



**Black Hills/Colorado Electric  
Utility Company, LP d/b/a Black  
Hills Energy**

**Energy-Efficiency (Demand Side  
Management) Plan**

**2016-2018**

*Prepared for:*  
**Public Utilities Commission of Colorado**

*Prepared by:*  
**Black Hills/Colorado Electric Utility  
Company, LP d/b/a Black Hills Energy**

## Table of Contents

|   |    |
|---|----|
| Black Hills/Colorado Electric Utility Company, LP d/b/a Black Hills Energy..... | 1  |
| Executive Summary.....  | i  |
| 2016-2018 DSM Plan .....  | 1  |
| 1. Introduction.....  | 1  |
| 2. General Program Design Approach.....   | 2  |
| a. Ability to Meet Commission Goals .....                                       | 2  |
| b. Program Participation and Eligibility.....                                   | 3  |
| c. Customer and Trade Ally Engagement.....                                      | 3  |
| 3. Benefit-Cost Analysis and Screening Inputs .....                             | 3  |
| 4. 2016-2018 DSM Plan Programs .....  | 5  |
| a. Black Hills' 2016-2018 DSM Plan Portfolio – Budgets and Goals .....          | 5  |
| b. Evaluation, Measurement, and Verification of Programs.....                   | 11 |
| c. Budget Flexibility .....   | 11 |
| d. Residential Programs .....   | 12 |
| <i>Residential High Efficiency Lighting Program</i> .....                       | 12 |
| <i>Residential Appliance Recycling Program</i> .....                            | 15 |
| <i>Residential On-Site Energy Evaluation Program</i> .....                      | 18 |
| <i>Residential High Efficiency Cooling Program</i> .....                        | 21 |
| <i>Residential Home Energy Comparison Report Program</i> .....                  | 26 |
| e. Commercial and Industrial Programs .....                                     | 28 |
| <i>C&amp;I New Construction Program</i> .....                                   | 28 |
| <i>C&amp;I Custom Program</i> .....   | 32 |
| <i>C&amp;I Self Direct</i> .....  | 34 |
| <i>C&amp;I Prescriptive Program</i> .....                                       | 36 |
| <i>C&amp;I Lighting Program</i> .....   | 41 |
| f. Special Programs.....  | 49 |
| <i>Low-Income Assistance Program</i> .....                                      | 49 |
| <i>School Based Energy Education Program</i> .....                              | 52 |
| Appendix A. Detailed Benefit-Cost Analysis Results.....                         | 55 |

## Executive Summary

Applied Energy Group, Inc. (“AEG”) was retained by Black Hills/Colorado Electric Utility Company, LP d/b/a Black Hills Energy (“Black Hills” or “Company”) to conduct an energy efficiency potential assessment and design the 2016 through 2018 Energy Efficiency (Demand Side Management) Program Portfolio (“2016-2018 DSM Plan” or “Plan”).

As part of the Potential Assessment, technical, economic and achievable potential were utilized to determine the total potential savings that could be achieved through the installation of energy efficiency measures.

- The technical potential assessment evaluates the potential of all efficiency technologies and design practices, unconstrained by budgets or measure cost effectiveness.
- The economic potential assessment screens the list of potential efficiency measures, from the technical potential assessment, for cost-effectiveness according to societal cost effectiveness tests.
- Achievable potential is the maximum amount of energy savings from efficiency measures that can realistically be achieved in response to one or more of the following conditions:
  - The existence of real-world barriers with a need to encourage consumers to adopt energy efficiency measures;
  - The most aggressive program scenario possible, including rebates and incentives; and
  - Inclusion of comprehensive program costs including administration, marketing, data collection and tracking, and monitoring and evaluation.

Black Hills developed its energy efficiency program portfolio for 2016 through 2018 through a comprehensive planning process, including a comprehensive benefit-cost analysis of a wide range of measures that affect electricity consumption across all customer classes.

The Black Hills Plan is divided into three broad program categories based on customer sector – residential, commercial and industrial, and special programs. The residential, commercial and industrial programs provide a variety of energy efficiency opportunities for residential customers, small and large commercial customers, and industrial customers. Special programs target low-income residents, and education in schools.

The program portfolio is detailed in the table below by program by category.

**TABLE ES1: ENERGY EFFICIENCY PORTFOLIO SUMMARY**

| <b>Residential Energy Efficiency Programs</b>               |   |
|---|---|
| High Efficiency Lighting                                    | Point-of-purchase incentives for CFLs and LEDs.   |
| Appliance Recycling   | Incentives for recycling older, inefficient refrigerators, freezers, or room air conditioners.  |
| On-Site Energy Evaluation                                   | The program consists of two levels. <ul style="list-style-type: none"> <li>• Level 1. Evaluation and Direct Install</li> <li>• Level 2. In-Depth Evaluation, Direct Install and Incentives (air sealing, insulation and duct sealing)</li> </ul>  |
| High Efficiency Cooling                                     | Rebates to purchase and install heat pump water heaters, central air conditioners, heat pumps and evaporative coolers.  |
| Home Energy Comparison Reports                              | Behavior program utilizing customized energy reports.   |
| <b>Commercial and Industrial Energy Efficiency Programs</b> |   |
| C&I New Construction  | Incentives for the design and construction of new energy efficient buildings.   |
| C&I Custom  | Rebates for cost-effective non-prescriptive measures/equipment.   |
| C&I Self Direct   | Rebates for cost-effective non-prescriptive measures/equipment for customers with an aggregated peak demand higher than 1 MW in any single month and annual energy usage of 5,000 MWh.  |
| C&I Prescriptive  | Rebates for the purchase and installation of pre-qualified measures, including HVAC, motors and refrigeration.  |
| C&I Lighting  | The program is comprised of two components: <ul style="list-style-type: none"> <li>• Prescriptive Lighting. Standardized prescriptive rebates customers that purchase and install qualifying lighting measures.</li> <li>• Small Business Direct Install Lighting. Small commercial customers receive free evaluation and incentives that cover up to 70% of the equipment and installation.</li> </ul> |
| <b>Special Programs</b>                                     |   |
| Low Income Assistance Program                               | Qualifying customers receive: <ul style="list-style-type: none"> <li>• Lighting, refrigerators, and evaporative coolers at no cost.</li> <li>• Evaluation and direct install of measures at no cost.</li> </ul>   |
| School Education Program                                    | School children receive energy kits, plus education and information on how they can help parents save energy.   |





## 2016-2018 DSM Plan

### 1. Introduction

Black Hills is pleased to present this Energy Efficiency Program Portfolio to the Public Utilities Commission of the State of Colorado (“Commission”) for years 2016 through 2018. This Plan follows the previous two program cycles rolled out by Black Hills in 2009 and 2012.

House Bill 07-1037, *Concerning Measures to Promote Energy Efficiency, and Making an Appropriation Therefore*, was passed by the Colorado General Assembly and signed into law by Governor Ritter in 2007, and codified in relevant part at §§ 40-1-102(5), (6) and (7), C.R.S., as well as §§ 40-3.2-101 and 104, C.R.S. The bill establishes that:

...cost-effective natural gas and electricity demand-side management programs will save money for consumers and utilities and protect Colorado’s environment. The general assembly further finds, determines, and declares that providing funding mechanisms to encourage Colorado’s public utilities to reduce emissions or air pollutants and to increase energy efficiency are matters of statewide concern and that the public interest is served by providing such funding mechanisms. Such efforts will result in an improvement in the quality of life and health of Colorado citizens and an increase in the attractiveness of Colorado as a place to live and conduct business.<sup>1</sup>

Section 40-3.2-104(2), C.R.S., further charges the Commission to:

...establish energy savings and peak demand reduction goals to be achieved by an investor-owned electric utility, taking into account the utility’s cost-effective DSM potential, the need for electricity resources, the benefits of DSM investments, and other factors as determined by the commission. The energy savings and peak demand reduction goals shall be at least five percent of the utility’s retail system peak demand measured in megawatts in the base year and at least five percent of the utility’s retail energy sales measured in megawatt-hours in the base year. The base year shall be 2006. The goals shall be met in 2018, counting savings in 2018 from DSM measures installed starting in 2006. The commission may establish interim goals and may revise the goals as it deems appropriate.

Therefore, the Commission is tasked with ensuring that utilities develop and implement DSM programs that give customers an opportunity to participate, and consider the impact on non-participants and low income customers.

The Company’s energy-efficiency portfolio is composed of three broad categories: residential programs, commercial and industrial programs and special programs. Each program has been designed to address the needs of various customer types. The residential programs include lighting,

---

<sup>1</sup> § 40-3.2-101, C.R.S.

appliance recycling, high efficiency cooling, energy evaluation, home energy reports, and online evaluations. The commercial and industrial programs include new construction, prescriptive rebates, lighting, and custom rebates. The special programs include those targeted at low-income homes and education in schools.

In conjunction with the 2016-2018 DSM Plan, Black Hills completed a comprehensive potential study, contained in a separately filed document titled *Demand Side Management Potential Study*.

## 2. General Program Design Approach

The Black Hills 2016-2018 DSM Plan is based upon the combination of Black Hill's existing energy efficiency portfolio, the potential study, and a multi-criteria program development selection approach. Criteria included the potential study, analysis of other utility programs, cost-effectiveness, and stakeholder input.

The two tenets that guide the design of Black Hill's programs are:

- **The service territory benefits from energy efficiency programs.** As part of the overall strategy for meeting the needs of its customers, cost-effective energy-efficiency programs offer an alternative to the construction of infrastructure and purchase of fuel for generation.
- **Black Hills customers benefit from energy efficiency programs.** Energy efficiency can result in lower energy bills, immediately reducing program participant's consumption of electricity. Furthermore, the programs are designed to be inclusive, giving all customers the opportunity to benefit from participating in Black Hill's energy efficiency programs.

The Plan's design adhered to a comprehensive planning process. Whenever possible, the portfolio leverages existing resources to ensure comprehensive, cost-effective programs. The 2016-2018 DSM Plan includes twelve energy efficiency programs administered by Black Hills.

### a. Ability to Meet Commission Goals

The Black Hills program portfolio uses a combination of education, contractor training and customer incentives to advance energy efficiency in Colorado. To achieve the Commission's savings goals, it is important that the programs save energy and peak demand over the short- and long-term.

The programs have been designed to maximize participation given best practice marketing and incentive designs. In addition to ensuring participation while efficiently utilizing budget resources, incentives have been targeted to promote the adoption of qualifying Energy Efficiency Measures that maximize savings.<sup>2</sup>

Educating customers and trade allies on the benefits of energy efficiency can speed the adoption of energy efficient measures and promote the market transformation. This is a longer-term strategy of

---

<sup>2</sup> Energy Efficiency Measures are more efficient models of end-use appliances, such as central air conditioners or compact fluorescent lighting, or technological improvements that can make an end-use appliance more efficient in its use of energy (e.g. energy management systems). Energy Efficiency Measures that qualify for each program represent a substantial improvement over the standard efficiency model available on the market.

achieving savings with the end goal of market transformation. However, education complements the short-term strategy of offering rebates to achieve more immediate energy and demand savings.

### **b. Program Participation and Eligibility**

Program eligibility has been defined broadly to make programs as inclusive as possible. For most residential programs, eligible participants include customers living in every type of residential structure, including single-family, multi-family and manufactured homes. For specific programs, customers who have recently participated in a Black Hills program may be limited because repeated participation would not render sufficient savings to justify the expense.<sup>3</sup> In general, participation guidelines are designed to include all customer sectors and end uses.

### **c. Customer and Trade Ally Engagement**

Customer incentives are the primary mechanism for program delivery. Customers receive rebates to purchase energy efficient equipment and services through existing market actors, including contractors, equipment dealers and retailers. To achieve the portfolio's long-term savings goals, it will be necessary for Black Hills to engage customers, trade allies, and state and local agencies. Targeting trade allies and leveraging the Company's relationships with stakeholders will increase program awareness and promote the market adoption of high efficiency equipment/systems.

Marketing components of several programs include strategies to engage trade allies as well as state and local agencies. In some programs, portions of the budget have been reserved for training and informational outreach activities with trade allies. These activities are intended to keep key trade allies apprised of program changes, allowing them to better assist customers and ensure they maintain high-efficiency equipment in their stock.

Marketing and informational outreach activities are also aimed at customers, including the children of residential electric customers through targeted school programs. Creative and sustained marketing is important to a successful and robust energy efficiency program portfolio.

## **3. Benefit-Cost Analysis and Screening Inputs**

To determine the Black Hills portfolio of energy efficiency measures, a comprehensive benefit-cost analysis was conducted on a wide range of measures that affect electricity consumption across all customer classes.

Black Hills uses the Colorado Modified Total Resource Cost Test (mTRC) as the primary method of assessing the cost-effectiveness of energy efficiency measures and programs. The mTRC test is a widely-accepted methodology that has been used specifically in Colorado to assess cost-effectiveness. The mTRC measures the net costs of an energy efficiency program as a resource option based on the total costs of the program, including both the participant and the utility costs. This test represents the combination of the effects of a program on both participating and non-participating customers.

---

<sup>3</sup> For example, if a customer recycled their primary refrigerator in 2015, they would not benefit from recycling a new refrigerator in 2016.

There are four other tests that analyze cost-effectiveness from different perspectives:

- **Participant Cost Test:** quantifies the benefits and costs to the customer due to participation in a program. The benefits include reduction in the participant's bill and incentives received. The costs are out-of-pocket expenses incurred as a result of participation.
- **Ratepayer Impact Measure Cost Test:** measures what happens to a customer's bill or rates due to changes in utility revenues and operating costs. Benefits are the savings from avoided supply costs of energy and demand. Costs are the program costs incurred by the utility, participant incentives, and decreased utility revenues.
- **Utility Cost Test:** measures the net costs of a program as a resource option based on the costs incurred by the program administrator, excluding any net costs incurred by the participant. The benefits are the avoided supply costs of energy and demand. The costs are the program costs incurred by the utility and participant incentives.
- **Societal Cost Test:** is a variant of the mTRC, intended to determine the effects of a program on society as a whole. The benefits are the avoided supply costs of energy and demand as well as externalities (including environmental benefits, etc.). The costs are the program costs incurred by the utility and the participants.

The benefit-cost screening model has been adapted from Minnesota Office of Energy Security "BenCost" software and is consistent with the California Standard Practice Manual. The benefit-cost tests were performed using utility-specific data. The input data required for the model includes:

**TABLE 1{ TA \l "TABLE 11" \s "Table 11" \c 1 }: BENEFIT-COST MODEL INPUTS**

| General Inputs                          | Project-Specific Inputs                             |
|---|---|
| Retail Rate (\$/kWh)                    | Utility Project Costs (Administrative & Incentives) |
| Commodity Cost (\$/kWh)                 | Direct Participant Project Costs (\$/Participant)   |
| Demand Cost (\$/kW-Year)                | Project Life (Years)                                |
| Environmental Externality Cost (\$/kWh) | kWh/Participant Saved (Net and Gross)               |
| Discount Rate (%)                       | kW/Participant Saved (Net and Gross)                |
| Growth Rate (%)                         | Number of Participants                              |
| Line Losses (%)                         |   |

Savings estimates for individual measures or programs were developed using a variety of sources. Colorado-specific data was utilized where available, with regional and national data filling the information gaps. Impacts were calculated using generally accepted engineering algorithms based on a set of reasonable assumptions. Because of the diversity in equipment and energy consumption patterns across multiple building types and end-uses, there exists a variability in these savings estimates as they relate to program design and target markets, particularly at the planning stage of these programs.



#### **4. 2016-2018 DSM Plan Programs**

The composition of the 2016-2018 DSM Plan is based upon the combination of Black Hill's existing energy efficiency portfolio, the potential study, and a multi-criteria program development selection approach. AEG updated measure inputs utilizing Black Hill's program evaluations, historical program achievements, United States Department of Energy (DOE) federal standards and ENERGY STAR® standards, as well as others.

Recent changes to the DOE federal appliance standards have significantly impacted the savings potential of a number of appliances, including, but not limited to, the following residential measures:

- Room Air Conditioners
- Refrigerators
- Freezers
- Dishwashers
- Air Source Heat Pumps
- Lighting
- Clothes Washers

Program modifications and new programs were considered to achieve the Commission's goals and provide all Black Hills customers with access to cost-effective energy efficiency programs.

##### **a. Black Hills' 2016-2018 DSM Plan Portfolio – Budgets and Goals**

The Black Hills Plan is divided into three broad program categories based on customer sector – residential, commercial and industrial, and special programs. The residential programs provide a variety of energy efficiency opportunities for residential customers. The C&I programs provide a range of energy efficiency opportunities for both small and large commercial and industrial customers. Special programs target low-income residents and provide education on energy efficiency to middle school aged children and their parents. The table below summarizes the Plan being proposed, segmented by sector.



**TABLE 2: 2016-2018 DSM PLAN SUMMARY**

| <b>Residential Energy Efficiency Programs</b>               |  |
|---|--|
| High Efficiency Lighting                                    | Point-of-purchase incentives for CFLs and LEDs.  |
| Appliance Recycling   | Incentives for recycling older, inefficient refrigerators, freezers or room air conditioners.  |
| On-Site Energy Evaluation                                   | The program consists of two levels. <ul style="list-style-type: none"> <li>• Level 1. Evaluation and Direct Install</li> <li>• Level 2. In-Depth Evaluation, Direct Install and Incentives (air sealing, insulation and duct sealing)</li> </ul>   |
| High Efficiency Cooling                                     | Rebates to purchase and install heat pump water heaters, central air conditioners, heat pumps and evaporative coolers.   |
| Home Energy Comparison Reports                              | Behavior program utilizing customized energy reports.  |
| <b>Commercial and Industrial Energy Efficiency Programs</b> |  |
| C&I New Construction  | Incentives for the design and construction of new energy efficient buildings.  |
| C&I Custom  | Rebates for cost-effective non-prescriptive measures/equipment.  |
| C&I Self Direct   | Rebates for cost-effective non-prescriptive measures/equipment for customers with an aggregated peak demand higher than 1 MW in any single month and annual energy usage of 5,000 MWh.   |
| C&I Prescriptive  | Rebates for the purchase and installation of pre-qualified measures, including HVAC, motors and refrigeration.   |
| C&I Lighting  | The program is comprised of two components: <ul style="list-style-type: none"> <li>• Prescriptive Lighting. Standardized prescriptive rebates customers that purchase and install qualifying lighting measures.</li> <li>• Small Business Direct Install Lighting. Small commercial customers receive free evaluations and incentives that cover up to 70% of the equipment and installation.</li> </ul> |
| <b>Special Programs</b>                                     |  |
| Low Income Assistance Program                               | Qualifying customers receive: <ul style="list-style-type: none"> <li>• Lighting, refrigerators, and evaporative coolers at no cost.</li> <li>• Evaluation and direct install of measures at no cost.</li> </ul>  |
| School Education Program                                    | School children receive energy kits, plus education and information on how they can help parents save energy.  |

The tables below summarize the 2016-2018 DSM Plan budgets, participants, energy and demand savings, and mTRC ratios. Detailed benefit-cost analysis modeling results are available in Appendix A.

**TABLE 3: THREE YEAR PROGRAM SUMMARY, BY SECTOR<sup>4</sup>**

| Sector                      | 3 Year<br>mTRC | 2016               |                    |                     |                        |                         |
|-----------------------------|----------------|--------------------|--------------------|---------------------|------------------------|-------------------------|
|                             |                | Budget             | kW Goal<br>@ Meter | kWh Goal<br>@ Meter | kW Goal @<br>Generator | kWh Goal @<br>Generator |
| Residential                 | 2.32           | \$1,327,978        | 1,444              | 6,020,341           | 1,536                  | 6,407,449               |
| C&I                         | 3.41           | \$2,945,307        | 2,513              | 8,891,014           | 2,675                  | 9,462,706               |
| Special                     | 3.54           | \$1,028,026        | 959                | 2,013,891           | 1,020                  | 2,143,384               |
| General Administration      |                | \$187,500          |                    |                     |                        |                         |
| General Marketing/Education |                | \$187,500          |                    |                     |                        |                         |
| Evaluation                  |                | \$283,816          |                    |                     |                        |                         |
| <b>Total</b>                | <b>2.88</b>    | <b>\$5,960,126</b> | <b>4,916</b>       | <b>16,925,245</b>   | <b>5,232</b>           | <b>18,013,538</b>       |
| 2017                        |                |                    |                    |                     |                        |                         |
| Residential                 |                | \$1,353,506        | 1,646              | 7,117,048           | 1,751                  | 7,574,675               |
| C&I                         |                | \$3,126,354        | 2,657              | 9,443,588           | 2,828                  | 10,050,811              |
| Special                     |                | \$1,028,026        | 959                | 2,013,891           | 1,020                  | 2,143,384               |
| General Administration      |                | \$187,500          |                    |                     |                        |                         |
| General Marketing/Education |                | \$187,500          |                    |                     |                        |                         |
| Evaluation                  |                | \$294,144          |                    |                     |                        |                         |
| <b>Total</b>                |                | <b>\$6,177,030</b> | <b>5,261</b>       | <b>18,574,528</b>   | <b>5,599</b>           | <b>19,768,870</b>       |
| 2018                        |                |                    |                    |                     |                        |                         |
| Residential                 |                | \$1,432,992        | 1,705              | 7,390,062           | 1,814                  | 7,865,243               |
| C&I                         |                | \$3,303,271        | 2,803              | 9,982,329           | 2,983                  | 10,624,193              |
| Special                     |                | \$1,028,026        | 959                | 2,013,891           | 1,020                  | 2,143,384               |
| General Administration      |                | \$187,500          |                    |                     |                        |                         |
| General Marketing/Education |                | \$187,500          |                    |                     |                        |                         |
| Evaluation                  |                | \$346,964          |                    |                     |                        |                         |
| <b>Total</b>                |                | <b>\$6,486,252</b> | <b>5,466</b>       | <b>19,386,282</b>   | <b>5,818</b>           | <b>20,632,820</b>       |

<sup>4</sup> Note: For all budget and savings 'Totals' listed in each table, the sum of each line item may not equal the 'Total' due to rounding.



