

STATE OF IOWA
DEPARTMENT OF COMMERCE
UTILITIES BOARD

IN RE: INTERSTATE POWER AND LIGHT, MIDAMERICAN ENERGY COMPANY, AND BLACK HILLS / IOWA GAS UTILITY COMPANY, LLC, d/b/a BLACK HILLS ENERGY	DOCKET NOS. EEP-2012-0001 EEP-2012-0002 EEP-2013-0001
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ORDER REQUESTING NET-TO-GROSS RESEARCH PLAN

(Issued April 8, 2016)

On December 2, 16, and 17, 2013, the Board issued orders approving the current energy efficiency plans for Interstate Power and Light Company (IPL), MidAmerican Energy Company (MidAmerican) and Black Hills/Iowa Gas Utility Company, LLC, d/b/a Black Hills Energy (Black Hills). The corresponding docket numbers for the utilities' energy efficiency plans are EEP-2012-0001, EEP-2012-0002, and EEP-2013-0001. In each of those orders, the Board approved a settlement entered into by some parties of the net-to-gross (NTG) issue that considered the implications of, and considerations given to, implementing NTG ratios other than 1.0 for specific programs.

The settlement agreements provided for a collaborative review of NTG by IPL, MidAmerican, Black Hills, and interested stakeholders. The collaborative group formed an oversight committee that included the three utilities, the Office of Consumer Advocate (OCA), a division of the Iowa Department of Justice, and the

Iowa Environmental Council and the Environmental Law and Policy Center, known as the Environmental Intervenors. The oversight committee drafted a request for proposal (RFP) that outlined the desired outcomes of the NTG study. The Iowa Utility Association issued the RFP which generated seven proposals. Ultimately, the oversight committee awarded the contract to Navigant Consulting, Inc. (Navigant).

Navigant began work in December 2014 and provided an initial draft report to the oversight committee in July 2015. The final report was filed on November 25, 2015, and is called the Iowa Energy Efficiency Net-to-Gross Report (Final Report).

The Board's energy efficiency rules in 199 IAC 35.8(2) provide that the threshold of cost-effectiveness for a utility's energy efficiency plan as a whole is a benefit/cost ratio of 1.0 or greater, and any ratios above or below that for individual programs must be justified by the utility. Also, subsection "c" of the rule provides, in part, that "[t]he utility shall estimate gross and net capacity and energy savings, accounting for free riders, take-back effects, and measure degradation." Utilities have previously met this requirement by relying on a NTG ratio of 1.0 for past energy efficiency plans, based on research that was conducted as part of the utilities' joint Assessment of Potential,¹ which is conducted prior to new plan filings.

Navigant's Final Report provided background information on Iowa's NTG approach, described various NTG approaches and best practices, and recommended

¹ The Assessment of Potential, as required by Board rule 199 IAC 35.8, provides the potential energy and capacity savings available from actual and projected customer usage by applying commercially available technology and improved operating practices to energy-using equipment and buildings. MidAmerican, IPL, and Black Hills collaborate and jointly hire a consultant to complete the Assessment of Potential, which is done 12 to 24 months prior to the filing of new energy efficiency plans.

NTG approaches for Iowa's investor-owned energy efficiency programs. The Final Report also recommended that energy efficiency programs be divided into three categories for purposes of NTG research. The oversight committee agreed with this approach. The categories included:

- Programs that continue with a deemed NTG value of 1.0 due to low benefits and net savings, and where previous research suggests that the NTG value would be close to 1.0;
- Programs for which secondary research will be conducted to establish deemed values other than 1.0 because previous research indicates that 1.0 is not likely to be an accurate NTG value, but the expense of primary research is not justified; and
- Programs that contribute large savings to the utilities' energy efficiency portfolio and warrant the expense of primary NTG research.

The Final Report classified the investor-owned utilities' energy efficiency programs based on these categories and provided cost estimates for applicable NTG methodologies for each of the utilities' program. The report outlined the following recommendations for Iowa stakeholders to consider:

1. Continue with a deemed NTG value of 1.0 for programs with low net benefits and savings, and where research has found programs are likely to have a NTG value close to 1.0.
2. Continue to apply state-of-the-industry net savings research methods to demand management programs such as demand response and direct load management programs, and for residential behavior programs such as Opower Home Energy Reports.
3. Conduct secondary research to determine and establish deemed values other than 1.0 for programs where the costs of NTG research are not justified, but research shows a NTG value of 1.0 to be unlikely.
4. Conduct primary NTG research to estimate NTG values and/or common practice market baselines for key programs contributing large savings to the utility's DSM portfolio, using any or multiple methods outlined in this report.

