

May 02, 2016

**STATE OF IOWA
BEFORE THE IOWA UTILITIES BOARD**

IOWA UTILITIES BOARD

IN RE: INTERSTATE POWER AND LIGHT COMPANY	DOCKET NO. EEP-2012-0001
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ENERGY EFFICIENCY PLAN ANNUAL REPORT FOR YEAR 2015

COMES NOW, Interstate Power and Light Company (IPL), and in compliance with the “Final Order” issued by the Iowa Utilities Board in this docket on June 24, 2009, requiring the filing of an annual report of IPL’s energy efficiency plan performance on or before May 1 of each year, submits for filing its 2015 annual report.

DATED this 2th day of May, 2016.

Respectfully submitted,

**INTERSTATE POWER AND LIGHT
COMPANY**

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ANNUAL REPORT
for
2015 Energy Efficiency Plan
of
Interstate Power and Light Company
an Alliant Energy Company

Docket No. EEP-2012-0001

May 2, 2016

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1. Plan Highlights

1.1. Introduction

This report presents Interstate Power and Light Company's (IPL's or the Company's) annual report for the second year of its five-year Energy Efficiency Plan (Plan) approved on December 2, 2013, in Docket No. EEP-2012-0001. The Plan includes 15 energy efficiency programs, two demand response programs, and eight outreach, education and training initiatives. Three other components capture the remaining features of the 28-component Plan: 1) Legislative Assessment, 2) Evaluation, Measurement and Verification, and 3) the Next Plan.

1.2. Goals and Budgets

IPL is pleased to report savings for the second year of the Plan, exceeding Plan goals while maintaining spending within the budgets. As part of its strategic plan, IPL focuses on partnering with its customers and communities to seek energy solutions, including energy efficiency options. In addition, IPL is committed to collaborating with its stakeholders in aggressively promoting its energy efficiency programs across all customer classes.

In accordance with IPL's focus on its Plan goals and budgets, IPL studies both customer participation and spending trends on an annual basis. After studying participation and spending trends for the first two years of the Plan, IPL filed an Application for Limited Modification on March 18, 2016. In accordance with Iowa Code § 476.6(15)"e" and 199 Iowa Administrative Code Chapter 35.6(4)"a" IPL requested to modify four programs for the 2016 through 2018 Plan years: New Home Construction, Low Income Weatherization, Nonresidential Prescriptive Rebates, and the Research, Development and Demonstration program. Further, on March 18, 2016, IPL requested a waiver of 199 I.A.C. § 35.6(4)"a"(2) for the residential electric grouping 2015 budget citing plans to launch a Residential Behavioral pilot in 2016 with heavy cross promotion of the residential electric programs as a primary source for increasing participation

and, therefore, the budget for this category. The Board approved the modification application on April 22, 2016, but the waiver request is still pending.

IPL reports that first-year electric energy savings for 2015 exceeded the annual Plan goal by six percent and expenditures were seven percent under the annual Plan budget. IPL achieved electric savings of over 171 million kilowatt-hours (kWh), representing 1.2 percent of 2015 electric annual sales.

Peak demand reductions were 26 megawatts (MW) from the energy efficiency and over 233 MW from ongoing load management programs, for a total peak impact of 260 MW from all participants.

IPL reports that natural gas energy savings for 2015 exceeded the annual Plan goal by 31 percent and expenditures were 12 percent under the annual Plan budget. IPL achieved Natural gas energy savings of three million therms, representing 1.16 percent of 2015 natural gas annual sales.

1.3. Cost-Effectiveness

IPL's electric and natural gas programs were cost-effective for the Plan's 2015 activities. As measured by the societal test¹, the electric program benefit-cost ratio is 2.96 and the natural gas program ratio is 1.63. The total Plan (electric and natural gas) benefit-cost ratio is 2.90, and societal net benefits are \$826.4 million.

IPL's ongoing electric energy efficiency and demand response programs were cost-effective for the Plan's 2015 activities.

¹ According to 199 Iowa Administrative Code Chapter 35.2(476) Definitions Societal test is defined as an economic test used to compare present value of benefits to the present value of costs over the useful life of an energy efficiency measure or program from a societal perspective.

IPL's ongoing natural gas energy efficiency programs were cost-effective for the Plan's 2015 activities, with the exception of New Home Construction, Low-income Weatherization, and Low-income Home Energy Savers.

1.4. Key Customer Successes

Beyond the positive results in energy impacts, spend, and cost-effectiveness, IPL experienced tens of thousands of interactions with its customers in 2015 through its key delivery and marketing channels. The following is a summary of the success of IPL's outreach to customers in 2015:

- IPL completed 4,798 Home Energy Assessments in 2015, exceeding the program goal by 10 percent.
- The Multifamily and Institutional Efficiency Improvements program audited 81 buildings in 2015, up from only three in 2014.
- Community Action Agencies completed Home Energy Savers projects in 107 homes in 2015, many from agencies completing their first Home Energy Savers project.
- The City of Oelwein successfully completed its Hometown Rewards campaign, reducing residential energy use by four percent.
- The Builder Training program received a first place award from E Source² for "Best Ad Campaign for an Investor-Owned Utility."
- 27 Dealers in IPL's Dealer Network surpassed 1,000 MBtus of impacts from the energy efficiency rebates submitted on behalf of customers.
- In its second year, the Multifamily program achieved 157 percent of the program's therm savings goal and 425 percent of its electric savings goal.
- IPL's New Home Construction program rebated 498 homes, generating 293 percent of

² E Source is a national research firm focusing on how consumers use energy and how utilities can best serve them.

the program's electric savings goal.

1.5. Settlement, Orders and Collaboration

IPL filed a Non-Unanimous Partial Settlement (Settlement) in Docket No. EEP-2012-0001, including eight contested issues, three partially resolved issues, and 15 issues resolved by settlement. The Settlement and Plan were both approved in the Board's December 2, 2013 Order. The Settlement approved by the Board contained six reporting tasks among the 26 issues. In addition, the Board's Order contained six additional reporting tasks. Table 1.5-1 describes the 12 reporting tasks and provides the status of each task.

Table 1.5-1 Reporting Tasks

No.	Document	Status	Reporting Task
1	Order (12/2/13), p. 74	Filed 1/31/2014 and 1/31/2015.	Pursuant to the Settlement and Order, on or before January 31, 2014, IPL must document any program-specific changes in annual savings impacts and update the total impacts by year. In subsequent years, IPL must file an update of program features on January 31 of each year.
2	Order (12/2/13), p. 74	On schedule to file by February 1, 2018.	IPL shall file its next energy efficiency plan on or before February 1, 2018.
3	Order (12/2/13), p. 74	Filed in 2014 Annual Report, section 2.27. EM&V Reports filed April 25, 2016.	IPL shall continue to file annual energy efficiency reports on or before May 1 of each year. The report shall include updates on EM&V activities. Final EM&V reports must also be filed as they become available.
4	Order (12/2/13), p. 75	Complete; filed preliminary findings 3/16/2015 and 10/16/2015. Final evaluation filed 3/16/2016.	On or before March 16, 2015, IPL shall file a complete evaluation of its renewable energy program for the years 2010 through 2013.
5	Order (12/2/13), p. 75	Complete; filed 11/25/2015 in accordance with extension granted by the Board.	IPL shall submit a final report on net-to-gross on or before September 30, 2015.
Table 1.5-1 Reporting Tasks cont'd			
6	Order	On target to be	On or before September 30, 2016, IPL shall file a

	(12/2/13), p. 75	completed on or before 9/30/2016.	completed Technical Reference Manual (TRM).
7	Settlement (7/26/13), Attachment A, p. 5	Complete; reported at Fall Operation meetings on 10/1/14 and 11/5/2015.	As part of its Fall Operations Report, IPL will report on its efforts to find cost-effective, customer-centered, performance-based incentives to vendors/contractors that motivate customer engagement, energy efficiency market development, and transformation.
8	Settlement (7/26/13), Attachment A, p. 10	Complete; filed in 2014 Annual Report, section 2.4.	IPL will include a breakdown of individual measures (i.e. appliance type) and their calculations in its Annual Report.
9	Settlement (7/26/13), Attachment A, p. 10	Complete; filed 10/31/13.	IPL will review MidAmerican Energy Company's ground source heat pump and furnace offerings to determine whether these options are viable and cost effective for the IPL service territory. These findings were required to be reported to the OCA and EEP parties on or before October 31, 2013.
10	Settlement (7/26/13), Attachment A, p. 12	Complete; filed 10/31/13.	IPL will review the possibility for an upstream HVAC program and its research findings were required to be reported to the OCA and EEP parties on or before October 31, 2013.
11	Settlement (7/26/13), Attachment A, p. 13	Reported at Fall Operation meeting 10/1/14.	IPL will share a comprehensive [Outreach, Education and Training] marketing plan at the October/November stakeholder meeting.
12	Settlement (7/26/13), Attachment A, p. 15	Filed in 2015 TF dockets.	IPL will track non-residential energy efficiency expenditures by rate class as well as by programs within its systems and consider that information in developing future EECR factors.

1.6. Report Organization

In the following Chapter 2: “Program Highlights,” IPL provides a program-by-program report for each of the 28 programs, including initiatives and other components of IPL’s Plan. Each program’s report is organized accordingly:

- Description;
- Successes;
- Challenges;
- Future Steps; and
- Program Details on the Alliant Energy website.

Program-specific impact summaries are located in Appendix A. Program-specific expenditure summaries are in Appendix B. The energy efficiency programs’ measure-level participation and impact summaries are found in Appendix C.

Program and plan-level cost-effectiveness results are in Appendix D. Detailed data, calculations, and results³ used in this analysis are organized in the following four workbooks:

- a) Appendix D Common Assumptions.xls;
- b) Appendix D Benefit-Cost Model Electric (except DR).xls;
- c) Appendix D Benefit-Cost Model Gas.xls; and
- d) Appendix D Benefit-Cost Model Demand Response (DR).xls.