**TABLE 4: DETAILED PROGRAM BUDGET FOR 2016**

| Program Name                  | Incentives         | Admin            | Market           | Delivery           | Total              |
|-------------------------------|--------------------|------------------|------------------|--------------------|--------------------|
| High Efficiency Lighting      | \$317,175          | \$6,344          | \$6,344          | \$186,156          | \$516,018          |
| Appliance Recycling           | \$8,500            | \$425            | \$680            | \$38,150           | \$47,755           |
| On-Site Energy Evaluation     | \$52,473           | \$11,563         | \$18,500         | \$231,250          | \$313,786          |
| High Efficiency Cooling       | \$93,150           | \$4,658          | \$7,452          | \$60,200           | \$165,460          |
| Home Energy Comparison Report | \$0                | \$5,480          | \$5,480          | \$274,000          | \$284,960          |
| C&I New Construction          | \$15,300           | \$765            | \$1,224          | \$30,000           | \$47,289           |
| C&I Custom                    | \$551,000          | \$27,550         | \$44,080         | \$9,500            | \$632,130          |
| C&I Self Direct               | \$31,900           | \$479            | \$391            | \$500              | \$33,270           |
| C&I Prescriptive              | \$124,770          | \$4,991          | \$11,229         | \$6,900            | \$147,890          |
| C&I Lighting                  | \$1,386,225        | \$77,913         | \$124,760        | \$495,830          | \$2,084,728        |
| Low-Income Assistance         | \$0                | \$22,818         | \$36,508         | \$781,450          | \$840,776          |
| School Based Energy Education | \$0                | \$8,750          | \$3,500          | \$175,000          | \$187,250          |
| General Administration        | \$0                | \$0              | \$0              | \$0                | \$187,500          |
| General Marketing/Education   | \$0                | \$0              | \$0              | \$0                | \$187,500          |
| Evaluation                    | \$0                | \$0              | \$0              | \$0                | \$283,816          |
| <b>Total Program</b>          | <b>\$2,580,493</b> | <b>\$171,733</b> | <b>\$260,149</b> | <b>\$2,288,936</b> | <b>\$5,960,126</b> |

**TABLE 5: DETAILED PROGRAM BUDGET FOR 2017**

| Program Name                  | Incentives         | Admin            | Market           | Delivery           | Total              |
|-------------------------------|--------------------|------------------|------------------|--------------------|--------------------|
| High Efficiency Lighting      | \$336,175          | \$6,724          | \$6,724          | \$191,906          | \$541,528          |
| Appliance Recycling           | \$10,000           | \$500            | \$800            | \$44,900           | \$56,200           |
| On-Site Energy Evaluation     | \$57,462           | \$12,719         | \$20,350         | \$254,375          | \$344,906          |
| High Efficiency Cooling       | \$104,400          | \$5,220          | \$8,352          | \$64,100           | \$182,072          |
| Home Energy Comparison Report | \$0                | \$4,400          | \$4,400          | \$220,000          | \$228,800          |
| C&I New Construction          | \$15,300           | \$765            | \$1,224          | \$30,000           | \$47,289           |
| C&I Custom                    | \$623,500          | \$31,175         | \$49,880         | \$10,750           | \$715,305          |
| C&I Self Direct               | \$31,900           | \$479            | \$391            | \$500              | \$33,270           |
| C&I Prescriptive              | \$130,520          | \$5,221          | \$11,747         | \$7,360            | \$154,848          |
| C&I Lighting                  | \$1,447,515        | \$81,171         | \$130,276        | \$516,681          | \$2,175,643        |
| Low-Income Assistance         | \$0                | \$22,818         | \$36,508         | \$781,450          | \$840,776          |
| School Based Energy Education | \$0                | \$8,750          | \$3,500          | \$175,000          | \$187,250          |
| General Administration        | \$0                | \$0              | \$0              | \$0                | \$187,500          |
| General Marketing/Education   | \$0                | \$0              | \$0              | \$0                | \$187,500          |
| Evaluation                    | \$0                | \$0              | \$0              | \$0                | \$294,144          |
| <b>Total Program</b>          | <b>\$2,756,772</b> | <b>\$179,940</b> | <b>\$274,152</b> | <b>\$2,297,022</b> | <b>\$6,177,030</b> |

**TABLE 6: DETAILED PROGRAM BUDGET FOR 2018**

| Program Name                  | Incentives         | Admin            | Market           | Delivery           | Total              |
|-------------------------------|--------------------|------------------|------------------|--------------------|--------------------|
| High Efficiency Lighting      | \$355,175          | \$7,104          | \$7,104          | \$197,656          | \$567,038          |
| Appliance Recycling           | \$11,500           | \$575            | \$920            | \$51,650           | \$64,645           |
| On-Site Energy Evaluation     | \$62,709           | \$13,875         | \$22,200         | \$277,500          | \$376,284          |
| High Efficiency Cooling       | \$113,650          | \$5,683          | \$9,092          | \$67,800           | \$196,225          |
| Home Energy Comparison Report | \$0                | \$4,400          | \$4,400          | \$220,000          | \$228,800          |
| C&I New Construction          | \$15,300           | \$765            | \$1,224          | \$30,000           | \$47,289           |
| C&I Custom                    | \$696,000          | \$34,800         | \$55,680         | \$12,000           | \$798,480          |
| C&I Self Direct               | \$31,900           | \$479            | \$391            | \$500              | \$33,270           |
| C&I Prescriptive              | \$147,635          | \$5,905          | \$13,287         | \$8,050            | \$174,878          |
| C&I Lighting                  | \$1,498,790        | \$83,913         | \$134,891        | \$531,760          | \$2,249,354        |
| Low-Income Assistance         | \$0                | \$22,818         | \$36,508         | \$781,450          | \$840,776          |
| School Based Energy Education | \$0                | \$8,750          | \$3,500          | \$175,000          | \$187,250          |
| General Administration        | \$0                | \$0              | \$0              | \$0                | \$187,500          |
| General Marketing/Education   | \$0                | \$0              | \$0              | \$0                | \$187,500          |
| Evaluation                    | \$0                | \$0              | \$0              | \$0                | \$346,964          |
| <b>Total Program</b>          | <b>\$2,932,659</b> | <b>\$189,066</b> | <b>\$289,197</b> | <b>\$2,353,366</b> | <b>\$6,486,252</b> |

**TABLE 7: DETAILED PROGRAM SAVINGS AND PARTICIPANTS FOR 2016**

| Program Name                  | Participants   | kW Goal @ Meter | kWh Goal @ Meter  | kW Goal @ Generator | kWh Goal @ Generator |
|-------------------------------|----------------|-----------------|-------------------|---------------------|----------------------|
| High Efficiency Lighting      | 161,875        | 324             | 2,811,718         | 345                 | 2,992,511            |
| Appliance Recycling           | 310            | 22              | 170,879           | 24                  | 181,867              |
| On-Site Energy Evaluation     | 1,000          | 89              | 260,739           | 95                  | 277,504              |
| High Efficiency Cooling       | 602            | 538             | 517,005           | 572                 | 550,248              |
| Home Energy Comparison Report | 30,000         | 470             | 2,260,000         | 500                 | 2,405,318            |
| C&I New Construction          | 1              | 41              | 143,413           | 43                  | 152,635              |
| C&I Custom                    | 38             | 319             | 1,889,619         | 339                 | 2,011,121            |
| C&I Self Direct               | 2              | 17              | 99,454            | 18                  | 105,848              |
| C&I Prescriptive              | 60             | 234             | 273,113           | 250                 | 290,674              |
| C&I Lighting                  | 559            | 1,903           | 6,485,416         | 2,025               | 6,902,428            |
| Low-Income Assistance         | 1,889          | 835             | 929,404           | 889                 | 989,165              |
| School Based Energy Education | 2,500          | 124             | 1,084,487         | 132                 | 1,154,219            |
| <b>Total Program</b>          | <b>198,836</b> | <b>4,916</b>    | <b>16,925,245</b> | <b>5,232</b>        | <b>18,013,538</b>    |



**TABLE 8: DETAILED PROGRAM SAVINGS AND PARTICIPANTS FOR 2017**

| Program Name                  | Participants   | kW Goal @ Meter | kWh Goal @ Meter  | kW Goal @ Generator | kWh Goal @ Generator |
|-------------------------------|----------------|-----------------|-------------------|---------------------|----------------------|
| High Efficiency Lighting      | 166,875        | 338             | 2,927,185         | 359                 | 3,115,404            |
| Appliance Recycling           | 365            | 26              | 201,473           | 27                  | 214,427              |
| On-Site Energy Evaluation     | 1,100          | 99              | 288,318           | 105                 | 306,857              |
| High Efficiency Cooling       | 641            | 563             | 544,263           | 600                 | 579,259              |
| Home Energy Comparison Report | 27,300         | 620             | 3,155,809         | 660                 | 3,358,728            |
| Online Home Energy Evaluation | 0              | 0               | 0                 | 0                   | 0                    |
| C&I New Construction          | 1              | 41              | 143,413           | 43                  | 152,635              |
| C&I Custom                    | 43             | 361             | 2,138,253         | 384                 | 2,275,742            |
| C&I Self Direct               | 2              | 17              | 99,454            | 18                  | 105,848              |
| C&I Prescriptive              | 64             | 250             | 280,655           | 266                 | 298,701              |
| C&I Lighting                  | 595            | 1,989           | 6,781,814         | 2,117               | 7,217,885            |
| Low-Income Assistance         | 1,889          | 835             | 929,404           | 889                 | 989,165              |
| School Based Energy Education | 2,500          | 124             | 1,084,487         | 132                 | 1,154,219            |
| <b>Total Program</b>          | <b>201,375</b> | <b>5,261</b>    | <b>18,574,528</b> | <b>5,599</b>        | <b>19,768,870</b>    |

**TABLE 9: DETAILED PROGRAM SAVINGS AND PARTICIPANTS FOR 2018**

| Program Name                  | Participants   | kW Goal @ Meter | kWh Goal @ Meter  | kW Goal @ Generator | kWh Goal @ Generator |
|-------------------------------|----------------|-----------------|-------------------|---------------------|----------------------|
| High Efficiency Lighting      | 171,875        | 351             | 3,042,653         | 374                 | 3,238,296            |
| Appliance Recycling           | 420            | 29              | 232,066           | 31                  | 246,988              |
| On-Site Energy Evaluation     | 1,200          | 107             | 311,915           | 114                 | 331,971              |
| High Efficiency Cooling       | 678            | 587             | 569,908           | 625                 | 606,553              |
| Home Energy Comparison Report | 24,843         | 630             | 3,233,521         | 671                 | 3,441,436            |
| Online Home Energy Evaluation | 0              | 0               | 0                 | 0                   | 0                    |
| C&I New Construction          | 1              | 41              | 143,413           | 43                  | 152,635              |
| C&I Custom                    | 48             | 403             | 2,386,887         | 428                 | 2,540,363            |
| C&I Self Direct               | 2              | 17              | 99,454            | 18                  | 105,848              |
| C&I Prescriptive              | 70             | 278             | 318,840           | 296                 | 339,342              |
| C&I Lighting                  | 623            | 2,065           | 7,033,735         | 2,198               | 7,486,004            |
| Low-Income Assistance         | 1,889          | 835             | 929,404           | 889                 | 989,165              |
| School Based Energy Education | 2,500          | 124             | 1,084,487         | 132                 | 1,154,219            |
| <b>Total Program</b>          | <b>204,149</b> | <b>5,466</b>    | <b>19,386,282</b> | <b>5,818</b>        | <b>20,632,820</b>    |

The following sections contain detailed program descriptions of the proposed energy efficiency programs. Each description contains the following components:

- Program objective, target market and description.
- Implementation strategy, including delivery channels, education and outreach.
- Eligible measures and incentive levels.
- Estimated participation.
- Estimated energy savings and demand reductions.
- Estimated program budgets.



- Cost-effectiveness.

## **b. Evaluation, Measurement, and Verification of Programs**

Evaluation, measurement, and verification (EM&V) of programs will be performed on a three-year rotating schedule. That is, each program and sub-program will be analyzed to determine the extent to which implementation is achieving the desired goals(s) at some point during the life of the Plan. The schedule for EM&V for each program is:

**TABLE 10: EM&V SCHEDULE**

| <b>Program Name</b>           | <b>Sector</b>   | <b>Proposed EM&amp;V Year</b> |
|-------------------------------|-----------------|-------------------------------|
| Low-Income Assistance         | Residential     | 2016                          |
| On-Site Energy Evaluation     | Residential     | 2016                          |
| Home Energy Comparison Report | Residential     | 2016                          |
| Appliance Recycling           | Residential     | 2016                          |
| C&I Lighting                  | Non-residential | 2017                          |
| C&I Custom                    | Non-residential | 2017                          |
| C&I Prescriptive              | Non-residential | 2017                          |
| High Efficiency Cooling       | Residential     | 2017                          |
| C&I New Construction          | Non-residential | 2018                          |
| C&I Self Direct               | Non-residential | 2018                          |
| School Based Energy Education | Residential     | 2018                          |
| High Efficiency Lighting      | Residential     | 2018                          |

Black Hills will file the EM&V reports with the Commission in this proceeding no later than 30 days after completion. These EM&V reports will be filed in the year following the “Proposed EM&V Year.”

The principal purpose of comprehensive program evaluations is to assess customer satisfaction with the program being evaluated, assess changes that should be made to technical assumptions, including but not limited to, net-to-gross (NTG) ratios, assess overall program cost effectiveness, and assess program processes based on the evaluator’s own research as well as a thorough review of industry-wide and the Company’s own technical assumptions.

The Company will consider implementing recommended changes in the program year following the period of evaluation. These changes will not be “backward looking” and so shall not affect calculations, including calculations for achieved savings or net economic benefits, for the Plan year covered by the EM&V. Black Hills will, within thirty days after the annual filing of the EM&V, provide 60-Day and/or 90-Day Notice, as applicable, detailing which EM&V recommendations will be implemented.

## **c. Budget Flexibility**

Budget flexibility is important in order to effectively implement programs over multiple program years to meet energy savings targets. Black Hills will, during each Plan year, have the flexibility to move budget dollars between programs and customer segments within the Plan without further Commission authorization and approval, so long as the Company does not incur costs in excess of

115 percent of the applicable overall annual budget amount. This flexibility allows Black Hills to focus on achieving energy savings targets across the entire portfolio.

#### **d. Residential Programs**

##### *Residential High Efficiency Lighting Program*

|                                |   |
|--------------------------------|---|
| <b>Objective</b>               | Increase the penetration of efficient lighting in customer homes by providing incentives for the purchase of ENERGY STAR® qualified lighting.   |
| <b>Target Market</b>           | Residential customers, lighting manufacturers and local retailers.  |
| <b>Description</b>             | <p>ENERGY STAR® qualified CFLs and LEDs use up to 75% less energy than typical incandescent light bulbs. They also offer superior performance by lasting up to 10 times longer than incandescent bulbs, reducing the need to change hard-to-reach light bulbs.</p> <p>Customers may purchase up to 12 CFLs and 10 LEDs from local participating retailers at a reduced cost. Instant incentives are available at participating stores at the time of purchase. Incentives vary depending upon the product, retail location and associated retail cost.</p>  |
| <b>Program Goals</b>           | <ul style="list-style-type: none"> <li>• Help residential customers reduce their electricity bills.</li> <li>• Educate customers about the program and the benefits of installing CFLs and LEDs.</li> <li>• Develop partnerships with retailers to market the program and benefits of energy efficient lighting.</li> <li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li> <li>• Effectively install efficient lighting through the Black Hills Program.</li> <li>• Encourage energy saving behavior and awareness.</li> </ul>  |
| <b>Implementation Strategy</b> | <p>Black Hills will engage an implementation contractor to:</p> <ul style="list-style-type: none"> <li>• Establish relationships with lighting manufacturers and retailers throughout Black Hills' service territory.</li> <li>• Provide in-store promotional materials and retail sales staff training.</li> <li>• Track program performance, including tracking sales data, reviewing sales data for accuracy and payment to retailers.</li> <li>• Periodically report progress towards program goals and opportunities for improvement.</li> </ul> <p>Black Hills' marketing staff will work with the implementation contractor to market the program. Marketing tactics will include bill inserts, advertisements, and partnerships with participating retailers.</p> |



|                         |  |                              |   |           |           |
|-------------------------|--|------------------------------|---|-----------|-----------|
| Measures & Incentives   | Eligible Measure   |                              | Incentive per Unit                                |           |           |
|                         | Standard CFL   | \$0.90                       |   |           |           |
|                         | Specialty LED  | \$5.00                       |   |           |           |
|                         | Standard LED   | \$3.00                       |   |           |           |
| Estimated Participation | CFLs and LEDs are the number of bulbs that will be purchased through the program. Each customer is eligible to purchase up to 12 CFLs and 10 LEDs. |                              |   |           |           |
|                         | ****   | 2016                         | 2017  | 2018      |           |
|                         | Standard CFL   | 94,500                       | 94,500  | 94,500    |           |
|                         | Specialty LED  | 15,000                       | 17,000  | 19,000    |           |
|                         | Standard LED   | 52,375                       | 55,375  | 58,375    |           |
|                         | Total  | 161,875                      | 166,875   | 171,875   |           |
| Estimated Savings       | Net Energy Savings Goals   |                              |   |           |           |
|                         | Eligible Measure   | Net kWh per Bulb @ Meter     | Annual Net Energy Savings Goals (kWh) @ Meter     |           |           |
|                         |  |                              | 2016  | 2017      | 2018      |
|                         | Standard CFL   | 14                           | 1,330,376   | 1,330,376 | 1,330,376 |
|                         | Specialty LED  | 27                           | 402,577   | 456,254   | 509,931   |
|                         | Standard LED   | 21                           | 1,078,765   | 1,140,556 | 1,202,347 |
|                         | TOTAL  |                              | 2,811,718   | 2,927,185 | 3,042,653 |
|                         |  |                              |   |           |           |
|                         | Eligible Measure   | Net kWh per Bulb @ Generator | Annual Net Energy Savings Goals (kWh) @ Generator |           |           |
|                         |  |                              | 2016  | 2017      | 2018      |
|                         | Standard CFL   | 15                           | 1,415,919   | 1,415,919 | 1,415,919 |
|                         | Specialty LED  | 29                           | 428,462   | 485,591   | 542,719   |
|                         | Standard LED   | 22                           | 1,148,130   | 1,213,894 | 1,279,658 |
|                         | TOTAL  |                              | 2,992,511   | 3,115,404 | 3,238,296 |
|                         |  |                              |   |           |           |
|                         | Net Demand Savings Goals   |                              |   |           |           |
|                         | Eligible Measure   | Net kW per Bulb @ Meter      | Annual Net Demand Savings Goals (kW) @ Meter      |           |           |
|                         |  |                              | 2016  | 2017      | 2018      |
|                         | Standard CFL   | 0.002                        | 153.5   | 153.5     | 153.5     |
|                         | Specialty LED  | 0.003                        | 46.4  | 52.6      | 58.8      |
|                         | Standard LED   | 0.002                        | 124.4   | 131.6     | 138.7     |
|                         | TOTAL  |                              | 324   | 338       | 351       |
|                         |  |                              |   |           |           |
|                         | Eligible Measure   | Net kW per Bulb @ Generator  | Annual Net Demand Savings Goals (kW) @ Generator  |           |           |
|                         |  |                              | 2016  | 2017      | 2018      |
| Standard CFL            | 0.002  | 163.3                        | 163.3   | 163.3     |           |

|                           |                          |                  |                          |                           |                              |
|---------------------------|--------------------------|------------------|--------------------------|---------------------------|------------------------------|
|                           | Specialty LED            | 0.003            | 49.4                     | 56.0                      | 62.6                         |
|                           | Standard LED             | 0.003            | 132.4                    | 140.0                     | 147.6                        |
|                           | <b>TOTAL</b>             | <b>345</b>       | <b>359</b>               | <b>374</b>                |                              |
| <b>Estimated Budget</b>   | <b>Budget Categories</b> | <b>2016</b>      | <b>2017</b>              | <b>2018</b>               |                              |
|                           | Incentives               | \$317,175        | \$336,175                | \$355,175                 |                              |
|                           | Administration           | \$6,344          | \$6,724                  | \$7,104                   |                              |
|                           | Marketing                | \$6,344          | \$6,724                  | \$7,104                   |                              |
|                           | Delivery                 | \$186,156        | \$191,906                | \$197,656                 |                              |
|                           | <b>Total</b>             | <b>\$516,018</b> | <b>\$541,528</b>         | <b>\$567,038</b>          |                              |
| <b>Cost-Effectiveness</b> | <b>mTRC Test</b>         | <b>RIM Test</b>  | <b>Utility Cost Test</b> | <b>Societal Cost Test</b> | <b>Participant Cost Test</b> |
|                           | 1.42                     | 0.66             | 3.03                     | 1.51                      | 2.68                         |

