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IOWA UTILITIES BOARD

2014-2018 ENERGY EFFICIENCY PLAN

Interstate Power and Light Company

Docket No. EEP-2012-0001

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List of Acronyms

199 IAC 35	1999 Iowa Administrative Code Chapter 35
Ag Rep	Agribusiness representative
Ag Trade Allies	Agribusiness trade allies
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
B/C	Benefit/cost
BHE	Black Hills Energy
BOC	Building Operator Certification
BOP	Builder Option Package
BPI	Building Performance Institute
BRC	Business Resource Center
Btu	British thermal unit
CAP	Community Action Program
CFL	Compact fluorescent lamp
CGRER	Center for Global and Regional Environmental Research
DCAA	Division of Community Action Agencies
Dealer Network	Energy Efficiency Dealer Network
Dealer	Dealers in the Energy Efficiency Dealer Network
DHR	Iowa Department of Human Rights
DLC	Direct Load Control
DOE	United States Department of Energy
EDA	Energy design assistance
EM&V	Evaluation, measurement, and verification
EEP	Energy Efficiency Plan
EUI	End-Use Intensity
FPL	Federal poverty level
FTE	Full-time equivalent
GWh	GigaWatt hour
HERS	Home Energy Rating System
HES	Home Energy Savers
HVAC	Heating, Ventilation and Air Conditioning
ID	Identification
IDNR	Iowa Department of Natural Resources
IEC	Iowa Energy Center
IECC	International Energy Conservation Code
IEDA	Iowa Economic Development Authority

IFA	Iowa Finance Authority
IOUs	Investor-owned utilities
IPL	Interstate Power and Light Company
IPMVP	International Performance Measurement and Verification Protocols
IUA	Iowa Utility Association
KAM	Key Account Manager
kW	KiloWatt
kWh	KiloWatt hour
LED	Light emitting diode
LEED	Leadership in Energy and Environmental Design
LMP	Locational marginal price
MEC	MidAmerican Energy Company
MEEA	Midwest Energy Efficiency Alliance
MISO	Midwest Independent Transmission System Operator, Inc.
MW	MegaWatt
MWh	MegaWatt hour
NEEC	Northwest Energy Efficiency Council
OCA	Office of Consumer Advocate
PIE ²	Partnership for Industrial Energy Efficiency
Plan	Energy Efficiency Plan
POP	Point-of-purchase
RESNET [®]	Residential Energy Services Network
RIM	Ratepayer-impact measure
SAVE	System Adjustment for Verification Efficiency
T&D	Transmission and distribution
TREES	Tool for Reporting Energy Efficiency Savings
TRM	Technical Reference Manual
TV	Television
UEC	Unit Energy Consumption
USDA	United States Department of Agriculture

1. Executive Summary

Interstate Power and Light Company (IPL), a service company subsidiary of Alliant Energy Corporation (Alliant Energy), hereby submits its proposed 2014-2018 Energy Efficiency Plan (the Plan), in compliance with Iowa Code §§ 476.6(14) and (16) (2011) and 199 Iowa Administrative Code (IAC) Chapter 35. This filing is made pursuant to the Iowa Utilities Board (Board) Final Order issued June 24, 2009, in Docket No. EEP-08-1. IPL's Plan describes extensive portfolios of residential and nonresidential energy-efficiency; demand response; and education, outreach, and training programs.

The Plan offers a comprehensive portfolio of programs and initiatives for acquiring energy-efficiency resources during the five-year planning period from 2014 to 2018. This Plan expands upon and expands IPL's 2009–2013 Energy Efficiency Plan (2009-2013 EEP), filed with the Board April 23, 2008, and approved June 24, 2009, in Docket No. EEP-08-1. The Plan extends the savings targets for IPL's existing programs, introduces enhancements to individual programs, where warranted, and incorporates new programs and initiatives. Once approved, this Plan will replace the 2009-2013 EEP beginning on January 1, 2014. The Plan consists of 25 programs comprising three portfolios, as well as three additional funding initiatives.

In developing this Plan, IPL has designed innovative programs that are tailored to the unique characteristics of IPL's service territory. Taken together, the programs outlined in this Plan continue IPL's more than 20-year history of offering customers cost-effective, equitable, flexible, and wide-ranging programmatic choices, incentive options,

information, and educational opportunities, designed to produce long-term savings and bring about lasting change in the way lowans use energy.

IPL has established annual electricity savings targets ranging from 1.09 to 1.13 percent of its retail sales forecast. The electric component targets 163 gigaWatt hours (GWh) of savings in 2014, projected to increase to 166 GWh in 2018. In each year of the Plan, IPL's natural gas component is expected to produce more than 2.3 million therms of savings on average. The targets for IPL's demand response offerings will remain at approximately their current levels, providing IPL with optional peak load management potential of 314 over the course of the Plan.

In total, IPL's Plan projects slightly lower savings than those estimated in its 2009-2013 EEP, at a lower overall cost to customers. IPL plans to achieve these saving targets by: enhancing its already aggressive outreach, marketing, and education efforts; offering robust incentives for measures with the highest, cost-effective achievable savings potential; targeting new, previously untapped sources of savings potential; and streamlining customer delivery and administrative processes to achieve greater operational efficiencies. Table 1.1 provides a summary of electric and natural gas costs and cumulative savings by program.

Table 1.1 Savings and Cost Summary by Program

Programs	2014-2018 Cumulative Energy Savings		Total Costs (\$MM)
	Electricity (GWh)	Natural Gas (therms)	
<i>Energy-Efficiency Portfolio</i>	764.26	10,671,736	\$235.24
Residential Prescriptive Rebates	63.13	1,834,148	\$65.21
Home Energy Assessments	12.81	1,645,068	\$16.60
Change-a-Light	56.89	0	\$12.56
Appliance Recycling	52.78	0	\$8.68
New Home Construction	1.17	338,826	\$5.12
Multifamily	0.76	29,414	\$0.79
Weatherization	11.85	1,098,226	\$16.15
EnergyWise Education	4.36	141,170	\$0.47
Low Income Multifamily and Institutional Efficiency Improvements	0.50	19,609	\$0.47
Home Energy Savers	0.45	129,943	\$2.46
Nonresidential Prescriptive Rebates	121.47	3,378,382	\$44.09
Business Assessments	14.54	259,709	\$5.37
Custom Rebates	343.31	1,259,641	\$46.44
Commercial New Construction	62.12	537,600	\$6.29
Agriculture Sector	18.13	0	\$4.54
<i>Outreach, Education, and Training Portfolio</i>	20.99	1,249,179	\$16.42
Non-Targeted Energy Awareness and Information	0	0	\$2.29
School-Based Energy Education	20.99	1,249,179	\$3.13
Tree Planting	0	0	\$4.51
Hometown Rewards	0	0	\$2.60
Builder Training	0	0	\$0.60
Energy Efficiency Dealer Network	0	0	\$1.04
Bright Ideas	0	0	\$1.16
Research, Development, and Demonstration	0	0	\$1.09
<i>Demand Response Portfolio</i>	29.5	0	\$135.13
Residential Direct Load Control	2.5	0	\$12.76
Nonresidential Interruptible	27.0	0	\$122.37
<i>Other Funding Initiatives</i>	0	0	\$12.50
Legislative Assessment	0	0	\$8.00
Evaluation, Measurement, and Verification	0	0	\$3.00
Next Plan	0	0	\$1.50
TOTAL PORTFOLIO	814.8	11,920,915	\$399.30

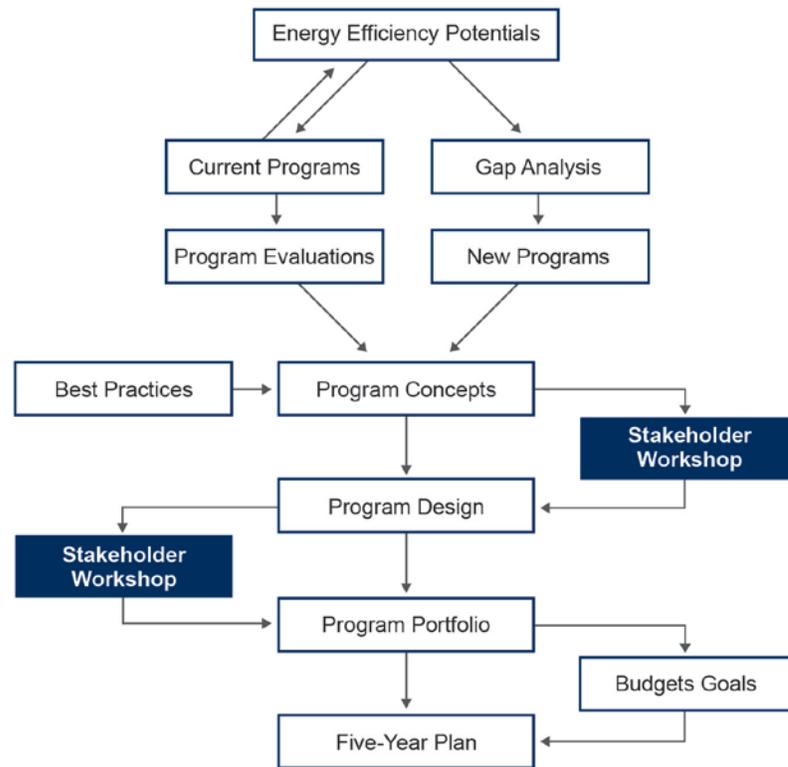
Cumulative Savings and Costs were calculated by aggregating incremental annual savings and cost data (adding 2014 to 2018 data). Total Cost is defined as the sum of the 2014-2018 yearly budget for each program and portfolio (total electric plus gas). Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

1.1. Background

To develop the Plan, IPL was largely guided by the findings of the joint-utility *Assessment of Energy and Capacity Savings Potential in Iowa* (Statewide Assessment, included as Appendices H and I), a comprehensive study of energy efficiency and demand response savings potential in the service territories of Iowa's three investor-owned utilities (IOUs): IPL, Black Hills Energy (BHE), and MidAmerican Energy Company (MEC). The Assessment focused on reporting potential savings over a 10-year planning horizon from 2014 to 2023. The electric portion of this assessment was revised in July 2012 (Revised Assessment, included as Appendix G with detailed data and calculations in Appendix M) to reflect IPL's revised avoided electricity costs.

As illustrated in Figure 1.1, IPL systematically compared end-uses in each of its existing programs to the results of the Assessment and other market data to identify potential programmatic gaps, untapped potential, or opportunities to increase customer participation and depth of savings by incorporating new market sectors, technologies, or delivery strategies.

Figure 1.1 Plan Development Process



To develop its Plan, IPL began with a bottom-up process, which involved compiling a comprehensive list of measures with significant economic potential and aggregating them into appropriate programs by customer sector and equipment type. Additionally, IPL reviewed findings and recommendations resulting from collaborative efforts, program ideas from stakeholders, and results from the third-party evaluation of select programs contained in its 2009-2013 EEP. IPL conducted additional research on market conditions, program best practices, and other external factors that could affect economic, temporal, market, and administrative conditions associated with delivery of its programs. This information, combined with a structured review of its on-the-ground program delivery experience, provided IPL with a framework for its Plan development

process. The process culminated in a top-down balancing exercise to ensure that the composition and performance of the Plan meet IPL's goals and regulatory requirements.

At several points during the planning process, IPL coordinated with the other IOUs and held stakeholder meetings to present ideas, gather feedback, and report on the development of the Plan. IPL carefully considered the input it received in developing the Plan. (See Section 2.4, the Collaborative Process Section, and Appendix B for details on IPL's collaborative process.)

1.2. Plan Composition

The Plan's overarching approach may be best described as a portfolio perspective, addressing virtually every significant energy end-use in a customer's home, farm, or business, through a comprehensive, whole-facility approach or a menu approach, whichever works best for the customer. IPL employs multiple market intervention strategies in its Plan, including information, education, and technical assistance and, most importantly, financial incentives to produce long-term savings and provide IPL and its customers with the highest returns in terms of market reach, energy savings, and cost-effectiveness.

The Plan is composed of 25 programs, organized in three primary portfolios: Energy Efficiency; Demand Response; and Outreach, Education, and Training. Additionally, the Plan includes three additional funding initiatives. In designing the portfolios, IPL sought to provide program opportunities for every customer sector with a range of available measures, delivery mechanisms, and educational opportunities.

IPL's Plan builds on its 2009-2013 EEP, adding new elements to capture untapped market potential, eliminating certain elements that failed to produce long-term benefits for Iowa customers, and streamlining program operations and delivery. Table 1.2 summarizes the changes to IPL's 2009-2013 EEP that are included in the Plan. **Chapter 3 includes a detailed account of proposed changes to IPL's programs in this Plan.**

Table 1.2 2014-2018 Plan Changes

Program	Markets Served	Changes/Details
New Programs		
Multifamily	Buildings with four or more units	<ul style="list-style-type: none"> • Holistic approach to multifamily efficiency, allowing the building owner to focus on both common areas and tenant units. • Available for new construction as well as after-market upgrades. • Will draw from existing programs (e.g., assessments, prescriptive and custom rebates, new construction programs). • Addresses a hard-to-reach market with untapped efficiency potential.
Change-a-Light	All IPL customers	<ul style="list-style-type: none"> • Year-round upstream point-of-purchase incentives and marketing campaign. • Energy-efficient light bulbs including a variety of compact fluorescent lamps and LED bulbs.
Business Assessments	All commercial and industrial customers	<ul style="list-style-type: none"> • Offers three types of business assessments to business owners for a wide range of facility types and sizes. • Offers a small business direct install component that includes a comprehensive lighting package and technical support for the hard-to-reach small business sector.
Discontinued Programs/Initiatives		
Performance Contracting	Large commercial and industrial	<ul style="list-style-type: none"> • Only one active project developer supporting the program. • Customers find that the Custom Rebate Program better addresses their internal constraints. • IPL will continue to offer support to those customers interested in financing as an effective way to implement energy efficiency.
Tree Planting	Residential customers	<ul style="list-style-type: none"> • Eliminating three Tree Planting Program initiatives: <ul style="list-style-type: none"> ○ Iowa Hometown Celebrations: eliminated due to lack of customer interest. ○ Industrial Park Developments: often benefited private developers that had not paid into the Iowa energy-efficiency fund. ○ Growing Kids, Growing Trees: Iowa's Department of Natural Resources offers a similar program.

Program	Markets Served	Changes/Details
Enhancements and Changes to Existing Programs		
Home Energy Assessments	Residential single family customers	<ul style="list-style-type: none"> • Adding electric-only assessments to serve customers who: 1) have an all-electric home; 2) heat with propane; or 3) have natural gas service that is not provided by an Iowa IOU. • Adding comprehensive assessments including diagnostic testing for customers to identify specific improvements that offer the greatest return-on-investment opportunities. • Offering bonus incentives to encourage customers to install multiple recommended measures.
Residential Prescriptive Rebates	Residential customers	<ul style="list-style-type: none"> • Expanding HVAC system tune-up options. • Requiring quality installation for all furnace rebates. • Adding prescriptive incentives for whole-house fans. • Eliminating some measures with low participation and low cost-effectiveness.
New Home Construction	Residential builders and homeowners	<ul style="list-style-type: none"> • Simplifying the program for builders who use the Home Energy Rating System index to measure new home performance. • Adding two performance paths with tiered incentive levels. • Reducing required measures and incentives in the prescriptive path to adjust for new building codes.
Weatherization	Income-qualified residential customers	<ul style="list-style-type: none"> • Allowing for annual adjustments to match program eligibility to the current federal poverty level.
EnergyWise Education	Income-qualified residential customers	<ul style="list-style-type: none"> • Adding window film and one additional compact fluorescent lamp to the kit based on feedback from Community Action Program agencies.
Home Energy Savers	Income-qualified residential customers	<ul style="list-style-type: none"> • Allowing for annual adjustments to match program eligibility to the current federal poverty level. • Transferring program administration and marketing to Community Action Program agencies; IPL will partner with Community Action Program agencies to coordinate promotion.
Nonresidential Prescriptive Rebates	Nonresidential customers	<ul style="list-style-type: none"> • Adding prescriptive incentives for new measures. • Exploring an upstream incentive mechanism for motors and variable-speed drives. • Eliminating some measures with low participation and low cost-effectiveness.
Hometown Rewards	Communities	<ul style="list-style-type: none"> • Expanding community eligibility to populations between 5,000 and 25,000. • Additional funding for administrative expenses and implementation costs.
School-Based Energy Education	Schools	<ul style="list-style-type: none"> • Adding 5th grade to participant targets for the Alliant Energy Kids component.
Research, Development, and Demonstration	Varies	<ul style="list-style-type: none"> • Exploring new sources of potential energy savings, including: <ul style="list-style-type: none"> ○ Behavior change, ○ Transmission and distribution infrastructure, ○ Electric and plug-in hybrid vehicles, and ○ Data centers.

1.3. Energy-Efficiency Targets

The results of the Statewide Assessment were IPL's principal basis for establishing its 2014-2018 targets. The study provided information on energy-efficiency measures and their savings, costs, and market opportunities. The development of saving targets was also informed by IPL's more than two decades of experience with energy-efficiency product markets and information on what has been achieved by other utilities operating in markets similar to IPL's. Based on these considerations and the lessons learned from implementing its 2009-2013 EEP, IPL has established savings targets that it believes are reasonably achievable.

The Revised Assessment of electric potential identified 3,099 GWh of economic electric energy-efficiency potential over the 10-year planning horizon, from 2014 to 2023, representing 20 percent of IPL's forecast load in 2023. The Assessment further identified 2.634 GWh of market potential (16.8 percent of the 2023 forecast load), might be achievable under an aggressive acquisition scenario with utility incentives covering up to 100 percent of incremental measure costs, and that participants have access to financing.

The Statewide Assessment also identified nearly 62 million therms of economic natural gas potential. This economic potential represents 23 percent of IPL's 2023 natural gas load, 65 percent of which (18.6 percent of 2023 load) is expected to be achievable under an aggressive market scenario. Assuming an even acquisition rate, the identified economic potential translates into 1.86 percent per year. The Plan targets average annual natural gas savings equivalent to 0.88 percent of retail sales on

average, which represent 47 percent of the market potential identified in the Assessment.

In the original filing dated November 30, 2012, Table 1.3 Technical and Economic Electric Energy-Efficiency Potential (Cumulative in 2023) by Sector was located in this section. That table has been updated, expanded and moved to Table 2.2 per the Board Order dated December 26, 2012.

Assuming the same aggressive achievable potential of 85 percent, results of the revised Assessment indicated a maximum achievable economic potential equal to 17 percent of IPL's 2023 forecast load, translating into approximately 1.7 percent per year on average. The Plan includes average annual electric saving of 1.11 percent of retail sales, which represents nearly 65 percent of the maximum achievable potential identified in the revised Assessment.

1.4. Demand Response Targets

The Assessment also developed estimates of market potential for the two demand response programs IPL currently operates: the Residential Direct Load Control (DLC) Program and the Nonresidential Interruptible Program. The Assessment included an evaluation of three scenarios based on program participation levels achieved by IOUs offering similar programs in other jurisdictions. The results of the Assessment indicated a total market potential ranging from 35 megaWatts (MW) under the base-case scenario to 46 MW under an aggressive expansion scenario for the Residential DLC Program. The Assessment also estimated the market potential for the Nonresidential Interruptible

Program to range from 296 MW to 354 MW under the base-case and aggressive expansion scenarios, respectively.

In the original filing dated November 30, 2012, Table 1.4 Projected Demand Response Market Potential in 2023 (MW) was located in this section. That table has been updated, expanded and moved to Table 2.2 as per the Board Order dated December 26, 2012.

Based partly on the results of the Assessment and IPL's experience with these programs, in its Plan, IPL will primarily aim to maintain the current levels of participation and the corresponding demand reduction targets of 44 MW for the Residential DLC Program and 270 MW for the Nonresidential Interruptible Program. The two programs are expected to provide a total load reduction capability of 314 MW, which represents 126 percent and 91 percent of the base case market potential for the DLC Program and Nonresidential Interruptible Program respectively.

1.5. Benefits, Costs, and Cost-Effectiveness of the Plan

For each program in the Plan, IPL assessed cost-effectiveness by valuing its gross societal benefits, as measured by IPL's avoided energy and capacity, costs (including externalities), and the program's total life-cycle costs. A program's cost-effectiveness is determined by the net present value of its benefits. A program is considered cost-effective if its net societal benefits are positive, in other words, when the ratio of the net present value of the program's benefits as compared to costs is greater than 1.0.

IPL strived to design every portfolio in this Plan to be cost-effective when analyzed from a societal test perspective, as required by 199 IAC Chapter 35 (199 IAC

35.8(1)“e”(1)). Taken as a whole, the Plan is cost-effective, with a societal cost-benefit ratio of 2.48 to 1. However, some individual programs and measures are not cost-effective according to the societal test. Additionally, several of IPL’s natural gas measures are not cost-effective. Due to low projections for avoided natural gas costs, several measures that historically provided cost-effective natural gas savings in IPL’s Plan do not pass the societal test.

Cost-effectiveness had to be balanced against the objectives of equity and comprehensiveness. IPL designed individual programs to incorporate a comprehensive set of measures. In some cases, IPL retained measures that are not cost-effective, if those measures offered other benefits such as high, sustained customer satisfaction and savings. An additional confounding factor affecting the cost-effectiveness of the Plan’s natural gas components is the manner in which costs are allocated for certain measures producing electric and natural gas savings.

Shell-improvement, weatherization, and certain upgrades to heating and cooling systems affect the consumption of both electricity and natural gas. To separately determine the cost-effectiveness of a measure for each fuel, it is necessary to account for the benefits and costs associated with each fuel separately. While calculating energy savings and the corresponding benefits for each fuel is straightforward, there are no conventions for allocating joint implementation costs to each fuel. For the purpose of this Plan, IPL allocated the joint costs based on each fuel’s relative British thermal unit (Btu) savings. This method, although practical, tends to shift a disproportionately large share of the measures’ joint costs to the natural gas component of the Plan, lowering the cost-effectiveness of the natural gas measure and component as a whole. Absent a

more equitable method for allocating these costs, it is reasonable to judge cost-effectiveness for the Plan as a whole, rather than separately for its electric and natural gas components.

The tables below provide summary information on benefits and costs that comprised the cost-effectiveness analysis of IPL's Plan and the results of that analysis. Table 1.3 and Table 1.4 provide summary-level data incorporating electric and natural gas components combined. Table 1.5 and Table 1.6 show cost-effectiveness inputs and results for the electric component. Table 1.7 and Table 1.8 show cost-effectiveness inputs and results for the natural gas component.

Table 1.3 Total Plan Benefits and Costs

Benefit/Cost Component	Plan Year					Total
	2014	2015	2016	2017	2018	
Electric Savings (kWh)	163,084,964	162,779,248	160,200,436	162,872,055	165,813,594	814,750,297
Capacity Savings (kW)*	25,754	25,351	24,428	24,807	25,216	125,556
Natural Gas Savings (therms)	2,337,308	2,311,741	2,365,178	2,422,708	2,483,980	11,920,915
Capacity Savings (therms)	23,726	22,930	23,498	24,107	24,756	119,016
Participant Cost Net of Incentives (\$)	\$49,364,104	\$49,872,502	\$50,313,802	\$52,018,726	\$53,862,609	\$255,431,744
Direct Utility Costs (\$)	\$76,900,714	\$78,938,476	\$80,098,813	\$81,451,247	\$81,897,972	\$399,287,221
Planning and Design	\$1,083,104	\$1,104,744	\$1,300,722	\$1,326,111	\$1,353,330	\$6,168,011
Program Administration	\$6,259,508	\$7,333,131	\$7,452,518	\$7,539,216	\$6,630,745	\$35,215,118
Advertising and Promotion	\$3,126,288	\$3,193,675	\$3,252,165	\$3,327,903	\$3,407,865	\$16,307,895
Incentives	\$58,747,394	\$59,539,697	\$60,148,497	\$61,215,684	\$62,364,175	\$302,015,447
Equipment	\$3,345,191	\$3,369,503	\$3,393,845	\$3,422,130	\$3,450,557	\$16,981,225
Installation	\$3,188,903	\$3,226,016	\$3,263,586	\$3,304,744	\$3,346,178	\$16,329,426
Program Review and Assessment	\$1,150,326	\$1,171,710	\$1,287,481	\$1,315,459	\$1,345,122	\$6,270,098
Total Societal Cost	\$126,264,818	\$128,810,978	\$130,412,615	\$133,469,974	\$135,760,581	\$654,718,965

*Demand response is not included in cumulative capacity savings.

