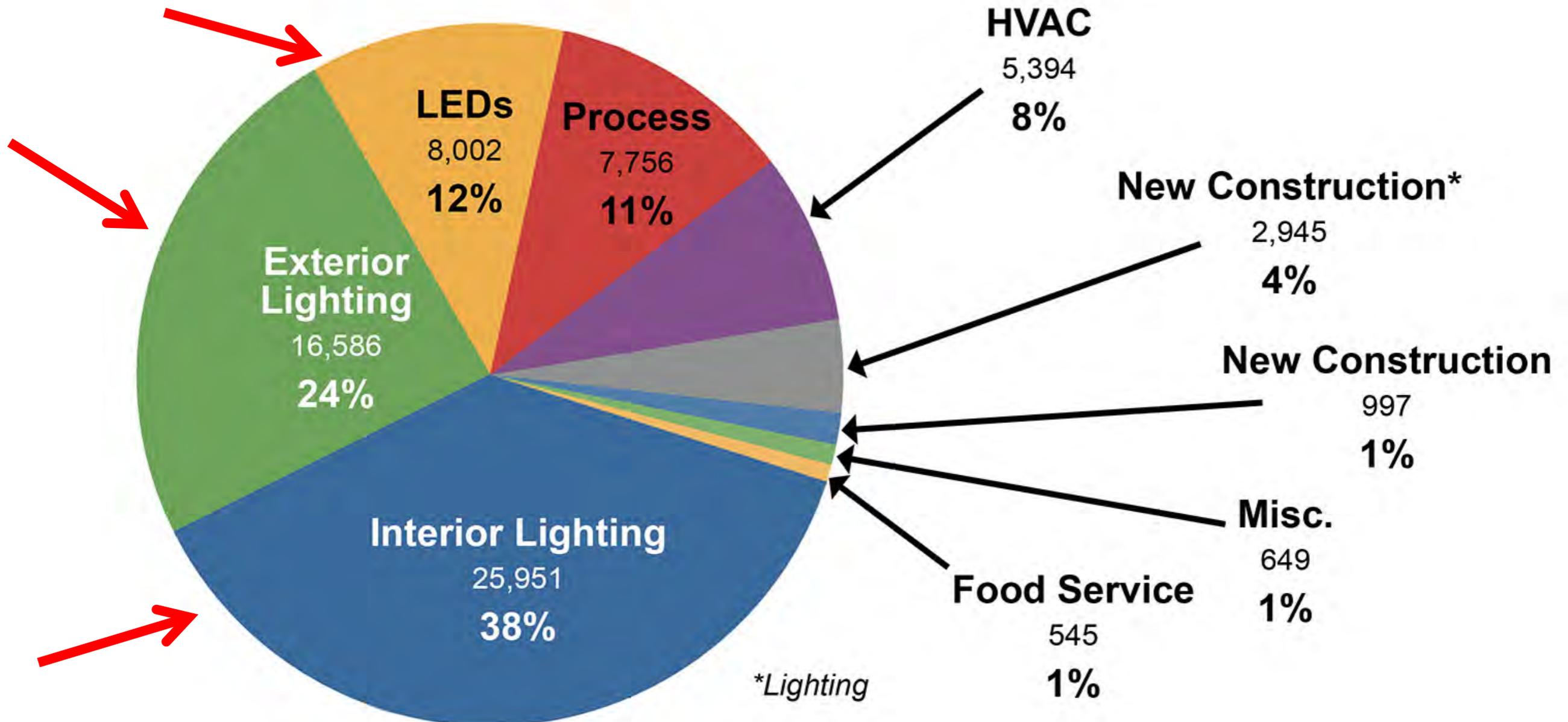


### 2014 Participation by Technology: Prescriptive Electric (MWh)



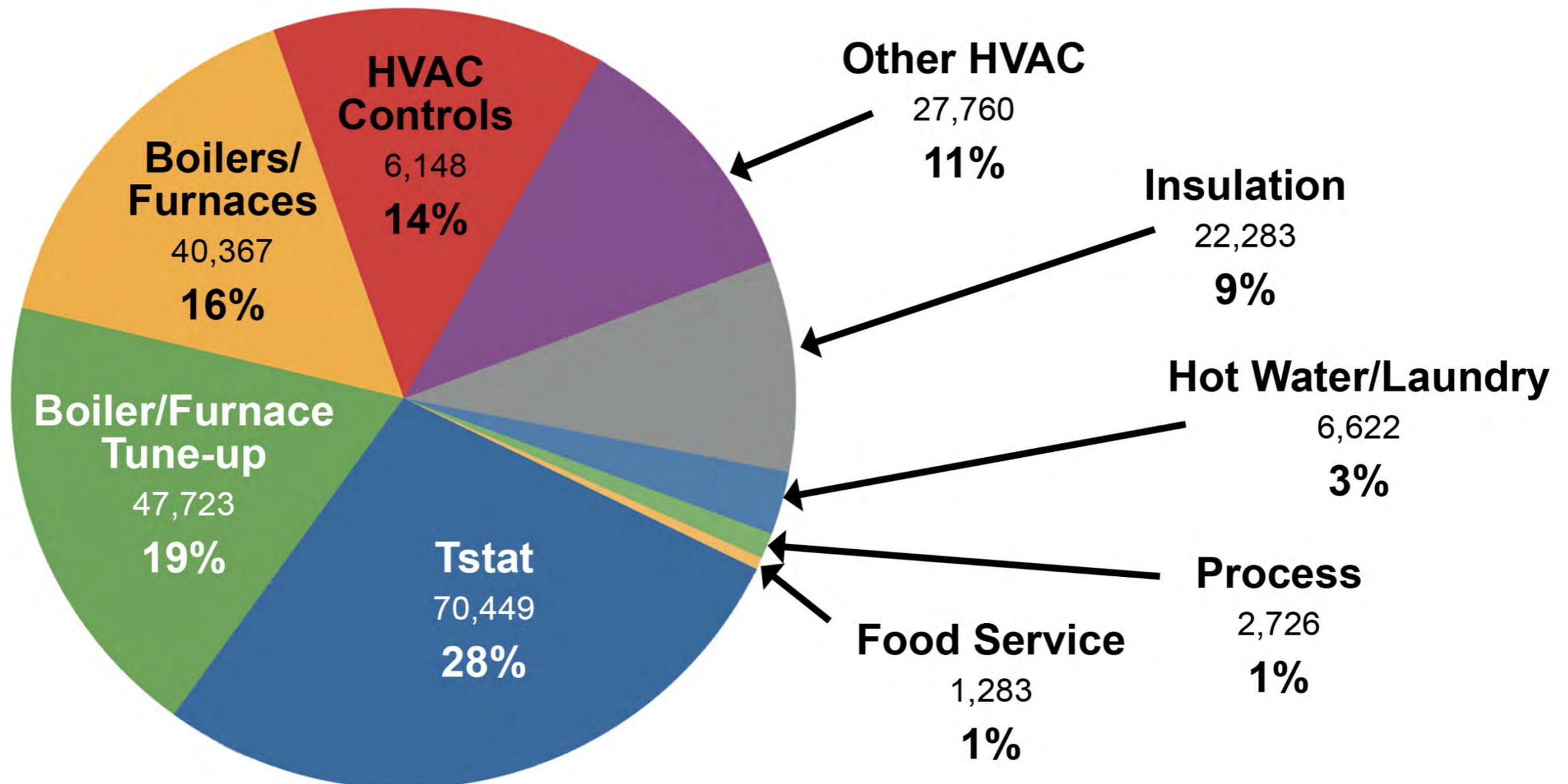


## 2014 Participation by Technology: Custom Electric (MWh)



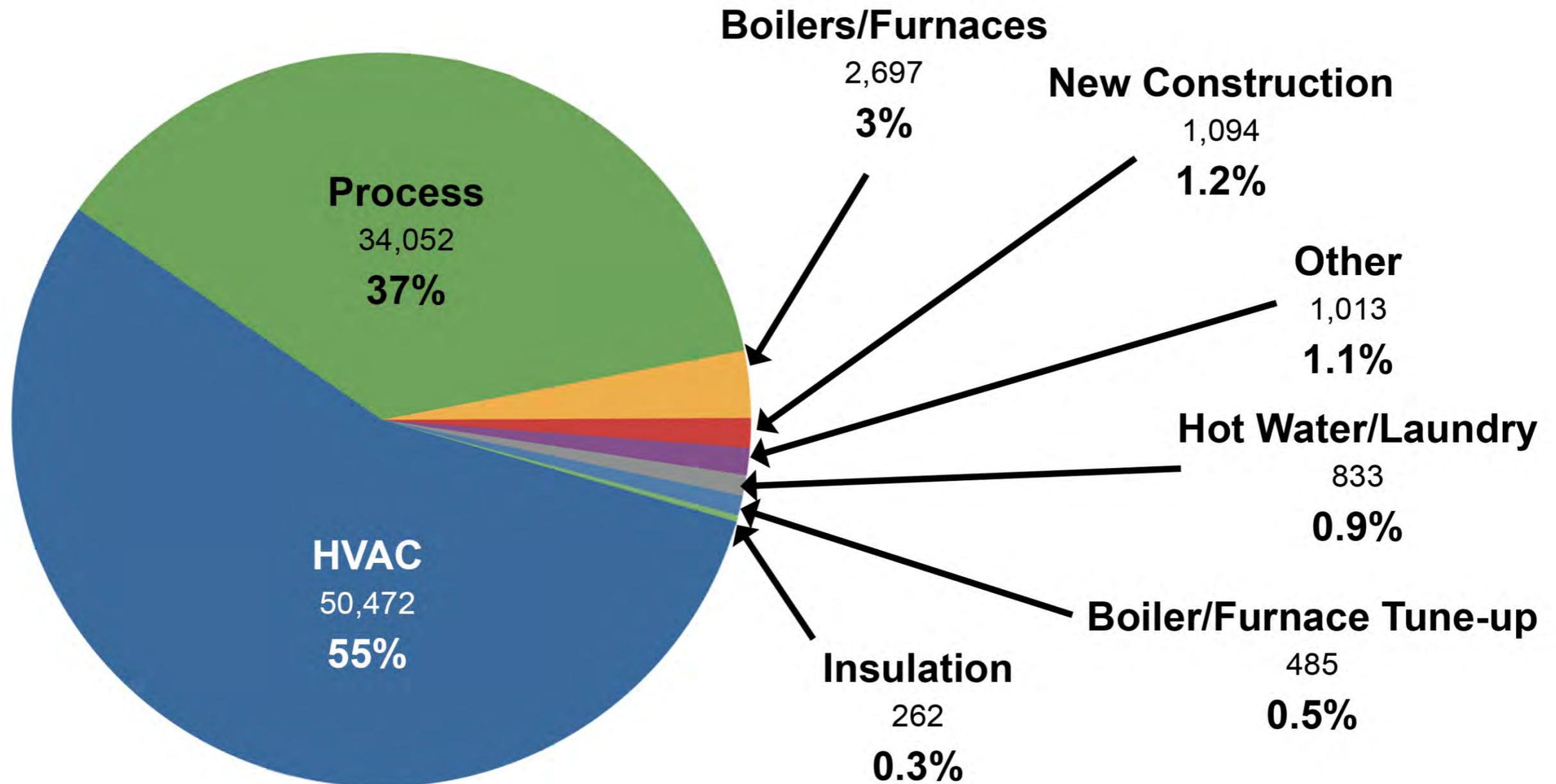


## 2014 Participation by Technology: Prescriptive Natural Gas (Mcf)





### 2014 Participation by Technology: Custom Natural Gas (Mcf)





# About Incentives



## 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: \$0.07/kWh and/or \$4/Mcf).

### New Construction Major Renovation

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



## About Reservations

Reservation Applications set aside funds for your project to ensure availability when your project is completed and you submit your Final Application. Here are our guidelines:

### Prescriptive

- Reservation Applications are not required for most Prescriptive projects, **BUT** they are **highly recommended**.
- A Reservation Application **is required** for certain measures: check the Application for details.

### Custom

- A Reservation Application **is required** for all Custom projects.

### New Construction Major Renovation

- A Reservation Application **is encouraged** for all New Construction and Major Renovation projects.
- **NOTE:** **No Reservation will extend beyond Nov. 30, 2015.**

If you submit a Reservation Application, do **NOT** start your project until you receive a **Reservation Letter!**\*



## Prescriptive



# Prescriptive - Electric

- **Pre-determined** measures with specific energy savings and cash rebates:

### 2015 Prescriptive Electric Measures

#### Lighting

Central Lighting Controls  
Compact Fluorescent Screw-in Lamps  
Compact Fluorescent Reflector Flood Lamps  
Compact Fluorescent Fixtures  
Daylight Sensor Controls  
Delamping  
Exit Sign Conversion  
Exterior Lighting Bi-level Control w/Override  
Exterior Linear Fluorescent replacing High-Intensity Discharge (HID)  
Exterior CFL replacing HID  
Garage/Exterior High-Intensity Discharge (HID) Conversion  
High Performance (HP) Linear Fluorescents  
Interior High-Intensity Discharge (HID) to Fluorescent Fixture  
LED Lamps  
LED or Induction Interior High Bay  
LED Traffic Signals  
LED Refrigerated Door Case Lighting  
Low Wattage (LW) Linear Fluorescents  
Occupancy Sensors for LED Refrigerated Door Case Lighting  
Occupancy Sensors  
Pulse Start Metal Halide  
Switching Controls for Multilevel Lighting  
Tubular Skylights (Light Tubes)

#### HVAC

Air-Cooled Chillers/Water-Cooled Chillers  
Air Source Heat Pumps  
Chilled Water Reset - Air Cooled/Water Cooled  
Chilled Water Reset with Pump on/off Control  
Closed Loop Heat Pumps  
Cool Roof  
Economizer  
Ground Source Heat Pump  
High Performance Glazing  
Hotel Guestroom Energy Management System (Air Conditioning)  
Packaged Terminal Air Conditioner & Heat Pump  
Programmable Thermostat (Air Conditioning)  
Room Air Conditioners  
Setback/Setup Controls (Air Conditioning)  
Unitary and Split Air Conditioning Systems  
Variable Frequency Drive - HVAC Fan/Pump  
Window Film

#### Miscellaneous Electric

High Efficiency Clothes Washer  
Intelligent Surge Protector  
PC Network Energy Management Controls

#### Process Electric

Barrel Wraps for Injection Molders & Extruders  
