

**BEFORE THE
IOWA UTILITIES BOARD**

Docket No. EEP-2013-0001

Black Hills/Iowa Gas Utility Company, LLC

d/b/a Black Hills Energy

Revised Rebuttal Testimony of

Lark L. Lee

1 **REVISED REBUTTAL TESTIMONY OF LARK L. LEE**
2 **BEFORE THE IOWA UTILITIES BOARD**
3 **DOCKET NO. EEP-2013-0001**

4
5 **Q: Please state your name and business address.**

6 A: My name is Lark L. Lee. My business address is 351 Hidden Pointe, New
7 Braunfels, Texas, 78132.

8 **Q: By whom are you presently employed and in what capacity?**

9 A: I am employed by Tetra Tech, an energy and environmental engineering firm, as a
10 Director. I am providing testimony on behalf of Black Hills/Iowa Gas Utility
11 Company, LLC d/b/a Black Hills Energy (Black Hills Energy).

12 **Q: What is your educational background?**

13 A: I received a bachelor's degree in economics and political science from Trinity
14 University in 1995. I received a master's degree in policy analysis from the
15 University of Wisconsin-Madison in 1998.

16 **Q: Please describe your professional experience.**

17 A: I have been employed by Tetra Tech (previously PA Consulting Group,
18 previously Hagler Bailly Services) working in the field of Evaluation,
19 Measurement and Verification (EM&V) of energy programs since 1999. I have
20 completed over 100 evaluation studies of demand side management programs
21 across sixteen states in the United States as well as in Mexico. I have published
22 and presented over 30 EM&V papers in national conference proceedings,
23 participated in EM&V expert panels, and developed and delivered numerous
24 EM&V trainings to utilities and utility commissions. I have directed the EM&V

1 for Black Hills Energy’s energy efficiency portfolios in Iowa, Colorado and
2 Wyoming since 2009. In addition to my work for Black Hills Energy, my current
3 projects include leading the third-party, statewide EM&V effort across ten
4 utilities for the Texas Public Utility Commission and the EM&V of Xcel Energy’s
5 nonresidential portfolios in Minnesota and Colorado. More details regarding my
6 professional background and experience are set forth in Exhibit _____ (LLL-1).

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

8 A: The purpose of my testimony is to address EM&V issues raised in the direct
9 testimony of Office of Consumer Advocate (OCA) witness Rebecca A. Foster.

10 **Q: Do you have any overall observations regarding the direct testimony of this**
11 **witness?**

12 A: Yes. I applaud many of the points made in Ms. Foster’s testimony that recognize
13 the importance of EM&V to increase the accuracy of savings estimates and
14 improve program design and delivery. However, Ms. Foster advocates a complete
15 change in the current EM&V administration from utilities to an organization
16 independent of the utilities, which, in my expert opinion, is neither warranted nor
17 the most effective method for Iowa.

18 **Q: Please state whether you agree with Ms. Foster’s answer to the question on**
19 **page 30, line 17, “Is the current EM&V process effective?”.**

20 A: No, I do not. Ms. Foster states that in her opinion it is not effective and then her
21 answer makes general statements about EM&V. Her response is not indicative of
22 how Black Hills Energy implements and uses EM&V results to inform program
23 design and delivery improvements. Tetra Tech has been delivering EM&V

1 results throughout the current plan for continuous improvement in the programs.
2 An example of this type of timely feedback to Black Hills Energy from Tetra
3 Tech can be seen in EM&V recommendations on the Residential Evaluation
4 (Audit) Program cited in the OCA witness Sheila J. Parker’s direct testimony at
5 page 12, lines 1 – 16. In addition, the EM&V effort directly informed Black Hills
6 Energy’s 2014-2018 plan (see Section 1.8 of the Plan).

7 **Q: Do you agree with Ms. Foster’s assertion regarding EM&V on page 34, lines**
8 **19-22, that, “As long as contracts are held and work performed under the**
9 **management of the utility or utilities, the design and implementation of**
10 **evaluations and other work (such as TRM development and maintenance)**
11 **cannot be considered truly independent”?**

12 A: No, I do not. This statement directly opposes the industry standard practice in
13 EM&V. The American Council for an Energy Efficient Economy (ACEEE)
14 recently published a white paper describing the EM&V practices for ratepayer
15 funded energy efficiency programs¹. According to this paper, which included
16 surveys with 44 organizations, utilities or a combination of utilities and another
17 organization (e.g., a utility commission), utilities are most frequently responsible
18 for administering evaluation efforts. Thirty-six percent of respondents said
19 utilities alone, and 27 percent said a combination of utilities and other
20 organizations, were responsible for administering evaluation for their energy
21 efficiency programs. Massachusetts, which Ms. Foster uses as an example in her
22 response to the question of how Black Hills Energy might improve its planned

¹ Kushler, Martin, Seth Nowak, and Patti White, *A National Survey of State Policies and Practices for the Evaluation of Ratepayer-funded Energy Efficiency Programs* (February 2012). <http://www.aceee.org>

1 monitoring and evaluation efforts (page 32, lines 7-12), is one of the states where
2 utilities are responsible for administering evaluation with regulatory oversight.