5. For programs warranting primary NTG research, market-based methods may be used as the primary research methodology, providing a comprehensive understanding of energy efficiency markets, facilitating development of common practice market baselines, and/or generating estimates of the free-ridership and spillover components of NTG values.
6. NTG research should begin immediately rather than during the next five-year planning cycle, and resulting NTG values should be applied prospectively.
7. NTG research should be conducted at a minimum once per each five-year planning cycle, but for programs contributing large savings to the portfolio, programs in rapidly changing markets, primary research may need to be conducted every two to three years and possibly more frequently. Ultimately, the research findings will provide guidance as to when additional/new NTG research should be conducted.
8. Periodic review of all established deemed NTG values should be conducted to ensure they remain relevant and appropriate.

According to the Final Report, the oversight committee continues to discuss strategies for researching and applying NTG values and is working to find a mutually agreeable path.

On December 21, 2015, the Board issued an order requesting comments on the Final Report. Specifically, the Board asked the parties (1) to indicate whether they agree or disagree with the various recommendations, (2) whether implementation of some or all of these recommendations would require the utilities to modify existing Evaluation, Measurement, and Verification (EM&V) plans or energy efficiency budgets, and (3) to note any obstacles for implementing the recommendations. On January 22, 2016, comments were filed by MidAmerican, OCA and the Environmental Intervenors. Also on January 22, 2016, IPL and Black Hills filed joint comments in response to the Board's December 21, 2015, order.

Generally, all of the parties agree with the Navigant team's recommendations. However, the parties also provided specific comments related to individual recommendations. The parties also noted that the Settlement Agreements also require the investor-owned utilities (IOUs) to file an Iowa Statewide Technical Reference Manual (TRM) by September 30, 2016. The IOUs and other energy efficiency stakeholders have contracted with an independent third-party to develop the TRM. It is anticipated that the TRM will contain savings algorithms, incremental cost algorithms, and other information needed to determine gross energy savings and system net benefits associated with the offerings of various energy efficiency measures and programs. It is likely that the TRM will not address every energy efficiency measure or program, but will concentrate efforts on providing standard protocols for determining energy savings for those measures and programs that are common among the utilities or are prescriptive rather than custom.

IPL and Black Hills suggested that the stakeholders should discuss which programs should be subject to primary or secondary research and noted that some secondary research is already being done through the TRM. Additionally, IPL and Black Hills believe that some level of the primary and secondary research can begin during the current EM&V plans although budgets may need to be modified to accommodate the additional research. IPL mentioned that it completed its EM&V for the current plan and additional costs must be weighed against the value provided. IPL and Black Hills questioned whether the Board will require net values to be reported for certain programs or if market-based and program adjustments will satisfy

the desire for more robust research on NTG issues. Finally, IPL and Black Hills recommended the NTG values should be applied prospectively to future plan years and should only be implemented with specific Board approval in the next plan.

In its comments, MidAmerican stated the recommendations in the Final Report strike a balance between cost to customers and the need for better program information. However, MidAmerican disagreed with recommendation number 6 that suggests the research begin immediately. MidAmerican suggested that the research be incorporated into other planning activities such as the utilities' EM&V plans or the upcoming joint Assessment of Potential and should allow for joint information gathering efforts for the joint utility programs. According to MidAmerican, if data collection is done under the current plan, it will be necessary to increase budgets for future plan years and evaluate the impact of these increases on the cost-effectiveness of programs. Finally, MidAmerican recommended the Board consider requiring the utilities to report plan savings on a gross basis as well as net basis to preserve comparability with historical plan data.