Compressed Air Engineered Nozzle

Compressed Air Pressure Flow Controller  
Compressed Air Audits with Leak Repair  
Cycling Compressed Air Dryers  
Electronically Commutated Plug Fans  
High Efficiency Process Pumps  
Industrial 3-Phase High Frequency Battery Charger  
Insulated Pellet Dryer Ducts  
Tank Insulation  
Variable Frequency Drive for Process Pumping  
VSD Air Compressor

#### Food Service & Refrigeration

Anti-Sweat Heater Controls  
Beverage Vending Machine Controllers  
Door Gaskets on Coolers and Freezers  
ECM Motor for Refrigerator Cases, Freezers and Coolers  
Energy Efficient Ice Machines  
Efficient Refrigeration Condenser  
ENERGY STAR® Commercial Solid Door Refrigerators  
ENERGY STAR® Commercial Solid Door Freezers  
ENERGY STAR® Steam Cookers  
ENERGY STAR® Holding Cabinets  
Evaporator Fan Motor Controls  
Floating Head Pressure Controls  
LED Refrigerated Door Case Lighting  
Occupancy Sensors for LED Refrigerated Door Case Lighting  
Refrigeration Savings due to Lighting Wattage Reduction  
Strip Curtains on Walk-in Cooler and Freezer Doors  
Vertical Night Covers

**DTE Energy**  
Know Your Own Power®

USE LESS.  
**SAVE MORE.**

**ENERGY EFFICIENCY PROGRAM FOR BUSINESS**

**2015 Prescriptive Electric Measures**

Ask us how DTE Energy can help you reduce your business' electric costs year after year!



## Prescriptive



# Prescriptive – Natural Gas

- **Pre-determined** measures with specific energy savings and cash rebates:

### 2015 Prescriptive Natural Gas Measures

#### HVAC

- Boiler Modulating Burner Control
- Boiler Water Reset Control
- Chilled Water Reset
- Chilled Water Reset with Pump on/off Control
- Demand Controlled Ventilation
- Destratification Fans
- High Efficiency Furnace
- Hotel Guestroom Energy Management Control
- HVAC Occupancy Sensor for Large Office Buildings
- Infrared Heaters
- Programmable Thermostat
- Setback/Setup Controls
- Space Heating Boilers
- Steam Traps
- Variable Frequency Drive on Secondary Chilled Water Pump

#### Hot Water and Laundry

- Domestic Hot Water Heating System
- Dry Cleaning Boiler Descale (Kettle/Tube-Type)
- Gas Water Heater
- Gas Water Heater – Tankless
- High Efficiency Clothes Washer
- High Efficiency Pool Heater (Gas Heat)
- Ozone Laundry System

#### Insulation

- Domestic Hot Water Pipe Wrap
- Greenhouse Heat Curtain
- Greenhouse Infrared Film
- Pipe Wrap – Steam and Hot Water Boiler
- Pool Covers
- Roof Insulation (Flat/Attic)
- Truck Loading Dock Seals
- Truck Loading Dock Leveler Ramp Air Pit Seals
- Wall Insulation

#### Process Gas

- Air Compressor Exhaust Heat Recovery
- Furnace Tube Inserts
- High Efficiency Process Boiler (Water/Steam)
- Tank Insulation

#### Boiler/Furnace Tune-up

- Boiler Tune Up
- Domestic Hot Water Boiler Tune-up
- Furnace/RTU Tune-up
- Process Boiler Tune-up

#### Food Service

- Commercial Kitchen Ventilation Hood
- ENERGY STAR® Convection Ovens
- ENERGY STAR® Fryers
- ENERGY STAR® Griddles
- ENERGY STAR® Steam Cookers
- Large Vat Fryers
- Night Covers (vertical)
- Ovens
- Pre-Rinse Sprayers (Gas Water Heat)

**USE LESS.  
SAVE  
MORE.**

**ENERGY EFFICIENCY  
PROGRAM FOR BUSINESS**

**2015  
Prescriptive  
Natural Gas Measures**

Ask us how DTE Energy can help you reduce your business' natural gas costs year after year!