The Common Assumptions workbook (a) contains data that are consistent across all programs, such as avoided costs, discount rates, and participant retail rates. Program-specific inputs and outputs are contained in workbooks (b) through (d), depending on fuel and program type (DR vs. non-DR).

Each workbook (b) through (d) begins with an “index” worksheet, which contains active links to the data for each program in the workbook. IPL created this index to facilitate navigation

³ These workbooks may not replicate the results exactly due to rounding.

in the workbook. Each program has one tab in the workbook with a table of program summary benefit-cost results, followed by annual total energy savings for the program, measure level calculations of costs and benefits, measure-level input data, program budgets, and finally, a table of basic inputs.

Note that due to active links among these worksheets, the user must transfer workbooks (a) through (c) to the same file directory on the user's hard drive. These workbooks allow the user to trace the calculation of annual costs and savings, ultimately leading to net present value costs and benefits used to calculated benefit-cost ratios.

Appendix E contains incremental and total savings and expenditures for the Residential Direct Load Control and Interruptible programs.

2. Program Highlights

2.1. Residential Prescriptive Rebates

2.1.1. Description

The Residential Prescriptive Rebates program provides a range of energy-efficiency equipment options. This program provides rebates to residential customers who purchase high-efficiency electric and natural gas equipment and offers incentives to dealers who sell high-efficiency electric or natural gas equipment. To help mitigate the potential effects of first costs as a barrier to program participation, IPL also offers low-interest financing to eligible customers on qualifying, energy-saving equipment and measures. Customers must choose between receiving the incentive or the low-interest loan.

2.1.2. Successes

The Prescriptive Rebate program achieved 184 percent of the natural gas savings goal. The results are due to multiple factors, including the following:

- The HVAC System Tune-Up option continues to be successful with 14,925 customers participating in 2015 – an increase of more than 2,000 tune-ups over the previous year. Approximately 15,506 heating and cooling units were serviced through the program in 2015.
- IPL implemented both measure-specific and general awareness campaigns to promote this program in 2015. Measure-specific campaigns included promotion of Wi-Fi thermostats, HVAC system tune-ups, and water heaters. Additionally, IPL implemented general awareness campaigns, leveraging long-time PowerHouse TV hosts Pete and Megan, and delivering the annual usage reports to all residential customers.
- Several rebate options had steady or increased participation, including the following equipment types in order of greatest to least participation:

1. HVAC System Tune-Up;
 2. Natural Gas Furnace;
 3. Central Air Conditioner;
 4. Clock Programmable Thermostat;
 5. WiFi Programmable Thermostat;
 6. Heat Pump (Air or Ground-Source);
 7. Water Heater;
 8. Room Air Conditioner;
 9. Doors; and
 10. Whole House Fan.
- Over 27,000 residential customers participated in the 2015 prescriptive rebate program. The strongest participation came from natural gas and combination customers (electric & natural gas) with nearly 15,000 customers, surpassing the annual goal by nearly 4,000 participants.
 - The investor owned utilities (IOUs) continued to work together with the vendor and implementer of the Heating, Ventilation and Air Conditioning (HVAC) System Adjustment for Verification Efficiency (SAVE) program to help implement and promote the requirements. Additionally, IPL and MidAmerican Energy continued to implement a Quality Assurance/Quality Control (QA/QC) process, started in late 2014, to ensure dealers are complying with program requirements.

2.1.3. Challenges

The Prescriptive Rebate program achieved only 46 percent of the electric savings goal. The electric results are due to several factors.

- Technology changes continue to impact individual equipment purchases. IPL has seen an increase in air source heat pump rebate applications as less traditional

heating and cooling equipment for lowa climate zones have become cost-effective alternatives for customers.

- IPL has identified measures with lower than expected participation in 2015 in comparison to Plan projections such as: heat pumps, central air conditioners/chillers, room air conditioners, programmable thermostats, and water heaters.
- IPL continues to make progress in balancing the program's overall goal, while marketing specific measures to increase participation in this program.

2.1.4. Future Steps

IPL will continue to seek opportunities to increase the per-participant depth of savings. Once a customer participates in an energy efficiency program, IPL will continue to seek opportunities to reach out to the customer and encourage additional energy-saving improvements.

IPL will continue to educate customers on the benefits of energy-efficient technologies and on the effective use of those technologies. Examples of these efforts are the Alliant Energy Newsletter and the annual natural gas and electric usage letters distributed to residential customers.

IPL is planning to implement both measure-specific (with emphasis on electric measures those identified above) and general awareness campaigns to promote the Residential Prescriptive Rebates program in 2016. IPL will continue to implement general awareness campaigns and delivering the annual usage reports to all residential customers.

2.1.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/rebates;

alliantenergy.com/financing; and

hvacsave.com.

2.2. Home Energy Assessments

2.2.1. Description

The Home Energy Assessment program offers: (1) a free energy assessment; (2) direct-installed low-cost energy efficiency measures; and (3) information on energy use and conservation. An energy expert conducts a walk-through energy assessment at the customer's home. As part of the energy assessment, the energy expert analyzes a home's main features and identifies energy efficiency opportunities.

Following the assessment, the energy expert will provide a report outlining the various measures that could deliver energy savings and provide information on rebates and financing options available from IPL.

Customers have the choice of upgrading to a Comprehensive Home Energy Assessment program option, which provides all the same features of a basic energy assessment plus advanced diagnostic testing: blower door, pressurized duct leakage test, and thermal imaging. This comprehensive assessment option is available for \$100, but if the customer makes the recommended improvements, the customer is eligible to receive a bonus rebate of \$100 to mitigate this cost.

2.2.2. Successes

In total, IPL performed 4,798 Home Energy Assessments (Basic, Comprehensive and Electric-only combined) in 2015, a 31 percent increase from 2014.

Customers report high satisfaction with the quality of their Home Energy Assessment, with more than 98 percent of respondents indicating they would recommend a Home Energy Assessment to a friend.

IPL paid insulation rebates to 1,843 customers in 2015, representing a simple close rate of 38 percent. Of the customers that received rebates, 1,178 had a Home Energy Assessment in 2015, indicating a modified close rate of 25 percent.⁴

2.2.3. Challenges

The following are some of the challenges identified with IPL's Home Energy Assessment program:

- IPL's Home Energy Assessors discovered that many homes had handheld showerheads and as a result, that customers were hesitant to give them up for a stationary showerhead included in the direct install measures. This reduced impacts from installing showerheads.
- IPL experiences challenges ensuring customers and contractors are including air-sealing at the time of insulation projects.
- Additional education to customers on the added benefits of completing a Comprehensive Home Energy Assessment and the bonus available to mitigate the additional cost continues to be needed to drive participation.

2.2.4. Future Steps

To provide additional water heating solutions for customers, IPL will introduce an option for high-efficiency, handheld showerheads for installation in 2016. These high-efficiency handheld showerheads may only replace existing handheld showerheads. IPL will monitor the installation rate and consider allowing customers to choose a handheld showerhead to replace a stationary, high-flow showerhead to increase savings.

⁴ The modified close rate excludes customers who received rebates in 2015 stemming from a 2014 Home Energy Assessment and customers who will receive insulation rebates in 2016 and had a Home Energy Assessment in 2015

Based on customer interest, IPL is introducing LEDs as a direct-install measure in 2016. IPL will further continue to monitor the wholesale price of 1200 and 1600 lumen LEDs for future consideration as a Home Energy Assessment Direct Install measure.

IPL will continue to educate both customer and contractors on the benefits of air-sealing at the same time as insulation projects.

IPL will continue to market Comprehensive Home Energy Assessments, starting with customers who had a Home Energy Assessment more than five years ago.

In an effort to increase energy efficiency improvements stemming from Home Energy Assessments, IPL will add potential rebate amounts to the Home Energy Assessment reports customers receive.

2.2.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/homeenergyassessment.

2.3. Change-a-Light

2.3.1. Description

Change-a-Light (CAL), which is branded as “*Be Bright*,” is an upstream program through which IPL provides incentives directly to lighting manufacturers to reduce the purchase price of ENERGY STAR® products at participating retailer locations in Iowa. The year-round upstream incentive mechanism helps to mitigate first costs for customers as a barrier to program participation and increases simplicity in purchasing high-efficiency lighting for customers.

IPL partners with retailers throughout its service territory to promote the program by offering program-discounted compact fluorescent lamps (CFLs) and light-emitting diode lamps (LEDs). Customers receive the product discounts at the point of sale. IPL works with an implementation contractor to negotiate and coordinate with manufacturers and retailers, develop and lead promotional efforts, provide training and other on-site support to participating retailers, and report sales data.

2.3.2. Successes

Be Bright was extremely successful in 2015, achieved electric energy savings of 28,906,129 kWh, which was 304 percent of the program's goal. The program also sold more than 799,804 bulbs, achieving 98 percent of the program's goal. The following further details the success of the program.

- The program mix consisted of 80 percent CFL bulbs, 20 percent LED bulbs and fixtures. Over 475 retail store locations in Iowa participated in *Be Bright* promotional activities.
- More than 1,000 retail sales associates received training on the benefits of replacing incandescent light bulbs with CFLs and LEDs, equipping the associates to inform their customers of the benefits of replacing incandescent light bulbs.

- Over 2,300 point of sale signs were displayed in retail stores to educate customers and retail associates about *Be Bright*, further raising awareness of the benefits of energy efficient lighting.
- Seven community-based events and 54 in-store demonstrations took place in 2015, providing significant program awareness and customer and retailer engagement.
- The website *iowabebright.com* now includes educational videos and an event calendar highlighting in-store demonstrations and special events to enhance customers' knowledge of the *Be Bright* program when visiting a participating retailer.
- To ensure utility customers are provided with up-to-date information on the *Be Bright* promotion, a toll-free number is included on all promotional materials and advertising.