### Residential Appliance Recycling Program

|                                |  |
|--------------------------------|--|
| <b>Objective</b>               | Promote the retirement of old, inefficient appliances.   |
| <b>Target Market</b>           | Residential customers disposing of primary or secondary inefficient refrigerators, freezers, or room air conditioners.   |
| <b>Description</b>             | <p>The program encourages residential customers to turn in their old inefficient refrigerators, freezers and room air conditioners, removing them from the electric system and disposing of them in an environmentally safe and responsible manner.</p> <p>Program requirements to recycle a refrigerator or freezer include:</p> <ul style="list-style-type: none"> <li>• Unit must be between 10 and 30 cubic feet in size.</li> <li>• Unit must be in working condition.</li> <li>• At time of pickup the unit must be empty and plugged into an electrical outlet.</li> <li>• The appliance must have a clear path for removal.</li> <li>• Units using ammonia or SO<sub>2</sub> refrigerant are excluded from participation.</li> <li>• Unit can be primary or secondary.</li> </ul> <p>Customers may recycle their old room air conditioners free of charge during a scheduled pick-up for a qualifying refrigerator/freezer. The recycled unit must be working at the time of pick-up. Customers are limited to two (2) refrigerator and freezer rebates and three (3) room air conditioners per household per year.</p> <p>Participating customers will receive a free energy savings kit, similar to the kit received in the School Based Energy Education program. A customer who is recycling multiple appliances will only receive one energy savings kit.</p> |
| <b>Program Goals</b>           | <ul style="list-style-type: none"> <li>• Educate customers about the energy and environmental benefit of recycling their inefficient appliances.</li> <li>• Increase customer awareness of Black Hills energy efficiency programs.</li> <li>• Reduce household energy consumption.</li> <li>• Influence consumer behavior by encouraging residential customers to avoid replacing their second refrigerator or freezer after it is recycled.</li> </ul>  |
| <b>Implementation Strategy</b> | <p>Black Hills will work with an implementation contractor to:</p> <ul style="list-style-type: none"> <li>• Schedule pickups from customer homes, verify appliance qualification, and remove appliance(s) from customer homes.</li> <li>• Process rebates.</li> <li>• Track program data.</li> </ul> <p>The implementation contractor will work with Black Hills to develop marketing strategies and materials. Marketing activities may include bill inserts, print and electronic advertisements, television and radio advertisements, media and community events, and direct mail.</p>  |



|                         |                          |          |                              |   |         |         |
|-------------------------|--------------------------|----------|------------------------------|---|---------|---------|
| Measures & Incentives   | Eligible Measure         | Unit     | Incentive per Unit           |   |         |         |
|                         | Refrigerator Recycle     | per unit | \$50                         |   |         |         |
|                         | Freezer Recycle          | per unit | \$50                         |   |         |         |
|                         | Room A/C Recycle         | per unit | \$50                         |   |         |         |
|                         | Energy Savings Kit       | per kit  | \$0                          |   |         |         |
| Estimated Participation | Eligible Measure         | 2016     | 2017                         | 2018  |         |         |
|                         | Refrigerator Recycle     | 100      | 115                          | 130   |         |         |
|                         | Freezer Recycle          | 40       | 50                           | 60  |         |         |
|                         | Room A/C Recycle         | 30       | 35                           | 40  |         |         |
|                         | Energy Savings Kit       | 140      | 165                          | 190   |         |         |
|                         | Total                    | 170      | 200                          | 230   |         |         |
| Estimated Savings       | Net Energy Savings Goals |          |                              |   |         |         |
|                         | Eligible Measure         | Unit     | Net kWh per Unit @ Meter     | Annual Net Energy Savings Goals (kWh) @ Meter     |         |         |
|                         |                          |          |                              | 2016  | 2017    | 2018    |
|                         | Refrigerator Recycle     | per unit | 782                          | 78,183  | 89,910  | 101,638 |
|                         | Freezer Recycle          | per unit | 855                          | 34,190  | 42,738  | 51,286  |
|                         | Room A/C Recycle         | per unit | 361                          | 10,835  | 12,641  | 14,446  |
|                         | Energy Savings Kit       | per kit  | 341                          | 47,671  | 56,183  | 64,696  |
|                         | TOTAL                    |          |                              | 170,879   | 201,473 | 232,066 |
|                         |                          |          |                              |   |         |         |
|                         | Eligible Measure         | Unit     | Net kWh per Unit @ Generator | Annual Net Energy Savings Goals (kWh) @ Generator |         |         |
|                         |                          |          |                              | 2016  | 2017    | 2018    |
|                         | Refrigerator Recycle     | per unit | 832                          | 83,210  | 95,692  | 108,173 |
|                         | Freezer Recycle          | per unit | 910                          | 36,389  | 45,486  | 54,583  |
|                         | Room A/C Recycle         | per unit | 384                          | 11,532  | 13,453  | 15,375  |
|                         | Energy Savings Kit       | per kit  | 362                          | 50,736  | 59,796  | 68,856  |
|                         | TOTAL                    |          |                              | 181,867   | 214,427 | 246,988 |
|                         |                          |          |                              |   |         |         |
|                         | Net Demand Savings Goals |          |                              |   |         |         |
|                         | Eligible Measure         | Unit     | Net kW per Unit @ Meter      | Annual Net Demand Savings Goals (kW) @ Meter      |         |         |
|                         |                          |          |                              | 2016  | 2017    | 2018    |
|                         | Refrigerator Recycle     | per unit | 0.117                        | 11.7  | 13.4    | 15.2    |
|                         | Freezer Recycle          | per unit | 0.027                        | 1.1   | 1.4     | 1.6     |
|                         | Room A/C Recycle         | per unit | 0.130                        | 3.9   | 4.5     | 5.2     |

|                           |                          |                 |                                    |   |                              |           |
|---------------------------|--------------------------|-----------------|------------------------------------|---|------------------------------|-----------|
|                           | Energy Savings Kit       | per kit         | 0.039                              | 5.4   | 6.4                          | 7.4       |
|                           | <b>TOTAL</b>             |                 |                                    | <b>22</b>   | <b>26</b>                    | <b>29</b> |
|                           |                          |                 |                                    |   |                              |           |
|                           | <b>Eligible Measure</b>  | <b>Unit</b>     | <b>Net kW per Unit @ Generator</b> | <b>Annual Net Demand Savings Goals (kW) @ Generator</b> |                              |           |
|                           | Refrigerator Recycle     | per unit        | 0.124                              | 12.4  | 14.3                         | 16.2      |
|                           | Freezer Recycle          | per unit        | 0.029                              | 1.2   | 1.4                          | 1.7       |
|                           | Room A/C Recycle         | per unit        | 0.138                              | 4.1   | 4.8                          | 5.5       |
|                           | Energy Savings Kit       | per kit         | 0.041                              | 5.8   | 6.8                          | 7.9       |
|                           | <b>TOTAL</b>             |                 |                                    | <b>24</b>   | <b>27</b>                    | <b>31</b> |
| <b>Estimated Budget</b>   | <b>Budget Categories</b> | <b>2016</b>     | <b>2017</b>                        | <b>2018</b>   |                              |           |
|                           | Incentives               | \$8,500         | \$10,000                           | \$11,500  |                              |           |
|                           | Administration           | \$425           | \$500                              | \$575   |                              |           |
|                           | Marketing                | \$680           | \$800                              | \$920   |                              |           |
|                           | Delivery                 | \$38,150        | \$44,900                           | \$51,650  |                              |           |
|                           | <b>Total</b>             | <b>\$47,755</b> | <b>\$56,200</b>                    | <b>\$64,645</b>   |                              |           |
| <b>Cost-Effectiveness</b> | <b>mTRC Test</b>         | <b>RIM Test</b> | <b>Utility Cost Test</b>           | <b>Societal Cost Test</b>                               | <b>Participant Cost Test</b> |           |
|                           | 1.66                     | 0.52            | 1.36                               | 1.76  | n/a                          |           |



### Residential On-Site Energy Evaluation Program

|                                |   |
|--------------------------------|---|
| <b>Objective</b>               | Encourage whole house improvement to existing homes.  |
| <b>Target Market</b>           | Residential customers that own or rent a residence.   |
| <b>Description</b>             | <p>The program consists of:</p> <p><b>Level 1.</b> Customers receive a home energy evaluation and direct installation of low-cost measures at no cost. The evaluation identifies potential efficiency improvements, educates the customer on managing energy costs and provides information about Company programs. The low-cost measures that may be installed include: faucet aerator, low-flow showerhead, water temperature setback, hot water pipe insulation and CFLs.</p> <p><b>Level 2.</b> Customers pay \$100 to receive a home energy evaluation with a blower door test. The evaluation identifies potential efficiency improvements, educates the customer on managing energy costs and provides information about Company programs. Low-cost measures will be installed at no cost to the customer. The measures that may be installed include: faucet aerator, low-flow showerhead, water temperature setback, hot water pipe insulation and CFLs.</p> <p>Customers are eligible to receive incentives for the purchase and installation of air sealing, insulation and duct sealing. Customers must have a second blower door test, verifying the savings, to receive an incentive for air sealing or duct sealing.</p> <p>Homeowner advisory services (concierge services) will be offered to homeowners on an as-needed basis. If the homeowner identifies that they need additional assistance, the auditor will spend up to 1.5 hours discussing energy efficiency options, equipment, and potential costs and savings. The number of hours per customer will vary, but will not exceed 1.5 hours. The discussion may take place via telephone, internet or telephone, based upon customer location, budget, and other constraints.</p> <p>Energy evaluations are limited to homes 10 years or older.</p> |
| <b>Program Goals</b>           | <ul style="list-style-type: none"> <li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li> <li>• Encourage energy saving behavior and whole house improvements.</li> <li>• Help residential customers reduce their electricity bills.</li> </ul>   |
| <b>Implementation Strategy</b> | <p>Black Hills will work with a third-party implementation contractor to:</p> <ul style="list-style-type: none"> <li>• Hire/sub-contract local staff to perform home evaluations, blower door test, direct measure installation and advisory services.</li> <li>• Engage customers and schedule home evaluation appointments.</li> <li>• Provide customer service support and advisory services.</li> <li>• Process rebate applications, including review and verification of applications and payment of customer rebates.</li> <li>• Track program performance.</li> </ul> <p>Marketing activities may include bill inserts, newspaper advertisements, direct mail, bill messaging, radio advertisements, and community events.</p>   |

| Measures & Incentives                         | Level 1 is provided at no cost to the customer. The Level 2 evaluation is provided at a cost of \$100 per home. Measure incentives are presented in the table below.  |                              |   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
|---|---|------------------------------|---|---------|---------|------------------|--------------------|--------------------------|---|-------------------------------|-------------------------------------|-----------------|-------------------------------------|-------------------------------|---|----------|-----|-----------------------|---------|---------|-------------|----------------------------|-----|--------|--------|---------------------------|------------------|-------------|------|------------------------|--------|--------|-----------------|--------------------|-------|--------|--------|--------|--------------|----------|-----|--------|--------|--------|-------|--|--|---------|---------|---------|------------------|------|------------------------------|---|--|--|----------------------------|----------|-----|---------|---------|---------|-------------|----------|-----|--------|--------|--------|------------------|-----------|---|--------|--------|--------|-----------------|-----------|---|--------|--------|--------|--------------|----------|-----|--------|--------|--------|-------|--|--|---------|---------|---------|
|   | <table><tr><th>Eligible Measure</th><th>Incentive per Unit</th></tr><tr><td>Air Sealing</td><td>50% of incremental cost, up to \$200</td></tr><tr><td>Attic Insulation</td><td>\$0.35 per square foot, up to \$500</td></tr><tr><td>Wall Insulation</td><td>\$0.65 per square foot, up to \$750</td></tr><tr><td>Duct Sealing</td><td>50% of incremental cost, up to \$200</td></tr></table>  |                              |   |         |         | Eligible Measure | Incentive per Unit | Air Sealing              | 50% of incremental cost, up to \$200          | Attic Insulation              | \$0.35 per square foot, up to \$500 | Wall Insulation | \$0.65 per square foot, up to \$750 | Duct Sealing                  | 50% of incremental cost, up to \$200          |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Eligible Measure                              | Incentive per Unit  |                              |   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Air Sealing                                   | 50% of incremental cost, up to \$200  |                              |   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Attic Insulation                              | \$0.35 per square foot, up to \$500   |                              |   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Wall Insulation                               | \$0.65 per square foot, up to \$750   |                              |   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Duct Sealing                                  | 50% of incremental cost, up to \$200  |                              |   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Estimated Participation                       | <table><tr><th>Eligible Measure</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Customer Evaluation (Level 1)</td><td>750</td><td>825</td><td>900</td></tr><tr><td>Customer Evaluation (Level 2)</td><td>250</td><td>275</td><td>300</td></tr><tr><td>Air Sealing (Level 2)</td><td>86</td><td>94</td><td>103</td></tr><tr><td>Attic Insulation (Level 2)</td><td>65</td><td>72</td><td>79</td></tr><tr><td>Wall Insulation (Level 2)</td><td>26</td><td>28</td><td>30</td></tr><tr><td>Duct Sealing (Level 2)</td><td>50</td><td>55</td><td>61</td></tr><tr><td>Total Participants</td><td>1,000</td><td>1,100</td><td>1,200</td></tr></table>   |                              |   |         |         | Eligible Measure | 2016               | 2017                     | 2018  | Customer Evaluation (Level 1) | 750                                 | 825             | 900                                 | Customer Evaluation (Level 2) | 250   | 275      | 300 | Air Sealing (Level 2) | 86      | 94      | 103         | Attic Insulation (Level 2) | 65  | 72     | 79     | Wall Insulation (Level 2) | 26               | 28          | 30   | Duct Sealing (Level 2) | 50     | 55     | 61              | Total Participants | 1,000 | 1,100  | 1,200  |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Eligible Measure                              | 2016  | 2017                         | 2018  |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Customer Evaluation (Level 1)                 | 750   | 825                          | 900   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Customer Evaluation (Level 2)                 | 250   | 275                          | 300   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Air Sealing (Level 2)                         | 86  | 94                           | 103   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Attic Insulation (Level 2)                    | 65  | 72                           | 79  |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Wall Insulation (Level 2)                     | 26  | 28                           | 30  |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Duct Sealing (Level 2)                        | 50  | 55                           | 61  |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Total Participants                            | 1,000   | 1,100                        | 1,200   |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Estimated Savings                             | <div>Net Energy Savings Goals</div> <table><tr><th rowspan="2">Eligible Measure</th><th rowspan="2">Unit</th><th rowspan="2">Net kWh per Unit @ Meter</th><th colspan="3">Annual Net Energy Savings Goals (kWh) @ Meter</th></tr><tr><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Customer Evaluation (Direct Install Measures)</td><td>per Home</td><td>145</td><td>144,630</td><td>159,093</td><td>173,556</td></tr><tr><td>Air Sealing</td><td>per Home</td><td>462</td><td>39,714</td><td>42,990</td><td>47,435</td></tr><tr><td>Attic Insulation</td><td>per Sq. Ft.</td><td>0.64</td><td>37,486</td><td>43,961</td><td>46,153</td></tr><tr><td>Wall Insulation</td><td>per Sq. Ft.</td><td>0.91</td><td>21,315</td><td>22,115</td><td>22,914</td></tr><tr><td>Duct Sealing</td><td>per Home</td><td>352</td><td>17,594</td><td>20,160</td><td>21,857</td></tr><tr><td colspan="3">TOTAL</td><td>260,739</td><td>288,318</td><td>311,915</td></tr></table> <div><table><tr><th>Eligible Measure</th><th>Unit</th><th>Net kWh per Unit @ Generator</th><th colspan="3">Annual Net Energy Savings Goals (kWh) @ Generator</th></tr><tr><td>Home Evaluation &amp; Measures</td><td>per Home</td><td>154</td><td>153,929</td><td>169,322</td><td>184,715</td></tr><tr><td>Air Sealing</td><td>per Home</td><td>491</td><td>42,267</td><td>45,754</td><td>50,486</td></tr><tr><td>Attic Insulation</td><td>per Sq Ft</td><td>1</td><td>39,897</td><td>46,787</td><td>49,121</td></tr><tr><td>Wall Insulation</td><td>per Sq Ft</td><td>1</td><td>22,686</td><td>23,536</td><td>24,387</td></tr><tr><td>Duct Sealing</td><td>per Home</td><td>375</td><td>18,725</td><td>21,457</td><td>23,262</td></tr><tr><td colspan="3">TOTAL</td><td>277,504</td><td>306,857</td><td>331,971</td></tr></table></div> |                              |   |         |         | Eligible Measure | Unit               | Net kWh per Unit @ Meter | Annual Net Energy Savings Goals (kWh) @ Meter |                               |                                     | 2016            | 2017                                | 2018                          | Customer Evaluation (Direct Install Measures) | per Home | 145 | 144,630               | 159,093 | 173,556 | Air Sealing | per Home                   | 462 | 39,714 | 42,990 | 47,435                    | Attic Insulation | per Sq. Ft. | 0.64 | 37,486                 | 43,961 | 46,153 | Wall Insulation | per Sq. Ft.        | 0.91  | 21,315 | 22,115 | 22,914 | Duct Sealing | per Home | 352 | 17,594 | 20,160 | 21,857 | TOTAL |  |  | 260,739 | 288,318 | 311,915 | Eligible Measure | Unit | Net kWh per Unit @ Generator | Annual Net Energy Savings Goals (kWh) @ Generator |  |  | Home Evaluation & Measures | per Home | 154 | 153,929 | 169,322 | 184,715 | Air Sealing | per Home | 491 | 42,267 | 45,754 | 50,486 | Attic Insulation | per Sq Ft | 1 | 39,897 | 46,787 | 49,121 | Wall Insulation | per Sq Ft | 1 | 22,686 | 23,536 | 24,387 | Duct Sealing | per Home | 375 | 18,725 | 21,457 | 23,262 | TOTAL |  |  | 277,504 | 306,857 | 331,971 |
| Eligible Measure                              | Unit  | Net kWh per Unit @ Meter     | Annual Net Energy Savings Goals (kWh) @ Meter     |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
|   |   |                              | 2016  | 2017    | 2018    |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Customer Evaluation (Direct Install Measures) | per Home  | 145                          | 144,630   | 159,093 | 173,556 |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Air Sealing                                   | per Home  | 462                          | 39,714  | 42,990  | 47,435  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Attic Insulation                              | per Sq. Ft.   | 0.64                         | 37,486  | 43,961  | 46,153  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Wall Insulation                               | per Sq. Ft.   | 0.91                         | 21,315  | 22,115  | 22,914  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Duct Sealing                                  | per Home  | 352                          | 17,594  | 20,160  | 21,857  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| TOTAL   |   |                              | 260,739   | 288,318 | 311,915 |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Eligible Measure                              | Unit  | Net kWh per Unit @ Generator | Annual Net Energy Savings Goals (kWh) @ Generator |         |         |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Home Evaluation & Measures                    | per Home  | 154                          | 153,929   | 169,322 | 184,715 |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Air Sealing                                   | per Home  | 491                          | 42,267  | 45,754  | 50,486  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Attic Insulation                              | per Sq Ft   | 1                            | 39,897  | 46,787  | 49,121  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Wall Insulation                               | per Sq Ft   | 1                            | 22,686  | 23,536  | 24,387  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| Duct Sealing                                  | per Home  | 375                          | 18,725  | 21,457  | 23,262  |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |
| TOTAL   |   |                              | 277,504   | 306,857 | 331,971 |                  |                    |                          |   |                               |                                     |                 |                                     |                               |   |          |     |                       |         |         |             |                            |     |        |        |                           |                  |             |      |                        |        |        |                 |                    |       |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |                  |      |                              |   |  |  |                            |          |     |         |         |         |             |          |     |        |        |        |                  |           |   |        |        |        |                 |           |   |        |        |        |              |          |     |        |        |        |       |  |  |         |         |         |



|                  |   |                 |             |                             |  |                    |                       |
|------------------|---|-----------------|-------------|-----------------------------|--|--------------------|-----------------------|
|                  | Net Demand Savings Goals                      |                 |             |                             |  |                    |                       |
|                  | Eligible Measure                              |                 | Unit        | Net kW per Unit @ Meter     | Annual Net Demand Savings Goals (kW) @ Meter     |                    |                       |
|                  |   |                 |             |                             | 2016   | 2017               | 2018                  |
|                  | Customer Evaluation (Direct Install Measures) |                 | per Home    | 0.019                       | 19   | 21                 | 22                    |
|                  | Air Sealing                                   |                 | per Home    | 0.288                       | 25   | 27                 | 30                    |
|                  | Attic Insulation                              |                 | per Sq. Ft. | 0.0004                      | 22   | 26                 | 27                    |
|                  | Wall Insulation                               |                 | per Sq. Ft. | 0.0005                      | 12   | 13                 | 13                    |
|                  | Duct Sealing                                  |                 | per Home    | 0.230                       | 12   | 13                 | 14                    |
|                  | TOTAL   |                 |             | 89                          | 99   | 107                |                       |
|                  |   |                 |             |                             |  |                    |                       |
|                  | Eligible Measure                              |                 | Unit        | Net kW per Unit @ Generator | Annual Net Demand Savings Goals (kW) @ Generator |                    |                       |
|                  |   |                 |             |                             |  |                    |                       |
|                  | Home Evaluation & Measures                    |                 | per Home    | 0.020                       | 20   | 22                 | 24                    |
|                  | Air Sealing                                   |                 | per Home    | 0.306                       | 26   | 29                 | 32                    |
| Attic Insulation |   | per Square Foot | 0.000       | 24                          | 27   | 29                 |                       |
| Wall Insulation  |   | per Square Foot | 0.001       | 13                          | 14   | 14                 |                       |
| Duct Sealing     |   | per Home        | 0.245       | 12                          | 13   | 15                 |                       |
| TOTAL            |   |                 | 95          | 105                         | 114  |                    |                       |
| Estimated Budget | Budget Categories                             |                 | 2016        | 2017                        | 2018   |                    |                       |
|                  | Incentives                                    |                 | \$52,473    | \$57,462                    | \$62,709   |                    |                       |
|                  | Administration                                |                 | \$11,563    | \$12,719                    | \$13,875   |                    |                       |
|                  | Marketing                                     |                 | \$18,500    | \$20,350                    | \$22,200   |                    |                       |
|                  | Delivery                                      |                 | \$231,250   | \$254,375                   | \$277,500  |                    |                       |
|                  | Total   |                 | \$313,786   | \$344,906                   | \$376,284  |                    |                       |
|                  | Cost-Effectiveness                            | mTRC Test       |             | RIM Test                    | Utility Cost Test                                | Societal Cost Test | Participant Cost Test |
| 1.74             |   | 0.72            | 2.22        | 1.78                        | 4.92   |                    |                       |