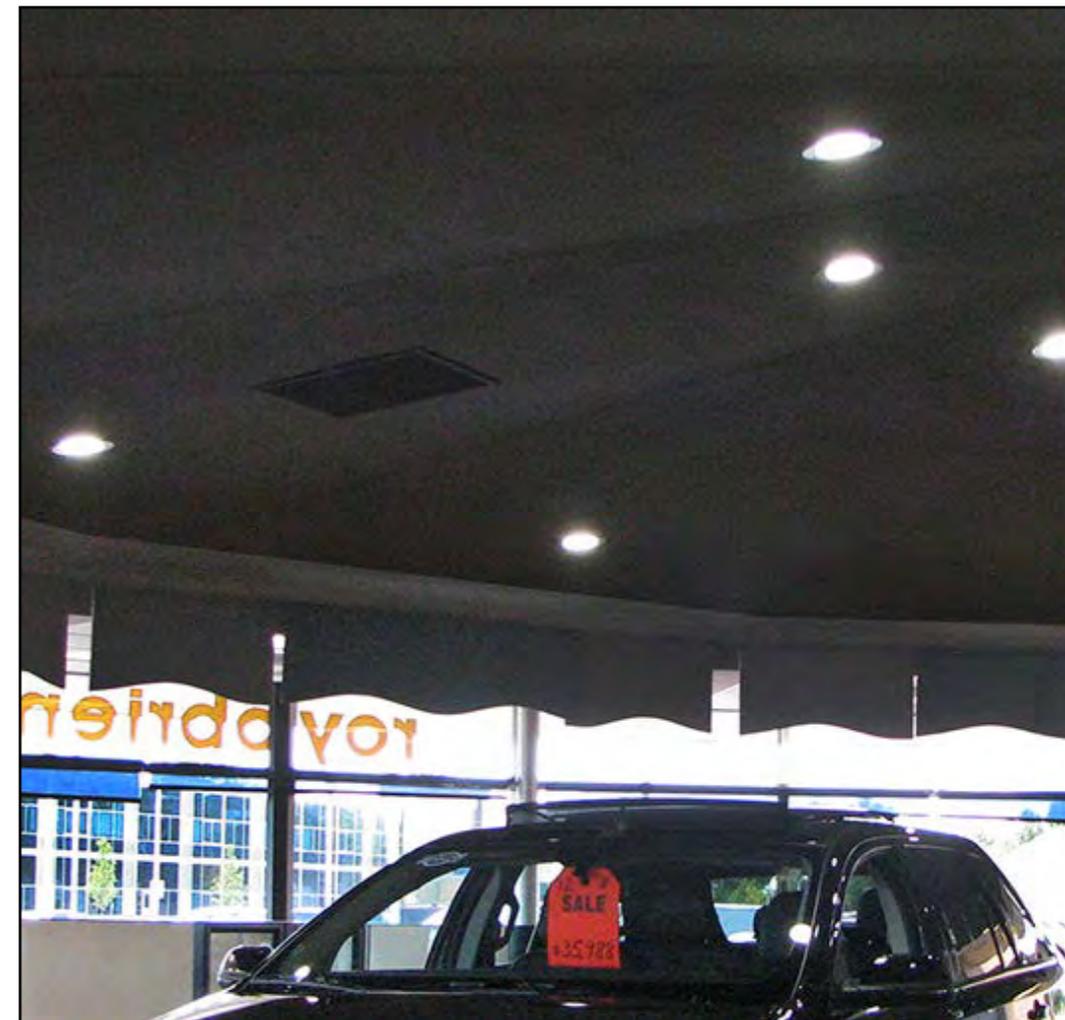
Prescriptive



## Electric project example

### Auto Dealership: Lighting

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





## Custom



## Custom

- Measures that do not fall within any specific prescriptive program.
- Energy savings and cash rebates are calculated on a case-by-case basis.
- Can be combined with prescriptive measures.
- **NOTE:** for a complete review of custom project criteria, see the Application.





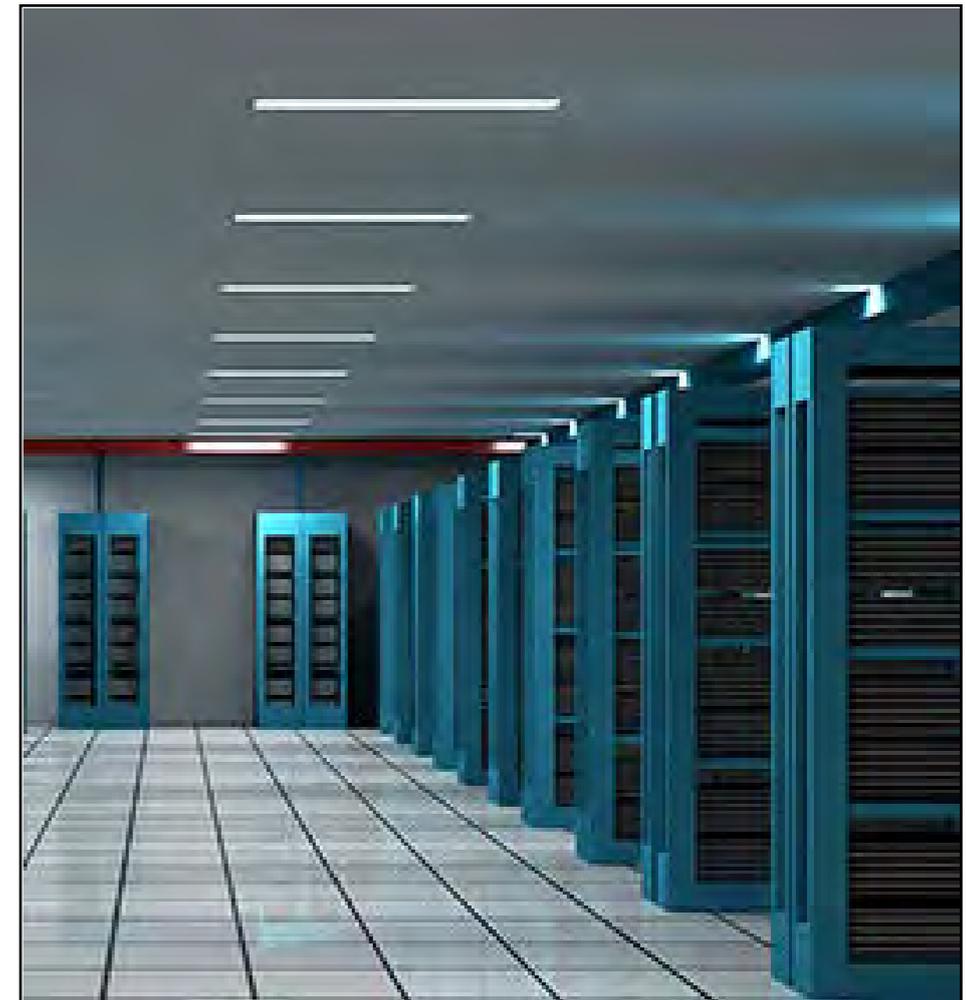
Custom



## Electric project example

### Data Center: Humidifier changeout

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



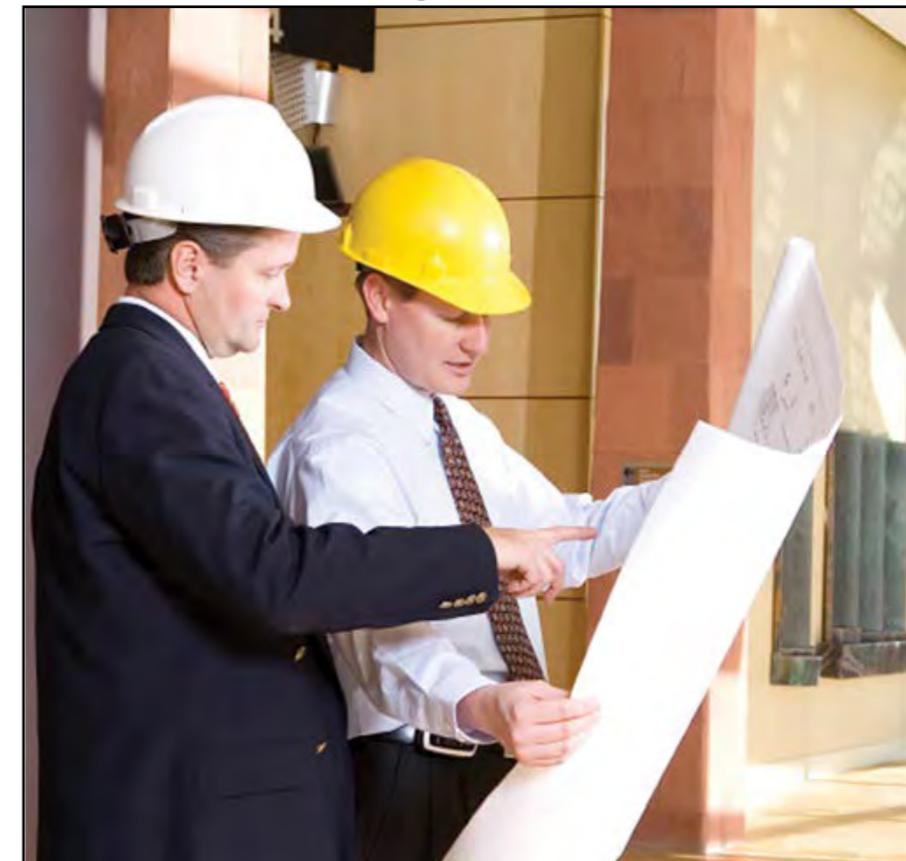


## New Construction Major Renovation



# New Construction/Major Renovation:

- New facilities/major renovations of existing facilities/change of use.
- Adding load.
- Incentives are offered in three areas:
  - **Systems Approach:**
    - Pre-determined measures designed to optimize efficiency of individual systems.
  - **LEED Whole Building Approach:**
    - Based on LEED certification.
    - Three levels of incentives based on certification.
  - **LEED Design Review Assistance:**
    - \$1,500 for LEED project review/registration.