2.3.3. Challenges

As the residential lighting market transitions from incandescent to more-efficient options of CFLs and LEDs, the challenge of the *Be Bright* program is ensuring that consumers are purchasing high quality, energy-efficient products that are ENERGY STAR-rated through the program rather than non-rated equally priced but potentially lower quality bulbs. Providing continued education to customers and retailers while increasing brand awareness of the *Be Bright* campaign for the utility is important in realizing this transformation. IPL will continue to monitor the participation and interest from distributors to gauge program design considerations.

2.3.4. Future Steps

IPL will conduct additional outreach and education with customers and retailers in 2016 with more special events and in-store demonstrations. Value-added promotional events (events in conjunction with media buys at no additional charge to IPL) plus paid media and social media campaigns will be enhanced and expanded in an effort to educate customers on LEDs and efficient lighting technologies.

2.3.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/bebright; and

iowabebright.com.

2.4. Appliance Recycling

2.4.1. Description

IPL's Appliance Recycling program helps its electric customers remove and safely dispose of their old and inefficient refrigerators, freezers and room air conditioners (collectively referred to as "equipment"). The program prevents existing primary kitchen equipment from becoming secondary equipment in basements and garages when customers purchase new units. Certified agents perform disposal of removed equipment in an environmentally responsible manner. The process involves removing chlorofluorocarbon (CFC)-based refrigerant and preparing it for reclamation or recycling and recycling various material components such as metals, foam and plastic.

2.4.2. Successes

This mature program continues to deliver moderate results. In 2015, there were 9,329 appliances removed from customers' premises, including 5,922 refrigerators, 1,904 freezers, and 1,503 room air conditioners.

2.4.3. Challenges

Customer participation in the Appliance Recycling program continues to be steady; however, due to the market transformation of appliances through federal standards, IPL discontinued residential refrigerator and freezer rebates in 2013. Eliminating the refrigerator and freezer rebates also eliminated a previously utilized, cross-marketing program, under which IPL contacted customers who submitted appliance rebates and promoted the Appliance Recycling program for their old appliances.

2.4.4. Future Steps

IPL will continue to promote the Appliance Recycling program to electric customers through multiple venues, including the Alliant Energy Newsletter, social media, customer usage letters, on-line advertising, newspaper advertising, postcards, cross promotion with other IPL rebate programs and the Alliant Energy website.

2.4.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

[alliantenergy.com/appliancerecycling.](http://alliantenergy.com/appliancerecycling)

2.5. New Home Construction

2.5.1. Description

The New Home Construction program provides a unique opportunity to achieve long-term energy savings in single-family homes by capturing opportunities for improved energy efficiency during new home design and construction phases—opportunities which might otherwise be lost or become considerably more expensive to realize later. In 2014, IPL modified the performance criteria of this program, replacing the ENERGY STAR program with a Home Energy Rating System (HERS) score.

The program offers two participation options: (1) a prescriptive (measure-based) approach; and (2) a performance-based approach.

1. Option 1 is the IPL Builder Option Package (BOP), in which the builder agrees to implement energy efficiency measures from a pre-specified set of options in three categories: heating, cooling, and water heating. IPL verifies compliance through an on-site inspection before issuing a rebate payment.
2. Option 2 is the performance-based approach in which IPL uses a whole-house efficiency score (HERS) to qualify eligible homes, giving participants the flexibility to implement any of a range of measures to achieve program compliance. Under this program track, homeowners and builders choose the most appropriate energy-saving features for the home to meet the requirements for one of two performance tiers: the Advanced Performance Home and the High Performance Home. To demonstrate compliance, a Residential Energy Services Network (RESNET)-accredited professional energy rater must model the home's performance using the HERS guidelines, procedures, and tools.

2.5.2. Successes

The New Home Construction program achieved 91 percent of its overall participation goal processing 498 new home construction applications and resulting in achieving 293 percent of its electric savings goal. In 2015, IPL introduced a HERS bonus rebate for customers who achieve a HERS score of 50 and 45, incentivizing customers to take the next step of energy efficiency in their homes.

2.5.3. Challenges

Given the cost-effectiveness requirements of IPL's plan, New Home Construction packaged rebates, can at times, compete with individual equipment prescriptive rebates.

IPL has identified that the growth in new home construction in IPL's territory has been significant in its electric service territory and declining in the natural gas territory. In IPL's Board approved Application for Limited Modification, IPL will shift participation goals from natural gas to electric in recognition of this trend.

2.5.4. Future Steps

IPL will continue to seek ways to maximize marketing efforts for the program in an effort to capture a larger percentage of new home starts. Additionally, IPL continues to market the program to gas communities in an effort to improve participation in these communities.

IPL will continue to market the requirement of pre-registration of homes to assist in implementing its QA/QC plan.

IPL will continue to seek opportunities to educate builders, raters, code officials, home owners, and other contractors involved with new construction; a key feature of IPL's Builder Training Conference (see 2.20).

2.5.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

[alliantenergy.com/newhomeconstruction.](http://alliantenergy.com/newhomeconstruction)

2.6. Multifamily

2.6.1. Description

IPL offers a comprehensive suite of energy-efficiency services to address the unique needs of multifamily property owners, property managers, and landlords. The program targets existing multifamily buildings⁵ as well as new construction of multifamily buildings. The Multifamily Program includes four components:

1. A free energy assessment (Total Property Energy Assessment or “TPEA”) with direct installation of low-cost energy-efficiency measures for tenant units and common areas;
2. Prescriptive rebates;
3. A custom rebate component if it is recommended or warranted; and
4. A new construction rebate with incentives paid per square foot for new multifamily facilities.

2.6.2. Successes

The Multifamily program achieved 425 percent of its electric goal resulting in 643,413 kWh saved and 157 percent of its natural gas goal with 9,215 therms saved.

- IPL completed 162 multifamily TPEAs compared to the plan goal of 60 due to increased program awareness driven by IPL marketing plan and success of a new program vendor in 2014.
- IPL’s agreement with MidAmerican Energy for joint sharing of impacts and costs for shared customers resulted in the completion of direct install measures in 89 buildings in which IPL would have otherwise not been able to serve in the program as the electric service-only provider.

⁵ IPL defines multifamily as three plus units in one building shell, three stories or less, on a single lot with common space.

- IPL has been in contact with cities, builders and developers to promote its new construction portion of the program. Several projects pre-registered in 2014 and 2015, and IPL anticipates that these projects to close in the near future.

2.6.3. Challenges

The ability to reach renters and owners of multifamily units remains a challenge, as the direct customer of IPL may be either the renter or the owner.

- Marketing the value of retrofit projects and investing in energy efficient upgrades continues to be difficult, as the party making the investment (either renter or owner) in the project may not benefit from the utility bill savings depending who is the direct IPL customer.
- There are situations in which applying for a prescriptive rebates would allow the customer to attain a higher rebate amount than if the customer went through the Multifamily New Construction program.

2.6.4. Future Steps

IPL program managers continue to participate in multifamily conferences and meetings to reach this audience. IPL will continue to look for opportunities to promote its program and educate the builders, owners and developers in the multifamily community using joint utility marketing.

2.6.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/multifamily.

2.7. Low-Income Weatherization

2.7.1. Description

IPL, Black Hills Energy, and MidAmerican Energy jointly implement the Weatherization Assistance Program (WAP) through the Iowa Utility Association (IUA). IPL contributes program funding through the Iowa Department of Human Rights (DHR). These funds reimburse Community Action Program (CAP) agencies for the costs of performing energy assessments and purchasing and installing qualifying energy efficiency measures in residences occupied by low-income families. WAP is available to homeowners and renters whose income level is at or below 200 percent of the Federal Poverty Level (FPL). Homes occupied by the elderly, individuals with disabilities, and families with children under the age of six are prioritized for weatherization assistance, as are households with high energy usage. CAP agencies market and deliver the program to low-income customers, and the DHR's Division of Community Action Agencies (DCAA) administers the program.

2.7.2. Successes

In 2015, total, IPL provided \$3.2 million to the Iowa Department of Human Rights (IDHR) to implement the program. Weatherization assistance was provided to 1,023 customers (642 electric and 381 natural gas), saving an estimated 614 kWh and 233 therms per home, for a total estimated program savings of 394,259 kWh and 88,733 therms.

Green Iowa AmeriCorps provided supplemental weatherization services to IPL customers in Delaware, Dubuque, and Jackson counties in collaboration with the community action program (CAP) agency, Operation New View. The supplemental weatherization services reached an additional 39 customers. Based on the successful partnership between Green Iowa AmeriCorps, Operation New View, and IPL, supplemental weatherization services have

expanded in partnership with an additional agency, Southern Iowa Economic Development Association (SIEDA).

2.7.3. Challenges

The continued decrease in price of LEDs presents an opportunity for Community Action Agencies (CAAs) to move away from CFLs to a higher-efficiency option for limited income customers. While IPL supports the agencies' transition toward LEDs, the federal weatherization program does not allow LED installations, limiting access to this energy efficiency technology in affordable housing.

As federal agencies whom that fund the weatherization program increase, the reporting and code compliance requirements from IDHR while keeping funding steady, agencies expect the number of homes weatherized to gradually decline over time, reducing both gross and per-capita savings and the number of customers reached.

2.7.4. Future Steps

IPL will continue to implement the program as designed while seeking opportunities to increase energy savings attributed to this program by working with CAP agencies to identify additional energy efficiency measures.

2.7.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/weatherization.

2.8. Low-Income EnergyWise Education

2.8.1. Description

IPL, Black Hills Energy, and MidAmerican Energy jointly implement the EnergyWise Energy Education program through the IUA. The objective of this energy education initiative is to increase energy awareness among low-income customers, thus improving efficiency and reducing their energy expenditures. All participating households receive energy education from their local CAP agency along with a kit of energy efficiency measures they can install in their homes.⁶

2.8.2. Successes

Savings attributed to IPL customers through this program are 786,139 kWh and 33,778 therms. CAP agencies distributed 3,500 EnergyWise kits statewide in 2015. The addition of an LED bulb to the kit in 2015 increased the lighting installation rate.

