



**Black Hills Power - South Dakota
2017-2019
Demand-Side
Management Portfolio
Update**

Prepared by:

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1. Portfolio Overview

Black Hills Power (“BHP” or “Company”) is an investor-owned utility that provides electricity to approximately 70,000 customers in western South Dakota, northern Wyoming and southeastern Montana. Black Hills Power is part of Black Hills Corporation, which provides natural gas and electricity to more than 1,200,000 customers throughout the Midwest region of the United States.

Black Hills Power retained Applied Energy Group (“AEG”) to update the demand-side management (“DSM”) portfolio for Program Years 2017, 2018 and 2019 for the Company’s South Dakota service area. The three key tenets of BHP’s DSM programs are:

- **Black Hills Power 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 BHP’s energy efficiency programs.
- **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.
- **State energy goals benefit from energy-efficiency programs.** Effective energy efficiency programs can help BHP and the State of South Dakota meet the renewable and recycled energy objective that ten percent of all electricity sold at retail within South Dakota be obtained from renewable, recycled, and conserved energy sources.¹

Based on experience in other jurisdictions, including those where other BHC companies operate, the proposed programs have been designed to maximize participation. 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. BHP’s program portfolio uses a combination of education and customer incentives to advance energy efficiency in South Dakota.

TABLE 1: PORTFOLIO SUMMARY BY PROGRAM YEAR

	Participation	MWh Savings	Coincident kW Savings	Total Budget
2017	14,680	5,418	1,254	\$914,740
2018	14,771	5,476	1,273	\$928,901
2019	14,862	5,534	1,292	\$943,062

TABLE 2: COST-EFFECTIVENESS BY PROGRAM YEAR

	2017	2018	2019
Residential Programs	0.78	0.78	0.79
Commercial & Industrial Programs	1.06	1.07	1.09
Total Portfolio	1.00	1.01	1.02

2. Portfolio Development

The Total Resource Cost Test (“TRC”) was the primary method of assessing the cost-effectiveness of energy efficient measures and programs. The TRC test is a widely-accepted methodology that has been used across the United States for over twenty-five years. TRC measures the net costs and benefits of an

¹ See [South Dakota Codified Laws](#) 49-34A-101 through 49-34A-106.

energy efficiency program as a resource option based on the total costs of the program, including both the participant’s and the utility’s costs. This test represents the combination of the effects of a program on both participating and non-participating customers.

Four other commonly used and standardized benefit-cost tests were utilized to analyze cost-effectiveness from different perspectives:

- **Participant Cost Test** quantifies the benefits and costs to the customer due to program participation.
- **Ratepayer Impact Measure (“RIM”) Cost Test** measures what happens to a customer’s rates due to changes in utility revenues and operating costs.
- **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.
- **Societal Cost Test** measures the effects of a program on society as a whole (the Societal Test is a variation on TRC and often includes the non-energy benefits associated with energy efficient technologies).

The cost-effectiveness analysis was performed using Black Hills South Dakota-specific data. The software used to perform the benefit-cost screening has been adapted from Minnesota Office of Energy Security “BenCost” software and is consistent with the California Standard Practice Manual. The input data gathered for the model included:

TABLE 3: COST-EFFECTIVENESS MODEL INPUTS

General Inputs	Specific-Project Inputs
Retail Rate (\$/kWh)	Utility Project Costs
Commodity Cost (\$/kWh)	Direct Participant Project Costs
Demand Cost (\$/kW-Year)	Project Life (Years)
Environmental Damage Cost (\$/kWh)	kWh/Participant Saved
Discount Rate (%)	kW/Participant Saved
Escalation Rate (%)	Number of Participants
Line Losses (%)	

Energy efficient measure energy and demand 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 is variability in these savings estimates as they relate to program design and target markets, particularly at the planning stage of these programs. The project-specific inputs were developed using a variety of sources, including BHP South Dakota’s historical demand-side management (“DSM”) programs, other Black Hills’ company energy efficiency programs, ENERGY STAR, the Consortium for Energy Efficiency and additional regional and national sources.

Measures were bundled into programs and re-screened for cost-effectiveness to ensure BHP’s DSM programs and portfolio are cost-effective. The portfolio incorporates measures that were cost-effective on a stand-alone basis as well as measures that were not cost-effective but were determined to provide ample benefits to BHP customers.