## About **LED Lighting Opportunities**



## Savings possibilities

### Lighting Measures

Exterior HID to LED

### Savings

up to 75%

### Source

U.S. DOE

Interior HID upgrades

25%-50%

Industry study

LED recessed lights/lamps

up to 75%

U.S. DOE

Occupancy sensors

15% to 35%

Industry study

LED exit signs

up to 85%

ENERGY STAR<sup>®</sup>

LED door case lighting w/sensors

up to 75%

Industry study



## Savings possibilities

### Actual Case Study

#### Energy-Saving Lighting Projects

| Original Technology     | New Technology | Project Cost | Program Incentives | kWh Savings | Annual Energy Savings |
|-------------------------|----------------|--------------|--------------------|-------------|-----------------------|
| 400-watt HID wallpacks  | 50-watt LEDs   | \$106,667    | \$22,906           | 286,504     | 89%*                  |
| 1,000-watt flood lights | 200-watt LEDs  |              |                    |             | 81.5%*                |
| 100-watt HID dome       | 18-watt LEDs   | \$1,200      | \$442              | 5,520       | 82%*                  |
| Total                   |                | \$107,867    | \$23,348           | 292,024     | 84%†                  |

\*First-year savings as reported by the company; †average annual savings





## Savings possibilities

### Actual Case Study

## Energy-Saving Lighting Projects

### PROJECT

### SAVINGS\*

Incandescent/fluorescent to LED

3.2 million kWh

HID to 1-5 fluorescent for warehouse

4 million kWh

*\*First-year savings as reported by the company*





# How to get started

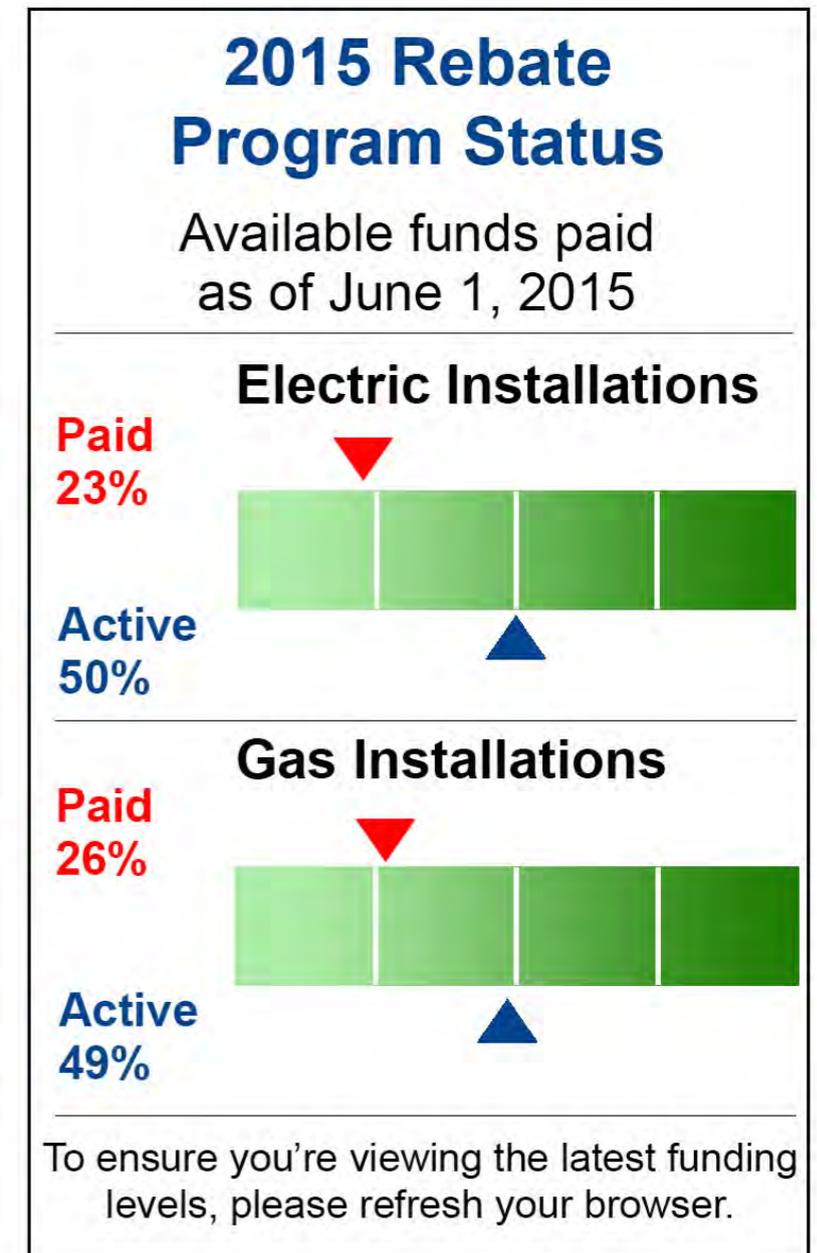


## About Program funding

**2015 Rebate Program Status**  
Available funds paid as of June 1, 2015

**Electric Installations**  
Paid 23%  
Active 50%

**Gas Installations**  
Paid 26%  
Active 49%



These funding gauges provide real-time information on the Program's progress throughout the year. This is especially important as the Program Year winds down and funding becomes limited.

# 2015 Program Catalog & Application



**DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

## To find the gauges – and download an electronic Catalog and Application

1) visit: [dteenergy.com/savenow](http://dteenergy.com/savenow)

Then select:

2) [“Participate Now”](#)

The screenshot shows the DTE Energy website interface. At the top left is the DTE Energy logo. To the right are links for 'Register' and 'Sign In', a search bar with 'Powered by Google' and a 'Search' button, and links for 'Print Page' and 'Help Center'. Below this is a navigation menu with tabs for 'Residential', 'Business', and 'About Us'. A secondary menu contains 'My Account', 'Billing/Payment', 'Save Energy', 'Start/Stop Service', 'Problems/Safety', 'Products/Programs', and 'Contact Us'. A large banner features a woman pointing at a modern building with the text 'Energy Efficient lighting options for your business.' and a blue box on the right that says 'USE LESS. SAVE MORE.'. Below the banner are three promotional tiles. The first is 'Multi-Measure Incentive' with a 'Get the Details' link. The second is 'New incentives for 2015 Check out our new catalog and application' with a 'Participate Now' link circled in red. The third is 'Incentives for using Michigan Manufacturer products' with a 'Learn More' link. A red arrow points from the 'Participate Now' text in the instructions to the circled 'Participate Now' button on the website.

*\*Requires Acrobat Reader*



## To find the gauges – and download an electronic Catalog and Application

1) visit: [dteenergy.com/savenow](http://dteenergy.com/savenow)

Then select:

2) “Participate Now”

3) Select and download:

- 2015 Catalog
- 2015 Application

4) The New Construction Application is below

**DTE Energy** Register Sign In  
Powered by Google Search  
Residential Business About Us  
My Account Billing/Payment Save Energy Start/Stop Service Problems/Safety Products/Programs Contact Us

**Incentives and Offers**

- Multifamily Program
- Free Thermostat
- Express Program
- Incentives
- ENERGY STAR Lighting
- Michigan Made
- Light Measure
- Building Operator Cert
- Small Businesses
- Energy Tips
- Business Energy Analyzer
- EO Credits
- Energy Efficiency Events
- Lighting Advisor
- Find a Contractor
- Become a Contractor
- Case Studies-Fact Sheets
- Financing
- Self Directed Options
- Interactive Business

**How To Participate**  
**Prescriptive and Custom Incentives:**

1. Verify your eligibility. See the Energy Efficiency Program for Business [Policies and Procedures Manual\\*](#)
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.)
  - Review the guidelines (slide show) for completing the Energy Efficiency Program for Business application
    - Download the [2015 Catalog](#)
    - Download the [2015 Application](#)
3. Install your equipment or systems within 90 days of reservation confirmation.
4. Submit the required documentation of project completion, costs and energy savings within 60 days of project completion.
5. Submit your Final Application. Final Applications must be received within 60 days after project completion or by November 30 of each program year, whichever comes first.
6. DTE Energy's Energy Efficiency Program for Business Staff will review your final project documentation. Incentive payments will typically be sent within 4 to 6 weeks from the time that all the documentation is received and the field inspection is complete.

**New Construction and Major Renovation Program:**

1. To determine if your project qualifies, please contact DTE Energy's Energy Efficiency Program for Business Staff before you start your design at 866.796.0512.
2. Download the [New Construction Application\\*](#) for details on the program and application forms.
3. Full details of the program can be found in the [New Construction Policies and Procedures Manual\\*](#).

Questions? Please contact us:  
Contact the Energy Efficiency Program for Business at 866.796.0512.

**USE LESS. SAVE MORE.**

**2015 Rebate Program Status**  
Paid 0%  
Active 17%  
**Electric Installations**  
Available funds paid as of Dec. 15, 2014

**2015 Rebate Program Status**  
Paid 0%  
Active 20%  
**Gas Installations**  
Available funds paid as of Dec. 15, 2014



# Alternate Resource



# [dtetradeally.com](http://dtetradeally.com)

## Get:

- Announcements
- Up-to-date funding gauges
- All Program documents:
  - Applications
  - Forms
  - Addenda

**Energy Efficiency Program for Business**

**Home**      **Events/Registration**      **Marketing Materials**      **Videos**

### Applications and Worksheets

- 2015 Program Catalog
- 2015 Program Application
- 2015 Program P-P
- 2015 Gas-only Application
- 2015 New Construction App
- 2015 LEED Design Review Assistance App
- 2015 Michigan Saves Financing Worksheet
- 2014-15 Gas multi-year Application
- 2015 Agriculture Application
- 2015 LED 20% Bonus fact sheet

### Special Offers expire the end of June

**These special offers will expire June 30:**

**Multi-Measure 10% bonus-bonus for food service**  
Restaurant, grocery store and convenience store owners can now get an **additional 10% bonus** on applications that qualify for our 20% **Multi-Measure bonus-bonus**. To qualify for the 10% bonus offer — on top of the 20% Multi-Measure bonus — a project must include more than one category of energy efficient measures being submitted for incentives on the same application (for example: lighting and HVAC). And no single category can be worth more than 75% of all incentives requested. Reservation or Final Applications must be submitted by **June 30**. The Application can be downloaded at left.

