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The purpose of this annual report is to highlight the general results of DTE Energy’s (DTE) 2014 Energy Optimization (EO) Program, communicate program changes, and provide policy overview and future guidance.

DTE’s EO Program launched in June 2009 as a result of the Clean, Renewable and Efficient Energy Act, also known as Public Act 295 (PA 295). DTE continued to build on its momentum from the 2009 launch by enhancing the scope of existing programs and adding new program options to the portfolio. Since 2009, more than 900,000 electric customers and over 560,000 gas customers have directly participated in DTE’s EO Program. Customers have upgraded equipment in their homes and their businesses, helping them to become more energy efficient, and they have been provided with education, tips, strategies and tools to help them save money on their energy bills. As a result, DTE has saved approximately 3,082 gigawatt hours (GWh) or more than 6 percent of planned retail sales for electric customers, and over 6,413 million cubic feet (MMcf) or more than 4 percent of planned retail sales for gas customers since the program started. The savings achieved so far will continue for years into the future.

During 2014, DTE implemented its EO Program as outlined in the Current EO Plan. The Company utilizes implementation contractors and has built strong networks to deliver energy efficiency programs throughout the State of Michigan. The Company has continued to provide energy efficiency education and raise awareness of EO offerings by enhancing the content of its website and expanding social media and contests to gain
further awareness by its customers. In 2014, the Company continued to utilize target marketing to meet segment specific needs for energy efficiency information. The Pilot Program process worked well in 2014, increasing the Company’s Pilot Program productivity. The Company’s ability to run the programs effectively has continued to improve through further maturity of systems and back-office processes.

Goals and Targets
The main operational goal of the 2014 EO Program was to maintain the momentum that the program achieved since the launch in 2009 by continuing to grow customer acceptance and adoption of EO measures. The 2014 goals were to:

1. Achieve legislated electric energy savings of 1 percent of 2013 planned retail sales or 534 gigawatt hours (GWh), and achieve legislated gas energy savings of 0.75 percent of 2013 planned retail sales or 1,305 million cubic feet (MMcf).
2. Ensure that EO Programs are cost effective. Cost Effectiveness Tests (CETs) are performed to ensure that the overall goal of reducing energy use in a cost-effective manner for the utility and its customers is being achieved. DTE uses the Utility System Resource Cost Test (USRCT) and the Total Resource Cost (TRC) test to measure the effectiveness of the various EO Programs. Specifically the goal of the EO portfolio (not including Low-Income) is to meet the minimum required USRCT score of 1.0. The Low-Income programs were excluded from the calculations because Section 71(3) (g) of PA 295 specifically excludes low income in the requirement for cost effectiveness.

Spending and Savings
Verified net energy savings are DTE’s reported savings after they have been adjusted based on the results of a review by our independent evaluation contractor, Navigant Consulting Inc. (Navigant), and the application of Installation Rate Adjustment Factors (IRAF) and Net-to-Gross Ratios (NTGR). In 2014, DTE applied a 0.9 NTGR to most programs. The exceptions to this include applying a 0.82 NTGR to CFLs in midstream programs and applying a 1.0 NTGR to Behavioral, Self-Direct, emerging programs, Low-Income, pilots and education programs. Planned savings refer to DTE’s Current EO Plan projected savings for 2014 as approved by the Michigan Public Service Commission (MPSC) on December 6, 2012 for DTE Gas and December 20, 2012 for DTE Electric.

Spend, as used in this annual report, refers to the cash expenditures or commitments made by DTE in implementing the EO Program. Spend does not contemplate the eventual treatment of such costs as operations and maintenance or capitalization.

The 2014 actual EO Program costs include: O&M expenses, pre-tax return on capitalized costs and return of capitalized costs (amortization) plus carrying charges on over/ (under) recovered balances.

DTE has adopted verified net savings for reporting of energy savings in 2014 as agreed to in the EO Collaborative. DTE’s EO Program resulted in total verified net electric savings of 681.6 GWh, or 1.42 percent of 2013 planned retail sales, as compared to the minimum legislative requirement of 478 GWh. For DTE Gas, the total verified net gas energy savings was 1,413 MMcf, or 0.89 percent of 2013 planned retail sales, as compared to the minimum legislative requirement of 1,209 MMcf.

In 2014, DTE Electric spent $84.8 million compared to the planned $85.0 million, whereas DTE Gas spent $24.1 million compared to the planned $24.6 million. The actual spend for DTE Electric was lower primarily due to lower spending on the Residential and Commercial & Industrial (C&I) Programs and Evaluation, Measurement & Verification Program.

The actual spend for DTE Gas was lower primarily due to lower spending on the Residential and C&I Programs, and Evaluation, Measurement & Verification Program.

Chart 1 summarizes the overall EO Program 2014 spending and verified net savings for DTE Electric and DTE Gas.

Each EO Program has its own spending and verified net saving requirements. For DTE Electric, collectively, the Residential and Low-Income programs provided 312 GWh of verified net energy savings, and C&I Programs, including Self-Direct, provided 328 GWh. DTE Electric achieved 41 GWh savings from the education and pilot programs. For DTE Gas, collectively, the Residential and Low-Income programs provided 658 MMcf of verified net energy savings, and C&I Programs, including Self-Direct, provided 644 MMcf. DTE Gas achieved 111 MMcf savings from the education and pilot programs.
Chart 2 displays program spending and verified net savings for the various EO Programs in 2014.

Long-term EO Impacts

Even though Michigan’s EO Programs are only five years old, they have matured quickly and regulators and other participants are already looking beyond the first-year energy savings goals set out in PA 295 toward longer-term goals, such as overall lifecycle savings, both in dollars and energy; the average life of measures being installed; and reduction in future peak. This section provides definitions and the 2014 EO Program results for a number of these measures of long-term interest.

I. Lifecycle Dollar Savings: This represents the dollar savings resulting from the current and future energy costs avoided as a result of an energy efficiency action over the effective life of that action. Lifecycle dollar savings may be presented for an individual measure, a collection of measures, a program or a portfolio of programs. As presented for DTE Energy’s programs the lifecycle dollar savings are based on verified net savings, which have been adjusted for free-riders. Lifecycle dollar savings are presented as the present value of those savings. This is not net of the program expenses and includes line losses.

Table 1 displays that DTE’s 2014 EO Programs produced very significant dollar savings for its customers for future years.

II. Lifecycle Energy Savings: This represents the total cumulative program energy savings (GWh or MMcf) produced by the energy-saving actions taken for all of the years in the particular actions’ effective lives. Again, as presented here these represent net energy savings with free-riders removed.
Table 2 displays the long-term energy savings associated with the cost savings in Table 1.

III. Peak Demand Reduction (kW): One particular concern for electric EO Programs is to achieve significant peak demand reductions to minimize the need for future power plants. This represents the aggregate reduction in DTE Electric’s service area load at the time of the Michigan zone of MISO’s expected peak demand that is estimated to result from the measures installed and actions taken by customers participating in the EO Program (nominally, from 3 to 7 p.m. on a weekday in July).

Table 3 shows that the DTE Electric 2014 EO Programs achieved significant demand reductions, as well as energy savings. All values shown as measured at the customers’ meters. Line losses are not included.

IV. Cost of Conserved Energy: The Cost of Conserved Energy expresses the measure, program, or portfolio costs in per unit terms based on the total energy savings over the effective lifecycles of the specific measures or actions taken. In this calculation the future years’ energy savings volumes are discounted by the appropriate discount rate to reflect time value of money. The starting point is, once again, net energy savings with free-riders removed.

Table 4 demonstrates how cost effective the 2014 EO Programs were in terms of the costs per unit of the energy savings achieved.

V. Weighted Average Measure Life: The average life, in years, of all the various measures installed or actions taken in a program or the entire portfolio when each measure’s life is weighted by the energy savings it produces relative to all the energy savings in the program or portfolio.

Table 5 summarizes the average measure life for the various 2014 EO Programs at the individual program level and for the program as a whole.
Cost Effectiveness

Cost Effectiveness Tests (CETs) are performed to ensure that the overall goal of reducing costs in a cost-effective manner for the utility and its customers is being achieved. DTE uses the Utility System Resource Cost Test (USRCT) and the Total Resource Cost (TRC) test to measure the effectiveness of the EO Program. The DSMore cost analysis tool was used to calculate and report cost effectiveness for the 2014 programs using the USRCT. Additionally, a TRC test was calculated for the DTE EO Programs. The TRC test is defined as the total avoided costs divided by the sum of program costs plus the participants’ costs.

There are two major groups of inputs that are used in DSMore. These include the utility input assumptions and the program inputs. Utility input assumptions contain information that is specific to the utility and include items such as load shape, the commodity and non-commodity cost of energy, customer energy rates, line losses, weather and discount rates.

The utility input assumptions used in this reconciliation analysis are the same as those that were used in developing DTE Electric’s and DTE Gas’s approved current EO Plan. Program inputs include: Participant costs, customer incentive costs, program costs, performance incentive costs, education costs and pilot costs. As indicated above, the CETs were calculated at program levels and for groups of programs, including the low-income programs, ten residential program groups and six C&I Program groups.

<table>
<thead>
<tr>
<th>Residential and Small Business ENERGY STAR® Products</th>
<th>$0.008</th>
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<tr>
<td>Residential Appliance Recycling</td>
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<td>Residential HVAC</td>
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<td>Multifamily—Standard (MFR)</td>
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<td>Residential Audit &amp; Weatherization</td>
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<td>Residential HEC</td>
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<td>Residential Schools</td>
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<td>Residential Online Energy Audit (OEA)</td>
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<td>Residential Behavior Programs (HER)</td>
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<td>Residential ALL</td>
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<td>C&amp;I C&amp;I Prescriptive</td>
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<td>C&amp;I Non-Prescriptive (C&amp;I Custom)</td>
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<td>C&amp;I ENERGY STAR Retail Lighting (ESL)</td>
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<td>C&amp;I Multifamily Common Areas (MFC)</td>
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<tr>
<td>Self-Direct</td>
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<td>Low-Income Audit &amp; Weatherization)</td>
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<td>Portfolio (No Low-Income Include Incentives)</td>
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DTE’s Current EO Plan resulted in meeting legislated energy savings minimums at a specific cost. As mentioned earlier, DTE Electric underspent its projected Amended EO Plan cost by $0.2 million and exceeded the legislated energy savings minimums by 202 GWh or 42 percent (681 GWh versus the legislated minimum of 478GWh). While DTE Gas underspent its projected Amended EO Plan cost by $0.5 million, legislated energy savings minimums were exceeded by 204 MMcf or 17 percent (1,413 MMcf versus the legislated minimum of 1,209 MMcf). Even before performing any cost tests, these two facts in combination show that the program was very cost effective. Based on the analysis performed using DSMore, DTE’s EO portfolio of programs passed the CETs. For DTE Electric, a USRCT score of
5.73 was achieved based on the 681 GWh verified net energy savings. For DTE Gas, a USRCT score of 4.56 was achieved based on the 1,413 MMcf verified net energy savings. In 2014, DTE Electric and DTE Gas collected $72.8 million and $28.4 million, respectively, in base EO surcharge revenue. “Base” surcharge revenue reflects EO actual revenue realized excluding the revenue recovery for authorized performance incentives. Revenues identified are the actual amounts that were billed to DTE customers (excluding Performance Incentive) in 2014 through the EO surcharges approved by MPSC. These surcharges appear as a line item on the customer’s monthly bill statement.