3. DSM Portfolio Update

Black Hills Power is proposing to continue its DSM portfolio for the 2017 – 2019 program years, with modifications to the program years. The DSM portfolio is comprised of seven residential programs and two commercial and industrial programs, which provide a variety of opportunities for customers to participate in energy efficiency programs offered by the Company.

A few of the programs were modified from the 2015 – 2016 Energy Efficiency Plan, currently being implemented by BHP. The proposed 2017 – 2019 DSM Portfolio program updates include:

Residential

- **Residential Lighting.** The offerings for this program continue to be LED lighting and ENERGY STAR fixtures. The Advanced Power Strip measures has been removed due to low participation.
- **Appliance Recycling.** BHP will continue to offer the rebate for recycling a secondary refrigerator or freezer to the customer.
- **Residential Efficiency HVAC.** BHP will offer incentives for efficient heat pumps, central ACs, and ductless mini-split heat pumps. Heat pump water heaters will also continue to be incentivized. The early retirement measures for heat pumps and electric tank water heaters have been removed due to the cost-effectiveness of those measures.
- **Whole House Efficiency.** BHP and Montana-Dakota Utilities (“MDU”) will continue to jointly offer a Whole House Efficiency Program to residential customers. BHP will continue to offer a Residential Kit containing easy to install measures at no cost to customers who participate in the program.
- **Residential Audit.** The program will continue to consist of an online energy audit for customers. BHP offers a Residential Kit containing easy to install measures at no cost to customers who complete an online energy audit.
- **Student- Based Education.** This program will remain the same and consists of a proven education program for 5th grade students.
- **Weatherization.** BHP will continue to offer the installation of measures to qualifying low income customers, however, the CFL rebate has been discontinued due market shifts. In addition to those installation measures, BHP offers a Residential Kit containing easy to install measures at no cost to customers who participate in the program.

Commercial & Industrial

- **C&I Prescriptive.** The list of qualifying prescriptive measures was modified to better reflect what is currently available in the market and to bring in line with programs in other Black Hills service territories.
- **C&I Custom.** No program changes.

Residential Lighting

Target Market	Lighting retailers and residential customers.															
Description	<p>The program’s primary objective is to secure energy savings by incentivizing the purchase of ENERGY STAR® qualified lighting. Mail-in rebates would be available to residential customers that purchase efficient appliances, including:</p> <ul style="list-style-type: none"> – LED – ENERGY STAR Lighting Fixtures <p>Rebates would be mailed to the customer upon receipt and approval of the rebate application.</p> <p>Customers have the option to purchase the discounted LEDs (direct discount on sale price) sold at BHP’s local offices. LEDs can also be purchased from any retail store and a rebate check will be sent to the customer after showing proof of purchase and meeting Energy Star ratings.</p>															
Program Goals	<ul style="list-style-type: none"> – Help residential customers reduce their electricity bills. – Educate residential customers about the benefits of efficient lighting. – Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety and comfort. 															
Eligible Measures and Incentives	<p>The LED bulb incentives vary upon type of LED bulb offered.</p> <table border="1" style="margin-left: 20px;"> <tr> <td style="text-align: center;">LED</td> <td style="text-align: center;">\$5</td> </tr> <tr> <td style="text-align: center;">ENERGY STAR Lighting Fixture</td> <td style="text-align: center;">\$10</td> </tr> </table>				LED	\$5	ENERGY STAR Lighting Fixture	\$10								
LED	\$5															
ENERGY STAR Lighting Fixture	\$10															
Marketing Strategy	<p>Marketing activities may include bill inserts, email blasts and community events. Implementation and marketing will be reviewed and updated upon determination of the exact method of distributing the LED bulbs.</p>															
Estimated Participation	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">LED</td> <td style="text-align: center;">4,000</td> <td style="text-align: center;">4,060</td> <td style="text-align: center;">4,120</td> </tr> <tr> <td style="text-align: center;">ENERGY STAR Lighting Fixture</td> <td style="text-align: center;">500</td> <td style="text-align: center;">500</td> <td style="text-align: center;">500</td> </tr> </tbody> </table>					PY 2017	PY 2018	PY 2019	LED	4,000	4,060	4,120	ENERGY STAR Lighting Fixture	500	500	500
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	PY 2017	PY 2018	PY 2019													
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Estimated Budget	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">\$37,800</td> <td style="text-align: center;">\$38,263</td> <td style="text-align: center;">\$38,726</td> </tr> </tbody> </table>				PY 2017	PY 2018	PY 2019	\$37,800	\$38,263	\$38,726						
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\$37,800	\$38,263	\$38,726														