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Table 1.4 Total Plan Cost-Effectiveness

	Societal	Participant	Utility	Ratepayer
Net Present Value Benefits (\$)	\$1,419,835,186	\$765,795,507	\$999,353,347	\$999,353,347
Net Present Value Costs (\$)	\$573,633,840	\$392,218,260	\$350,403,366	\$911,660,061
Benefit/Cost Ratio	2.48	1.95	2.85	1.10

Source: Workbooks 1) Common Assumptions 2) Appendix K Benefit Cost Model_Electric 3) Appendix K Benefit Cost Model_Gas. Workbook 1 must be open for workbooks 2 and 3 to produce results 4) Appendix K Benefit Cost Model_Demand Response 5) Workbook Appendix K Benefit Cost Model_OET and Other. Add program level results (Electric + Gas)

Table 1.5 Electric Benefits and Costs

Benefit/Cost Component	Plan Year					Total
	2014	2015	2016	2017	2018	
Electric Savings (kWh)	163,084,964	162,779,248	160,200,436	162,872,055	165,813,594	814,750,297
Capacity Savings (kW)*	25,754	25,351	24,428	24,807	25,216	125,556
Participant Cost Net of Incentives (\$)	42,217,171	42,489,977	42,625,625	43,887,257	45,250,420	216,470,450
Direct Utility Costs (\$)	\$62,582,181	\$64,031,901	\$64,747,634	\$65,645,838	\$65,799,437	\$322,806,990
Planning and Design	\$850,413	\$864,782	\$1,019,442	\$1,036,782	\$1,055,397	\$4,826,815
Program Administration	\$4,525,368	\$5,383,766	\$5,468,268	\$5,527,352	\$4,779,917	\$25,684,671
Advertising and Promotion	\$2,445,598	\$2,491,222	\$2,529,134	\$2,581,601	\$2,637,036	\$12,684,591
Incentives	\$51,056,924	\$51,555,873	\$51,886,117	\$52,617,251	\$53,404,693	\$260,520,858
Equipment	\$865,607	\$869,889	\$874,159	\$878,865	\$883,609	\$4,372,129
Installation	\$2,013,609	\$2,029,019	\$2,044,684	\$2,060,833	\$2,077,047	\$10,225,192
Program Review and Assessment	\$824,661	\$837,351	\$925,830	\$943,154	\$961,737	\$4,492,734
Total Societal Cost	\$104,799,352	\$106,521,878	\$107,373,259	\$109,533,095	\$111,049,857	\$539,277,440
<i>Savings as a % of Total Sales (Electric)</i>	1.13%	1.12%	1.09%	1.10%	1.11%	

* Demand response is not included in cumulative capacity savings.

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Table 1.6 Electric Cost Effectiveness

	Societal	Participant	Utility	Ratepayer
Net Present Value Benefits (\$)	\$1,316,525,899	\$651,869,477	\$933,607,876	\$933,607,876
Net Present Value Costs (\$)	\$445,773,291	\$292,920,129	\$283,600,939	\$769,411,894
Benefit-Cost Ratio	2.95	2.23	3.29	1.21

Source: Workbooks 1) Common Assumptions 2) Appendix K Benefit Cost Model_Electric. Workbook 1 must be open for workbook 2 to produce results 3) Appendix K Benefit Cost Model_Demand Response 4) Workbook Appendix K Benefit Cost Model_OET and Other. Add program level results (Electric).

Table 1.7 Natural Gas Benefits and Costs

Benefit/Cost Component	Plan Year					Total
	2014	2015	2016	2017	2018	
Electric Savings (therms)	2,337,308	2,311,741	2,365,178	2,422,708	2,483,980	11,920,915
Capacity Savings (therms)	23,726	22,930	23,498	24,107	24,756	119,016
Participant Cost Net of Incentives (\$)	7,146,933	7,382,525	7,688,178	8,131,469	8,612,189	38,961,293
Direct Utility Costs (\$)	\$14,318,533	\$14,906,575	\$15,351,179	\$15,805,410	\$16,098,535	\$76,480,231
Planning and Design	\$232,691	\$239,962	\$281,280	\$289,329	\$297,933	\$1,341,196
Program Administration	\$1,734,140	\$1,949,366	\$1,984,250	\$2,011,864	\$1,850,827	\$9,530,447
Advertising and Promotion	\$680,689	\$702,453	\$723,030	\$746,302	\$770,829	\$3,623,304
Incentives	\$7,690,470	\$7,983,825	\$8,262,380	\$8,598,433	\$8,959,482	\$41,494,589
Equipment	\$2,479,584	\$2,499,614	\$2,519,685	\$2,543,265	\$2,566,948	\$12,609,096
Installation	\$1,175,294	\$1,196,997	\$1,218,902	\$1,243,911	\$1,269,131	\$6,104,235
Program Review and Assessment	\$325,665	\$334,359	\$361,651	\$372,304	\$383,385	\$1,777,363
Total Societal Cost	\$21,465,466	\$22,289,100	\$23,039,356	\$23,936,879	\$24,710,723	\$115,441,525
<i>Savings as a % of Total Sales (Gas)</i>	0.84%	0.84%	0.87%	0.90%	0.93%	

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Table 1.8 Natural Gas Cost Effectiveness

	Societal	Participant	Utility	Ratepayer
Net Present Value Benefits (\$)	\$103,309,289	\$113,926,031	\$65,745,468	\$65,745,468
Net Present Value Costs (\$)	\$127,860,551	\$99,298,128	\$66,802,426	\$142,248,161
Benefit-Cost Ratio	0.81	1.15	0.98	0.46

Source: Workbooks 1) Common Assumptions 2) Appendix K Benefit Cost Model_Gas Workbook 1 must be open for workbook 2 to produce results 3) Workbook Appendix K Benefit Cost Model_OET and Other. Add program level results (Gas)

As shown in the tables above, the total societal cost for the full five-year deployment of the Plan is estimated at \$655 million, \$539 million of which is attributable to electric and \$115¹ million to natural gas. The electric component accounts for 82 percent of the total societal cost of the Plan by this measure. Direct IPL costs of \$323 million for electric and \$76 million for natural gas constitute 61 percent of the total societal cost; the remaining costs are paid directly by participating customers as they install their electric and natural gas measures. Over \$335 million of IPL's costs, or 84 percent, constitute incentive payments.² IPL will spend an additional \$16 million for program promotion, representing four percent of IPL's costs. In sum, over 88 percent of IPL's spending is for incentives and advertising and promotion.

1.6. Schedule

IPL expects to implement this Plan starting on January 1, 2014, after approval by the Board. The majority of programs described in this Plan are already in place and operational. IPL has undertaken considerable collaboration with interested parties on Assessment and Plan design. IPL believes it is reasonable to assume contested issues will be limited and the Board can render a decision on this Plan in the early part of 2013's fourth quarter to enable efficient, cost-effective delivery and implementation.

1.7. Plan Contents and Organization

IPL's Plan includes two Volumes. Volume I of the Plan is organized in two documents: Book 1 and Book 2, described below.

¹ Please note that numbers are rounded, and therefore do not total precisely in this sentence.

² IPL includes the costs for equipment and installation of free direct installation measures provided to customers in its incentive calculations.

- Book 1 consists of three chapters:
 - Chapter 1 is the executive summary (this Chapter).
 - Chapter 2, the Plan Overview, describes the context for the Plan and explains the methodology, data and assumptions used in its development.
 - Chapter 3 provides a comparison of the programs in IPL's 2009-2013 EEP to this Plan and provides a rationale for discontinued programs.
- Book 2 includes an introduction to IPL's three program portfolios and 28 chapters providing descriptions, budgets, savings projections, and cost-effectiveness ratios for each of IPL's proposed 25 programs. Book 2 also includes information on each of IPL's three additional funding initiatives.

Volume II contains the following appendices to IPL's Plan.

- Appendix A, Customer Rate and Bill Impacts (Revised), outlines the method IPL used to calculate Energy Efficiency Cost Recovery of expenses related to the new EEP, and explains the impacts on average customer bills.
- Appendix B, Collaborative Efforts, details the collaborative efforts IPL undertook in 2012 to develop the 2014-2018 Plan.
- Appendix C, Electric and Natural Gas Forecasts, provides the current electric and natural gas forecast reports, as required by 199 IAC 35.9(1) and 35.10(1).
- Appendix D, Electric Customer Load Profiles, provides electric Customer Class Load Profiles as required by 199 IAC 35.9(2).

- Appendix E, Electric Avoided Costs, provides IPL's electric avoided cost data, as required by 199 IAC 35.9(3)"a."
- Appendix F, Natural Gas Avoided Costs, includes natural gas avoided cost data, as required by 199 IAC 35.10(2) through 35.10(4). Additionally, Appendix F discusses capacity surpluses and shortfalls, supply options and costs, and natural gas avoided capacity and energy costs.
- Appendix G, IPL Technical and Economic Potential, provides cumulative technical and economic potential for both electric and natural gas energy efficiency in IPL's service area from 2014 through 2023 (Revised Assessment). IPL updated its electric economic potential identified in the Statewide Assessment based on its new avoided costs.
- Appendix H, Assessment of Energy and Capacity Savings Potential in Iowa – Volume I, includes Volume I of the Statewide Assessment, prepared for the Iowa Utility Association and the IOUs by The Cadmus Group, Inc. (Cadmus) and issued on February 28, 2012. Volume I discusses the study's general approach and methodology along with energy-efficiency technical, economic and market potential.
- Appendix I, Assessment of Energy and Capacity Savings Potential in Iowa – Volume II, includes Volume II of the Statewide Assessment, prepared for the Iowa Utility Association and the IOUs by Cadmus and issued on February 28, 2012. Volume II includes Appendices A through C of the Assessment, covering supplemental material on energy efficiency, demand response and assessment of net-to-gross of the study.

- Appendix J, Program Participant Data, is a Microsoft Excel workbook providing data and calculations IPL used to develop projected energy savings, capacity savings, measure counts, and budgets for each program in the Plan.
- Appendix K, Cadmus Benefit Cost Model, includes five Microsoft Excel workbooks detailing the data and calculations IPL used to develop benefit to cost ratios for each program in the Plan.
- Appendix L, IPL 2012 Integrated Resource Plan, provides a complete copy of IPL's 2012 Integrated Resource Plan as filed with the Board on November 14, 2012, in Docket Nos. GCU-2012-0001/RPU-2012-0003, in support of its Plan.
- Appendix M, Analysis Supporting Revised Assessment, includes five Microsoft Excel workbooks containing measure details and calculations used in the development of the Revised Assessment (included as appendix G). The files provided in Appendix M are fully populated and operational versions of Cadmus' proprietary assessment model.

2. Overview of the Plan

2.1. Introduction

IPL, a service company subsidiary of Alliant Energy, hereby submits its 2014-2018 Energy Efficiency Plan, in compliance with Iowa Code §§ 476.6(14) and (16) (2011) and 199 IAC Chapter 35. This filing is made pursuant to the Board's Final Order issued June 24, 2009, in Docket No. EEP-08-1. IPL's Plan describes extensive portfolios of: residential and nonresidential energy-efficiency; demand response; and education, outreach, and training programs.

The Plan offers a comprehensive portfolio of programs and initiatives for acquiring energy-efficiency resources during the five-year planning period from 2014 to 2018. This Plan expands upon IPL's 2009–2013 EEP, filed with the Board April 23, 2008, and approved June 24, 2009, in Docket No. EEP-08-1. The Plan extends the savings targets for programs in the 2009-2013 EEP, introduces enhancements to individual programs, where warranted, and incorporates new programs and initiatives. Once approved, this Plan will replace the 2009-2013 EEP beginning January 1, 2014. The Plan consists of 25 programs comprising three portfolios, as well as three additional funding initiatives, as outlined below.

Energy Efficiency Portfolio

The Energy Efficiency Portfolio includes:

1. Residential Prescriptive Rebates Program;
2. Home Energy Assessments Program;

3. Change-a-Light Program;
4. Appliance Recycling Program;
5. New Home Construction Program;
6. Multifamily Program;
7. **Low-Income** Weatherization Program;
8. **Low-Income** EnergyWise Education Program;
9. Low-Income Multifamily and Institutional Efficiency Improvements Program;
10. Home Energy Savers Program;
11. Nonresidential Prescriptive Rebates Program;
12. Business Assessments Program;
13. Custom Rebates Program;
14. Commercial New Construction Program; and
15. Agriculture Sector Program.

Outreach, Education and Training Portfolio

The Outreach, Education and Training Portfolio includes:

16. Non-Targeted Energy Awareness and Information Program;
17. School-Based Energy Education Program;
18. Tree Planting Program;
19. Hometown Rewards Program;
20. Builder Training Program;
21. Energy Efficiency Dealer Network Program;
22. Bright Ideas Program; and

23. Research, Development, and Demonstration Program.

Demand Response Portfolio

The Demand Response Portfolio includes:

24. Residential DLC Program; and

25. Nonresidential Interruptible Program.

Other Funding Initiatives

Other Funding Initiatives include:

26. Legislative Assessment;

27. Evaluation, Measurement, and Verification; and

28. Next Plan.

In developing its Plan, IPL compiled three portfolios of innovative programs that are tailored to the unique characteristics of IPL's service territory. Taken together, the portfolios outlined in this Plan continue IPL's more than 20-year history of offering customers cost-effective, equitable, flexible, and wide-ranging programmatic choices, incentive options, information, and educational opportunities, designed to produce long-term savings and bring about lasting change in the way Iowans use energy.

IPL has established annual electricity savings targets ranging from **1.09 percent to 1.13 percent** of its annual retail sales forecast. The electric component targets 163 GWh of savings in 2014, projected to increase to **166** GWh in 2018. In each year of the Plan,

IPL's natural gas component is expected to produce more than 2.3 million therms of savings.

In total, IPL's Plan projects slightly lower savings than those estimated in its 2009-2013 EEP, at a lower overall cost to customers. IPL plans to achieve these saving targets by: enhancing its already aggressive outreach, marketing, and education efforts; offering robust incentives for measures with the highest, cost-effective achievable savings potential; targeting new, previously untapped sources of savings potential; and streamlining customer delivery and administrative processes to achieve greater operational efficiencies. Table 2.1 provides a summary of electric and natural gas costs and savings by program.

Table 2.1. Savings and Cost Summary by Program

Programs	2014-2018 Cumulative Energy Savings		Total Costs (\$MM)
	Electricity (GWh)	Natural Gas (therms)	
<i>Energy-Efficiency Portfolio</i>	764.26	10,671,736	\$235.24
Residential Prescriptive Rebates	63.13	1,834,148	\$65.21
Home Energy Assessments	12.81	1,645,068	\$16.60
Change-a-Light	56.89	0	\$12.56
Appliance Recycling	52.78	0	\$8.68
New Home Construction	1.17	338,826	\$5.12
Multifamily	0.76	29,414	\$0.79
Weatherization	11.85	1,098,226	\$16.15
EnergyWise Education	4.36	141,170	\$0.47
Low Income Multifamily and Institutional Efficiency Improvements	0.50	19,609	\$0.47
Home Energy Savers	0.45	129,943	\$2.46
Nonresidential Prescriptive Rebates	121.47	3,378,382	\$44.09
Business Assessments	14.54	259,709	\$5.37
Custom Rebates	343.31	1,259,641	\$46.44
Commercial New Construction	62.12	537,600	\$6.29
Agriculture Sector	18.13	0	\$4.54
<i>Outreach, Education, and Training Portfolio</i>	20.99	1,249,179	\$16.42
Non-Targeted Energy Awareness and Information	0	0	\$2.29
School-Based Energy Education	20.99	1,249,179	\$3.13
Tree Planting	0	0	\$4.51
Hometown Rewards	0	0	\$2.60
Builder Training	0	0	\$0.60
Energy Efficiency Dealer Network	0	0	\$1.04
Bright Ideas	0	0	\$1.16
Research, Development, and Demonstration	0	0	\$1.09
<i>Demand Response Portfolio</i>	29.5	0	\$135.13
Residential DLC	2.5	0	\$12.76
Nonresidential Interruptible	27.0	0	\$122.37
<i>Other Funding Mechanisms</i>	0	0	\$12.50
Legislative Assessment	0	0	\$8.00
Evaluation, Measurement, and Verification	0	0	\$3.00
Next Plan	0	0	\$1.50
TOTAL PORTFOLIO	814.8	11,920,915	\$399.30

Cumulative Savings and Costs were calculated by aggregating incremental yearly savings and cost data (adding 2014 to 2018 data). Total Cost is defined as the sum of the 2014-2018 yearly budgets for each program and portfolio (total electric plus gas). Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Throughout its long history of commitment to energy efficiency and demand response, IPL has continued to grow and exceed its energy-efficiency goals. With the implementation of each new energy-efficiency plan and the development of each new program, IPL has sought to improve and enhance its customer offerings and deliver energy-efficiency savings. This Plan includes new programs such as: the Multifamily Program, Change-a-Light Program, and the Business Assessments Program; new and re-designed components for the Home Energy Assessments Program, New Home Construction Program, and Commercial New Construction Program; and enhancements including new measures and delivery strategies in its prescriptive rebate programs and other programs.

IPL respectfully requests that the Board approve all of these programs together as integrated portfolios within this Plan.

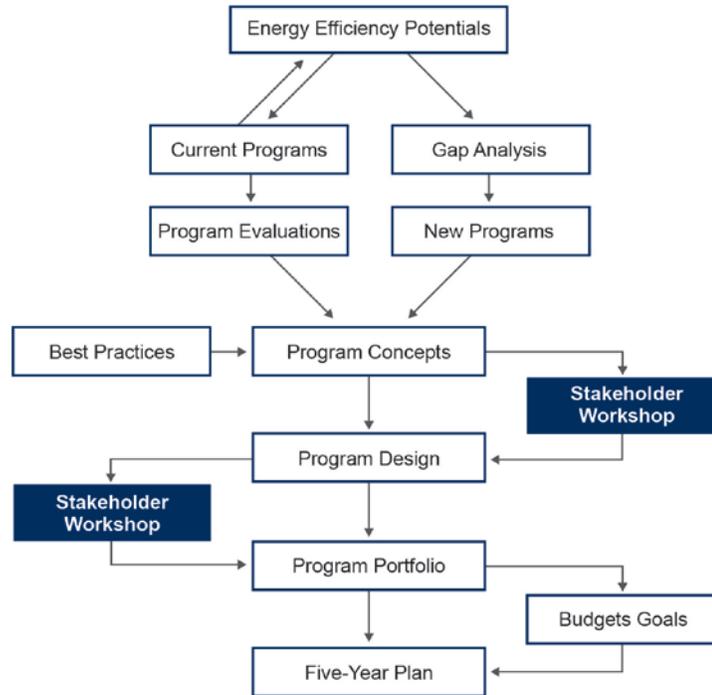
2.2. The Planning Process

To develop the Plan, IPL was largely guided by the findings of the joint-utility *Assessment of Energy and Capacity Savings Potential in Iowa* (Statewide Assessment, included as Appendices H and I), a comprehensive study of energy efficiency and demand response savings potential in the service territories of Iowa's three IOUs: IPL, BHE, and MEC. The Assessment focused on reporting potential savings over a 10-year planning horizon from 2014 to 2023 (more detail on the Assessment is provided in Section 2.2.1).

As illustrated in Figure 2.1, IPL then systematically compared end-use levels in each of its existing programs with the results of the Assessment and other market data

to identify potential programmatic gaps and/or untapped potential, and opportunities to increase customer participation and depth of savings by incorporating new market sectors, technologies, or delivery strategies.

Figure 2.1 Plan Development Process



To develop its Plan, IPL began with a bottom-up process, which involved compiling an extensive list of cost-effective measures with significant economic potential and aggregating them into appropriate programs by customer sector and equipment type. Additionally, IPL reviewed findings and recommendations resulting from collaborative efforts, program ideas from stakeholders, and results from the third-party evaluation of select programs contained in its 2009-2013 EEP. IPL conducted additional research on market conditions, program best practices, and other external factors that could affect economic, temporal, market, and administrative conditions associated with delivery of

its programs. This information, combined with a structured review of its on-the-ground program delivery experience, provided IPL with a framework for its Plan development process. The process culminated in a top-down balancing exercise to ensure that the composition and performance of the Plan meet IPL's goals and regulatory requirements. IPL used a five-step process to develop its Plan and constituent programs, as described below.

Step 1: Compile an extensive list of energy-efficiency and conservation measures and practices. Only measures based on proven, commercialized technologies were considered. For each measure considered in the Plan, IPL compiled data on technical specifications, potential end-use energy and peak demand impacts, and costs from the Assessment and other secondary sources. It calculated the peak load impacts for each measure directly from hourly end-use load shapes, which were calibrated to weather conditions in IPL's service territory.

Step 2: Determine the costs, savings, and avoided cost benefits for each measure to compute the measure's cost-effectiveness from a societal perspective. Screening measures based on achieving the cost-effectiveness threshold of 1.0 allowed IPL to identify those measures that would not materially contribute to its overall goals. IPL considered each measure individually based on its cost-effectiveness, economic potential, market conditions, historical participation rates (for currently existing measures), and other factors, and eliminated those that did not offer significant benefit to the overall goals of its Plan. However, to ensure a well-balanced and comprehensive

Plan, IPL retained some measures with high savings potentials, such as insulation and other building shell measures, despite not achieving the cost-effectiveness threshold.

Step 3: Estimate the market saturation of each measure. IPL derived its estimate of market saturation (number of installations) for measures included in the 2009-2013 EEP by using historical participation and escalation rates, then projecting those rates over the five-year program delivery period in the Plan. For new measures, IPL derived participation rates by benchmarking similar programs operated by utilities in other jurisdictions, then tempering those rates with findings from the Assessment and other market research to arrive at realistic participation projections for each measure in each Plan year.

Step 4: For each program in the Plan, calculate program-level savings. IPL calculated savings as the sum of each measure's annual energy savings estimate and expected market saturation over the entire Plan.

Step 5: Balance the Plan. Finally, IPL iteratively adjusted the expected number of participants and customer incentive levels in each program to balance the Plan. The objective of balancing is to provide a reasonable mix of programs that meet IPL's goals for a compressive Plan with a robust set of programmatic options for every customer sector and segment.

At several points during the planning process, IPL coordinated with the other IOUs and held stakeholder meetings to present ideas, gather feedback, and report on the

development of the Plan. IPL carefully considered the input it received in developing the Plan. (See Section 2.4 and Appendix B for details on IPL’s collaborative process.)

2.2.1. Assessment of Potentials

199 IAC Chapter 35 sets forth the rules that implement legislation enacted in 1990 and modified in 1996, requiring Iowa’s IOUs to “*file with the board an assessment of the potential for energy and capacity savings from actual and projected customer usage by applying commercially available technology and improved operating practices to energy-using equipment and buildings.*”³

In compliance with this requirement, the Iowa Utility Association (IUA), of which the IOUs are members, commissioned a statewide assessment of the remaining electric and natural gas energy-efficiency and demand response potentials within the service territories of Iowa’s three largest IOUs from 2014 to 2023. Building upon five previous assessments of potential in Iowa, first conducted in 1989, the Statewide Assessment provided a thorough characterization of both the current state of energy consumption in the utilities’ service territories and the forecast load in the absence of future energy efficiency.

The Statewide Assessment quantified the amount of energy that could be saved in each utility’s service territory from 2014 to 2023. The Statewide Assessment included efficient technologies and practices that were widely commercially available at the time of the study, accounting for known changes in codes and standards, technical limitations (technical potential), societal cost-effectiveness (economic potential), and

³ 199 IAC 35.8(1).

barriers and market conditions (achievable or market potential). In the context of the Statewide Assessment, market potential was defined narrowly as a resource acquisition scenario that assumes emerging technologies are available, first cost is removed as a barrier to participation, utility incentives cover 100 percent of measure costs, and that participants have access to affordable financing. Figure 2.2 illustrates the types of energy-efficiency potential analyzed in the Statewide Assessment.

Figure 2.2 Types of Energy-Efficiency Potential

Not Technically Feasible	Technical Potential			
Not Technically Feasible	Not Cost Effective	Economic Potential		
Not Technically Feasible	Not Cost Effective	Market Barriers	Market Potential	
Not Technically Feasible	Not Cost Effective	Market Barriers	Budget & Planning Constraints	Utility Targets

Table 2.2 shows the forecasted 2023 baseline electric and natural gas sales and total potential for IPL’s service area. Statewide Assessment results indicated 3,840 GWh of technically feasible electric energy-efficiency potential by 2023, the end of the 10-year planning horizon, with approximately 3,295 GWh of these resources proving to be cost-effective. The identified economic potential represents a reduction of 21 percent of forecast load in 2023.

The Assessment results further indicated nearly 91 million therms of technically feasible natural gas energy-efficiency potential by 2023, 62 million therms (68 percent) of which is expected to be economic. The identified natural gas economic potential of 25.5 million therms amounts to 23 percent of forecasted load in 2023. Almost all of the remaining natural gas potential comes from the commercial sector, with a small portion from industrial applications.