Chart 3 displays the 2014 revenues collected. Most of the variance in Chart 3 is due to changes in the weather forecast throughout the year.

Surcharges
Initial surcharges were established, approved by the Commission, and billed starting in June 2009 and continued through the first five months in 2010. Upon approval of the Amended EO Plan on June 3, 2010, revised surcharges were billed to DTE Electric and Gas customers beginning in June 2010. These surcharges continued to be billed in 2011. In addition, on February 8, 2011, the Commission authorized DTE to begin billing an incremental surcharge to recover the 2009 EO Plan performance incentive that was approved by the Commission in the 2009 DTE Electric EO Reconciliation. Beginning March 1, 2011 and ending on February 29, 2012, this surcharge was added to the base surcharge and billed to customers as one combined EO surcharge. On November 10, 2011, the Commission authorized DTE Electric and Gas to include an incremental surcharge, beginning January 1, 2012 and ending on December 31, 2012, to recover the 2010 EO Plan performance incentive as approved by the Commission in the 2010 DTE Electric and DTE Gas EO Reconciliations. On November 6, 2014, the Commission authorized DTE Gas to include an incremental surcharge, beginning January 1, 2013 and ending on December 31, 2013, as approved by the Commission in the 2013 DTE Gas EO Reconciliations.
Also, the Commission authorized DTE Electric to include an incremental surcharge on December 4, 2014 for the period beginning January 1, 2015 and ending on December 31, 2015.

**Electric and Gas Surcharge**
In 2014, EO base electric and gas surcharges remained constant for Residential and C&I customers when compared to the prior year. Charts 5 and 6 outline the 2014 EO base surcharges compared to the previous years. These charts exclude the performance incentive.

**Program Participation**
The number of customers participating in EO Programs has increased steadily each year since 2009 resulting in over 1.3 million electric and 760,000 gas customers in Residential and C&I Programs. In 2014, over 550,000 electric and 300,000 gas customers participated in the EO Program.

Charts 7 and 8 summarizes the number of customers participating in the EO Program by year.
Michigan's Energy Optimization (EO) standard, created under Public Act 295 of 2008 (PA 295 or the Act), requires all gas and electric utilities in the state to implement programs to reduce overall energy usage by specified targets, in order to reduce the future costs of gas and electric service to customers. This report complies with Section 95(2) (e) of the Act; summaries of the report’s major findings are below. Key elements of this legislation include the following:

**Energy Savings Targets**
- Electric utilities were required to achieve 0.3 percent savings in 2009; 0.5 percent in 2010; 0.75 percent in 2011; and 1.0 percent in 2012 and each year thereafter.
- Natural gas utilities must achieve 0.1 percent savings in 2009; 0.25 percent in 2010; 0.5 percent in 2011; and 0.75 percent in 2012 and each year thereafter.

**Compliance**
- Electric and gas utility providers must offer cost-effective EO and conservation programs to Residential, Commercial & Industrial (C&I) and Low-Income customers.
- Providers can operate their own EO compliance programs or fund a state program.
- EO plans must be filed, reviewed and approved or rejected by the Michigan Public Service Commission.
Funding
- Legislation limits annual spending for EO via a customer surcharge with revenue recovery capped at 1.7 percent for primary customers and EUT customers. Revenue recovery is capped at 2.2 percent for all other customers.
- Funds received from a customer class—Residential, C&I Secondary and C&I Primary—must be spent on that class. All classes will contribute toward Low-Income Residential Programs.

Utility (Performance) Incentives
- A financial incentive for utility providers can be earned for exceeding the EO performance standards.
- The total amount of a financial incentive shall not exceed the lesser of the following amounts:
  - 25 percent of the net cost reductions experienced by the provider’s customers as a result of implementation of the EO plan;
  - 15 percent of the provider’s actual EO Program expenditures for the year.
- In 2014, as in earlier years, 15 percent of the provider’s actual EO Program expenditures was the lesser amount and was used as the basis for the incentive.

EO Surcharges
The EO Programs are paid for by all customers via a surcharge placed on their electric and natural gas bills.
- The amount of the surcharge depends on the Rate Class—Residential, C&I Secondary and C&I Primary—that the customer resides in and how much energy they use. For C&I electric customers, the amount paid is also based on the number of meters.
DTE’s Energy Optimization (EO) Programs are designed to help reduce customers’ energy use by increasing customer awareness and use of energy saving technologies, and providing products and services such as rebates, tips, tools, strategies and energy efficiency education to help customers make informed energy saving decisions. Many of the programs in 2014 were continuations of programs launched in 2009, with a number of new programs subsequently implemented. DTE continually works to offer EO Programs that assure all customer segments are encouraged to participate. Programs are designed to capture both electric and natural gas savings. For those DTE customers with only electric or only natural gas service, efforts were made to coordinate and align with other utilities so that these customers could easily take advantage of energy efficiency program offerings across both fuel types.

**Program Offerings**

EO Programs include offerings available to residential customers, commercial and industrial customers, pilot programs, and general education and awareness programs. In addition, the Evaluation, Measurement & Verification (EM&V) function verifies net energy savings reported by the EO Programs. The programs are managed by DTE Energy program managers and operated by expert implementation contractors, primarily utilizing local labor and products.
Each program offers a combination of energy efficiency products, customer incentives or rebates, and education. Following is an overview of each program category:

- Residential Programs offer homeowners products, services and rebates encompassing appliance recycling; lighting; heating, ventilating and air conditioning (HVAC); weatherization; home energy assessments; low-income; energy education; and behavioral programs.

- C&I Programs offer businesses products; services; prescriptive rebates for specific equipment replacement such as lighting, boilers, pumps, compressors, etc.; custom programs providing rebates per kilowatt hour (kWh) of electricity savings or per thousand cubic feet (Mcf) of natural gas savings for a comprehensive system or industrial process improvement; and energy education and pilot programs.

- Pilot Programs focus on new and emerging experimental programs to fit longer-term program portfolio needs, test the cost-effectiveness of emerging technologies, and assess customer adoption of new technologies and market acceptance of existing technologies using new approaches.

- Education & Awareness Programs are designed to raise customer energy efficiency awareness in an effort to help save energy and to reduce energy costs. A secondary objective is to raise awareness of the DTE website and other social media, which provide channels for customers to engage in specific EO Programs offered.

EO Programs require independent verification of the utilities’ claimed energy savings. This work is performed by an independent Evaluation, Measurement & Verification (EM&V) contractor and must be performed to industry standards and guidelines developed by the Evaluation Workgroup of the MPSC EO Collaborative. Currently Navigant Consulting, Inc. fills this role for DTE.

Each year new program options continue to be added to the EO portfolio.

Refer to Figure 1 for a list of programs offered in 2014.
The objective of the Residential EO Programs is to increase customer awareness and demand for energy efficient products and services. In 2014, the Residential EO Programs used various marketing tactics and community outreach events to promote and inform customers of program offerings. These marketing tactics included specific program information conveyed through DTE’s website, email, social media (Facebook and Twitter), direct mail, bill inserts, newsletters, radio and television ads, billboards, advertisements in local newspapers, in-store events and home shows. New furnace testing/replacement program options were continued in the low-income space. Rebate amounts were adjusted to meet market demand and budget constraints. Details of each offering are provided later in this report. In 2014, DTE’s Residential EO Programs performed well. In total, the Residential EO Programs achieved 311.5 GWh of verified net electric savings, which is 153 percent of plan, and 657.9 MMcf of verified net gas savings, which is 114 percent of plan. In a recent internal benchmarking, DTE’s Residential EO Programs were ranked highly with respect to cost effectiveness and savings compared to other utility companies. Overall customer satisfaction with the programs was 95.3 percent for 2014.
Charts 9 and 10 summarize the electric and gas spending, and verified net energy savings for all the 2014 EO Residential Programs.

In addition, Chart 10 is a summary of the spending and verified net energy savings achieved by each Residential EO Program in 2014.

In 2014, over 540,000 electric customers and over 300,000 gas customers participated in the Residential EO Programs. Chart 11 summarizes the number of customers participating in the EO Program in 2014.
APPLIANCE RECYCLING PROGRAM  
(DTE Electric Only)

**Program Description**

The objective of the Appliance Recycling Program is to produce cost-effective, long-term annual energy savings by promoting the early retirement and recycling of operable, inefficient appliances from DTE Electric households in an environmentally safe manner. The program removes older inefficient working refrigerators and freezers from the electric grid and recycles 95 percent of the appliance. Customers can also recycle a dehumidifier or room air conditioner (A/C) when having a refrigerator or freezer picked up. Customers benefit by having the old equipment removed, receiving a rebate and using less energy in the future. At the same time, DTE educates its customers on the additional energy cost incurred by operating a second, inefficient appliance.

**Highlights**

- Customers received a $40 to $50 rebate for a refrigerator, $40 for a freezer and $20 for a dehumidifier or room A/C.

**Challenges**

- Finding customers who have a second refrigerator and then convincing them to recycle it.
- By the end of 2014, DTE had picked up appliances from 7.5 percent of our electric customers.

**Accomplishments**

- Cycle time, the amount of time from the customer contact to make an appointment, to the time the customer’s rebate check was mailed was 18.0 days, which is 28 percent below the target of 25 days.

**Collaboration Efforts**

- DTE collaborated with Sears and ABC Warehouse to pick up old refrigerators and freezers when delivering new ones.
- Sears and ABC Warehouse increased their share of pickups to 14.0 percent of total units in 2014 compared to 13.8 percent in 2013 and 10.1 percent in 2012.

**Lessons Learned**

- Customers are satisfied with all aspects of the program (96 percent satisfied in 2014).
- In 2014, friends and relatives became the number one way customers heard about the Appliance Recycling Program with 31 percent of customers identifying a friend or a relative determining how they found out about the program. Television advertising, launched in April came in second with 26 percent, making this the top performing marketing channel. Bill inserts came in third at 19 percent.
Spend and Verified Net Savings Results

- DTE Electric spent $5.1 million on the Appliance Recycling Program in 2014. This amount was on track with plan.
- This program is offered to residential electric customers and not to gas customers, so there is no gas savings or spend.

Chart 12 summarizes the 2014 DTE Electric spend and verified net savings results for the program.

Program Participation

- Customer participation in the program has consistently increased since 2009.

Chart 13 summarizes the number of customers who have participated in the program since 2009.

Program Outlook

- As the program grows more mature and the proportion of customers who have already participated increases, it will be harder to achieve goal because there are less inefficient appliances on the grid.
- The program’s marketing mix was changed for 2014 to increase television ads.
- Spending and savings from the program are expected to continue at similar rates for 2015.

Chart 14 summarizes the spending and savings projections beyond 2014 for the program.
ENERGY STAR® LIGHTING AND APPLIANCES PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the residential ENERGY STAR Products Program is to increase the awareness and sales of high efficiency ENERGY STAR products among residential customers. The program was designed to spur customer interest by providing educational information and incentives to customers who purchase qualified ENERGY STAR equipment. The primary means used to accomplish this objective were in-store site visits, point-of-purchase material and promotional events that were held throughout the year.

The program helps customers reduce the cost of being energy efficient by providing rebates and/or discounts on ENERGY STAR certified products. The certified appliances include clothes washers, dehumidifiers and room air conditioners.

The program also provides upstream discounted compact fluorescent light bulbs (CFLs), light emitting diodes (LEDs) and LED holiday light strings at over 370 retailers, midstream incentives on consumer electronics, and downstream rebates on clothes washers, room air conditioners and dehumidifiers. Programmable thermostat downstream rebates are also provided. Certified consumer electronics include televisions, personal computers and monitors.