**Multi-Measure 10% bonus-bonus for health/fitness centers**  
Health club and fitness center owners can now get an **additional 10% bonus** on applications that qualify for our 20% **Multi-Measure** bonus. To qualify for the 10% bonus offer — on top of the 20% Multi-Measure bonus — a project must include more than one category of energy efficient measures being submitted for incentives on the same application (for example: lighting and HVAC). And no single category can be worth more than 75% of all incentives requested. Reservation or Final Applications must be submitted by **June 30**. The Application can be downloaded at left.

**LED 20% bonus**  
Customers can apply for certain prescriptive and custom LED measures and qualify for a 20% incentive bonus on their project. Eligible prescriptive and custom measures are describe in our fact sheet, which can be downloaded from the list at left.

### Trade Ally Portal

To receive your login and password, call or email your Program Outreach contact.

#### 2015 Rebate Program Status

Available funds paid as of June 1, 2015

| Category               | Paid | Active |
|------------------------|------|--------|
| Electric Installations | 23%  | 50%    |
| Gas Installations      | 26%  | 49%    |

To ensure you're viewing the latest funding levels, please refresh your browser.

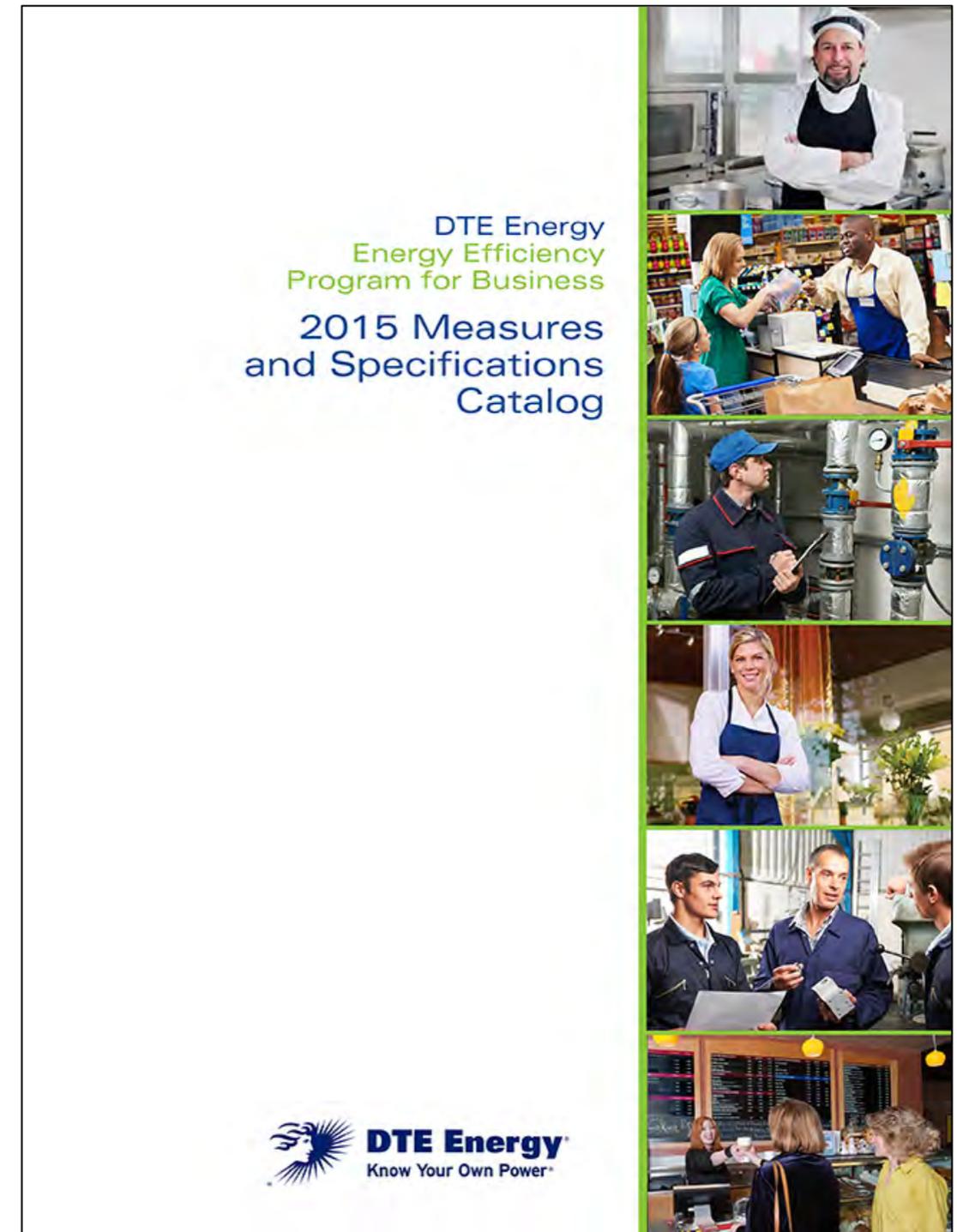


## About our **Catalog and Application**



## 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.





## There are five electric measure categories:

- Lighting
- Miscellaneous
- Process
- Food Service/Refrigeration
- HVAC

## There are 76 measure areas

- Each area lists specific types of measures within that section

*The Application matches the measure sequence of the Catalog*

| List of Eligible Prescriptive Electric Measures                |    |
|----------------------------------------------------------------|----|
| <b>Lighting</b>                                                |    |
| Central Lighting Controls                                      | 11 |
| Compact Fluorescent Screw-in Lamps (CFL)                       | 7  |
| (CFL) Reflector Flood Lamps                                    | 7  |
| Compact Fluorescent Fixtures                                   | 7  |
| Daylight Sensor Controls                                       | 11 |
| Delamping                                                      | 12 |
| Exit Signs Retrofit                                            | 11 |
| Exterior Lighting Bi-level Control w/Override                  | 11 |
| Exterior Linear Fluorescent replacing HID                      | 10 |
| Exterior CFL replacing HID                                     | 10 |
| Garage/Exterior High-Intensity Discharge (HID) Conversion      | 10 |
| High Performance (HP) Linear Fluorescents                      | 8  |
| Interior High-Intensity Discharge (HID) to Fluorescent Fixture | 10 |
| LED Interior Linear                                            | 9  |
| LED Lamps                                                      | 7  |
| LED or Induction Interior High Bay                             | 10 |
| LED Traffic Signals                                            | 11 |
| LED Refrigerated Door Case Lighting                            | 12 |
| Low Wattage (LW) Linear Fluorescents                           | 9  |
| Occupancy Sensors for LED Refrigerated Door Case Lighting      | 12 |
| Occupancy Sensor                                               | 11 |
| Pulse Start Metal Halide                                       | 10 |
| Switching Controls for Multilevel Lighting                     | 11 |
| Tubular Skylights (Light Tubes)                                | 12 |
| <b>HVAC Electric</b>                                           |    |
| Air-Cooled Chiller                                             | 16 |
| Air Source Heat Pumps                                          | 13 |
| Chilled Water Reset – Air Cooled                               | 15 |
| Chilled Water Reset – Water Cooled                             | 15 |
| Chilled Water Reset with Pump on/off Control                   | 14 |
| Closed Loop Heat Pumps                                         | 13 |
| Cool Roof                                                      | 15 |
| Economizer                                                     | 15 |
| Ground Source Heat Pump                                        | 14 |
| High Performance Glazing                                       | 15 |
| Hotel Guestroom Energy Management System (Air Conditioning)    | 14 |
| HVAC Occupancy Sensor, Large Office Building                   | 14 |
| Packaged Terminal Air Conditioner & Heat Pump                  | 13 |
| Programmable Thermostat (Air Conditioning)                     | 14 |
| Room Air Conditioners                                          | 13 |
| Setback-Setup Controls (Air Conditioning)                      | 14 |
| Unitary and Split Air Conditioning Systems                     | 13 |
| Variable Frequency Drive – HVAC Fan/Pump                       | 15 |
| Water-Cooled Chiller                                           | 16 |
| Window Film                                                    | 15 |
| <b>Miscellaneous Electric</b>                                  |    |
| High Efficiency Clothes Washer                                 | 18 |
| Intelligent Surge Protector                                    | 18 |
| PC Network Energy Management Controls                          | 18 |
| <b>Process Electric</b>                                        |    |
| Barrel Wraps for Injection Molders & Extruder                  | 20 |
| Compressed Air Pressure Flow Controller                        | 19 |
| Compressed Air Audit with Leak Repair                          | 19 |
| Compressed Air Cycling Dryer                                   | 19 |
| Electronically Commutated Plug Fans                            | 20 |
| Engineered Nozzle                                              | 19 |
| High Efficiency Pumps                                          | 19 |
| Industrial 3 Phase HF Battery Chargers                         | 20 |
| Insulation for Pellet Dryer Ducts                              | 20 |
| Tank Insulation                                                | 20 |
| VFD for Process Fans                                           | 19 |
| VSD Air Compressor                                             | 19 |
| <b>Food Service &amp; Refrigeration Electric</b>               |    |
| Anti-Sweat Heater Controls                                     | 21 |
| Beverage Vending Machines                                      | 21 |
| Door Gaskets on Coolers and Freezers                           | 22 |
| ECM Motor for Refrigerator Cases, Freezers and Coolers         | 22 |
| Energy Efficient Ice Machines                                  | 22 |
| Efficient Refrigeration Condenser                              | 22 |
| ENERGY STAR <sup>®</sup> Commercial Solid Door Refrigerators   | 21 |
| ENERGY STAR <sup>®</sup> Commercial Solid Door Freezers        | 21 |
| ENERGY STAR <sup>®</sup> Steam Cookers                         | 21 |
| ENERGY STAR <sup>®</sup> Holding Cabinets                      | 21 |
| Evaporator Fan Motor Controls                                  | 22 |
| Floating Head Pressure Controls                                | 21 |
| LED Refrigerated Door Case Lighting                            | 22 |
| Occupancy Sensors for LED Refrigerated Door Case Lighting      | 22 |
| Refrigeration Savings due to Lighting Wattage Reduction        | 22 |
| Strip Curtains on Walk-in Cooler and Freezer Doors             | 22 |
| Vertical Night Covers                                          | 22 |