Residential Appliance Recycling Program

Target Market	Residential customers disposing of secondary inefficient refrigerators or freezers.														
Description	<p>The Appliance Recycling Program will encourage customers to turn in their old inefficient refrigerators and freezers, removing them from the electric system and disposing of them in an environmentally safe and responsible manner. Customers will receive \$50 for each secondary refrigerator or freezer recycled, limited to 2 rebates per program year. The refrigerator/freezer must be in working condition and between 10 and 30 cubic feet in size. The refrigerators and freezers will be picked-up at no cost to the customer</p> <p>BHP will engage a third-party implementation contractor to handle scheduling, transportation and disposal of the refrigerators and freezers. The contractor will specialize in appliance recycling and have access to a recycling facility.</p>														
Program Goals	<ul style="list-style-type: none"> – Promote appliance recycling. – Educate customers about the benefits of recycling their inefficient appliances. – Influence consumer behavior by encouraging residential customers to avoid replacing recycled secondary refrigerators or freezers. 														
Marketing Strategy	Marketing activities may include bill inserts, print and electronic advertisements, community events, billboards, radio advertisements, and community events.														
Estimated Participation	<table border="1"> <thead> <tr> <th></th> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>Refrigerator Recycle</td> <td>75</td> <td>75</td> <td>75</td> </tr> <tr> <td>Freezer Recycle</td> <td>8</td> <td>8</td> <td>8</td> </tr> </tbody> </table>				PY 2017	PY 2018	PY 2019	Refrigerator Recycle	75	75	75	Freezer Recycle	8	8	8
	PY 2017	PY 2018	PY 2019												
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PY 2017	PY 2018	PY 2019													
\$16,232	\$16,232	\$16,232													

Residential High Efficiency HVAC Program

Target Market	Residential customers, including owners of rental properties and new construction, as well as HVAC contractors.																											
Description	<p>The objective of the program is to encourage residential customers to purchase and install energy-efficient HVAC equipment. Residential customers will be eligible to receive financial incentives for the purchase and installation of the following efficient equipment:</p> <ul style="list-style-type: none"> – Heat Pump SEER 15 (1-5 tons) SEER ≥15 and HSPF ≥8.5 – Heat Pump SEER 15 Replace Electric Furnace, (1-5 tons) SEER ≥15 and HSPF ≥8.5 – Central Air Conditioning (CAC) SEER 15 (1-3 tons) – Ductless Mini-Split HP SEER ≥19 – Heat Pump Water Heater EF ≥2.0 <p>The rebate offered for CAC units has the potential to be a great program that would be applicable to many customers with the primary objective of encouraging the highest efficient equipment available on the market.</p>																											
Program Goals	<ul style="list-style-type: none"> – Educate customers about the benefits of installing high efficiency HVAC equipment. – Develop partnerships with contractors to bring efficient systems to market. – Help customers reduce their electricity bills. 																											
Eligible Measures and Incentives	<table border="1"> <tr> <td>Heat Pump SEER 15</td> <td>\$75 per ton</td> </tr> <tr> <td>Heat Pump SEER 15 Replace Electric Furnace</td> <td>\$1,500 per unit</td> </tr> <tr> <td>Central Air Conditioning (CAC) SEER 15</td> <td>\$60 per ton</td> </tr> <tr> <td>Ductless Mini-Split HP SEER ≥19</td> <td>\$50 per ton</td> </tr> <tr> <td>Heat Pump Water Heater</td> <td>\$5.00 per tank gallon</td> </tr> </table>				Heat Pump SEER 15	\$75 per ton	Heat Pump SEER 15 Replace Electric Furnace	\$1,500 per unit	Central Air Conditioning (CAC) SEER 15	\$60 per ton	Ductless Mini-Split HP SEER ≥19	\$50 per ton	Heat Pump Water Heater	\$5.00 per tank gallon														
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Marketing Strategy	The program will be marketed to residential customers, including owners of rental properties and new construction, as well as HVAC contractors. Marketing activities may include, bill inserts, newspaper advertisements, on-bill messaging, and local HVAC contractors.																											
Estimated Participation	<table border="1"> <thead> <tr> <th></th> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>Heat Pump SEER 15</td> <td>20</td> <td>20</td> <td>20</td> </tr> <tr> <td>Heat Pump SEER 15 Replace Electric Furnace</td> <td>6</td> <td>6</td> <td>6</td> </tr> <tr> <td>Central Air Conditioning (CAC) SEER 15</td> <td>50</td> <td>75</td> <td>100</td> </tr> <tr> <td>Ductless Mini-Split HP SEER ≥19</td> <td>25</td> <td>30</td> <td>35</td> </tr> <tr> <td>Heat Pump Water Heater</td> <td>10</td> <td>10</td> <td>10</td> </tr> </tbody> </table>					PY 2017	PY 2018	PY 2019	Heat Pump SEER 15	20	20	20	Heat Pump SEER 15 Replace Electric Furnace	6	6	6	Central Air Conditioning (CAC) SEER 15	50	75	100	Ductless Mini-Split HP SEER ≥19	25	30	35	Heat Pump Water Heater	10	10	10
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	\$35,607	\$42,225	\$48,843																									