Highlights
• DTE Electric offered $25 rebates for ENERGY STAR qualified clothes washers, dehumidifiers and room air conditioners. Programmable thermostats had a $20 rebate.
• These rebates were available to customers by mail or online application.
• The appliance downstream program rebated over 15,700 electric and over 8,200 gas appliances.
• In 2014, the Consumer Electronics Program midstream incentive for retailers to increase shelf space and inventory of ENERGY STAR consumer electronics, to include approximately 66,000 televisions, computers and monitors.

Challenges
• LED bulb savings are still not as cost effective as CFL bulb savings.
• Gas savings goals have been challenging to meet as there are only two cost-effective products that produce gas savings: clothes washers and programmable thermostats.
Accomplishments

• DTE sold approximately 4.1 million CFL bulbs, 543,000 LED bulbs and 111,000 holiday light sets through manufacturer buy-downs at the retailer level and via in-store coupons at small independent hardware stores.
• Customers are very positive about the program as evidenced by a 94 percent satisfaction rating in 2014.
• Cycle time, the time from application to the time the customer’s rebate check is mailed, was 23 days, which is 23 percent below the target of 30 days.
• The program participated in 410 in-store and community events to interact with customers.

Collaboration Efforts
The program collaborates with local and national retailers such as ACO Hardware, Meijer, Family Dollar, The Home Depot, Lowe’s, ACE Hardware, Dollar Tree, Costco, Sam’s Club, Wal-Mart, Best Buy, ABC Warehouse and Sears to help our customers become more efficient.

Lessons Learned
• Customers are very excited about LED technology and as the prices have fallen customers are ready to try product in their homes.
• Our new LED promotional event held in October had a large impact on driving LED sales into the holiday shopping season. Holding the event in the summer may help increase sales during the traditional summer lull.

Program Participation
• Customer participation in the ENERGY STAR Appliance Program stabilized in 2014.
• Customer participation in the ENERGY STAR Lighting Program increased through 2012 and has leveled off since.

Lessen and Verified Net Savings Results
• DTE Electric saved 154.2 GWh of verified net energy savings. This was 45.6 GWh more than the plan.
• DTE Gas spent $0.2 million on the ENERGY STAR Program. This amount was on target with the plan.
• DTE Gas saved 17.4 MMcf of verified net energy savings. This was 3.0 MMcf lower than the plan.

Chart 15 summarizes spend and verified net savings results.

Program Outlook
• In 2015, we expect the number of CFLs discounted to stay flat while including a higher number of LED discounts.
• Spending is expected to increase slightly beyond 2014, whereas savings are expected to decrease. This decrease is largely due to expected changes in lighting and appliance standards.

Chart 18 summarizes the spending and savings projections.
HEATING, VENTILATION, AND AIR CONDITIONING PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the Heating, Ventilation, and Air Conditioning (HVAC) Program is to increase the
demand for energy-efficient heating and cooling equipment and high-efficiency water heating equipment.
The electric measures offered in the residential HVAC Program include high-efficiency central A/C units,
programmable thermostats and Electronically Commutated Motors (ECM). Gas measures include
high-efficiency natural gas heating equipment and water heaters. DTE has developed and utilizes a
network of well informed and educated HVAC industry professionals who understand the benefits of
and how to sell energy-efficient products.

The program serves residential customers in single- and multifamily dwellings of four units or less who
purchase new high-efficiency central air conditioning units, high-efficiency natural gas furnaces or boilers
and/or water-heating equipment.

Highlights
• In 2014, the DTE HVAC measure offering was received well by both the homeowner and the
participating contractors. Electric measures included SEER 15 and above central air conditioners,
Electronically Commutated Motors (ECM) and programmable thermostats.
• The incentive amounts were $10–$20 per programmable thermostat unit, $100 per ECM, $150 for
SEER 15+ central A/C units, $200–$300 for high-efficiency furnaces and $1,000 for high efficiency
boilers, up to $100 on high-efficiency water heaters and a $50 rebate on furnace and boiler diagnostic
test and tune-ups with combustion analysis.

Challenges
• Maintaining electric measures funding to support submissions of gas measures at combination
DTE Electric and DTE Gas customers, where technology impacts both fuels and dual rebates are
appropriate, has been challenging.
• Extended funding allowed us to continue to accept rebate applications for these joint measures,
allowing gas applications to continue until the end of the year. This ensured that homeowners received
their complete rebate amount for all measures applied for, which promoted homeowner satisfaction.

Accomplishments
• DTE continued to leverage its very active trade ally network to maintain the momentum as the
program transitioned into 2014.
• Over 21,000 HVAC customer applications were processed.
The electric measures continue to be a very positive factor for the program.

Homeowners were very pleased to be able to get rebates for higher-efficiency air conditioning systems.

Cycle time, the time from application to the time the customer’s rebate check is mailed, was 20 days, which is 20 percent below the target of 25 days.

Collaboration Efforts

Meetings were held throughout the state to inform and train the trade ally network. These included rollout training, combustion analysis furnace tune-up training, new contractor training and one-on-one site training with trade allies. Table 6 provides a summary of the collaboration efforts.

<table>
<thead>
<tr>
<th>Event</th>
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<th>Attendance</th>
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</thead>
<tbody>
<tr>
<td>In-Person Rollout Training</td>
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<td>33</td>
</tr>
<tr>
<td>Outreach and Conference</td>
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<td>181</td>
</tr>
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<td>Tune-Up Training</td>
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<td>Webinar Training</td>
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<td>211</td>
</tr>
</tbody>
</table>

Lessons Learned

2014 saw high demand for rebates from customers and participating contractors. Even as rebate amounts were lowered, additional funds had to be added to meet the high demand from customers.

Spend and Verified Net Savings Results

DTE Electric spent $2.1 million on the HVAC Program. This amount was $0.8 million more than the $1.3 million plan.

DTE Electric saved 7.8 GWh of verified net energy savings. This was 5.2 GWh more than the 2.6 GWh plan.

DTE Gas spent $4.2 million on the HVAC Program. This amount was $0.4 million lower than the $3.8 million plan.

DTE Gas saved 231.9 MMcf of verified net energy savings. This was 191.3 MMcf more than the 40.6 MMcf plan.

Chart 19 summarizes the spending and verified net savings results.

Program Participation

Customer participation in the program has increased steadily since 2009.

Chart 20 summarizes the number of customers who have participated in the program.

Program Outlook

Because the cost per Mcf saved is higher than other gas energy efficiency programs, DTE is looking at different models that provide other value propositions besides incentives to the customer to encourage participation in the HVAC Program.

A/C measures of 15 SEER or higher and ECM motors will continue to be offered in the electric service territories of DTE Energy. The electric portion of the HVAC Program has been a popular addition and will continue to promote customer satisfaction in the field.

The program will continue to provide rebates for high-efficiency furnaces, boilers and water heaters. This will give DTE Gas customers the opportunity to improve the energy efficiency of their homes by installing high-efficiency gas equipment in their homes.

Changing national standards for HVAC equipment will impact both expected savings and program spend. It is expected that these numbers will be reviewed in 2016.

Chart 21 summarizes the spending and savings projections. The gas savings values presented in the charts were forecasted assuming the new standards are implemented in the future.
Program Description
The objective of the residential Audit & Weatherization (A&W) Program is to motivate customers by offering rebates for the installation of qualified weatherization measures in their homes. The A&W Program was expanded to offer many diverse products and services to DTE customers. Following is a summary of the program offerings:

- **Home Performance (HP):** offers customers a higher-tier rebate to perform multiple insulation, window and HVAC improvements by rewarding them with bonus incentives for completing three or more measures.
- **HP customers** are required to have a comprehensive energy assessment performed by a participating contractor listed on DTE’s website.

Challenges
Providing a broader set of options for customers to participate in the residential A&W Program came with a new challenge.

- Due to the cost effectiveness of the program, less funding was allocated to meet customer demand. DTE will need to experiment with new approaches other than rebates in order to improve cost effectiveness.

Highlights
Customers who completed a comprehensive energy assessment were paid higher rebates for weatherization measures than those who did not complete an assessment, subject to specific rebate caps. Those who participated in the HP Program were also offered the new multi-measure bonus incentive. The amount of the bonus incentive equaled $150 for 3 qualifying measures, $200 for 4–6 measures and $300 for 7+ measures.

Accomplishments
- **DTE** simplified the rebate process for the customer by implementing an online application tool utilized by participating contractors to apply on the customer’s behalf.
- More than 50 contractors were trained and enrolled into the HP Program. Nearly 80 percent of customers who participated through the HP Program performed three or more energy-efficient improvements to their home. Availability of the multiple-measure customer bonuses contributed to this accomplishment.
Collaboration Efforts
- Customer outreach was performed through attending events with organizations such as Michigan Saves and the Avoid Energy Drama initiative.

Lessons Learned
- The Michigan HP market has evolved such that it resonates more with customers to focus on comfort and health/safety. There was a great demand for standalone insulation and windows rebates (without CEA required). The multiple measure bonuses are pushing customers to pursue comprehensive improvements – 80 percent of HP applications contained 3+ measures.

Spend and Verified Net Savings Results
- DTE Electric spent $0.4 million on the A&W Program. This amount was on target with the plan.
- DTE Electric saved 0.1 GWh of verified net energy savings. This was on target with the plan.
- DTE Gas spent $1.1 million on the A&W Program. This amount was $0.7 million less than the $1.8 plan.
- DTE Gas saved 9.9 MMcf of verified net energy savings. This was 1.6 MMcf less than the 11.5 MMcf plan.

Chart 22 summarizes the spending and verified net savings results.

Program Participation
Chart 23 summarizes the number of customers who have participated in the A&W Program.

Program Outlook
- The Home Performance Program will continue to explore opportunities to expand the program and test new approaches to meet customer demand.
- DTE Electric and DTE Gas spending and savings are expected to stay flat to 2015.

Chart 24 summarizes the spending and savings projections beyond 2014.
**SCHOOL PROGRAM**  
(DTE Electric and DTE Gas)

**Program Description**  
The School Program’s primary objectives are to develop a powerful culture of energy efficiency with elementary school students, teachers, schools and families throughout the DTE Energy service territory, in both public and private sectors, to deliver real, measurable energy savings.

The School Program provides non-traditional opportunities to raise awareness and the adoption of energy efficiency measures and behaviors and to help the environment. Each participating teacher and student received a kit filled with energy-efficient technologies and a guide with information on energy resources and energy saving tips. Students are instructed to install all products with adult supervision in their residence. Instructional materials have been designed to correlate with the State of Michigan math and science curriculum for 4th and 6th grade students.

**Challenges**  
- Verification of energy savings has been a challenge and resulted in a big adjustment to energy savings when applying the installation rate adjustment factor.

**Highlights**  
- In 2014, 347 schools, 32,318 students and 1,147 teachers participated.
- Program is in high demand and all school visits are reserved well in advance. This translates into highly accurate forecasts of spend and savings.

**Accomplishments**  
- The School Program continues to enjoy a high level of word-of-mouth promotion that generates a waiting list of schools registering for the program each semester.