Table 2.2 Technical and Economic Electric and Natural Gas Energy-Efficiency Potential (Cumulative in 2023)

Resource	Forecast 2023 Retail Sales	Technical Potential			Economic Potential		
		Energy Savings Potential	% of Base Sales	Capacity Savings Potential	Energy Savings Potential	% of Forecast Sales	Capacity Savings Potential
Electricity (MWh)	15,465,326	3,840	25%	926	3,295	21%	803
Natural Gas (thousand therms)	267,040	90,767	34%	732	61,574	23%	515

Source: Appendix H and Appendix I: Assessment of Energy and Capacity Savings Potential in Iowa (Volume I and Volume II)

As shown in Table 2.3, the results of the Assessment indicated that the residential sector represents the largest portion of electric technical and economic potential, at 42 percent and 40 percent, respectively. The commercial sector represents the second-largest contributor to technical and economic potential, at 32 percent for each, while the industrial potential accounts for 26 percent and 28 percent of technical and economic potential, respectively.

Table 2.3 Electric Potential by Customer Class

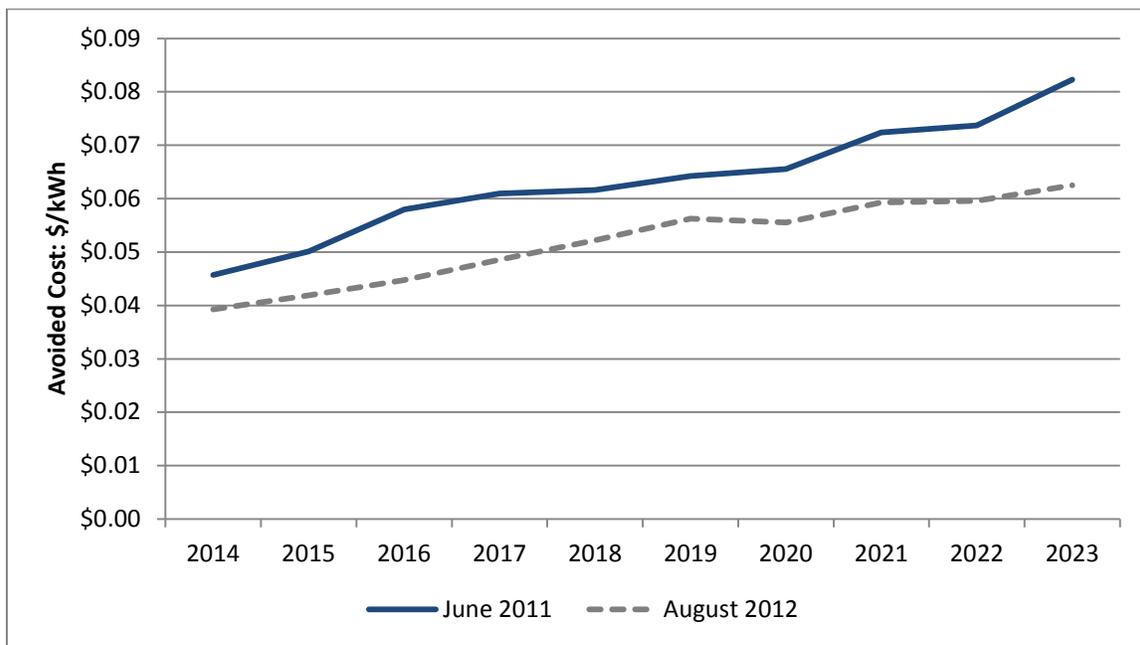
Sector	Share of Technical Potential (percent)	Share of Economic Potential (percent)
Residential	42	40
Commercial	32	32
Industrial	26	28

Source: Appendix H and Appendix I: Assessment of Energy and Capacity Savings Potential in Iowa (Volume I and Volume II)

2.2.2. Revised Electric Economic Potential

On August 23, 2012, in Docket No. IAC-2012-1503, IPL filed its revised electric avoided costs with the Board.⁴ The revised electric avoided costs were approximately 16 percent lower than the June 2011 avoided costs, which formed the basis for the **Statewide** Assessment's screening of the technical potential for cost-effectiveness (Figure 2.3).

Figure 2.3 Comparison of June 2011 and August 2012 Annual Avoided Costs



Source: IPL avoided cost data

⁴ There was no change in avoided costs for natural gas.

IPL asked Cadmus to recalculate the electric economic potential in IPL’s service territory using the revised avoided costs. The results of this Revised Assessment showed a six percent decline in economic potential across all sectors. The largest impact was in the residential sector, where economic potential dropped by over 15 percent (Table 2.4). Applying the revised avoided costs lowered the economic potential slightly, from 21.3 percent to 20 percent of the 2023 forecast load (Table 2.5), and did not materially affect the list of measures in IPL’s Plan. **The Summary results of the Revised Assessment are provided as Appendix G. The detailed data and calculations of the Revised Assessment are provided in Appendix M.**

Table 2.4 The Effects of Changing Avoided Electric Costs on Economic Potential (Cumulative in 2023) by Sector

Sector	Economic Potential (GWh) December 2011 Avoided Costs	Economic Potential (GWh) August 2012 Avoided Costs	Percent Change
Residential	1,276	1,108	-15.2%
Commercial	1,149	1,132	-1.5%
Industrial	871	858	-1.5%
Total	3,296	3,099	-6.4%

Source: Appendix G IPL Technical and Economic Potential and Appendix M (for detailed data and calculations).

Table 2.5 Change in Economic Potential as Fractions of 2023 Forecast Load by Sector

Sector	December 2011 Avoided Costs	August 2012 Avoided Costs
Residential	33.1%	28.8%
Commercial	28.9%	28.5%
Industrial	11.4%	11.2%
Total	21.3%	20.0%

Source: Appendix G IPL Technical and Economic Potential and Appendix M (for detailed data and calculations).

2.2.3. Energy-Efficiency Market Potential

The Assessment also included an analysis of market potential. As defined in that study, market potential represents savings that might be achievable under an aggressive acquisition scenario, assuming that: incentive payments are up to 100 percent of incremental measure costs; financing is available; there is exemplary program design and implementation practices; and an emergence of new technologies that are currently not widely available in the marketplace. The analysis indicated that 85 percent of electric and up to 65 percent of natural gas economic potential may be achievable over the 10-year study horizon. However, the analysis also showed that achieving savings at these levels would require substantially higher utility and customer expenditures than those currently occurring in Iowa or elsewhere in the nation.

2.2.4. Overall Strategy to Achieve Energy-Efficiency Goals

Since implementing its 2009-2013 EEP, IPL has experienced unparalleled changes in the Iowa marketplace. While many of these changes represent progress toward greater efficiency in buildings and equipment, they also have brought new challenges associated with IPL's ability to maintain its energy-savings trajectory within the confines of its commitment to delivering cost-effective energy efficiency to Iowa customers. Some of these issues are highlighted below.

- **Cost of natural gas.** The cost of natural gas has decreased from approximately \$1.16 per therm in 2009 to \$0.55 per therm currently, a reduction of 47 percent. Because avoided fuel costs are a major factor in calculating cost-effectiveness, this drop in natural gas prices decreases the benefit/cost ratios of natural gas efficiency measures by large margins. As a

result, many of IPL's historically popular measures with good energy-savings value are no longer cost-effective.

- **Cost of savings.** While natural gas costs have decreased, the cost of capturing energy savings has increased over the past several years. Partially due to IPL's more than 20-year history of offering energy-efficiency programs, the low-hanging fruit has become increasingly scarce. Additional factors include increasing product costs and economic conditions affecting customers' discretionary spending. As a result, IPL must dedicate ever-greater resources to capturing deeper energy savings from harder-to-reach customer segments and later adopters.
- **Adoption of new building codes.** Within the first 18 months of launching the Plan, the State of Iowa is expected to adopt the 2012 International Energy Conservation Code (IECC), which calls for significantly increased energy-efficiency standards in new residential buildings. The new code will increase the efficiency baseline for new residential construction to the extent that exceeding the code via many traditional new construction measures (e.g., insulation, infiltration, lighting) will no longer be economically viable for builders and residential new construction programs will no longer be cost-effective.
- **Changes in equipment standards.** Much like the adoption of new building codes, increasing equipment standards and other governmental intervention aimed at moving toward more efficient products and equipment are

changing the efficiency baseline of many measures. As a result of new and impending efficiency standards for lighting, furnaces, boilers, and appliances, the energy savings available from these measures has decreased, which reduces their cost-effectiveness. As a result, IPL has had to eliminate some of its most popular and long-standing efficiency measures, and shift some of its resources away from measures that, in the past, produced large portions of its energy savings.

- **Approaching the efficiency ceiling.** In many cases, increasing standards mean that energy-consuming equipment and systems are reaching the cost-effective limit of achievable efficiency. At the same time, promising new technologies, such as light emitting diodes (LEDs) and tankless water heaters, have not reached a price point that would produce large-scale market adoption or contribute to measurable cost-effectiveness. In other cases, the incremental cost of high-efficiency equipment versus a standard-efficiency option (e.g., ENERGY STAR[®] computers) is too low to allow for cost-effective program delivery. The accumulated effect of these market impacts is a reduction in IPL's ability to move toward new technologies and efficiency strategies to replace dwindling savings and measures that are no longer cost-effective in its traditional programs.

Although the cumulative effect of these market changes has made program design and Plan development more challenging, IPL continues to look for new sources of energy savings and opportunities to serve its customers with diverse efficiency program opportunities. As in past energy-efficiency plans, IPL's Plan includes comprehensive

portfolios of programs designed to offer a range of energy-savings opportunities to its customers, while simultaneously adjusting to the rapid changes in the marketplace. The resulting Plan is leaner, seeks to capture new sources of savings, streamlines programs for increased operational efficiency, and expands efforts to identify the next generation of economic energy-savings potential.

2.2.5. Energy-Efficiency Targets

The results of the Assessment were IPL's principal basis for establishing its 2014-2018 savings targets. The study provided information on energy-efficiency measures and their saving, costs, and market opportunities. The development of saving targets was also informed by IPL's more than two decades of experience with energy-efficiency product markets and information on what has been achieved by other utilities operating in markets similar to IPL's. Based on these considerations and the lessons learned from implementing its 2009-2013 EEP, IPL has established savings targets that are reasonably achievable.

As described in Section 2.2.2, the Revised Assessment identified 3,099 GWh of economic electric energy-efficiency potential over the 10-year planning horizon, and that 85 percent (2,634 GWh) of this potential, representing 16.8 percent of the 2023 forecast load might be achievable under an aggressive acquisition scenario (Table 2.6).

Assuming the same aggressive achievable potential of 85 percent, results of the Revised Assessment indicated a maximum achievable economic potential equal to 16.8 percent of IPL's 2023 forecast load, translating into approximately 1.7 percent per year. The Plan includes annual electric saving targets ranging from 1.09 to 1.13 percent,

which represent nearly 65 percent of the expected market potential identified in the Revised Assessment.

As shown in Table 2.7, the Assessment also identified nearly 62 million therms of economic natural gas potential, 65 percent of which (18.6 percent of 2023 load) is expected to be achievable under an aggressive market scenario. Assuming an even acquisition rate, the identified economic potential translates into 1.86 percent per year. The Plan targets average annual natural gas saving targets of 0.88 percent of retail sales, which represent 47 percent of the market potential identified in the Assessment.

Table 2.6 Estimated Electric Efficiency Potential and Plan Goals

Plan Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Cumulative 2014-'23
Retail Sales Forecast (MWh)	14,417,469	14,540,497	14,683,003	14,843,763	14,985,647	15,144,914	15,295,682	15,444,298	15,575,951	15,722,017	150,653,242
Technical Potential (MWh)	623,807	504,308	447,928	417,613	416,146	455,687	487,442	465,161	469,883	486,337	3,840,016
Technical Potential (Peak MW)	110	89	79	73	73	79	85	81	82	85	
Technical Potential % of Sales	4.33%	3.47%	3.05%	2.81%	2.78%	3.01%	3.19%	3.01%	3.02%	3.09%	
Economic Potential (MWh)	514,944	411,956	362,184	336,618	339,313	350,010	388,373	370,893	380,527	396,286	3,098,915
Economic Potential (Peak MW)	91	72	63	59	59	61	68	65	67	70	
Economic Potential % of Sales	3.57%	2.83%	2.47%	2.27%	2.26%	2.31%	2.54%	2.40%	2.44%	2.52%	
Market Potential (MWh)	437,702	350,163	307,856	286,126	288,416	297,508	330,117	315,259	323,448	336,843	2,634,078
Market Potential (Peak MW)	77	62	54	50	50	52	58	55	57	59	
Market Potential % of Sales	3.04%	2.41%	2.10%	1.93%	1.92%	1.96%	2.16%	2.04%	2.08%	2.14%	16.8%
Plan Goals (MWh)	163,085	162,779	160,200	162,872	165,814	.	.	.	.	.
Plan Goals (Peak MW)	24	23	23	24	25						
Plan MWh Savings % of Sales	1.13%	1.12%	1.09%	1.10%	1.11%	.	.	.	.	.

Source: Appendix G IPL Technical and Economic Potential and Appendix M (for detailed data and calculations).

Table 2.7 Estimated Natural Gas Efficiency Potential and Plan Goals

Plan Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Cumulative 2014-'23
Retail Sales Forecast (Therms)	274,625,523	275,434,499	276,092,388	276,754,029	277,419,440	278,088,644	278,761,659	279,438,506	280,119,207	280,803,780	2,777,537,676
Technical Potential (Therms)	10,853,261	10,318,769	10,048,491	9,803,672	9,662,066	9,734,016	9,576,073	10,310,758	10,241,275	10,113,119	90,767,990
Technical Potential (Peak Therms)	110,171	102,351	99,832	97,551	96,295	97,012	95,438	102,760	102,067	100,790	
Technical Potential % of Sales	3.95%	3.75%	3.64%	3.54%	3.48%	3.50%	3.44%	3.69%	3.66%	3.60%	
Economic Potential (Therms)	6,893,934	6,654,749	6,544,480	6,451,217	6,440,466	6,366,360	6,297,907	7,124,720	7,134,973	7,079,295	61,573,697
Economic Potential (Peak Therms)	69,980	66,008	65,019	64,192	64,187	63,449	62,767	71,007	71,109	70,554	
Economic Potential % of Sales	2.51%	2.42%	2.37%	2.33%	2.32%	2.29%	2.26%	2.55%	2.55%	2.52%	
Market Potential (Therms)	5,859,844	5,656,536	5,562,808	5,483,535	5,474,396	5,411,406	5,353,221	6,056,012	6,064,727	6,017,401	52,337,642
Market Potential (Peak Therms)	59,483	56,107	55,266	54,564	54,559	53,931	53,352	60,356	60,443	59,971	
Market Potential % of Sales	2.13%	2.05%	2.01%	1.98%	1.97%	1.95%	1.92%	2.17%	2.17%	2.14%	18.6%
Plan Goals (Therms)	2,337,308	2,311,741	2,365,178	2,422,708	2,483,980	.	.	.	.	.
Plan Goals (Peak Therms)	23,726	22,930	23,498	24,107	24,756						
Plan Savings % of Sales	0.85%	0.85%	0.87%	0.90%	0.93%	.	.	.	.	.

Source: Appendix G IPL Technical and Economic Potential and Appendix M (for detailed data and calculations).

2.2.6. Demand Response Targets

The Assessment also developed estimates of market potential for the two demand response programs IPL currently operates: the Residential Direct Load Control Program and the Nonresidential Interruptible Program. The Assessment included an evaluation of three scenarios based on program participation levels achieved by IOUs offering similar programs in other jurisdictions. The results of the Assessment indicated a total market potential ranging from 35 MW under the base-case scenario to 46 MW under an aggressive expansion scenario for the Residential DLC Program. The Assessment also estimated the market potential for the Nonresidential Interruptible Program to range from 296 MW to 354 MW under the base-case and aggressive expansion scenarios, respectively (Table 2.8).

Based partly on the results of the Assessment and IPL's experience with these programs, in its Plan, IPL will primarily aim to maintain the current levels of participation and the corresponding demand reduction targets of 44 MW for the Residential DLC Program and 270 MW for the Nonresidential Interruptible Program. The two programs are expected to provide a total load reduction capability of 314 MW. This represents 126 percent and 91 percent of the base-case market potential for the DLC Program and Nonresidential Interruptible Program respectively.

Table 2.8 Estimated Demand Response Market Potential in 2023 (MW) and Plan Goals

Plan Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Peak Savings Potential										
Direct Load Control	35 – 46	35 - 46	35 - 46	35 - 46	35 - 46	35 - 46	35 - 46	35 - 46	35 - 46	35 - 46
Interruptible	296 – 354	296 - 354	296 - 354	296 - 354	296 - 354	296 - 354	296 - 354	296 - 354	296 - 354	296 - 354
Plan Goals										
Direct Load Control	44	44	44	44	44	.	.	.	.	.
Interruptible	270	270	270	270	270	.	.	.	.	.

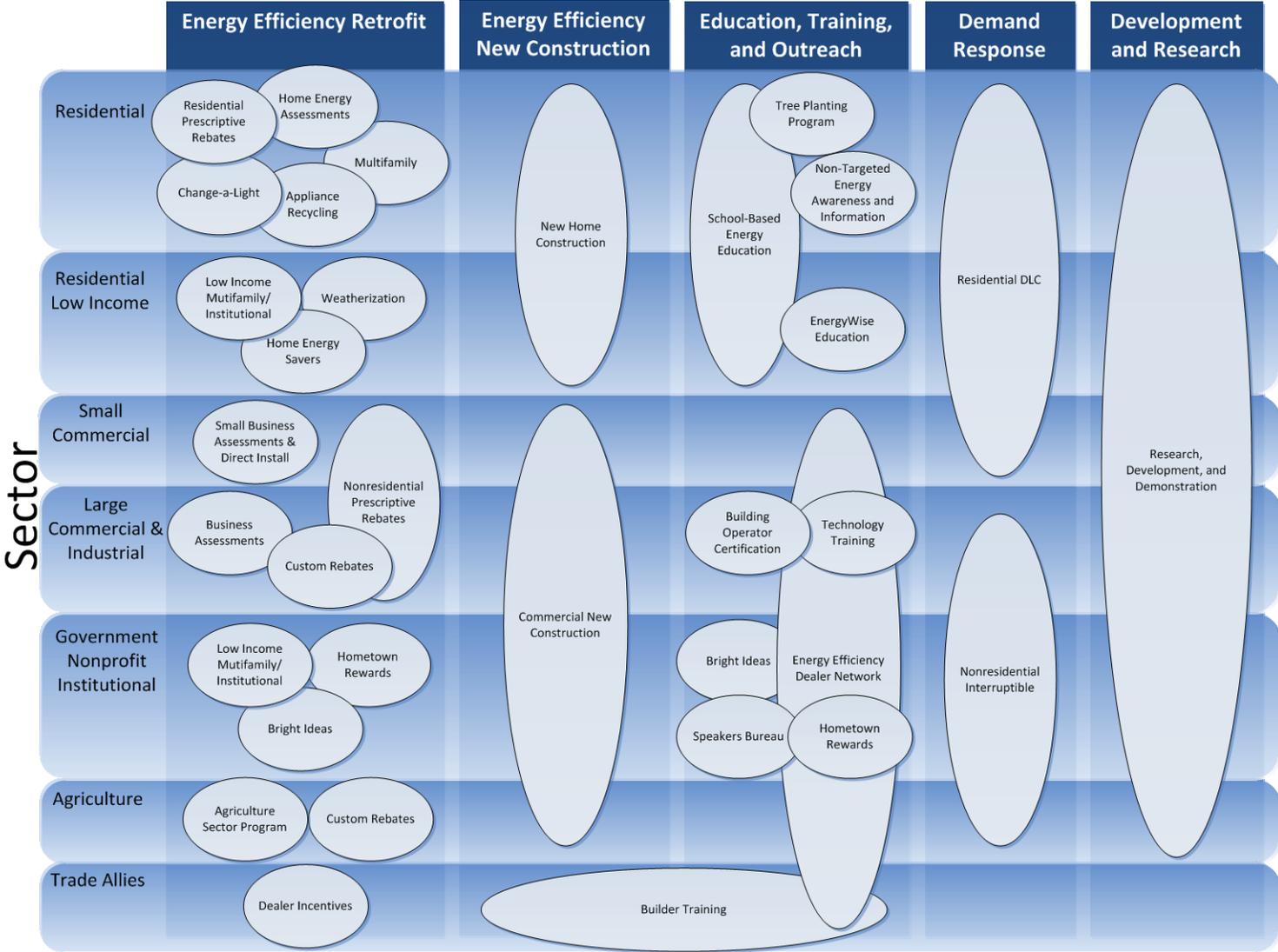
Source: Peak Savings Potential from Appendix H Assessment of Energy and Capacity Savings Potential in Iowa (dated 2012). Plan goals from Appendix K Benefit Cost Model_Demand Response.

2.3. Plan Composition

The Plan's overarching approach may be best described as a portfolio perspective, addressing virtually every significant energy end-use in a customer's home, farm, or business, through a comprehensive, whole-facility approach or a menu approach, whichever works best for the customer. IPL employs multiple market intervention strategies in its Plan, including information, education, and technical assistance and, most importantly, financial incentives to produce long-term savings and provide IPL and its customers with the highest returns in terms of market reach, energy savings, and cost-effectiveness.

The Plan is composed of 25 programs, organized in the three primary portfolios: Energy Efficiency; Demand Response; and Outreach, Education, and Training. Additionally, the Plan includes three additional funding initiatives. In designing the portfolios, IPL sought to provide program opportunities for every customer sector with a range of available measures, delivery mechanisms, and educational opportunities. Figure 2.4 provides an overview of the Plan approach, which balances programmatic elements with customer sectors and segments.

Figure 2.4 Plan Elements by Sector



IPL's Plan builds on its 2009-2013 EEP, adding new elements to capture untapped market potential, eliminating certain elements that failed to produce long-term benefits for Iowa customers, and streamlining program operations and delivery. **Table 2.9** summarizes the changes to IPL's 2009-2013 EEP that are included in the Plan.

Table 2.9 2014-2018 Plan Changes

Program	Markets Served	Changes/Details
New Programs		
Multifamily	Buildings with four or more units	<ul style="list-style-type: none"> • Holistic approach to multifamily efficiency, allowing the building owner to focus on both common areas and tenant units. • Available for new construction as well as after-market upgrades. • Will draw from existing programs (e.g., assessments, prescriptive and custom rebates, new construction programs). • Addresses a hard-to-reach market with untapped efficiency potential.
Change-a-Light	All IPL customers	<ul style="list-style-type: none"> • Year-round upstream point-of-purchase incentives and marketing campaign. • Energy-efficient light bulbs including a variety of compact fluorescent lamps and LED bulbs.
Business Assessments	All commercial and industrial customers	<ul style="list-style-type: none"> • Offers three types of business assessments to business owners for a wide range of facility types and sizes. • Offers a small business direct install component that includes a comprehensive lighting package and technical support for the hard-to-reach small business sector.
Discontinued Programs/Initiatives		
Performance Contracting	Large commercial and industrial	<ul style="list-style-type: none"> • Only one active project developer supporting the program. • Customers find that the Custom Rebate Program better addresses their internal constraints. • IPL will continue to offer support to those customers interested in financing as an effective way to implement energy efficiency.
Tree Planting	Residential customers	<ul style="list-style-type: none"> • Eliminating three Tree Planting Program initiatives: <ul style="list-style-type: none"> ○ Iowa Hometown Celebrations: eliminated due to lack of customer interest. ○ Industrial Park Developments: often benefited private developers that had not paid into the Iowa energy-efficiency fund. ○ Growing Kids, Growing Trees: Iowa's Department of Natural Resources offers a similar program.

