









#### TPAYS TOBULD

#### BEYOND CODE

DETROIT

11:00am - 1:00pm



## Cheri Holmon

USGBC WEST MICHIGAN



# Melcowe!



An awards and recognition program for energy use reduction open to all Michigan area commercial, industrial & multi-family buildings.

ENROLL FOR FREE

JOIN BY MARCH 31, 2019

WWW.MICHIGANBATTLEOFTHEBUILDINGS.ORG

SPONSORED BY





## square footage 191,979,708

competing in 2018



### 2017 Battle of the Buildings







### 46 BUILDINGS

REDUCED THEIR ENERGY MORE THAN

10%



### 11 BUILDINGS

REDUCED THEIR ENERGY MORE THAN

20%



2017

Overall Biggest Loser

34.37%



#### 2017 ENERGY SAVINGS

Competitor's combined total:

59,233

metric tons of CO2e avoided



#### **COMPETITORS AVOIDED**

87.6 Million

IN UTILITY COSTS IN 2017









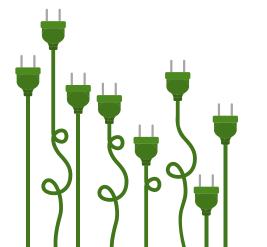
HEAR STORIES & DISCOVER NEW IDEAS WITH:

AMWAY HOTEL | CONSUMERS ENERGY
DTE ENERGY | MICHIGAN STATE UNIVERSITY
MONROE COUNTY COMMUNITY COLLEGE

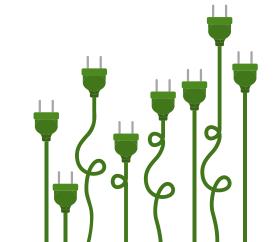
WITH LUNCH FEATURING

**MAJORA CARTER** 

APRIL 25, 2019



WWW.MICHIGANBATTLEOFTHEBUILDINGS.ORG



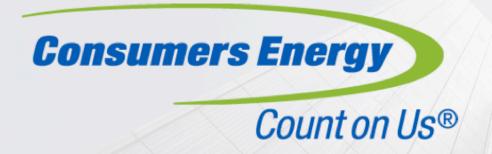
& MORE!







**Visionary Partners** 







BERGMANN Kilowatt Combatant



Happy Hour Sponsor



**Parking Sponsor** 



**Battle Supporter** 

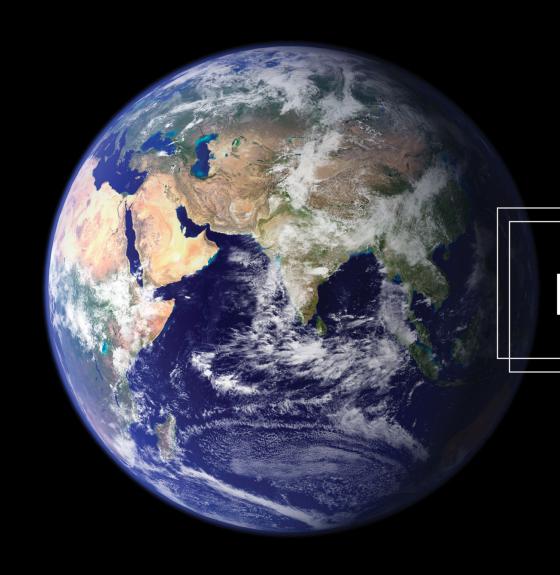




GRAND RAPIDS, MI 49503



LEED is an internationally recognized mark of excellence for buildings, communities and professionals that are transforming the building industry.

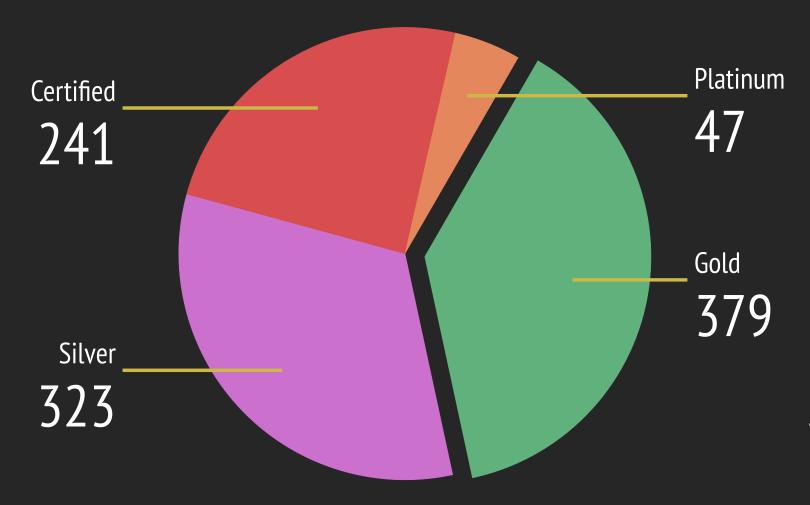


#### LEED IS GLOBAL

#### 2.4 MILLION + SQUARE FEET DAILY



#### LEED Certified Buildings in Michigan



Total Buildings:

896



## Lana Crouse

USGBCDETROIT





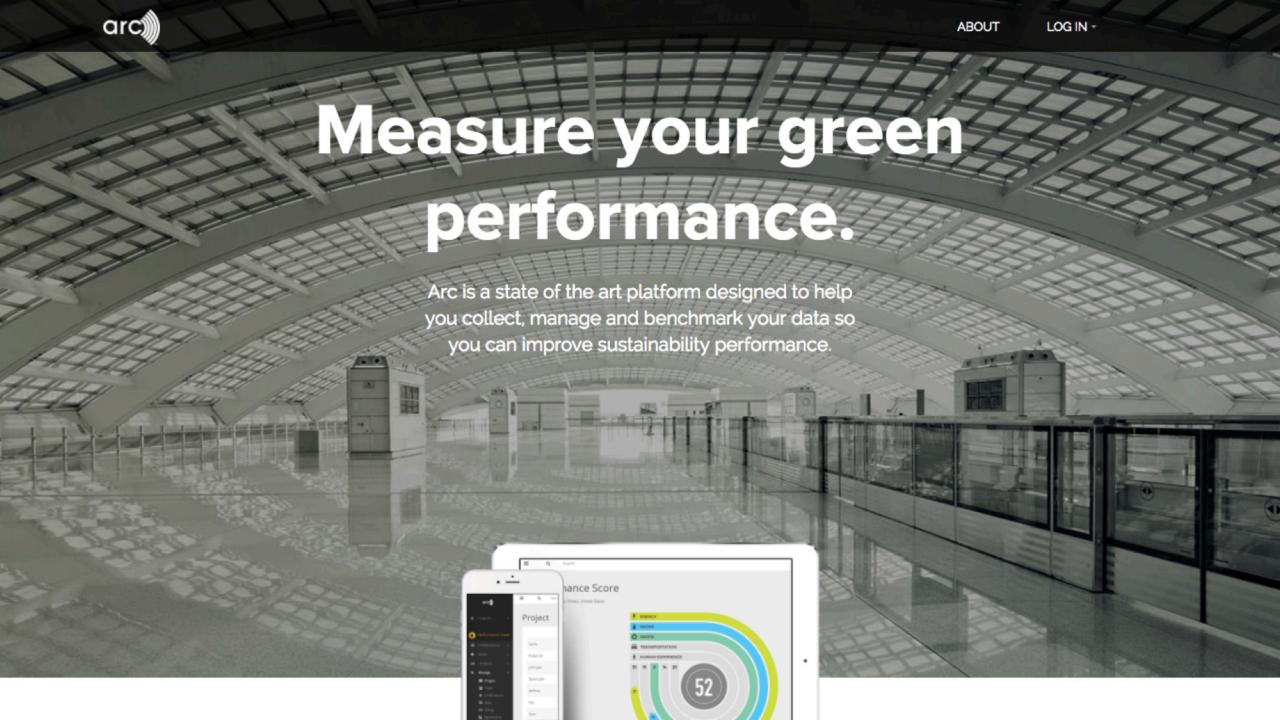
#### ALL BUILDINGS, SPACES AND PLACES IN

LEED addresses homes, offices, hotels, hospitals, schools, retail spaces, banks, factories, stadiums, college campuses, neighborhoods... every building type at every lifecycle phase in any climate or region.

#### LEED shows the elements that go into a high-performance and sustainable built environment.

- Integrative Process
- Location and Transportation
- Sustainable Sites
- Water Efficiency
- 😥 Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality
- Innovation
- Regional Priority







LEED v4.1

Goals of technical development

Address market barriers and lessons learned from LEED v4 project teams.

#### **PEOPLE**





#### 200,000+

LEED Professionals stand out in the building industry with a LEED Green Associate™ or LEED AP® credential that's designed to demonstrate their knowledge in the sustainable design, construction, operations and maintenance of buildings and communities.