### Residential High Efficiency Cooling Program

| Objective                                | Encourage contractors and distributors to use energy efficiency as a marketing tool, stocking and selling more efficient units and moving the entire residential cooling market toward greater energy efficiency.  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
|--|--|--|------------------|-----------|------------------------|-------|-------------------------------|-------|--|-------|---|---------|-------------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|----------------------|-------|----------------------|---------|
| Target Market                            | Residential customers, trade allies and distributors.  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Description                              | <p>The program encourages residential customers to purchase and install energy-efficient heat pump water heaters, evaporative coolers, central air conditioners, and heat pumps by providing financial incentives to offset a portion of the equipment’s higher initial cost.</p> <p>HVAC contractors receive training on Quality Installations, which focus on air and duct sealing. The Manual J course trains HVAC contractors to properly size equipment and accurately perform and document cooling load calculations. The System Charging and Airflow course covers airflow and charging procedures, standards and includes hands-on training in the use of testing equipment. HVAC contractors will receive a \$100 incentive for Quality Installation of the HVAC unit.</p>  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Program Goals                            | <ul style="list-style-type: none"><li>• Educate customers about the benefits of installing efficient HVAC equipment.</li><li>• Develop partnerships with contractors to bring efficient cooling systems to the market.</li><li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li><li>• Effectively install efficient cooling equipment through the Black Hills program.</li><li>• Help residential customers reduce their electricity bills.</li><li>• Build consumer confidence in the reliability of savings estimates through an educated and highly trained contract services team.</li></ul>  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Implementation Strategy                  | Strong relationships have been formed with retailers and trade to promote participation. These relationships will be cultivated to drive new participants into the program. Marketing activities may include bill inserts, direct mail, and newspaper, radio and billboard advertising.  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Measures & Incentives                    | <table><tr><th>Eligible Measure</th><th>Incentive</th></tr><tr><td>Heat Pump Water Heater</td><td>\$500</td></tr><tr><td>Evaporative Cooler &gt;2,500 CFM</td><td>\$100</td></tr><tr><td>Evaporative Cooler Media Saturation &gt;85%</td><td>\$400</td></tr><tr><td>Evaporative Cooler – Whole House Cooler</td><td>\$1,000</td></tr><tr><td>Heat Pump Ductless Mini Split</td><td>\$300</td></tr><tr><td>Air Conditioner SEER 15</td><td>\$250</td></tr><tr><td>Air Conditioner SEER 16</td><td>\$400</td></tr><tr><td>Air Conditioner SEER 17</td><td>\$550</td></tr><tr><td>Heat Pump SEER 15</td><td>\$250</td></tr><tr><td>Heat Pump SEER 16</td><td>\$450</td></tr><tr><td>Heat Pump SEER 17</td><td>\$650</td></tr><tr><td>Quality Installation</td><td>\$100</td></tr><tr><td>Geothermal Heat Pump</td><td>\$1,500</td></tr></table> |  | Eligible Measure | Incentive | Heat Pump Water Heater | \$500 | Evaporative Cooler >2,500 CFM | \$100 | Evaporative Cooler Media Saturation >85% | \$400 | Evaporative Cooler – Whole House Cooler | \$1,000 | Heat Pump Ductless Mini Split | \$300 | Air Conditioner SEER 15 | \$250 | Air Conditioner SEER 16 | \$400 | Air Conditioner SEER 17 | \$550 | Heat Pump SEER 15 | \$250 | Heat Pump SEER 16 | \$450 | Heat Pump SEER 17 | \$650 | Quality Installation | \$100 | Geothermal Heat Pump | \$1,500 |
| Eligible Measure                         | Incentive  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Heat Pump Water Heater                   | \$500  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Evaporative Cooler >2,500 CFM            | \$100  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Evaporative Cooler Media Saturation >85% | \$400  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Evaporative Cooler – Whole House Cooler  | \$1,000  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Heat Pump Ductless Mini Split            | \$300  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Air Conditioner SEER 15                  | \$250  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Air Conditioner SEER 16                  | \$400  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Air Conditioner SEER 17                  | \$550  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Heat Pump SEER 15                        | \$250  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Heat Pump SEER 16                        | \$450  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Heat Pump SEER 17                        | \$650  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Quality Installation                     | \$100  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |
| Geothermal Heat Pump                     | \$1,500  |  |                  |           |                        |       |                               |       |  |       |   |         |                               |       |                         |       |                         |       |                         |       |                   |       |                   |       |                   |       |                      |       |                      |         |

|                                |  |             |             |             |
|--------------------------------|--|-------------|-------------|-------------|
|                                |  |             |             |             |
| <b>Estimated Participation</b> | <b>Eligible Measure</b>                  | <b>2016</b> | <b>2017</b> | <b>2018</b> |
|                                | Heat Pump Water Heater                   | 8           | 8           | 8           |
|                                | Evaporative Cooler >2,500 CFM            | 480         | 500         | 520         |
|                                | Evaporative Cooler Media Saturation >85% | 8           | 8           | 8           |
|                                | Evaporative Cooler – Whole House Cooler  | 8           | 10          | 10          |
|                                | Heat Pump Ductless Mini Split            | 30          | 30          | 30          |
|                                | Air Conditioner SEER 15                  | 20          | 25          | 30          |
|                                | Air Conditioner SEER 16                  | 30          | 35          | 40          |
|                                | Air Conditioner SEER 17                  | 5           | 7           | 9           |
|                                | Heat Pump SEER 15                        | 6           | 8           | 10          |
|                                | Heat Pump SEER 16                        | 2           | 4           | 6           |
|                                | Quality Installation                     | 3           | 3           | 3           |
|                                | Geothermal Heat Pump                     | 2           | 3           | 4           |
|                                | <b>Total</b>                             | <b>602</b>  | <b>641</b>  | <b>678</b>  |

**Estimated Savings**

**Net Energy Savings Goals**

| Eligible Measure                         | Unit | Net kWh per Unit @ Meter | Annual Net Energy Savings Goals (kWh) @ Meter |                |                |
|--|------|--------------------------|---|----------------|----------------|
|  |      |                          | 2016  | 2017           | 2018           |
| Heat Pump Water Heater                   | Unit | 939                      | 7,512   | 7,512          | 7,512          |
| Evaporative Cooler >2,500 CFM            | Unit | 944                      | 453,024                                       | 471,900        | 490,776        |
| Evaporative Cooler Media Saturation >85% | Unit | 944                      | 7,550   | 7,550          | 7,550          |
| Evaporative Cooler - Whole House Cooler  | Unit | 807                      | 6,456   | 8,070          | 8,070          |
| Heat Pump Ductless Mini Split            | Ton  | 462                      | 20,786  | 20,786         | 20,786         |
| Air Conditioner SEER 15                  | Ton  | 62                       | 3,695   | 4,619          | 5,543          |
| Air Conditioner SEER 16                  | Ton  | 87                       | 7,795   | 9,094          | 10,393         |
| Air Conditioner SEER 17                  | Ton  | 109                      | 1,630   | 2,282          | 2,934          |
| Heat Pump SEER 15                        | Ton  | 91                       | 1,640   | 2,187          | 2,734          |
| Heat Pump SEER 16                        | Ton  | 116                      | 697   | 1,394          | 2,091          |
| Quality Installation SEER 16             | Unit | 313                      | 626   | 626            | 626            |
| Quality Installation SEER 17             | Unit | 295                      | 295   | 295            | 295            |
| Geothermal Heat Pump                     | Ton  | 883                      | 5,299   | 7,949          | 10,598         |
| <b>TOTAL</b>                             |      |                          | <b>517,005</b>                                | <b>544,263</b> | <b>569,908</b> |

| Eligible Measure                         | Unit | Net kWh per Unit @ Generator | Annual Net Energy Savings Goals (kWh) @ Generator |         |         |
|--|------|------------------------------|---|---------|---------|
| Heat Pump Water Heater                   | Unit | 999                          | 7,995   | 7,995   | 7,995   |
| Evaporative Cooler >2,500 CFM            | Unit | 1,004                        | 482,153   | 502,243 | 522,333 |
| Evaporative Cooler Media Saturation >85% | Unit | 1,004                        | 8,036   | 8,036   | 8,036   |
| Evaporative Cooler - Whole House Cooler  | Unit | 859                          | 6,871   | 8,589   | 8,589   |
| Heat Pump Ductless Mini Split            | Ton  | 492                          | 22,123  | 22,123  | 22,123  |



|                              |      |     |                |                |                |
|------------------------------|------|-----|----------------|----------------|----------------|
| Air Conditioner SEER 15      | Ton  | 66  | 3,933          | 4,916          | 5,899          |
| Air Conditioner SEER 16      | Ton  | 92  | 8,296          | 9,679          | 11,061         |
| Air Conditioner SEER 17      | Ton  | 116 | 1,735          | 2,429          | 3,123          |
| Heat Pump SEER 15            | Ton  | 97  | 1,746          | 2,328          | 2,910          |
| Heat Pump SEER 16            | Ton  | 124 | 742            | 1,483          | 2,225          |
| Quality Installation SEER 16 | Unit | 333 | 666            | 666            | 666            |
| Quality Installation SEER 17 | Unit | 313 | 313            | 313            | 313            |
| Geothermal Heat Pump         | Ton  | 940 | 5,640          | 8,460          | 11,280         |
| <b>TOTAL</b>                 |      |     | <b>550,248</b> | <b>579,259</b> | <b>606,553</b> |

#### Net Demand Savings Goals

| Eligible Measure                         | Unit | Net kW per Unit | Annual Net Demand Savings Goals (kW) |      |      |
|--|------|-----------------|--------------------------------------|------|------|
|  |      |                 | 2016                                 | 2017 | 2018 |
| Heat Pump Water Heater                   | Unit | 0.044           | 0.4                                  | 0.4  | 0.4  |
| Evaporative Cooler >2,500 CFM            | Unit | 1.047           | 503                                  | 523  | 544  |
| Evaporative Cooler Media Saturation >85% | Unit | 1.047           | 8.4                                  | 8.4  | 8.4  |
| Evaporative Cooler - Whole House Cooler  | Unit | 0.895           | 7.2                                  | 9.0  | 9.0  |
| Heat Pump Ductless Mini Split            | Ton  | 0.153           | 6.9                                  | 6.9  | 6.9  |
| Air Conditioner SEER 15                  | Ton  | 0.053           | 3.2                                  | 4.0  | 4.8  |
| Air Conditioner SEER 16                  | Ton  | 0.053           | 4.8                                  | 5.6  | 6.4  |
| Air Conditioner SEER 17                  | Ton  | 0.068           | 1.0                                  | 1.4  | 1.8  |
| Heat Pump SEER 15                        | Ton  | 0.033           | 0.6                                  | 0.8  | 1.0  |



|                              |  |           |                             |  |                       |       |
|------------------------------|--|-----------|-----------------------------|--|-----------------------|-------|
|                              | Heat Pump SEER 16                        | Ton       | 0.033                       | 0.2  | 0.4                   | 0.6   |
|                              | Quality Installation SEER 16             | Unit      | 0.480                       | 1.0  | 1.0                   | 1.0   |
|                              | Quality Installation SEER 17             | Unit      | 0.462                       | 0.5  | 0.5                   | 0.5   |
|                              | TOTAL                                    |           |                             | 538  | 563                   | 587   |
|                              |  |           |                             |  |                       |       |
|                              | Eligible Measure                         | Unit      | Net kW per Unit @ Generator | Annual Net Demand Savings Goals (kW) @ Generator |                       |       |
|                              | Heat Pump Water Heater                   | Unit      | 0.047                       | 0.4  | 0.4                   | 0.4   |
|                              | Evaporative Cooler >2,500 CFM            | Unit      | 1.114                       | 534.8  | 557.1                 | 579.4 |
|                              | Evaporative Cooler Media Saturation >85% | Unit      | 1.114                       | 8.9  | 8.9                   | 8.9   |
|                              | Evaporative Cooler - Whole House Cooler  | Unit      | 0.953                       | 7.6  | 9.5                   | 9.5   |
|                              | Heat Pump Ductless Mini Split            | Ton       | 0.163                       | 7.3  | 7.3                   | 7.3   |
|                              | Air Conditioner SEER 15                  | Ton       | 0.057                       | 3.4  | 4.3                   | 5.1   |
|                              | Air Conditioner SEER 16                  | Ton       | 0.057                       | 5.1  | 6.0                   | 6.8   |
|                              | Air Conditioner SEER 17                  | Ton       | 0.073                       | 1.1  | 1.5                   | 2.0   |
|                              | Heat Pump SEER 15                        | Ton       | 0.035                       | 0.6  | 0.8                   | 1.0   |
| Heat Pump SEER 16            | Ton                                      | 0.035     | 0.2                         | 0.4  | 0.6                   |       |
| Quality Installation SEER 16 | Unit                                     | 0.511     | 1.0                         | 1.0  | 1.0                   |       |
| Quality Installation SEER 17 | Unit                                     | 0.491     | 0.5                         | 0.5  | 0.5                   |       |
| Geothermal Heat Pump         | Ton                                      | 0.191     | 1.1                         | 1.7  | 2.3                   |       |
| TOTAL                        |  |           | 572                         | 600  | 625                   |       |
|                              |  |           |                             |  |                       |       |
| Estimated Budget             | Budget Categories                        | 2016      | 2017                        | 2018   |                       |       |
|                              | Incentives                               | \$93,150  | \$104,400                   | \$113,650  |                       |       |
|                              | Administration                           | \$4,658   | \$5,220                     | \$5,683  |                       |       |
|                              | Marketing                                | \$7,452   | \$8,352                     | \$9,092  |                       |       |
|                              | Delivery                                 | \$60,200  | \$64,100                    | \$67,800   |                       |       |
|                              | Total                                    | \$165,460 | \$182,072                   | \$196,225  |                       |       |
| Cost-Effectiveness           | mTRC Test                                | RIM Test  | Utility Cost Test           | Societal Cost Test                               | Participant Cost Test |       |
|                              | 8.37                                     | 2.71      | 11.77                       | 8.50   | 5.99                  |       |

### Residential Home Energy Comparison Report Program

| Objective   | Encourage reduced energy consumption through behavioral change.  |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
|---|--|-----------|-----------|--|--------------------------|------|------|--------|--------|--------|------|------|---|----|-----|-----|---|-----------|-----------|-----------|---|----|-----|-----|---|-----------|-----------|-----------|
| Target Market                                     | Residential single family homes.   |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Description                                       | The Home Energy Comparison Report Program provides individualized energy use information to customers while simultaneously offering recommendations on how to save money and energy by making changes to energy consuming behaviors. Energy reports are sent periodically to customer households to give them awareness and a peer comparison of their energy usage. Social competitiveness increases behavior to reduce energy consumption.   |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Program Goals                                     | <ul style="list-style-type: none"><li>• Build utility-customer relationship.</li><li>• Increase awareness of the Black Hills energy efficiency portfolio.</li><li>• Increase customer awareness of energy consumption patterns.</li><li>• Educate residential customers about the opportunities to reduce energy consumption.</li></ul>  |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Implementation Strategy                           | The Company will work with an implementation contractor that specializes in developing and issuing residential energy reports. The implementation contractor will select report recipients and a control group, design the reports and develop customized energy reduction tips with input from Black Hills. The program will cross-promote the Black Hills energy efficiency portfolio.   |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Measures & Incentives                             | Customers receive energy reports. There is no monetary incentive.  |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Estimated Participation                           | <table><tr><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>30,000</td><td>27,300</td><td>24,843</td></tr></table>  |           |           |  | 2016                     | 2017 | 2018 | 30,000 | 27,300 | 24,843 |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| 2016  | 2017   | 2018      |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| 30,000  | 27,300   | 24,843    |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Estimated Savings                                 | <table><tr><th colspan="4">Net Energy Savings Goals</th></tr><tr><th></th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Net Energy Savings per Customer (kWh) @ Meter</td><td>75</td><td>116</td><td>130</td></tr><tr><td>Net Annual Energy Savings Goals (kWh) @ Meter</td><td>2,260,000</td><td>3,155,809</td><td>3,233,521</td></tr><tr><td>Net Energy Savings per Customer (kWh) @ Generator</td><td>80</td><td>123</td><td>139</td></tr><tr><td>Net Annual Energy Savings Goals (kWh) @ Generator</td><td>2,405,318</td><td>3,358,728</td><td>3,441,436</td></tr></table> |           |           |  | Net Energy Savings Goals |      |      |        |        | 2016   | 2017 | 2018 | Net Energy Savings per Customer (kWh) @ Meter | 75 | 116 | 130 | Net Annual Energy Savings Goals (kWh) @ Meter | 2,260,000 | 3,155,809 | 3,233,521 | Net Energy Savings per Customer (kWh) @ Generator | 80 | 123 | 139 | Net Annual Energy Savings Goals (kWh) @ Generator | 2,405,318 | 3,358,728 | 3,441,436 |
| Net Energy Savings Goals                          |  |           |           |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
|   | 2016   | 2017      | 2018      |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Net Energy Savings per Customer (kWh) @ Meter     | 75   | 116       | 130       |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Net Annual Energy Savings Goals (kWh) @ Meter     | 2,260,000  | 3,155,809 | 3,233,521 |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Net Energy Savings per Customer (kWh) @ Generator | 80   | 123       | 139       |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |
| Net Annual Energy Savings Goals (kWh) @ Generator | 2,405,318  | 3,358,728 | 3,441,436 |  |                          |      |      |        |        |        |      |      |   |    |     |     |   |           |           |           |   |    |     |     |   |           |           |           |

|                           |  |                  |                          |                           |                              |
|---------------------------|--|------------------|--------------------------|---------------------------|------------------------------|
|                           | <b>Net Demand Savings Goals</b>                  |                  |                          |                           |                              |
|                           |  | <b>2016</b>      | <b>2017</b>              | <b>2018</b>               |                              |
|                           | Net Demand Savings per Customer (kW) @ Meter     | 0.02             | 0.02                     | 0.03                      |                              |
|                           | Net Annual Demand Savings Goals (kW) @ Meter     | 470              | 620                      | 630                       |                              |
|                           | Net Demand Savings per Customer (kW) @ Generator | 80               | 123                      | 139                       |                              |
|                           | Net Annual Demand Savings Goals (kW) @ Generator | 2,405,318        | 3,358,728                | 3,441,436                 |                              |
| <b>Estimated Budget</b>   | <b>Budget Categories</b>                         |                  |                          |                           |                              |
|                           | Incentives                                       | \$0              | \$0                      | \$0                       |                              |
|                           | Administration                                   | \$5,480          | \$4,400                  | \$4,400                   |                              |
|                           | Marketing  | \$5,480          | \$4,400                  | \$4,400                   |                              |
|                           | Delivery   | \$274,000        | \$220,000                | \$220,000                 |                              |
|                           | <b>Total</b>                                     | <b>\$284,960</b> | <b>\$228,800</b>         | <b>\$228,800</b>          |                              |
| <b>Cost-Effectiveness</b> | <b>mTRC Test</b>                                 | <b>RIM Test</b>  | <b>Utility Cost Test</b> | <b>Societal Cost Test</b> | <b>Participant Cost Test</b> |
|                           | 1.19   | 0.55             | 1.19                     | 1.25                      | n/a                          |



