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2 **DIRECT TESTIMONY OF JAMES M. DILLON**
3 **BEFORE THE IOWA UTILITIES BOARD**
4 **DOCKET NO. EEP-2013-0001**
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6 **1. Q: Please state your name and business address.**

7 A: My name is James M. Dillon. My business address is 1205 SW 37th Street,
8 Grimes, Iowa 50111.

9 **2. Q: By whom are you presently employed and in what capacity?**

10 A: I am employed as Program Manager of Energy Efficiency Programs for
11 Black Hills Energy (BHE). I am responsible for overseeing and maintaining the
12 Iowa Energy Efficiency Portfolio. I work closely with contracted vendors to
13 ensure program budgets, goals and participation levels are on track on a
14 daily/weekly basis. I host annual trade ally meetings throughout the state of Iowa
15 to inform our trade allies of any changes or potential changes on the horizon that
16 could have an impact for them as well as BHE customers. I also work in
17 collaboration with other IOU's to make our programs as uniform as
18 possible across the state. On a quarterly basis, we meet with all of vendors for
19 updates/concerns/questions to keep the entire team focused throughout the year. I
20 am testifying on behalf of BHE.

21 **3. Q: What is your educational background?**

22 A: I received a bachelor's degree in Business Management from Cardinal
23 Stritch College in 1987.

24 **4. Q: Please describe your professional experience.**

1 A: I have been employed in the utility industry in positions requiring
2 knowledge of demand side management (DSM), customer service, and marketing
3 for more than 12 years. Prior to that, I was employed by a major protein
4 manufacturer for 14 years in various marketing and sales positions.

5 **5. Q: What is the purpose of your direct testimony?**

6 A: The purpose of my direct testimony is to sponsor the Assessment of
7 Energy and Capacity Savings Potential in Iowa and BHE's energy efficiency plan
8 (Plan) that have been filed with the Iowa Utilities Board (Board) concurrently
9 with this testimony.

10 **6. Q: Do you have any overall observations regarding the Plan?**

11 A: Yes. Energy efficiency is relevant to multiple arenas of BHE's operations.
12 In addition to the vital role energy efficiency plays in BHE's planning for the
13 utilization of resources, it is a critical element in ensuring that Iowans maintain
14 the quality of life and home comfort they have come to enjoy without increasing
15 their monthly bills. Because of this importance, the overarching goal has been to
16 take full advantage of the process in order to develop the best possible portfolio of
17 energy efficiency.

18 The development of this plan has provided an opportunity for BHE to review its
19 programs and explore both program improvements and innovative new offerings.

20 The proposed energy-efficiency portfolio is composed of three broad categories:
21 residential programs, nonresidential programs, and special programs, with each
22 designed to address the needs of various customer types. The residential program
23 category is further separated into an evaluation program, a prescriptive measures

1 program and a new construction program. For the nonresidential sector programs
2 BHE will provide an evaluation program for small and large commercial
3 customers as well as industrial customers, prescriptive and custom incentive
4 programs, and a new construction program. The special programs category
5 consists of the low-income programs, school-based energy education, tree
6 planting, and funding for the Iowa Energy Center and the Center for Global and
7 Regional Environmental Research.

8 BHE looks forward both to working expeditiously with the Board and other
9 interested parties in this proceeding and to the next step in this process – rolling
10 out our plan as soon as possible to maximize customer benefits.

11 **7. Q: How was the Plan designed?**

12 **A:** Because of BHE’s strong program history, it was a priority in the
13 development of this plan to build on the Company’s successful programs, while at
14 the same time incorporating the most current knowledge and information
15 available from other sources. The combination of these efforts helped to identify
16 new program opportunities and how existing programs can be enhanced. The Plan
17 was developed in two phases. Phase 1, Assessment of Potential, consisted of work
18 involved in the Joint Utility Study, where Iowa’s three major investor-owned
19 utilities collaborated to produce assessments of the technical, economic, and
20 market potentials for energy efficiency within their respective service territories.
21 The Joint Utility Study results are presented in Appendices A and B of the Plan.
22 Phase 2, the development of Black Hills Energy’s energy-efficiency plan, picked
23 up where the first ended, taking the results of potential assessments and

1 combining them with numerous other elements to develop a portfolio of energy-
2 efficiency programs. BHE and its consultant The Cadmus Group relied on a
3 multi-criteria program development and selection approach. Criteria included the
4 assessment of potentials (Phase 1), past program performance at BHE, results
5 from impact and process evaluations, benchmarking and analysis of other utility
6 programs, economic screening of energy efficiency measures and programs, and
7 input from collaborative and trade ally meetings.