#### JOIN US!



#### **DETROIT REGION & WEST MICHIGAN**









**ORGANIZATIONAL** 

SILVER

GOLD

**MORE THAN** 

11,700 USGBC MEMBERS

are organizations, corporations and institutions that make up a vibrant and diverse community

#### USGBC DETROIT REGION ANNUAL SPONSORS



Patrick and Karen
Smithbauer





#### **UPCOMING EVENTS**

- 2/20 3/27 LEED v4 Green Associate Study Group, Detroit Area
- 2/21 Meet the New LEED v4.1 Operations & Maintenance Online Discussion
   Forum
- 2/16 Solar Lunch & Learn, Detroit
- 3/1 Energy in LEED Today and Tomorrow Webinar
- Visit our website for additional details:
  - https://www.usgbc.org/usgbc-detroit-region



#### **USGBC DETROIT REGION COMMUNITY**

#### **Volunteer Committees:**

- Education
- Green Schools
- Advocacy
- Residential/Multi-family
- Neighborhood Development

Next General Circle meeting is Monday, March 11th

#### Program:

Detroit 2030 District





## Courie Lilley

DETROIT 2030 DISTRICT



## DETROIT 2030 DISTRICT®

MISSION: To create a District of high-performance buildings in Detroit which supports economic prosperity, environmental stewardship and a healthier community for all who work, play and live in the city.

VISION: To bring together building owners and managers with private businesses, public institutions and like-minded organizations to provide education, collaboration and networking opportunities that assist with reducing operating costs, energy and water usage, GHG emissions from transportation, as well as promoting regional and relevant sustainability initiatives.

#### **How Does it all Work?**

## Private/Public Partnerships



- Private Sector Led
- Public Sector Supported
- Voluntary
- Common Mission and Goals
- Connected to Market Realities



## A Successful 2030 District is a PRIVATE-PUBLIC PARTNERSHIP, comprised of:

#### Who Can Join?

**Three Types of Members** 







Building Owners & Managers

FREE to belong

#### **Professional Stakeholders**

- Private businesses
- Industry Professionals

#### **Community Stakeholders**

- Like-minded nonprofits
- Government entities
   FREE to belong



Private – Public Partnership Working Together



#### 2030 Network – 3 Districts in Michigan





#### **Established Districts**

- 1,353 Buildings
- 349 Property Members
- 194 Professional Stakeholders
- 145 Community Stakeholders

#16
Detroit!
Detroit 2030 Website & Video

#### EMERGING DISTRICTS:

Tuscon, AZ Cincinnati, OH Erie, PA New York City, NY

19 million square feet of commercial space dedicated in Detroit!



#### **Detroit 2030 District Ambassador Program**

### Looking to work with building owners & managers to create a more sustainable Detroit? The Detroit 2030 District Ambassador Program may be for you!

- Work directly with building owners & managers
- Assist members with reducing energy, water and GHG emissions
- Promote sustainable/high performance buildings
- Be a Detroit 2030 District Member liaison
- Monthly calls, support & training available
- Green building/sustainability background desired
- Attend events and educational workshops for free
- Time commitment of 1 hour per week, flexible





For more information Contact Connie Lilley at 248-897-1255

connielilley@2030districts.org/Detroit www.2030districts.org/Detroit

#### Thank you to our sponsors & members!









INTEROCTIVE



















ComericA Bank



















DETROIT

**ZURN** 



building

HamiltonAnderson

a cityinsight.

clean





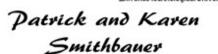








FONTANESI & KANN COMPANY









WORKS

















SIERRA













natural awakenings

fīceh





Wall Time\*







## Kerin McMeely

MCNEELY BUILDING GROUP



## John Adoms

DTEENERGY

## ENERGY EFFICIENCY PROGRAM FOR BUSINESS



### **Program Overview**



#### **Program Funding – 2008**

- Michigan Public Act 295
  - Energy Optimization Surcharge added to all ratepayers' bills to:
    - Help customers save energy, manage costs
    - Help reduce generation, offset new capacity
  - Surcharge is rebated through the program
  - o Cash incentives:
    - Target specific energy-saving equipment and technologies
    - Encourage energy-efficient building and systems design