## There are six natural gas measure categories:

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

## There are 48 measure areas

- Each area lists specific types of measures within that section

*The Application matches the measure sequence of the Catalog*

### List of Eligible Prescriptive Gas Measures

#### HVAC Gas

|                                                          |    |
|----------------------------------------------------------|----|
| Boiler Modulating Burner Control                         | 24 |
| Boiler Water Reset Control                               | 24 |
| Chilled Water Reset                                      | 24 |
| Chilled Water Reset with Pump on/off Control             | 25 |
| Demand Controlled Ventilation                            | 25 |
| Destratification Fans                                    | 25 |
| High Efficiency Furnace                                  | 24 |
| Hotel Guestroom Energy Management Control                | 25 |
| HVAC Occupancy Sensor, Large Office Building             | 25 |
| Infrared Heaters                                         | 24 |
| Programmable Thermostat                                  | 25 |
| Setback-Setup Controls                                   | 25 |
| Space Heating Boilers                                    | 24 |
| Steam Traps                                              | 24 |
| Variable Frequency Drive on Secondary Chilled Water Pump | 24 |

#### Hot Water and Laundry

|                                                  |    |
|--------------------------------------------------|----|
| Domestic Hot Water Heating System                | 26 |
| Dry Cleaning Boiler Descaling (Kettle/Tube-Type) | 26 |
| Gas Storage Water Heater                         | 26 |
| Gas Water Heater – Tankless                      | 26 |
| High Efficiency Clothes Washer                   | 26 |
| High Efficiency Pool Heater (Gas Heat)           | 26 |
| Ozone Laundry System                             | 26 |

#### Insulation

|                                               |    |
|-----------------------------------------------|----|
| Domestic Hot Water Pipe Wrap                  | 27 |
| Greenhouse Heat Curtain                       | 27 |
| Greenhouse Infrared Film                      | 27 |
| Pipe Wrap – Steam and Hot Water Boiler        | 27 |
| Pool Covers                                   | 27 |
| Roof Insulation (Flat/Attic)                  | 27 |
| Truck Loading Dock Seals                      | 27 |
| Truck Loading Dock Leveler Ramp Air Pit Seals | 27 |
| Wall Insulation                               | 27 |

#### Process Gas

|                                              |    |
|----------------------------------------------|----|
| Air Compressor Exhaust Heat Recovery         | 28 |
| Furnace Tube Inserts                         | 28 |
| High Efficiency Process Boiler (Water/Steam) | 28 |
| Tank Insulation                              | 28 |

#### Boiler/Furnace Tune-up

|                                   |    |
|-----------------------------------|----|
| Boiler Tune Up                    | 29 |
| Domestic Hot Water Boiler Tune-Up | 29 |
| Process Boiler Tune-up            | 29 |
| Furnace/RTU Tune-up               | 29 |

#### Food Service Gas

|                                           |    |
|-------------------------------------------|----|
| Commercial Kitchen Ventilation Hood       | 30 |
| ENERGY STAR <sup>®</sup> Convection Ovens | 30 |
| ENERGY STAR <sup>®</sup> Fryers           | 30 |
| ENERGY STAR <sup>®</sup> Griddles         | 30 |
| ENERGY STAR <sup>®</sup> Steam Cookers    | 30 |
| Fryers                                    | 30 |
| Night Covers (vertical)                   | 30 |
| Ovens                                     | 30 |
| Pre-Rinse Sprayers (Gas Water Heat)       | 30 |

MM: Denotes measures that also appear in the Electric section of the Program, which means they qualify for the Multi-Measure Bonus. To receive the bonus, submit both the Electric and Gas measure on the same Application.




### Food Service Electric & Refrigeration Specifications

**All Final Applications MUST include manufacturers' equipment specification sheets**

#### ENERGY STAR® Refrigerators and Freezers

| Equipment Type                      | Size          | Unit         |
|-------------------------------------|---------------|--------------|
| Commercial Solid Door Refrigerators | ≤ 15 cu. ft.  | Refrigerator |
|                                     | 15–20 cu. ft. | Refrigerator |
|                                     | 20–30 cu. ft. | Refrigerator |
| Commercial Solid Door Freezers      | ≤ 15 cu. ft.  | Freezer      |
|                                     | 15–20 cu. ft. | Freezer      |
|                                     | 20–30 cu. ft. | Freezer      |

**ENERGY STAR® Commercial Solid Door Refrigerator**  
Incentives are available for replacement units that are ENERGY STAR® listed. Cases with remote refrigeration systems are not eligible. Incentive is per refrigerator.

**ENERGY STAR® Commercial Solid Door Freezer**  
Incentives are available for replacement units that are ENERGY STAR® listed. Cases with remote refrigeration systems are not eligible. Incentive is per freezer.

#### ENERGY STAR® Steam Cookers and Hot Holding Cabinets

| Equipment Type       | Size               | Unit    |
|----------------------|--------------------|---------|
| Steam Cookers        | 3 Pan              | Cooker  |
|                      | 4 Pan              | Cooker  |
|                      | 5 Pan              | Cooker  |
|                      | 6 Pan              | Cooker  |
| Hot Holding Cabinets | Half Size          | Cabinet |
|                      | Three-Quarter Size | Cabinet |
|                      | Full Size          | Cabinet |

**ENERGY STAR® Steam Cookers (Electric)**  
Incentives are available for replacement electric steamers that are ENERGY STAR® listed with a Cooking Energy Efficiency of 50% for all size units. Used or rebuilt equipment is not eligible. Incentive is per cooker.

**ENERGY STAR® Hot Holding Cabinets**  
Incentives are available for replacement units that are ENERGY STAR® listed and consume <40 watt per cubic foot. Cook-and-hold equipment is not eligible. Used or rebuilt equipment is not eligible. Incentive is per cabinet.

*Food Service Electric*

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### Controls

| Equipment Type                       | Unit       |
|--------------------------------------|------------|
| Beverage Vending Machine Controllers | Controller |
| Anti-Sweat Heater Controls           | Door       |
| Floating Head Pressure Controls      | Ton        |

#### Beverage Vending Machine Controllers

Incentives are available for retrofitting existing vending machines with beverage vending machine controllers. The controller must include a passive infrared occupancy sensor to turn off fluorescent lights and other vending machine systems when the surrounding area is unoccupied for 15 minutes or longer. Incentive is per controller.

#### Anti-Sweat Heater Controls

Incentives are available for anti-sweat heater controls. Eligible control devices that sense the relative humidity in the air outside of the display case and reduces or turns off the glass door (if applicable) and frame anti-sweat heaters at low-humidity conditions. Technologies that can turn off anti-sweat heaters based on sensing condensation on the inner glass pane are also eligible. Incentive is per total number of doors controlled.

#### Floating Head Pressure Controls

Incentives are available for installing automatic controls to lower condensing pressure at lower ambient temperatures in multiplex refrigeration systems. Controls installed must vary head pressure to adjust condensing temperatures in relation to outdoor air temperature. The controls must replace existing constant pressure or manually controlled systems to achieve lowered head pressure in order to maintain a minimum saturated condensing temperature of 70°F, or a 20°F variance below design head pressure during mild weather conditions. Incentive is per ton of refrigeration.