Whole House Efficiency Program

Target Market	Residential customers that own or rent a residence.												
Description	<p>The Whole House Efficiency Program will encourage whole-house improvements to existing homes by enhancing home energy audits and promoting comprehensive retrofit services.</p> <p>Black Hills Power and Montana-Dakota Utilities (“MDU”) will jointly offer a Whole House Efficiency Program to residential customers with joint electric and natural gas services. The program will provide a home energy audit, air sealing, and low-cost, easy-to-install measures at a cost of \$50 to the customer, which includes a Residential Kit (described below). A 3rd party contractor will be utilized on the home audits completed on jointly sponsored homes and the costs will be shared between BHP & MDU. BHP’s service technicians will complete the audits on the other homes such as total electric homes or homes that are heated with propane. The home energy audit will identify efficiency improvements and provide information on BHP and MDU energy efficiency programs. Measures offered through the program will include:</p> <ul style="list-style-type: none"> – Air sealing – Hot Water Pipe Insulation – Water Heater Tank Wrap – Residential Kit <ul style="list-style-type: none"> ○ LEDs ○ Faucet Aerator for the Bathroom ○ Low Flow Showerhead 												
Program Goals	<ul style="list-style-type: none"> – Encourage energy saving behavior and whole house improvements. – Increase awareness of energy efficiency and energy use in the home. – Educate residential customers about the benefits of energy efficiency and the opportunities to reduce energy consumption. – Increase awareness of and participation in other BHP energy efficiency programs. 												
Eligible Measures and Incentives	A home energy audit, air sealing and installation of measures will be provided at a cost of \$50 to the customer.												
Marketing Strategy	Marketing activities may include direct outreach to customers, including bill inserts, email blasts, and community outreach events.												
Estimated Participation	<table border="1"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>150</td> <td>150</td> <td>150</td> </tr> </tbody> </table>	PY 2017	PY 2018	PY 2019	150	150	150						
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	PY 2017	PY 2018	PY 2019										
Energy (kWh) Savings	34,770	34,770	34,770										
Demand (kW) Savings	5	5	5										
Estimated Budget	<p>BHP’s portion of the budget is presented.</p> <table border="1"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>\$12,592</td> <td>\$12,592</td> <td>\$12,592</td> </tr> </tbody> </table>	PY 2017	PY 2018	PY 2019	\$12,592	\$12,592	\$12,592						
PY 2017	PY 2018	PY 2019											
\$12,592	\$12,592	\$12,592											

Residential Audit Program

Target Market	Residential customers.														
Description	The objective of the Residential Audit Program is to encourage energy education and conservation. The program will provide customers access to a free online tool to analyze the energy efficiency of their home and educational materials regarding energy efficiency and conservation. In addition, BHP will offer the option to the participant to pick up a free Residential Kit at their local BHP office. This kit contains easy to install measures for their home.														
Program Goals	<ul style="list-style-type: none"> – Increase awareness of energy efficiency and energy use. – Educate residential customers about the benefits of energy efficiency and the opportunities to reduce energy consumption. – Increase awareness of and participation in other BHP energy efficiency programs. 														
Eligible Measures and Incentives	Customers have to the option to receive a Residential Kit, The kit includes: <ul style="list-style-type: none"> – LEDs – Faucet Aerator for the Bathroom – Low Flow Showerhead 														
Marketing Strategy	The program will be marketed on the BHP DSM website, at community events and in conjunction with other residential DSM Programs.														
Estimated Participation	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">PY 2017</th> <th style="width: 33%;">PY 2018</th> <th style="width: 33%;">PY 2019</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">650</td> <td style="text-align: center;">650</td> <td style="text-align: center;">650</td> </tr> </tbody> </table>			PY 2017	PY 2018	PY 2019	650	650	650						
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PY 2017	PY 2018	PY 2019													
\$32,629	\$32,629	\$32,629													