## e. Commercial and Industrial Programs

### *C&I New Construction Program*

|                      |  |
|----------------------|--|
| <b>Objective</b>     | Promote energy-efficiency in new construction and major renovation projects.                 |
| <b>Target Market</b> | Commercial and industrial customers and builders for new construction and major renovations. |

| Description   | <p>The program encourages customers and builders to incorporate energy efficiency into new construction and major building renovations. Customers can follow one of four tracks:</p> <ul style="list-style-type: none"><li>• <b>Track I.</b> Targets small commercial buildings, between 5,000 and 15,000 square feet in size, that are primarily design or construction. Buildings must achieve 15% savings over IECC code.</li><li>• <b>Track II.</b> Targets buildings larger than 15,000 square feet that are straightforward in design and may be on a faster design schedule. Track II provides evaluation of efficiency options of one type of mechanical system solution. Buildings must achieve 15% savings over IECC code.</li><li>• <b>Track III.</b> Targets buildings larger than 15,000 square feet that have energy savings goals in mind and time to integrate new ideas and strategies into the design. Buildings are typically modeled to achieve energy savings of 30 to 40% greater than IECC code.</li><li>• <b>Track IV.</b> Track IV offers incentives and assistance to help building owners or developers achieve energy savings of 40 to 60% better than current IECC code.</li></ul> <p>Customers are eligible for design and construction incentives:</p> <ul style="list-style-type: none"><li>• <b>Design Incentives.</b> BHE’s independent energy design consultant facilitates design team planning of various energy-saving strategies. Incentives are provided to the owner’s team of professionals to help offset expenses associated with program participation. The design team payment is a one-time lump sum amount paid to the design team lead and based on the program track.</li><li>• <b>Construction Incentives.</b> Must achieve a minimum energy savings of 15% higher than IECC code. Incentives are paid upon receipt of the final energy verification report.</li></ul> <p>Incentives cannot reduce overall payback to less than one year. Customers cannot receive incentives for these measures through other energy efficiency programs offered by BHE.</p> <table><tr><th>Track</th><th>Design Incentive</th><th>Construction Incentive</th></tr><tr><td>I</td><td>\$1,000</td><td>\$0.06–0.19/kWh</td></tr><tr><td>II</td><td>\$3,500</td><td>\$0.06–0.19/kWh</td></tr><tr><td>III</td><td>\$5,500</td><td>\$0.06–0.19/kWh</td></tr><tr><td>IV</td><td>\$6,500 - \$8,500</td><td>\$0.17–0.19/kWh</td></tr></table> | Track            | Design Incentive       | Construction Incentive | I | \$1,000 | \$0.06–0.19/kWh | II | \$3,500 | \$0.06–0.19/kWh | III | \$5,500 | \$0.06–0.19/kWh | IV | \$6,500 - \$8,500 | \$0.17–0.19/kWh |
|---------------|---|------------------|------------------------|------------------------|---|---------|-----------------|----|---------|-----------------|-----|---------|-----------------|----|-------------------|-----------------|
|               | Track   | Design Incentive | Construction Incentive |                        |   |         |                 |    |         |                 |     |         |                 |    |                   |                 |
|               | I   | \$1,000          | \$0.06–0.19/kWh        |                        |   |         |                 |    |         |                 |     |         |                 |    |                   |                 |
|               | II  | \$3,500          | \$0.06–0.19/kWh        |                        |   |         |                 |    |         |                 |     |         |                 |    |                   |                 |
|               | III   | \$5,500          | \$0.06–0.19/kWh        |                        |   |         |                 |    |         |                 |     |         |                 |    |                   |                 |
| IV            | \$6,500 - \$8,500   | \$0.17–0.19/kWh  |                        |                        |   |         |                 |    |         |                 |     |         |                 |    |                   |                 |
| Program Goals | <ul style="list-style-type: none"><li>• Education of C&amp;I customers about the benefits of green buildings.</li><li>• Develop partnerships with design and construction firms that specialize in green building.</li><li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li><li>• Help commercial and industrial customers reduce their electricity bills.</li></ul>   |                  |                        |                        |   |         |                 |    |         |                 |     |         |                 |    |                   |                 |

| Implementation Strategy                           | <p>The Company will engage an implementation contractor to:</p> <ul style="list-style-type: none"><li>• Review, screen and pre-qualify energy design projects.</li><li>• As needed, facilitate meetings with the client design team to develop energy conservation strategies.</li><li>• Develop the energy design report, detailing implementation, energy savings and payback for potential strategies.</li><li>• Review construction documents and verify equipment/system installation.</li><li>• Process customer applications and customer incentives.</li><li>• Track program performance.</li></ul> <p>The program will be marketed primarily through partnerships with Black Hills trade allies, design firms, and building developers. Other marketing may include newspaper advertisements, email blasts or targeted mailings to customers and contractors, bill inserts, and advertising in building development trade publications.</p> |                        |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
|---|--|------------------------|------------------|------------------------|------|---|-----------------|----------|----------|---|---------|---------|-----------------|--|-------------------|-----------------|---------|--|----------|----------|----------|-------|----------|----------|----------|
| Measures & Incentives                             | <p>Incentives vary depending upon the building square footage and energy savings.</p> <table><tr><th>Track</th><th>Design Incentive</th><th>Construction Incentive</th></tr><tr><td>I</td><td>\$1,000</td><td>\$0.06–0.19/kWh</td></tr><tr><td>II</td><td>\$3,500</td><td>\$0.06–0.19/kWh</td></tr><tr><td>III</td><td>\$5,500</td><td>\$0.06–0.19/kWh</td></tr><tr><td>IV</td><td>\$6,500 - \$8,500</td><td>\$0.17–0.19/kWh</td></tr></table>   | Track                  | Design Incentive | Construction Incentive | I    | \$1,000                                       | \$0.06–0.19/kWh | II       | \$3,500  | \$0.06–0.19/kWh                                   | III     | \$5,500 | \$0.06–0.19/kWh | IV   | \$6,500 - \$8,500 | \$0.17–0.19/kWh |         |  |          |          |          |       |          |          |          |
| Track   | Design Incentive   | Construction Incentive |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| I   | \$1,000  | \$0.06–0.19/kWh        |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| II  | \$3,500  | \$0.06–0.19/kWh        |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| III   | \$5,500  | \$0.06–0.19/kWh        |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| IV  | \$6,500 - \$8,500  | \$0.17–0.19/kWh        |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Estimated Participation                           | <table><tr><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>1</td><td>1</td><td>1</td></tr></table>   | 2016                   | 2017             | 2018                   | 1    | 1   | 1               |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| 2016  | 2017   | 2018                   |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| 1   | 1  | 1                      |                  |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Estimated Savings                                 | <p>The savings in the table below are estimated based upon average historical customer savings. Actual savings will vary by project.</p> <p><b>Annual Net Energy and Demand Savings Goals</b></p> <table><tr><th></th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Annual Net Energy Savings Goals (kWh) @ Meter</td><td>143,413</td><td>143,413</td><td>143,413</td></tr><tr><td>Annual Net Energy Savings Goals (kWh) @ Generator</td><td>152,635</td><td>152,635</td><td>152,635</td></tr><tr><td>Annual Net Demand Savings Goals (kW) @ Meter</td><td>41</td><td>41</td><td>41</td></tr><tr><td>Annual Net Demand Savings Goals (kW) @ Generator</td><td>43</td><td>43</td><td>43</td></tr></table>   |                        | 2016             | 2017                   | 2018 | Annual Net Energy Savings Goals (kWh) @ Meter | 143,413         | 143,413  | 143,413  | Annual Net Energy Savings Goals (kWh) @ Generator | 152,635 | 152,635 | 152,635         | Annual Net Demand Savings Goals (kW) @ Meter | 41                | 41              | 41      | Annual Net Demand Savings Goals (kW) @ Generator | 43       | 43       | 43       |       |          |          |          |
|   | 2016   | 2017                   | 2018             |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Annual Net Energy Savings Goals (kWh) @ Meter     | 143,413  | 143,413                | 143,413          |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Annual Net Energy Savings Goals (kWh) @ Generator | 152,635  | 152,635                | 152,635          |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Annual Net Demand Savings Goals (kW) @ Meter      | 41   | 41                     | 41               |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Annual Net Demand Savings Goals (kW) @ Generator  | 43   | 43                     | 43               |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Estimated Budget                                  | <table><tr><th>Budget Categories</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Incentives</td><td>\$15,300</td><td>\$15,300</td><td>\$15,300</td></tr><tr><td>Administration</td><td>\$765</td><td>\$765</td><td>\$765</td></tr><tr><td>Marketing</td><td>\$1,224</td><td>\$1,224</td><td>\$1,224</td></tr><tr><td>Delivery</td><td>\$30,000</td><td>\$30,000</td><td>\$30,000</td></tr><tr><td>Total</td><td>\$47,289</td><td>\$47,289</td><td>\$47,289</td></tr></table>   | Budget Categories      | 2016             | 2017                   | 2018 | Incentives                                    | \$15,300        | \$15,300 | \$15,300 | Administration                                    | \$765   | \$765   | \$765           | Marketing                                    | \$1,224           | \$1,224         | \$1,224 | Delivery   | \$30,000 | \$30,000 | \$30,000 | Total | \$47,289 | \$47,289 | \$47,289 |
| Budget Categories                                 | 2016   | 2017                   | 2018             |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Incentives  | \$15,300   | \$15,300               | \$15,300         |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Administration                                    | \$765  | \$765                  | \$765            |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Marketing   | \$1,224  | \$1,224                | \$1,224          |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Delivery  | \$30,000   | \$30,000               | \$30,000         |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |
| Total   | \$47,289   | \$47,289               | \$47,289         |                        |      |   |                 |          |          |   |         |         |                 |  |                   |                 |         |  |          |          |          |       |          |          |          |



|                           |                  |                 |                          |                           |                              |
|---------------------------|------------------|-----------------|--------------------------|---------------------------|------------------------------|
| <b>Cost-Effectiveness</b> | <b>mTRC Test</b> | <b>RIM Test</b> | <b>Utility Cost Test</b> | <b>Societal Cost Test</b> | <b>Participant Cost Test</b> |
|                           | 3.59             | 1.57            | 5.57                     | 3.73                      | 3.41                         |

### C&I Custom Program

| <b>Objective</b>               | Encourage commercial and industrial facilities to purchase and install energy efficient equipment.   |             |                              |            |        |                  |        |                   |        |              |        |
|--------------------------------|--|-------------|------------------------------|------------|--------|------------------|--------|-------------------|--------|--------------|--------|
| <b>Target Market</b>           | Commercial and industrial customers.   |             |                              |            |        |                  |        |                   |        |              |        |
| <b>Description</b>             | <p>Equipment that does not qualify for a prescriptive rebate will be eligible for a custom rebate. Applications must be pre-approved by Black Hills before equipment is purchased and installed. The projects must (1) have an incremental payback of 1 year or longer and (2) have a societal benefit-to-cost ratio of 1.0 or higher.</p> <p>Incentives are the lesser of:</p> <ul style="list-style-type: none"> <li>• 50% of the incremental project cost</li> <li>• \$ per kWh saved based on project size</li> </ul> <table border="1"> <thead> <tr> <th>kWh Savings</th><th>Incentive \$ per kWh Savings</th></tr> </thead> <tbody> <tr> <td>0 – 30,000</td><td>\$0.30</td></tr> <tr> <td>30,000 – 100,000</td><td>\$0.25</td></tr> <tr> <td>100,000 – 250,000</td><td>\$0.20</td></tr> <tr> <td>&gt;250,000 kWh</td><td>\$0.15</td></tr> </tbody> </table> <p>A \$500,000 incentive cap is imposed per facility per program year. Multiple rebate applications for different measures may be submitted.</p> | kWh Savings | Incentive \$ per kWh Savings | 0 – 30,000 | \$0.30 | 30,000 – 100,000 | \$0.25 | 100,000 – 250,000 | \$0.20 | >250,000 kWh | \$0.15 |
| kWh Savings                    | Incentive \$ per kWh Savings   |             |                              |            |        |                  |        |                   |        |              |        |
| 0 – 30,000                     | \$0.30   |             |                              |            |        |                  |        |                   |        |              |        |
| 30,000 – 100,000               | \$0.25   |             |                              |            |        |                  |        |                   |        |              |        |
| 100,000 – 250,000              | \$0.20   |             |                              |            |        |                  |        |                   |        |              |        |
| >250,000 kWh                   | \$0.15   |             |                              |            |        |                  |        |                   |        |              |        |
| <b>Goals</b>                   | <ul style="list-style-type: none"> <li>• Educate C&amp;I customers about the benefits of installing energy efficient equipment.</li> <li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li> <li>• Effectively install efficient equipment/systems through the Black Hills program.</li> <li>• Help commercial and industrial customers reduce their electricity bills.</li> </ul>  |             |                              |            |        |                  |        |                   |        |              |        |
| <b>Implementation Strategy</b> | <p>Black Hills will engage an implementation contractor to:</p> <ul style="list-style-type: none"> <li>• Review pre-approved applications</li> <li>• Process customer applications, verify eligibility, and process customer rebates.</li> <li>• Conduct QA/QC to verify equipment installation.</li> <li>• Track program performance.</li> </ul> <p>The marketing strategy includes partnerships with Black Hills trade allies and distributors as well as direct customer marketing. The implementation contractor may work with Black Hills program staff to develop partnerships with contractors and distributors through trade ally breakfasts and other informational events. Direct customer marketing may include newspaper advertisements, email blasts or targeted mailings, bill inserts, and advertising in trade publications.</p>   |             |                              |            |        |                  |        |                   |        |              |        |

| Measures & Incentives                             | Incentives, up to a maximum cap of \$500,000 per facility, are the lesser of: <ul style="list-style-type: none"><li>• 50% of the incremental project cost</li><li>• \$ per kWh saved based on project size</li></ul> <table><tr><th>kWh Savings</th><th>Incentive \$ per kWh Savings</th></tr><tr><td>0 – 30,000</td><td>\$0.30</td></tr><tr><td>30,000 – 100,000</td><td>\$0.25</td></tr><tr><td>100,000 – 250,000</td><td>\$0.20</td></tr><tr><td>&gt;250,000 kWh</td><td>\$0.15</td></tr></table>   |                   |                    |                       |  | kWh Savings       | Incentive \$ per kWh Savings | 0 – 30,000        | \$0.30             | 30,000 – 100,000      | \$0.25  | 100,000 – 250,000 | \$0.20    | >250,000 kWh   | \$0.15    |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
|---|--|-------------------|--------------------|-----------------------|--|-------------------|------------------------------|-------------------|--------------------|-----------------------|---|-------------------|-----------|----------------|-----------|---|----------|-----------|-----------|-----------|--|----------|---------|----------|----------|--|-----------|-----------|-----------|-----|
| kWh Savings                                       | Incentive \$ per kWh Savings   |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| 0 – 30,000  | \$0.30   |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| 30,000 – 100,000                                  | \$0.25   |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| 100,000 – 250,000                                 | \$0.20   |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| >250,000 kWh                                      | \$0.15   |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Estimated Participation                           | <table><tr><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>38</td><td>43</td><td>48</td></tr></table>  |                   |                    |                       |  | 2016              | 2017                         | 2018              | 38                 | 43                    | 48  |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| 2016  | 2017   | 2018              |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| 38  | 43   | 48                |                    |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Estimated Savings                                 | <p>The savings per customer in the table below are estimated based upon average historical customer savings. Actual savings will vary by project.</p> <p><b>Annual Net Energy and Demand Savings Goals</b></p> <table><tr><th></th><th>Net Savings per Customer</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Annual Net Energy Savings Goals (kWh) @ Meter</td><td>49,727</td><td>1,989,072</td><td>2,237,706</td><td>2,486,340</td></tr><tr><td>Annual Net Energy Savings Goals (kWh) @ Generator</td><td>52,924</td><td>2,011,121</td><td>2,275,742</td><td>2,540,363</td></tr><tr><td>Annual Net Demand Savings Goals (kW) @ Meter</td><td>8.4</td><td>335</td><td>377</td><td>419</td></tr><tr><td>Annual Net Demand Savings Goals (kW) @ Generator</td><td>8.9</td><td>339</td><td>384</td><td>428</td></tr></table> |                   |                    |                       |  |                   | Net Savings per Customer     | 2016              | 2017               | 2018                  | Annual Net Energy Savings Goals (kWh) @ Meter | 49,727            | 1,989,072 | 2,237,706      | 2,486,340 | Annual Net Energy Savings Goals (kWh) @ Generator | 52,924   | 2,011,121 | 2,275,742 | 2,540,363 | Annual Net Demand Savings Goals (kW) @ Meter | 8.4      | 335     | 377      | 419      | Annual Net Demand Savings Goals (kW) @ Generator | 8.9       | 339       | 384       | 428 |
|   | Net Savings per Customer   | 2016              | 2017               | 2018                  |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Annual Net Energy Savings Goals (kWh) @ Meter     | 49,727   | 1,989,072         | 2,237,706          | 2,486,340             |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Annual Net Energy Savings Goals (kWh) @ Generator | 52,924   | 2,011,121         | 2,275,742          | 2,540,363             |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Annual Net Demand Savings Goals (kW) @ Meter      | 8.4  | 335               | 377                | 419                   |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Annual Net Demand Savings Goals (kW) @ Generator  | 8.9  | 339               | 384                | 428                   |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Estimated Budget                                  | <table><tr><th>Budget Categories</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Incentives</td><td>\$551,000</td><td>\$623,500</td><td>\$696,000</td></tr><tr><td>Administration</td><td>\$27,550</td><td>\$31,175</td><td>\$34,800</td></tr><tr><td>Marketing</td><td>\$44,080</td><td>\$49,880</td><td>\$55,680</td></tr><tr><td>Delivery</td><td>\$9,500</td><td>\$10,750</td><td>\$12,000</td></tr><tr><td>Total</td><td>\$632,130</td><td>\$715,305</td><td>\$798,480</td></tr></table>  |                   |                    |                       |  | Budget Categories | 2016                         | 2017              | 2018               | Incentives            | \$551,000                                     | \$623,500         | \$696,000 | Administration | \$27,550  | \$31,175  | \$34,800 | Marketing | \$44,080  | \$49,880  | \$55,680                                     | Delivery | \$9,500 | \$10,750 | \$12,000 | Total  | \$632,130 | \$715,305 | \$798,480 |     |
| Budget Categories                                 | 2016   | 2017              | 2018               |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Incentives  | \$551,000  | \$623,500         | \$696,000          |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Administration                                    | \$27,550   | \$31,175          | \$34,800           |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Marketing   | \$44,080   | \$49,880          | \$55,680           |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Delivery  | \$9,500  | \$10,750          | \$12,000           |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Total   | \$632,130  | \$715,305         | \$798,480          |                       |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| Cost-Effectiveness                                | <table><tr><th>mTRC Test</th><th>RIM Test</th><th>Utility Cost Test</th><th>Societal Cost Test</th><th>Participant Cost Test</th></tr><tr><td>2.76</td><td>1.20</td><td>4.21</td><td>2.90</td><td>2.74</td></tr></table>   |                   |                    |                       |  | mTRC Test         | RIM Test                     | Utility Cost Test | Societal Cost Test | Participant Cost Test | 2.76  | 1.20              | 4.21      | 2.90           | 2.74      |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| mTRC Test   | RIM Test   | Utility Cost Test | Societal Cost Test | Participant Cost Test |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |
| 2.76  | 1.20   | 4.21              | 2.90               | 2.74                  |  |                   |                              |                   |                    |                       |   |                   |           |                |           |   |          |           |           |           |  |          |         |          |          |  |           |           |           |     |