**Collaboration Efforts**  
- In 2014, the School Program expanded to include schools in areas served by both DTE Energy and Efficiency UNITED, resulting in less disruption to students and teachers, increased market exposure for both utilities, and making both programs more attractive to participants. This also resulted in a distribution of an additional 1,461 kits. The School Program is the only residential program that implements two collaborations.
Lessons Learned

- A new optical scanning system and software for returned data were implemented in fall of 2014. This allows for teachers surveys to be processed faster, resulting in reduced labor hours and costs by $53,000. The savings achieved allowed DTE Energy to provide branded Energy Monitors and Thermometer/Hygrometers with lesson plans to 1,052 participating teachers to continue the student energy efficiency journey.
- The use of LEDs and Installation Instructions in school kits was piloted in 2014 and will be standard in all 2015 kits.
- Bilingual installation instruction inserts for kits were piloted in 2014 and will be standard in all 2015 kits.
- Enhanced auto emails for communication with teachers included links to program documents and shipment tracking numbers. This resulted in fewer calls/emails requesting additional materials and completely eliminated additional material shipments to teachers.

Spend and Verified Net Savings Results

- DTE Electric spent $0.7 million on the School Program. This amount was on target with the plan.
- DTE Electric saved 4.2 GWh of verified net energy savings. This was 0.3 GWh more than the 3.9 GWh plan.
- DTE Gas spent $0.7 million on the School Program. This amount was on target with the plan.
- DTE Gas saved 62.4 MMcf of verified net energy savings. This was 43.7 MMcf less than the 106.1 MMcf plan.

Chart 25 summarizes the spending and verified net savings results.

Program Participation

Chart 26 summarizes the number of customers who have participated in the School Program.

Program Outlook

Chart 27 summarizes the spending and savings projections beyond 2014.
ONLINE ENERGY AUDIT PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the Online Energy Audit Program is to provide a no-cost energy program that is available to all residential customers while producing electric and gas energy savings through a kit containing easy-to-install energy-saving measures mailed to the home. Energy efficiency information and recommendations are also delivered with the kit as well as being available online. The measures mailed in the kit include CFLs, LED night lights, energy-efficient showerheads, energy-efficient kitchen and bath aerators, and pipe wrap insulation.

Challenges
Motivating customers to install all of the provided measures remains a challenge. This causes a low IRAF which reduces the amount of energy that can be claimed for this program.

Accomplishments
- The Online Energy Audit Program continues to provide an easy way for customers to get started with their energy efficiency journey.
- In 2014, over 17,000 kits were mailed to DTE Energy customers.

Collaboration Efforts
- There are currently no collaboration efforts with this program.

Lessons Learned
- Verifying lead time for ordering inventory.
- Program can easily be adjusted if exceeding or lagging behind goals.
Spend and Verified Net Savings Results

- DTE Electric spent $0.7 million on the Online Energy Audit Program. This amount was $0.3 million higher than the $0.4 million plan.
- DTE Electric saved 4.3 GWh of verified net energy savings. This was 3.3 GWh more than the 1.0 GWh plan.
- DTE Gas spent $0.4 million on the Online Energy Audit Program. This amount was on target with the $0.4 million plan.
- DTE Gas saved 20.2 MMcf of verified net energy savings. This was 17.6 MMcf less than the 37.8 MMcf plan.

Chart 28 summarizes the spending and verified net savings.

Program Participation

Chart 29 summarizes the number of customers who have participated in the Online Energy Audit Program.

Program Outlook

Chart 30 summarizes the spending and savings projections beyond 2014.
BEHAVIOR PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the Behavior Program is to encourage select customers to be more energy efficient by means of social competition and social norming. Encouragement is provided by way of printed Home Energy Reports that display the customer’s energy usage in comparison with average energy usage of approximately 100 nearby similar homes and a second comparison with the customer’s most efficient nearby similar homes (the top 20 percent). The Home Energy Report also contains the customer’s individual ranking within the group of 100 homes, energy-saving tips and promotions for other energy efficiency programs. The customer is sent a Home Energy Report via the USPS, and an abbreviated email version of the Home Energy Report is sent to customers with an available email address.

Challenges
• Comparisons shown on the letters have not always been well received by customers.
  The opt-out process needs to be managed to prevent customer dissatisfaction.

Highlights
• In 2014, over 388,000 customers received the Home Energy Report.

Accomplishments
• The Behavior Program introduced a very cost-effective plan to generate energy savings while expanding the reach of our portfolio of energy efficiency programs.

Collaboration Efforts
• There are currently no collaboration efforts with this program.

Lessons Learned
• The Home Energy Reports will be modified to more prominently display the customer service phone number. The customer service team will help answer questions and manage opt-out requests.
• A new Welcome Letter will be revised to better explain the purpose and intent of the Behavioral Program to customers, and incorporate a more customer friendly tone.
• Behavioral Program FAQ’s will be updated to better explain program particulars.
• Updated language will be incorporated into all documentation (e.g. changing the term “neighbors” to “similar homes”) in 2015 to more accurately reflect comparison data factors.
Spend and Verified Net Savings Results

- DTE Electric spent $3.9 million on the Behavior Program. This amount was $0.6 million higher than the $3.3 million plan.
- DTE Electric saved 62.4 GWh of verified net energy savings. This was 37.0 GWh more than the 25.4 GWh plan.
- DTE Gas spent $0.3 million on the Behavior Program. This amount was $0.1 less than the plan.
- DTE Gas saved 133.2 MMcf of verified net energy savings. This was 60.0 MMcf more than the 73.2 MMcf plan.

Chart 31 summarizes the spending and verified net savings results.

Program Participation

Chart 32 summarizes the number of customers who have participated in the Behavior Program.

Program Outlook

Chart 33 summarizes the spending and savings projections beyond 2014.
HOME ENERGY CONSULTATION PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the Home Energy Consultation (HEC) Program is to provide a no-cost energy education program that is available to all residential customers with a single-family home while producing immediate energy savings through the direct installation of energy-saving measures in the home.

Energy efficiency education is delivered at all phases of the home visit to the homeowners or tenants while the direct installation is occurring. Typical in-unit measures include CFLs, LED night lights, energy-efficient shower heads, energy-efficient kitchen and bath aerators, programmable thermostats and pipe wrap insulation.

Challenges
• HEC has been around since 2010 and thus much of the low-hanging fruit has been harvested. Collaboration with other utilities will be key to maintain the cost effectiveness and reach of this popular program.

Highlights
• In 2014 there were over 29,000 HECs completed throughout the DTE service territory. These include approximately 18,600 gas/electric combination customers, 4,600 electric-only customers and 5,800 gas-only customers. Approximately 40 percent of the HEC customers were classified as low-income.
• Developed collaborative efforts for HEC to work with Consumers Energy in 2015.

Accomplishments
• As a key component of our first touch strategy, the HEC Program continues to collect information helpful in conducting targeted marketing so that customers can continue their energy efficiency journey.
• The HEC options’ outreach efforts also supported all of the DTE Customer Assistance Days and many resource fairs, as well as partnerships with multitudes of other community groups and religious organizations.

Collaboration Efforts
• The HEC Program began collaboration efforts with Consumers Energy by planning a pilot to jointly offer HEC-type service to shared customers. Consumers Energy currently offers a very similar service to its customers.
It is anticipated the partnering with Consumers Energy will facilitate a better experience for shared customers by providing the installation of all measures in a single visit, while improving the cost effectiveness of the program.

Lessons Learned
- The HEC option was able to use existing marketing and outreach levers, which were effective in spurring or slowing the market as needed.

Spend and Verified Net Savings Results
- DTE Electric spent $3.2 million on the HEC Program. This amount was on target with the plan.
- DTE Electric saved 10.7 GWh of verified net energy savings. This was 4.5 GWh more than the 6.2 GWh plan.
- DTE Gas spent $1.5 million on the HEC Program. This amount was on target with the plan.
- DTE Gas saved 40.6 MMcf of verified net energy savings. This was 36.5 MMcf less than the 77.1 MMcf plan.

Chart 34 summarizes the spending and verified net savings results. (Does not include low-income homes.)

Program Participation
Chart 35 summarizes the number of customers who have participated in the HEC Program (does not include low-income homes).

Program Outlook
- The HEC Program is looking to leverage its high-quality customer touch to create continuing customer engagement in 2015.
- Spending and savings are expected to stay relatively flat beyond 2014.

Chart 36 summarizes the spending and savings projections beyond 2014.
Program Description
The objective of the Multifamily Program is to produce energy savings in multifamily buildings with five or more units under one contiguous roof through the direct installation of energy saving measures. Typical in-unit measures include CFLs, LED night lights, energy-efficient showerheads, energy-efficient kitchen and bath aerators, programmable thermostats and pipe wrap insulation where the units have electric water heating. There is no cost for the in-unit installations. Energy efficiency education is also delivered at all phases of the project to property owners, managers and to individual tenants. Since the Multifamily Program is a direct-install program, tenants do not receive incentive payments.

In the building common areas, energy-efficient measures may be installed as well. Building owners receive rebates and are responsible for paying a portion of the cost of the installed common area measures. Energy savings and costs for measures installed in the common areas are included in the Commercial & Industrial Prescriptive Program for reporting purposes. The implementation contractor directly installs CFLs, LEDs, incandescent exit sign bulb replacements, energy-efficient showerheads, faucet aerators and pipe wrap for qualified properties at no cost to customers.

Highlights
• 27,527 units were outfitted with energy-efficient measures.
• 163 electric “common area” jobs were completed.
• 112 gas “common area” jobs were completed.

Challenges
• Diminishing opportunities as program matures.

Accomplishments
• The direct-install addition to the common area component of the program is a low-cost feature that provides greater energy savings opportunities for the program, and increases customer satisfaction.
Collaboration Efforts
• The Multifamily Program was the first EO Program to initiate a collaborative effort with another utility (Consumers Energy).
• Working together to jointly serve utility customers with both Consumers Energy (CE) and DTE Energy (DTE) service maximizes customer participation and satisfaction as follows:
  – Fewer visits and less disruption to owners and tenants.
  – Helps make both programs more attractive to potential customers.
  – Increases market reach for both teams.
• Shared learnings among the parties (DTE, CE, SEEL and Franklin Energy Services).
• During 2014, 12.6 percent of all direct-install units were accomplished via collaborative effort.

Lessons Learned
• As the program matures, measure opportunities decrease as do the remaining untouched property sizes, making it more difficult to meet energy savings goals.
• In response to these challenges new measures were added in 2014, including LEDs, specialty CFLs, furnace tune-ups and a direct-install component to the common area portion of the program.

Spend and Verified Net Savings Results
• DTE Electric spent $1.5 million on the Multifamily Program as planned. This amount was on target with the plan.
• DTE Electric saved 6.2 GWh of verified net energy savings with the Multifamily Program. This was 2.3 GWh more than the 3.9 GWh plan.
• DTE Gas spent $0.6 million on the Multifamily Program. This amount was $0.1 million more than the planned $0.5 million.
• DTE Gas saved 26.4 MMcf of verified net energy savings. This was 21.2 MMcf less than the 47.6 MMcf plan.

Chart 37 summarizes the 2014 DTE Electric and DTE Gas spend and verified net savings results for the program (does not include low-income multifamily units).

Program Participation
• Low-income segment customer participation (does not include low-income multifamily units) is counted in the 2014 numbers on Chart 38.

Chart 39 summarizes the spending and savings projections.

Program Outlook
• Spending and savings targets are expected to remain flat for 2015.

