



**DTE Energy<sup>®</sup>**

# **Utilization of business intelligence tools to drive results**

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# DTE Energy<sup>®</sup>

## Company Overview



## DTE Energy

- Largest operating regulated subsidiaries are DTE Electric and DTE Gas
- Approx. \$12B revenue, \$28B assets

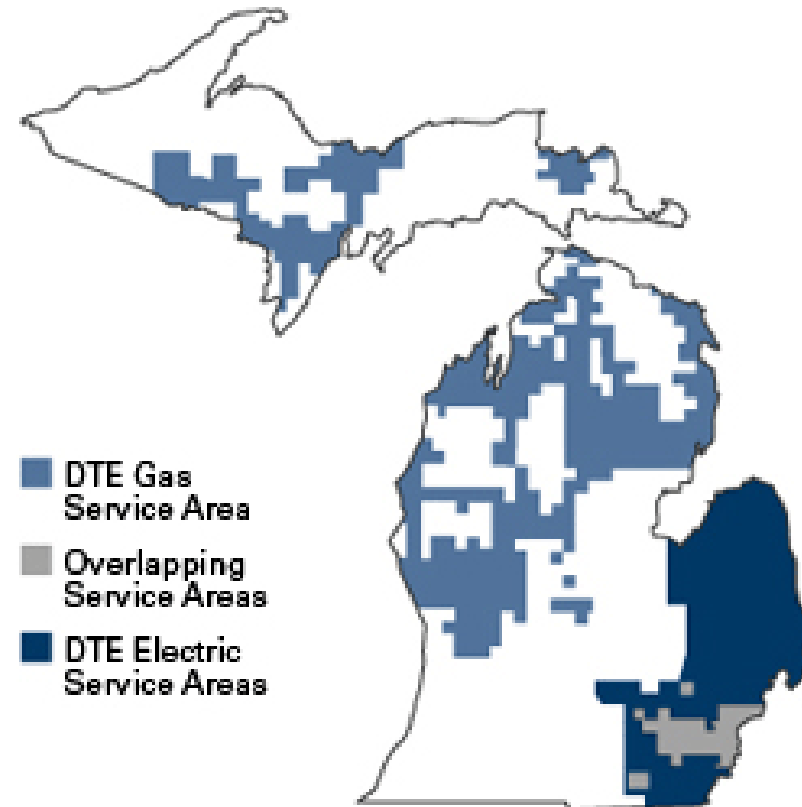
## DTE Electric

- Largest electric utility in Michigan with 2.1 million customers

## DTE Gas

- 1.2 million customers

## DTE Electric & Gas Service Territory



Energy Optimization is a program that the State of Michigan enacted by legislation (PA 295) to increase energy efficiency throughout the State of Michigan.

- Increase energy efficiency through education
- Reduce the electric and natural gas demand in Michigan
- Paid for by all customers via a surcharge placed on their electric and natural gas bills

# DTE Energy's EE Program Portfolio



## Residential Programs

- Appliance Recycling
- Multi Family
- Energy Efficiency Assistance
- ENERGY STAR
- HVAC
- Audit & Weatherization
- On-Line Energy Audit
- Home Energy Consultation
- Schools
- Home Energy Report

## Commercial & Industrial Programs

- Prescriptive
- Non-Prescriptive
- Self-Direct

## Education and Awareness Programs

- Residential
- Commercial & Industrial
- Employees

## Pilot Programs

- Residential
- Commercial & Industrial



# DTE Energy®

## Business Intelligence Tool Development



## Business Intelligence Tools

- Database creation
  - Small Business Customer Intelligence database developed specifically for reaching this under served market
  - Created DTE segmentation during development of project
- Dashboards
- Purchased Data
- Data Collected from on site audits

- To develop advanced customer analytic capabilities for *Small, Medium business* customers
  - Gathered relevant data from internal and external sources
  - Reviewed the industry segmentation for commercial customers
  - Developed tools and reports
  - Support targeted analysis and industry segment "deep-dive" profiles



## Dashboard Approach

- Joined together two databases in Tableau
  - Small, medium business versus Large C&I
  - Granular data which can be used for targeted marketing
  - Site and customer account level analytics
- Assists with market planning
  - Addresses some of the contributing factors for participation in EE

## Other sources of data

- Purchased
  - E-Source
  - Oxxford
- Collected by trade allies from participating EO customers then sent back to DTE for analytics and reporting.
  - Existing equipment age, condition, other system specific data

## SBCI Outputs and Reports Example

- Cross industry segment structure:
  - Summary level information for cross industry comparison and overall trends
- Industry segment deep-dive profiles:
  - In-depth profile information at an industry segment level for greater granularity of detail
- Customer targeting reports:
  - Reports that allow DTE to investigate opportunities to target specific customers

## SBCI Outputs and Reports Example Cont'd

### **Example Elements profiled for each segment**

- Participation and savings by commodity and measure
- Customer contact profiles by phone, web, IVR
- Geographic distributions of customers
- Number of customers and sites
- Total usage (site and account)
- Usage Profile
- Usage distribution