### C&I Self Direct

| <b>Objective</b>               | Encourage commercial and industrial facilities to purchase and install energy efficient equipment.  |             |                              |            |        |                  |        |                   |        |              |        |
|--------------------------------|---|-------------|------------------------------|------------|--------|------------------|--------|-------------------|--------|--------------|--------|
| <b>Target Market</b>           | Commercial and industrial customers.  |             |                              |            |        |                  |        |                   |        |              |        |
| <b>Description</b>             | <p>Equipment that does not qualify for a prescriptive rebate will be eligible for a custom rebate. Applications must be pre-approved by Black Hills before equipment is purchased and installed. The projects must (1) have an incremental payback of 1 year or longer, (2) have a societal benefit-to-cost ratio of 1.0 or higher, and (3) customers must have an aggregated peak load greater than 1 MW in any single month and aggregated annual energy usage of 5,000 MWh.</p> <p>Incentives are consistent with the Custom program and are the lesser of:</p> <ul style="list-style-type: none"> <li>• 50% of the incremental project cost</li> <li>• \$ per kWh saved based on project size</li> </ul> <table border="1"> <thead> <tr> <th>kWh Savings</th><th>Incentive \$ per kWh Savings</th></tr> </thead> <tbody> <tr> <td>0 – 30,000</td><td>\$0.30</td></tr> <tr> <td>30,000 – 100,000</td><td>\$0.25</td></tr> <tr> <td>100,000 – 250,000</td><td>\$0.20</td></tr> <tr> <td>&gt;250,000 kWh</td><td>\$0.15</td></tr> </tbody> </table> <p>Self-direct incentives will have a 10% adder to the value of the incentive from the Custom rebate. Incentives are reflected as a bill credit against the customer's monthly DSM surcharge until the total amount of the rebate has been recouped through bill credits.</p> <p>Multiple rebate applications for different measures may be submitted.</p> | kWh Savings | Incentive \$ per kWh Savings | 0 – 30,000 | \$0.30 | 30,000 – 100,000 | \$0.25 | 100,000 – 250,000 | \$0.20 | >250,000 kWh | \$0.15 |
| kWh Savings                    | Incentive \$ per kWh Savings  |             |                              |            |        |                  |        |                   |        |              |        |
| 0 – 30,000                     | \$0.30  |             |                              |            |        |                  |        |                   |        |              |        |
| 30,000 – 100,000               | \$0.25  |             |                              |            |        |                  |        |                   |        |              |        |
| 100,000 – 250,000              | \$0.20  |             |                              |            |        |                  |        |                   |        |              |        |
| >250,000 kWh                   | \$0.15  |             |                              |            |        |                  |        |                   |        |              |        |
| <b>Goals</b>                   | <ul style="list-style-type: none"> <li>• Educate C&amp;I customers about the benefits of installing energy efficient equipment.</li> <li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li> <li>• Effectively install efficient equipment/systems through the Black Hills program.</li> <li>• Help commercial and industrial customers reduce their electricity bills.</li> </ul>   |             |                              |            |        |                  |        |                   |        |              |        |
| <b>Implementation Strategy</b> | <p>Black Hills will engage an implementation contractor to:</p> <ul style="list-style-type: none"> <li>• Review pre-approved applications</li> <li>• Process customer applications, verify eligibility, and process customer rebates.</li> <li>• Conduct QA/QC to verify equipment installation.</li> <li>• Track program performance.</li> </ul> <p>The marketing strategy includes partnerships with Black Hills trade allies and distributors as well as direct customer marketing. The implementation contractor may work with Black Hills program staff to develop partnerships with contractors and distributors through trade ally breakfasts and other informational events. Direct customer marketing may include newspaper advertisements, email blasts or targeted mailings, bill inserts, and advertising in trade publications.</p>  |             |                              |            |        |                  |        |                   |        |              |        |

| Measures & Incentives                             | <p>Incentives, are the lesser of:</p> <ul style="list-style-type: none"><li>• 50% of the incremental project cost</li><li>• \$ per kWh saved based on project size</li></ul> <table><tr><th>kWh Savings</th><th>Incentive \$ per kWh Savings</th></tr><tr><td>0 – 30,000</td><td>\$0.30</td></tr><tr><td>30,000 – 100,000</td><td>\$0.25</td></tr><tr><td>100,000 – 250,000</td><td>\$0.20</td></tr><tr><td>&gt;250,000 kWh</td><td>\$0.15</td></tr></table> <p>Self-direct incentives will have a 10% adder to the value of the incentive from the Custom rebate.</p>  |                   |                    |                       |  | kWh Savings       | Incentive \$ per kWh Savings | 0 – 30,000        | \$0.30             | 30,000 – 100,000      | \$0.25  | 100,000 – 250,000 | \$0.20   | >250,000 kWh   | \$0.15 |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
|---|---|-------------------|--------------------|-----------------------|--|-------------------|------------------------------|-------------------|--------------------|-----------------------|---|-------------------|----------|----------------|--------|---|--------|-----------|---------|---------|--|----------|-------|-------|-------|--|----------|----------|----------|----|
| kWh Savings                                       | Incentive \$ per kWh Savings  |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| 0 – 30,000  | \$0.30  |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| 30,000 – 100,000                                  | \$0.25  |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| 100,000 – 250,000                                 | \$0.20  |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| >250,000 kWh                                      | \$0.15  |                   |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Estimated Participation                           | <table><tr><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>2</td><td>2</td><td>2</td></tr></table>  |                   |                    |                       |  | 2016              | 2017                         | 2018              | 2                  | 2                     | 2   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| 2016  | 2017  | 2018              |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| 2   | 2   | 2                 |                    |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Estimated Savings                                 | <p>Actual savings will vary by project.</p> <p><b>Annual Net Energy and Demand Savings Goals</b></p> <table><tr><th></th><th>Net Savings per Customer</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Annual Net Energy Savings Goals (kWh) @ Meter</td><td>49,727</td><td>99,454</td><td>99,454</td><td>99,454</td></tr><tr><td>Annual Net Energy Savings Goals (kWh) @ Generator</td><td>52,924</td><td>105,848</td><td>105,848</td><td>105,848</td></tr><tr><td>Annual Net Demand Savings Goals (kW) @ Meter</td><td>8.4</td><td>17</td><td>17</td><td>17</td></tr><tr><td>Annual Net Demand Savings Goals (kW) @ Generator</td><td>8.9</td><td>18</td><td>18</td><td>18</td></tr></table> |                   |                    |                       |  |                   | Net Savings per Customer     | 2016              | 2017               | 2018                  | Annual Net Energy Savings Goals (kWh) @ Meter | 49,727            | 99,454   | 99,454         | 99,454 | Annual Net Energy Savings Goals (kWh) @ Generator | 52,924 | 105,848   | 105,848 | 105,848 | Annual Net Demand Savings Goals (kW) @ Meter | 8.4      | 17    | 17    | 17    | Annual Net Demand Savings Goals (kW) @ Generator | 8.9      | 18       | 18       | 18 |
|   | Net Savings per Customer  | 2016              | 2017               | 2018                  |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Annual Net Energy Savings Goals (kWh) @ Meter     | 49,727  | 99,454            | 99,454             | 99,454                |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Annual Net Energy Savings Goals (kWh) @ Generator | 52,924  | 105,848           | 105,848            | 105,848               |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Annual Net Demand Savings Goals (kW) @ Meter      | 8.4   | 17                | 17                 | 17                    |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Annual Net Demand Savings Goals (kW) @ Generator  | 8.9   | 18                | 18                 | 18                    |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Estimated Budget                                  | <table><tr><th>Budget Categories</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Incentives</td><td>\$31,900</td><td>\$31,900</td><td>\$31,900</td></tr><tr><td>Administration</td><td>\$479</td><td>\$479</td><td>\$479</td></tr><tr><td>Marketing</td><td>\$391</td><td>\$391</td><td>\$391</td></tr><tr><td>Delivery</td><td>\$500</td><td>\$500</td><td>\$500</td></tr><tr><td>Total</td><td>\$33,270</td><td>\$33,270</td><td>\$33,270</td></tr></table>   |                   |                    |                       |  | Budget Categories | 2016                         | 2017              | 2018               | Incentives            | \$31,900                                      | \$31,900          | \$31,900 | Administration | \$479  | \$479   | \$479  | Marketing | \$391   | \$391   | \$391  | Delivery | \$500 | \$500 | \$500 | Total  | \$33,270 | \$33,270 | \$33,270 |    |
| Budget Categories                                 | 2016  | 2017              | 2018               |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Incentives  | \$31,900  | \$31,900          | \$31,900           |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Administration                                    | \$479   | \$479             | \$479              |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Marketing   | \$391   | \$391             | \$391              |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Delivery  | \$500   | \$500             | \$500              |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Total   | \$33,270  | \$33,270          | \$33,270           |                       |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| Cost-Effectiveness                                | <table><tr><th>mTRC Test</th><th>RIM Test</th><th>Utility Cost Test</th><th>Societal Cost Test</th><th>Participant Cost Test</th></tr><tr><td>2.92</td><td>1.20</td><td>4.19</td><td>3.07</td><td>2.80</td></tr></table>  |                   |                    |                       |  | mTRC Test         | RIM Test                     | Utility Cost Test | Societal Cost Test | Participant Cost Test | 2.92  | 1.20              | 4.19     | 3.07           | 2.80   |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| mTRC Test   | RIM Test  | Utility Cost Test | Societal Cost Test | Participant Cost Test |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |
| 2.92  | 1.20  | 4.19              | 3.07               | 2.80                  |  |                   |                              |                   |                    |                       |   |                   |          |                |        |   |        |           |         |         |  |          |       |       |       |  |          |          |          |    |



### *C&I Prescriptive Program*

|                                |  |
|--------------------------------|--|
| <b>Objective</b>               | Encourage commercial and industrial facilities to purchase and install energy efficient equipment.   |
| <b>Target Market</b>           | Commercial and industrial customers.   |
| <b>Description</b>             | The program provides standardized prescriptive rebates to commercial and industrial customers that purchase and install qualifying energy efficient equipment/systems. Pre-qualified rebates are available for proven technologies that are readily available with known performance characteristics, including HVAC equipment, motors and refrigeration.  |
| <b>Program Goals</b>           | <ul style="list-style-type: none"> <li>• Educate C&amp;I customers about the benefits of energy efficient equipment/systems.</li> <li>• Develop partnerships with contractors and distributors to bring energy efficient products and systems to the market.</li> <li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li> <li>• Effectively install efficient equipment and systems through the Black Hills program.</li> <li>• Help commercial and industrial customers reduce their electricity bills.</li> </ul>   |
| <b>Implementation Strategy</b> | <p>Black Hills will engage an implementation contractor to:</p> <ul style="list-style-type: none"> <li>• Process customer applications, verify eligibility, and process customer rebates.</li> <li>• Conduct QA/QC to verify equipment installation.</li> <li>• Track program performance.</li> </ul> <p>The marketing strategy includes partnerships with Company trade allies and distributors as well as direct customer marketing. The implementation contractor may work with Black Hills program staff to develop partnerships with contractors and distributors through trade ally breakfasts and other informational events. Direct customer marketing may include newspaper advertisements, email blasts or targeted mailings, bill inserts, and advertising in trade publications.</p> |



|                                  |   |             |                           |
|----------------------------------|---|-------------|---------------------------|
|                                  |   |             |                           |
| <b>Measures &amp; Incentives</b> | <b>Eligible Measure</b>                                   | <b>Unit</b> | <b>Incentive per Unit</b> |
|                                  | ECM for Refrigeration Evaporators                         | per unit    | \$40                      |
|                                  | Evaporative Fan Control                                   | per unit    | \$50                      |
|                                  | Strip Curtains  | per unit    | \$100                     |
|                                  | Pre-Rinse Spray Valves                                    | per unit    | \$50                      |
|                                  | Automatic Door Closer for Walk-In Cooler/Freezer          | per unit    | \$75                      |
|                                  | Door Heater Controls for Freezer                          | per Door    | \$125                     |
|                                  | VSD Air Compressor  | per HP      | \$100                     |
|                                  | No Air Loss Drain   | per Drain   | \$300                     |
|                                  | NEMA ODP/TEFC Motor                                       | per HP      | \$50                      |
|                                  | Variable Frequency Drive (Fan/Pump)                       | per HP      | \$100                     |
|                                  | Air Cooled Chiller  | per Ton     | \$40                      |
|                                  | Water Cooled Chiller, Rotary Screw & Roll (<75 Tons)      | per Ton     | \$50                      |
|                                  | Water Cooled Chiller, Rotary Screw & Roll (75 < 150 Tons) | per Ton     | \$40                      |
|                                  | Water Cooled Chiller, Rotary Screw & Roll (≥150 Tons)     | per Ton     | \$30                      |
|                                  | PTAC  | per Ton     | \$50                      |
|                                  | Air/Water Source Heat Pump                                | per Ton     | \$50                      |
|                                  | Air Conditioner   | per Ton     | \$35                      |
|                                  | Air Conditioner Tune-Up                                   | per Ton     | \$15                      |
|                                  | Direct Evaporative Pre-Cooling for Air Cooled Condensers  | per Ton     | \$15                      |
| <b>Estimated Participation</b>   | <b>2016</b>   | <b>2017</b> | <b>2018</b>               |
|                                  | 60  | 64          | 70                        |

|                          |  |             |  |   |
|--------------------------|--|-------------|--|---|
| <b>Estimated Savings</b> | <b>Net Energy and Demand Savings per Unit</b>              |             |  |   |
|                          | <b>Eligible Measure</b>                                    | <b>Unit</b> | <b>Net Energy Savings per Unit (kWh) @ Meter</b> | <b>Net Demand Savings per Unit (kW) @ Meter</b> |
|                          | ECM for Refrigeration Evaporators                          | per unit    | 469  | 0.051   |
|                          | Evaporative Fan Control                                    | per unit    | 41   | 0.044   |
|                          | Strip Curtains   | per unit    | 2,379  | 0.280   |
|                          | Pre-Rinse Spray Valves                                     | per unit    | 2,094  | -   |
|                          | Automatic Door Closer for Walk-In Cooler                   | per unit    | 754  | 0.110   |
|                          | Automatic Door Closer for Walk-In Freezer                  | per unit    | 1,846  | 0.247   |
|                          | Door Heater Controls for Freezer                           | per Door    | 1,022  | -   |
|                          | VSD Air Compressor   | per HP      | 422  | 0.176   |
|                          | No Air Loss Drain  | per Drain   | 2,894  | 0.286   |
|                          | NEMA ODP/TEFC Motor  | per HP      | 66   | 0.012   |
|                          | Variable Frequency Drive (Fan)                             | per HP      | 1,049  | 0.190   |
|                          | Variable Frequency Drive (Pump)                            | per HP      | 1,156  | 0.219   |
|                          | Air Cooled Chiller   | per Ton     | 29   | 0.118   |
|                          | Water Cooled Chiller, Rotary Screw & Roll (<75 Tons)       | per Ton     | 10   | 0.043   |
|                          | Water Cooled Chiller, Rotary Screw & Roll (75 < 150 Tons)  | per Ton     | 15   | 0.040   |
|                          | Water Cooled Chiller, Rotary Screw & Roll (150 < 300 Tons) | per Ton     | 69   | 0.036   |
|                          | Water Cooled Chiller, Rotary Screw & Roll (≥300 Tons)      | per Ton     | 29   | 0.043   |
|                          | PTAC   | per Ton     | 159  | 0.910   |
|                          | Air Source Heat Pump (<65 kBtuh)                           | per Ton     | 301  | 0.052   |
|                          | Air Source Heat Pump (65<135 kBtuh)                        | per Ton     | 79   | 0.021   |
|                          | Air Source Heat Pump (135<240 kBtuh)                       | per Ton     | 31   | 0.022   |
|                          | Air Source Heat Pump (≥240 kBtuh)                          | per Ton     | 96   | 0.071   |
|                          | Water Source Heat Pump                                     | per Ton     | 257  | 0.103   |
|                          | Air Conditioner (<65 kBtuh)                                | per Ton     | 65   | 0.052   |
|                          | Air Conditioner (65<135 kBtuh)                             | per Ton     | 45   | 0.033   |
|                          | Air Conditioner (135<240 kBtuh)                            | per Ton     | 64   | 0.047   |
|                          | Air Conditioner (240<760 kBtuh)                            | per Ton     | 56   | 0.041   |
|                          | Air Conditioner (≥760 kBtuh)                               | per Ton     | 24   | 0.018   |
|                          | Air Conditioner Tune-Up                                    | per Ton     | 702  | 0.312   |
|                          | Direct Evaporative Pre-Cooling for Air Cooled Condensers   | per Ton     | 223  | 0.236   |

| Eligible Measure   | Unit      | Net kWh per Unit @ Generator | Net kW per Unit @ Generator |
|--|-----------|------------------------------|-----------------------------|
| ECM for Refrigeration Evaporators                          | per unit  | 499                          | 0.054                       |
| Evaporative Fan Control                                    | per unit  | 43                           | 0.047                       |
| Strip Curtains   | per unit  | 2,532                        | 0.298                       |
| Pre-Rinse Spray Valves                                     | per unit  | 2,228                        | 0.000                       |
| Automatic Door Closer for Walk-In Cooler                   | per unit  | 803                          | 0.117                       |
| Automatic Door Closer for Walk-In Freezer                  | per unit  | 1,964                        | 0.263                       |
| Door Heater Controls for Freezer                           | per Door  | 1,088                        | 0.000                       |
| VSD Air Compressor   | per HP    | 449                          | 0.187                       |
| No Air Loss Drain  | per Drain | 3,080                        | 0.304                       |
| NEMA ODP Motor   | per HP    | 70                           | 0.013                       |
| NEMA TEFC Motor  | per HP    | 70                           | 0.013                       |
| Variable Frequency Drive (Fan)                             | per HP    | 1,116                        | 0.202                       |
| Variable Frequency Drive (Pump)                            | per HP    | 1,230                        | 0.233                       |
| Air Cooled Chiller   | per Ton   | 31                           | 0.126                       |
| Water Cooled Chiller, Rotary Screw & Roll (<75 Tons)       | per Ton   | 10                           | 0.046                       |
| Water Cooled Chiller, Rotary Screw & Roll (75 < 150 Tons)  | per Ton   | 16                           | 0.042                       |
| Water Cooled Chiller, Rotary Screw & Roll (150 < 300 Tons) | per Ton   | 73                           | 0.038                       |
| Water Cooled Chiller, Rotary Screw & Roll (≥300 Tons)      | per Ton   | 31                           | 0.046                       |
| PTAC   | per Ton   | 169                          | 0.968                       |
| Air Source Heat Pump (<65 kBtuh)                           | per Ton   | 321                          | 0.056                       |
| Air Source Heat Pump (65<135 kBtuh)                        | per Ton   | 84                           | 0.022                       |
| Air Source Heat Pump (135<240 kBtuh)                       | per Ton   | 32                           | 0.024                       |
| Air Source Heat Pump (≥240 kBtuh)                          | per Ton   | 102                          | 0.075                       |
| Water Source Heat Pump                                     | per Ton   | 274                          | 0.109                       |
| Air Conditioner (<65 kBtuh)                                | per Ton   | 69                           | 0.056                       |
| Air Conditioner (65<135 kBtuh)                             | per Ton   | 48                           | 0.035                       |
| Air Conditioner (135<240 kBtuh)                            | per Ton   | 68                           | 0.050                       |
| Air Conditioner (240<760 kBtuh)                            | per Ton   | 60                           | 0.044                       |
| Air Conditioner (≥760 kBtuh)                               | per Ton   | 26                           | 0.019                       |
| Air Conditioner Tune-Up                                    | per Ton   | 748                          | 0.332                       |
| Direct Evaporative Pre-Cooling for Air Cooled Condensers   | per Ton   | 237                          | 0.251                       |



|                           |   |                  |                          |                              |
|---------------------------|---|------------------|--------------------------|------------------------------|
|                           | <b>Annual Net Energy and Demand Savings Goals</b> |                  |                          |                              |
|                           |   | <b>2016</b>      | <b>2017</b>              | <b>2018</b>                  |
|                           | Annual Net Energy Savings Goals (kWh) @ Meter     | 273,113          | 280,655                  | 318,840                      |
|                           | Annual Net Energy Savings Goals (kWh) @ Generator | 290,674          | 298,701                  | 339,342                      |
|                           | Annual Net Demand Savings Goals (kW) @ Meter      | 234              | 250                      | 278                          |
|                           | Annual Net Demand Savings Goals (kW) @ Generator  | 250              | 266                      | 296                          |
| <b>Estimated Budget</b>   | <b>Budget Categories</b>                          |                  |                          |                              |
|                           |   | <b>2016</b>      | <b>2017</b>              | <b>2018</b>                  |
|                           | Incentives  | \$124,770        | \$130,520                | \$147,635                    |
|                           | Administration                                    | \$4,991          | \$5,221                  | \$5,905                      |
|                           | Marketing   | \$11,229         | \$11,747                 | \$13,287                     |
|                           | Delivery  | \$6,900          | \$7,360                  | \$8,050                      |
| <b>Cost-Effectiveness</b> | <b>Total</b>                                      | <b>\$147,890</b> | <b>\$154,848</b>         | <b>\$174,878</b>             |
|                           | <b>mTRC Test</b>                                  | <b>RIM Test</b>  | <b>Utility Cost Test</b> | <b>Societal Cost Test</b>    |
|                           | 2.95  | 3.05             | 6.60                     | 2.99                         |
|                           |   |                  |                          | <b>Participant Cost Test</b> |
|                           |   |                  |                          | 1.06                         |

### C&I Lighting Program

|                                |   |
|--------------------------------|---|
| <b>Objectives</b>              | Encourage commercial and industrial customers to purchase and install energy efficient lighting measures. Effectively engage small business customers.  |
| <b>Target Market</b>           | Commercial and industrial customers; commercial customers with an average electric demand of 350 kW or less per year.   |
| <b>Description</b>             | <p>The program is comprised of two components:</p> <p><b>Prescriptive Lighting.</b> Provide standardized prescriptive rebates to all commercial and industrial customers that purchase and install qualifying energy efficient lighting measures. Pre-qualified rebates are available for proven technologies that are readily available with known performance characteristics.</p> <p><b>Small Business Direct Install Lighting.</b> Commercial customers with an average electric demand of less than 350 kW per year will receive the following:</p> <ul style="list-style-type: none"> <li>• Free lighting energy evaluation identifying potential energy savings.</li> <li>• Customized proposal, including information on potential energy savings, installation costs, and anticipated payback.</li> <li>• Incentives are up to 70% of the equipment and installation costs.</li> </ul>   |
| <b>Program Goals</b>           | <ul style="list-style-type: none"> <li>• Develop new partnerships with contractors to bring efficient lighting to the market.</li> <li>• Increase awareness of and participation in BHE's program through improved branding, marketing, and coordination between market actors.</li> <li>• Educate customers and trade allies on the benefits of new efficient lighting technologies.</li> <li>• Help commercial customers reduce their electricity bills.</li> <li>• Build consumer confidence in the reliability of savings estimates through an educated sales force and a highly tailored program approach.</li> </ul>  |
| <b>Implementation Strategy</b> | <p>Black Hills will engage an implementation contractor(s) to assist in delivery of the program.</p> <p><b>Prescriptive Lighting.</b> The implementation contractor will:</p> <ul style="list-style-type: none"> <li>• Process customer applications, verify eligibility, and process customer rebates.</li> <li>• Conduct QA/QC to verify equipment installation.</li> <li>• Track program performance.</li> </ul> <p><b>Small Business Direct Install Lighting.</b> The implementation strategy will incorporate the following components:</p> <ul style="list-style-type: none"> <li>• <i>Walk-Through Evaluations.</i> Trained evaluators complete a walk-through evaluation of the business using standard audit software, identifying specific energy saving opportunities. The evaluator will review the anticipated costs and savings of the measures, along with information on financial resources available to help defray costs. Customers will be provided with a customized proposal.</li> <li>• <i>Direct Installation of Measures.</i> Upon customer approval of the proposal, the implementation contractor will install the lighting measures.</li> </ul> |

- *Customer Education.* Customers will be educated on energy efficient lighting and Company commercial and industrial programs.