Chart 39 - Multifamily Program Outlook
LOW-INCOME PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the Low-Income Program is to provide recommendations, financial assistance and education to income-qualified DTE customers and assist them in reducing their energy use and managing their utility costs. The program leverages the services provided by member agencies of the Michigan Community Action Agency Association (MC AAA), municipalities, counties, public housing commissions, faith-based institutions, community development corporations and nonprofit organizations with existing housing and energy programs. It also works with a select number of independent contractors when needed. This vast network of participating organizations not only offers comprehensive assistance, but also assists DTE in identifying income-qualified customers. The residential Low-Income Program also was designed to include customers residing in designated low-income multifamily units.

DTE does not pay incentives directly to its income-qualified customers. The Low-Income Program delivers “incentive” funding to these customers through a variety of in-kind services. The services include weatherization plus the replacement of inefficient refrigerators with ENERGY STAR® model refrigerators in single-family homes and low-income multifamily tenants, and in-home consultation and installation of energy-efficient measures through the Home Energy Consultation (HEC) Program for income-qualified customers. In addition, low-cost measures such as CFLs, pipe wrap, energy-efficient showerheads and faucet aerators are installed at no cost to low-income multifamily tenants.

Highlights
• The program offers a wide range of whole home, home performance centric energy-efficient measures to low-income households.
• The energy-efficiency improvements made to homes with support from this program included installation of ENERGY STAR certified CFL light bulbs and refrigerators, hot water pipe wrap insulation, energy-efficient showerheads and kitchen and bathroom faucet aerators, insulation (of attic, wall, band joist and mobile home belly among other areas) and programmable thermostats; improvements made also included sealing cracks to reduce air leakage, and heating system tune-ups or replacements (where health and safety issues were present).
• In 2014, the program continued to expand its network of community action agencies, nonprofit organizations and local units of government to increase program participation across the state.

Challenges
• New federal ENERGY STAR refrigerator standards that went into effect in 2014 caused delays in manufacturing and delivery of qualifying replacement refrigerators.
Accomplishments
- Distributed over 300,000 ENERGY STAR® certified CFL bulbs to approximately 80,000 low-income customers in partnership with local food banks.
- Worked with a network of community action agencies, nonprofit organizations and local government agencies to fulfill nearly 4,000 requests for funding of home weatherization and furnace tune-ups or replacements.
- Provided over 2,700 customers with new ENERGY STAR certified refrigerators to replace their old, inefficient refrigerators.

Collaboration Efforts
- The program expanded its collaboration with United Way for Southeastern Michigan and DTE’s Low-Income Self-Sufficiency Plan division and launched a new service delivery channel to provide utility bill assistance program customers with whole home energy upgrades; this effort is helping low-income families lower their bills and move toward self-sufficiency.

Lessons Learned
- With adequate preparation and training for participating organizations, the program is able to evolve and provide a higher level of customer service and energy savings and support better program planning.
- New lead generation methods and innovative service delivery channels can help serve more low-income people with energy-saving opportunities.
- Participating organizations can learn from each other about creative ways to link and combine various funding mechanisms to serve more limited-income customers.

Spend and Verified Net Savings Results
- DTE Electric spent $7.0 million on the Low-Income Program. This amount was $0.3 million lower than the $7.3 million planned.
- DTE Electric saved 21.9 GWh of verified net energy savings. This was 7.7 GWh more than the 14.2 GWh planned.
- DTE Gas spent $5.3 million on the Low-Income Program. This amount was $0.2 million lower than the $5.5 million plan.
- DTE Gas saved 115.9 MMcf of verified net savings. This was 44.1 MMcf less than the 160.0 MMcf plan.

Chart 40 summarizes the spend and verified net savings results, which include the Low-Income portion of the Multifamily and Home Energy Consultation (HEC) options.
The goal of Commercial & Industrial (C&I) Programs is to provide incentives to customers to encourage them to install more energy-efficient equipment to reduce overall energy consumption and save money on their energy bills. DTE customers can take advantage of incentives for energy-efficient upgrades tailored to reduce energy used in their business, improving their bottom line. The C&I EO Programs offer customers incentives to replace existing equipment and fixtures with new energy-efficient equipment and incentives for designing and building new and/or remodeling projects that are energy efficient.

There are two main C&I incentive programs: C&I Prescriptive and C&I Non-Prescriptive. Both aim to influence customers to purchase and install equipment of higher efficiency than they would likely do otherwise. DTE C&I customers are able to apply for energy efficiency incentives under these programs. DTE used the same implementation contractor (IC) in 2014 that was used to implement the C&I EO Programs in 2009 – 2013, DNV-GL (previously known as KEMA), who is currently providing operational support including application review and processing, rebate fulfillment, call center operations and tracking of results, and customer satisfaction surveys for the program. DTE account managers who are responsible for business relationships with assigned C&I accounts, Energy Partnership & Services’ energy managers, and trade allies who market energy efficiency technology directly to customers were the key marketing channels. Other materials and mechanisms used to educate and drive awareness were the DTE Energy website, training seminars, technical support, press and periodicals. Throughout the year, program presentations were made to customers; associations/organizations; city, state and federal government agencies; and vendors, contractors, engineering and architecture firms.
To encourage an equitable distribution of funds among as many DTE customers as possible, incentives are subject to annual limits or caps. These caps were set per facility per year at $750,000 for electric customers and $200,000 for natural gas customers. The caps per project were $200,000 for electric and $100,000 for gas. Customers with multiple facilities could receive payments up to the cap for each facility, but not more than $750,000 per customer for electric customers and $200,000 for natural gas customers within a single program year.

Table 7 displays the program year incentive limits. Actual payments per facility determine incentive limits regardless of whether the incentive is paid directly to the customer or to an intermediate party, such as the contractor performing the service for the customer.

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Table 7 - 2014 C&I Incentive Caps

The Prescriptive Program application outlines incentive payments for applicable measures. Prescriptive incentives can include both the cost of the measure and labor required to install the measure. For custom projects, project incentives cannot exceed 50 percent of the total custom project cost to purchase and/or install the eligible energy efficiency measure(s). Several proactive specials were launched in 2014 to create broader general customer participation. These included the promotion of direct install thermostats, boiler tune-ups and stream traps, an LED Streetlight Program; the Express Program; Business Energy Consultation; and a trade ally bonus. In 2014, EO C&I Programs performed well. In total, the EO C&I Programs achieved 328.2 GWh of verified net electric savings, which is 114 percent above the 2014 plan of 288 GWh, and 654.1 MMcf of verified net gas savings, which is 98 percent of the 621.1 MMcf plan.

Chart 43 summarizes the electric and gas spending and verified net energy savings for the entire 2014 EO C&I Programs.
Chart 44 and the following are a summary of the spending and verified net energy savings achieved by each EO C&I Program in 2014 with the following assumptions:

- DTE Electric includes spend and verified savings for the C&I Non-Prescriptive, C&I Prescriptive, Multifamily Commercial, ENERGY STAR®, Emerging Technology, along with planned savings and spend for the Self-Direct Program.
- DTE Gas includes spend and verified savings for C&I Non-Prescriptive, C&I Prescriptive, Multifamily, and Emerging Technology. No customers participated in the gas Self-Direct option.

The C&I Programs received high customer satisfaction scores in 2014 with 96 percent of customers responding with “satisfied” or “extremely satisfied” ratings. In 2014, more than 209,864 customers participated in the EO C&I Electric Program.

Chart 45 summarizes the number of customers participating in each of the EO Program categories.
COMMERCIAL & INDUSTRIAL PRESCRIPTIVE PROGRAM
(DTE Electric and DTE Gas)

Program Description
The objective of the Commercial & Industrial (C&I) Prescriptive Program is to provide predetermined measures and incentives to C&I customers for the installation of energy-efficient equipment. These incentives were designed to encourage C&I business customers to install energy-efficient measures in existing facilities in an effort to reduce overall energy consumption and save money on their energy bills.

C&I Prescriptive categories provide pre-determined incentives to C&I customers for the installation of energy-efficient equipment for numerous applications, including, but not limited to: lighting, controls, HVAC, refrigeration and food service equipment. Incentives apply to qualified equipment commonly installed in a retrofit or equipment-replacement project and are paid based on the quantity, size and efficiency of the technology installed. Prescriptive incentives take the form of cash rebates paid after the installation of eligible measures.

The C&I Electric and Gas Prescriptive Program includes more than 450 prescriptive measures. The primary measures implemented include lighting fixtures, lamps and controls, motors and variable-speed drives, food service and refrigeration equipment, air conditioning and ventilation equipment and other common energy-efficient equipment. Additionally, the savings and spend for commercial common areas of the Multifamily Program and the ENERGY STAR® retail lighting program are included as C&I Prescriptive components. Property owners are encouraged and provided incentives to install energy-efficient equipment in the common areas (e.g., hallways, stairwells and parking lots) of their building(s). Examples of common area measures implemented during 2014 include interior lighting replacement, parking lot lighting, LED exit signs and controls.

Highlights
DTE Electric
• Retrofit Program offers more than 400 electric prescriptive measures in addition to its custom measures.
• Prescriptive measures generated 53 percent of electric savings in 2014. The largest savings were attributed to lighting system retrofits and lighting controls. As a category, lighting combined to provide 44 percent of the savings within the Prescriptive Electric Program.
• Michigan’s continued economic surge led to higher savings attributed to new construction.
• The greatest electric savings came from heavy and light industry, small retail and warehouse, nearly 62 percent.
**DTE Gas**

- HVAC system measures such as controls, thermostats, energy management systems and boiler/furnace tune-ups accounted for nearly 75 percent of gas savings for combined Prescriptive and Non-Prescriptive Programs.
- The greatest prescriptive savings came from HVAC controls, control systems and thermostats, which provided more than 38 percent of the program’s prescriptive gas savings.
- Boiler tune-ups and steam trap replacement made up approximately 18 percent of the savings.
- The greatest Mcf savings came from heavy and light industry, colleges/universities and assembly, nearly 61 percent.

**Challenges**

- Increased levels of customer participation in the 2014 Electric Program led to a customer waitlist in August as budget dollars for the year were fully allocated.
- Penetrating the multifamily market with EO Programs has been challenging since decision-makers for these properties are often hesitant to invest in energy efficiency measures when the benefits are shared among the tenants and property owners, but the investment is wholly made by the owner. However, installing energy-efficient measures as an investment helps multifamily property owners and managers enhance the value and marketability of their properties while reducing their energy-related operating expenses.
- The average energy savings per application decreased, resulting in more applications required to reach goal.
- Smaller business customers require different strategies and tactics than larger C&I customers.

**Accomplishments**

- The Business Energy Consultation program completed 2015 small business energy assessments with small businesses saving over 5,900 MWh and over 1,300 Mcf. This program is specially designed to reach small businesses with an incentive retrofit program that would be attractive to this widespread market. The program is promoted by independent, licensed contractors who have been pre-selected and trained in the program.
- LED street lighting is gaining momentum with the Municipalities.
- New construction continued its strong comeback as the Michigan economy continued to grow.

**Collaboration Efforts**

- Worked to promote energy efficiency with Michigan Saves by co-presenting at events, and sharing materials with customers.
- Sponsored and participated in the Michigan C&I Energy Conference.
- Sponsored and participated in the Michigan Solid State Lighting Conference.
- DNV-GL is the implementation contractor (IC) for the main C&I Electric and Gas Programs.

**Lessons Learned**

- Small business customers are receptive to learning about the benefits of EO measures.
- Direct Install Programs can be effective in increasing participation with small business customers.
- Touching the largest number of small businesses will require a comprehensive strategy that includes a digital focus.