According to OCA, the Final Report's recommendations provide reasonable guidance for the implementation of NTG ratios in Iowa. OCA suggested using existing processes for implementing the recommendations which would include the TRM, EM&V plans, and the joint Assessment of Potential. OCA stated that the implementation of NTG ratios overlaps with the development of the TRM and believes the implementation of the NTG recommendations should be rolled into the TRM implementation process. In addition, OCA proposed that the TRM Oversight

Committee develop a plan to implement the NTG recommendations and file it with the Board. OCA suggested the plan include 1) the measures, type of research, and appropriate process for implementing the action; 2) the manner in which utilities will coordinate EM&V processes to develop and implement consistent NTG ratios; 3) a periodic review of NTG values; and 4) a timeline for implementation of NTG recommendations. OCA also suggested that the NTG recommendations begin immediately, be conducted efficiently, and be completed for full consideration in the development of the utilities' 2019-2023 energy efficiency plans.

According to the Environmental Intervenors, applying NTG values would yield more accurate program savings, encourage the utilities to design more effective programs that more efficiently allocate resources to the most effective programs and measures, and help identify markets that have been transformed. The Environmental Intervenors suggested that the TRM is the appropriate venue for conducting secondary research and applying new deemed values or baseline adjustments. The Environmental Intervenors also suggested that secondary research may be appropriate for a broader range of programs and should be used where it is readily available for all measures and additional primary research could be included as part of the utilities' EM&V plans or the upcoming Assessment of Potential and coordinated on a statewide basis to the extent possible and appropriate.

The Board has reviewed the Navigant team's Final Report and the comments filed by MidAmerican, IPL, Black Hills, OCA, and the Environmental Intervenors. The

recommendations in the report are reasonable and have generally considered the need for additional research and the cost of such research.

The Board agrees with the comments that suggest it would be advantageous for a NTG research plan to be drafted, with the understanding that the research can be conducted in conjunction with the TRM, the EM&V of the current energy efficiency plans (2014-2018), the EM&V for the next energy efficiency plans (2019-2023), or through the upcoming joint Assessment of Potential.

The NTG Oversight Committee should be the primary party charged with drafting the NTG research plan, consulting with the TRM Oversight Committee to ensure there is no duplication of effort. The plan should include the items outlined in OCA's comments as well as provide cost estimates for the research and an explanation of where the cost for the research will be expensed. The cost of the research and the perceived value of the information generated from that research is an important consideration that should not be overlooked. The plan should also establish consistent reporting guidelines that specifically address whether net values will be reported for certain programs or if market-based and program adjustments will satisfy the need for more robust NTG research. Therefore, the NTG research plan should be coordinated among the utilities to ensure no utility's customers bear the full cost of the research.

Since the current plan cycle ends in 2018 and because it has not yet been determined when the NTG research will be completed, it would be disruptive to change the savings and benefit cost calculations during the current plans.

Implementing the NTG ratios in the next plan will give the utilities an opportunity to review the research findings and determine how their plan savings will be affected. The utilities should incorporate any NTG ratios that have been developed into their next energy efficiency plans' (the 2019-2023 plan) savings and benefit-cost calculations. In addition, both net and gross savings values should be reported in order to preserve comparability with historical savings data as reported by the IOUs.

IT IS THEREFORE ORDERED:

1. The Board requests the NTG Oversight Committee draft a plan for Net-To-Gross research that will be coordinated with work done on the Technical Reference Manual and the joint Assessment of Potential. The plan should include the following:
 - a. The type of research by program or measure and appropriate process for implementing the action including whether net values will be reported for programs in which market-based adjustments are made;
 - b. The manner in which utilities will coordinate Evaluation, Measurement, and Verification processes to develop and implement consistent net-to-gross ratios;
 - c. A schedule for periodic review of net-to-gross values;
 - d. A timeline for implementation of net-to-gross recommendations;
 - e. Cost estimates for the research conducted by program or measure and how that cost will be allocated to each utility; and

- f. Consistent reporting guidelines, specifically addressing whether net values will be reported for certain programs or if market-based and program adjustments will fulfill the need for more robust NTG research.
2. Net-to-Gross ratios are to be incorporated in the 2019-2023 energy efficiency plans and in future energy efficiency plans. The utilities should report both net-to-gross savings values to preserve comparability with historical savings.
3. The Net-to-Gross plan should be filed with the Board on or before June 15, 2016.

UTILITIES BOARD

/s/ Elizabeth S. Jacobs

ATTEST:

/s/ Trisha M. Quijano
Executive Secretary, Designee

/s/ Nick Wagner

Dated at Des Moines, Iowa, this 8th day of April 2016.