Food Service  
– Electric

**Specifications are detailed for every prescriptive measure offered under the 2015 Program.**



# About our Application

Use it as a:

- **Reservation** Application

*and a*

- **Final** Application

**NOTE:** Funds **must** be reserved for all custom projects and for certain prescriptive measures.

We **encourage** you to submit a Reservation Application for all **prescriptive** projects.

| Energy Efficiency Program for Business                                                                                                                                                                                  |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
|                                                                                                                                      |    |
| <b>2015 Program Application</b>                                                                                                                                                                                         |    |
| This Application is to be used for projects completed with a Final Application submitted during the 2015 Program Year (Jan. 1, 2015 - Nov. 30, 2015).                                                                   |    |
| <b>Section 1 – Application</b>                                                                                                                                                                                          |    |
| Incentive Application Checklist.....                                                                                                                                                                                    | 2  |
| Customer Information .....                                                                                                                                                                                              | 3  |
| Contractor Information .....                                                                                                                                                                                            | 4  |
| Third Party Payment Authorization .....                                                                                                                                                                                 | 4  |
| Final Application Agreement.....                                                                                                                                                                                        | 5  |
| Incentive Summary, Final Agreement Information and Account Holder Signature Page.....                                                                                                                                   | 6  |
| <b>Section 2 – Incentive Worksheets</b>                                                                                                                                                                                 |    |
| Lighting Incentive Worksheet.....                                                                                                                                                                                       | 7  |
| HVAC Electric Incentive Worksheet.....                                                                                                                                                                                  | 10 |
| Miscellaneous Electric Incentive Worksheet.....                                                                                                                                                                         | 17 |
| Process Electric Incentive Worksheet.....                                                                                                                                                                               | 18 |
| Food Service – Electric and Refrigeration Incentive Worksheet.....                                                                                                                                                      | 20 |
| HVAC Gas Incentive Worksheet .....                                                                                                                                                                                      | 22 |
| Hot Water and Laundry Incentive Worksheet.....                                                                                                                                                                          | 23 |
| Insulation Incentive Worksheet.....                                                                                                                                                                                     | 24 |
| Process Gas Incentive Worksheet.....                                                                                                                                                                                    | 24 |
| Boiler/Furnace Tune-up Incentive Worksheet.....                                                                                                                                                                         | 25 |
| Food Service – Gas Incentive Worksheet.....                                                                                                                                                                             | 26 |
| Custom Measures Worksheet Instructions.....                                                                                                                                                                             | 27 |
| Prescriptive or Custom Project? .....                                                                                                                                                                                   | 28 |
| Custom Incentive Worksheet .....                                                                                                                                                                                        | 29 |
| Boiler/Furnace Tune-up Addendum.....                                                                                                                                                                                    | 32 |
| How to Submit Your Application .....                                                                                                                                                                                    | 36 |
| For New Construction and Major Renovation projects, download our NC/MR Applications at <a href="http://dteenergy.com/savenow">dteenergy.com/savenow</a>                                                                 |    |
| 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 <a href="mailto:saveenergy@dteenergy.com">saveenergy@dteenergy.com</a> |    |
| V1:10/01/14                                                                                                                                                                                                             |    |

# 2015 Program Application



**DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

The following items are required to successfully complete your Reservation and Final Applications and receive incentive funding:

- Application Checklist
- Customer Information Sheet
- Prescriptive and/or Custom Incentive Worksheets
- Final Application Agreement
- Supporting Information, including invoices and product specifications



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Know Your Own Power<sup>®</sup>

Checklist

### Prescriptive and Custom Incentive Application Checklist

This form **MUST** be included with any Reservation and/or Final Application  
If this is a New Construction or Major Renovation project, please use that Application, which can be found online at: [dteenergy.com/savenow](http://dteenergy.com/savenow).

Submittal Date \_\_\_\_\_ Application Number (if known) \_\_\_\_\_

Is this a revised Application?  yes  no

Mail, fax or email completed forms and required documentation with itemized invoices to:

DTE Energy's Energy Efficiency Program For Business

P.O. Box 11289  
Detroit MI 48211  
**Fax:** 877.607.0744  
**Phone:** 866.796.0512  
**Email:** [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com)  
**Web:** [dteenergy.com/savenow](http://dteenergy.com/savenow)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Reservation Application</b><br/>Fill out this side when reserving incentives</p> <p><b>Required Attachment</b></p> <p><input type="checkbox"/> Customer Information .....3</p> <p><input type="checkbox"/> Contractor Information .....4</p> <p><input type="checkbox"/> W9 Tax Information Form (customer) .....3</p> <p><input type="checkbox"/> Michigan-Made Affidavit(s) (if applicable)</p> <p><b>Incentives Worksheets</b></p> <p><input type="checkbox"/> Lighting .....7</p> <p><input type="checkbox"/> HVAC – Electric .....10</p> <p><input type="checkbox"/> Miscellaneous Electric .....17</p> <p><input type="checkbox"/> Process Electric .....18</p> <p><input type="checkbox"/> Food Service – Electric .....20</p> <p><input type="checkbox"/> HVAC – Gas .....22</p> <p><input type="checkbox"/> Hot Water &amp; Laundry .....23</p> <p><input type="checkbox"/> Insulation .....24</p> <p><input type="checkbox"/> Process Gas .....24</p> <p><input type="checkbox"/> Boiler/Furnace Tune-up .....25</p> <p><input type="checkbox"/> Food Service – Gas .....26</p> <p><input type="checkbox"/> Custom .....29</p> <p><input type="checkbox"/> Boiler/Furnace Tune-up Addendum .....32</p> <p>Reservation Application Date _____</p> <p>Expected Completion Date** _____</p> <p style="font-size: x-small;">**Project funds will only be reserved for 90 days from date of Reservation and no Reservation will extend beyond Nov. 30, 2015.</p> | <p><b>Final Application</b><br/>Fill out this side when project is completed</p> <p><b>Required Attachments</b></p> <p><input type="checkbox"/> Customer Information .....3</p> <p><input type="checkbox"/> Contractor Information .....4</p> <p><input type="checkbox"/> W9 Tax Information Form (if different than customer) .....4</p> <p><input type="checkbox"/> 3rd Party Payment Authorization* .....4</p> <p><input type="checkbox"/> Signed Final Application Agreement .....5</p> <p><input type="checkbox"/> Manufacturers' Specifications</p> <p><input type="checkbox"/> Itemized Invoices</p> <p><input type="checkbox"/> Michigan-Made Affidavit(s) (if applicable)</p> <p><b>Incentives Worksheets</b></p> <p><input type="checkbox"/> Lighting .....7</p> <p><input type="checkbox"/> HVAC – Electric .....10</p> <p><input type="checkbox"/> Miscellaneous Electric .....17</p> <p><input type="checkbox"/> Process Electric .....18</p> <p><input type="checkbox"/> Food Service – Electric .....20</p> <p><input type="checkbox"/> HVAC – Gas .....22</p> <p><input type="checkbox"/> Hot Water &amp; Laundry .....23</p> <p><input type="checkbox"/> Insulation .....24</p> <p><input type="checkbox"/> Process Gas .....24</p> <p><input type="checkbox"/> Boiler/Furnace Tune-up .....25</p> <p><input type="checkbox"/> Food Service – Gas .....26</p> <p><input type="checkbox"/> Custom .....29</p> <p><input type="checkbox"/> Boiler/Furnace Tune-up Addendum .....32</p> <p style="font-size: x-small;">* If applicable.</p> <p>Final Application Date _____</p> <p>Actual Completion Date*** _____</p> <p style="font-size: x-small;">***Application must be submitted within 60 days of completion date or by Nov. 30, 2015, whichever comes first.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

This interactive Application will automatically calculate all incentive totals on each worksheet – which you can then submit electronically to our office. You also can download this Application, print it out and complete it manually. You then can either mail or fax it to our office.

You must complete all applicable pages before sending or submitting this Application to our office.

Go To Page 36 For Submission Instructions

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2
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## Prescriptive Measure Worksheets:

- There are worksheets for each measure offered in this Application.
- Enter quantities.
- In the interactive PDF Application, calculations are made automatically.
- Check the **Michigan-Made** box(es) for measures that meet the bonus criteria.

Boiler/Furnace Tune-ups and Prescriptive HVAC Gas

**DTE Energy**  
Know Your Own Power®

**HVAC Gas Incentive Worksheet**

Check the **Michigan-Made** box  only if the piece of equipment is for a full unit replacement and not a retrofit for which you are seeking an incentive, meets the Michigan-Made bonus specifications and you can provide the manufacturer affidavit.

| Ref # | Equipment Type                           | Equipment Size MBH | Incentive | Unit       | # of Units | Total Incentive |
|-------|------------------------------------------|--------------------|-----------|------------|------------|-----------------|
| 22-2  | Boiler Water Reset Control Retrofit      |                    | \$0.50    | Output MBH |            |                 |
| 22-3  | High Efficiency Furnace 95% Efficient    |                    | \$350.00  | Furnace    |            |                 |
| 22-4  | High Efficiency Furnace 92% Efficient    |                    | \$250.00  | Furnace    |            |                 |
| 22-5  | High Efficiency Boilers (Space Heating)  |                    | \$2.00    | Output MBH |            |                 |
| 22-6  | Leaking Steam Trap Repair or Replacement |                    | \$100.00  | Trap       |            |                 |

**Other HVAC**

| Ref # | Equipment Type   | Incentive | Unit       | # of Units | Total Incentive |
|-------|------------------|-----------|------------|------------|-----------------|
| 22-7  | Infrared Heaters | \$4.00    | Output MBH |            |                 |

**HVAC Controls**

| Ref # | Equipment Type                                                                 | Incentive | Unit          | # of Units | Total Incentive |
|-------|--------------------------------------------------------------------------------|-----------|---------------|------------|-----------------|
| 22-11 | Programmable Thermostat (Gas Heat)                                             | \$50.00   | Thermostat    |            |                 |
| 22-13 | Setback/Setup Controls (Gas Heat)                                              | \$5.00    | 1,000 Sq. Ft. |            |                 |
| 22-14 | Demand Controlled Ventilation CO <sub>2</sub> Sensor-based (50.13 per Sq. Ft.) | \$100.00  | 1,000 Sq. Ft. |            |                 |