2.8.3. Challenges

Due to fewer customer applications for assistance, agencies delivered 1,000 fewer kits statewide in 2015 than in 2014, decreasing natural gas savings. Additionally, EnergyWise survey respondents indicated the installation rate on the 900 lumen CFL was higher than the installation rate of the 900 lumen LED, which was added to the kit in 2015.

2.8.4. Future Steps

IPL will attend on-site training offered by Cadmus Group and survey the agencies on how they distribute kits. IPL will learn best practices from agencies distributing the most kits to encourage other agencies to employ those practices.

⁶ Kits includes 1-9W LED, 1-13W CFL, 1-18W CFL, low-flow showerhead, kitchen and bathroom faucet aerators, furnace air filter alarm, roll of rope caulk, digital thermometer, water flow measurement bag, a window film kit, and a booklet on energy saving practices.

EnergyWise participants will receive more information on LEDs to increase the installation rate, thus increasing customer savings.

2.8.5. Program Details on the Alliant Energy Website

Not applicable.

2.9. Low-Income Multifamily and Institutional Efficiency Improvements

2.9.1. Description

IPL, in coordination with Black Hills Energy and MidAmerican Energy, participates in the funding of the Multifamily and Institutional Efficiency Improvements program. The program identifies and markets energy efficiency improvements to eligible low-income multifamily properties and institutional facilities where low-income customers reside.

2.9.2. Successes

IPL experienced a significant increase in participation in Multifamily and Institutional Efficiency Improvements in 2015. Eighty-one buildings served by IPL received audits and 792 units received Direct Install measures.

Anecdotally, word-of-mouth for Multifamily and Institutional Efficiency Improvements has been the primary marketing vehicle, as owners/managers that run multiple affordable housing properties enrolled and advised other owners/managers of the service.

2.9.3. Challenges

Moving Multifamily and Institutional Efficiency Improvements-eligible properties from the audit and Direct Install measures to deeper retrofits is an extraordinary challenge. Despite the success with the volume of audits, only one project took advantage of the formula rebates available through Multifamily and Institutional Efficiency Improvements.

IPL expects this trend to continue, as Section Eight voucher rules prevent energy efficiency improvements from benefiting property owners and managers beyond non-energy benefits.

2.9.4. Future Steps

IPL will continue to perform audits and installation of energy saving measures in Multifamily and Institutional Efficiency Improvements-eligible properties. The audit reports will continue providing energy-efficiency improvement recommendations and will highlight rebates.

2.9.5. Program Details on the Alliant Energy Website

Not applicable.

2.10. Home Energy Savers

2.10.1. Description

The Home Energy Savers program offers a comprehensive energy audit and installation of cost-effective energy efficiency upgrades for limited-income customers. Home Energy Savers closely mirrors the Low-Income Weatherization program. The most notable differences are that customers must have both heating fuel and electricity provided by IPL, customers are first-come, first-served, and the premises must be single-family and owner-occupied.

2.10.2. Successes

Home Energy Savers fulfilled its goal for limited income customers. Eight CAP agencies completed homes in 2015, an increase from 2014, when; only four agencies completed homes in 2014. Marketing input from participating agencies dramatically reduced lag between customer enrollment and service.

2.10.3 Challenges

IPL's greatest challenge continues to meet customer interest within the program budget constraints. Additionally, IPL will consider reevaluating which general repairs program funds will cover to control costs on a per-household basis.

2.10.3. Future Steps

In 2016, IPL will continue upon the successes of Home Energy Savers. IPL and the agencies will collaborate on direct mail marketing, which will continue to be the primary marketing channel.

2.10.4. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/homeenergysavers.

2.11. Nonresidential Prescriptive Rebates

2.11.1. Description

The Nonresidential Prescriptive Rebates program offers a broad range of services, including technical resources, appliance recycling, and financial incentives in the form of rebates and financing options to encourage nonresidential customers to adopt more energy-efficient measures and practices. On any given project, customers must choose between receiving incentives or a low-interest loan. Although the program is available to all nonresidential customers, the program's focus is to provide simple solutions for the non-managed, small business customer group.

In 2015, IPL added five new prescriptive rebates and discontinued none. Table 2.11-1 reflects the specific changes.

Table 2.11-1 Prescriptive Rebate Changes

New rebates	Rebate amount
LED replacements for linear fluorescents	\$0.40 per watt reduced
Variable refrigerant flow heat pumps	\$50/ton
Ductless heat pumps	\$200 per outdoor unit
Steam trap replacement	\$100
Refrigeration system tune-up	\$20/ton

2.11.2. Successes

In 2015, the Nonresidential Prescriptive Rebate program delivered annual electrical energy savings of over 36.9 million kWh, or 165 percent of goal.

Variable frequency drive (VFD) measures lead the success of electric impacts by 49 percent of the electric savings. Lighting measures continue to produce a high percentage of electric impacts with 33 percent of the total kWh saved.

While lagging impact goals for natural gas measures, insulation and furnace measures made up the majority of the savings with 64 percent of impacts for insulation and 23 percent for furnaces.

Energy Assessments were successful in 2015 (see section 2.12), with 25 percent of assessment customers receiving a recommendation to implement insulation and infiltration controls. Of these eligible projects, IPL saw a 32 percent conversion rate from recommendation to completed insulation projects.

Beyond insulation, IPL developed additional marketing activities in 2015 to encourage assessment customers to complete installation of all recommended measures. IPL implemented the following outreach to increase participation for prescriptive rebates after the customer assessment:

- Email customer customized report with rebate forms and survey after assessment.
- Mail hard-copy report to customer one week after assessment.
- Call customer to verify they received report and if they have any questions two weeks after assessment.
- Email customer with a reminder of the top three recommendations from the report six weeks after assessment.

2.11.3. Challenges

IPL came in under expectations for natural gas savings impacts in 2015 at 57 percent of goal at 366,328 therms, despite spending 126 percent of the promotional budget. The Application for Limited Modification, approved by the Board, proposes a remedy for lagging participation in natural gas measures by setting new participation goals and corresponding budgets in line with recent trends for Plan years 2016 through 2018.

Reaching small business customers continues to be a challenge, as it is traditionally the most difficult nonresidential group to target. Business owners are often not the building/facility

owner. In addition, reaching agreement with owners on investment in energy efficiency can be difficult and time-consuming.

2.11.4. Future Steps

- IPL continues to investigate expanding the prescriptive rebate program to include new or improved measures.
- IPL will continue its outreach efforts to assessment participants to encourage implementation of recommendations (See 2.11.2).
- IPL has specific marketing campaigns planned for 2016 including HVAC tune-up programs, the value of energy assessments, geo-targeting general rebate awareness and the annual business energy reports.

2.11.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/iabusinessrebates.

2.12. Business Assessments

2.12.1. Description

The Business Assessments Program offers free energy assessments by professional energy assessors, installation of free energy-efficiency measures (where applicable), and customer education to promote energy efficiency among IPL's nonresidential customers.

Customers who participate in the Business Assessments Program may also receive:

- Information on their facility's energy performance and advice to help them prioritize investments in energy-efficiency upgrades;
- One-on-one education on energy use and conservation;
- Free, direct installation of energy-efficiency measures and enhanced incentives for installing lighting measures through the Small Business Direct Install Lighting Program; and
- A customized report that recommends and prioritizes energy-efficiency upgrades, provides a life-cycle cost analysis for recommended measures, and indicates measures that may be eligible for IPL rebates.

Recognizing the varying customer characteristics, building types, and assessment needs among IPL's nonresidential customers, the program provides three on-site assessment tracks. Assessment tracks generally target different sizes of customer facilities, with larger facilities receiving assessments that recognize more complicated energy-using equipment and building interactions. Tracks include:

- Small Business Assessment;
- Mid-Size Business Assessment; and
- Commercial and Industrial Energy Audit.

2.12.2. Successes

In 2015, IPL conducted a record number of business energy assessments completing 1,357 small business assessments, 95 mid-sized assessments and 135 commercial and industrial energy audits.

- 49 percent of small business energy assessments included a recommendation to pursue the Small Business Energy Solutions program for lighting upgrades
- IPL added 9-watt LED bulbs to the direct installs during small business assessments.

The Small Business Energy Solutions direct install lighting program began as a pilot in 2013 in the Cedar Rapids metro area and expanded statewide beginning in 2014. 250 small business direct-install lighting projects were completed resulting in 5.5 million kWh savings, exceeding the program goal of 4.4 million kWh.

- 73 electrical contractors deliver the program throughout the service territory; 50 of which completed at least one project in 2015.
- The average incentive to cost ratio was 49 percent.

2.12.3. Challenges

IPL needs to review the list of direct install measures to better match the needs of business owners such as reviewing additional LED options to replace CFLs in future years.

2.12.4. Future Steps

- Continue a variety of marketing efforts to emphasize the value of having a small business energy assessment by promoting the program and its benefits in social media, direct mailings, chamber emails, business magazines and promoting videos of business owners discussing their assessment experience at their company.
- Hold trainings across IPL's service territory to review the Small Business Energy Solutions program with lighting contractors.

- Continue collaboration on joint assessments. Examine mix of direct install equipment and determine appropriate additions and changes.

2.12.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/business.

2.13. Custom Rebates

2.13.1. Description

The Custom Rebates program promotes energy-efficiency products and practices among commercial and industrial (C&I) customers. The program's custom incentive structure gives energy users the flexibility to install a broad range of high-efficiency equipment that is not included in IPL's Nonresidential Prescriptive Rebates Program. The program also encourages customers to implement equipment optimization and/or operational and process changes that reduce energy consumption and peak demand. The Custom Rebates program also offers incentives for new on-site combined heat and power (CHP) projects, subject to program rules.

Other customer options within the Custom Rebates program include:

Feasibility Studies:

IPL offers technical assistance and funds the cost of a feasibility study up to \$15,000 in order to provide customers investment-grade estimates for energy saving projects. IPL will reimburse a customer 50 percent of the study cost (up to a maximum study cost of \$7,500) upon acceptable completion and delivery of the study. If a customer implements at least 75 percent of the recommended measures (based on energy dollar savings) within 18 months of the study date, IPL will reimburse the customer the remaining 50 percent of the study cost (up to a maximum study cost of \$7,500). Projects implemented may also be eligible for an additional Custom Rebate incentive, if they meet the qualifications for the program.