**Spend and Verified Net Savings Results**

**DTE Electric**

- Excluding C&I Multifamily, ENERGY STAR® and Retail Lighting, DTE Electric spent $12.1 million on the C&I Prescriptive Program. This amount was $2.2 million less than the $14.3 million plan. This underspend was primarily due to additional funds being needed to support Non-Prescriptive projects.
- DTE Electric saved 145.4 GWh of verified net energy savings. This was 11.6 GWh more than the 133.8 GWh plan.
- DTE Electric also spent $0.8 million on the C&I component of Multifamily Program. This spend includes common area measures only. DTE Electric saved approximately 5.9 GWh under the Multifamily Program, which is included in the C&I Prescriptive Program energy savings.
DTE Gas

- Excluding C&I Multifamily, DTE Gas spent $2.7 million on the C&I Prescriptive Program. This amount was higher than the $1.8 million plan. This overspend was due to our increased efforts to promote the program to more small and medium customers using prescriptive measures.
- DTE Gas saved 339.9 MMcf of verified net energy savings. This was 156.7 MMcf more than the 183.3MMcf plan.

Chart 46 summarizes the spending and verified net savings results for the DTE Energy C&I Prescriptive Program and includes the C&I portion of the Multifamily Program.

Program Participation

- There were 9,435 customer applications in 2014 for the electric C&I Prescriptive Program and an additional 163 multifamily applications.
- The gas C&I Prescriptive Program had 2,383 customer applications and an additional 112 multifamily applications.

Chart 47 summarizes annual participation in the C&I Prescriptive Program for Gas & Electric customers.

Program Outlook

- DTE Gas spending and savings are expected to remain flat.
- The program plan is to launch more special offers, earlier and more often, in 2015 and to keep current customers engaged and interested in the program, as well as attract new customers to participate in the Energy Efficiency Program for Business.

Chart 48 summarizes the spending and savings projections. Numbers in the chart include C&I portions from the Multifamily Program.
Program Description
The Commercial & Industrial (C&I) Non-Prescriptive Program promotes the installation of energy-efficient technologies among DTE’s commercial and industrial customers. The program provides incentives to customers for measures installed in qualified projects that are less common or more complex than the Prescriptive measures. As with Prescriptive incentives, custom incentive payment occurs after the equipment is installed and operational at the customer’s location.

The objective of the C&I Non-Prescriptive Program is to provide custom incentives to C&I customers for the installation of innovative and unique energy efficiency equipment and controls that decrease the consumption of electricity or gas. Examples of C&I Non-Prescriptive Program measures implemented during 2014 include energy management system controls on condenser and chilled water pumps; cooling tower replacement with energy-efficient motors and variable frequency drives; demand control ventilation (DCV) mechanical systems and custom lighting projects. Measures that were not eligible for an incentive include fuel switching (e.g., electric to gas or gas to electric), changes in operational and/or maintenance practices or simple control modifications not involving capital costs, on-site electricity generation, projects that involve peak-shifting and not kWh savings, projects involving renewable energy and projects in which the payback did not meet the C&I Non-Prescriptive requirements.

Measure incentives were based on the first 12-month estimated energy savings. The electric Non-Prescriptive Program incentive was $0.08 per kilowatt-hour until May 2014 when it was reduced to $0.07 per kilowatt-hour. The gas Non-Prescriptive Program incentive was $4.0 per Mcf until May 2014 when it was reduced to $3.50 per Mcf. These incentives were reduced to ensure that sufficient funding would be available throughout the program year. To qualify for the incentive, projects required a one-year to eight-year maximum simple project payback for electric and minimum of one-year simple payback for gas projects. Additionally, incentives are capped at 50 percent of project cost.

Highlights

DTE Electric
- The C&I Non-Prescriptive Program comprises C&I Custom, C&I New Construction and C&I RFP
- C&I non-prescriptive electric spend was approximately 17 percent more than planned.
- There were three non-prescriptive offerings that contributed to this:
  - New Construction offering
  - LED street lighting replacement program offering
  - Large customer multiyear custom offering

DTE Gas
- The C&I Non-Prescriptive Program comprises C&I Custom, C&I New Construction and C&I RFP
- Approximately 60 percent of the gas Non-Prescriptive Program measures were HVAC measures.
- Process gas custom measures increased to about 28 percent of the total Non-Prescriptive Program.
Challenges
• With large gas customers, larger incentive amounts are required to achieve a reasonable rate of return for the customer to even consider making the improvements.

Accomplishments
• Municipalities’ street lighting conversions to LED remained strong.
• Michigan’s favorable economic climate continued; therefore, customers continued to take advantage of the new construction offering.
• The Company’s largest customers participated in a multi-year custom offering.

Collaboration Efforts
• Continued expansion of the Designated Trade Ally Program. Any trade ally who attended a program training session received the classification as a Designated Trade Ally. Under this program, the trade ally would receive direct communications throughout the year about various program offerings.
• Collaborated with Consumers Energy on direct-install programmable thermostat program.
• Worked closely with “Michigan Saves” to help offer businesses viable low-interest financing of energy efficiency projects.
• Collaborated and participated in the Michigan C&I Energy Conference. Two sessions were held; one in Harris, Michigan and the other in Battle Creek, Michigan.

Lessons Learned
• Customers will always be looking for “a deal”; therefore, special programs and limited-time offers will continue to generate interest and participation.
• Increased incentive caps for gas customers will attract large industrial customers.
• Account managers are a valuable resource in identifying large projects in SE Michigan and upper Michigan.

Spend and Verified Net Savings Results
DTE Electric
• DTE Electric spent $18.8 million on the C&I Non-Prescriptive Program. This amount was $2.8 million higher than the $16.0 million plan. This overspend was primarily due to the new construction because of Michigan’s favorable economic climate; the LED street lighting replacement program offering; and the large customer multiyear custom offering.
• This overspend was funded by the electric Prescriptive Program.
• DTE Electric saved 142.4 GWh of verified net energy savings. This was 41.3 GWh more than the 101.1 GWh plan.

DTE Gas
• DTE Gas spent $1.9 million on the C&I Non-Prescriptive Program. This amount was approximately $0.8 million lower than the $2.6 million plan.
• DTE Gas saved 272.3 MMcf of verified net energy which was 82.7MMcf less than plan.
• The underspend and savings were reallocated to the gas Prescriptive Program.

Chart 49 summarizes the spending and verified net savings results.
Program Participation

- DTE Electric processed 1,899 customer applications.
- DTE Gas had 386 customer applications.

Chart 50 summarizes the C&I Non-Prescriptive Program participation.

Program Outlook

- Efficiency program for business will keep pace with forecasted budgets for energy savings.
- Strong, and now long-standing, relationships with the contractor and business community at a variety of levels will keep the program going with continued interest, deeper savings and behavioral transformation.

Chart 51 summarizes the spending and savings projections.
COMMERCIAL & INDUSTRIAL SELF-DIRECT PROGRAM  
(DTE Electric & DTE Gas)

Program Description

DTE Electric Commercial & Industrial (C&I) customers are able to choose to self-direct and implement their own EO plan. A similar self-direct option for the largest gas C&I customers began in 2013, but no customers applied in 2014. The main features of either Self-Direct Program are similar. Customers who choose to self-direct are exempt from the mandatory EO electric surcharge(s), with the exception of a portion of the surcharge that funds the Low-Income Program as well as the associated cost to administer the program.

For the 2014 program, DTE Electric placed a bill message on all commercial customer bills notifying them about the program and how to subscribe to the program. All existing self-directed customers were sent personalized letters to inform them it was time to re-apply. Account managers followed up with a phone call after the letters were mailed to address customer questions. The program information was also placed on the DTE website along with the required energy plan templates for customers to apply to the program.

DTE Gas placed a bill message on all EUT customer bills notifying them about the program and how to subscribe to the program. Account managers followed up with a phone call after the letters were sent out to address customer questions. The program information was also placed on the DTE website along with the required energy plan templates for customers to apply to the program.
Highlights

- Six electric customers participated in the 2014 Electric Self-Direct Program.
- No gas EUT customers participated in the 2014 Gas Self-Direct offering.
- Annual peak demand of 1 megawatt (MW) or greater per single site or annual peak demand of 5 MW or greater per aggregated sites of customers.
- Cannot include sites or accounts in a Self-Direct plan that have received an EO rebate or incentive from an electric provider and are within the calculated waiting period.
- The waiting period in months is equal to the total rebate amount divided by the current month’s EO surcharge.
- If the waiting period will lapse after the Self-Direct plan filing deadline, but before the Self-Direct plan year begins on January 1, a customer may include those sites or accounts during the upcoming plan period.
- Self-Direct customers determine their energy reductions by multiplying their annual consumption by the percentage factor specified in PA 295. The designated energy savings factor for 2014 was 1.0 percent.

Challenges

- Communicating the program requirements to the applicable customers so that those who qualify can enroll.

Accomplishments

- Four of six customers reported that they achieved or exceeded their energy saving goals for the annual reporting period.

Collaboration Efforts

- Collaboratively worked with Consumers Energy on the reporting requirements to ensure program consistency.

Lessons Learned

- Customers adhere to the program requirements, submitting plans and annual reports. Account managers assist in communication to those customers.

Spend and Verified Net Savings Results

**DTE Electric**

- DTE Electric spent $0.164 million on the C&I Self-Direct Program.
- DTE Electric saved 6.1 GWh of energy savings as submitted in the Self-Direct plans.

**Chart 52** summarizes the spend and verified net savings results.

**DTE Gas**

- DTE Gas spending and savings are not applicable because no EUT customers chose to participate in gas Self-Direct offering.

Program Participation

**Chart 53** summarizes the DTE Electric C&I Self-Direct Program participation.

Program Outlook

- Based on current participation, it is anticipated that the program will continue to have approximately six to seven customers participate in the program.
- The newly offered DTE Gas Self-Direct Program did not have customers apply for 2014, so the projected spend and savings are zero.
- Spending and savings targets for the DTE Electric C&I Self-Direct Program are displayed in **Chart 54**.
The objective of the EO Education & Awareness (E&A) Program is to provide DTE Electric and Gas residential and business customers with information and resources to help them learn how to utilize energy more efficiently and to better manage their energy costs. The DTE Energy website, mass media, and outreach campaigns using outbound mail, community events and sponsorships are key channels to engage customers with specific EO programs and information. In 2014, the Company continued to rely on mass media and outreach campaigns targeting specific customer segments in an effort to increase their awareness of energy efficiency.

**Highlights**

In 2014, a 12-month mass media campaign and several direct outreach campaigns were implemented to continue to raise DTE customer awareness of energy efficiency and opportunities to participate in the EO programs. Key campaigns conducted in 2014 are as follows:

- Residential campaigns including radio, television, billboard, print, direct mail and digital advertising focusing on low-cost or no-cost tips and the online tools.
- Small business campaigns including radio, television, print, direct mail and digital advertising focusing on online tools and other like businesses applying energy efficiency improvements.
- Contests and promotions through grocery stores and online quizzes.
- Events for residential and businesses such as the DTE Energy and ESD Energy Efficiency Conference, trade associations events, Energy Supplier Summit, community festivals and Earth Day events.
- Sports sponsorships partnering with the Detroit Red Wings, Detroit Lions, Detroit Tigers, Detroit Pistons, The Whitecaps and Griffins where direct activation opportunities were executed.
- Employee outreach through the Company intranet, employee events, and monthly and daily electronic newsletters.
As in past years new collateral with a fresh message was created in an effort to educate customers on energy efficiency. These included brochures, case studies, trinkets, shade banners, ambassador cards and energy-saving tips handouts. In addition, a print and digital magazine with in-depth information on how energy efficiency can be applied in both residential homes and businesses was developed in five editions. E&A also continued to utilize bill inserts, direct mail, email newsletters and digital tools and communications (online calculators, targeted and bilingual videos, social media posts and website information) to engage customers in learning.