#### Impact of our Program

#### Since 2009:

**\$186 million** incentives paid. **53,000** projects completed.





#### **Deadlines**

- The Program Year ends Nov. 30
  - No Reservations will be extended beyond Nov. 30
  - Final Applications must be submitted within 60 days of project completion date or
  - Nov. 30, whichever comes first
  - Incomplete Final Applications may be subject to cancellation
  - Any Application submitted after Nov. 30 may be cancelled
- Watch the gauges





#### **Three Types of Incentives**

**Prescriptive** 

- Defined incentives:
  - Per item/kWh/Mcf energy saved

Custom

- Projects don't fit a prescriptive approach
  - Calculated incentives
  - Per-kWh/Mcf of energy saved

**New Construction Major Renovation** 

- New facilities/renovations of facilities
- Change of use or Adding load
  - Systems Approach
  - LEED Whole Building



#### How it works

#### **Prescriptive**



Pre-determined measures from the Michigan Energy Measures Database (MEMD) with specific energy savings and cash incentives in the categories of electric and gas

#### **ELECTRIC**

- Lighting
- HVAC
- Miscellaneous
- Process

#### **NATURAL GAS**

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



#### **How it works**

- Capital investment projects that are NOT eligible for a Prescriptive incentive may qualify
- Custom incentives are determined on a case-by-case basis

#### **Custom**



- Require a reservation application
- Before any work begins pre-inspection and approval is needed
- Paid per-kWh or per-Mcf saved
  - o Examples include:
    - Heat recovery
    - Lighting retrofits not 1-for-1



#### **How it works**



Ideal for new facilities or major renovations of existing facilities that have a change of use or adding load

#### **Systems Approach**

- Smaller/less complex projects (< 20,000 sq. ft.) without modeling
- Projects that are further along in the design process

**New Construction Major Renovation** 

#### **LEED Whole Building**

- A stand alone application
- Incentives paid on the savings validated by GBCI\*



#### **How it works**



LEED
New Construction

#### **LEED Whole Building**

I EED Lovel	Incentive				
LEED Level	Electric	Gas			
Certified/Sliver	\$0.04/kWh	\$3/Mcf			
Gold	\$0.05/kWh	\$3.50/Mcf			
Platinum	\$0.06/kWh	\$4/Mcf			

### ENERGY EFFICIENCY PROGRAM FOR BUSINESS

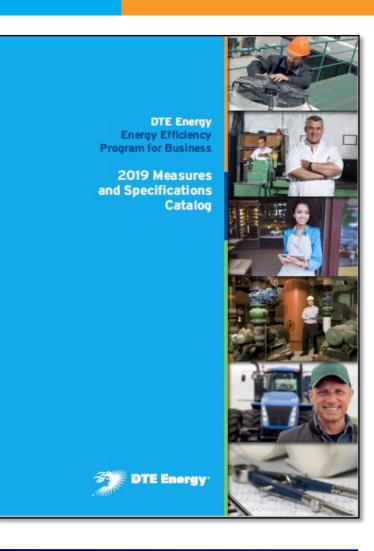


### **Catalog & Applications**



#### Catalog

- Prescriptive, Custom, & New Construction specifications
- Agriculture program specifications
- LEED Design Review & Assistance specifications





#### **Applications**

- Prescriptive, Custom & New Construction measure worksheets
- Agriculture Application
- LEED Design Review & Assistance Application