## Dashboard Outputs

- Understanding and driving customer participation
  - Level of participation (at site and account level)
  - Customer participation by segment
  - Customer participation by market
  - Measure adoption by market/segment
  - Opportunities

# Dashboard Screenshot



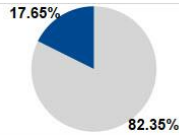
## Participation Details - by Customer

Shows Participation by Distinct and Total Customer Count

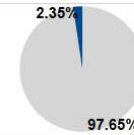
Participant?  
 Did not Participate  Participated

Is Active  
 (All)   
 Program Name  
 (All)   
 IC Transaction Date  
 7/1/2014 7/31/2015

### CSB Participation



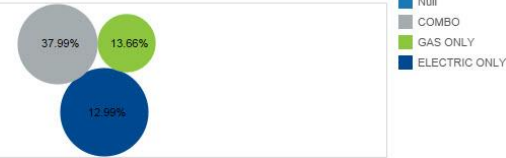
### KCS Participation



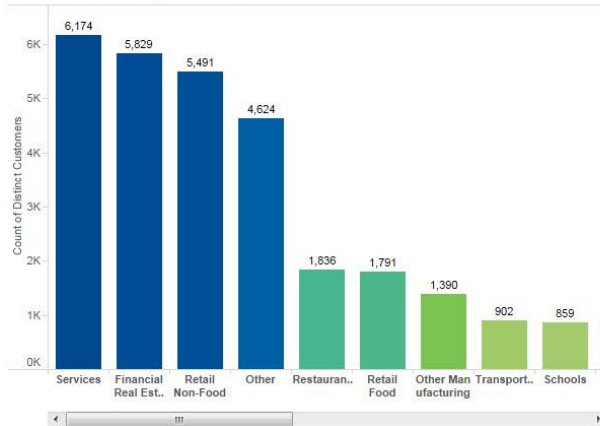
### Participation - Stats

Count of Cust Key	189,631
Customer Participated	32,818
Customer Participation Percentage	17.31%

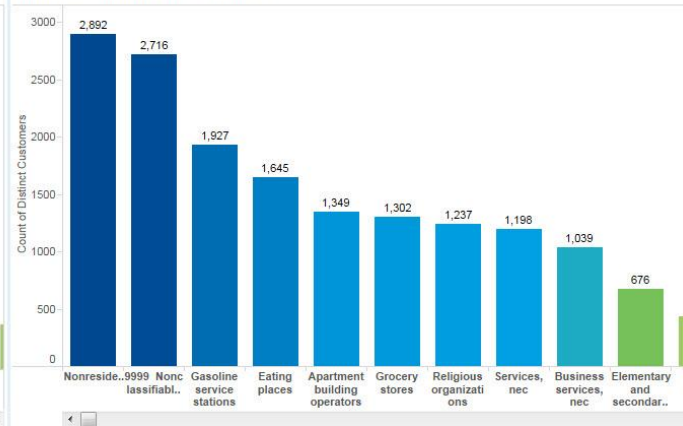
### Participation by Customer Type



### Customer Participation by Segment



### Customer Participation by Market



### Top 10 Measure Adoption





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# Implementation of Business Intelligence Tools



## C&I Incentive Program Marketing

- Identifying and reaching customers based on segmentation, past participation (or lack there of), billing system data
- By tailoring messages DTE can provide incentives and offers that are targeted and relevant to individuals
- Strategies differ depending on customer type
  - Large Customers
  - Small Business



# Strategies for making initial customer contact

Program Example: programmable thermostat postcard mailing

- Direct Mail
- Sent to small business customers based on energy type (gas/combo)
- Sent to geographic areas (excluding some areas, over-sampling others)
- Able to track participation back through “promo codes”



**WANT A FREE PROGRAMMABLE THERMOSTAT?**

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...just in time for the heating season!

Call: 866.796.0512 (press option 3)  
Email: [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com)  
Request online: [bit.ly/DTEfreeTstat](http://bit.ly/DTEfreeTstat)