Program	Markets Served	Changes/Details
Enhancements and Changes to Existing Programs		
Home Energy Assessments	Residential single family customers	<ul style="list-style-type: none"> • Adding electric-only assessments to serve customers who: 1) have an all-electric home; 2) heat with propane; or 3) have natural gas service that is not provided by an Iowa IOU. • Adding comprehensive assessments including diagnostic testing for customers to identify specific improvements that offer the greatest return-on-investment opportunities. • Offering bonus incentives to encourage customers to install multiple recommended measures.
Residential Prescriptive Rebates	Residential customers	<ul style="list-style-type: none"> • Expanding HVAC system tune-up options. • Requiring quality installation for all furnace rebates. • Adding prescriptive incentives for whole-house fans. • Eliminating some measures with low participation and low cost-effectiveness.
New Home Construction	Residential builders and homeowners	<ul style="list-style-type: none"> • Simplifying the program for builders who use the Home Energy Rating System index to measure new home performance. • Adding two performance paths with tiered incentive levels. • Reducing required measures and incentives in the prescriptive path to adjust for new building codes.
Weatherization	Income-qualified residential customers	<ul style="list-style-type: none"> • Allowing for annual adjustments to match program eligibility to the current federal poverty level.
EnergyWise Education	Income-qualified residential customers	<ul style="list-style-type: none"> • Adding window film and one additional compact fluorescent lamp to the kit based on feedback from Community Action Program agencies.
Home Energy Savers	Income-qualified residential customers	<ul style="list-style-type: none"> • Allowing for annual adjustments to match program eligibility to the current federal poverty level. • Transferring program administration and marketing to Community Action Program agencies; IPL will partner with Community Action Program agencies to coordinate promotion.
Nonresidential Prescriptive Rebates	Nonresidential customers	<ul style="list-style-type: none"> • Adding prescriptive incentives for new measures. • Exploring an upstream incentive mechanism for motors and variable-speed drives. • Eliminating some measures with low participation and low cost-effectiveness.
Hometown Rewards	Communities	<ul style="list-style-type: none"> • Expanding community eligibility to populations between 5,000 and 25,000. • Additional funding for administrative expenses and implementation costs.
School-Based Energy Education	Schools	<ul style="list-style-type: none"> • Adding 5th grade to participant targets for Alliant Energy Kids program component.
Research, Development, and Demonstration	Varies	<ul style="list-style-type: none"> • Exploring new sources of potential energy savings, including: <ul style="list-style-type: none"> ○ Behavior change, ○ Transmission and distribution infrastructure, ○ Electric and plug-in hybrid vehicles, and ○ Data centers.

Detailed descriptions of each program in IPL's Energy-Efficiency Portfolio, Outreach, Education, and Training Portfolio, and Demand Response Portfolio are provided Volume I, Book 2 of this Plan. Descriptions of three additional funding initiatives, including IPL's evaluation, measurement, and verification (EM&V) plans, are also provided.

2.4. Collaborative Process

Throughout developing its 2014-2018 Plan, IPL has pursued opportunities to inform stakeholders of its progress and solicit input. IPL has had frequent formal and informal communications with multiple parties, including: other Iowa IOUs; Iowa municipal and cooperative utilities; the IUA; consumer, environmental, and industry advocates; economic development organizations; community-based organizations; trade associations and trade allies; and its energy-efficiency program contractors. A detailed account of IPL's collaborative activities is provided in Appendix B of this Plan.

Table 2.10 below summarizes IPL's stakeholder collaboration activities.

Table 2.10 Stakeholder Coordination Activities

Collaborative Activity	Stakeholder Participants	Topics/Outcomes
Assessment of Technical and Economic Potential	IPL, BHE, MEC, IUA, Office of Consumer Advocate (OCA)	Issue request for proposal and select a consultant to perform a statewide estimate of energy-efficiency potential.
Joint Utility Collaborative and Stakeholder Meetings	IOUs, OCA, IUA, other stakeholders including vendors, program contractors, trade allies, community-based organizations, etc.	<ul style="list-style-type: none">• January 24, 2012: launch collaborative process• March 8, 2012: assess potential study overview• May 15, 2012: low-income programs collaborative• September 19, 2012: proposed Plan overview
Joint Utility Collaboration	IPL, BHE, MEC	Informal, periodic discussions aimed at achieving consistency in planning assumptions and specific program design features.
Stakeholder Program Proposals	All stakeholders including vendors, program contractors, trade allies, community-based organizations, etc.	<ul style="list-style-type: none">• Distribution of program templates and invitation for stakeholders to submit details on potential new programs for consideration in the Plan.• Of 10 programs submitted, IPL incorporated four into its Research, Development, and Demonstration Program as pilots.• Five program proposals included measures and components already represented in IPL's Plan.

2.5. Benefits, Costs, and Cost-Effectiveness of the Portfolio

For each program in the Plan, IPL began assessing cost-effectiveness by valuing the program's gross societal benefits, as measured by IPL's avoided energy and capacity costs (including externalities) and the program's total life-cycle costs. A program's cost-effectiveness is determined by the net present value of its benefits. A program is considered cost-effective if its net societal benefits are positive, in other words, the ratio of the net present value of the program's benefits as compared to costs is greater than 1.0.

2.5.1. Program Benefit Components

The benefits of an energy-efficiency program include the value of avoided time- and seasonally-differentiated costs, adjusted by a 10 percent externality factor as provided in 199 IAC 35.9(7). For each energy-efficiency measure included in a program,

hourly (8,760) system avoided costs were adjusted by the measure's hourly load shape to capture the full value of time- and seasonally-differentiated impacts of the measure. In the case of programs where conservation measures are expected to affect consumption of more than one fuel, (e.g. insulation and weatherization), avoided cost impacts for both fuels were incorporated in the analysis. Non-energy benefits, such as water savings, were not factored into the calculation of benefits because these benefits are typically hard to quantify and tend to be too small to alter the outcome of the analysis.

2.5.2. Program Cost Components

The cost component of the analysis consists of incremental measure costs and utility costs. The incremental measure costs are the incremental material and labor expenses associated with installing the energy-efficiency measures and their ongoing operation and maintenance costs, where applicable. Utility costs are the expenses associated with development, deployment, and operation of the program, and fall into the seven following categories:

1. **Planning and design:** expenses associated with program development, designing new programs, or making modifications to existing programs.
2. **Program administration:** costs associated with program support functions, such as ongoing operation, administration, trade ally management, and reporting.
3. **Advertising and promotion:** program-specific marketing, education, training, and demonstrations aimed at promoting the program.

4. **Incentives:** utility contributions provided to or on behalf of participants, including but not limited to rebates, loan subsidies, payments to dealers, rate credits, bill credits, and the cost of energy audits.
5. **Equipment:** program-specific costs associated with hardware purchased by the utility and given to customers as a portion of their incentives, such as direct installation measures.
6. **Installation:** labor costs associated with installing equipment provided to participants in individual programs.
7. **Program Review and Assessment:** expenses associated with annual program review and assessment.

2.5.3. Cost-Effectiveness Analysis

The economic performance of each program was evaluated from four stakeholder perspectives: (1) the program participants; (2) the utility; (3) all IPL customers (including nonparticipants, also referred to as ratepayers in 199 IAC Chapter 35); and (4) the society at large. These perspectives were evaluated by four tests, namely: (1) the participant cost test; (2) utility cost test; (3) ratepayer-impact measure (RIM) test; and (4) the societal cost test. The allocations of the benefit and cost components to various stakeholders is illustrated in **Table 2.11**. Benefit/cost ratios were calculated using the standard methods described in the California standard protocols⁵ for analyzing the cost-effectiveness of conservation programs. The assumptions used in these calculations are summarized in **Table 2.12**.

⁵ *California Standard Practice Manual for Economic Analysis of Demand-Side Management Programs and Projects.*

Table 2.11 Allocation of Benefits and Costs from Different Perspectives

	Stakeholder Perspective			
	Participant	Utility	All Customers (RIM)	Societal
Benefits				
Avoided energy costs		✓	✓	✓
Avoided capacity costs		✓	✓	✓
Avoided transmission and distribution losses		✓	✓	✓
Avoided secondary fuel costs		✓		✓
Bill reductions	✓			
Externalities adder (10%)				✓
Utility incentives	✓			
Costs				
Incremental measure costs	✓			✓
Utility costs incurred as incentives		✓	✓	
Utility costs other than incentives		✓	✓	✓
Lost revenues			✓	

Source: California Energy Commission. *California Standard Practice Manual for Economic Analysis of Demand-Side Management Programs and Projects*. October 2001.

Table 2.12 Primary Assumptions Used in the Benefit/Cost Analysis

	Electric	Natural Gas
Retail Rates	Residential 2 nd block winter: \$0.05894 per kWh Residential 2 nd block summer: \$0.09732 per kWh Source: EEP Retail Electric rates spreadsheet, lines 1 and 2	Residential: \$0.188 per therm Source: Interim Tariff Sheet No. 40
	Small Commercial: \$0.100 per kWh Source: EP Retail Electric rates spreadsheet, line 3	Small Commercial: \$0.180 per therm Source: Interim Tariff Sheet No. 41
	Large Commercial and Industrial: Summer: \$0.0197 per kWh Winter: \$0.0107 per kWh Plus Demand Charges of: Summer: \$21.07 per kW Winter: \$13.08 per kW Source: EEP Retail Electric rates spreadsheet, lines 4 and 5	Nonresidential: \$0.180 per therm Source: Interim Tariff Sheet No. 46
Avoided Energy Costs (2014) (without losses or externalities)	Summer Peak: \$0.053 per kWh Summer Off-Peak: \$0.039 per kWh Winter Peak: \$0.040 per kWh Winter Off-Peak: \$0.036 per kWh Source: Appendix E – Table E8 (without losses or externalities)	Summer: \$0.445 per therm Winter: \$0.472 per therm Source: Appendix F, Page 10 of 10, Figure F3
Avoided Capacity Costs (2014) (without losses or externalities)	Generation: \$111 per kW Source: Appendix E5 – Generation Carrying charge tab	Total: \$8.87 per peak day therm Source: Appendix F, Page 9 of 10, Figure F2
	Transmission: \$81 per kW Source: Appendix E5 – Transmission Carrying charge tab	
	Distribution: \$26 per kW Source: Appendix E5 – Distribution Carrying charge tab	
	Total: \$218 per kW Source: Sum of Generation, Transmission, and Distribution	
Externality Factor	10% Source: 199 IAC 35.9(7)a	7.5% Source: 199 IAC 35.10(4)a
Line Loss	Industrial: 4.86% Residential, Commercial, and Agricultural: 5.75% Source: See line losses spreadsheet.	N/A
Discount Rates	Utility and RIM Discount Rate: 7.86% Source: 199 IAC 35.2: Weighted Average Cost of Capital RPU-2010-0001, See discount rates spreadsheet.	
	Participant Discount Rate: 10% Source: IPL Judgement	
	Societal Discount Rate: 3.640% Source: 199 IAC 35.2: See EEP discount rates spreadsheet.	
Inflation Rate	1.8% Source: Bureau of Labor Statistics, Consumer Price Index – November 2012 release	

2.5.4. Summary of The Plan's Projected Economic Outcomes

IPL strived to design every portfolio in this Plan to be cost-effective when analyzed from a societal test perspective, as required by 199 IAC 35.8(1)"e"(1). Taken as a whole, the Plan is cost-effective, with a societal cost-benefit ratio of 2.48 to 1. However, some individual programs and measures are not cost-effective according to the societal test. Additionally, several of IPL's natural gas measures are not cost-effective. As was described in Section 2.2.6 above, due to low projections for avoided natural gas costs, several measures that historically provided cost-effective natural gas savings in IPL's Plan did not pass the societal test.

Cost effectiveness had to be balanced against the objectives of equity and comprehensiveness. IPL designed individual programs to incorporate a comprehensive set of measures. In some cases, IPL retained measures that are not cost-effective, if those measures offered other benefits such as high, sustained customer satisfaction and savings. An additional confounding factor affecting the cost-effectiveness of the Plan's natural gas components is the manner in which costs are allocated for certain measures producing electric and natural gas savings.

Shell-improvement, weatherization, and certain upgrades to heating and cooling systems affect the consumption of both electricity and natural gas. To separately determine the cost-effectiveness of a measure for each fuel, it is necessary to account for the benefits and costs associated with each fuel separately. While calculating energy savings and the corresponding benefits for each fuel is straightforward, there are no conventions for allocating joint implementation costs to each fuel. For the purpose of

this Plan, IPL allocated the joint costs based on each fuel's relative Btu savings. This method, although practical, tends to shift a disproportionately large share of the measures' joint costs to the natural gas component, lowering the cost-effectiveness of the natural gas measure and the natural gas component as a whole. Absent a more equitable method for allocating these costs, it is reasonable to judge cost-effectiveness for the Plan as a whole, rather than separately for its electric and natural gas components.

Only three programs in the energy-efficiency portfolio contained in IPL's Plan did not pass the societal cost-effectiveness threshold of 1.0:

1. *The New Home Construction Program.* All of IPL's energy-savings calculations and cost-effectiveness analyses assume that the State of Iowa will pass the 2012 IECC prior to, or soon after, IPL launches the programs contained within its Plan. This much more stringent energy code dictates that many of IPL's traditional new construction measures will become code, impacting the savings available from new construction projects and reducing the program's overall cost-effectiveness.
2. *The Multifamily Program.* IPL's Iowa territory is mostly rural, and its residential customer base is largely dominated by single-family housing. The limited number of multifamily housing customers likewise limits both participation and available savings from this sector. Additionally, the costs to deliver efficiency services to this sector are comparatively high. Taken

together, these factors contribute to low overall programmatic cost-effectiveness.

3. *The HES Program.* This program targets customers in an income bracket incrementally higher than the federal limits for weatherization assistance. The program provides these customers with comprehensive services and incentive levels that are set higher than IPL's traditional prescriptive rebates, in order to meet these customers' needs for more substantial assistance. Consequently, the resulting program delivery costs are higher, which impacts the program's overall cost-effectiveness. Regardless, due to the current economic slowdown, it is important for IPL to offer programs designed to help customers with additional support needs.

The tables below provide summary information on Plan-level benefits and costs that comprised the cost-effectiveness analysis of IPL's Plan and the results of that analysis. [Table 2.13](#) and [Table 2.14](#) provide summary-level data incorporating the electric and natural gas components combined. [Table 2.15](#) and [Table 2.16](#) show cost-effectiveness inputs and results for the electric component, and [Table 2.17](#) and [Table 2.18](#) show cost-effectiveness inputs and results for natural gas.

Table 2.13 Total Plan Benefits and Costs

Benefit/Cost Component	Plan Year					Total
	2014	2015	2016	2017	2018	
Electric Savings (kWh)	163,084,964	162,779,248	160,200,436	162,872,055	165,813,594	814,750,297
Capacity Savings (kW)*	25,754	25,351	24,428	24,807	25,216	125,556
Natural Gas Savings (therms)	2,337,308	2,311,741	2,365,178	2,422,708	2,483,980	11,920,915
Capacity Savings (therms)	23,726	22,930	23,498	24,107	24,756	119,016
Participant Cost Net of Incentives (\$)	\$49,364,104	\$49,872,502	\$50,313,802	\$52,018,726	\$53,862,609	\$255,431,744
Direct Utility Costs (\$)	\$77,100,714	\$79,638,476	\$78,965,480	\$81,817,814	\$81,764,638	\$399,287,221
Planning and Design	\$1,189,104	\$1,210,744	\$1,230,055	\$1,255,445	\$1,282,663	\$6,168,011
Program Administration	\$6,295,508	\$6,369,131	\$6,428,518	\$6,515,216	\$6,606,745	\$32,215,118
Advertising and Promotion	\$3,126,288	\$3,193,675	\$3,252,165	\$3,327,903	\$3,407,865	\$16,307,895
Incentives	\$58,747,394	\$59,539,697	\$60,148,497	\$61,215,684	\$62,364,175	\$302,015,447
Equipment	\$3,345,191	\$3,369,503	\$3,393,845	\$3,422,130	\$3,450,557	\$16,981,225
Installation	\$3,188,903	\$3,226,016	\$3,263,586	\$3,304,744	\$3,346,178	\$16,329,426
Program Review and Assessment	\$1,208,326	\$1,229,710	\$1,248,814	\$1,276,792	\$1,306,455	\$6,270,098
Total Societal Cost	\$126,464,818	\$129,510,978	\$129,279,282	\$133,836,540	\$135,627,247	\$654,718,965

* Demand response is not included in cumulative capacity savings.

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Table 2.14 Total Plan Cost-Effectiveness

	Societal	Participant	Utility	Ratepayer
Net Present Value Benefits (\$)	\$1,419,835,186	\$765,795,507	\$999,353,347	\$999,353,347
Net Present Value Costs(\$)	\$573,633,840	\$392,218,260	\$350,403,366	\$911,660,061
Benefit/Cost Ratio	2.48	1.95	2.85	1.10

Source: Workbooks 1) Common Assumptions 2) Appendix K Benefit Cost Model_Electric 3) Appendix K Benefit Cost Model_Gas. Workbook 1 must be open for workbooks 2 and 3 to produce results 4) Appendix K Benefit Cost Model_Demand Response 5) Workbook Appendix K Benefit Cost Model_OET and Other. Add program level results (Electric + Gas)

Table 2.15 Electric Benefits and Costs

Benefit/Cost Component	Plan Year					Total
	2014	2015	2016	2017	2018	
Electric Savings (kWh)	163,084,964	162,779,248	160,200,436	162,872,055	165,813,594	814,750,297
Capacity Savings (kW)*	25,754	25,351	24,428	24,807	25,216	125,556
Participant Cost Net of Incentives (\$)	\$42,217,171	\$42,489,977	\$42,625,625	\$43,887,257	\$45,250,420	\$216,470,450
Direct Utility Costs (\$)	\$62,582,181	\$64,031,901	\$64,747,634	\$65,645,838	\$65,799,437	\$322,806,991
Planning and Design	\$935,860	\$950,229	\$962,477	\$979,817	\$998,432	\$4,826,815
Program Administration	\$4,525,368	\$5,383,766	\$5,468,268	\$5,527,352	\$4,779,917	\$25,684,671
Advertising and Promotion	\$2,445,598	\$2,491,222	\$2,529,134	\$2,581,601	\$2,637,036	\$12,684,591
Incentives	\$51,056,924	\$51,555,873	\$51,886,117	\$52,617,251	\$53,404,693	\$260,520,858
Equipment	\$865,607	\$869,889	\$874,159	\$878,865	\$883,609	\$4,372,129
Installation	\$2,013,609	\$2,029,019	\$2,044,684	\$2,060,833	\$2,077,047	\$10,225,192
Program Review and Assessment	\$871,415	\$884,105	\$894,661	\$911,985	\$930,568	\$4,492,734
Total Societal Cost	\$104,799,352	\$106,521,878	\$107,373,259	\$109,533,095	\$111,049,857	\$539,277,441
<i>Savings as a % of Total Sales (Electric)</i>	<i>1.13</i>	<i>1.13</i>	<i>1.12</i>	<i>1.13</i>	<i>1.16</i>	

*Demand response is not included in cumulative capacity savings.

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Table 2.16 Electric Cost-Effectiveness

	Societal	Participant	Utility	Ratepayer
Net Present Value Benefits (\$)	\$1,316,525,899	\$651,869,477	\$933,607,876	\$933,607,876
Net Present Value Costs(\$)	\$445,773,291	\$292,920,129	\$283,600,939	\$769,411,894
Benefit/Cost Ratio	2.95	2.23	3.29	1.21

Source: Workbooks 1) Common Assumptions 2) Appendix K Benefit Cost Model_Electric. Workbook 1 must be open for workbook 2 to produce results 3) Appendix K Benefit Cost Model_Demand Response 4) Appendix K Benefit Cost Model_OET and Other. Add program level results (Electric).

Table 2.17 Natural Gas Benefits and Costs

Benefit/Cost Component	Plan Year					Total
	2014	2015	2016	2017	2018	
Natural Gas Savings (therms)	2,337,308	2,311,741	2,365,178	2,422,708	2,483,980	11,920,915
Capacity Savings (therms)	23,726	22,930	23,498	24,107	24,756	119,016
Participant Cost Net of Incentives (\$)	\$7,146,933	\$7,382,525	\$7,688,178	\$8,131,469	\$8,612,189	\$38,961,294
Direct Utility Costs (\$)	\$14,318,533	\$14,906,575	\$15,351,179	\$15,805,410	\$16,098,535	\$76,480,232
Planning and Design	\$253,244	\$260,515	\$267,578	\$275,627	\$284,231	\$1,341,195
Program Administration	\$1,734,140	\$1,949,366	\$1,984,250	\$2,011,864	\$1,850,827	\$9,530,447
Advertising and Promotion	\$680,689	\$702,453	\$723,030	\$746,302	\$770,829	\$3,623,303
Incentives	\$7,690,470	\$7,983,825	\$8,262,380	\$8,598,433	\$8,959,482	\$41,494,590
Equipment	\$2,479,584	\$2,499,614	\$2,519,685	\$2,543,265	\$2,566,948	\$12,609,096
Installation	\$1,175,294	\$1,196,997	\$1,218,902	\$1,243,911	\$1,269,131	\$6,104,235
Program Review and Assessment	\$336,911	\$345,605	\$354,153	\$364,807	\$375,887	\$1,777,363
Total Societal Cost	\$21,465,466	\$22,289,100	\$23,039,356	\$23,936,879	\$24,710,723	\$115,441,525
<i>Savings as a % of Total Sales (Gas)</i>	<i>0.84</i>	<i>0.84</i>	<i>0.87</i>	<i>0.90</i>	<i>0.93</i>	

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Tab "Budget Summary"

Table 2.18 Natural Gas Cost-Effectiveness

	Societal	Participant	Utility	Ratepayer
Net Present Value Benefits (\$)	\$103,309,289	\$113,926,031	\$65,745,468	\$65,745,468
Net Present Value Costs(\$)	\$127,860,551	\$99,298,128	\$66,802,426	\$142,248,161
Benefit/Cost Ratio	0.81	1.15	0.98	0.46

Source: Workbooks 1) Common Assumptions 2) Appendix K Benefit Cost Model_Gas. Workbook 1 must be open for workbook 2 to produce results 3) Workbook Appendix K Benefit Cost Model_OET and Other. Add program level results (Gas).

As shown in the tables above, the total societal cost for the full five-year deployment of the Plan is estimated at \$655 million, \$539 million of which is attributable to electric and \$115 million of which is attributable to natural gas.⁶ The electric component accounts for 82 percent of the total societal cost of the Plan by this estimate. Direct IPL costs of \$323 million for electric and \$76 million for natural gas constitute 61 percent of the total societal cost; the remaining costs are paid directly by participating customers as they install their electric and natural gas measures.

Over \$335 million of IPL's costs, or 84 percent, constitute incentive payments. IPL will spend an additional \$16 million for program promotion, representing four percent of IPL's costs. In sum, over 89 percent of IPL's spending is for incentives and advertising and promotion.

2.6. Rate Impacts

IPL analyzed the rate impacts and average bill impacts by customer class for each program in the Plan, in compliance with 199 IAC 35.8(2)"e." In general, electric customers' annual bills are projected to be lower for all customer classes, reflecting a lower Plan budget for 2014 as compared to 2012. For natural gas customers, the total Plan budget for 2014 is lower than 2012. IPL reallocated Plan program expenses between customer classes, reflecting an emphasis towards nonresidential customer programs, which offer larger energy-savings opportunities. As a result, residential natural gas customers' bills are projected to be lower while nonresidential natural gas customers' bills will be higher. IPL distributed a pamphlet notice to all of its Iowa

⁶ Please note that numbers are rounded, and therefore do not total precisely in this sentence.

customers advising them of the Plan and the estimated impacts to their bills, in compliance with 199 IAC 35.4(4).

Appendix A provides detailed information on IPL's rate impacts at the Plan level, which reflect the allocation of individual program costs to the eligible customer classes following Board-approved allocation methodologies. Appendix A additionally provides details on the bill impacts by customer class for electric and natural gas separately.

2.7. Load Forecasts and Customer Load Profiles

IPL used forecasts of the long-term electric and natural gas resource requirements as a starting point for this Plan. These forecasts describe the base conditions of consumers' energy demand absent any new energy-efficiency initiatives, and provide the context for assessing energy-efficiency potentials and understanding how projected resource needs might be offset by various energy-efficiency programs and initiatives.

IPL expects to experience a steady growth from approximately 16,415 GWh to 17,883 GWh over the 10-year forecast period from 2014 to 2023, representing an average annual growth rate of 0.96 percent. IPL expects roughly 40 percent of this growth to occur in the industrial sector. The commercial sector accounts for over 30 percent, and the residential sector accounts for 20 percent of the projected load growth. Although the industrial sector represents the largest portion of megawatt hour (MWh) growth, the commercial sector is the fastest-growing in percentage terms, increasing by approximately 12 percent from 2014 to 2023.

Natural gas sales are projected to remain relatively flat from 2014 to 2023. Sales of natural gas in the residential sector, which accounts for roughly one-half of total consumption, is expected to increase by 0.1 percent, while commercial and industrial consumption is expected to decrease by 0.2 percent. Further details on IPL's forecasts can be found in Appendix C. Customer load profiles by class are in Appendix D.

2.8. Quality Assurance

IPL manages its Plan through a set of interdependent sequential activities, beginning with planning, proceeding to design, then to implementation, and finally, culminating in evaluation. Continuous improvement is the guiding principle in this process. IPL's Plan management approach provides a framework for continually assessing program performance, ensuring quality, and adaptively managing programs to meet overall Plan goals. IPL's continuous improvement process relies on four essential elements: (1) activity tracking; (2) quality control; (3) annual, internal program review and assessment; and (4) process and impact evaluations.