#### Use it as a:

- Reservation Application
- Final Application





## LEED Design Review & Assistance Application

Now a stand alone application

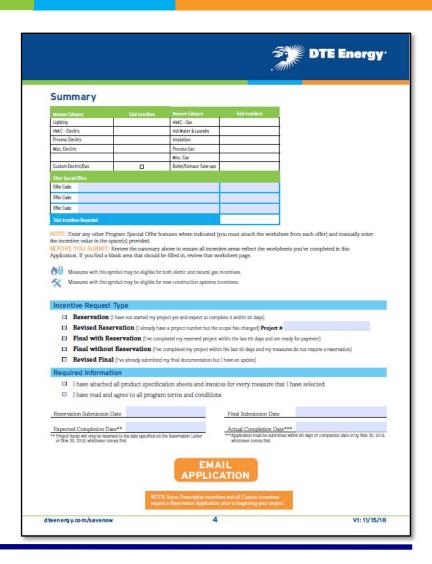




#### **Be Complete**

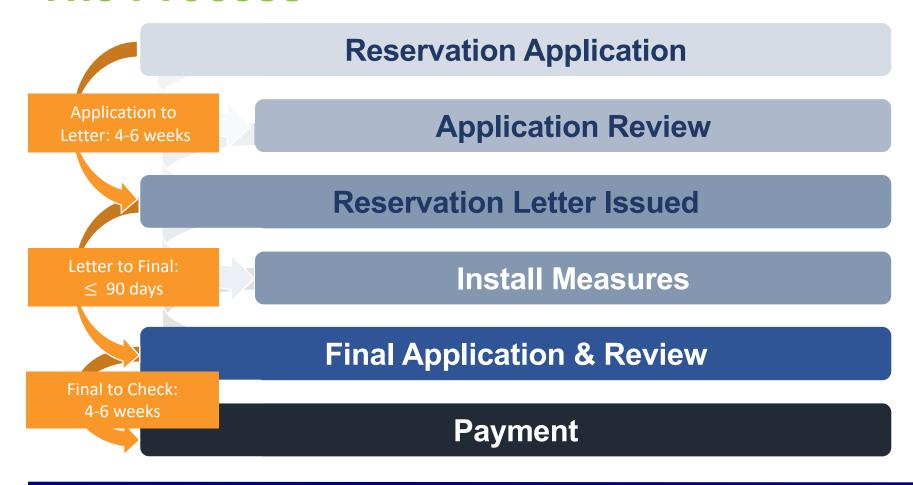
#### Don't forget these:

- Customer Information Sheet
- Invoices; manufacturer's spec sheets
  - Include reference numbers
- 3rd-party payment authorization (if applicable)
- Prescriptive/Custom Worksheets
- Signed Final Application Agreement
- DLC Product Codes (for lighting projects, if applicable)





#### The Process



## **ENERGY EFFICIENCY PROGRAM FOR BUSINESS**



### Thank You!



## Kerin Munhour

FCA CHRYSLER



#### Pays to Build

USGBC and DTE Energy Customer Testimonial

Kevin Dunbar, CEM, CMVP - Corporate Energy Group Supervisor ME - Facilities

Feb. 2019 Detroit, MI





























#### Fiat Chrysler Automobiles (FCA) Introduction









#### **WHO WE ARE**

235,915

**EMPLOYEES** 



159

**PLANTS** 

PRODUCT AVAILABLE IN

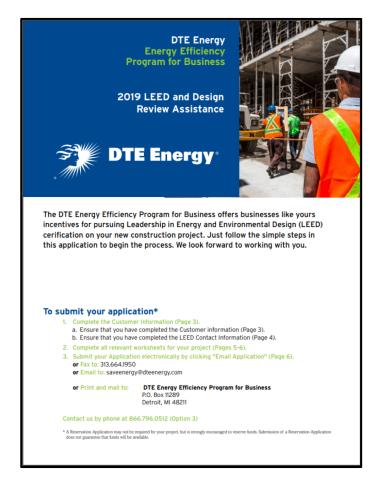
140

**COUNTRIES** 

#### **Maximizing Customer Incentives**







## FCA uses both applications to gather the maximum incentives

#### **Project Planning**



Announcement made for new building......Too late!!!!



NEED TO INFLUENCE
BUILDING GROUP/FACILITIES
BEFORE FUNDING / PLANS
ARE DRAWN

#### **Customer Testimonial - Planning**



- Review Corporate Technical Specifications
  - Ensure the specifications have considered energy efficiency
    - Ex: All new buildings for FCA must be LEED Gold certified

- Take an active role in project planning and bidding activities
  - Are your "energy" items included in bidding?
    - Ex: Departmental Weekly General Considerations Meeting
    - Access to LEED Online Project tracking



- Review project with DTE Energy Energy Efficiency Program for Business team, EARLY
  - Map out project items and discuss in detail
    - Ex: Worksheet per project, classify projects (NC/Retrofit)
    - LEED Design Review

#### **Customer Testimonial - Documentation**



- Rely on Trade Allies / General Contractors
  - To obtain proper documentation, work with contractors closely
    - Ex: Lighting W/Sq. Ft. calculation (Lighting Layouts) or "Documents"

- Obtain project drawings
  - Ensure you have the latest sets of drawings for project
    - Ex: Attention to MEP Schedules

- Discuss the Energy Efficiency Incentives available with team
  - Often \$\$\$\$ drives behavior
    - Ex: Documentation delay HVAC Incentive