Retro-Commissioning (RCx):

RCx evaluates a facility's usage and systems and identifies ways to optimize its direct digital controls (DDC) or process controls. Most improvements will be no- to low-cost operational and maintenance solutions that can significantly reduce the energy consumption of a building and will fall within a two-year payback package. These projects are not eligible for an additional Custom Rebate incentive. While individual project incentives are not paid, IPL

provides for 100 percent reimbursement of an RCx study cost (50 percent at study completion and 50 percent at implementation of the identified two-year payback package).

Building Operator Certification (BOC®):

IPL, along with Black Hills Energy and MidAmerican Energy, offers commercial and industrial customers tuition reimbursement for successful completion of BOC training and certification. The Midwest Energy Efficiency Alliance (MEEA) administers the BOC program, which is a nationally recognized training and certification. The training provides building operators with enhanced skills and an industry-recognized professional credentialing. The participants' improved job skills and knowledge transform workplaces to be more energy efficient.

2.13.2. Successes

IPL saw successes across each of the customer options available within the Custom Rebate program.

- Custom Rebates: Natural gas projects increased this year, with 52 projects achieving 355 percent of the goal and generating 895,650 therm savings. Cumulatively, the program rebated 315 electric and natural gas projects.
- Feasibility Studies: In 2015, 27 study proposals were pre-approved, 15 studies were completed and the customer reimbursed for the first half of the study costs. In addition, two customers who completed feasibility studies implemented the recommended energy- efficiency improvements and received reimbursement for the second half of their study costs. The rest include studies that are still in progress.
- RCx: Milestones for the RCx program in 2015 include:
 - IPL completed two RCx projects resulting in 1,319,354kWh of savings.
 - Eight ongoing projects are in various stages (from study to implementation) in K-12 education, hospitals, public assembly and warehousing.

- BOC: IPL had five customers attend BOC training in 2015.

2.13.3. Challenges

Not all IPL C&I customers are able to provide internal staff with knowledge or expertise to build energy efficiency into the process and/or facility upgrades. The same is true regarding implementing energy efficiency projects identified in energy audits. As more stringent energy efficient codes and standards are adopted, and the market is transformed, it has become more challenging to attain energy savings goals.

Considering the amount of time required from project inception to study completion to implementation and verification, RCx and Feasibility Study projects are more involved and take longer to implement than Custom Rebate projects.

Identifying new CHP projects continues to be a challenge for IPL.

2.13.4. Future Steps

- Key Account Managers will continue to actively promote and pursue customer energy-efficiency opportunities with midsize and large commercial and industrial accounts.
- IPL will research opportunities to increase customer outreach by specific industry segments with the goal to encourage energy efficiency in markets that may currently be underserved.
- IPL will research strategic energy management systems with customers to find opportunities and implement strategies for attaining and sustaining energy savings.
- IPL will increase marketing to small and mid-size manufacturing facilities, which constitute a significant opportunity for energy efficiency savings.
- IPL will continue to enhance Custom Rebate programs through additional promotion of the value of energy audits, Feasibility Studies and RCx projects.
- IPL is continuing its efforts to train Key Account Managers and develop marketing materials.

- IPL continues to host its annual Energy Summit Conference and Awards event, promoting its C&I programs through industry speakers, vendor booths, customer testimonials and recognition of top performing projects.

2.13.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/customrebates.

2.14. Commercial New Construction

2.14.1. Description

The Commercial New Construction (CNC) program's objective is to capture potentially lost opportunities to reduce electric demand and energy usage in the commercial and industrial sector by providing customers with energy design assistance for the construction or major renovation of energy-efficient buildings and facilities. The program offers multi-tiered incentives, consisting of Energy Design Assistance (EDA), a Design Team Incentive (DTI), and a Construction Incentive. The Weidt Group (TWG) administers this program, which IPL, MidAmerican Energy and Black Hills Energy uniquely designed and implemented as a joint-utility effort.

The program offers multiple tracks to meet the goals of achieving deeper savings per project and reaching a wider market:

- Track I – This track is an option targeting new construction and major renovations of commercial buildings with a minimum of 5,000 square feet up to 15,000 square feet in size that are primarily design/build or design/bid/build construction.
- Track II – This track targets buildings larger than 15,000 square feet that are straightforward in design and may be on a faster design schedule. Track II provides evaluation of efficiency options for up to three types of standard mechanical system solutions.
- Track III – This track is used for projects meeting early design assistance qualification criteria with enough time to integrate new ideas and strategies into the design. Buildings designed in this track are typically considered to have more complicated mechanical system solutions and/or more complex building types.
- Track IV – This track engages teams very early in the design process with specialized services to support building massing options, daylighting and early mechanical system

analysis. This track helps building owners or developers with energy savings goals of 40 to 60 percent better than the state building and includes certification support for LEED for qualifying projects.

- Renovation Pilot – This pilot program under the Commercial New Construction Program umbrella was launched in the fall of 2015. This pilot is for existing commercial buildings starting at 5,000 square feet that do not qualify for the major renovation option for the Tracks listed above. The pilot helps building owners who are considering at least one system replacement; envelope, lighting or heating/cooling. The pilot offers whole building energy modeling with results with all three of those energy using systems to demonstrate the value of a whole building approach to energy efficiency. Incentives are valid for three years allowing planning beyond the originally considered system.

2.14.2. Successes

In 2015, the Commercial New Construction Program participation was 185 percent of goal, and produced 20,746,103 kWh, which translates into 138 percent of the electric savings goal. IPL achieved 895,650 therm savings or 355 percent of the goal.

Marketing efforts resulted in increased applications and project starts in 2015 versus 2014. The CNC program is unique in that projects started in the calendar year usually yield energy impacts in the following two years as a result of design and construction cycles. Following the trend of increase from 2014, applications in IPL service territory in 2015 increased by 16 percent from the previous year, up from 70 to 81 applications. While not all applications convert into projects, this trend shows more owners and design teams are aware of the program and submitting projects for consideration.

There were 35 projects started in Tracks II – IV in 2015 compared to 28 in 2014. This is a 25 percent increase over the previous year. The Renovations Pilot launched in late 2015 with two project enrollments.

2.14.3. Challenges

From the start of energy design assistance to construction completion and verification, CNC projects take 15 to 20 months on average. Due to this long timeframe, marketing initiatives often result in impacts lagging one or two program years behind.

2.14.4. Future Steps

- IPL will continue its individual marketing efforts to capture a greater share of construction projects in its territory.
- TWG offers educational seminars for design professionals statewide and year round including education on the Renovation Pilot Program.
- IPL continues to collaborate with the other IOUs and TWG by promoting the CNC Excellence in Energy Efficient Design awards at the annual convention of the American Institute of Architects, Iowa Chapter.

2.14.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/cnc.

2.15. Agriculture Sector Program

2.15.1. Description

The Agriculture Sector program helps IPL's farm and agribusiness electric customers improve their overall energy efficiency and reduce production costs. The program provides a comprehensive range of energy efficiency incentives to agricultural customers via a suite of products, including agriculture-specific prescriptive rebates, custom rebates, free farm energy audits and online energy savings calculators. The program also provides incentives to trade allies who sell and install energy-efficient farm equipment.

IPL also works with customers completing loan and grant applications for new equipment upgrades through state and federal energy efficiency programs including the USDA Rural Energy for America Program (REAP), the National Resources Conservation Service EQUIP program, and others as they become available. This outreach effort seeks to inform customers about incentives available for the equipment they are considering.

2.15.2. Successes

In 2015, IPL achieved 166 percent of the kWh savings goal with over 6 million kWh saved. Additionally, the Ag program recorded 15,626 therms of natural gas savings.

- 385 customers participated in the program.
- Improvement in livestock business for agricultural customers in 2015 and particular interest in LED lighting contributed to the program's success in exceeding goals.
- IPL added and promoted a prescriptive rebate for farrowing heat mats, resulting in two large swine producers installing these systems in their facilities.
- The Ag program produced 40 projects contributing 2,934,769 kWh to Custom Rebate impacts.

- IPL completed detailed analysis on several projects formerly completed within the Custom Rebate program for large grain dryers and grain bin aeration fan controls. IPL will offer prescriptive rebates for these two technologies starting in 2016.

2.15.3. Challenges

- Manufacturers, equipment suppliers, and builders are the keys to success of the IPL agriculture program. Communication efforts to keep these participants involved and offering the most efficient equipment is an ongoing challenge.
- Marketplace fluctuations are difficult to project in determining how different agriculture segments will be willing or able to participate in the IPL agriculture program.
- Lack of agriculture sector LED bulb and fixture certifications, such as ENERGY STAR or Design Lights Consortium, is a challenge to assure customers of energy savings value.

2.15.4. Future Steps

- IPL will continue to promote its Free Farm Energy Assessment as a way to inform customers of energy efficiency opportunities.
- IPL will continue to promote its programs at trade shows and other agricultural based forums to customers and agriculture-related Energy Efficiency Dealers. In addition, IPL will continue to provide one-on-one outreach to the agriculture dealer network.
- IPL will continue its focus on education of agriculture-based energy efficiency and safety.
- IPL will continue to promote the advantages of energy efficiency to the grain and livestock sectors as a cost reduction tool during times of unpredictable profit margins.

2.15.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/ag.

2.16. Non-Targeted Energy Awareness and Information

2.16.1. Description

Now more than ever, customers are engaged in energy efficiency. Concerns about climate change and the effect of increasing energy prices have generated significant interest in tools and methods for saving energy. IPL's non-targeted Energy Awareness and Information initiative includes the following components:

PowerHouse TV

For 19 years, Alliant Energy has produced PowerHouse TV, an educational television program that focuses on energy efficiency for the home. Airing once a week on stations across the service territory, the program offers useful tips on improving home energy use through more-efficient heating, cooling, lighting and more. In addition to the television program, PowerHouse TV also has a website that provides supplemental articles, energy-related facts, energy savings calculators and links to other informational websites.