An effective activity tracking system is the foundation of IPL's energy-efficiency planning and delivery process. To ensure accurate tracking of program results, IPL uses a customized energy-efficiency tool, called *Tool for Reporting Energy Efficiency Savings* (TREES), to pay and track rebate payments and impacts. TREES receives data feeds from IPL's customer billing system and ensures that the customer's premise is active in the billing system and verifies the service type.

Quality control is an integral part of IPL's program delivery and customer/vendor relations management process. IPL incorporates quality control measures, such as

random site visits, annual vendor and incentive reviews, and customer satisfaction surveys, into program delivery systems at various stages of every program's life-cycle.

IPL conducts annual, internal evaluations of its programs to ensure they run as efficiently as possible. These efforts may include: reviewing vendor contracts; conducting performance reviews of its suppliers and other outside vendors as needed (resulting in a supplier scorecard); reviewing feedback from customers, collaborators, stakeholders, and other interested parties; and conducting internal tests to verify savings calculations. IPL also works with a third-party contractor who monitors market activity, such as changing codes and standards and utility program activities, then recommends adjustments to incentive levels and program delivery approaches to remain consistent with industry best practices.

Evaluations of IPL's program development and delivery process, or EM&V, is IPL's principal means of ensuring the validity and reliability of program savings and cost-effectiveness. IPL plans to evaluate its programs during the Plan period, and will do so with consultation and input of interested stakeholders. IPL will contract with an objective, independent contractor to conduct EM&V of its programs and will make its findings available to the public. A detailed description of IPL's anticipated EM&V activities and approach is provided in the Other Funding Initiatives chapter of this Plan.

2.9. Program Level Budgets, Impacts, and Cost-Effectiveness

The tables on the following pages provide program-level summaries for IPL's Plan.

- **Table 2.19** through **Table 2.33** present costs by program, broken out by budget category:
 - **Table 2.19** through **Table 2.23** show annual total Plan costs by budget category;
 - **Table 2.24** through **Table 2.28** show annual electric costs by budget category; and
 - **Table 2.29** through **Table 2.33** show annual gas costs by budget category.
- **Table 2.34** and **Table 2.35** show annual electric and natural gas impacts, respectively.
- **Table 2.36** shows total, electric, and natural gas cost-effectiveness results.

Table 2.19 Total Plan Budget by Program (2014)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$818,590	\$3,329,112	\$2,458,813	\$31,405,030	\$2,812,370	\$3,188,903	\$982,968	\$44,995,786
Residential Prescriptive Rebates	\$246,957	\$1,111,306	\$864,349	\$10,001,757	\$0	\$0	\$123,478	\$12,347,847
Home Energy Assessments	\$35,222	\$140,889	\$105,667	\$1,761,111	\$358,786	\$664,150	\$0	\$3,065,825
Change-a-Light	\$22,734	\$250,078	\$113,672	\$1,818,750	\$0	\$0	\$68,203	\$2,273,437
Appliance Recycling	\$0	\$17,239	\$34,479	\$517,178	\$0	\$1,099,004	\$34,479	\$1,702,379
New Home Construction	\$8,676	\$8,676	\$60,730	\$728,766	\$0	\$0	\$150,000	\$956,848
Multifamily	\$1,216	\$12,156	\$8,509	\$6,078	\$30,650	\$93,161	\$2,431	\$154,201
Weatherization	\$0	\$899,970	\$0	\$0	\$2,017,057	\$301,399	\$12,500	\$3,230,926
EnergyWise Education	\$0	\$2,750	\$0	\$0	\$88,925	\$0	\$0	\$91,675
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$681	\$0	\$5,106	\$20,433	\$62,108	\$5,559	\$93,887
Home Energy Savers	\$4,025	\$52,325	\$16,100	\$0	\$151,200	\$128,800	\$52,325	\$404,775
Nonresidential Prescriptive Rebates	\$154,713	\$270,747	\$232,069	\$6,923,386	\$0	\$0	\$154,713	\$7,735,628
Business Assessments	\$32,191	\$42,922	\$85,843	\$196,000	\$143,610	\$540,281	\$32,191	\$1,073,038
Custom Rebates	\$277,502	\$370,003	\$740,006	\$7,585,066	\$0	\$0	\$277,502	\$9,250,079
Commercial New Construction	\$17,088	\$85,440	\$51,264	\$1,524,242	\$0	\$0	\$23,923	\$1,701,957
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$337,590	\$1,709	\$300,000	\$45,664	\$913,284
<i>Outreach, Education, and Training Portfolio</i>	\$158,329	\$472,029	\$640,881	\$1,315,444	\$532,823	\$0	\$58,580	\$3,178,086
Non-Targeted Energy Awareness and Information	\$17,264	\$12,948	\$379,809	\$0	\$0	\$0	\$21,580	\$431,601
School-Based Energy Education	\$12,391	\$49,565	\$24,782	\$0	\$532,823	\$0	\$0	\$619,561
Tree Planting	\$2,500	\$25,000	\$18,846	\$815,624	\$0	\$0	\$10,000	\$871,970
Hometown Rewards	\$15,000	\$75,000	\$125,000	\$260,000	\$0	\$0	\$25,000	\$500,000
Builder Training	\$48,000	\$18,000	\$48,000	\$6,000	\$0	\$0	\$0	\$120,000
Energy Efficiency Dealer Network	\$8,000	\$150,000	\$40,000	\$0	\$0	\$0	\$2,000	\$200,000

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Bright Ideas	\$4,444	\$13,333	\$4,444	\$200,000	\$0	\$0	\$0	\$222,221
Research, Development, and Demonstration	\$50,730	\$128,183	\$0	\$33,820	\$0	\$0	\$0	\$212,733
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$53,000	\$1,618,000	\$0	\$0	\$0	\$0	\$29,000	\$1,700,000
Legislative Assessment	\$0	\$1,600,000	\$0	\$0	\$0	\$0	\$0	\$1,600,000
EM&V	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Next Plan	\$53,000	\$18,000	\$0	\$0	\$0	\$0	\$29,000	\$100,000
Total	\$1,083,104	\$6,259,508	\$3,126,286	\$58,747,394	\$3,345,193	\$3,188,903	\$1,150,325	\$76,900,713

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.20 Total Plan Budget by Program (2015)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$838,037	\$3,396,270	\$2,510,915	\$32,173,397	\$2,834,006	\$3,226,016	\$1,002,965	\$45,981,606
Residential Prescriptive Rebates	\$254,780	\$1,146,512	\$891,731	\$10,318,606	\$0	\$0	\$127,390	\$12,739,019
Home Energy Assessments	\$36,983	\$147,933	\$110,950	\$1,849,167	\$364,380	\$677,433	\$0	\$3,186,846
Change-a-Light	\$23,871	\$262,582	\$119,355	\$1,909,688	\$0	\$0	\$71,613	\$2,387,109
Appliance Recycling	\$0	\$17,411	\$34,822	\$522,331	\$0	\$1,109,954	\$34,822	\$1,719,340
New Home Construction	\$9,023	\$9,023	\$63,160	\$757,916	\$0	\$0	\$150,000	\$989,122
Multifamily	\$1,276	\$12,764	\$8,935	\$6,382	\$30,650	\$93,161	\$2,553	\$155,721
Weatherization	\$0	\$899,970	\$0	\$0	\$2,017,057	\$301,399	\$12,500	\$3,230,926
EnergyWise Education	\$0	\$2,779	\$0	\$0	\$89,847	\$0	\$0	\$92,626
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$681	\$0	\$5,106	\$20,433	\$62,108	\$5,559	\$93,887
Home Energy Savers	\$4,428	\$57,558	\$17,710	\$0	\$166,320	\$141,680	\$57,558	\$445,254
Nonresidential Prescriptive Rebates	\$164,467	\$287,817	\$246,700	\$7,359,883	\$0	\$0	\$164,467	\$8,223,334
Business Assessments	\$32,191	\$42,922	\$85,843	\$196,000	\$143,610	\$540,281	\$32,191	\$1,073,038
Custom Rebates	\$278,010	\$370,680	\$741,359	\$7,598,933	\$0	\$0	\$278,010	\$9,266,992
Commercial New Construction	\$14,742	\$73,708	\$44,225	\$1,314,955	\$0	\$0	\$20,638	\$1,468,268
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$334,430	\$1,709	\$300,000	\$45,664	\$910,124
<i>Outreach, Education, and Training Portfolio</i>	\$160,522	\$478,497	\$656,166	\$1,339,379	\$535,497	\$0	\$59,967	\$3,230,028
Non-Targeted Energy Awareness and Information	\$17,782	\$13,336	\$391,203	\$0	\$0	\$0	\$22,227	\$444,548
School-Based Energy Education	\$12,453	\$49,814	\$24,907	\$0	\$535,497	\$0	\$0	\$622,671
Tree Planting	\$2,550	\$25,500	\$19,223	\$829,683	\$0	\$0	\$10,200	\$887,156
Hometown Rewards	\$15,300	\$76,500	\$127,500	\$265,200	\$0	\$0	\$25,500	\$510,000
Builder Training	\$48,000	\$18,000	\$48,000	\$6,000	\$0	\$0	\$0	\$120,000

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$8,160	\$153,000	\$40,800	\$0	\$0	\$0	\$2,040	\$204,000
Bright Ideas	\$4,533	\$13,600	\$4,533	\$204,000	\$0	\$0	\$0	\$226,666
Research, Development, and Demonstration	\$51,744	\$128,747	\$0	\$34,496	\$0	\$0	\$0	\$214,987
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$53,000	\$2,618,000	\$0	\$0	\$0	\$0	\$29,000	\$2,700,000
Legislative Assessment	\$0	\$1,600,000	\$0	\$0	\$0	\$0	\$0	\$1,600,000
EM&V	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,000,000
Next Plan	\$53,000	\$18,000	\$0	\$0	\$0	\$0	\$29,000	\$100,000
<i>Total</i>	\$1,104,744	\$7,333,134	\$3,193,673	\$59,539,696	\$3,369,503	\$3,226,016	\$1,171,709	\$78,938,475

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.21 Total Plan Budget by Program (2016)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$855,105	\$3,449,059	\$2,553,704	\$32,757,883	\$2,855,673	\$3,263,587	\$1,020,647	\$46,755,658
Residential Prescriptive Rebates	\$260,946	\$1,174,256	\$913,310	\$10,568,305	\$0	\$0	\$130,473	\$13,047,290
Home Energy Assessments	\$38,832	\$155,330	\$116,497	\$1,941,625	\$370,071	\$690,982	\$0	\$3,313,337
Change-a-Light	\$25,065	\$275,711	\$125,323	\$2,005,172	\$0	\$0	\$75,194	\$2,506,465
Appliance Recycling	\$0	\$17,586	\$35,172	\$527,574	\$0	\$1,121,096	\$35,172	\$1,736,600
New Home Construction	\$9,386	\$9,386	\$65,705	\$788,455	\$0	\$0	\$150,000	\$1,022,932
Multifamily	\$1,340	\$13,402	\$9,381	\$6,701	\$30,650	\$93,161	\$2,680	\$157,315
Weatherization	\$0	\$899,970	\$0	\$0	\$2,017,057	\$301,399	\$12,500	\$3,230,926
EnergyWise Education	\$0	\$2,805	\$0	\$0	\$90,703	\$0	\$0	\$93,508
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$681	\$0	\$5,106	\$20,433	\$62,108	\$5,559	\$93,887
Home Energy Savers	\$4,830	\$62,790	\$19,320	\$0	\$181,440	\$154,560	\$62,790	\$485,730
Nonresidential Prescriptive Rebates	\$175,243	\$306,675	\$262,865	\$7,842,126	\$0	\$0	\$175,243	\$8,762,152
Business Assessments	\$32,191	\$42,922	\$85,843	\$196,000	\$143,610	\$540,281	\$32,191	\$1,073,038
Custom Rebates	\$278,568	\$371,424	\$742,848	\$7,614,189	\$0	\$0	\$278,568	\$9,285,597
Commercial New Construction	\$10,438	\$52,191	\$31,315	\$931,085	\$0	\$0	\$14,613	\$1,039,642
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$331,545	\$1,709	\$300,000	\$45,664	\$907,239
<i>Outreach, Education, and Training Portfolio</i>	\$162,764	\$485,093	\$671,867	\$1,363,694	\$538,172	\$0	\$61,389	\$3,282,980
Non-Targeted Energy Awareness and Information	\$18,315	\$13,737	\$402,939	\$0	\$0	\$0	\$22,894	\$457,885
School-Based Energy Education	\$12,516	\$50,062	\$25,031	\$0	\$538,172	\$0	\$0	\$625,781
Tree Planting	\$2,601	\$26,010	\$19,608	\$843,924	\$0	\$0	\$10,404	\$902,547

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Hometown Rewards	\$15,606	\$78,030	\$130,050	\$270,504	\$0	\$0	\$26,010	\$520,200
Builder Training	\$48,000	\$18,000	\$48,000	\$6,000	\$0	\$0	\$0	\$120,000
Energy Efficiency Dealer Network	\$8,323	\$156,060	\$41,616	\$0	\$0	\$0	\$2,081	\$208,080
Bright Ideas	\$4,624	\$13,872	\$4,624	\$208,080	\$0	\$0	\$0	\$231,200
Research, Development, and Demonstration	\$52,779	\$129,322	\$0	\$35,186	\$0	\$0	\$0	\$217,287
<i>Demand Response Portfolio</i>	\$53,185	\$840,366	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$229,667	\$2,678,000	\$0	\$0	\$0	\$0	\$125,667	\$3,033,334
Legislative Assessment	\$0	\$1,600,000	\$0	\$0	\$0	\$0	\$0	\$1,600,000
EM&V	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,000,000
Next Plan	\$229,667	\$78,000	\$0	\$0	\$0	\$0	\$125,667	\$433,334
Total	\$1,300,721	\$7,452,519	\$3,252,164	\$60,148,497	\$3,393,845	\$3,263,587	\$1,287,480	\$80,098,813

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.22 Total Plan Budget by Program (2017)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$878,204	\$3,529,031	\$2,613,311	\$33,800,370	\$2,881,283	\$3,304,744	\$1,047,169	\$48,054,112
Residential Prescriptive Rebates	\$267,385	\$1,203,233	\$935,848	\$10,829,097	\$0	\$0	\$133,693	\$13,369,256
Home Energy Assessments	\$40,774	\$163,096	\$122,322	\$2,038,706	\$375,860	\$704,801	\$0	\$3,445,559
Change-a-Light	\$26,318	\$289,497	\$131,589	\$2,105,430	\$0	\$0	\$78,954	\$2,631,788
Appliance Recycling	\$0	\$17,762	\$35,524	\$532,863	\$0	\$1,132,333	\$35,524	\$1,754,006
New Home Construction	\$9,766	\$9,766	\$68,365	\$820,382	\$0	\$0	\$150,000	\$1,058,279
Multifamily	\$1,407	\$14,072	\$9,850	\$7,036	\$30,650	\$93,161	\$2,814	\$158,990
Weatherization	\$0	\$899,970	\$0	\$0	\$2,017,057	\$301,399	\$12,500	\$3,230,926
EnergyWise Education	\$0	\$2,834	\$0	\$0	\$91,625	\$0	\$0	\$94,459
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$681	\$0	\$5,106	\$20,433	\$62,108	\$5,559	\$93,887
Home Energy Savers	\$5,333	\$69,331	\$21,333	\$0	\$200,340	\$170,660	\$69,331	\$536,328
Nonresidential Prescriptive Rebates	\$187,147	\$327,508	\$280,721	\$8,374,843	\$0	\$0	\$187,147	\$9,357,366
Business Assessments	\$32,191	\$42,922	\$85,843	\$196,000	\$143,610	\$540,281	\$32,191	\$1,073,038
Custom Rebates	\$279,179	\$372,238	\$744,476	\$7,630,882	\$0	\$0	\$279,179	\$9,305,954
Commercial New Construction	\$10,438	\$52,191	\$31,315	\$931,085	\$0	\$0	\$14,613	\$1,039,642
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$328,940	\$1,709	\$300,000	\$45,664	\$904,634
<i>Outreach, Education, and Training Portfolio</i>	\$165,055	\$491,819	\$687,998	\$1,388,395	\$540,846	\$0	\$62,845	\$3,336,958
Non-Targeted Energy Awareness and Information	\$18,865	\$14,149	\$415,027	\$0	\$0	\$0	\$23,581	\$471,622
School-Based Energy Education	\$12,578	\$50,311	\$25,156	\$0	\$540,846	\$0	\$0	\$628,891
Tree Planting	\$2,653	\$26,530	\$20,000	\$858,349	\$0	\$0	\$10,612	\$918,144
Hometown Rewards	\$15,918	\$79,591	\$132,651	\$275,914	\$0	\$0	\$26,530	\$530,604
Builder Training	\$48,000	\$18,000	\$48,000	\$6,000	\$0	\$0	\$0	\$120,000

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$8,490	\$159,181	\$42,448	\$0	\$0	\$0	\$2,122	\$212,241
Bright Ideas	\$4,716	\$14,149	\$4,716	\$212,242	\$0	\$0	\$0	\$235,823
Research, Development, and Demonstration	\$53,835	\$129,908	\$0	\$35,890	\$0	\$0	\$0	\$219,633
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$229,667	\$2,678,000	\$0	\$0	\$0	\$0	\$125,667	\$3,033,334
Legislative Assessment	\$0	\$1,600,000	\$0	\$0	\$0	\$0	\$0	\$1,600,000
EM&V	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,000,000
Next Plan	\$229,667	\$78,000	\$0	\$0	\$0	\$0	\$125,667	\$433,334
Total	\$1,326,111	\$7,539,217	\$3,327,901	\$61,215,685	\$3,422,130	\$3,304,743	\$1,315,458	\$81,451,245

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.23 Total Plan Budget by Program (2018)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$903,083	\$3,613,695	\$2,676,700	\$34,923,765	\$2,906,994	\$3,346,177	\$1,075,339	\$49,445,753
Residential Prescriptive Rebates	\$274,112	\$1,233,505	\$959,393	\$11,101,543	\$0	\$0	\$137,056	\$13,705,609
Home Energy Assessments	\$42,813	\$171,251	\$128,438	\$2,140,641	\$381,748	\$718,897	\$0	\$3,583,788
Change-a-Light	\$27,634	\$303,972	\$138,169	\$2,210,702	\$0	\$0	\$82,901	\$2,763,378
Appliance Recycling	\$0	\$17,938	\$35,877	\$538,151	\$0	\$1,143,571	\$35,877	\$1,771,414
New Home Construction	\$10,163	\$10,163	\$71,141	\$853,697	\$0	\$0	\$150,000	\$1,095,164
Multifamily	\$1,478	\$14,776	\$10,343	\$7,388	\$30,650	\$93,161	\$2,955	\$160,751
Weatherization	\$0	\$899,970	\$0	\$0	\$2,017,057	\$301,399	\$12,500	\$3,230,926
EnergyWise Education	\$0	\$2,862	\$0	\$0	\$92,547	\$0	\$0	\$95,409
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$681	\$0	\$5,106	\$20,433	\$62,108	\$5,559	\$93,887
Home Energy Savers	\$5,836	\$75,871	\$23,345	\$0	\$219,240	\$186,760	\$75,871	\$586,923
Nonresidential Prescriptive Rebates	\$200,308	\$350,538	\$300,461	\$8,963,767	\$0	\$0	\$200,308	\$10,015,382
Business Assessments	\$32,191	\$42,922	\$85,843	\$196,000	\$143,610	\$540,281	\$32,191	\$1,073,038
Custom Rebates	\$279,844	\$373,125	\$746,250	\$7,649,067	\$0	\$0	\$279,844	\$9,328,130
Commercial New Construction	\$10,438	\$52,191	\$31,315	\$931,085	\$0	\$0	\$14,613	\$1,039,642
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$326,618	\$1,709	\$300,000	\$45,664	\$902,312
<i>Outreach, Education, and Training Portfolio</i>	\$167,396	\$498,682	\$704,572	\$1,413,489	\$543,563	\$0	\$64,339	\$3,392,041
Non-Targeted Energy Awareness and Information	\$19,431	\$14,573	\$427,478	\$0	\$0	\$0	\$24,289	\$485,771
School-Based Energy Education	\$12,641	\$50,564	\$25,282	\$0	\$543,563	\$0	\$0	\$632,050
Tree Planting	\$2,706	\$27,060	\$20,400	\$872,963	\$0	\$0	\$10,824	\$933,953

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Hometown Rewards	\$16,236	\$81,182	\$135,304	\$281,432	\$0	\$0	\$27,061	\$541,215
Builder Training	\$48,000	\$18,000	\$48,000	\$6,000	\$0	\$0	\$0	\$120,000
Energy Efficiency Dealer Network	\$8,659	\$162,365	\$43,297	\$0	\$0	\$0	\$2,165	\$216,486
Bright Ideas	\$4,811	\$14,432	\$4,811	\$216,486	\$0	\$0	\$0	\$240,540
Research, Development, and Demonstration	\$54,912	\$130,506	\$0	\$36,608	\$0	\$0	\$0	\$222,026
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$229,667	\$1,678,000	\$0	\$0	\$0	\$0	\$125,667	\$2,033,334
Legislative Assessment	\$0	\$1,600,000	\$0	\$0	\$0	\$0	\$0	\$1,600,000
EM&V	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Next Plan	\$229,667	\$78,000	\$0	\$0	\$0	\$0	\$125,667	\$433,334
Total	\$1,353,331	\$6,630,744	\$3,407,864	\$62,364,174	\$3,450,557	\$3,346,177	\$1,345,122	\$81,897,969

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.24 Electric Budget by Program (2014)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$632,403	\$2,022,332	\$1,913,444	\$23,969,618	\$673,791	\$2,013,608	\$674,286	\$31,899,482
Residential Prescriptive Rebates	\$182,419	\$820,884	\$638,465	\$7,387,954	\$0	\$0	\$91,209	\$9,120,931
Home Energy Assessments	\$8,412	\$33,647	\$25,235	\$420,583	\$85,684	\$158,610	\$0	\$732,171
Change-a-Light	\$22,734	\$250,078	\$113,672	\$1,818,750	\$0	\$0	\$68,203	\$2,273,437
Appliance Recycling	\$0	\$17,239	\$34,479	\$517,178	\$0	\$1,099,004	\$34,479	\$1,702,379
New Home Construction	\$954	\$954	\$6,680	\$80,164	\$0	\$0	\$16,500	\$105,252
Multifamily	\$890	\$8,895	\$6,227	\$4,448	\$22,429	\$68,173	\$1,779	\$112,841
Weatherization	\$0	\$186,296	\$0	\$0	\$417,536	\$62,390	\$2,588	\$668,810
EnergyWise Education	\$0	\$1,403	\$0	\$0	\$45,351	\$0	\$0	\$46,754
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$501	\$0	\$3,753	\$15,018	\$45,649	\$4,086	\$69,007
Home Energy Savers	\$403	\$5,233	\$1,610	\$0	\$15,120	\$12,880	\$5,233	\$40,479
Nonresidential Prescriptive Rebates	\$108,371	\$189,650	\$162,557	\$4,849,612	\$0	\$0	\$108,371	\$5,418,561
Business Assessments	\$15,903	\$21,204	\$42,407	\$96,825	\$70,944	\$266,902	\$15,903	\$530,088
Custom Rebates	\$258,501	\$344,668	\$689,337	\$7,065,701	\$0	\$0	\$258,501	\$8,616,708
Commercial New Construction	\$15,550	\$77,750	\$46,650	\$1,387,060	\$0	\$0	\$21,770	\$1,548,780
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$337,590	\$1,709	\$300,000	\$45,664	\$913,284
<i>Outreach, Education, and Training Portfolio</i>	\$122,104	\$358,394	\$505,562	\$1,060,385	\$191,816	\$0	\$47,222	\$2,285,483
Non-Targeted Energy Awareness and Information	\$13,917	\$10,437	\$306,165	\$0	\$0	\$0	\$17,396	\$347,915
School-Based Energy Education	\$4,461	\$17,843	\$8,922	\$0	\$191,816	\$0	\$0	\$223,042
Tree Planting	\$2,015	\$20,153	\$15,192	\$657,478	\$0	\$0	\$8,061	\$702,899
Hometown Rewards	\$12,092	\$60,458	\$100,763	\$209,587	\$0	\$0	\$20,153	\$403,053
Builder Training	\$38,693	\$14,510	\$38,693	\$4,837	\$0	\$0	\$0	\$96,733