School-Based Education Program

Target Market	School administrators (including teachers), students and parents.												
Description	The School-Based Education Program seeks long-term energy savings through enhanced education and awareness of energy efficiency among 5 th grade students within BHP's service territory. Students will participate in a classroom lesson plan and receive a kit of low-cost energy savings measures at no cost. The kits will help ideas and concepts to resonate with participating students, providing hands-on methods for the students to understand energy and conservation.												
Program Goals	<ul style="list-style-type: none"> – Educate students about the benefits of efficiency and the opportunities to reduce energy consumption. – Increase awareness of and participation in other BHP energy efficiency programs. – Long-term energy savings through enhanced education and awareness of energy efficiency among students and parents. 												
Incentives	Educational materials and Energy Education Kits are provided at no cost.												
Marketing Strategy	The program is marketed to school officials, including teachers, principals and school personnel. Information on the benefits of this program will be explained to teachers or principals prior to handing out the energy kits. Teachers and principals will also receive information on how to present the kits to students.												
Estimated Participation	<table border="1"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>1,200</td> <td>1,200</td> <td>1,200</td> </tr> </tbody> </table>	PY 2017	PY 2018	PY 2019	1,200	1,200	1,200						
PY 2017	PY 2018	PY 2019											
1,200	1,200	1,200											
Estimated Savings	<table border="1"> <thead> <tr> <th></th> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>Energy (kWh) Savings</td> <td>476,400</td> <td>476,400</td> <td>476,400</td> </tr> <tr> <td>Demand (kW) Savings</td> <td>48</td> <td>48</td> <td>48</td> </tr> </tbody> </table>		PY 2017	PY 2018	PY 2019	Energy (kWh) Savings	476,400	476,400	476,400	Demand (kW) Savings	48	48	48
	PY 2017	PY 2018	PY 2019										
Energy (kWh) Savings	476,400	476,400	476,400										
Demand (kW) Savings	48	48	48										
Estimated Budget	<table border="1"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>\$66,150</td> <td>\$66,150</td> <td>\$66,150</td> </tr> </tbody> </table>	PY 2017	PY 2018	PY 2019	\$66,150	\$66,150	\$66,150						
PY 2017	PY 2018	PY 2019											
\$66,150	\$66,150	\$66,150											

Weatherization Program

Target Market	Low-income residential homeowners and renters.														
Description	The Weatherization Program’s long-term goal is to deliver long-term energy savings and bill reductions to low-income customers. The program delivers weatherization measures to low income homeowners and renters, at no cost to the participant. Home efficiency is improved through the installation of energy saving measures, such as caulking, weather stripping, pipe insulation and receipt of a Residential kit containing easy to install measure at no cost to the customer with participation in the program.														
Program Goals	<ul style="list-style-type: none"> – Demonstrate persistent energy savings. – Encourage energy saving behavior. – Help residential customers reduce their electricity bills. 														
Eligible Measures and Incentives	<p>The following measures are provided at no cost to the customer:</p> <ul style="list-style-type: none"> – Air Sealing – Water Heater Tank Wrap – Hot water Pipe Insulation – Water Heater Temperature Setback – Residential Kit <ul style="list-style-type: none"> ○ LEDs ○ Faucet Aerator for the Bathroom ○ Low Flow Showerhead 														
Marketing Strategy	Marketing includes community events, internet, churches and nonprofit organizations within the service territory.														
Estimated Participation	<table border="1"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>30</td> <td>30</td> <td>30</td> </tr> </tbody> </table>			PY 2017	PY 2018	PY 2019	30	30	30						
PY 2017	PY 2018	PY 2019													
30	30	30													
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	PY 2017	PY 2018	PY 2019												
Energy (kWh) Savings	35,337	35,337	35,337												
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Estimated Budget	<table border="1"> <thead> <tr> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>\$13,230</td> <td>\$13,230</td> <td>\$13,230</td> </tr> </tbody> </table>			PY 2017	PY 2018	PY 2019	\$13,230	\$13,230	\$13,230						
PY 2017	PY 2018	PY 2019													
\$13,230	\$13,230	\$13,230													