Speakers Bureau

IPL also supports a Speakers Bureau, a collection of knowledgeable IPL staff who are available to give presentations for groups and organizations that are interested in energy efficiency. Topics of interest include renewable energy, energy conservation, the environment, rates and energy generation. IPL staff tailors the presentations for a broad range of audiences and present the information in a manner that is understandable to lay people. Presentations are made to civic organizations such as the Rotary and Kiwanis Clubs, schools and businesses.

Renewable Information and Technical Assistance

IPL will continue to educate customers on the benefits, site requirement, and the costs of renewable generation systems, thus enabling customers to make informed decisions prior to installing a system.

2.16.2. Successes

IPL saw successes across each of the customer programs available within the Non-Targeted Energy Awareness and Information program.

- Through the Speakers Bureau program, IPL spoke at 17 different events throughout the service territory.
- IPL has a Facebook fan site and a Twitter account for the PowerHouse TV show to continue to increase the accessibility of energy efficiency information. Approximately 2,645 people (a 2.7 percent increase year-to-date) follow PowerHouse TV on Facebook and 474 Twitter subscribers (a 2 percent increase year-to-date) receive our tweets as of April 7, 2016.
- In 2015, IPL worked to leverage and integrate social media with traditional outreach methods through Facebook and Twitter advertising, which encourages users to like/follow the accounts and directs the targeted audience back to the PowerHouse website.
- Social media engagement has consistently been above the average engagement level of 3 percent through the past year with the use of interactive content and post engagement ads, which reach targeted audiences.
- IPL produced six new PowerHouse TV shows in 2015 that included topics such as saving energy with electronics and phantom power, new home construction and performance testing, do-it-yourself energy saving ideas, waste water heat recovery systems, choosing energy-saving appliances, and ductless mini-splits.
- IPL held a quarterly editorial meeting with a cross-section of IPL staff to develop show content, discuss ideas and potential new technologies to feature.

- Along with sponsorship and support of renewable events, IPL continues to maintain the renewables information page and staff from the Distributed Generation Hotline are available to assist customers with questions.

2.16.3. Challenges

IPL continues to work on expanding social media marketing and integrating it with traditional outreach methods as a new delivery channel for energy-efficiency information.

IPL finds that the Twitter audience is less likely to respond to ads encouraging users to follow Alliant Energy on Twitter than similar ads on Facebook. IPL's Twitter audience has lagged behind the Facebook audience, so IPL continues to work to engage this audience.

IPL has been incorporating more questions that are open-ended in Facebook posts to help raise engagement and interactions with its pages, but responses can be inconsistent.

2.16.4. Future Steps

IPL continues to analyze how to effectively incorporate social media into the PowerHouse TV and Renewable Information and Technical Assistance outreach to best provide information to customers in a useful and timely manner.

2.16.5. Program Details on the Alliant Energy Website

Detailed information about these programs are available at:

- powerhousetv.com;
- alliantenergy.com/speakersbureau; and
- alliantenergy.com/sellmypower.

2.17. School-Based Energy Education

2.17.1. Description

IPL currently offers two school-based energy education initiatives: Alliant Energy Kids and LivingWise®.

Alliant Energy Kids

Through classroom curricula, fourth and fifth grade students learn about the science of electricity and natural gas, the importance of conserving energy, and the relationship between energy and the environment. The program includes lesson plans and access to an education-rich publication, “The Energy Zone”, along with online games that enhance energy awareness and education. Teachers can order the 12-page student publication each fall for each student they teach. The lesson plans, online games, and activities to do at home or school are available online.

LivingWise

LivingWise is a school-based energy education initiative for middle-school aged students. IPL implements this hands-on approach to energy efficiency education and home energy use in several IPL communities. Each participating student receives a kit with low-cost measures, such as a low-flow showerhead, CFL and faucet aerator. The curriculum is designed for middle school-aged children with in-class and at-home assignments. Program goals are:

- to increase knowledge and awareness of energy production and use;
- to promote adoption of resource-saving actions; and
- to familiarize students with the contents of the energy-saving kit and encourage the installation of those measures in students' homes.

The LivingWise program educates young people about energy-efficient behaviors and tools while providing immediate savings for families.

2.17.2. Successes

IPL and Black Hills Energy continue collaboratively implementing the LivingWise program in shared communities. During the 2014-2015 school year, 226 teachers and 11,585 students in Iowa participated in the LivingWise program.

From our teacher focus groups, IPL learned that some teachers found it challenging to implement the two-week LivingWise program, IPL and its vendor created an optional five-day teaching unit plan, which was offered in 2015.

IPL introduced the School Energy Challenge in 2015-2016 year, as an enhancement to the LivingWise program. The focus is to create a fun, interactive challenge amongst participating schools by creating a competition amongst schools, teachers, students, and their families. IPL has four school districts participating in the challenge including Cresco, Lansing, Postville, and Waukon and initial feedback has been very positive. IPL will have challenge results reported in its 2016 Annual Report.

2.17.3. Challenges

Teachers continue to be limited in their classroom time available for non-state mandated curricula. It is challenging to provide resources that teachers will use to teach energy education in the classroom.

When IPL filed the savings targets for this program, it used a 2 percent savings estimate on heating and cooling consumption, based upon the Department of Energy's (DOE) calculations. However, in 2014, the DOE lowered its saving estimate to 1 percent, resulting in a reduction of kWh and therms behavioral savings for this program. This adjustment will continue to be a challenge for savings attainment during the five-year EEP.

2.17.4. Future Steps

Due to the popularity of smartphones and tablets, IPL is planning to develop an app that students can download, as well as updating current online games that will complement and

enhance the other energy efficiency resources that are part of Alliant Energy Kids. IPL is coordinating the creation of an app and an AE Kids website makeover with an overall makeover of IPL's website.

In an effort to educate students and parents on new technologies, IPL added two LED bulbs to the program's home kit starting fall of 2015. IPL will have results and feedback to report in its 2016 Annual Report. IPL will continue to research and consider new technology offerings for this program.

2.17.5. Program Details on the Alliant Energy Website

Detailed information on these programs are available at:

- alliantenergy.com/schools; and
- alliantenergykids.com.

2.18. Tree Planting

2.18.1. Description

IPL offers three tree-planting programs in an effort to expand outreach and education on the energy efficiency impacts trees can offer.

1. Branching Out – This community-based planting program offers grants between \$1,000 and \$10,000 for projects involving parks, nature trails, schools, libraries and other community projects.
2. Operation ReLeaf – This is a residential planting program that gives IPL residential customers the opportunity to purchase landscape trees at a discounted price, offers energy-efficient tree planting tips, and provides education on how to plant a tree correctly.
3. Storm Funds – This is a residential and community tree-planting program aimed to assist in recovery from natural disasters and to offer educational programs on the energy efficiency of trees.

2.18.2. Successes

IPL saw successes across each of the customer options available within the Tree Planting program.

- There were six new communities receiving Branching Out funds in 2015 that had not applied to the program before. Those communities are: Mount Pleasant, Miles, Coulter, Sabula, Massena and Roland.
- Branching Out awarded 74 grants to communities resulting in 2,730 trees planted
- Three new counties hosted an Operation ReLeaf event in 2015 that had not hosted an event before. Those locations included Decatur, Hamilton, and Muscatine counties. 2,105 customers participated in Operation ReLeaf with 4,595 trees sold.

- IPL did not have any communities apply for Storm Funds in 2015.

2.18.3. Challenges

It is challenging to ensure customers have the needed resources to plant and properly care for the trees once they leave the educational planting demonstration.

2.18.4. Future Steps

- IPL will continue to update customer-targeted materials showing the benefits of planting and caring for trees.
- IPL will continue to offer Tree Planting and Care Workshops during some Operation ReLeaf events to ensure customers have the knowledge to properly plant and care for the trees they purchased.
- IPL will continue to place both spring- and fall-confirmed Operation ReLeaf locations on the Alliant Energy website in the beginning of the year so customers can make an informed decision on which event they want to attend.

2.18.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

- alliantenergy.com/branchingout; and
- alliantenergy.com/releaf.

2.19. Hometown Rewards

2.19.1. Description

Hometown Rewards encourages participating communities to promote energy efficiency, environmental responsibility, renewable energy optimization and responsible growth on a community-wide basis. Hometown Rewards is a delivery channel for IPL's existing energy efficiency programs. IPL supports community efforts using energy-efficiency incentives for meeting community goals.

The Hometown Rewards program has the following goals:

- Maintains a strong educational component;
- Offers the program in multiple communities at a time;
- Assists communities in attainment of energy-efficiency and sustainability goals;
- Provides a delivery channel for energy efficiency programs; and
- Simplifies the program for participants, while ensuring the program is robust enough to have a significant impact on program participants.

Hometown Rewards also attempts to leverage the power of social norms to affect behavior change in the partner communities to generate excitement about the community's energy efficiency and sustainability initiatives.

2.19.2. Successes

Oelwein completed the Hometown Rewards program in 2015. The community received 100 percent of its potential reward, achieving its energy reduction goal. The city will be installing LED street lights in a local park with their reward funding.

Newton enrolled in Hometown Rewards in 2015. By the end of the year, government and residential electric reduction goals were on track to achieve their respective energy savings goals.

2.19.3. Challenges

- It is challenging to keep community volunteers engaged in the effort over a period of two years.
- Coordinating usage data in cities with different gas and electric is challenging, meaning that data are occasionally not available to determine complete savings.

2.19.4. Future Steps

- The community of Iowa Falls has been selected for IPL's starting Hometown Rewards program in 2016.
- IPL will recruit communities to participate in Hometown Rewards via direct appeal to community leaders in eligible IPL-serviced towns. In addition, IPL will also recruit Hometown Rewards partner communities who are jointly serviced with other utilities, including investor-owned and municipal utilities.

2.19.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/hometownrewards.