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

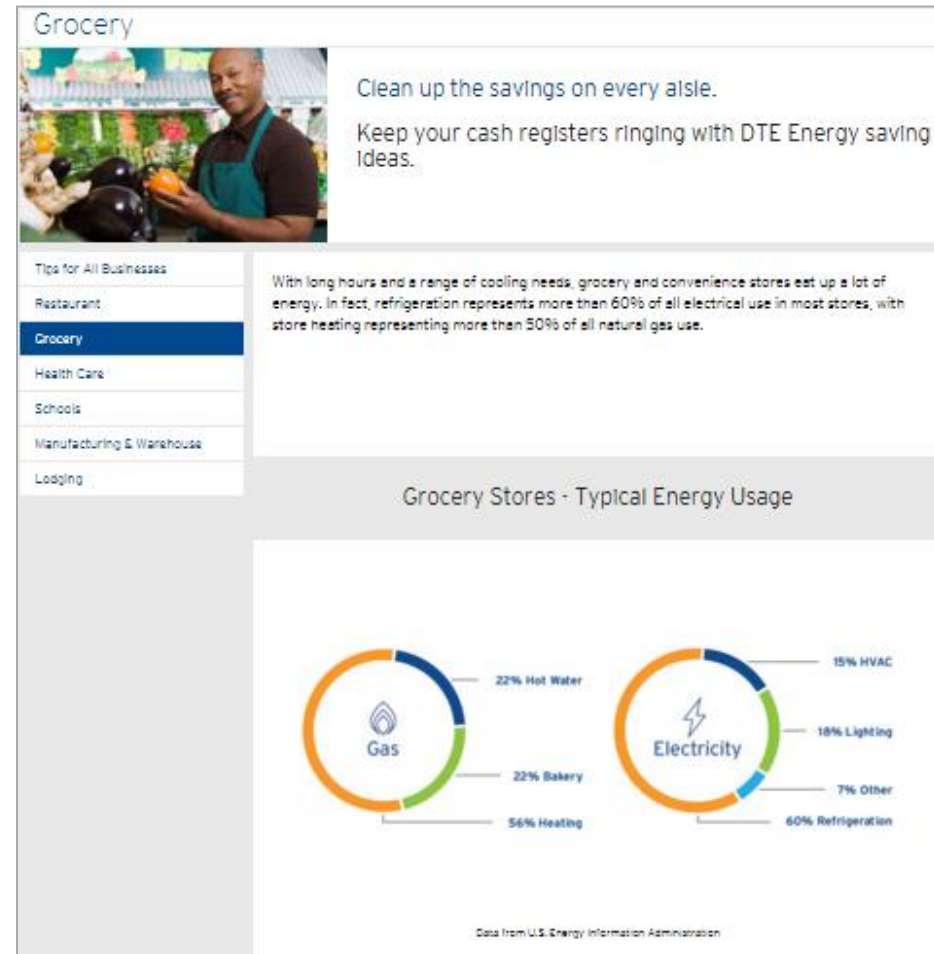
  
*Coffee*  
FAIR TRADE COFFEE

  
Respond by Oct. 23 and be entered for a chance to win tickets to a professional hockey game!

# Tailoring Messages for Individual Target Segments

## Segment specific bonuses and information

- Grocery stores
- Agriculture customers
- Large industrials



**Grocery**

Clean up the savings on every aisle.  
Keep your cash registers ringing with DTE Energy saving ideas.

With long hours and a range of cooling needs, grocery and convenience stores eat up a lot of energy. In fact, refrigeration represents more than 60% of all electrical use in most stores, with store heating representing more than 50% of all natural gas use.

Tip for All Businesses

- Restaurant
- Grocery**
- Health Care
- Schools
- Manufacturing & Warehouse
- Lodging

### Grocery Stores - Typical Energy Usage

Energy Type	Usage Category	Percentage
Gas	Heating	56%
	Bakery	22%
	Hot Water	22%
Electricity	Refrigeration	60%
	Lighting	18%
	HVAC	15%
	Other	7%


Data from U.S. Energy Information Administration

# Tailoring Messages for Individual Target Segments



## Agriculture Example

- Targeted mailing
- Attended rural workshops and networked
- Created set of incentives and application
- Resulted in 13 “satisfied” customers participating
  - 103,950 kwh
  - 51,017 MCF
  - \$115,882 incentives paid-out

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

**FACT SHEET** **2016 Agriculture Incentive Program**

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.

The Agriculture program is part of the DTE Energy Efficiency Program for Business, but is designed so that residential rate code customers also can apply.

Using a special 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, lighting, greenhouse equipment and fans and pumps. *(For a complete list, see the reverse side.)*


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

The Application provides detailed descriptions of each energy-saving measure and worksheets that will automatically calculate the incentives farmers can receive for installing those measures.



To get started, contact our office today by calling 866.796.0512 (press Option 3 and ask about our Agriculture program) or email us at [saveenergy@dteenergy.com](mailto:saveenergy@dteenergy.com).

We can walk you through the Application process, explain the specifications behind each measure and ensure that your farm is more energy efficient than ever!



## Results – Motivating Customers to Act



### Industrial Customer Custom Gas

- 26 Projects
- 318,182 MCF saved
- \$605,000 incentives

### Independent Grocers

- 76 Projects
- 10,348,220 KWH saved
- 1,789 MCF saved
- \$642,000 incentives



### Auto Dealerships

- 18 Projects
- 4,909,334 KWH saved
- \$524,000 incentives

- Using Continuous Improvement to build new/update dashboards addressing unserved markets
  - Further segmentation
- Understanding market potential for programs through dashboard utilization
  - Current C&I Pilots
    - Retro-Commissioning
    - Mid-stream
    - Energy Management Systems
    - EE to reduce substation peak load

Thank you!

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