Commercial and Industrial Rebate Program

Target Market	Commercial and industrial customers												
Description	<p>The Commercial and Industrial Rebate Program will encourage the purchase and installation of energy efficient equipment by providing incentives to lower the cost of purchasing efficient equipment for commercial and industrial facilities. The program will consist of prescriptive and custom rebates.</p> <p>Prescriptive. Pre-qualified prescriptive rebates will be available for new construction and retrofits. The rebated measures, including lighting, HVAC equipment, and motors are proven technologies that are readily available with known performance characteristics (see incentives listed in the table below).</p> <p>Custom. Equipment that does not qualify for a prescriptive rebate will be eligible for a custom rebate. Applications must be pre-approved by BHP before equipment is purchased and installed to ensure they produce a Benefit-Cost Test of 1.0 or higher and have an incremental payback greater than two years. Incentives will be the lesser of the following:</p> <ul style="list-style-type: none"> – A buy-down to a two year payback; or – 50% of the incremental cost. <p>A \$25,000 incentive cap will be imposed per facility per program year. Multiple rebate applications for different measures may be submitted. All C&I customers are eligible to participate in this program. The same customer can participate in more than one measure in the same year (e.g., retrofit a lighting system and upgrade to a more efficient HVAC system).</p>												
Goals	<ul style="list-style-type: none"> – Educate customers about the benefits of installing high efficiency equipment. – Demonstrate persistent energy savings. – Help commercial and industrial customers reduce their electricity bills. 												
Marketing Strategy	Marketing activities may include newspaper advertisements, email blasts, targeted mailings to customers and contractors, and bill inserts.												
Estimated Participation	<table border="1"> <thead> <tr> <th></th> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>C&I Custom</td> <td>60</td> <td>61</td> <td>62</td> </tr> <tr> <td>C&I Prescriptive</td> <td>8,016</td> <td>8,016</td> <td>8,016</td> </tr> </tbody> </table>		PY 2017	PY 2018	PY 2019	C&I Custom	60	61	62	C&I Prescriptive	8,016	8,016	8,016
	PY 2017	PY 2018	PY 2019										
C&I Custom	60	61	62										
C&I Prescriptive	8,016	8,016	8,016										
Estimated Savings	<table border="1"> <thead> <tr> <th></th> <th>PY 2017</th> <th>PY 2018</th> <th>PY 2019</th> </tr> </thead> <tbody> <tr> <td>Energy (kWh) Savings</td> <td>4,281,904</td> <td>4,314,676</td> <td>4,347,448</td> </tr> <tr> <td>Demand (kW) Savings</td> <td>1,070</td> <td>1,078</td> <td>1,086</td> </tr> </tbody> </table>		PY 2017	PY 2018	PY 2019	Energy (kWh) Savings	4,281,904	4,314,676	4,347,448	Demand (kW) Savings	1,070	1,078	1,086
	PY 2017	PY 2018	PY 2019										
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	PY 2017	PY 2018	PY 2019										
C&I Custom	\$367,662	\$373,789	\$379,917										
C&I Prescriptive	\$286,045	\$286,045	\$286,045										