Select the HVAC system in operation at this project site (check one or more for assistance):

|                                                                   |                                                                      |                                                                    |
|-------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------|
| <input type="checkbox"/> AC with gas heat                         | <input type="checkbox"/> CV reheat no econ with Gas Engine Chiller   | <input type="checkbox"/> PTAC-HP                                   |
| <input type="checkbox"/> Air source heat pump                     | <input type="checkbox"/> CV reheat no econ with Water Cooled Chiller | <input type="checkbox"/> Refrigeration                             |
| <input type="checkbox"/> CV reheat econ with Air Cooled Chiller   | <input type="checkbox"/> Gas heat only                               | <input type="checkbox"/> VAV reheat econ with Air Cooled Chiller   |
| <input type="checkbox"/> CV reheat econ with Gas Engine Chiller   | <input type="checkbox"/> Ground source heat pump                     | <input type="checkbox"/> VAV reheat econ with Gas Engine Chiller   |
| <input type="checkbox"/> CV reheat econ with Water Cooled Chiller | <input type="checkbox"/> MZS no econ with Air Cooled Chiller         | <input type="checkbox"/> VAV reheat econ with Water Cooled Chiller |
| <input type="checkbox"/> CV reheat econ with Air Cooled Chiller   | <input type="checkbox"/> PTAC                                        | <input type="checkbox"/> Water loop heat pump                      |

**Insulation Incentive Worksheet**

**Pipe Wrap**

| Ref # | Equipment Type                 | Incentive | Unit        | # of Units | Total Incentive |
|-------|--------------------------------|-----------|-------------|------------|-----------------|
| 24-1  | Steam Boiler                   | \$5.00    | Linear Foot |            |                 |
| 24-2  | Steam Boiler Condensate Return | \$2.00    | Linear Foot |            |                 |
| 24-3  | Hot Water Boiler               | \$3.00    | Linear Foot |            |                 |
| 24-4  | Domestic Hot Water             | \$1.00    | Linear Foot |            |                 |

**Process Gas Incentive Worksheet**

**Process Gas**

| Ref # | Equipment Type                                                          | Incentive | Unit | # of Units | Total Incentive |
|-------|-------------------------------------------------------------------------|-----------|------|------------|-----------------|
| 24-21 | Air Compressor Exhaust Heat Recovery (Reservation Application Required) | \$20.00   | HP   |            |                 |

NOTE: Add or insert the measure reference number (left column) to all related specification sheets, invoices and other documentation.

|                              | Michigan-Made        | All Measures         |
|------------------------------|----------------------|----------------------|
| Total HVAC - Gas Incentives  | <input type="text"/> | <input type="text"/> |
| Total Insulation Incentives  | <input type="text"/> | <input type="text"/> |
| Total Process Gas Incentives | <input type="text"/> | <input type="text"/> |

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## Custom Measure Worksheets:

- There are three custom pages in the Application; each can accept two custom items.
- Complete all relevant areas.
- Check the category of measure type.
- In the interactive PDF Application, calculations are made automatically.

**IMPORTANT NOTE:** Use the reference numbers in the left column to identify and mark all related invoices, specification sheets and other documents related to this measure and submitted with this Application.

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### Custom Incentive Worksheet

**IMPORTANT:** If you fail to complete each section, check the appropriate category or enter all required information, the worksheet will not calculate your incentive and carry the value to Page 5.

Must be submitted BEFORE project begins.

See Instructions on Page 27. Complete every blank box for each item you submit. Please attach all equipment specifications to your Reservation Application before you submit for review.

Ref# 29-1 Location (building name, etc.) \_\_\_\_\_

| Description                                                          |             | Before Retrofit                                                     |                                  | After Retrofit                   |                              |              |
|----------------------------------------------------------------------|-------------|---------------------------------------------------------------------|----------------------------------|----------------------------------|------------------------------|--------------|
|                                                                      |             |                                                                     |                                  |                                  |                              |              |
| "Before" hours of operation calculation for this specific equipment: |             | "After" hours of operation calculation for this specific equipment: |                                  |                                  |                              |              |
| Hours/week:                                                          | Weeks/year: | Non-work days/year:                                                 | Hours/week:                      | Weeks/year:                      | Non-work days/year:          |              |
| Hours used per year (a):                                             | kW (b):     |                                                                     | Hours used per year (c):         | kW (d):                          |                              |              |
| 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         |                                                                     |                                  | \$0.07                           |                              |              |
| Natural Gas                                                          | Mcf         |                                                                     |                                  | \$4.00                           |                              |              |

\* For Electric projects use the following formula: (a x b) - (c x d). For natural gas projects, you must enter your own calculated Annual Savings and provide documentation.

Ref# 29-2 Location (building name, etc.) \_\_\_\_\_

| Description                                                          |             | Before Retrofit                                                     |                                  | After Retrofit                   |                              |              |
|----------------------------------------------------------------------|-------------|---------------------------------------------------------------------|----------------------------------|----------------------------------|------------------------------|--------------|
|                                                                      |             |                                                                     |                                  |                                  |                              |              |
| "Before" hours of operation calculation for this specific equipment: |             | "After" hours of operation calculation for this specific equipment: |                                  |                                  |                              |              |
| Hours/week:                                                          | Weeks/year: | Non-work days/year:                                                 | Hours/week:                      | Weeks/year:                      | Non-work days/year:          |              |
| Hours used per year (a):                                             | kW (b):     |                                                                     | Hours used per year (c):         | kW (d):                          |                              |              |
| 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         |                                                                     |                                  | \$0.07                           |                              |              |
| Natural Gas                                                          | Mcf         |                                                                     |                                  | \$4.00                           |                              |              |

\* For Electric projects use the following formula: (a x b) - (c x d). For natural gas projects, you must enter your own calculated Annual Savings and provide documentation.

Electric Simple Payback Period must be >1 to <=8 years:  $\frac{\text{Electric Aggregate Measure Cost}}{\text{Aggregate Annual kWh Saved} \times \text{Current Energy Cost}}$

Gas Simple Payback Period must be >1 year:  $\frac{\text{Gas Aggregate Measure Cost}}{\text{Aggregate Annual Mcf Saved} \times \text{Current Energy Cost}}$

|                               | Aggregate Measure Cost | Aggregate Annual Savings | Current Energy Cost | Simple Payback Period* | Total Calculated Incentive | Total Awarded Incentive** |
|-------------------------------|------------------------|--------------------------|---------------------|------------------------|----------------------------|---------------------------|
| Electric                      |                        |                          |                     |                        |                            |                           |
| Natural Gas                   |                        |                          |                     |                        |                            |                           |
| <b>Total Measure Cost</b>     |                        |                          |                     |                        |                            |                           |
| <b>Total Custom Incentive</b> |                        |                          |                     |                        |                            |                           |

**IMPORTANT NOTES:**

\* The Simple Payback Period must fall within the electric or gas parameters to qualify for an incentive (see formula above). If the Total Awarded Incentive for either electric or gas displays DND (does not qualify), then the payback period fell outside of required parameters or the measure cost or energy savings were missing.

\*\* Total Awarded Incentives for each utility are capped at no more than 50% of the Total Measure Cost. If one utility does not qualify for an incentive, the other utility is capped at no more than 50% of the Aggregate Measure Cost for that utility.

If you require assistance completing this section, contact our office.

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# Submitting your Application



**DTE Energy**<sup>®</sup>  
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Electronically submit your **Reservation Application** and/or your **Final Application**:

## Automatically:

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

At that point, attach any other supporting documentation.

**Note:** check the **blue boxes** to ensure that your incentives have been entered correctly.

Boiler/Furnace Tune-ups and Prescriptive HVAC Gas

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**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.  
**BEFORE YOU SUBMIT:** If the figure at right does not match the incentives you expected to request, please review your worksheets and the summary page (Page 6).

Total Incentives Requested: **\$1**

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 (Page 5).
3. Complete or confirm all relevant worksheets for your project.  
**BEFORE YOU SUBMIT:** If the figure at right does not match the incentives you expected to request, please review your worksheets and the summary page (Page 6).
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**

Total Incentives Requested: **\$1**

Mail, fax or email all manufacturers' specifications, detailed invoices and other supporting documents to our office. In your mailing, on your cover sheet or in your subject line, please include the customer name and project number; DTE-(year)(5-digit number). If you don't have a project number, make sure you enter your customer name.

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## About your Final Application:

- Your **Final Application** must be submitted within 60 days of project completion , reservation end date or by **Nov. 30, 2015 – whichever comes first.**
- **Final Applications submitted after Nov. 30, 2015, will be canceled.**
- Failure to include all supporting documentation at the time of submission could result in cancellation of your Application.

Energy Efficiency Program for Business  **DTE Energy**<sup>®</sup>  
Know Your Own Power<sup>®</sup>

2015 Program  
**Special Application**  
for Boiler/Furnace Tune-ups  
and Prescriptive HVAC Natural Gas Projects

This Application can be used for boiler and furnace tune-ups and certain common Prescriptive measures involved in Natural Gas projects; these and other Program measures also can be found in the main Program Application. This Application is to be used for projects completed with a Final Application submitted during the 2015 Program Year (January 1, 2015 – November 30, 2015).

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## In Summary

- New for 2015
- New mid-year LED measures
- New, Continuing & Expiring offers
- About incentives
- LED Lighting Opportunities
- How to get started



**Thank you for joining us today!**





**If you have questions,  
please contact our office**

Email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com)

Phone: **866-796-0512** (press option 3)

Fax: **877-607-0744**

Website: [dteenergy.com/savenow](http://dteenergy.com/savenow)

Website: [dtetradeally.com](http://dtetradeally.com)



: [www.linkedin.com/in/dteenergysaveenergy](http://www.linkedin.com/in/dteenergysaveenergy)