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**IOWA UTILITIES BOARD**  
**Policy Development Section**

Docket No.: EEP-2012-0001  
EEP-2012-0002  
EEP-2013-0001  
Utility: Interstate Power and Light  
MidAmerican Energy  
Black Hills Energy  
File Date: November 25, 2015  
Memo Date: December 17, 2015

**TO:** The Board  
**FROM:** Brenda Biddle  
**SUBJECT:** Net-to-Gross Final Report

**I. Background**

The Board issued orders<sup>1</sup> approving the most recent energy efficiency plans for Interstate Power & 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 are: EEP-2012-0001, EEP-2012-0002, and EEP-2013-0001.) In those orders the Board approved the settlement of the net-to-gross (NTG) issue which dealt with the implications of, and considerations to be given to, implementing NTG ratios other than 1.0 for specific programs.

The Settlement Agreements provided for a collaborative review of NTG by the investor-owned utilities (IOUs) and interested stakeholders. The collaboration formed an Oversight Committee that included the IOUs, the Office of Consumer Advocate (OCA), a division of the Iowa Department of Justice, and the Environmental Intervenors which included the Iowa Environmental Council and the Environmental Law and Policy Center. The Oversight Committee drafted a Request for Proposal (RFP) that outlined the desired outcomes of the NTG study. The Iowa Utility Association (IUA) issued the RFP which generated seven proposals. Ultimately, the Oversight Committee awarded the contract to Navigant.

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

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<sup>1</sup> The orders were dated December 2, 16, and 17, 2013.

## II. Legal Standards

199 Iowa Administrative Code (IAC) 35.8(2)

**35.8(2)** *Proposed energy efficiency plan, programs, and budget and cost allocation.* The utility shall file with the board an energy efficiency plan listing all proposed new, modified, and existing energy efficiency programs. The following information shall be provided:

a. The analyses and results of cost-effectiveness tests for the plan as a whole and for each program. Low-income and tree-planting programs shall not be tested for cost-effectiveness, unless the utility wishes to present the results of cost-effectiveness tests for informational purposes. The utility shall analyze proposed programs and the plan as a whole for cost-effectiveness, using the societal, utility, ratepayer impact and participant tests. If the utility uses a test other than the societal test as the criterion for determining the cost-effectiveness of utility implementation of energy efficiency measures, the utility shall describe and justify its use of the alternative test or combination of tests and compare the resulting impacts with the impacts resulting from the societal test. The utility shall describe and justify the level or levels of cost-effectiveness, if greater or less than a benefit/cost ratio of 1.0, to be used as a threshold for determining cost-effectiveness of programs. The utility's threshold of cost-effectiveness for its plan as a whole shall be a benefit/cost ratio of 1.0 or greater.

The utility shall provide an explanation of its sensitivity analysis identifying key variables showing the impact on cost-effectiveness. If appropriate and calculable, the utility shall adjust the energy and demand savings for the interactive effects of various measures contained within each program and shall adjust energy and demand savings of the plan as a whole for the interactive effects of programs. For the plan as a whole and for each program, the utility shall provide:

(1) Cost escalation rates for each cost component of the benefit/cost test that reflect changes over the lives of the options in the potential program and benefit escalation rates for benefit components that reflect changes over the lives of the options;

(2) Societal, utility cost, ratepayer impact measure, and participant test benefit/cost ratios; and

(3) Net societal benefits.

b. Descriptions of each program. If a proposed program is identical to an existing program, the utility may reference the program description currently in effect. A description of each proposed program shall include:

(1) The name of each program;

(2) The customers each program targets;

(3) The energy efficiency measures promoted by each program;

(4) The proposed utility promotional techniques, including the rebates or incentives offered through each program; and

(5) The proposed rates of program participation or implementation of measures, including both eligible and estimated actual participants.

c. The estimated annual energy and demand savings for the plan and each program for each year the measures promoted by the plan and program will produce benefits. **The utility shall estimate gross and net capacity and energy savings, accounting for free riders, take-back effects, and measure degradation.** (Emphasis added.)

d. The budget for the plan and for each program for each year of implementation or for each of the next five years of implementation, whichever is less, itemized by proposed costs. The budget shall be consistent with the accounting plan required pursuant to subrule 35.12(1). The budget may include the amount of the remittance to the Iowa energy center and the center for global and regional environmental research and the alternative energy revolving loan fund. The plan and program budgets shall be categorized into:

- (1) Planning and design costs;
- (2) Administrative costs;
- (3) Advertising and promotional costs;
- (4) Customer incentive costs;
- (5) Equipment costs;
- (6) Installation costs;
- (7) Monitoring and evaluation costs; and
- (8) Miscellaneous costs.

Cost categories shall be further described by the following subcategories:

Classifications of persons to be working on energy efficiency programs, full-time equivalents, dollar amounts of labor costs, and purpose of work;

Type and use of equipment and other assets, including types of assets required and use of asset; and the name of outside firm(s) employed and a description of service(s) to be provided.

e. The rate impacts and average bill impacts, by customer class, resulting from the plan and each program.

f. A monitoring and evaluation plan. The utility shall describe in complete detail how it proposes to monitor and evaluate the implementation of its proposed programs and plan and shall show how it will accumulate and validate the information needed to measure the plan's performance against the standards.

The utility shall propose a format for monitoring reports and describe how annual results will be reported to the board on a detailed, accurate and timely basis.

### III. Analysis

According to 199 IAC 35.8(2)(c), the utilities must "estimate gross and net capacity and energy savings, accounting for free riders, take-back effects, and measure degradation." Staff notes that the utilities have met this requirement by

relying on a NTG ratio of 1.0 for previously filed energy efficiency plans. This NTG ratio was based on research conducted as part of the utilities' joint assessment of potential.<sup>2</sup>

Navigant's Final Report provided background information on Iowa's NTG approach, described various NTG approaches and best practices, and recommended NTG approaches for Iowa's IOUs' energy efficiency programs. The 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 IOUs' energy efficiency programs based on these categories and provided cost estimates for applicable NTG methodologies for each of the utilities' programs. 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.

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<sup>2</sup> "Primary research was done for the, "Assessment of Energy and Capacity Savings Potential in Iowa Volume 2: Free Riders and Spillover – A Look Back, A Path Forward", Global Energy Partners and Quantec, July 25, 2002. Additional research was conducted for, "The Assessment of Energy and Capacity Savings Potential in Iowa," Quantec, February 2008 and "The Assessment of Energy and Capacity Savings Potential in Iowa," The Cadmus Group, Inc., February 28, 2012.

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 value 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. However, staff believes it is important for parties to the energy efficiency dockets to provide individual comments on how Navigant's NTG research recommendations<sup>3</sup> listed above could impact the IOUs' current and future energy efficiency plans. Additionally, staff recommends the parties indicate whether they agree or disagree with the various recommendations; whether implementing some or all of these recommendations would require the utilities to modify existing Evaluation, Measurement and Verification plans or energy efficiency budgets; and note any obstacles to implementing the recommendations.

#### **IV. Recommendation**

Staff recommends that the Board issue the attached draft order requesting that parties to the energy efficiency dockets file comments on the NTG research recommendations found in Table 2 on page 9 of the Iowa Energy Efficiency Net-to-Gross Report.

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<sup>3</sup> "Final Report, The Iowa Energy Efficiency Net-to-Gross Report," Table 2, page 9.