3 **Q: Do you agree with Ms. Foster’s recommendation that evaluations should be,**
4 **“administered by a party independent of the utilities to ensure an unbiased,**
5 **third-party review of results and improve the usefulness of evaluation for**
6 **planning purposes” (page 35, lines 2-4)?**

7 A: No, I do not. EM&V firms stake their reputation on providing third-party,
8 independent reviews regardless of the entity that holds the contract. To do
9 otherwise would be unethical and contrary to the objective or purpose for which
10 we are retained. Black Hills Energy selected Tetra Tech to provide independent,
11 third-party EM&V services through a competitive request for proposals (RFP)
12 process. The fact that Black Hills Energy manages the contract has not biased the
13 services we have provided. Regarding Ms. Foster’s second point on the usefulness
14 of evaluation for planning purposes, based on my experience conducting EM&V
15 for both utilities and utility commissions, it is my opinion the usefulness of
16 evaluation for planning purposes is most optimal when EM&V is administered by
17 the utility. One of the major benefits of utility-administered EM&V is that the
18 EM&V contractor has the ability to get to know in-depth, the utility’s processes,
19 procedures and internal issues, as well as the market issues that potentially drive
20 performance. The EM&V contractor in utility-administered contracts tends to be
21 better situated to not only provide independent EM&V services, but to also serve
22 as a management tool for the utility by proactively providing planning
23 information to the end result of improving programs prospectively in addition to
24 retroactively assessing their performance progress. Finally, many utilities,

1 including Black Hills Energy, operate programs across more than one state.
2 Utility-administered EM&V contracts allow utilities to conduct EM&V more
3 cost-effectively because they are able to realize synergies in their EM&V efforts
4 across states.

5 In contrast, in my experience I have found a drawback of EM&V administered by
6 an organization external to the utility to be greater emphasis on retrospective
7 program impacts than proactive identification of program improvements. Process
8 and market evaluation activities tend to be more limited. Even with program
9 delivery similarities, there are differences among utilities' staffing, structure,
10 programs and markets that can affect program results; EM&V administration
11 outside of the utility tends to limit the evaluation team's ability to delve deeply
12 into those issues to identify reasons for differences in performance. In addition,
13 utilities often view the evaluator as an "auditor" in this model. They tend to be
14 less open and candid in what they share with the evaluator, again limiting
15 program design and delivery improvements that the evaluator can identify.

16 **Q: Do you have a different recommendation than Ms. Foster's for the delivery**
17 **of EM&V in Iowa?**

18 A: Yes, I do. EM&V should improve confidence in program results across key
19 stakeholders. To this end, I agree with Ms. Foster's position for a "more-
20 structured, transparent, and collaborative approach advocated here for the
21 establishment of a statewide TRM and Stakeholder Advisory Council" (Page 33,
22 line 32-Page 34, line 1). However, I believe this can be accomplished without
23 abolishing the existing EM&V infrastructure and replacing it with a different

1 model. I recommend the following strategies to meet these same objectives within
2 the current utility-administered EM&V model:

3 1) **Use of a statewide TRM.** The use of a TRM by multiple investor-owned
4 utilities ensures consistent calculation, reporting and evaluation of energy
5 and demand savings for deemed measures as well as describing
6 methodologies for the estimation of energy and demand savings for
7 custom measures. One of the most debated elements of EM&V is the set
8 of assumptions used to verify program impacts. In many states, some of
9 which include Massachusetts, Michigan, Illinois, New York,
10 Pennsylvania, and California, utilities are required to use TRMs or other
11 agreed-upon deemed values or deemed calculations for program planning
12 as well as evaluation verification.

13 2) **Development of an EM&V framework:** An Iowa EM&V framework to
14 direct utility-administered EM&V teams will facilitate stakeholder buy-in
15 in the EM&V process and provide consistency, transparency, and overall
16 confidence in the results. Although frameworks should not overly
17 prescribe the evaluation approach, they should provide guidance in terms
18 of evaluation priorities, level of rigor, sampling strategies, required levels
19 of confidence and precision, appropriate impact, process and market
20 evaluation approaches, frequency of program-level evaluation activities
21 and use of evaluation results. I would also recommend the EM&V
22 framework include specifications around net-to-gross estimates and
23 appropriate research approaches. Examples of EM&V frameworks include

1 (1) California Energy Efficiency Evaluation Protocols: Technical,
2 Methodological, and Reporting Requirements for Evaluation
3 Professionals; (2) Audit Plan and Evaluation Framework for Pennsylvania
4 Act 129 Energy Efficiency and Conservation Programs; and (3) New York
5 State Process Evaluation Protocols. Some TRMs, such as the Arkansas
6 TRM, are also inclusive of evaluation protocols.

7 **3) Creation of an EM&V collaborative group consisting of utilities,**
8 **regulators, evaluators and other stakeholders:** Regulatory and other
9 stakeholders, such as the OCA, have an inherent investment in the EM&V
10 process and results. It is important that key stakeholders are involved and
11 working together as part of the EM&V process. Involvement could vary
12 based on interest and level of engagement, but at a minimum should
13 include the review of evaluation plans and draft and final reports. More in-
14 depth involvement would include input into sample design and data
15 collection instruments as well as approval of evaluation plans and reports.
16 The EM&V collaborative group could also serve the function of
17 coordination among Iowa utility evaluation contractors. Two examples of
18 collaborative groups that are successfully doing this are the Illinois
19 Stakeholder Advisory Group (SAG) and the Pennsylvania Program
20 Evaluation Group (PEG). In both of these examples, all utilities, utility
21 commission staff, regulatory stakeholders and utility commission
22 consultants, and utility EM&V contractors meet periodically to discuss
23 technical issues such as the TRM and evaluation results.

1 **Q: Do you have any concluding remarks?**

2 A: In conclusion, I am pleased that the importance of EM&V is recognized by the
3 OCA witnesses. My testimony is intended to build on past success of Black Hills
4 Energy's EM&V efforts and support a collaborative process to improve the
5 EM&V infrastructure in Iowa to better meet the needs of various stakeholders and
6 improve programs for ratepayers.

7 **Does this conclude your testimony?**

8 A: Yes, it does.