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$6,449	\$120,916	\$32,244	\$0	\$0	\$0	\$1,612	\$161,221
Bright Ideas	\$3,583	\$10,748	\$3,583	\$161,221	\$0	\$0	\$0	\$179,135
Research, Development, and Demonstration	\$40,894	\$103,329	\$0	\$27,262	\$0	\$0	\$0	\$171,485
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$42,724	\$1,304,277	\$0	\$0	\$0	\$0	\$23,377	\$1,370,378
Legislative Assessment	\$0	\$1,289,767	\$0	\$0	\$0	\$0	\$0	\$1,289,767
EM&V	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Next Plan	\$42,724	\$14,510	\$0	\$0	\$0	\$0	\$23,377	\$80,611
Total	\$850,416	\$4,525,370	\$2,445,598	\$51,056,923	\$865,607	\$2,013,608	\$824,662	\$62,582,184

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.25 Electric Budget by Program (2015)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$645,033	\$2,065,628	\$1,946,802	\$24,449,271	\$677,110	\$2,029,019	\$685,858	\$32,498,721
Residential Prescriptive Rebates	\$188,198	\$846,889	\$658,691	\$7,621,999	\$0	\$0	\$94,099	\$9,409,876
Home Energy Assessments	\$8,832	\$35,329	\$26,497	\$441,612	\$87,020	\$161,783	\$0	\$761,073
Change-a-Light	\$23,871	\$262,582	\$119,355	\$1,909,688	\$0	\$0	\$71,613	\$2,387,109
Appliance Recycling	\$0	\$17,411	\$34,822	\$522,331	\$0	\$1,109,954	\$34,822	\$1,719,340
New Home Construction	\$993	\$993	\$6,948	\$83,371	\$0	\$0	\$16,500	\$108,805
Multifamily	\$934	\$9,340	\$6,538	\$4,670	\$22,429	\$68,173	\$1,868	\$113,952
Weatherization	\$0	\$186,296	\$0	\$0	\$417,536	\$62,390	\$2,588	\$668,810
EnergyWise Education	\$0	\$1,417	\$0	\$0	\$45,822	\$0	\$0	\$47,239
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$501	\$0	\$3,753	\$15,018	\$45,649	\$4,086	\$69,007
Home Energy Savers	\$443	\$5,756	\$1,771	\$0	\$16,632	\$14,168	\$5,756	\$44,526
Nonresidential Prescriptive Rebates	\$115,204	\$201,606	\$172,806	\$5,155,364	\$0	\$0	\$115,204	\$5,760,184
Business Assessments	\$15,903	\$21,204	\$42,407	\$96,825	\$70,944	\$266,902	\$15,903	\$530,088
Custom Rebates	\$258,974	\$345,299	\$690,597	\$7,078,619	\$0	\$0	\$258,974	\$8,632,463
Commercial New Construction	\$13,415	\$67,075	\$40,245	\$1,196,609	\$0	\$0	\$18,781	\$1,336,125
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$334,430	\$1,709	\$300,000	\$45,664	\$910,124
<i>Outreach, Education, and Training Portfolio</i>	\$123,842	\$363,497	\$517,826	\$1,079,680	\$192,779	\$0	\$48,340	\$2,325,964
Non-Targeted Energy Awareness and Information	\$14,334	\$10,751	\$315,350	\$0	\$0	\$0	\$17,918	\$358,353
School-Based Energy Education	\$4,483	\$17,933	\$8,966	\$0	\$192,779	\$0	\$0	\$224,161
Tree Planting	\$2,056	\$20,556	\$15,496	\$668,811	\$0	\$0	\$8,222	\$715,141
Hometown Rewards	\$12,333	\$61,667	\$102,778	\$213,779	\$0	\$0	\$20,556	\$411,113
Builder Training	\$38,693	\$14,510	\$38,693	\$4,837	\$0	\$0	\$0	\$96,733

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$6,578	\$123,334	\$32,889	\$0	\$0	\$0	\$1,644	\$164,445
Bright Ideas	\$3,654	\$10,963	\$3,654	\$164,445	\$0	\$0	\$0	\$182,716
Research, Development, and Demonstration	\$41,711	\$103,783	\$0	\$27,808	\$0	\$0	\$0	\$173,302
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$42,724	\$2,114,277	\$0	\$0	\$0	\$0	\$23,377	\$2,180,378
Legislative Assessment	\$0	\$1,289,767	\$0	\$0	\$0	\$0	\$0	\$1,289,767
EM&V	\$0	\$810,000	\$0	\$0	\$0	\$0	\$0	\$810,000
Next Plan	\$42,724	\$14,510	\$0	\$0	\$0	\$0	\$23,377	\$80,611
Total	\$864,784	\$5,383,769	\$2,491,220	\$51,555,871	\$869,889	\$2,029,019	\$837,352	\$64,031,904

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.26 Electric Budget by Program (2016)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$655,502	\$2,096,558	\$1,972,112	\$24,759,916	\$680,418	\$2,044,684	\$695,267	\$32,904,457
Residential Prescriptive Rebates	\$192,752	\$867,383	\$674,631	\$7,806,443	\$0	\$0	\$96,376	\$9,637,585
Home Energy Assessments	\$9,274	\$37,095	\$27,822	\$463,693	\$88,379	\$165,018	\$0	\$791,281
Change-a-Light	\$25,065	\$275,711	\$125,323	\$2,005,172	\$0	\$0	\$75,194	\$2,506,465
Appliance Recycling	\$0	\$17,586	\$35,172	\$527,574	\$0	\$1,121,096	\$35,172	\$1,736,600
New Home Construction	\$1,033	\$1,033	\$7,228	\$86,730	\$0	\$0	\$16,500	\$112,524
Multifamily	\$981	\$9,807	\$6,865	\$4,904	\$22,429	\$68,173	\$1,961	\$115,120
Weatherization	\$0	\$186,296	\$0	\$0	\$417,536	\$62,390	\$2,588	\$668,810
EnergyWise Education	\$0	\$1,431	\$0	\$0	\$46,259	\$0	\$0	\$47,690
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$501	\$0	\$3,753	\$15,018	\$45,649	\$4,086	\$69,007
Home Energy Savers	\$483	\$6,279	\$1,932	\$0	\$18,144	\$15,456	\$6,279	\$48,573
Nonresidential Prescriptive Rebates	\$122,752	\$214,816	\$184,128	\$5,493,160	\$0	\$0	\$122,752	\$6,137,608
Business Assessments	\$15,903	\$21,204	\$42,407	\$96,825	\$70,944	\$266,902	\$15,903	\$530,088
Custom Rebates	\$259,494	\$345,992	\$691,983	\$7,092,830	\$0	\$0	\$259,494	\$8,649,793
Commercial New Construction	\$9,499	\$47,494	\$28,496	\$847,287	\$0	\$0	\$13,298	\$946,074
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$331,545	\$1,709	\$300,000	\$45,664	\$907,239
<i>Outreach, Education, and Training Portfolio</i>	\$125,622	\$368,702	\$530,429	\$1,099,280	\$193,742	\$0	\$49,486	\$2,367,261
Non-Targeted Energy Awareness and Information	\$14,764	\$11,073	\$324,811	\$0	\$0	\$0	\$18,455	\$369,103
School-Based Energy Education	\$4,506	\$18,022	\$9,011	\$0	\$193,742	\$0	\$0	\$225,281
Tree Planting	\$2,097	\$20,967	\$15,806	\$680,291	\$0	\$0	\$8,387	\$727,548
Hometown Rewards	\$12,580	\$62,900	\$104,834	\$218,054	\$0	\$0	\$20,967	\$419,335
Builder Training	\$38,693	\$14,510	\$38,693	\$4,837	\$0	\$0	\$0	\$96,733

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$6,709	\$125,801	\$33,547	\$0	\$0	\$0	\$1,677	\$167,734
Bright Ideas	\$3,727	\$11,182	\$3,727	\$167,734	\$0	\$0	\$0	\$186,370
Research, Development, and Demonstration	\$42,546	\$104,247	\$0	\$28,364	\$0	\$0	\$0	\$175,157
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$185,135	\$2,162,643	\$0	\$0	\$0	\$0	\$101,300	\$2,449,078
Legislative Assessment	\$0	\$1,289,767	\$0	\$0	\$0	\$0	\$0	\$1,289,767
EM&V	\$0	\$810,000	\$0	\$0	\$0	\$0	\$0	\$810,000
Next Plan	\$185,135	\$62,876	\$0	\$0	\$0	\$0	\$101,300	\$349,311
<i>Total</i>	\$1,019,444	\$5,468,270	\$2,529,133	\$51,886,116	\$874,160	\$2,044,684	\$925,830	\$64,747,637

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.27 Electric Budget by Program (2017)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$671,023	\$2,150,330	\$2,011,631	\$25,471,139	\$684,161	\$2,060,832	\$711,418	\$33,760,534
Residential Prescriptive Rebates	\$197,508	\$888,787	\$691,279	\$7,999,081	\$0	\$0	\$98,754	\$9,875,409
Home Energy Assessments	\$9,738	\$38,950	\$29,213	\$486,878	\$89,762	\$168,319	\$0	\$822,860
Change-a-Light	\$26,318	\$289,497	\$131,589	\$2,105,430	\$0	\$0	\$78,954	\$2,631,788
Appliance Recycling	\$0	\$17,762	\$35,524	\$532,863	\$0	\$1,132,333	\$35,524	\$1,754,006
New Home Construction	\$1,074	\$1,074	\$7,520	\$90,242	\$0	\$0	\$16,500	\$116,410
Multifamily	\$1,030	\$10,298	\$7,208	\$5,149	\$22,429	\$68,173	\$2,060	\$116,347
Weatherization	\$0	\$186,296	\$0	\$0	\$417,536	\$62,390	\$2,588	\$668,810
EnergyWise Education	\$0	\$1,445	\$0	\$0	\$46,729	\$0	\$0	\$48,174
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$501	\$0	\$3,753	\$15,018	\$45,649	\$4,086	\$69,007
Home Energy Savers	\$533	\$6,933	\$2,133	\$0	\$20,034	\$17,066	\$6,933	\$53,632
Nonresidential Prescriptive Rebates	\$131,091	\$229,409	\$196,636	\$5,866,311	\$0	\$0	\$131,091	\$6,554,538
Business Assessments	\$15,903	\$21,204	\$42,407	\$96,825	\$70,944	\$266,902	\$15,903	\$530,088
Custom Rebates	\$260,063	\$346,750	\$693,501	\$7,108,380	\$0	\$0	\$260,063	\$8,668,757
Commercial New Construction	\$9,499	\$47,494	\$28,496	\$847,287	\$0	\$0	\$13,298	\$946,074
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$328,940	\$1,709	\$300,000	\$45,664	\$904,634
<i>Outreach, Education, and Training Portfolio</i>	\$127,442	\$374,014	\$543,377	\$1,119,192	\$194,705	\$0	\$50,660	\$2,409,390
Non-Targeted Energy Awareness and Information	\$15,207	\$11,405	\$334,555	\$0	\$0	\$0	\$19,009	\$380,176
School-Based Energy Education	\$4,528	\$18,112	\$9,056	\$0	\$194,705	\$0	\$0	\$226,401
Tree Planting	\$2,139	\$21,386	\$16,122	\$691,919	\$0	\$0	\$8,554	\$740,120
Hometown Rewards	\$12,832	\$64,158	\$106,931	\$222,416	\$0	\$0	\$21,386	\$427,723
Builder Training	\$38,693	\$14,510	\$38,693	\$4,837	\$0	\$0	\$0	\$96,733

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$6,844	\$128,317	\$34,218	\$0	\$0	\$0	\$1,711	\$171,090
Bright Ideas	\$3,802	\$11,406	\$3,802	\$171,089	\$0	\$0	\$0	\$190,099
Research, Development, and Demonstration	\$43,397	\$104,720	\$0	\$28,931	\$0	\$0	\$0	\$177,048
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$185,135	\$2,162,643	\$0	\$0	\$0	\$0	\$101,300	\$2,449,078
Legislative Assessment	\$0	\$1,289,767	\$0	\$0	\$0	\$0	\$0	\$1,289,767
EM&V	\$0	\$810,000	\$0	\$0	\$0	\$0	\$0	\$810,000
Next Plan	\$185,135	\$62,876	\$0	\$0	\$0	\$0	\$101,300	\$349,311
<i>Total</i>	\$1,036,785	\$5,527,354	\$2,581,600	\$52,617,251	\$878,866	\$2,060,832	\$943,155	\$65,645,843

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.28 Electric Budget by Program (2018)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$687,777	\$2,207,476	\$2,053,764	\$26,238,353	\$687,927	\$2,077,046	\$728,796	\$34,681,139
Residential Prescriptive Rebates	\$202,477	\$911,148	\$708,670	\$8,200,328	\$0	\$0	\$101,239	\$10,123,862
Home Energy Assessments	\$10,224	\$40,898	\$30,673	\$511,222	\$91,168	\$171,685	\$0	\$855,870
Change-a-Light	\$27,634	\$303,972	\$138,169	\$2,210,702	\$0	\$0	\$82,901	\$2,763,378
Appliance Recycling	\$0	\$17,938	\$35,877	\$538,151	\$0	\$1,143,571	\$35,877	\$1,771,414
New Home Construction	\$1,118	\$1,118	\$7,826	\$93,907	\$0	\$0	\$16,500	\$120,469
Multifamily	\$1,081	\$10,812	\$7,569	\$5,406	\$22,429	\$68,173	\$2,162	\$117,632
Weatherization	\$0	\$186,296	\$0	\$0	\$417,536	\$62,390	\$2,588	\$668,810
EnergyWise Education	\$0	\$1,460	\$0	\$0	\$47,199	\$0	\$0	\$48,659
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$501	\$0	\$3,753	\$15,018	\$45,649	\$4,086	\$69,007
Home Energy Savers	\$584	\$7,587	\$2,335	\$0	\$21,924	\$18,676	\$7,587	\$58,693
Nonresidential Prescriptive Rebates	\$140,309	\$245,541	\$210,464	\$6,278,834	\$0	\$0	\$140,309	\$7,015,457
Business Assessments	\$15,903	\$21,204	\$42,407	\$96,825	\$70,944	\$266,902	\$15,903	\$530,088
Custom Rebates	\$260,682	\$347,577	\$695,153	\$7,125,320	\$0	\$0	\$260,682	\$8,689,414
Commercial New Construction	\$9,499	\$47,494	\$28,496	\$847,287	\$0	\$0	\$13,298	\$946,074
Agriculture Sector	\$18,266	\$63,930	\$146,125	\$326,618	\$1,709	\$300,000	\$45,664	\$902,312
<i>Outreach, Education, and Training Portfolio</i>	\$129,298	\$379,434	\$556,681	\$1,139,421	\$195,683	\$0	\$51,863	\$2,452,380
Non-Targeted Energy Awareness and Information	\$15,663	\$11,747	\$344,592	\$0	\$0	\$0	\$19,579	\$391,581
School-Based Energy Education	\$4,551	\$18,203	\$9,102	\$0	\$195,683	\$0	\$0	\$227,539
Tree Planting	\$2,181	\$21,813	\$16,445	\$703,699	\$0	\$0	\$8,725	\$752,863
Hometown Rewards	\$13,088	\$65,442	\$109,069	\$226,864	\$0	\$0	\$21,814	\$436,277
Builder Training	\$38,693	\$14,510	\$38,693	\$4,837	\$0	\$0	\$0	\$96,733

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$6,980	\$130,883	\$34,902	\$0	\$0	\$0	\$1,745	\$174,510
Bright Ideas	\$3,878	\$11,634	\$3,878	\$174,511	\$0	\$0	\$0	\$193,901
Research, Development, and Demonstration	\$44,264	\$105,202	\$0	\$29,510	\$0	\$0	\$0	\$178,976
<i>Demand Response Portfolio</i>	\$53,185	\$840,367	\$26,592	\$26,026,920	\$0	\$0	\$79,777	\$27,026,841
Residential DLC	\$53,185	\$717,997	\$26,592	\$1,675,325	\$0	\$0	\$79,777	\$2,552,876
Nonresidential Interruptible	\$0	\$122,370	\$0	\$24,351,595	\$0	\$0	\$0	\$24,473,965
<i>Other Funding Initiatives</i>	\$185,135	\$1,352,643	\$0	\$0	\$0	\$0	\$101,300	\$1,639,078
Legislative Assessment	\$0	\$1,289,767	\$0	\$0	\$0	\$0	\$0	\$1,289,767
EM&V	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Next Plan	\$185,135	\$62,876	\$0	\$0	\$0	\$0	\$101,300	\$349,311
Total	\$1,055,395	\$4,779,920	\$2,637,037	\$53,404,694	\$883,610	\$2,077,046	\$961,736	\$65,799,438

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.29 Natural Gas Budget by Program (2014)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$186,188	\$1,306,782	\$545,370	\$7,435,410	\$2,138,578	\$1,175,295	\$308,683	\$13,096,306
Residential Prescriptive Rebates	\$64,538	\$290,423	\$225,884	\$2,613,803	\$0	\$0	\$32,269	\$3,226,917
Home Energy Assessments	\$26,811	\$107,242	\$80,432	\$1,340,528	\$273,102	\$505,540	\$0	\$2,333,655
Change-a-Light	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Appliance Recycling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Home Construction	\$7,721	\$7,721	\$54,050	\$648,601	\$0	\$0	\$133,500	\$851,593
Multifamily	\$326	\$3,261	\$2,282	\$1,630	\$8,221	\$24,988	\$652	\$41,360
Weatherization	\$0	\$713,674	\$0	\$0	\$1,599,521	\$239,009	\$9,912	\$2,562,116
EnergyWise Education	\$0	\$1,348	\$0	\$0	\$43,573	\$0	\$0	\$44,921
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$180	\$0	\$1,353	\$5,415	\$16,459	\$1,473	\$24,880
Home Energy Savers	\$3,623	\$47,093	\$14,490	\$0	\$136,080	\$115,920	\$47,093	\$364,299
Nonresidential Prescriptive Rebates	\$46,341	\$81,097	\$69,512	\$2,073,774	\$0	\$0	\$46,341	\$2,317,065
Business Assessments	\$16,289	\$21,718	\$43,436	\$99,175	\$72,666	\$273,379	\$16,289	\$542,952
Custom Rebates	\$19,001	\$25,335	\$50,670	\$519,364	\$0	\$0	\$19,001	\$633,371
Commercial New Construction	\$1,538	\$7,690	\$4,614	\$137,182	\$0	\$0	\$2,153	\$153,177
Agriculture Sector	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Outreach, Education, and Training Portfolio</i>	\$36,226	\$113,635	\$135,320	\$255,059	\$341,006	\$0	\$11,358	\$892,604
Non-Targeted Energy Awareness and Information	\$3,347	\$2,511	\$73,643	\$0	\$0	\$0	\$4,184	\$83,685
School-Based Energy Education	\$7,930	\$31,722	\$15,861	\$0	\$341,006	\$0	\$0	\$396,519
Tree Planting	\$485	\$4,847	\$3,654	\$158,146	\$0	\$0	\$1,939	\$169,071
Hometown Rewards	\$2,908	\$14,542	\$24,237	\$50,413	\$0	\$0	\$4,847	\$96,947
Builder Training	\$9,307	\$3,490	\$9,307	\$1,163	\$0	\$0	\$0	\$23,267

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$1,551	\$29,084	\$7,756	\$0	\$0	\$0	\$388	\$38,779
Bright Ideas	\$862	\$2,585	\$862	\$38,779	\$0	\$0	\$0	\$43,088
Research, Development, and Demonstration	\$9,836	\$24,854	\$0	\$6,558	\$0	\$0	\$0	\$41,248
<i>Demand Response Portfolio</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential DLC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Nonresidential Interruptible	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Other Funding Initiatives</i>	\$10,276	\$313,723	\$0	\$0	\$0	\$0	\$5,623	\$329,622
Legislative Assessment	\$0	\$310,233	\$0	\$0	\$0	\$0	\$0	\$310,233
EM&V	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Next Plan	\$10,276	\$3,490	\$0	\$0	\$0	\$0	\$5,623	\$19,389
Total	\$232,690	\$1,734,140	\$680,690	\$7,690,469	\$2,479,584	\$1,175,295	\$325,664	\$14,318,532

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.30 Natural Gas Budget by Program (2015)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$193,006	\$1,330,642	\$564,113	\$7,724,125	\$2,156,896	\$1,196,997	\$317,108	\$13,482,887
Residential Prescriptive Rebates	\$66,583	\$299,623	\$233,040	\$2,696,607	\$0	\$0	\$33,291	\$3,329,144
Home Energy Assessments	\$28,151	\$112,604	\$84,453	\$1,407,554	\$277,360	\$515,650	\$0	\$2,425,772
Change-a-Light	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Appliance Recycling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Home Construction	\$8,030	\$8,030	\$56,212	\$674,545	\$0	\$0	\$133,500	\$880,317
Multifamily	\$342	\$3,424	\$2,397	\$1,712	\$8,221	\$24,988	\$685	\$41,769
Weatherization	\$0	\$713,674	\$0	\$0	\$1,599,521	\$239,009	\$9,912	\$2,562,116
EnergyWise Education	\$0	\$1,362	\$0	\$0	\$44,025	\$0	\$0	\$45,387
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$180	\$0	\$1,353	\$5,415	\$16,459	\$1,473	\$24,880
Home Energy Savers	\$3,985	\$51,802	\$15,939	\$0	\$149,688	\$127,512	\$51,802	\$400,728
Nonresidential Prescriptive Rebates	\$49,263	\$86,210	\$73,894	\$2,204,519	\$0	\$0	\$49,263	\$2,463,149
Business Assessments	\$16,289	\$21,718	\$43,436	\$99,175	\$72,666	\$273,379	\$16,289	\$542,952
Custom Rebates	\$19,036	\$25,381	\$50,762	\$520,314	\$0	\$0	\$19,036	\$634,529
Commercial New Construction	\$1,327	\$6,634	\$3,980	\$118,346	\$0	\$0	\$1,857	\$132,144
Agriculture Sector	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Outreach, Education, and Training Portfolio</i>	\$36,680	\$115,000	\$138,339	\$259,700	\$342,718	\$0	\$11,628	\$904,065
Non-Targeted Energy Awareness and Information	\$3,448	\$2,586	\$75,853	\$0	\$0	\$0	\$4,310	\$86,197
School-Based Energy Education	\$7,970	\$31,881	\$15,940	\$0	\$342,718	\$0	\$0	\$398,509
Tree Planting	\$494	\$4,944	\$3,727	\$160,872	\$0	\$0	\$1,978	\$172,015
Hometown Rewards	\$2,967	\$14,833	\$24,722	\$51,421	\$0	\$0	\$4,944	\$98,887
Builder Training	\$9,307	\$3,490	\$9,307	\$1,163	\$0	\$0	\$0	\$23,267

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$1,582	\$29,666	\$7,911	\$0	\$0	\$0	\$396	\$39,555
Bright Ideas	\$879	\$2,637	\$879	\$39,555	\$0	\$0	\$0	\$43,950
Research, Development, and Demonstration	\$10,033	\$24,963	\$0	\$6,689	\$0	\$0	\$0	\$41,685
<i>Demand Response Portfolio</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential DLC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Nonresidential Interruptible	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Other Funding Initiatives</i>	\$10,276	\$503,723	\$0	\$0	\$0	\$0	\$5,623	\$519,622
Legislative Assessment	\$0	\$310,233	\$0	\$0	\$0	\$0	\$0	\$310,233
EM&V	\$0	\$190,000	\$0	\$0	\$0	\$0	\$0	\$190,000
Next Plan	\$10,276	\$3,490	\$0	\$0	\$0	\$0	\$5,623	\$19,389
Total	\$239,962	\$1,949,365	\$702,452	\$7,983,825	\$2,499,614	\$1,196,997	\$334,359	\$14,906,574