		AIF	AH P	NDLIN	NG U	NIT SC	HEDUL	E		
UNIT NO.	LOCATION	AREA		CFM [l/s]		EXTERNAL STATIC PRESSURE	SPECIFIED INTERNAL LOSSES	UNSPECIFIED INTERNAL LOSSES	TOTAL	TYPE
	LOCATION	SERVED		SUPPLY	0.A.	(NOTE 1) IN[mm]	(NOTE 2) IN[mm]	(NOTE 3) IN[mm]	(NOTE 4) IN[mm]	SYSTEM
1-AH5	2nd FLOOR	SURGERY	1-SF5	20,000 [9439]	20,000 [9439]		2.0 [50]	1.0 [25]	5.5 [140]	VAV

#### NOTES:

- EXTERNAL STATIC PRESSURE REQUIRED AT DUCT CONNECTIONS TO INLET & DUTLET OF AHU.
  MEASUREMENTS SHALL BE TAKEN WITHIN 3 FT. [1.0 M] OF INLET AND DUTLET AT A POINT OF MAX
  ACCURACY.
- TOTAL OF MAX. PRESSURE DROPS OF COMPONENTS WHICH ARE SPECIFIED SEPARATELY, IE., PREFILTERS, AFTER FILTERS, HEATING & COOLING COILS, DIFFUSER PLATE, AND SOUND ATTENUATORS.
- INTERNAL LOSS ALLOWANCE SHALL INCLUDE LOSSES DUE TO ENTRANCE & EXIT OF AHU, MIXING BOXES
  DIFFUSER SECTION (OTHER THAN DIFFUSER PLATE) INCLUDING LOSSES DUE TO FAILURE TO PROPERLY
  CONVERT FAN DISCHARGE VELOCITY PRESSURE TO STATIC PRESSURE, FAN INLET CONDITIONS, CASINGS,
  HUMIDIFIERS, DAMPERS, ETC.
- 4. TOTAL FAN S.P. EXTERNAL STATIC PRESSURE + SPECIFIED INTERNAL LOSSES + UNSPECIFIED INTERNAL LOSSES. MANUFACTURER SHALL PROVIDE SUBMITTAL SHOWING ACTUAL LOSSES OF ALL EQUIPMENT PROVIDED. REFER TO FAN SCHEDULE FOR ADDITIONAL FAN SELECTION INFORMATION.

#### DESIGNER'S NOT

FOR AREA SERVED SHOW FUNCTIONAL AREA SUCH AS SURGERY, KITCHEN, LABORATORIES, ETC., WHERE APPLICABLE, OTHERWISE SHOW FLOORS SERVED, FOR TYPE OF SYSTEM INDICATE DUAL DUCT, MEDIUM PRESSURE, VARIABLE VOLUME, LOW PRESSURE REHEAT, MULTIZONE, VENTILATION SUPPLY UNIT, ETC.

#### **Customer Testimonial - LEED Modeling**



- Work with an expert
  - Ensure proper selection of modeling engineer / familiarity with ASHRAE 90.1
    - Ex: Lighting W/Sq. Ft. calculation (Lighting Layouts) or "Documents"

- Set project target early on
  - Ensure project team is aware of threshold to meet certification
    - Ex: Need to achieve XX% to qualify of EAP2 Minimum Energy Performance



- Model project based off prints
  - Plugging the knowns into the model early on will help influence future project decisions
    - Ex: Solar Heating for Restroom Hot Water

#### **Customer Testimonial - Celebrate Success**



- Plan for rebate dollars?
  - Can you use those dollars coming back to the facility?
    - Ex: State of the art metering project funding

- BIG checks
  - Work with DTE Energy Energy Efficiency Program Team to organize

- News Release Communications
  - Promote to external parties, tell the story about commitment to energy efficiency
    - Ex: Mopar PDC



Water usage reduced by 72 percent

compared to similar PDCs, resulting in savings of more than a million gallons of water — equivalent to usage of nearly 100 residential homes per year

- Award highlights FCA US commitment to building green, environmentally-friendly facilities

#### FCA and New Construction / LEED Success



- Over 6 Buildings LEED Gold Certified in US
  - Sterling Heights Assembly Plant South Paint Shop



- Mopar Parts Distribution Center Romulus
- Mopar Parts Distribution Center Winchester
- Sterling Heights Assembly Plant North Body and Paint Shops
- Trenton Engine Plant South Engine Manufacturing
- Mopar/ZF Partnership Marysville
- Paint Shops
  - (2) certified LEED Gold difficult / right formula



- More to come!!!!!
  - LEED certification buildings a given with any new construction project



# Thank you!

WWW.USGBCWM.ORG