Challenges
In 2014, overall customer satisfaction with DTE Energy among residential and business customers remained a top priority. To help maintain and improve customer satisfaction, it is key to increase awareness of DTE’s energy efficiency information and tools to help customers achieve higher value from the energy they consume. This was accomplished by keeping a steady state of outreach communications and utilizing best practices in messaging and offerings that engaged our customers on energy efficiency education. In addition, ways to increase our reach with this information through the customer’s preferred communication channel were identified.

Accomplishments
- 2014 was a very successful year for the E&A team, executing annual communication campaigns and additional communication tactics within the allocated budget and resources, while exceeding the targets on several key metrics.
- The campaigns resulted in over 7.7 million meaningful interactions with our customers.
- Key residential and business campaigns included the following:
  
  Residential
  - Detroit Lions sponsorship and contest—Engaged fans through social media posts, web stories, email communications and on-site LED messaging. Garnered more than 54,000 entries.
  - Detroit Red Wings sponsorship and contest — Engaged fans through email communications, website features and on-site scoreboard messaging. More than 68,000 entries were received setting a record for any contest to date and was a huge success.
  - Proactive messaging with energy-saving tips to help combat high summer cooling and high heating bills.
  - 49 new videos created, including the first bilingual video.
  - Participation in more than 20 community events.
  - Executed 10 direct mail campaigns and 12 energy efficiency articles in our e-newsletter.

  Business
  - Interactive Business Tool—An online tool that offers a virtual tour of six interactive businesses for energy-savings tips, rebates and other resources for each room of the facility.
  - Energy Efficiency Directory—Provides both business and residential customers a list of reliable contractors via an online resource tool.
  - Participated in more than 20 industry and trade ally events.
  - Held a new energy summit in Grand Rapids service area to increase awareness among business customers of energy efficiency programs and information.

Collaboration Efforts
- An expanded grocery store campaign—Customers at regional grocery stores received energy efficiency tips and were provided the opportunity to sign up for a monthly energy efficiency e-newsletter and win a gift card for the grocery store. The contest garnered more than 10,000 touches.
- Continued a pilot initiative that started in 2013 with five business chambers of commerce in Michigan and expanded to 15 business chambers of commerce to enable us to leverage channels that reach business customers and provide valuable information to chambers and their members.
Lessons Learned

- Partnering with business organizations such as chambers of commerce and associations creates advocates for the programs and information.
- Mass media such as TV and radio are key to raising overall awareness of the program.
- Proactive communications are desired by our customers to help them manage their energy consumption.
- Personalized or tailored messages and offerings are meaningful to customers and have a higher positive impact on customer awareness and satisfaction.

Spend and Verified Net Savings Results

Chart 55 summarizes the spend and associated verified net savings results for E&A.

Program Participation

- In 2014, the E&A Program resulted in over 7.7 million meaningful interactions with our customers.

Chart 56 displays the monthly customer touches obtained in 2014.
Program Outlook

2014 was a step change for the E&A Program both in terms of the scale and scope of the tactics and the tools and resources employed to reach customers. As the E&A team continues to seek new and innovative approaches to educate customers and employees about energy efficiency, the focus will remain on the following key areas:

- Communicating the value of energy efficiency.
- Developing engaging messaging and content that are applicable for the residential and business audiences.
- Providing real-life examples that support the learnings and opportunities for other similar customers.
- Leveraging existing digital technologies like mobile applications and mobile-friendly web platforms.
- Providing educational tips and information that resonate with the target audience.

The E&A spend and savings are a percentage of the total EO Program spend and savings. Projections are based on the overall EO Program.

Chart 57 summarizes the spending and associated savings projections.
Pilot Programs
(DTE Electric and DTE Gas)

Pilot Programs are designed to explore technologies and approaches not included in the core — Residential, Commercial & Industrial (C&I), and Education & Awareness (E&A) — EO Programs. These enable DTE to test the cost-effectiveness of emerging technologies, and to assess customer adoption of new technologies and market acceptance of existing technologies using new approaches. If a Pilot proves successful for commercialization, new programs or measures may be added as an emerging program or within a standard program offering. As designed, the Pilot Programs support Residential and C&I Programs.

Highlights
Including gas and electric efforts, a total of seven pilots were active in 2014. Of the pilot programs, three had a C&I Program focus, and four had a Residential Program focus. The Pilots team targeted a small number of larger projects rather than smaller projects as in previous years.

C&I Small Business Focus
The Pilots team focused on behavioral savings for small business customers in 2014.

SMB Online Behavior
The SMB Online Behavior deployed and managed an online behavioral energy efficiency pilot application for our Small and Medium Business (SMB) customers. The software application provides an interactive portal that encourages customers to engage in persistent energy savings behavior by easily establishing an energy profile, better understanding their energy use, assessing their energy opportunities, taking actions to realize energy savings, and participating more actively in DTE energy efficiency programs. This program is a continuation from 2013 and is currently ongoing.

DTE Insight App
Real-time energy awareness is here!

DTE Energy is proud to be the first utility to offer this exciting, interactive way for our customers to better understand how they use energy.

DTE Insight links your smartphone to your home’s advanced electric meter to help you discover your energy usage.

Discover... “I want to see how much energy we use each day, week, and month and how that changes throughout the day.”

Identify... “I want to see how much energy we’re using in our home when using appliances, heating and cooling, and when we’re away.”

Save... “Show me if I’m on track with my energy-saving goals and when I go over that goal.”

Explore... “I want help researching ENERGY STAR® products and identifying energy-saving projects around my home that will make a difference.”
C&I Focus
The Pilots team focused on operational changes and technology development in 2014 with our C&I pilots.

Retro-Commissioning
Retro-Commissioning is a program that serves medium and large commercial electric and gas customers. This pilot addressed operational efficiency in an existing facility that utilizes a Building Management System (BMS). With the aid of a BMS, the Retro-commissioning Service Provider (RSP) will be able to identify and advise on operational changes that are both low cost and no cost. This program is ongoing.

E-Challenge Phase 2 Pilot
In the E-Challenge Phase 2 Pilot, DTE Energy partnered with the Engineering Society of Detroit (ESD) to recognize and support market ready, energy efficiency technology innovation for DTE Energy’s commercial, light industrial and municipal electric customers. The 2014 competition monitored and verified the energy savings from replacing old Luminaires with LED Luminaires outfitted with advanced controls. The program was completed.

Residential Focus
The Pilots team focused on behavioral changes, and audits and weatherization with our residential pilots in 2014.

Home Energy Report
The Home Energy Report (HER) provides customers with home energy reports. DTE assessed customers’ change in behavior and reduction in energy consumption as a direct result of being influenced by these reports. The reports display a comparison and trend analysis of the customer’s energy usage with efficient and inefficient neighbors, providing personalized targeted recommendations for energy-efficient decisions and purchases. This program is ongoing.

DTE Insight
DTE Insight is an app for mobile devices that gives customer a detailed view of their daily, weekly and monthly electric and gas usage. When connected to the Energy Bridge, customers with advanced meters can see real-time energy usage. This app also features energy tips and projects, the Power Scan feature for iPhone users to estimate a device’s energy usage, weekly energy saving challenges and a virtual rewards system for completing these challenges. This program is ongoing.

Loan and Concierge Program
The Loan and Concierge Program targeted energy reductions by educating employees of businesses on how to save energy at home, and providing individual assistance to the employees to help complete energy-saving home improvements. It helped them connect with contractors to perform Home Energy Audits, and to install air sealing and insulation measures. This was a continuation of a 2013 pilot and was completed in 2014.

Studies
The Pilots team also performed one study in 2014 to better understand our customers and their energy efficiency needs:
• Building Energy Codes is a multi-year benchmark study, gap analysis and design study to determine the feasibility and cost effectiveness of a Michigan utility wide program to increase energy code compliance rates in Michigan buildings. This study is ongoing.

Challenges
• Identifying effective marketing tactics to encourage small and medium businesses to participate in an online energy assessment and behavioral program.

Accomplishments
• Completed 2 pilots: E-Challenge Phase 2, which successfully recognized and supported energy efficiency innovations, and Loan and Concierge Program, which was not recommended for commercialization.
• Launched 3 new pilots: Building Energy Codes, Retro-Commissioning and DTE Insight.
• Received MEEA Innovation award for DTE Insight. Recognized as the first mobile app with real-time energy usage data in North America, its design is a direct result of customer interviews conducted in 2013.

Collaboration Efforts
• Collaborated with Engineering Society of Detroit and NextEnergy on “E-Challenge” Pilot.
• Continued to collaborate with various industry organizations focused on energy efficiency.

Program Outlook
Product development focus areas included:
• C&I focus on new midstream marketing approaches.
• Residential focus on behavioral programs and new marketing methods will continue.
• Continued development on increasing customer engagement and energy savings features for DTE Insight.
• Exploring more cost-effective gas technologies and programs for both Residential and C&I sectors.
Lessons Learned

- Customer interest for DTE Insight exceeded expectations with a higher engaged user community, especially in the recently retired user group.
- To gain early survey participation and avoid timing barriers with stakeholders for our Building Energy Codes it was critical to identify and involve all key parties from the start.
- Concierge Programs are very helpful for customers from a service perspective, but are not cost-effective. Providing financing increased the amount of savings per customer, but not enough to justify the added overhead and expense of the Concierge Program.

Spend and Verified Net Savings Results

Chart 58 summarizes the spend and associated verified net savings results.

Saving Program Outlook

Chart 59 summarizes the spending and associated savings projections (excludes administration cost).
Energy Savings

- Since 2009, DTE has saved over 3,082 GWh, or more than 6 percent of planned annual retail sales, for electric customers and over 6,413 MMcf, or more than 4.4 percent of planned annual retail sales, for gas customers.
- The electric savings are equivalent to the energy required to power all the homes in cities similar in size to Lansing or Ann Arbor, Mich. for more than 3.5 years.
- The gas savings are equivalent to the energy required to heat the same number of homes in cities similar in size to Lansing or Ann Arbor, Mich. for 1.5 years.
- The electric savings resulted in DTE Energy not building approximately half of a new coal-fired power plant.
- In a recent internal benchmarking, DTE Energy’s EO Program has been ranked highly with respect to cost effectiveness and savings when compared with other utility companies.

Monetary Savings

- Our customers have benefited as a result of our energy efficiency offerings. Residential customers pay an average of $40 annually or less than 2 percent of their total bill for energy efficiency gas and electric surcharges (electric customer pays $18, gas customer pays $19 and combo customer pays $37).
- Their annual savings on average are between 2 percent and 3 percent of their annual bill depending on the number of programs in which they participate. Customers participating in one program save between $45 and $185, and those participating in multiple programs save between $75 and $635 annually, with $94 from gas participation and $160 from electric participation. Energy efficiency saves our customers money, reduces energy waste, and provides value to Michigan’s economy.
- By the end of 2015, DTE Energy’s investment in energy efficiency programs will top $600 million and provide a total economic benefit of about $4.5 billion dollars in avoided energy costs for customers through 2029.
- In 2014, customers participating in EO Programs will save $585 million on their energy bills, in present value energy. This comprises savings of $482 million on electric bills and $103 million on natural gas bills.
Economic Development Benefits
- DTE’s EO Program resulted in implementation contractors (ICs) establishing local offices (in Detroit, Livonia and Lansing) and the hiring of local talent to operate and manage their respective programs.
- Through 2014, 308 Michigan-based jobs have been created by the ICs under contract with DTE Energy as summarized in Table 8. These jobs include field operations staff, appliance pick-up drivers, call center representatives and program managers.
- Throughout the state of Michigan, over 2,400 small- and medium-sized contractors have actively participated with utilities in various EO Programs.
- Customers and communities benefit from the new jobs and investment in the community.