2.20. Builder Training

2.20.1. Description

IPL trains builders on energy efficient building practices, meeting building energy codes, and IPL's new construction programs. IPL collaborates with a range of building stakeholders and industry groups to conduct training and education sessions.

The primary feature of the Builder Training Program is IPL's Builder Training Conference, which consists of a one-day training offered in various locations around the state. The conference targets residential homebuilders, HERS Raters, realtors, and other contractors (e.g. HVAC, plumbers, electricians, framers, insulators and foundation specialists) to help them understand and comply with energy-efficient building codes. The conference also focuses on the technologies, tools, and strategies associated with a whole-house building approach.

2.20.2. Successes

The 2015-2016 Builder Training Conference continued the successful format of breakout sessions and a keynote speaker, and added a panel discussion track.

- IPL continued its partnership with MidAmerican Energy, and introduced Black Hills as a new partner, hosting an event in Council Bluffs.
- IPL included the offer of continuing education credits for participants in the 2015-2016 event.
- IPL continues to evaluate the effectiveness of this new offering for future events.

Attendee survey highlights included:

- 97 percent of conference survey respondents stated that they are inspired to build more-efficient homes after participating in this year's conference.
- 89 percent of people who replied to the survey said they are "likely" or "very likely" to attend the Builder Training Conference again next year.

2.20.3. Challenges

IPL will review venue locations around the state and the ideal number of conferences with the goal to grow participation. IPL will also seek ways to keep the materials relevant by soliciting feedback from the professionals, builders and trade allies who participate in the training.

2.20.4. Future Steps

IPL will continue to collaborate with stakeholders and take in participant feedback with the goal to identify any changes or modifications to the program materials.

IPL will continue to extend the offer to collaborate with other utilities to offer the program in other utility territories to encourage further training on building energy efficiency and energy codes. IPL will be researching the benefits and costs of offering more continuing education credits for the event, trying to capture some audiences that have not regularly attended

If the 2015 International Energy Conservation Code is adopted in Iowa, IPL will work with the Builder Training Steering Committee, comprised of utility energy efficiency program managers, staff from the State Fire Marshall's Office and leading professionals in the home building industry to adjust the conference offerings to support the new code.

2.20.5. Program Details on the Alliant Energy Website

Detailed information on this program is available at:

alliantenergy.com/buildertraining.

2.21. Energy Efficiency Dealer Network

2.21.1. Description

IPL places a high priority on building strategic relationships with dealers and trade organizations that are in a position to sell or upgrade mutual customers to high-efficiency equipment and/or measures. Additionally, a quality installation is an important factor in the level of savings achieved when a customer has energy-efficient equipment installed in a home or business. Educating contractors on proper installation techniques will help ensure customers receive the maximum benefit for their energy-efficient investment. Participants in IPL's Energy Efficiency Dealer Network fall into the following two categories:

1. **Energy Efficiency Associate:** This includes individuals and organizations that support IPL products and services. Trades targeted for the Energy Efficiency Associate status are bankers, realtors, architects, engineers and wholesale distributors and manufacturers.
2. **Energy Efficiency Dealer:** To become a dealer in the Energy Efficiency Dealer Network, dealers, contractors and builders must:
 - do business in the IPL service territory;
 - be involved in the sale or installation of energy-efficient comfort equipment, lighting, building shell measures, replacement windows, other energy-efficient equipment; or
 - be involved in the building of energy-efficient homes deemed eligible for IPL customer incentives, as well as meet insurance and participation guidelines.

2.21.2. Successes

In the fall of 2015, IPL hosted Dealer Roadshows in Ames, Burlington, Cedar Rapids and Mason City. These events explained the 2016 rebate and program changes, as well as obtained feedback from the attendees to help IPL better serve them.

- IPL has continued to out-perform the industry benchmarks of delivery rate, “click to open” rate, opt out rate and open rate of its EE Dealer Monthly Newsletter.
- IPL paid \$988,106.33 in incentives to dealers for promoting IPL’s rebated energy efficiency equipment.
- 27 dealers in the IPL Dealer Network surpassed 1,000 MBtus of impacts from the energy efficiency rebates submitted on behalf of their customers.

2.21.3. Challenges

Finding effective ways to communicate the benefits of membership in the IPL Dealer Network continues to be a challenge with non-participating dealers. Similarly, finding effective ways to communicate and reach current trade allies with updated program information in a way that is meaningful to all the different trade specialties remains a challenge.

2.21.4. Future Steps

Using the results from the 2015 EMV report, IPL will evaluate the effectiveness of its current Dealer Network and use the information to consider program improvements and changes. IPL will continue to research effective ways to communicate program updates to its dealers.

In 2015, IPL’s energy efficiency team paired up with its Cedar Rapids operations team to put on an event for local contractors in which they presented energy efficiency and technical standards and changes to local contractors. IPL is evaluating this venue’s effectiveness to consider expansion into other communities IPL serves.

2.21.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, incentives, and other participation criteria are available at:

alliantenergy.com/dealers.

2.22. Bright Ideas

2.22.1. Description

The mission of the Bright Ideas program is to stimulate grass roots enthusiasm for and innovation of energy conservation and efficient use of electricity, natural gas, and renewable resources in Iowa homes, farms, businesses, and government-owned buildings. The Bright Ideas program provides organizations the opportunity to design and implement their own energy efficiency and/or renewable outreach educational programs.

2.22.2. Successes

IPL received an application and funded one project in 2015. The City of Burlington applied to install six electric vehicle (EV) charging stations at points around the city. IPL will use the stations to monitor usage, track participation details and see how public charging stations affect demand usage.

2.22.3. Challenges

Some projects are more suitable for exploration under IPL's Research, Development and Demonstration program than in the Bright Ideas program with community or grass roots organizations.

2.22.4. Future Steps

- IPL will explore networking with energy efficient equipment manufacturers in Iowa (e.g., Lennox in Marshalltown) to collaborate on potential Bright Ideas projects.
- IPL will continue to investigate ways to measure, verify and report potential impacts of Bright Ideas projects.

2.22.5. Program Details on the Alliant Energy Website

Detailed information on eligibility and other participation criteria are available at:

alliantenergy.com/brightideas.

2.23. Research, Development and Demonstration

2.23.1. Description

As part of its continuous improvement process, IPL looks for opportunities to enhance its programs by offering new technologies, improving its delivery mechanisms, and incorporating new market intelligence into its Plan. This program is a mechanism to test promising new technologies and program approaches on a pilot basis.

IPL agreed to explore the following potential programs that show promise for the delivery of energy savings and/or enhancing its customer service offerings in the future. Those are:

- Data centers
- Behavior change – residential and nonresidential
- Efficient vehicles
- Transmission and distribution (T&D) optimization and loss reduction

2.23.2. Successes

Advanced Rooftop Unit Controls Pilot:

IPL recruited six customers across four industry segments: two manufacturers, one fitness center, two retail stores, and one educational facility for the Advanced Rooftop Unit Controls pilot. There were 61 total units retrofitted with a packaged control system. These retrofitted controls incorporate the following functions: demand controlled ventilation, variable speed drives, integrated economizing and variable volume operation.

A preliminary report was drafted that showed a wide range of savings from facility to facility. The report contained recommendations to conduct additional monitoring with modified controls set points to assist with narrowing the savings range.

Average energy-savings results were 110 kWh per ton per 1000 hours and 5.6 therms per ton per 1000 hours.

The pilot highlighted the fact that gas usage is heavily dependent on ventilation. Some facilities were not operating at code-required ventilation prior to the study. Demand controlled ventilation set points could be more aggressive in the future. At times, facility conditions required modified standard packaged control system set points in order to meet comfort and temperature requirements, most notably in units located near entrances in facilities with high ceilings.

Through the pilot, IPL has found that a deemed savings number would not be reliable at this point for introduction of the measure into prescriptive rebates. Training may also be a necessary component of the program to account for the variations in building characteristics. The additional monitoring of units in the pilot is intended to further explore these items.

IPL recommends further monitoring with adjusted control settings, which will likely reduce the variability in the savings shown to date, and is anticipated to better define a prescriptive incentive approach to this technology.

Data Center Potential Study

The IPL Data Center Pilot Program conducts energy assessments at data center facilities to identify specific energy efficiency projects and saving opportunities for that business. The pilot provides technical support to customers throughout the project implementation process to ensure the energy conservation measures are installed to specifications. The pilot program started in 2015 and IPL conducted 22 walk-through assessments with high-level recommendations for each customer. Customers interested in completing the recommendations from the initial walk through audit received a more in-depth assessment. Eleven facilities received a Level II in-depth assessment, and as a result, IPL identified a potential of 5.6 million kWh savings in these facilities.

Pilot Successes in 2015:

- IPL paid two rebates in 2015 equaling 34,630 kWh savings.
- 97,774 kWh savings planned to complete in Q1 2016.

- IPL conducted assessments in a variety of communities including Cedar Rapids, Ames, Marshalltown, Dubuque, Decorah and North Liberty.

Behavior Modification Pilot

In 2014, IPL selected CLEAResult to design and implement the behavioral pilot, with technical support from Tendril for data analytics and the customer-facing components such as the Home Energy Report and online portal. Approximately 40,000 electric, combo residential customers have been identified to participate in the pilot.

IPL successfully implemented the new customer information system in February 2015 and the necessary IT resources have been assigned to support the launch of the pilot in the fall of 2016 and will run for 12 months.

2.23.3. Challenges

Data Center Potential Study

- Many data center improvements involve capital expenditures and cover multiple years in a facility strategic plan that would extend beyond the pilot deadline.

Behavior Modification Pilot

- Launch of new customer information system determined the launch date of the pilot. IPL's new customer information system went live in February 2016. Launch of the Behavior Modification pilot will follow in the fall of 2016.

2.23.4. Future Steps

IPL will continue its implementation plans for the Data Center Pilot and the Residential Behavior Modification Pilot and continue to explore pilot opportunities for electric vehicles and T&D optimization and loss reduction during its five-year EEP.