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.31 Natural Gas Budget by Program (2016)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$199,606	\$1,352,504	\$581,590	\$7,997,967	\$2,175,255	\$1,218,903	\$325,381	\$13,851,206
Residential Prescriptive Rebates	\$68,194	\$306,874	\$238,679	\$2,761,862	\$0	\$0	\$34,097	\$3,409,706
Home Energy Assessments	\$29,559	\$118,235	\$88,676	\$1,477,932	\$281,692	\$525,964	\$0	\$2,522,058
Change-a-Light	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Appliance Recycling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Home Construction	\$8,354	\$8,354	\$58,477	\$701,725	\$0	\$0	\$133,500	\$910,410
Multifamily	\$359	\$3,595	\$2,516	\$1,797	\$8,221	\$24,988	\$719	\$42,195
Weatherization	\$0	\$713,674	\$0	\$0	\$1,599,521	\$239,009	\$9,912	\$2,562,116
EnergyWise Education	\$0	\$1,375	\$0	\$0	\$44,444	\$0	\$0	\$45,819
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$180	\$0	\$1,353	\$5,415	\$16,459	\$1,473	\$24,880
Home Energy Savers	\$4,347	\$56,511	\$17,388	\$0	\$163,296	\$139,104	\$56,511	\$437,157
Nonresidential Prescriptive Rebates	\$52,491	\$91,859	\$78,736	\$2,348,966	\$0	\$0	\$52,491	\$2,624,543
Business Assessments	\$16,289	\$21,718	\$43,436	\$99,175	\$72,666	\$273,379	\$16,289	\$542,952
Custom Rebates	\$19,074	\$25,432	\$50,864	\$521,359	\$0	\$0	\$19,074	\$635,803
Commercial New Construction	\$939	\$4,697	\$2,818	\$83,798	\$0	\$0	\$1,315	\$93,567
Agriculture Sector	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Outreach, Education, and Training Portfolio</i>	\$37,143	\$116,390	\$141,439	\$264,414	\$344,430	\$0	\$11,902	\$915,718
Non-Targeted Energy Awareness and Information	\$3,551	\$2,663	\$78,128	\$0	\$0	\$0	\$4,439	\$88,781
School-Based Energy Education	\$8,010	\$32,040	\$16,020	\$0	\$344,430	\$0	\$0	\$400,500
Tree Planting	\$504	\$5,043	\$3,802	\$163,633	\$0	\$0	\$2,017	\$174,999
Hometown Rewards	\$3,026	\$15,130	\$25,216	\$52,450	\$0	\$0	\$5,043	\$100,865
Builder Training	\$9,307	\$3,490	\$9,307	\$1,163	\$0	\$0	\$0	\$23,267

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$1,614	\$30,259	\$8,069	\$0	\$0	\$0	\$403	\$40,345
Bright Ideas	\$897	\$2,690	\$897	\$40,346	\$0	\$0	\$0	\$44,830
Research, Development, and Demonstration	\$10,234	\$25,075	\$0	\$6,822	\$0	\$0	\$0	\$42,131
<i>Demand Response Portfolio</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential DLC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Nonresidential Interruptible	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Other Funding Initiatives</i>	\$44,531	\$515,357	\$0	\$0	\$0	\$0	\$24,366	\$584,254
Legislative Assessment	\$0	\$310,233	\$0	\$0	\$0	\$0	\$0	\$310,233
EM&V	\$0	\$190,000	\$0	\$0	\$0	\$0	\$0	\$190,000
Next Plan	\$44,531	\$15,124	\$0	\$0	\$0	\$0	\$24,366	\$84,021
Total	\$281,280	\$1,984,251	\$723,029	\$8,262,381	\$2,519,685	\$1,218,903	\$361,649	\$15,351,178

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.32 Natural Gas Budget by Program (2017)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$207,184	\$1,378,701	\$601,680	\$8,329,231	\$2,197,123	\$1,243,912	\$335,753	\$14,293,584
Residential Prescriptive Rebates	\$69,877	\$314,446	\$244,569	\$2,830,016	\$0	\$0	\$34,938	\$3,493,846
Home Energy Assessments	\$31,037	\$124,146	\$93,110	\$1,551,828	\$286,098	\$536,483	\$0	\$2,622,702
Change-a-Light	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Appliance Recycling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Home Construction	\$8,692	\$8,692	\$60,845	\$730,140	\$0	\$0	\$133,500	\$941,869
Multifamily	\$377	\$3,774	\$2,642	\$1,887	\$8,221	\$24,988	\$755	\$42,644
Weatherization	\$0	\$713,674	\$0	\$0	\$1,599,521	\$239,009	\$9,912	\$2,562,116
EnergyWise Education	\$0	\$1,389	\$0	\$0	\$44,896	\$0	\$0	\$46,285
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$180	\$0	\$1,353	\$5,415	\$16,459	\$1,473	\$24,880
Home Energy Savers	\$4,800	\$62,398	\$19,199	\$0	\$180,306	\$153,594	\$62,398	\$482,695
Nonresidential Prescriptive Rebates	\$56,057	\$98,099	\$84,085	\$2,508,532	\$0	\$0	\$56,057	\$2,802,830
Business Assessments	\$16,289	\$21,718	\$43,436	\$99,175	\$72,666	\$273,379	\$16,289	\$542,952
Custom Rebates	\$19,116	\$25,488	\$50,976	\$522,502	\$0	\$0	\$19,116	\$637,198
Commercial New Construction	\$939	\$4,697	\$2,818	\$83,798	\$0	\$0	\$1,315	\$93,567
Agriculture Sector	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Outreach, Education, and Training Portfolio</i>	\$37,614	\$117,806	\$144,623	\$269,204	\$346,142	\$0	\$12,186	\$927,575
Non-Targeted Energy Awareness and Information	\$3,658	\$2,743	\$80,472	\$0	\$0	\$0	\$4,572	\$91,445
School-Based Energy Education	\$8,050	\$32,199	\$16,100	\$0	\$346,142	\$0	\$0	\$402,491
Tree Planting	\$514	\$5,144	\$3,878	\$166,430	\$0	\$0	\$2,058	\$178,024
Hometown Rewards	\$3,086	\$15,432	\$25,720	\$53,499	\$0	\$0	\$5,144	\$102,881
Builder Training	\$9,307	\$3,490	\$9,307	\$1,163	\$0	\$0	\$0	\$23,267

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$1,646	\$30,865	\$8,231	\$0	\$0	\$0	\$412	\$41,154
Bright Ideas	\$915	\$2,744	\$915	\$41,153	\$0	\$0	\$0	\$45,727
Research, Development, and Demonstration	\$10,438	\$25,189	\$0	\$6,959	\$0	\$0	\$0	\$42,586
<i>Demand Response Portfolio</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential DLC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Nonresidential Interruptible	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Other Funding Initiatives</i>	\$44,531	\$515,357	\$0	\$0	\$0	\$0	\$24,366	\$584,254
Legislative Assessment	\$0	\$310,233	\$0	\$0	\$0	\$0	\$0	\$310,233
EM&V	\$0	\$190,000	\$0	\$0	\$0	\$0	\$0	\$190,000
Next Plan	\$44,531	\$15,124	\$0	\$0	\$0	\$0	\$24,366	\$84,021
Total	\$289,329	\$2,011,864	\$746,303	\$8,598,435	\$2,543,265	\$1,243,912	\$372,305	\$15,805,413

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.33 Natural Gas Budget by Program (2018)

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
<i>Energy-Efficiency Portfolio</i>	\$215,305	\$1,406,221	\$622,937	\$8,685,412	\$2,219,068	\$1,269,131	\$346,544	\$14,764,618
Residential Prescriptive Rebates	\$71,635	\$322,357	\$250,722	\$2,901,215	\$0	\$0	\$35,817	\$3,581,747
Home Energy Assessments	\$32,588	\$130,354	\$97,765	\$1,629,420	\$290,580	\$547,212	\$0	\$2,727,920
Change-a-Light	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Appliance Recycling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Home Construction	\$9,045	\$9,045	\$63,316	\$759,790	\$0	\$0	\$133,500	\$974,696
Multifamily	\$396	\$3,963	\$2,774	\$1,982	\$8,221	\$24,988	\$793	\$43,117
Weatherization	\$0	\$713,674	\$0	\$0	\$1,599,521	\$239,009	\$9,912	\$2,562,117
EnergyWise Education	\$0	\$1,403	\$0	\$0	\$45,348	\$0	\$0	\$46,751
Low-Income Multifamily and Institutional Efficiency Improvements	\$0	\$180	\$0	\$1,353	\$5,415	\$16,459	\$1,473	\$24,880
Home Energy Savers	\$5,253	\$68,284	\$21,011	\$0	\$197,316	\$168,084	\$68,284	\$528,231
Nonresidential Prescriptive Rebates	\$59,999	\$104,997	\$89,998	\$2,684,933	\$0	\$0	\$59,999	\$2,999,925
Business Assessments	\$16,289	\$21,718	\$43,436	\$99,175	\$72,666	\$273,379	\$16,289	\$542,950
Custom Rebates	\$19,161	\$25,549	\$51,097	\$523,747	\$0	\$0	\$19,161	\$638,716
Commercial New Construction	\$939	\$4,697	\$2,818	\$83,798	\$0	\$0	\$1,315	\$93,568
Agriculture Sector	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Outreach, Education, and Training Portfolio</i>	\$38,097	\$119,249	\$147,892	\$274,069	\$347,880	\$0	\$12,475	\$939,662
Non-Targeted Energy Awareness and Information	\$3,768	\$2,826	\$82,886	\$0	\$0	\$0	\$4,709	\$94,189
School-Based Energy Education	\$8,090	\$32,361	\$16,180	\$0	\$347,880	\$0	\$0	\$404,512
Tree Planting	\$525	\$5,247	\$3,955	\$169,264	\$0	\$0	\$2,099	\$181,089
Hometown Rewards	\$3,148	\$15,741	\$26,235	\$54,568	\$0	\$0	\$5,247	\$104,939
Builder Training	\$9,307	\$3,490	\$9,307	\$1,163	\$0	\$0	\$0	\$23,267

Programs	Planning and Design	Program Administration	Advertising and Promotion	Incentives	Equipment Costs	Installation Costs	Program Review and Assessment	TOTAL
Energy Efficiency Dealer Network	\$1,679	\$31,482	\$8,395	\$0	\$0	\$0	\$420	\$41,976
Bright Ideas	\$933	\$2,798	\$933	\$41,976	\$0	\$0	\$0	\$46,640
Research, Development, and Demonstration	\$10,647	\$25,305	\$0	\$7,098	\$0	\$0	\$0	\$43,050
<i>Demand Response Portfolio</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential DLC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Nonresidential Interruptible	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Other Funding Initiatives</i>	\$44,531	\$325,357	\$0	\$0	\$0	\$0	\$24,366	\$394,254
Legislative Assessment	\$0	\$310,233	\$0	\$0	\$0	\$0	\$0	\$310,233
EM&V	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Next Plan	\$44,531	\$15,124	\$0	\$0	\$0	\$0	\$24,366	\$84,021
<i>Total</i>	\$297,933	\$1,850,827	\$770,829	\$8,959,482	\$2,566,948	\$1,269,131	\$383,385	\$16,098,535

Source: Workbook Appendix J Program Participant Data. Tab "Budget Summary"

Table 2.34 Annual Electric Impacts by Program

	2014		2015		2016		2017		2018		TOTAL	
	Electric Savings (kWh)	Capacity Savings (kW)	Electric Savings (kWh)	Capacity Savings (kW)	Electric Savings (kWh)	Capacity Savings (kW)	Electric Savings (kWh)	Capacity Savings (kW)	Electric Savings (kWh)	Capacity Savings (kW)	Electric Savings (kWh)	Capacity Savings (kW)
Energy-Efficiency Portfolio												
Residential Prescriptive Rebates	12,432,139	5,318	12,198,931	5,218	12,505,979	5,350	12,827,384	5,487	13,163,705	5,631	63,128,138	27,004
Home Energy Assessments	2,412,222	186	2,484,461	192	2,559,531	198	2,637,561	204	2,718,685	210	12,812,460	990
Change-a-Light	10,294,964	1,779	10,809,712	1,868	11,350,198	1,962	11,917,708	2,060	12,513,593	2,163	56,886,175	9,832
Appliance Recycling	11,096,756	1,408	10,818,470	1,373	10,548,012	1,339	10,285,172	1,305	10,029,744	1,273	52,778,154	6,698
New Home Construction	215,398	202	224,014	211	233,040	219	242,477	228	252,323	237	1,167,253	1,097
Multifamily	151,170	20	151,275	20	151,385	20	151,501	20	151,622	20	756,952	100
Weatherization	2,369,593	442	2,369,593	442	2,369,593	442	2,369,593	442	2,369,593	442	11,847,965	2,210
EnergyWise Education	855,536	160	864,091	161	872,732	163	881,459	164	890,274	166	4,364,092	814
Low-Income Multifamily and Institutional	100,780	13	100,780	13	100,780	13	100,780	13	100,780	13	503,900	65
HES	73,293	14	80,623	15	87,952	16	97,114	18	106,276	20	445,258	83
Nonresidential Prescriptive Rebates	20,852,779	1,661	22,397,179	1,784	24,109,489	1,920	26,005,794	2,071	28,105,243	2,238	121,470,484	9,674
Business Assessments	2,907,140	143	2,907,140	143	2,907,140	143	2,907,140	143	2,907,140	143	14,535,700	715
Custom Rebates	68,567,883	8,834	68,606,449	8,839	68,653,507	8,845	68,709,303	8,852	68,774,098	8,860	343,311,240	44,230
Commercial New Construction	17,000,000	4,323	15,030,000	3,822	10,030,000	2,551	10,030,000	2,551	10,030,000	2,551	62,120,000	15,798
Agriculture Sector	3,698,789	477	3,659,227	471	3,622,908	467	3,589,890	462	3,560,240	459	18,131,054	2,336
Total Energy Efficiency	153,028,442	24,980	152,701,945	24,572	150,102,246	23,648	152,752,876	24,020	155,673,316	24,426	764,258,825	121,646

	2014		2015		2016		2017		2018		TOTAL	
Outreach, Education, and Training Portfolio												
Non-Targeted Energy Awareness	-	-	-	-	-	-	-	-	-	-	-	-
School-Based Energy Education	4,156,500	775	4,177,283	779	4,198,169	783	4,219,160	787	4,240,256	791	20,991,368	3,915
Tree Planting	-	-	-	-	-	-	-	-	-	-	-	-
Hometown Rewards	-	-	-	-	-	-	-	-	-	-	-	-
Builder Training	-	-	-	-	-	-	-	-	-	-	-	-
Energy Efficiency Dealer Network	-	-	-	-	-	-	-	-	-	-	-	-
Bright Ideas	-	-	-	-	-	-	-	-	-	-	-	-
Research, Development, & Demonstration	-	-	-	-	-	-	-	-	-	-	-	-
Total OET	4,156,500	775	4,177,283	779	4,198,169	783	4,219,160	787	4,240,256	791	20,991,368	3,915
Demand Response Portfolio												
Residential DLC	500,022	44,235	500,022	44,235	500,022	44,235	500,022	44,235	500,022	44,235	2,500,110	N/A
Nonresidential Interruptible	5,400,000	270,000	5,400,000	270,000	5,400,000	270,000	5,400,000	270,000	5,400,000	270,000	27,000,000	N/A
Total DR	5,900,022	314,235	5,900,022	314,235	5,900,022	314,235	5,900,022	314,235	5,900,022	314,235	29,500,110	N/A
Other Funding Initiatives												
Legislative Assessment	-	-	-	-	-	-	-	-	-	-	-	-
EM&V	-	-	-	-	-	-	-	-	-	-	-	-
Next Plan	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Funding	-	-										
TOTAL PORTFOLIO	163,084,964	339,990	162,779,250	339,586	160,200,437	338,666	162,872,058	339,042	165,813,594	339,452	814,750,303	125,561

Source: Workbook Appendix J Program Participant Data. 1) Tab "Summary" 2) Go to respective program tab

Table 2.35 Annual Natural Gas Impacts by Program

Programs	2014		2015		2016		2017		2018		TOTAL	
	Gas Savings (therms)	Capacity Savings (therms)	Gas Savings (therms)	Capacity Savings (therms)	Gas Savings (therms)	Capacity Savings (therms)	Gas Savings (therms)	Capacity Savings (therms)	Gas Savings (therms)	Capacity Savings (therms)	Gas Savings (therms)	Capacity Savings (therms)
Energy-Efficiency Portfolio												
Residential Prescriptive Rebates	362,190	4,970	364,405	5,000	366,728	5,032	369,153	5,065	371,673	5,100	1,834,148	25,166
Home Energy Assessments	303,376	3,594	315,609	3,739	328,414	3,890	341,818	4,049	355,852	4,215	1,645,068	19,488
Change-a-Light	-	-	-	-	-	-	-	-	-	-	-	-
Appliance Recycling	-	-	-	-	-	-	-	-	-	-	-	-
New Home Construction	62,525	909	65,026	945	67,646	983	70,385	1,023	73,244	1,064	338,826	4,924
Multifamily	5,883	57	5,883	57	5,883	57	5,883	57	5,883	57	29,414	285
Weatherization	219,645	3,192	219,645	3,192	219,645	3,192	219,645	3,192	219,645	3,192	1,098,226	15,959
EnergyWise Education	27,675	74	27,952	74	28,231	75	28,514	76	28,799	77	141,170	376
Low-Income Multifamily and Institutional	3,922	19	3,922	19	3,922	19	3,922	19	3,922	19	19,609	93
HES	21,390	57	23,529	63	25,668	68	28,341	76	31,015	83	129,943	346
Nonresidential Prescriptive Rebates	611,364	6,419	640,857	6,729	672,944	7,066	707,757	7,431	745,459	7,827	3,378,382	35,471
Business Assessments	51,942	93	51,942	93	51,942	93	51,942	93	51,942	93	259,709	463
Custom Rebates	252,047	737	251,986	737	251,927	737	251,869	737	251,813	736	1,259,641	3,684
Commercial New Construction	168,000	2,948	92,400	1,622	92,400	1,622	92,400	1,622	92,400	1,622	537,600	9,435
Agriculture Sector	-	-	-	-	-	-	-	-	-	-	-	-
Total Energy Efficiency	2,089,958	23,067	2,063,155	22,268	2,115,349	22,833	2,171,629	23,438	2,231,645	24,084	10,671,736	115,690

Programs	2014		2015		2016		2017		2018		TOTAL	
Outreach, Education, and Training Portfolio												
Non-Targeted Energy Awareness and Information	-	-	-	-	-	-	-	-	-	-	-	-
School-Based Energy Education	247,350	659	248,587	662	249,830	665	251,079	669	252,334	672	1,249,180	3,327
Tree Planting	-	-	-	-	-	-	-	-	-	-	-	-
Hometown Rewards	-	-	-	-	-	-	-	-	-	-	-	-
Builder Training	-	-	-	-	-	-	-	-	-	-	-	-
Energy Efficiency Dealer Network	-	-	-	-	-	-	-	-	-	-	-	-
Bright Ideas	-	-	-	-	-	-	-	-	-	-	-	-
Research, Development, & Demonstration	-	-	-	-	-	-	-	-	-	-	-	-
Total OET	247,350	659	248,587	662	249,830	665	251,079	669	252,334	672	1,249,180	3,327
Demand Response Portfolio												
Residential DLC	-	-	-	-	-	-	-	-	-	-	-	N/A
Nonresidential Interruptible	-	-	-	-	-	-	-	-	-	-	-	N/A
Total DR	-	-	-	-	-	-	-	-	-	-	-	N/A
Other Funding Initiatives												
Legislative Assessment	-	-	-	-	-	-	-	-	-	-	-	-
EM&V	-	-	-	-	-	-	-	-	-	-	-	-
Next Plan	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Funding	-	-	-	-								
TOTAL PORTFOLIO	2,337,308	23,726	2,311,741	22,930	2,365,178	23,498	2,422,708	24,107	2,483,980	24,756	11,920,915	119,016

Source: Workbook Appendix J Program Participant Data: 1) Tab "Summary" 2) Go to respective program tab

Table 2.36 Plan Cost-Effectiveness Results by Program

Programs	Total				Electric				Gas			
	Societal	Participant	Utility	Ratepayer	Societal	Participant	Utility	Ratepayer	Societal	Participant	Utility	Ratepayer
Energy-Efficiency Portfolio												
Residential Prescriptive Rebates	1.59	1.32	1.61	0.83	1.98	1.42	1.95	0.96	0.56	1.05	0.60	0.36
Home Energy Assessments	1.18	1.59	1.08	0.50	2.00	2.52	1.60	0.57	0.98	1.37	0.92	0.46
Change-a-Light	1.63	1.89	1.90	0.75	1.63	1.89	1.90	0.75	NA	NA	NA	NA
Appliance Recycling	3.94	4.58	2.30	0.74	3.94	4.58	2.30	0.74	NA	NA	NA	NA
New Home Construction	0.87	0.91	1.09	0.64	4.83	1.74	6.03	1.90	0.38	0.81	0.48	0.31
Multifamily	0.91	1.69	0.72	0.42	0.92	1.64	0.74	0.44	0.88	1.83	0.67	0.38
Weatherization	1.87	2.43	1.28	0.59	5.19	4.51	3.63	0.94	1.01	1.88	0.67	0.38
EnergyWise Education	6.42	5.58	5.31	0.94	10.83	7.98	8.92	1.10	1.83	3.08	1.54	0.50
Low-Income Multifamily and Institutional Efficiency Improvements	1.02	1.71	0.80	0.45	1.03	1.67	0.81	0.46	0.99	1.83	0.75	0.40
Home Energy Savers	0.60	1.50	0.46	0.30	2.48	2.59	1.86	0.75	0.39	1.38	0.30	0.21
Nonresidential Prescriptive Rebates	1.48	1.32	2.36	0.73	1.48	1.25	2.66	0.77	1.49	1.59	1.60	0.58
Business Assessments	1.52	2.16	1.20	0.54	2.48	2.72	2.08	0.69	0.44	1.50	0.34	0.23
Custom Rebates	3.50	2.26	6.56	1.02	4.71	3.03	6.90	1.04	0.29	0.34	2.11	0.55
Commercial New Construction	5.48	2.50	13.73	1.39	5.73	2.52	14.34	1.44	2.94	2.28	7.61	0.85
Agriculture Sector	1.33	1.29	2.12	0.77	1.33	1.29	2.12	0.77	N/A	N/A	N/A	N/A
Total Energy Efficiency	2.37	1.80	3.11	0.90	3.02	2.09	3.98	0.99	0.78	1.08	0.98	0.47
Outreach, Education, and Training Portfolio												
Non-Targeted Energy Awareness and Information	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
School-Based Energy	12.64	9.46	8.89	0.96	27.19	16.43	19.00	1.19	4.46	5.54	3.21	0.59

Programs	Total				Electric				Gas			
Education												
Tree Planting	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hometown Rewards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Builder Training	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Energy Efficiency Dealer Network	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bright Ideas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Research, Development, and Demonstration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total OET	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Demand Response Portfolio</i>												
Residential DLC	4.49	N/A	4.08	4.02	4.49	N/A	4.08	4.02	N/A	N/A	N/A	N/A
Nonresidential Interruptible	2.88	2.52	2.61	2.20	2.88	2.52	2.61	2.20	N/A	N/A	N/A	N/A
Total DR	3.03	N/A	2.75	2.35	3.03	N/A	2.75	2.35	N/A	N/A	N/A	N/A
<i>Other Funding Initiatives</i>												
Legislative Assessment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EM&V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Next Plan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Other Funding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: Workbooks 1) Common Assumptions 2) Appendix K_Benefit Cost Model_Electric 3) Appendix K Benefit Cost Model_Gas. Workbook 1 must be open for workbooks 2 and 3 to produce results 4) Appendix K Benefit Cost Model_Demand Response. Add program level results (Electric + Gas) to obtain Total Cost Effective results

3. Plan Development

In developing its new Plan, IPL built on its 2009-2013 EEP, adding new elements to capture untapped market potential, eliminating certain elements that failed to produce long-term benefits for Iowa customers, and streamlining program operations and delivery. Table 3.1 provides a comparison of each program in IPL’s 2009-2013 EEP to the corresponding program in the 2014-2018 Plan, and includes the following information:

- Identification of whether the program is new, discontinued, continuing with no significant design changes, or modified.
- A brief summary of program modifications, including changes to program measures, incentives, and promotional efforts.

Table 3.1 Relationship of Existing to New Plan Programs

2014-2018 Plan		2009-2013 EEP		Continued, Discontinued, New, or Modified	Changes/Details
#	Program	#	Program		
1	Residential Prescriptive Rebates	1	Residential Prescriptive Rebates	Modified	<ul style="list-style-type: none"> • Expanding HVAC system tune-up options. • Requiring SAVE-certified installation for all furnace rebates. • Adding prescriptive incentives for whole-house fans, Wi-Fi programmable thermostats, and air-to-air heat exchangers. • Eliminating some measures with low participation and/or those that do not achieve a societal benefit to cost ratio of 1 or more, including: kitchen appliances, clothes washers, lighting fixtures, windows, and boilers. • Moving the Change-a-Light promotion to a stand-alone program. • Moving the multifamily program component to a stand-alone program. • Eliminating mail-in rebates for CFL bulbs.
2	Home Energy	2	Home Energy	Modified	<ul style="list-style-type: none"> • Changing name to Home Energy Assessments.