<table>
<thead>
<tr>
<th>IC Name</th>
<th>Michigan-Based Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTE Energy</td>
<td>34</td>
</tr>
<tr>
<td>ICF International</td>
<td>33</td>
</tr>
<tr>
<td>JACO Environmental</td>
<td>40</td>
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<tr>
<td>Solutions for Energy Efficient Logistics (SEEL)</td>
<td>120</td>
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<tr>
<td>National Energy Foundation (NEF)</td>
<td>30</td>
</tr>
<tr>
<td>DNV-GL</td>
<td>45</td>
</tr>
<tr>
<td>Navigant Consulting</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>308</strong></td>
</tr>
</tbody>
</table>

Table 8 - Implementation Contractor Jobs

Program Participation
Through 2014, more than 900,000 electric and 560,000 gas customers have directly participated in the EO Program. Customers have upgraded equipment, enabling them to be more energy efficient. They have also been educated on simple actions they can take to save on their energy bill.

Over 23,000 of DTE Energy’s low-income customers have had full home weatherization through the program.
- Based on survey results, over 95 percent of participating customers were satisfied with the EO Program.
- In 2014 alone, almost 600,000 DTE customers took control of their energy use through the EO Program and saved millions of dollars as a result.

To give some perspective on the magnitude of this effort, here are some of DTE Energy’s 2014 accomplishments:
- Outfitted over 27,000 apartment units with EE measures.
- Recycled more than 33,000 appliances.
- Performed close to 29,000 in-home energy consultations.
- More than 25,000 low-income customers participated in the EO Program.
- Discounted over 4.7 million compact fluorescent light bulbs (CFLs), light emitting diodes (LEDs) and holiday lights.
- Provided almost 27,000 energy efficiency kits to customers.
- Over 21,000 customers benefited from HVAC upgrades.
- More than 15,000 businesses participated in the EO Program.

Environmental Benefits
Since 2009, the following environmental benefits were achieved:
- The electric and gas savings amount is equivalent to greenhouse gas emissions avoided by recycling 74,213 tons of waste instead of sending it to the landfill.
- The annual carbon emissions that can be avoided are equivalent to burning more than 830 railcars worth of coal, or preserving over 1,300 acres of forest rather than turning it to commercial use.
- The electric savings eliminate the need for more than half of a new coal-fired power plant.
Program Administration

Evaluation, Measurement and Verification

Michigan’s EO construct requires independent verification of the utilities’ claimed energy savings. This work is performed by an independent Evaluation, Measurement and Verification (EM&V) contractor and must be performed to industry standards and guidelines developed by the Evaluation Workgroup of the MPSC Energy Optimization Collaborative. Currently Navigant Consulting fulfills this role for DTE Energy.

DTE Energy and its evaluation contractor are active participants in the Evaluation Workgroup, along with Consumers Energy and cooperative and municipal utilities, with their respective evaluation contractors and the MPSC staff. In addition to developing guidelines for evaluation, members of the Collaborative established a statewide resource for technical energy savings values for thousands of energy-efficient measures, known as the Michigan Energy Measures Database (MEMD). MEMD enables fast and efficient entry, tracking and evaluation for the vast majority of measures installed in Michigan EO Programs, regardless of program provider.

The MEMD is managed by Morgan Marketing Partners under contract to the MPSC. The Evaluation Workgroup oversees the management and updating of MEMD. Updating measure values to reflect changes in standards, incorporate newer studies, etc., and make them more representative of Michigan follows a well-defined process involving all stakeholders. DTE Energy and Consumers Energy work together with their evaluation contractors to conduct foundational research on important measures to develop up-to-date Michigan-based values. Since 2009, numerous additions and “calibrations” have been made to MEMD to make the values more encompassing, accurate and Michigan-specific.

Implementation Contractors

Table 9 is a summary of the ICs assigned to the various EO Programs.

<table>
<thead>
<tr>
<th>IMPLEMENTATION CONTRACTOR LISTING</th>
<th>IC Name</th>
<th>Corporation Location</th>
<th>Local Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN^{O}ERGY STAR\textsuperscript{®} Products, HVAC, Audit &amp; Weatherization, Online Energy Audits, Energy Efficiency Assistance</td>
<td>ICF International</td>
<td>Fairfax, VA</td>
<td>Detroit, MI</td>
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<tr>
<td>Appliance Recycling</td>
<td>JACO Environmental</td>
<td>Everett, WA</td>
<td>Livonia, MI</td>
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<td>Home Energy Consultations, Multifamily, Business Energy Consultations</td>
<td>Solutions for Energy Efficient Logistics (SEEL)</td>
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<td>School</td>
<td>National Energy Foundation (NEF)</td>
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</tr>
<tr>
<td>Behavior</td>
<td>OPower</td>
<td>Arlington, VA</td>
<td>N/A</td>
</tr>
<tr>
<td>C&amp;I Programs</td>
<td>DNV-GL</td>
<td>Oakland, CA</td>
<td>Detroit, MI</td>
</tr>
<tr>
<td>EM&amp;V</td>
<td>Navigant Consulting</td>
<td>Chicago, IL</td>
<td>Ann Arbor, MI</td>
</tr>
</tbody>
</table>

Table 9 - List of Implementation Contractors
Michigan’s energy landscape is changing as plant retirements are expected to begin in response to aging fleets and existing EPA regulations. The EPA is finalizing Clean Power Plan carbon regulations, which may accelerate the pace and scale of plant retirements. These plant retirements are expected to further heighten the capacity shortfall projections in Michigan and drive clean energy investments. As we weigh the effects of plant retirements on Michigan’s energy future, energy efficiency can be a low-cost resource for addressing future supply needs as part of a diverse, cleaner portfolio and will play an important part of our generation portfolio going forward.

Within the federal carbon legislation 111(d) document, demand side reduction (energy efficiency) is stipulated as one of the four building blocks for compliance. However, given the uncertainty of federal regulations and the scale of base load plant retirements over the next 10–15 years, we believe it is important to maintain flexibility to invest in the most cost effective and affordable clean technologies.

DTE Energy envisions a cleaner, more diverse energy portfolio for Michigan. Our focus is on managing the replacement of retired generating facilities in a way that does not compromise affordability and reliability for our customers. Various scenarios indicate that energy efficiency is a viable low-cost resource for compliance. With a statewide potential study showing a potential savings of 6–15 percent, energy efficiency remains a viable option to address supply side demand. Through an IRP study we are evaluating the optimal size of energy efficiency savings to provide our ratepayers with an ideal mix of clean portfolio options.

DTE Energy believes in the importance of eliminating energy waste and is in alignment with Governor Snyder’s position that energy efficiency is a key component of Michigan’s energy future.
Summary of 2016-2017 Rate Case Filing

While there are several factors influencing the future of energy efficiency programs in Michigan (Legislation, capacity shortfall and integrated resource planning (IRP) efforts and the EPA Clean Power Plan for example), DTE Energy is extending its plan for two additional years (2016 and 2017) to provide compliance with PA 295, maintain stability in the energy efficiency marketplace and ensure that energy efficiency resources are available in the future to meet new State and Federal compliance standards. On February 12, 2015, DTE Energy filed an amended filing document with the MPSC outlining our EO Program savings and spending targets for years 2015 and 2016. The 2016 and 2017 extended plan is designed to continue to exceed required energy savings levels as specified by PA 295 while meeting program objectives. Our legislated minimum savings and spending targets are consistent with, and based on the most recent projections of, electric and gas sales volumes and revenues.

The program portfolio for the 2016 – 2017 plan filing was refined through conversations with various internal and external stakeholders. Energy Efficiency programs for residential, commercial and industrial customers were selected and sized by balancing multiple objectives and achieving program goals. As part of the filing, we are proposing a new multi-criteria performance incentive mechanism that expresses savings goals as lifetime savings goals rather than first-year savings goals, and the calculation of the incentive is based on net benefits rather than on spend. We have also introduced Market Transformation Multipliers designed to cause lasting changes in the energy efficiency market and behavior of market participants that increase the adoption of energy-efficient products, services or practices. The demand and energy (first-year and lifetime) savings associated with implementing market transformation measures will be applied via a multiplication factor to the savings amount for qualified measures.

**Chart 60** provides a summary of the forecasted spending and verified net energy savings plan for 2015 (approved) and 2016 (filed).

**Cost Challenges**

The cost per MWh of energy saved in DTE’s EO Program has increased year over year as a result of the following challenges:

- New technologies such as LED lights are more expensive.
- Customer baseline installed efficiency keeps rising as our program and other factors make customers more energy-conscious.
- Marketing costs increase when attempting to capture hard-to-reach segments.

**Energy Policy**

Outcomes of energy policy discussions at State and Federal level could impact EO Program savings targets:

- Governor Snyder’s Energy Address stated that by 2025 Energy Efficiency should reduce usage by 15 percent. In addition, energy proposals from Michigan House and Senate Republicans and Democrats are expected to be introduced and debated. Depending on the proposal, a range of savings target expectations from utilities could be proposed.
- The Federal EPA proposed Clean Power Plan (CPP) rules are expected to be final this summer. Energy efficiency is a key building block in the EPA CPP guidelines, and the level of energy efficiency required to achieve compliance with the CPP rules could change.
- The Michigan Administration is placing heavy emphasis on expanding the role of energy efficiency in Michigan’s future energy portfolio by pursuing energy efficiency programs as part of the IRP process, which could impact energy efficiency savings levels.
2014 was another successful year for DTE Energy’s EO Program. The year was successful in all key areas: Energy savings, spending and participation. Customers were made aware of energy efficiency benefits and the programs offered by DTE Energy via innovative approaches and targeted campaigns. Customer experience was enhanced by improving the content of the website, creating new educational tools and resources, and expanding social media and contests. Programs were upgraded and delivered with high quality, meeting the ever-rising level of customer expectations. Promising Pilot Programs were transitioned to full program offerings, and additional Pilots were undertaken to stay ahead of the technology curve and to test innovative market approaches. Continuous Improvement activity rose again in 2014 as several efforts were undertaken to eliminate defects and improve efficiency in our processes. Collaboration with other utilities, and the energy efficiency community at large, provided additional benefit to DTE Energy’s customers.

Opportunities and challenges lie ahead, and DTE Energy is well-positioned to provide value to its customers and other stakeholders through a robust and well-run energy efficiency program. We have a solid plan through 2017 as we recently filed an amended filing document with the MPSC outlining our EO Program savings and spending targets for years 2016 and 2017. Our strategic efforts have resulted in increased awareness, improved experiences and higher satisfaction among our customers.

2015 will be a pivotal year for DTE Energy’s EO Program as the Company is focused on continuing constructive discussions with key stakeholders on securing Michigan’s energy future in light of unprecedented industry and energy policy changes. In 2015, DTE will continue to play a key role by working closely with the Governor’s task force and the MPSC defining Michigan’s future energy policy. As our maturity with the EO Program continues to grow, we will continue to make great strides in our journey to become the best operated energy efficiency program in North America.