2.23.5. Program Details on the Alliant Energy Website

Not applicable.

2.24. Residential Direct Load Control (DLC)

2.24.1. Description

The DLC program operates during the peak summer season, from May 15 to September 15 under two decision rules triggering a cycling event. The first decision rule is in response to system reliability issues. System reliability issues may include, but are not limited to: a Midcontinent Independent System Operator, Inc. (MISO) directive; congested transmission; and insufficient generation to meet consumer demand. The second decision rule is based on energy efficiency when events are triggered by temperature forecasts.

During a cycling event, IPL sends a signal to a participant's air conditioner switch. The air conditioner switch cycles for 15 minutes out of every half hour, and then returns the unit's compressor controls to the individual's thermostat control for the other 15 minutes of the half hour. Participant water heaters are turned off for the duration of the cycling event. A typical cycling event lasts six hours (1 p.m. to 7 p.m.) and, except in the case of a system reliability concern, would never occur on weekends or holidays.

2.24.2. Successes

IPL added a net 686 new customers and 781 additional cycling devices over the 2015 season, which added another .57 MW to its demand reduction for a program total of 40.37 MW. As of December 31, 2015, 51,782 customers have enrolled in the program. This includes 50,608 central air-conditioning units and 8,033 electric water heaters, totaling 58,641 appliances.

2.24.3. Challenges

The summer of 2015 was relatively cool, and none of the three cycling regions met the required temperature triggers. Consequently, IPL called no cycling events in 2015.

Events		Forecasted High Temperature (°F)			Available AC units			Available kWh and MW load	
Date	Zone	S	C	N	South	Central	North	kWh	MW
No Cycling Events		No Events Called			5,555	23,953	21,100	53,692	40.37
2015 Total Annual Energy Savings								0	

Table 2.24-1 2015 DLC Events⁷

Through IPL’s maintenance testing program, IPL identified that 4 percent (500 switches) of the tested switches were either missing or failed to respond to commands. IPL will replace these failed switches during the summer of 2016.

2.24.4. Future Steps

- In 2016, IPL will continue its maintenance program to check all of the switches installed in its electric territory and replace those not functioning properly. This process will take approximately five years to complete; 2016 will be year two of five.
- IPL is currently gathering information on a possible pilot program pertaining to WiFi thermostats and the potential of radio frequency mesh communications with cycling switches.

2.24.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/appliancecycling.

⁷ All events start at 1:00 p.m. and end at 7:00 p.m. for a cycling event period of six hours.

2.25. Nonresidential Interruptible

2.25.1. Description

This program provides IPL with flexible peak demand-response resources and offers large commercial and industrial customers the opportunity to reduce power during critical system peak conditions or high market prices. In return for reducing power when called upon to do so, IPL program participants earn incentives in the form of bill credits.

The Interruptible program is a mature and successful program. It has proven to be a reliable resource, providing IPL with a flexible means to manage its peak load. By reducing consumption during periods of high demand on the electric grid, program participants enable IPL to provide reliable, consistent service to all customers.

IPL added two customers and removed three customers, netting a loss of one customer in 2015.

2.25.2. Successes

IPL called five test curtailment events in 2015 over six days: August 12, August 31, and September 1 through 4. Each customer participated in one test event for two hours. Table 2.25-1 below provides summer weather data; note 2015 had a low number of days with temperatures exceeding 90 degrees and as such, IPL did not call any non-test curtailment events. Table 2.25-2 provides a summary of the 2015 test curtailment events.

Table 2.25-1 Weather Comparison⁸

Weather Parameters (May 15 – September 15)	2010	2011	2012	2013	2014	2015	30-Year Average
Cooling Degree Days (base 70° F)	381	417	726	524	347	391	359
Days >= 90° F	2	14	33	15	1	4	n/a
Weekdays >= 90° F	2	13	27	12	0	2	10
Weekdays >= 95° F	0	2	12	6	0	0	n/a

Table 2.25-2 Summary of Curtailments

Curtailment Detail	Wed 08/12/15	Mon 08/31/15	Tue 09/01/15	Wed 09/02/15	Thu 09/03/15	Fri 09/04/15
Total Number of Enrolled Customers	174	173	173	173	173	173
Total Interruptible Load	256 MW					
Start Time	2 PM	3 PM	3 PM	3 PM	3 PM	2 PM
End Time	4 PM	5 PM	5 PM	5 PM	5 PM	4 PM
Decision Rule Condition ¹	4	4	4	4	4	4
Number of Customers Called	9	7	57	74	12	16
Buy Through Available	No	No	No	No	No	No
Number of Customers Who Selected Buy Through ²	N/A	N/A	N/A	N/A	N/A	N/A
Targeted Potential Reduction	1 MW	17 MW	87 MW	85 MW	35 MW	22 MW
Bought Through (less)	(0 MW)					
Curtailment Achieved ³	1 MW	17 MW	87 MW	85 MW	35 MW	22 MW

¹ Decision Rule 1 = Reliability

Decision Rule 2 = Energy Efficiency-Reducing Peak Demand

Decision Rule 3 = Energy Efficiency-Reducing Energy Usage

Decision Rule 4 = Program Quality Control (system test)

² A customer can elect to buy through two events annually if ten or fewer curtailments and three events if more than ten curtailments are called, where the annual period is the load year starting May 1.

³ Curtailment Achieved = Targeted Potential Reduction (MW) minus Bought Through (MW)

⁸ As recorded at Cedar Rapids, Iowa, Airport. Data retrieved from commercial provider, Weather Underground. Cooling days provided by www.degreedays.net.

2.25.3. Challenges

Cooler weather during the 2015 summer resulted in no curtailments other than test curtailment events during the program year.

2.25.4. Future Steps

IPL will continue to promote the program and its benefits to qualifying customers.

2.25.5. Program Details on the Alliant Energy Website

Detailed information on eligibility, measures, incentives, and other participation criteria are available at:

alliantenergy.com/interruptible.

2.26. Legislative Assessment

The Legislative Assessment program is the budget allocated for two legislatively authorized programs: Iowa Energy Center (IEC) at Iowa State University and the Center for Global and Regional Environmental Research (CGRER) at the University of Iowa.

2.27. Evaluation, Measurement and Verification

Evaluation, measurement, and verification (EMV) provides the means to ensure effective program operation and the reliability of the Plan's program savings and cost-effectiveness. In July 2014, IPL issued a Request for Proposal (RFP) for an independent evaluation of its five-year Plan. Through a competitive bid process, Itron, Inc. was selected by IPL as the consultant to conduct this study. The RFP included both process and impact evaluation objectives. The process objectives will assess program activities in order to provide specific recommendations. The impact evaluations are designed to validate IPL's energy savings impact results. Throughout the EMV, Itron, Inc. will work with IPL to identify and address program-specific challenges and successes, both from a process and impact perspective.

IPL provided final EMV plans by program as they were completed in the spring of 2015 as well as draft EMV reports in the fall of 2015 to the Board, the OCA, and other interested Parties to the EEP. IPL filed the full evaluation of the renewable energy pilot program on March 16, 2016 and filed the remainder of the final reports on April 25, 2016.

2.28. Next Plan

The Next Plan program is the budget item to provide the funding to develop IPL's Plan for the program years 2019 through 2023. This includes budget amounts for the years 2014 through 2018. There are no impacts or program descriptions associated with this program. Amounts reported as "actual" spending for this program in 2014 and later years may include expenditures to implement the 2014-2018 Plan that cannot be assigned to specific programs.

3. Program Evaluations

3.1. Introduction

Evaluation, measurement, and verification (EMV) provides the means of ensuring effective program operation and the reliability of the Plan's program savings and cost-effectiveness. In July 2014, IPL issued a Request for Proposal (RFP) for an independent evaluation of its five-year Plan. IPL selected Itron, Inc. through a competitive bid process as the consultant to conduct this study. The RFP included both process and impact evaluation objectives. The process objectives were to assess program activities in order to provide specific recommendations. The impact evaluation was designed to validate IPL's energy savings impact results. Throughout the EM&V, Itron worked with IPL to identify and address program-specific challenges and successes, both from a process and impact perspective.

3.2. Programs Evaluated

In 2015, Itron evaluated 21 programs from IPL's Plan, including energy efficiency, demand response, and outreach and education programs for residential, commercial, industrial, and agricultural customers. Itron also completed an evaluation of IPL's renewable energy program for the years 2010 through 2013. Table 3.1 lists the programs evaluated. IPL filed the evaluation reports with the Board in Docket No. EEP-2012-0001 on April 25, 2016.

Table 3.1 Programs Evaluated

Program Number	Program	Process Evaluation	Impact Evaluation
2.1	Residential Prescriptive Rebates	X	X
2.2	Home Energy Assessments	X	X
2.3	Change-A-Light	X	X
2.4	Appliance Recycling	X	X
2.5	New Home Construction	X	X
2.6	Multifamily	X	X
2.9	Low-Income Multifamily and Institutional Efficiency Improvements	X	X
2.10	Home Energy Savers	X	X
2.11	Nonresidential Prescriptive Rebates	X	X
2.12	Business Assessments	X	X
2.13	Custom Rebates	X	X
2.14	Commercial New Construction	X	X
2.15	Agriculture Sector	X	X
2.16	Non-Targeted Energy Awareness and Information	X	
2.18	Tree Planting	X	
2.20	Builder Training	X	
2.21	Energy Efficiency Builder Network	X	
2.22	Bright Ideas	X	
2.24	Residential Direct Load Control (DLC)	X	
2.25	Nonresidential Interruptible		X
2.29	Renewables	X	X

Please note the following:

- Four programs in the Plan, including Low Income Weatherization (2.7), Low Income EnergyWise Education (2.8), School-Based Energy Education (2.17), and Hometown Rewards (2.19) were not individually evaluated but were referenced in the EMV reports.
- Four programs of IPL's Plan were not included in the EMV since these programs do not have energy savings goals. Those programs include Research, Development and Demonstration (2.23), Legislative Assessment (2.26), EM&V (2.27) and Next Plan (2.28).