8 **8. Q: Have changes in the natural gas environment affected program**
9 **planning and design?**

10 **A:** Yes. Recent developments in building codes, appliance standards and
11 natural gas prices make it much more difficult to design cost-efficient, natural gas
12 energy-efficiency programs. For example, the increased efficiency standard for
13 boilers reduces the savings that are attributable to upgrading from the standard
14 measure to even the highest-efficiency unit. In addition, the adoption of the 2012
15 International Energy Conservation Code[®] (IECC) will make it much more
16 challenging to attribute savings from new construction programs as the difference
17 between energy consumed in buildings built to code and energy consumed in
18 highly efficient buildings continues to shrink. Furthermore, forecasted gas prices
19 continue to decline, and are expected to remain low for the foreseeable future.
20 The combination of these developments is that the savings from natural gas
21 energy efficiency programs are declining both in terms of therms saved and
22 benefits from reduced natural gas procurement while the costs of the measures
23 and programs themselves continue to increase.

1 **9. Q: Please describe significant changes in the program design that BHE**
2 **has undertaken to address these developments.**

3 **A:** BHE’s plan reflects changes in both the residential and nonresidential
4 markets. To streamline the residential programs and make it easier for customers
5 to identify the beneficial upgrades, BHE merged the Space and Water Heating
6 Program and the Envelope Measures Retrofit Program into a single Residential
7 Prescriptive Program. The reconfigured program will include a new bonus
8 incentive payment for participants that install multiple comprehensive measures.
9 Through the Residential Prescriptive Program, BHE will provide incentives for
10 several new measures, including 95% annual fuel utilization efficiency (AFUE)
11 boilers, 70% AFUE gas fireplaces, Wi-Fi programmable thermostats, floor
12 insulation (R-30), and duct sealing.

13 BHE will also offer an enhanced Residential Evaluation Program. This program
14 will include free online or walkthrough evaluation as well as more comprehensive
15 single family and multifamily evaluation options that require a co-pay to
16 encourage customers to follow through with efficiency upgrades. Finally, BHE
17 will offer a Residential New Construction Program, which has been modified to
18 be more streamlined and cost-effective.

19 For the nonresidential sector, BHE will expand the Nonresidential Evaluation
20 Program to include both small and larger commercial buildings. The
21 Nonresidential Prescriptive Program will include new HVAC measures, as well as
22 offering an enhanced set of commercial cooking measures. The design of the
23 Nonresidential Custom and Nonresidential New Construction programs will

1 remain consistent with the programs’ designs in the former program cycle (2009-
2 2013).

3 BHE also proposes to continue supporting several special programs. BHE
4 continues to support the low-income sector by offering Low-Income
5 Weatherization, Low-Income Energy Education, Affordable Housing, Black Hills
6 Energy Weatherization Team, and the Low-Income Multifamily Efficiency
7 Improvement Initiative programs. The Low-Income Multifamily Efficiency
8 Improvement Initiative will include incentives of either 40% of the installed cost
9 or five times a project’s annual savings. BHE also proposes to continue funding
10 the Iowa Energy Center (IEC), the Center for Global and Regional Environmental
11 Research (CGRER), Tree Planting, and School-Based Energy Education
12 programs.

13 Table 1 summarizes the significant changes between the 2009-2013 plan and this
14 plan.

15 **Table 1: Significant Plan Changes**

New Program (2014-2019 Plan)	Program Changes
Residential Evaluation Program	Current program includes a free audit and HPwES. The new program will provide four single-family components: Online, walkthrough with direct install, Tier 1, and Tier 2; and two multifamily components: common area walk-through evaluation and tenant direct install kits. The incentives were increased for each component.
Residential Prescriptive Program	Minimum Furnace and boiler efficiency requirements were increased. Drain water heat recovery, clothes dryers, and dishwashers were dropped for the space & water heating program component. Insulation measure R-requirements were increased. A bundle option with enhanced incentives was added. The majority of incentives increased, though insulation incentives remained the same.

Residential New Construction Program	The New Construction Program was reduced from two performance tiers and a prescriptive tier in the former program to a single prescriptive option in the new program. Drain water heat recovery was added to the new program and windows were removed. Insulation was decreased for the new program, requiring only wall insulation upgrades, and the furnace and insulation have increased efficiency requirements for the new program. The incentive for this program increased.
Nonresidential Evaluation Program	The former program only offered services to businesses with less than 25,000 square feet. The new program offers two components: a small commercial evaluation (equal to or less than 25,000 square feet) and a large commercial evaluation (larger than 25,000 square feet). The Industrial Sector Outreach was combined with the new program.
Nonresidential Prescriptive Program	The new program includes higher efficiency standards for furnace, boiler, and insulation measures. Additional commercial kitchen measures were added to the new program. The majority of incentives increased
Nonresidential Custom Program	No changes.
Nonresidential New Construction Program	No changes.
Building Operator Certification	This program is being discontinued, although budget is available under the administration, training, and marketing cost bucket if there are interested participants.
Low-Income Programs	Low Income Programs remained the same (Weatherization, Energy Education, Multifamily, Affordable Housing, and Weatherization Teams) but became a separate program from other Public Purpose Programs.
Public Purpose Programs	School-Based Energy Education Program, Tree Planting programs, and funding of the IEC and CGRER were combined under Public Purpose Programs.

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10. Q: How has BHE determined the cost effectiveness of the proposed portfolio of programs?