Lighting			
Measure	Baseline	Incentive	Unit
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 2-3 lamp)	175W Metal Halide	\$55	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 4-6 lamp)	400W Metal Halide	\$75	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 8-lamp)	750W Metal Halide	\$85	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 10-lamp)	1000W Metal Halide	\$95	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 4 lamp)	175W Metal Halide	\$55	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 6-8 lamp)	400W Metal Halide	\$75	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 12-16 lamp)	750W Metal Halide	\$85	per fixture
High Bay Fluorescent Fixture w/ HE Electronic Ballast (T8 18-20 lamp)	1000W Metal Halide	\$95	per fixture
Low-Wattage T8	Std T8	\$1	per lamp
Energy Star LED Lamp (≤5W)	Halogen	\$5	per lamp
Energy Star LED Lamp (6-10W)	Halogen	\$9	per lamp
Energy Star LED Lamp (11 to 20W)	Halogen	\$13	per lamp
Energy Star LED Lamp (>20W)	Halogen	\$15	per lamp
High Performance T8 (1-2 Lamp)	T8	\$9	per fixture
High Performance T8 (3-4 Lamp)	T8	\$12	per fixture
LED Parking Garage/Canopy (<30W)	100W Metal Halide	\$60	per fixture
LED Parking Garage/Canopy (30-75W)	175W Metal Halide	\$100	per fixture
LED Parking Garage/Canopy (≥75W)	320W Metal Halide	\$140	per fixture
LED Linear Replacement Lamp (≤4ft)	Std Fluorescent	\$6	per lamp
LED Linear Replacement Lamp (5-8ft)	Std Fluorescent	\$15	per lamp
Ceiling Mount Occupancy	No Control	\$30	per control
Wall Mount Occupancy	No Control	\$12	per control
Fixture Mount Occupancy	No Control	\$12	per control
Exit Sign		\$6	per fixture
LED wall mounted area lights (wallpacks) (<30W)	Metal Halide	\$35	per fixture
LED wall mounted area lights (wallpacks) (30 to 75W)	Metal Halide	\$75	per fixture
LED wall mounted area lights (wallpacks) (≥75W)	Metal Halide	\$100	per fixture
Energy Star LED downlights (new or retrofit) (50W or less)	Incandescent	\$35	per fixture
Refrigerated LED Case Lighting 5- and 6-foot Doors	Std Fluorescent	\$60	per fixture
Integral Occupancy Control Stairwell fixtures (2-3 lamp T8)	T8	\$30	per fixture
Integral Occupancy Control Stairwell fixtures (20W-30W LED)	T8	\$30	per fixture
LED Exterior Flood Lights (15W or less)	50W Metal Halide	\$15	per fixture
LED Exterior Flood Lights (16W to 35W)	100W Metal Halide	\$25	per fixture
LED Exterior Flood Lights (36W to 75W)	150W Metal Halide	\$45	per fixture
LED Outdoor Pole/Arm Mounted Parking Roadway (<30W)	100W Metal Halide	\$60	per fixture
LED Outdoor Pole/Arm Mounted Parking Roadway (30W to 75W)	175W Metal Halide	\$100	per fixture
LED Outdoor Pole/Arm Mounted Parking Roadway (>75W to 150W)	320W Metal Halide	\$140	per fixture
HVAC			
Single Phase Package or Split Systems	SEER ≥14, < 5.4 tons	\$50	per ton
Geothermal Heat Pump	EER ≥17.1, COP ≥3.6	\$70	per ton
Heat Pump Water Heater	EF ≥2.0	\$5	per gallon

NEMA Nominal Efficiency Motors							
Motor Size (HP)	Open Drip-Proof (ODP)			Totally Enclosed Fan-Cooled (TEFC)			Incentive per Motor
	Speed (RPM)						
	1200	1800	3600	1200	1800	3600	
1	82.5%	85.5%	77.0%	82.5%	85.5%	77.0%	\$10
1.5	86.5%	86.5%	84.0%	87.5%	86.5%	84.0%	\$15
2	87.5%	86.5%	85.5%	86.5%	86.5%	85.5%	\$20
3	88.5%	89.5%	85.5%	89.5%	89.5%	86.5%	\$25
5	89.5%	89.5%	86.5%	89.5%	89.5%	88.5%	\$35
7.5	90.2%	91.0%	88.5%	91.0%	91.7%	89.5%	\$50
10	91.7%	91.7%	89.5%	91.0%	91.7%	90.2%	\$65
15	91.7%	93.0%	90.2%	91.7%	92.4%	91.0%	\$75
20	92.4%	93.0%	91.0%	91.7%	93.0%	91.0%	\$100
25	93.0%	93.6%	91.7%	93.0%	93.6%	91.7%	\$125
30	93.6%	94.1%	91.7%	93.0%	93.6%	91.7%	\$150
40	94.1%	94.1%	92.4%	94.1%	94.1%	92.4%	\$200
50	94.1%	94.5%	93.0%	94.1%	94.5%	93.0%	\$250
60	94.5%	95.0%	93.6%	94.5%	95.0%	93.6%	\$300
75	94.5%	95.0%	93.6%	94.5%	95.4%	93.6%	\$350
100	95.0%	95.4%	93.6%	95.0%	95.4%	94.1%	\$450
125	95.0%	95.4%	94.1%	95.0%	95.4%	95.0%	\$500
150	95.4%	95.8%	94.1%	95.8%	95.8%	95.0%	\$550
200	95.4%	95.8%	95.0%	95.8%	96.2%	95.4%	\$600