2014-2018 Plan		2009-2013 EEP		Continued, Discontinued, New, or Modified	Changes/Details
#	Program	#	Program		
	Assessments		Audits		<ul style="list-style-type: none"> • Adding electric-only assessments to serve customers who: 1) have an all-electric home; 2) heat with propane; or 3) have natural gas service that is not provided by an Iowa IOU. • Eliminating the Home Performance with ENERGY STAR program pilot and replacing it with a comprehensive assessment program track including diagnostic testing. • Adding new direct installation measures, including a smart strip and water heater thermostat setback. • Adding duct sealing to eligible shell upgrade measures. • Offering bonus incentives to encourage customers to install multiple recommended measures.
3	Change-a-Light			New	<ul style="list-style-type: none"> • Replacing seasonal Change-a-Light promotion previously implemented under the Residential Prescriptive Rebates Program with new stand-alone program replaces. • Implementing year-round, upstream point-of-purchase incentives and marketing campaign. • Adding new measures, including: program eligible LED bulbs and specialty CFLs. • Eliminating mail-in rebates for CFL bulbs. • Increasing customer education materials related to changing consumer lighting standards.
4	Appliance Recycling	3	Appliance Recycling	Continued	<ul style="list-style-type: none"> • No changes planned.
5	New Home Construction	4	New Home Construction	Modified	<ul style="list-style-type: none"> • Replacing the use of ENERGY STAR New Homes as a compliance mechanism with a simpler Home Energy Rating System index to measure new home performance. • Consolidating two prescriptive paths, (i.e., the Builder Option Package (BOP) and the Advanced BOP) into a single path that specifies the highest efficiency equipment options available. • Eliminating building shell and lighting measures from the BOP (as these meet the IECC 2012 code). • Adding two performance paths with tiered incentive levels. • Conducting quality control checks on field verifiers to confirm their compliance with program quality requirements.
		5	Home Performance with ENERGY STAR	Discontinued	<ul style="list-style-type: none"> • Replacing the pilot program with a comprehensive path in the Home Energy Assessments program. The comprehensive path will be available to customers throughout IPL's Iowa territory.
6	Multifamily			New	<ul style="list-style-type: none"> • Using a holistic approach to multifamily efficiency,

2014-2018 Plan		2009-2013 EEP		Continued, Discontinued, New, or Modified	Changes/Details
#	Program	#	Program		
					<p>allowing the building owner to focus on both common areas and tenant units.</p> <ul style="list-style-type: none"> • Offering the program for new construction as well as after-market upgrades. • Drawing from existing programs for incentives (e.g., assessments, prescriptive and custom rebates, new construction programs). • Addressing a hard-to-reach market with untapped efficiency potential.
7	Low-Income Weatherization	6	Low-Income Weatherization	Modified	<ul style="list-style-type: none"> • Allowing for annual adjustments to match program eligibility to the current federal poverty level.
8	EnergyWise Education	8	EnergyWise Education	Modified	<ul style="list-style-type: none"> • Adding window film and one additional compact fluorescent lamp to the kit based on feedback from Community Action Program (CAP) agencies. • Allowing CAP agencies to perform one-on-one consultations with customers not able to attend group training. • Allowing for annual adjustments to match program eligibility to the current federal poverty level.
9	Low Income Multifamily and Institutional Efficiency Improvements	7	Low Income Multifamily and Institutional Efficiency Improvements	Continued	<ul style="list-style-type: none"> • No changes planned.
10	Home Energy Savers	9	Targeted Residential Energy Efficiency Options	Modified	<ul style="list-style-type: none"> • Changing name to Home Energy Savers. • Expanding the program from two pilot communities to IPL's entire service territory. • Identifying a third-party administrator to manage program operations and work with CAP agencies across IPL's service territory.
11	Nonresidential Prescriptive Rebates	10	Nonresidential Prescriptive Rebates	Modified	<ul style="list-style-type: none"> • Adding prescriptive incentives for new measures, including anti-sweat heater controls, bi-level lighting controls, hospitality industry measures, chiller pipe insulation, scroll compressor, drain water heat recovery, duct repair and sealing, and HVAC tune-ups. • Eliminating some measures that are not cost-effective and/or do not offer sufficient economic potential to justify budget expenditures, including: residential-sized appliances, ground source heat pumps (now offered under the Custom Program), commercial clothes dryers, refrigerated case lighting, cooling towers, printers, fax machines, and water heater tank pipe insulation. • Exploring an upstream incentive mechanism for motors and variable-speed drives. • Simplifying rebates for some measures by eliminating complicated calculations required to determine

2014-2018 Plan		2009-2013 EEP		Continued, Discontinued, New, or Modified	Changes/Details
#	Program	#	Program		
					<ul style="list-style-type: none"> incentives. Moving business energy assessments to a stand-alone program. Moving the multifamily housing program component to a stand-alone program. Launching a marketing campaign targeting motor distributors and vendors.
12	Business Assessments			New	<ul style="list-style-type: none"> Moving small business assessments from the Nonresidential Prescriptive Rebates Program and commercial and industrial energy audits from the Custom Rebates Program to this stand-alone Business Assessments Program. Adding a Small Business Direct Install Lighting Program with turnkey lighting upgrades and enhanced incentives. Adding water heater thermostat setback to the available measures in the direct installation program component for the Small Business Assessment track.
13	Custom Rebates	11	Custom Rebates	Modified	<ul style="list-style-type: none"> Moving commercial and industrial energy audits to IPL's new Business Assessments Program. Moving custom projects implemented by agriculture-sector customers to the Custom Rebates Program. Increasing marketing efforts targeted to mid-sized customers.
		12	Performance Contracting	Discontinued	<ul style="list-style-type: none"> Only one active project developer supporting the program. Customers find that the Custom Rebate Program better addresses their internal constraints. IPL will continue to offer support to those customers interested in financing as an effective way to implement energy efficiency.
14	Commercial New Construction	13	Commercial New Construction	Continued	<ul style="list-style-type: none"> No changes planned.
15	Agriculture Sector	14	Agriculture Sector	Modified	<ul style="list-style-type: none"> Providing between six and eight free CFLs as part the farm energy assessment. Adding ultra-premium-rated motors to program eligible prescriptive measures. Shifting agricultural custom projects to the Custom Rebates Program. Eliminating measures that are not cost-effective and/or do not offer sufficient economic potential to justify budget expenditures, including appliances, electric water heaters, and programmable thermostats. Following up with all customers three to six months after their farm energy assessments to encourage

2014-2018 Plan		2009-2013 EEP		Continued, Discontinued, New, or Modified	Changes/Details
#	Program	#	Program		
					measure installation.
16	Non-Targeted Energy Information and Awareness	17	Non-Targeted Energy Information and Awareness	Continued	<ul style="list-style-type: none"> No changes planned.
17	School-based Energy Education	18	School-based Energy Education	Modified	<ul style="list-style-type: none"> Adding fifth grade to participant targets for Alliant Energy Kids Program component. Expanding outreach and recruiting for Alliant Energy Kids teachers. Expanding the promotion of LivingWise in nonparticipating communities.
18	Tree Planting	20	Trees	Modified	<ul style="list-style-type: none"> Changing name to Tree Planting Program. Eliminating three Tree Planting Program initiatives: <ul style="list-style-type: none"> Iowa Hometown Celebrations: eliminated due to lack of customer interest. Industrial Park Developments: often benefited private developers that had not paid into the Iowa energy-efficiency fund. Growing Kids, Growing Trees: Iowa's Department of Natural Resources offers a similar program. Discontinuing claiming savings for the Tree Planting Program based on the 2009 EM&V recommendations.
		21	CFL Recycling	Discontinued	<ul style="list-style-type: none"> Incorporating education on CFL recycling and promotion of CFL drop-off locations offered by retail partners into new Change-A-Light Program.
19	Hometown Rewards	24	E-Community	Modified	<ul style="list-style-type: none"> Changing program name to Hometown Rewards. Targeting smaller towns with populations between 5,000 and 25,000. Additional funding for administrative expenses and implementation costs.
20	Builder Training	22	Builder Training	Modified	<ul style="list-style-type: none"> Adding a focus on renovation and retrofits to the Building for Performance curriculum.
21	Energy Efficiency Dealer Network	23	Trade Ally Network	Modified	<ul style="list-style-type: none"> Changing program name to Energy Efficiency Dealer Network.
22	Bright Ideas	25	Affinity Bright Ideas	Modified	<ul style="list-style-type: none"> Changing program name to from Affinity Bright Ideas to Bright Ideas.
23	Research, Development, and Demonstration	19	Research, Development, and Demonstration	Continued	<ul style="list-style-type: none"> No changes planned for program design. Anticipating new initiatives under Research, Development, and Demonstration including: <ul style="list-style-type: none"> Behavior change, Transmission and distribution infrastructure, Electric and plug-in hybrid vehicles, and Data centers.
24	Residential	15	Residential	Continued	<ul style="list-style-type: none"> No changes planned.

2014-2018 Plan		2009-2013 EEP		Continued, Discontinued, New, or Modified	Changes/Details
#	Program	#	Program		
	Direct Load Control		Direct Load Control		
25	Nonresidential Interruptible	16	Nonresidential Interruptible	Continued	<ul style="list-style-type: none"> No changes planned.
		26	Residential Renewable Rebates, marketed as <i>Energy-Efficiency First Renewable Rebates</i>	Discontinued	<ul style="list-style-type: none"> Pilot has low participation and is not cost effective. Pilot has produced low energy efficiency savings. IPL will continue to offer support to those customers interested in onsite generation through its tariffs, interconnection process, website alliantenergy.com/sellmypower, green pricing program Second Nature™, and distributed generation hotline.
		27	Nonresidential Renewable Rebates, marketed as <i>Energy-Efficiency First Renewable Rebates</i>	Discontinued	<ul style="list-style-type: none"> Pilot has low participation and is not cost effective. Pilot has produced low energy efficiency savings. IPL will continue to offer support to those customers interested in onsite generation through its tariffs, interconnection process, website alliantenergy.com/sellmypower, green pricing program Second Nature™, and distributed generation hotline.
26	Legislative Assessment	29	Legislative Assessment	Continued	<ul style="list-style-type: none"> No changes planned.
27	Evaluation, Measurement, and Verification			Modified	<ul style="list-style-type: none"> Increasing the emphasis on impact evaluations and coordination with other investor owned utilities, Office of Consumer Advocate, and other interested parties.
28	Next Plan	30	Next Plan	Continued	<ul style="list-style-type: none"> Allocating funds toward the development of its 2019-2023 Energy Efficiency Plan.

In total, IPL will add three new programs and one funding initiative to the Plan, while discontinuing three programs: Performance Contracting, and the Residential and Nonresidential Renewable Rebates Pilots. IPL discontinued one program – Home Performance with ENERGY STAR – as a stand-alone pilot program. Instead, IPL will incorporate a new program track with similar services and incentives into the existing Home Energy Assessments program.

3.1. Rationale for Eliminating Programs

IPL carefully considered each program's ability to achieve the objectives of offering value to a broad range of IPL customers and/or stakeholders, providing benefits in excess of costs to all customers, and maximizing achievable energy savings. In its assessment, IPL determined that neither the Performance Contracting Program, nor the Residential and Nonresidential Renewable Energy Pilots, achieved these objectives by sufficient enough measures to continue offering the programs.

3.1.1. Performance Contracting Program

Although the Performance Contracting Program exceeded its energy savings targets in some cases, it only truly performed well based on the projects submitted, which are not expected to continue. As a result, IPL opted to discontinue the program. IPL believes the following factors contributed to the decision to discontinue the Performance Contracting Program.

Redundant Program Offering

IPL does not offer any specific energy efficiency measures in the Performance Contracting Program that are not already offered under other programs. The majority of projects implemented through performance contracts are lighting or other projects that would be eligible for incentives under IPL's Nonresidential Prescriptive and Nonresidential Custom Programs.

Additionally, performance contracting is a specific contractual mechanism that facilitates third-party project financing for commercial customers. However, IPL offers access to third-party financing options to its customers participating in the

Nonresidential Prescriptive Rebates Program and Agriculture Sector Program. Therefore, the measures and services offered through the Performance Contracting Program are already available to customers under IPL's existing programs.

Incompatible Regulatory Environment

Traditionally, Energy Services Companies (ESCOs) deliver performance contracting projects, providing turn-key services at no upfront cost to customers with guaranteed energy savings. The project costs associated with performance contracting projects are paid from the resulting energy savings over a multi-year contract.

The Board approved IPL's Performance Contracting program in 2001. IPL's intent was to aggregate a number of project developers that would provide such turn-key services focusing on energy savings. IPL also had its own project developer, Performance Edge.

ESCOs typically target large, often publicly-owned facilities such as hospitals, school districts, and universities for performance contracting projects, as these large buildings typically offer the most attractive project opportunities. In Iowa, however, the Iowa Bid Law is incompatible with public entities entering into performance contracts and, as a result, ESCOs are not active in the state. IPL's Performance Edge program faced similar issues.

Insufficient Project Developers to Sustain Program Success

At one time IPL worked with over 25 project developers that were fairly active in the promotion of Performance Contracting Program to customers. Along with the third-party administrator for this program, IPL engaged these product developers in:

- Annual training for program changes, technology improvements, financing assistance, customer service, and selling techniques;
- Monthly newsletters to support the annual training topics and other timely issues;
- Annual face-to-face meetings with all project developers;
- Availability of IPL and the third-party administrator for customer calls; and
- Providing program marketing materials customizable for each project developer.

However, in recent years several of its project developers have discontinued their participation in the program. IPL has only one remaining project developer who has completed several large projects. For 2013 that developer has no projects in the pipeline and no projects planned for the longer term.

Table 3.2 provides a summary of planned and actual energy savings for the Performance Contracting Program in the 2009-2013 EEP (in the program years for which data is available).

Table 3.2 Performance Contracting Planned and Actual Savings

Year	kWh		Therms	
	Plan	Actual	Plan	Actual
2009	6,302,000	12,187,201	144,738	90,218
2010	6,302,000	5,084,972	144,738	96,723
2011	6,302,000	19,089,472	144,738	182,400
2012	6,302,000	8,432,584	144,738	0
2013	6,302,000	NA	144,738	NA

Source: 2009-2011 Planned Data are from the original 2009-2013 Energy Efficiency Plan filed on April 23, 2008. 2012-2013 Planned Data are from the 2009-2013 Energy Efficiency Plan filed on Jan 2011. Actuals are from IPL's 2009-2011 Annual Report.

Table 3.3 provides Performance Contracting Program societal cost-effectiveness results (in the program years for which data is available).

Table 3.3 Performance Contracting Societal Cost-Effectiveness Results

Year	Electric	Gas
2009	7.20	5.49
2010	5.63	7.77
2011	13.43	20.39
2012	NA	NA
2013	NA	NA

Source: 2009-2011 Annual Report

In Table 3.4 and Table 3.5, IPL presents an estimate of potential future performance, including costs and benefits, if the Performance Contracting Program were to continue unchanged for the time period 2014-2018. Because this is a mature program, and due to changes in the project developer market, IPL does not assume any escalation in annual savings from this program.

Table 3.4 Performance Contracting Estimated Electric Savings

Year	Energy (kWh)	Societal Benefits	Societal Costs	Societal Benefit Cost
2014	9,024,998	\$10,827,954	\$776,295	13.95
2015	9,024,998	\$10,827,954	\$776,295	13.95
2016	9,024,998	\$10,827,954	\$776,295	13.95
2017	9,024,998	\$10,827,954	\$776,295	13.95
2018	9,024,998	\$10,827,954	\$776,295	13.95

Table 3.5 Performance Contracting Estimated Natural Gas Savings

Year	Therms	Benefits	Costs	Societal Benefit Cost
2014	NA	NA	NA	NA
2015	NA	NA	NA	NA
2016	NA	NA	NA	NA
2017	NA	NA	NA	NA
2018	NA	NA	NA	NA

Performance Edge projects contributed 100 percent of the therms savings from 2009-2012. Since Performance Edge is no longer a project developer, there are no potential projected natural gas projects to estimate future savings.

Note that these estimates are based upon IPL's best information when considering the drop in participation levels and (minimal) potential for new projects.

3.1.2. Renewable Portfolio Pilot Programs

IPL's Renewable Portfolio was a pilot project included in its 2009-2013 EEP. IPL designed the pilot to explore an area of innovation and to avoid, as the Board stated in its June 24, 2009, Final Order at page 12, "transforming a renewable energy program operating under the umbrella of energy efficiency into a program that primarily promoted customer onsite generation." In an effort to ensure the focus remained first on energy efficiency, IPL linked the incentives for qualifying renewable energy systems to

customers' efforts to reduce energy use through energy efficiency. IPL addressed this by: (1) marketing the program as *Energy-Efficiency First Renewable Rebates*; (2) requiring a comprehensive energy audit of each customer's site to identify energy-efficiency opportunities; (3) offering a standard tier and higher energy-efficiency tier of rebates; and (4) basing the incentive amount on the customer's onsite energy needs, and reducing that incentive amount for energy-efficiency measures not implemented. Thus, IPL positioned the Renewable Pilot incentives to encourage customers' adoption of high levels of energy efficiency first and install renewable energy technologies second.

The Residential and Nonresidential Renewable Rebates pilots have not met IPL's expectations for any eligible technologies. Since launching the Residential Renewable Rebates pilot on July 1, 2010, it has had low participation, has failed to achieve its savings targets, and fell far below the target cost-effectiveness threshold of 1.0. Although customers completed a few of the required steps of the pilot in years 2010-2011, IPL's first residential projects under the pilot were not completed until 2012. During 2012, the pilot had an estimated 28 participants and achieved zero therms and 195,060 kWh energy savings linked to onsite generation; both substantially below the 2012 pilot goals of 147 participants, 4,950 therms, and 430,000 kWh energy savings.

Energy-efficiency savings associated with these installations, resulting from direct install measures and recommended improvements from the energy audit, only amounted to 2,000 kWh and 158 therms. With few benefits reported, the program is clearly not cost effective. More importantly, while the pilot was initially designed to be

one element of a larger comprehensive energy efficiency strategy, it did not meet IPL’s expectations for energy efficiency. As demonstrated in Table 3.4 and Table 3.5 below, IPL fears the program is performing in a manner that the Board specifically cautioned against. In other words, rather than being a program that “only support[s] renewable technology for customers’ *efficient*, on-site energy needs,”⁷ the program has effectively become one that “primarily promotes customer on-site generation.”⁸

Table 3.6 provides a summary of planned and actual energy savings and societal benefit to cost ratio for the Residential Renewable Rebates pilot each year IPL offered it in the 2009-2013 EEP. Pursuant to the Board’s Final Order issued on June 24, 2009, IPL revised and resubmitted the Residential Renewable Rebates pilot on March 1, 2010. The Board approved the new pilot on April 29, 2010, and IPL launched the pilot on July 1, 2010.

Table 3.6 Residential Renewable Rebates Pilot Planned and Actual Savings

Year	Onsite Generation kWh		Efficiency kWh	Therms		Efficiency Therms	Societal BC Electric		Societal BC Gas	
	Plan	Actual	Actual	Plan	Actual	Actual	Plan	Actual	Plan	Actual
2010 (July – Dec)	31,250	0	0	450	0	0	0.24	NA	0.11	NA
2011	287,500	0	0	2,250	0	0		NA		NA
2012 (estimated)	430,000	195,060	2,000	4,950	0	158		NA		NA
2013	630,100	NA	NA	10,080	NA	NA		NA		NA

Source: 2010-2013 Planned Data from Renewable Energy Portfolio Compliance Filing filed February 26, 2010. Actuals from 2010 and 2011 Annual Reports.

IPL’s Nonresidential Renewable Rebates Pilot performed slightly better, but has never achieved its savings targets and fell far below the target cost effectiveness

⁷ Docket No. EEP-08-1, Final Order, June 24, 2009, at page 12; Docket No. EEP-08-1, Order Approving, in Part, and with Conditions, Renewable Energy Program, April 29, 2010, at page 8.

⁸ Docket No. EEP-08-1, Final Order, June 24, 2009, at page 12.

threshold of 1.0. In 2010,⁹ the pilot had one participant and achieved 11,205 kWh energy savings. In 2011, the pilot had six participants and achieved 323,280 kWh energy savings. As a result of these seven installations, there were no energy-efficiency savings. During 2012, IPL had an estimated 31 participants and achieved 1,847,931 kWh energy savings associated with installed onsite generation projects; these results were well below the pilot's goals of 43 participants and 16,828,850 kWh energy savings. As with the Residential Pilot, installed projects achieved just 28,148 kWh in additional energy efficiency savings. In 2010, the pilot achieved a societal benefit to cost ratio of only 0.15 to 1, and in 2011 a benefit to cost ratio of only 0.29 to 1.

Table 3.7 provides a summary of planned and actual energy savings and societal cost benefit ratio for the Nonresidential Renewable Rebates pilot each year IPL offered it in the 2009-2013 EEP. Pursuant to the Board's Final Order issued on June 24, 2009, IPL revised and resubmitted the Nonresidential Renewable Rebates pilot on March 1, 2010. The Board approved the new pilot on April 29, 2010, and IPL launched it on July 1, 2010.

Table 3.7 Nonresidential Renewable Rebates Pilot Planned and Actual Savings

Year	Onsite Generation kWh		Efficiency kWh	Therms		Efficiency Therms	Societal BC Electric		Societal BC Gas	
	Plan	Actual	Actual	Plan	Actual	Actual	Plan	Actual	Plan	Actual
2010 (July – Dec)	0	11,205	0	NA	NA	NA	2.26	0.15	NA	NA
2011	2,297,251	323,280	0	NA	NA	NA		0.29		NA
2012 (estimated)	16,828,850	1,847,931	28,148	NA	NA	NA		NA		NA
2013	16,989,855	NA	NA	NA	NA	NA		NA		NA

Source: 2010-2013 Planned Data from Renewable Energy Portfolio Compliance Filing filed February 26, 2010. Actuals from 2010 and 2011 Annual Reports.

⁹ 2010 Annual Report of the Energy Efficiency Plan of Interstate Power and Light Company an Alliant Energy Company, Docket No. EEP-08-1, April 29, 2011, page 88.

Due to their demonstrably poor performance, high cost, and very low benefit to cost ratios (as exhibited in the tables above), IPL determined its Renewable Energy Pilots do not meet its primary objective to generate energy-efficiency savings benefits beyond customer on-site generation.

In the following tables, IPL presents an estimate of potential future performance, including the cost and benefits, if the Renewable Portfolio Pilot Programs were to continue unchanged for the time period 2014-2018. IPL's estimates are based on average past performance extrapolated over the five-year Plan period, with a modest escalation factor of two percent.

**Table 3.8 Residential Renewable Rebates Pilot
Estimated Electric Savings**

Year	Energy (kWh)		Onsite Generation			Onsite Generation with Efficiency		
	Onsite Generation	Efficiency	Societal Benefits	Societal Costs	Societal Benefit Cost	Societal Benefits	Societal Costs	Societal Benefit Cost
2014	65,020	667	\$149,675	\$421,934	0.35	\$151,211	\$421,934	0.36
2015	66,320	680	\$152,668	\$425,523	0.36	\$154,233	\$425,523	0.36
2016	67,647	694	\$155,723	\$429,184	0.36	\$157,320	\$429,184	0.37
2017	69,000	708	\$158,837	\$432,918	0.37	\$160,467	\$432,918	0.37
2018	70,380	722	\$162,014	\$436,726	0.37	\$163,676	\$436,726	0.37

**Table 3.9 Residential Renewable Rebates Pilot
Estimated Natural Gas Savings**

Year	Therms		Societal Benefits	Societal Costs	Societal Benefit Cost
	Onsite Generation	Efficiency			
2014	0	52	NA	NA	NA
2015	0	53	NA	NA	NA
2016	0	54	NA	NA	NA
2017	0	55	NA	NA	NA
2018	0	56	NA	NA	NA

**Table 3.10 Nonresidential Renewable Rebates Pilot
Estimated Electric Savings**

Year	Energy (kWh)		Onsite Generation			Onsite Generation with Efficiency		
	Onsite Generation	Efficiency	Societal Benefits	Societal Costs	Societal Benefit Cost	Societal Benefits	Societal Costs	Societal Benefit Cost
2014	727,472	9,382	\$1,440,488	\$2,378,454	0.61	\$1,459,065	\$2,378,454	0.61
2015	742,021	9,570	\$1,469,297	\$2,386,419	0.62	\$1,488,246	\$2,386,419	0.62
2016	756,862	9,761	\$1,498,684	\$2,394,543	0.63	\$1,518,012	\$2,394,543	0.63
2017	771,999	9,956	\$1,528,657	\$2,402,830	0.64	\$1,548,371	\$2,402,830	0.64
2018	787,439	10,155	\$1,559,230	\$2,411,282	0.65	\$1,579,338	\$2,411,282	0.65