The implementation contractor will:

- Hire qualified, local individuals to conduct energy evaluations and install efficient lighting. Provide training, ongoing as needed, to evaluators.
- Schedule customer evaluators and lighting upgrades.
- Assist with program marketing and outreach.
- Provide customer service support.
- Track program performance, including evaluation requests, evaluation activities and customer actions.

Black Hills will market the program through its website and bill inserts, as well as directly to business owners, operators, property owners and tenants. Program representatives will participate in trade association and business organization meetings, trade fairs, and other events. As projects are completed, case studies will be prepared and used to inform the utility's marketing efforts.



| <b>Measures &amp; Incentives</b>                                      | <p>Small Business Direct Install incentives up to 70% of the equipment and installation costs.</p> <table> <tr> <th data-bbox="430 520 1235 583">Eligible Measure</th><th data-bbox="1235 520 1422 583">Incentive per Unit</th></tr> <tr><td data-bbox="430 583 1235 615">LED Exit Sign</td><td data-bbox="1235 583 1422 615">\$10</td></tr> <tr><td data-bbox="430 615 1235 646">Ceiling Occupancy Sensor</td><td data-bbox="1235 615 1422 646">\$40</td></tr> <tr><td data-bbox="430 646 1235 678">Wall Occupancy Sensor</td><td data-bbox="1235 646 1422 678">\$15</td></tr> <tr><td data-bbox="430 678 1235 709">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 2-3 lamp)</td><td data-bbox="1235 678 1422 709">\$55</td></tr> <tr><td data-bbox="430 709 1235 741">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 4-6 lamp)</td><td data-bbox="1235 709 1422 741">\$75</td></tr> <tr><td data-bbox="430 741 1235 772">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 8-lamp)</td><td data-bbox="1235 741 1422 772">\$85</td></tr> <tr><td data-bbox="430 772 1235 804">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 10-lamp)</td><td data-bbox="1235 772 1422 804">\$95</td></tr> <tr><td data-bbox="430 804 1235 835">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 4-lamp)</td><td data-bbox="1235 804 1422 835">\$55</td></tr> <tr><td data-bbox="430 835 1235 867">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 6-8 lamp)</td><td data-bbox="1235 835 1422 867">\$75</td></tr> <tr><td data-bbox="430 867 1235 898">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 12-16 lamp)</td><td data-bbox="1235 867 1422 898">\$85</td></tr> <tr><td data-bbox="430 898 1235 930">High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 18-20 lamp)</td><td data-bbox="1235 898 1422 930">\$95</td></tr> <tr><td data-bbox="430 930 1235 961">Low Wattage T8 Lamp</td><td data-bbox="1235 930 1422 961">\$1.00</td></tr> <tr><td data-bbox="430 961 1235 993">Ceramic Metal Halide Fixture (<math>\leq 150W</math>)</td><td data-bbox="1235 961 1422 993">\$35</td></tr> <tr><td data-bbox="430 993 1235 1024">Ceramic Metal Halide Fixture (150-250W)</td><td data-bbox="1235 993 1422 1024">\$45</td></tr> <tr><td data-bbox="430 1024 1235 1056">Ceramic Metal Halide Fixture (<math>\geq 250W</math>)</td><td data-bbox="1235 1024 1422 1056">\$55</td></tr> <tr><td data-bbox="430 1056 1235 1087">Ceramic Metal Halide Fixture w/ Integrated Ballast</td><td data-bbox="1235 1056 1422 1087">\$25</td></tr> <tr><td data-bbox="430 1087 1235 1119">Pulse Start Metal Halide Fixture (<math>\leq 175W</math>)</td><td data-bbox="1235 1087 1422 1119">\$25</td></tr> <tr><td data-bbox="430 1119 1235 1150">Pulse Start Metal Halide Fixture (175-320W)</td><td data-bbox="1235 1119 1422 1150">\$40</td></tr> <tr><td data-bbox="430 1150 1235 1182">Pulse Start Metal Halide Fixture (320-750W)</td><td data-bbox="1235 1150 1422 1182">\$55</td></tr> <tr><td data-bbox="430 1182 1235 1213">Pulse Start Metal Halide Fixture (<math>\geq 750W</math>)</td><td data-bbox="1235 1182 1422 1213">\$70</td></tr> <tr><td data-bbox="430 1213 1235 1245">Energy Star LED Lamp (<math>\leq 5W</math>)</td><td data-bbox="1235 1213 1422 1245">\$10</td></tr> <tr><td data-bbox="430 1245 1235 1276">Energy Star LED Lamp (5-10W)</td><td data-bbox="1235 1245 1422 1276">\$15</td></tr> <tr><td data-bbox="430 1276 1235 1308">Energy Star LED Lamp (10-20W)</td><td data-bbox="1235 1276 1422 1308">\$20</td></tr> <tr><td data-bbox="430 1308 1235 1339">Energy Star LED Lamp (20-22W)</td><td data-bbox="1235 1308 1422 1339">\$25</td></tr> <tr><td data-bbox="430 1339 1235 1371">Energy Star LED Downlight Fixture</td><td data-bbox="1235 1339 1422 1371">\$35</td></tr> <tr><td data-bbox="430 1371 1235 1402">High Performance T8</td><td data-bbox="1235 1371 1422 1402">\$9</td></tr> <tr><td data-bbox="430 1402 1235 1434">LED Recessed Light Fixture (2x2)</td><td data-bbox="1235 1402 1422 1434">\$30</td></tr> <tr><td data-bbox="430 1434 1235 1465">LED Recessed Light Fixture (2x4)</td><td data-bbox="1235 1434 1422 1465">\$40</td></tr> <tr><td data-bbox="430 1465 1235 1497">LED Recessed Light Fixture (1x4)</td><td data-bbox="1235 1465 1422 1497">\$50</td></tr> <tr><td data-bbox="430 1497 1235 1528">LED Parking Garage/Canopy (<math>&lt; 30W</math>)</td><td data-bbox="1235 1497 1422 1528">\$60</td></tr> <tr><td data-bbox="430 1528 1235 1560">LED Parking Garage/Canopy (30-75W)</td><td data-bbox="1235 1528 1422 1560">\$100</td></tr> <tr><td data-bbox="430 1560 1235 1591">LED Parking Garage/Canopy (<math>\geq 75W</math>)</td><td data-bbox="1235 1560 1422 1591">\$140</td></tr> <tr><td data-bbox="430 1591 1235 1623">LED Flood Light (<math>&lt; 15W</math>)</td><td data-bbox="1235 1591 1422 1623">\$12</td></tr> <tr><td data-bbox="430 1623 1235 1654">LED Flood Light (<math>\geq 15W</math>)</td><td data-bbox="1235 1623 1422 1654">\$15</td></tr> <tr><td data-bbox="430 1654 1235 1686">LED Outdoor Pole/Arm Mounted Parking/Roadway (<math>&lt; 30W</math>)</td><td data-bbox="1235 1654 1422 1686">\$60</td></tr> <tr><td data-bbox="430 1686 1235 1717">LED Outdoor Pole/Arm Mounted Parking/Roadway (30-75W)</td><td data-bbox="1235 1686 1422 1717">\$100</td></tr> <tr><td data-bbox="430 1717 1235 1749">LED Outdoor Pole/Arm Mounted Parking/Roadway (<math>\geq 75W</math>)</td><td data-bbox="1235 1717 1422 1749">\$140</td></tr> <tr><td data-bbox="430 1749 1235 1780">Lighting Optimization - Remove Lamp from T8 System</td><td data-bbox="1235 1749 1422 1780">\$8</td></tr> <tr><td data-bbox="430 1780 1235 1812">Exterior LED Wall Pack Fixtures (<math>\leq 25W</math>)</td><td data-bbox="1235 1780 1422 1812">\$35</td></tr> <tr><td data-bbox="430 1812 1235 1843">Exterior LED Wall Pack Fixtures (25-60W)</td><td data-bbox="1235 1812 1422 1843">\$75</td></tr> <tr><td data-bbox="430 1843 1235 1875">Exterior LED Wall Pack Fixtures (<math>\geq 60W</math>)</td><td data-bbox="1235 1843 1422 1875">\$100</td></tr> <tr><td data-bbox="430 1875 1235 1890">LED Refrigerator Case Light</td><td data-bbox="1235 1875 1422 1890">\$60</td></tr> </table> | Eligible Measure | Incentive per Unit | LED Exit Sign | \$10 | Ceiling Occupancy Sensor | \$40 | Wall Occupancy Sensor | \$15 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 2-3 lamp) | \$55 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 4-6 lamp) | \$75 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 8-lamp) | \$85 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 10-lamp) | \$95 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 4-lamp) | \$55 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 6-8 lamp) | \$75 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 12-16 lamp) | \$85 | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 18-20 lamp) | \$95 | Low Wattage T8 Lamp | \$1.00 | Ceramic Metal Halide Fixture ( $\leq 150W$ ) | \$35 | Ceramic Metal Halide Fixture (150-250W) | \$45 | Ceramic Metal Halide Fixture ( $\geq 250W$ ) | \$55 | Ceramic Metal Halide Fixture w/ Integrated Ballast | \$25 | Pulse Start Metal Halide Fixture ( $\leq 175W$ ) | \$25 | Pulse Start Metal Halide Fixture (175-320W) | \$40 | Pulse Start Metal Halide Fixture (320-750W) | \$55 | Pulse Start Metal Halide Fixture ( $\geq 750W$ ) | \$70 | Energy Star LED Lamp ( $\leq 5W$ ) | \$10 | Energy Star LED Lamp (5-10W) | \$15 | Energy Star LED Lamp (10-20W) | \$20 | Energy Star LED Lamp (20-22W) | \$25 | Energy Star LED Downlight Fixture | \$35 | High Performance T8 | \$9 | LED Recessed Light Fixture (2x2) | \$30 | LED Recessed Light Fixture (2x4) | \$40 | LED Recessed Light Fixture (1x4) | \$50 | LED Parking Garage/Canopy ( $< 30W$ ) | \$60 | LED Parking Garage/Canopy (30-75W) | \$100 | LED Parking Garage/Canopy ( $\geq 75W$ ) | \$140 | LED Flood Light ( $< 15W$ ) | \$12 | LED Flood Light ( $\geq 15W$ ) | \$15 | LED Outdoor Pole/Arm Mounted Parking/Roadway ( $< 30W$ ) | \$60 | LED Outdoor Pole/Arm Mounted Parking/Roadway (30-75W) | \$100 | LED Outdoor Pole/Arm Mounted Parking/Roadway ( $\geq 75W$ ) | \$140 | Lighting Optimization - Remove Lamp from T8 System | \$8 | Exterior LED Wall Pack Fixtures ( $\leq 25W$ ) | \$35 | Exterior LED Wall Pack Fixtures (25-60W) | \$75 | Exterior LED Wall Pack Fixtures ( $\geq 60W$ ) | \$100 | LED Refrigerator Case Light | \$60 |
|---|--|------------------|--------------------|---------------|------|--------------------------|------|-----------------------|------|---|------|---|------|---|------|--|------|---|------|---|------|---|------|---|------|---------------------|--------|--|------|---|------|--|------|--|------|--|------|---|------|---|------|--|------|------------------------------------|------|------------------------------|------|-------------------------------|------|-------------------------------|------|-----------------------------------|------|---------------------|-----|----------------------------------|------|----------------------------------|------|----------------------------------|------|---------------------------------------|------|------------------------------------|-------|--|-------|-----------------------------|------|--------------------------------|------|--|------|---|-------|---|-------|--|-----|--|------|--|------|--|-------|-----------------------------|------|
| Eligible Measure  | Incentive per Unit   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Exit Sign   | \$10   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Ceiling Occupancy Sensor  | \$40   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Wall Occupancy Sensor   | \$15   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 2-3 lamp)   | \$55   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 4-6 lamp)   | \$75   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 8-lamp)     | \$85   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 10-lamp)    | \$95   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 4-lamp)     | \$55   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 6-8 lamp)   | \$75   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 12-16 lamp) | \$85   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 18-20 lamp) | \$95   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Low Wattage T8 Lamp   | \$1.00   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Ceramic Metal Halide Fixture ( $\leq 150W$ )                          | \$35   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Ceramic Metal Halide Fixture (150-250W)                               | \$45   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Ceramic Metal Halide Fixture ( $\geq 250W$ )                          | \$55   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Ceramic Metal Halide Fixture w/ Integrated Ballast                    | \$25   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Pulse Start Metal Halide Fixture ( $\leq 175W$ )                      | \$25   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Pulse Start Metal Halide Fixture (175-320W)                           | \$40   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Pulse Start Metal Halide Fixture (320-750W)                           | \$55   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Pulse Start Metal Halide Fixture ( $\geq 750W$ )                      | \$70   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Energy Star LED Lamp ( $\leq 5W$ )                                    | \$10   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Energy Star LED Lamp (5-10W)  | \$15   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Energy Star LED Lamp (10-20W)   | \$20   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Energy Star LED Lamp (20-22W)   | \$25   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Energy Star LED Downlight Fixture                                     | \$35   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| High Performance T8   | \$9  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Recessed Light Fixture (2x2)                                      | \$30   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Recessed Light Fixture (2x4)                                      | \$40   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Recessed Light Fixture (1x4)                                      | \$50   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Parking Garage/Canopy ( $< 30W$ )                                 | \$60   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Parking Garage/Canopy (30-75W)                                    | \$100  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Parking Garage/Canopy ( $\geq 75W$ )                              | \$140  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Flood Light ( $< 15W$ )   | \$12   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Flood Light ( $\geq 15W$ )  | \$15   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Outdoor Pole/Arm Mounted Parking/Roadway ( $< 30W$ )              | \$60   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Outdoor Pole/Arm Mounted Parking/Roadway (30-75W)                 | \$100  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Outdoor Pole/Arm Mounted Parking/Roadway ( $\geq 75W$ )           | \$140  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Lighting Optimization - Remove Lamp from T8 System                    | \$8  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Exterior LED Wall Pack Fixtures ( $\leq 25W$ )                        | \$35   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Exterior LED Wall Pack Fixtures (25-60W)                              | \$75   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| Exterior LED Wall Pack Fixtures ( $\geq 60W$ )                        | \$100  |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |
| LED Refrigerator Case Light   | \$60   |                  |                    |               |      |                          |      |                       |      |   |      |   |      |   |      |  |      |   |      |   |      |   |      |   |      |                     |        |  |      |   |      |  |      |  |      |  |      |   |      |   |      |  |      |                                    |      |                              |      |                               |      |                               |      |                                   |      |                     |     |                                  |      |                                  |      |                                  |      |                                       |      |                                    |       |  |       |                             |      |                                |      |  |      |   |       |   |       |  |     |  |      |  |      |  |       |                             |      |

|                         |  |            |            |            |
|-------------------------|--|------------|------------|------------|
|                         | Stairwell Fixtures w/ Integral Occupancy |            |            | \$30       |
|                         |  |            |            |            |
| Estimated Participation |  | 2016       | 2017       | 2018       |
|                         | Prescriptive Lighting                    | 364        | 393        | 415        |
|                         | Small Business Direct Install Lighting   | 195        | 202        | 208        |
|                         | <b>Total</b>                             | <b>559</b> | <b>595</b> | <b>623</b> |

| Estimated Savings | Prescriptive Lighting Net Energy and Demand Savings per Lighting Unit |   |  |
|-------------------|---|---|--|
|                   | Eligible Measure  | Net Energy Savings per Unit (kWh) @ Meter | Net Demand Savings per Unit (kW) @ Meter |
|                   | LED Exit Sign   | 348                                       | 0.047                                    |
|                   | Ceiling Occupancy Sensor  | 558                                       | 0.381                                    |
|                   | Wall Occupancy Sensor   | 333                                       | 0.227                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 2-3 lamp)   | 216                                       | 0.060                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 4-6 lamp)   | 374                                       | 0.104                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 8-lamp)     | 886                                       | 0.248                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 10-lamp)    | 1,149                                     | 0.321                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 4-lamp)     | 226                                       | 0.063                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 6-8 lamp)   | 666                                       | 0.186                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 12-16 lamp) | 1,058                                     | 0.296                                    |
|                   | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 18-20 lamp) | 1,330                                     | 0.372                                    |
|                   | Low Wattage T8 Lamp   | 14  | 0.004                                    |
|                   | Ceramic Metal Halide Fixture ( $\leq 150W$ )                          | 130                                       | 0.036                                    |
|                   | Ceramic Metal Halide Fixture (150-250W)                               | 246                                       | 0.069                                    |
|                   | Ceramic Metal Halide Fixture ( $\geq 250W$ )                          | 248                                       | 0.069                                    |
|                   | Ceramic Metal Halide Fixture w/ Integrated Ballast                    | 186                                       | 0.052                                    |
|                   | Pulse Start Metal Halide Fixture ( $\leq 175W$ )                      | 49  | 0.014                                    |
|                   | Pulse Start Metal Halide Fixture (175-320W)                           | 146                                       | 0.041                                    |
|                   | Pulse Start Metal Halide Fixture (320-750W)                           | 200                                       | 0.056                                    |
|                   | Pulse Start Metal Halide Fixture ( $\geq 750W$ )                      | 622                                       | 0.174                                    |
|                   | Energy Star LED Lamp ( $\leq 5W$ )                                    | 37  | 0.010                                    |
|                   | Energy Star LED Lamp (5-10W)  | 56  | 0.016                                    |
|                   | Energy Star LED Lamp (10-20W)   | 88  | 0.025                                    |
|                   | Energy Star LED Lamp (20-22W)   | 111                                       | 0.031                                    |
|                   | Energy Star LED Downlight Fixture                                     | 123                                       | 0.034                                    |
|                   | High Performance T8   | 23  | 0.006                                    |
|                   | LED Recessed Light Fixture (2x2)                                      | 37  | 0.010                                    |
|                   | LED Recessed Light Fixture (2x4)                                      | 80  | 0.022                                    |
|                   | LED Recessed Light Fixture (1x4)                                      | 62  | 0.017                                    |
|                   | LED Parking Garage/Canopy ( $< 30W$ )                                 | 245                                       | 0.106                                    |
|                   | LED Parking Garage/Canopy (30-75W)                                    | 303                                       | 0.130                                    |
|                   | LED Parking Garage/Canopy ( $\geq 75W$ )                              | 568                                       | 0.245                                    |
|                   | LED Flood Light ( $< 15W$ )   | 100                                       | -  |
|                   | LED Flood Light ( $\geq 15W$ )  | 112                                       | -  |
|                   | LED Outdoor Pole/Arm Mounted Parking/Roadway ( $< 30W$ )              | 245                                       | -  |
|                   | LED Outdoor Pole/Arm Mounted Parking/Roadway (30-75W)                 | 303                                       | -  |
|                   | LED Outdoor Pole/Arm Mounted Parking/Roadway ( $\geq 75W$ )           | 568                                       | -  |
|                   | Lighting Optimization - Remove Lamp from T8 System                    | 71  | -  |
|                   | Lighting Optimization - Remove 2 Lamps from T8 System                 | 141                                       | -  |