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A: Iowa administrative rules section 199-35 indicates that the societal test is the preferred threshold for the energy efficiency portfolio. BHE designed the portfolio to pass the societal test. Within this overall strategy the individual

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1 programs were designed to provide a wide range of opportunities across all of the
2 Company's customer segments.

3 **11. Q: Did passing the societal test limit program design options?**

4 **A:** BHE believes that the proposed programs represent a robust offering for
5 our customers. Nonetheless, measures and programs that may have passed a
6 societal cost effectiveness test a few years ago failed under today's low forecasted
7 natural gas prices. Ultimately, the portfolio as a whole passes the societal test,
8 however this threshold was more difficult to meet in today's environment and
9 several individual programs failed to pass the cost effectiveness test. The
10 programs that failed to pass the societal test on a stand-alone basis include both
11 the residential and non-residential evaluation programs, the residential new-
12 construction program and most of the low income and public purpose programs.

13 **12. Q: Why is BHE including programs that fail the societal cost test?**

14 **A:** Natural gas prices have exhibited extreme volatility in the recent past.
15 Because the benefit side of the cost/benefit analysis is highly dependent on the
16 forecasted natural gas prices, programs and portfolios may pass cost effectiveness
17 one year but fail the next. If program approval is conditioned on passage of the
18 societal test, the market will see a lack of consistency in program offerings as
19 programs may be approved in one plan only to be excluded from a subsequent
20 plan due to changes in forecasted natural gas prices. This will reduce trade ally
21 interest and increase program costs for the non low-income and public purpose
22 programs. The low-income and public purpose programs are not typically

1 expected to pass a cost effectiveness threshold and are not required to be tested
2 for cost effectiveness by Iowa Administrative Code 199-35.

3 **13. Q: Does BHE propose an alternate threshold for cost effectiveness?**

4 **A:** Iowa administrative rules section 199-35 requires that programs and
5 portfolios be tested from a variety of perspectives including societal, utility,
6 participant and rate impact. While the societal perspective is the preferred
7 threshold, the rules allow for a utility to propose and justify an alternate threshold.
8 BHE believes that utility perspective should be given consideration in this and
9 future plans. Passing the utility cost test assures that a program or portfolio will
10 reduce the utility's costs. While a program or portfolio that passes the societal test
11 will pass the utility cost test in all but a few very rare cases where participant
12 costs are negative, the reverse is not always true due to the addition of participant
13 costs in the societal cost test. Consequently, the use of the utility cost test as the
14 threshold for cost effectiveness will result in less program approval volatility in
15 the face of fluctuating natural gas prices while still assuring that the programs
16 result in lower overall costs for our customers.

17 **14. Q: Is BHE proposing that the utility cost test be the threshold for this**
18 **plan?**

19 **A:** No. The portfolio passes the societal cost test. However, BHE carefully
20 considered both the societal cost test and the utility cost test during the design of
21 the programs and may propose the utility cost test as the threshold for future
22 program applications, if market conditions dictate.

1 **15. Q: How do the expenditure and savings levels in the Plan compare to the**
2 **those of BHE’s energy efficiency plan in effect from 2009 to 2013?**

3 **A:** BHE has developed an aggressive energy efficiency plan given today’s
4 low natural gas price forecasts, with savings goals and accompanying budgets that
5 reflect BHE’s commitment toward obtaining the greatest amount of cost-effective
6 energy-efficiency savings feasible over the planning horizon, and an equitable
7 balance of the energy efficiency costs between participants and ratepayers. While
8 lower than the nearly 1.0% annual savings goals of the 2009-2013 plan, the
9 annual savings goals represent nearly 0.7% of natural gas consumption. BHE’s
10 proposed budget of \$33.0 million represents a 6% increase over that of the 2009-
11 2013 plan.

12 **16. Q: During the collaborative process required by Iowa Administrative**
13 **Code 199 35.6(1), BHE sought input on the design of the Plan from many**
14 **parties and will be working with other utilities to implement the Plan jointly**
15 **where possible. Please describe the collaborative process.**

16 **A:** The collaborative process began in mid-2011 with the presentations of
17 potential candidates for the Assessment of Potential project. Since that time more
18 than 20 stakeholder meetings have been held. These meetings ranged from
19 question and answer sessions hosted by Cadmus on the potentials assessment to
20 program design input sessions. The program design input sessions were
21 particularly useful to BHE. These sessions provided an opportunity for
22 stakeholders with boots on the ground in our service territory to provide

1 suggestions for program improvements, including delivery approaches, measures
2 to include and appropriate incentive levels.

3 **17. Q: Are there other important stakeholders involved in this Plan's design**
4 **and implementation?**

5 **A:** Yes. BHE has existing partnerships, or has initiated discussions about
6 partnering, with other Iowa entities such as the Iowa Department of Natural
7 Resources, the Iowa Department of Human Rights, municipal electric and electric
8 cooperative utilities. These partnerships will further establish energy efficiency as
9 a major resource for all of Iowa.

10 **18. Q: Does this conclude your prepared direct testimony?**

11 **A:** Yes, it does.