|  |   |                                     |                                    |
|--|---|-------------------------------------|------------------------------------|
|  | Exterior LED Wall Pack Fixtures ( $\leq 25W$ )                        | 216                                 | -                                  |
|  | Exterior LED Wall Pack Fixtures (25-60W)                              | 513                                 | -                                  |
|  | Exterior LED Wall Pack Fixtures ( $\geq 60W$ )                        | 789                                 | -                                  |
|  | LED Refrigerator Case Light   | 422                                 | 0.029                              |
|  | Stairwell Fixtures w/ Integral Occupancy (T8 1-2 lamp)                | 363                                 | 0.025                              |
|  | Stairwell Fixtures w/ Integral Occupancy (LED 20-30W)                 | 380                                 | 0.026                              |
|  |   |                                     |                                    |
|  | <b>Eligible Measure</b>   | <b>Net kWh per Unit @ Generator</b> | <b>Net kW per Unit @ Generator</b> |
|  | LED Exit Sign   | 371                                 | 0.050                              |
|  | Ceiling Occupancy Sensor  | 594                                 | 0.405                              |
|  | Wall Occupancy Sensor   | 354                                 | 0.242                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 2-3 lamp)   | 230                                 | 0.064                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 4-6 lamp)   | 398                                 | 0.111                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 8-lamp)     | 943                                 | 0.264                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 10-lamp)    | 1,223                               | 0.342                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 4-lamp)     | 240                                 | 0.067                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 6-8 lamp)   | 709                                 | 0.198                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 12-16 lamp) | 1,126                               | 0.315                              |
|  | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 18-20 lamp) | 1,415                               | 0.396                              |
|  | Low Wattage T8 Lamp   | 15                                  | 0.004                              |
|  | Ceramic Metal Halide Fixture ( $\leq 150W$ )                          | 138                                 | 0.039                              |
|  | Ceramic Metal Halide Fixture (150-250W)                               | 262                                 | 0.073                              |
|  | Ceramic Metal Halide Fixture ( $\geq 250W$ )                          | 264                                 | 0.074                              |
|  | Ceramic Metal Halide Fixture w/ Integrated Ballast                    | 198                                 | 0.055                              |
|  | Pulse Start Metal Halide Fixture ( $\leq 175W$ )                      | 52                                  | 0.015                              |
|  | Pulse Start Metal Halide Fixture (175-320W)                           | 156                                 | 0.044                              |
|  | Pulse Start Metal Halide Fixture (320-750W)                           | 212                                 | 0.059                              |
|  | Pulse Start Metal Halide Fixture ( $\geq 750W$ )                      | 662                                 | 0.185                              |
|  | Energy Star LED Lamp ( $\leq 5W$ )                                    | 40                                  | 0.011                              |
|  | Energy Star LED Lamp (5-10W)  | 59                                  | 0.017                              |
|  | Energy Star LED Lamp (10-20W)   | 94                                  | 0.026                              |
|  | Energy Star LED Lamp (20-22W)   | 119                                 | 0.033                              |
|  | Energy Star LED Downlight Fixture                                     | 131                                 | 0.037                              |
|  | High Performance T8   | 25                                  | 0.007                              |
|  | LED Recessed Light Fixture (2x2)                                      | 40                                  | 0.011                              |
|  | LED Recessed Light Fixture (2x4)                                      | 85                                  | 0.024                              |
|  | LED Recessed Light Fixture (1x4)                                      | 66                                  | 0.019                              |
|  | LED Parking Garage/Canopy ( $< 30W$ )                                 | 261                                 | 0.113                              |
|  | LED Parking Garage/Canopy (30-75W)                                    | 322                                 | 0.139                              |
|  | LED Parking Garage/Canopy ( $\geq 75W$ )                              | 604                                 | 0.260                              |
|  | LED Flood Light ( $< 15W$ )   | 106                                 | 0.000                              |

|                          | LED Flood Light (≥15W)   | 119              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|--------------------------|--|------------------|-----------------|------|------------------|-----------------|----------------------|--------|-------|--------------------------|--------|-------|
|                          | LED Outdoor Pole/Arm Mounted Parking/Roadway (<30W)  | 261              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | LED Outdoor Pole/Arm Mounted Parking/Roadway (30-75W)  | 322              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | LED Outdoor Pole/Arm Mounted Parking/Roadway (≥75W)  | 604              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Lighting Optimization - Remove Lamp from T8 System   | 75               | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Lighting Optimization - Remove 2 Lamps from T8 System  | 150              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Exterior LED Wall Pack Fixtures (≤25W)   | 229              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Exterior LED Wall Pack Fixtures (25-60W)   | 546              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Exterior LED Wall Pack Fixtures (≥60W)   | 839              | 0.000           |      |                  |                 |                      |        |       |                          |        |       |
|                          | LED Refrigerator Case Light  | 449              | 0.031           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Stairwell Fixtures w/ Integral Occupancy (T8 1-2 lamp)   | 386              | 0.027           |      |                  |                 |                      |        |       |                          |        |       |
|                          | Stairwell Fixtures w/ Integral Occupancy (LED 20-30W)  | 404              | 0.028           |      |                  |                 |                      |        |       |                          |        |       |
|                          | The Small Business Direct Install Lighting savings per customer are estimated based upon average historical customer savings. Actual savings will vary by project.   |                  |                 |      |                  |                 |                      |        |       |                          |        |       |
|                          | <table><tr><th>Unit</th><th>Net kWh per Unit</th><th>Net kW per Unit</th></tr><tr><td>per Customer @ Meter</td><td>25,709</td><td>7.664</td></tr><tr><td>per Customer @ Generator</td><td>27,363</td><td>8.157</td></tr></table> |                  |                 | Unit | Net kWh per Unit | Net kW per Unit | per Customer @ Meter | 25,709 | 7.664 | per Customer @ Generator | 27,363 | 8.157 |
|                          | Unit   | Net kWh per Unit | Net kW per Unit |      |                  |                 |                      |        |       |                          |        |       |
| per Customer @ Meter     | 25,709   | 7.664            |                 |      |                  |                 |                      |        |       |                          |        |       |
| per Customer @ Generator | 27,363   | 8.157            |                 |      |                  |                 |                      |        |       |                          |        |       |

|  |           |           |           |
|--|-----------|-----------|-----------|
| Net kWh Savings Goals                              |           |           |           |
|  | 2016      | 2017      | 2018      |
| Prescriptive Lighting @ Meter                      | 1,472,076 | 1,588,508 | 1,686,173 |
| Small Business Direct Install Lighting @ Meter     | 5,013,340 | 5,193,306 | 5,347,563 |
| TOTAL @ Meter                                      | 5,667,756 | 5,971,669 | 6,261,676 |
| Prescriptive Lighting @ Generator                  | 1,566,730 | 1,690,649 | 1,794,594 |
| Small Business Direct Install Lighting @ Generator | 5,335,698 | 5,527,236 | 5,691,411 |
| TOTAL @ Generator                                  | 6,902,428 | 7,217,885 | 7,486,004 |

|  |       |       |       |
|--|-------|-------|-------|
| Net kW Savings Goals                               |       |       |       |
|  | 2016  | 2017  | 2018  |
| Prescriptive Lighting @ Meter                      | 409   | 441   | 471   |
| Small Business Direct Install Lighting @ Meter     | 1,494 | 1,548 | 1,594 |
| TOTAL @ Meter                                      | 1,903 | 1,989 | 2,065 |
| Prescriptive Lighting @ Generator                  | 435   | 470   | 502   |
| Small Business Direct Install Lighting @ Generator | 1,591 | 1,648 | 1,697 |
| TOTAL @ Generator                                  | 2,025 | 2,117 | 2,198 |

|                  |                   |             |             |             |
|------------------|-------------------|-------------|-------------|-------------|
| Estimated Budget | Budget Categories |             |             |             |
|                  | Incentives        | \$1,386,225 | \$1,447,515 | \$1,498,790 |
|                  | Administration    | \$77,913    | \$81,171    | \$83,913    |
|                  | Marketing         | \$124,760   | \$130,276   | \$134,891   |
|                  | Delivery          | \$495,830   | \$516,681   | \$531,760   |
|                  | Total             | \$2,084,728 | \$2,175,643 | \$2,249,354 |
|                  |                   |             |             |             |

|                           |                  |                 |                          |                           |                              |
|---------------------------|------------------|-----------------|--------------------------|---------------------------|------------------------------|
| <b>Cost-Effectiveness</b> | <b>mTRC Test</b> | <b>RIM Test</b> | <b>Utility Cost Test</b> | <b>Societal Cost Test</b> | <b>Participant Cost Test</b> |
|                           | 3.69             | 1.58            | 5.37                     | 3.83                      | 2.70                         |



## f. Special Programs

### Low-Income Assistance Program

| Objective                                     | Assist low-income customers in reducing their energy consumption.   |       |       |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
|---|---|-------|-------|--|------------------|------|------|------|---|-----|-----|-----|--------------|-----|-----|-----|--------------------------|-----|-----|-----|---------------------|-----|-----|-----|-------|-------|-------|-------|
| Target Market                                 | Income-eligible residential customers in the Black Hills service territory.   |       |       |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Description                                   | <p>Qualifying low-income customers receive help managing their energy use and utility bills. The program works directly with local community action program (CAP) agencies that already provide services to low-income customers through the Colorado Energy Office (CEO) as well as NeighborWorks of Pueblo (NWP).</p> <p>Black Hills funds will be used in two ways:</p> <p>(1) Pay the full cost of measures that reduce electric cooling, refrigeration and lighting.</p> <ul style="list-style-type: none"><li>• Standard LEDs</li><li>• ENERGY STAR® Refrigerators</li><li>• Window/Wall Evaporative Coolers</li></ul> <p>(2) Customers receive a home energy evaluation and direct installation of low-cost measures at no cost. The evaluation identifies potential efficiency improvements, educates the customer on managing energy costs. The low-cost measures that may be installed include: faucet aerator, low-flow showerhead, water temperature setback, hot water pipe insulation and CFLs.</p> <p>Up to \$1,500 in free measures are available to customers.</p> |       |       |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Program Goals                                 | <ul style="list-style-type: none"><li>• Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.</li><li>• Encourage energy saving behavior.</li><li>• Help residential customers reduce their electricity bills.</li><li>• Assist income-eligible customers achieve energy savings.</li></ul>   |       |       |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Implementation Strategy                       | Black Hills will work with the CAP agencies, CEO, and NWP to implement and directly market the program to income-eligible residential customers. Marketing may also include bill inserts and direct mailing. Home energy evaluation/direct install participants will be provided with a list of local agencies providing bill payment assistance, in addition to Black Hills Energy Assistance Program (BHEAP) materials.   |       |       |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Measures & Incentives                         | Participants receive LEDs, refrigerators, and evaporative coolers at no cost.   |       |       |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Estimated Participation                       | <table><tr><th>Eligible Measure</th><th>2016</th><th>2017</th><th>2018</th></tr><tr><td>Customer Evaluation (Direct Install Measures)</td><td>750</td><td>750</td><td>750</td></tr><tr><td>Standard LED</td><td>240</td><td>240</td><td>240</td></tr><tr><td>ENERGY STAR Refrigerator</td><td>435</td><td>435</td><td>435</td></tr><tr><td>Evaporative Cooling</td><td>464</td><td>464</td><td>464</td></tr><tr><td>Total</td><td>1,889</td><td>1,889</td><td>1,889</td></tr></table>   |       |       |  | Eligible Measure | 2016 | 2017 | 2018 | Customer Evaluation (Direct Install Measures) | 750 | 750 | 750 | Standard LED | 240 | 240 | 240 | ENERGY STAR Refrigerator | 435 | 435 | 435 | Evaporative Cooling | 464 | 464 | 464 | Total | 1,889 | 1,889 | 1,889 |
| Eligible Measure                              | 2016  | 2017  | 2018  |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Customer Evaluation (Direct Install Measures) | 750   | 750   | 750   |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Standard LED                                  | 240   | 240   | 240   |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| ENERGY STAR Refrigerator                      | 435   | 435   | 435   |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Evaporative Cooling                           | 464   | 464   | 464   |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |
| Total   | 1,889   | 1,889 | 1,889 |  |                  |      |      |      |   |     |     |     |              |     |     |     |                          |     |     |     |                     |     |     |     |       |       |       |       |

|                   |   |          |                              |   |                |                |
|-------------------|---|----------|------------------------------|---|----------------|----------------|
| Estimated Savings |   |          |                              |   |                |                |
|                   | <b>Net Energy Savings Goals</b>               |          |                              |   |                |                |
|                   | Eligible Measure                              | Unit     | Net kWh per Unit @ Meter     | Annual Net Energy Savings Goals (kWh) @ Meter     |                |                |
|                   |   |          |                              | 2016  | 2017           | 2018           |
|                   | Customer Evaluation (Direct Install Measures) | per Home | 167                          | 125,337   | 125,337        | 125,337        |
|                   | Standard LED                                  | per bulb | 23                           | 54,925  | 54,925         | 54,925         |
|                   | ENERGY STAR Refrigerator                      | per unit | 44                           | 19,270  | 19,270         | 19,270         |
|                   | Evaporative Cooler                            | per unit | 1,573                        | 729,872   | 729,872        | 729,872        |
|                   | <b>TOTAL</b>                                  |          |                              | <b>929,404</b>                                    | <b>929,404</b> | <b>929,404</b> |
|                   |   |          |                              |   |                |                |
|                   | Eligible Measure                              | Unit     | Net kWh per Unit @ Generator | Annual Net Energy Savings Goals (kWh) @ Generator |                |                |
|                   |   |          |                              | 2016  | 2017           | 2018           |
|                   | Customer Evaluation (Direct Install Measures) | per Home | 167                          | 133,396   | 133,396        | 133,396        |
|                   | Standard LED                                  | per bulb | 23                           | 58,457  | 58,457         | 58,457         |
|                   | ENERGY STAR Refrigerator                      | per unit | 44                           | 20,509  | 20,509         | 20,509         |
|                   | Evaporative Cooler                            | per unit | 1,573                        | 776,803   | 776,803        | 776,803        |
|                   | <b>TOTAL</b>                                  |          |                              | <b>989,165</b>                                    | <b>989,165</b> | <b>989,165</b> |
|                   |   |          |                              |   |                |                |
|                   | <b>Net Demand Savings Goals</b>               |          |                              |   |                |                |
|                   | Eligible Measure                              | Unit     | Net kW per Unit @ Meter      | Annual Net Demand Savings Goals (kW) @ Meter      |                |                |
|                   |   |          |                              | 2016  | 2017           | 2018           |
|                   | Customer Evaluation (Direct Install Measures) | per Home | 0.021                        | 15.97   | 15.97          | 15.97          |
|                   | Standard LED                                  | per bulb | 0.003                        | 6.34  | 6.34           | 6.34           |
|                   | ENERGY STAR Refrigerator                      | per unit | 0.007                        | 2.91  | 2.91           | 2.91           |
|                   | Evaporative Cooler                            | per unit | 1.745                        | 810   | 810            | 810            |
|                   | <b>TOTAL</b>                                  |          |                              | <b>835</b>  | <b>835</b>     | <b>835</b>     |
|                   |   |          |                              |   |                |                |
|                   | Eligible Measure                              | Unit     | Net kW per Unit @ Generator  | Annual Net Demand Savings Goals (kW) @ Generator  |                |                |
|                   |   |          |                              | 2016  | 2017           | 2018           |
|                   | Customer Evaluation (Direct Install Measures) | per Home | 0.023                        | 16.99   | 16.99          | 16.99          |
|                   | Standard LED                                  | per bulb | 0.003                        | 6.74  | 6.74           | 6.74           |
|                   | ENERGY STAR Refrigerator                      | per unit | 0.007                        | 3.09  | 3.09           | 3.09           |
|                   | Evaporative Cooler                            | per unit | 1.857                        | 862   | 862            | 862            |
|                   | <b>TOTAL</b>                                  |          |                              | <b>889</b>  | <b>889</b>     | <b>889</b>     |

|                    |                          |                  |                          |                           |                              |
|--------------------|--------------------------|------------------|--------------------------|---------------------------|------------------------------|
|                    |                          |                  |                          |                           |                              |
| Estimated Budget   |                          |                  |                          |                           |                              |
|                    | <b>Budget Categories</b> | <b>2016</b>      | <b>2017</b>              | <b>2018</b>               |                              |
|                    | Incentives               | \$0              | \$0                      | \$0                       |                              |
|                    | Administration           | \$22,818         | \$22,818                 | \$22,818                  |                              |
|                    | Marketing                | \$36,508         | \$36,508                 | \$36,508                  |                              |
|                    | Delivery                 | \$781,450        | \$781,450                | \$781,450                 |                              |
|                    | <b>Total</b>             | <b>\$840,776</b> | <b>\$840,776</b>         | <b>\$840,776</b>          |                              |
| Cost-Effectiveness |                          |                  |                          |                           |                              |
|                    | <b>mTRC Test</b>         | <b>RIM Test</b>  | <b>Utility Cost Test</b> | <b>Societal Cost Test</b> | <b>Participant Cost Test</b> |
|                    | 3.81                     | 1.68             | 3.81                     | 3.87                      | n/a                          |



### School Based Energy Education Program

|                         |  |       |      |      |       |       |       |
|-------------------------|--|-------|------|------|-------|-------|-------|
| Objective               | Enhance student education and awareness of energy efficiency and conservation.   |       |      |      |       |       |       |
| Target Market           | Middle school and high school children, teachers, principals, parents  |       |      |      |       |       |       |
| Description             | <p>The program provides hands-on education lessons and energy savings kits to middle and high school students within Black Hills’ service territory. The energy savings kits consist of a set of low-cost measures to be installed in the home, providing hands-on methods for the students to evaluate the impact of measure implementation.</p> <p>Each teacher/classroom receives lesson plans, classroom posters, a program video, step-by-step checklist and supplemental activities. The energy savings kits may include:</p> <ul style="list-style-type: none"><li>• Standard LED bulbs</li><li>• Standard CFL bulbs</li><li>• Low-flow Showerhead</li><li>• Kitchen Aerator</li><li>• LED Light Bulb</li><li>• Furnace/Air Conditioner Filter Alarm</li><li>• Efficient Night Light</li><li>• Digital Thermometer</li><li>• Toilet Leak Detector Tablets</li><li>• Flow Rate Test Bag</li><li>• Natural Resources Fact Chart</li><li>• Mini Tape Measure</li></ul> |       |      |      |       |       |       |
| Program Goals           | <ul style="list-style-type: none"><li>• Increase awareness of efficiency and conservation among students, teachers, and parents.</li><li>• Educate students about the benefits of efficiency and the opportunities to reduce energy consumption in the home and at school.</li><li>• Increase awareness of and participation in other Company energy efficiency programs.</li><li>• Expand school curricula to include lessons on efficiency and conservation.</li></ul>   |       |      |      |       |       |       |
| Implementation Strategy | Black Hills promotes the program to school districts and teachers through education associations and targets middle and high school children and their households. The program is marketed to school officials including teachers, principals and school district personnel. Information on the benefits of this program is explained to teachers or principals prior to handing out the energy kits. The Company will target middle and high schools to minimize the number of students that would participate in the program twice.  |       |      |      |       |       |       |
| Measures & Incentives   | Each student is provided with an energy savings kit at no cost.  |       |      |      |       |       |       |
| Estimated Participation | <p>High school students will account for 500 participants and middle school students will account for 2,000 participants.</p> <table><tr><td>2016</td><td>2017</td><td>2018</td></tr><tr><td>2,500</td><td>2,500</td><td>2,500</td></tr></table>   | 2016  | 2017 | 2018 | 2,500 | 2,500 | 2,500 |
| 2016                    | 2017   | 2018  |      |      |       |       |       |
| 2,500                   | 2,500  | 2,500 |      |      |       |       |       |

|                           |                                 |                         |  |                           |                              |
|---------------------------|---------------------------------|-------------------------|--|---------------------------|------------------------------|
| <b>Estimated Savings</b>  | <b>Net Energy Savings Goals</b> |                         |  |                           |                              |
|                           | <b>Unit</b>                     | <b>Net kWh per Unit</b> | <b>Annual Net Energy Savings Goals (kWh)</b> |                           |                              |
|                           |                                 |                         | <b>2016</b>                                  | <b>2017</b>               | <b>2018</b>                  |
|                           | per Customer @ Meter            | 434                     | 1,084,487                                    | 1,084,487                 | 1,084,487                    |
|                           | per Customer @ Generator        | 462                     | 1,154,219                                    | 1,154,219                 | 1,154,219                    |
|                           | <b>Net Demand Savings Goals</b> |                         |  |                           |                              |
|                           | <b>Unit</b>                     | <b>Net kW per Unit</b>  | <b>Annual Net Demand Savings Goals (kW)</b>  |                           |                              |
|                           |                                 |                         | <b>2016</b>                                  | <b>2017</b>               | <b>2018</b>                  |
| <b>Estimated Budget</b>   | per Customer @ Meter            | 0.050                   | 123.8  | 123.8                     | 123.8                        |
|                           | per Customer @ Generator        | 0.053                   | 131.8  | 131.8                     | 131.8                        |
|                           | <b>Budget Categories</b>        |                         |  |                           |                              |
|                           | Incentives                      | \$0                     | \$0  | \$0                       |                              |
|                           | Administration                  | \$8,750                 | \$8,750                                      | \$8,750                   |                              |
|                           | Marketing                       | \$3,500                 | \$3,500                                      | \$3,500                   |                              |
|                           | Delivery                        | \$175,000               | \$175,000                                    | \$175,000                 |                              |
| <b>Cost-Effectiveness</b> | <b>Total</b>                    | <b>\$187,250</b>        | <b>\$187,250</b>                             | <b>\$187,250</b>          |                              |
|                           | <b>mTRC Test</b>                | <b>RIM Test</b>         | <b>Utility Cost Test</b>                     | <b>Societal Cost Test</b> | <b>Participant Cost Test</b> |
|                           | 2.37                            | 0.60                    | 2.37   | 2.52                      | n/a                          |







## **Appendix A. Detailed Benefit-Cost Analysis Results**

Detailed Benefit-Cost Analysis Results are contained in a separate file.