

STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA UTILITIES BOARD

IN RE: INTERSTATE POWER AND LIGHT COMPANY	DOCKET NO. EEP-2012-0001
MIDAMERICAN ENERGY COMPANY	DOCKET NO. EEP-2012-0002
BLACK HILLS/IOWA GAS UTILITY, LLC, d/b/a BLACK HILLS ENERGY	DOCKET NO. EEP-2013-0001

The Environmental Law & Policy Center (ELPC) and the Iowa Environmental Council (IEC) (collectively Environmental Intervenors) pursuant to the Iowa Utilities Board (Board) Order issued on December 21, 2015 requesting comment on the Net-to-Gross final report provide the following comments.

BACKGROUND

The Iowa Administrative Code requires utilities to “estimate gross and net capacity and energy savings, accounting for free riders, take-back effects, and measure degradation.” (199 IAC 35.8(2)“c”). Historically, utilities have met this requirement in energy efficiency plans by relying on a deemed ratio of 1.0 for all programs and measures. The Board, in its most recent orders approving the latest electric and natural gas energy efficiency plans, agreed that a report about net-to-gross (“NTG”) policy would be beneficial to the Board, the utilities, and stakeholders by providing a more complete and accurate analysis of NTG, given Iowa’s regulatory regime and the design of energy efficiency plans and possible implementation framework.

In MidAmerican Docket No. EEP-2012-0002, the Board stated in its final order:

The Board finds the approach outlined in Appendix 1 of the Settlement Agreement (M&V Plan, p.6) is reasonable and will ultimately provide more complete and accurate information regarding net-to-gross in Iowa. . . . The settlement provisions on net-to-gross that include a collaborative process are reasonable and will be approved. Under settlements reached in the various energy efficiency plan dockets, all investor-owned utilities will participate in the net-to-gross collaborative, which should result in a better product than if each utility proceeded independently.

In Interstate Power & Light Docket No. EEP-2012-0001 and Black Hills Energy Docket No. EEP-2013-0001, the IUB found the settlement provisions providing for a collaborative report of net-to-gross to be reasonable.

All three investor-owned utilities, the Office of Consumer Advocate (OCA), and the Environmental Intervenors (collectively the oversight committee) participated in a collaborative process resulting in the report from Navigant Consulting which provides information to help make informed decisions on the future application of NTG in energy efficiency programs in Iowa. On November 25, 2015, OCA filed Navigant's final report with the Board on behalf of the oversight committee.

The Final Report 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 Report identifies which programs fall into each of these categories for each of the utilities

based on the cost-effectiveness of conducting primary research. The report suggests that NTG can be addressed by adjusting net savings from gross savings with a ratio other than 1.0, as appropriate, as well as through adjustments in the savings calculation baseline for many programs or measures.

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 primary 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 or 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.

In its December 21, 2015 Order, the Board solicited individual comments from the parties. The Board also specifically asked the parties to 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.

SUMMARY

NTG ratios account for free-ridership, energy savings likely to have occurred in the program's absence, and spillover, energy savings induced but not subsidized by the program. Applying NTG values more accurately accounts for program savings and encourages program design that more efficiently allocates resources to the most effective programs and measures. NTG values help identify where markets have been transformed, and it may no longer be appropriate to include a measure in a program. NTG ratios can also help identify when incentive levels are set poorly and could be adjusted to maximize savings based on the dollars invested. If used properly, NTG ratios will help allocate energy efficiency program dollars on measures and programs that are generating the most savings and the most value for customers and society. In the absence of effective NTG numbers, energy efficiency dollars could be spent on measures that would have been installed anyway, which in turn minimizes the overall societal benefit and results in less overall energy efficiency for the same program dollars.

The Iowa Utilities Board administrative rules recognize the value of net-to-gross assessments by requiring that “[t]he utility shall estimate gross and net capacity and energy savings, accounting for free riders, take-back effects, and measure degradation.” 199 Iowa Administrative Code § 35.8(2)(c). In the past, the Iowa utilities have complied with this rule by assuming free-ridership and spillover cancel each other out and deeming the net-to-gross ratio to be 1.0 for all programs. The Navigant report makes clear that a portfolio wide deemed 1.0 NTG

value is no longer appropriate and that information is either available or can be generated to significantly improve program design and the allocation of energy efficiency dollars. In some cases a deemed NTG value of 1.0 will still be appropriate, but for most of the largest programs and measures a deemed value other than 1.0 or a value based on Iowa specific research would maximize energy efficiency program benefits.

The Environmental Intervenors believe that the Navigant Report provides useful guidance and provides further direction about how to best implement NTG in Iowa. The report identifies particular programs to focus on finding more appropriate NTG ratios. The report also identifies a range of methods to determine the most appropriate NTG ratios. We think that the focus should turn to how best to implement these recommendations for NTG in Iowa, and that we can start the implementation process now.

Implementation of NTG is feasible and can be incorporated into ongoing efforts with minimal additional cost. For example, for those programs identified as benefiting from secondary NTG research to determine a deemed NTG value other than 1.0, the current project of producing a Technical Reference Manual (“TRM”) is already conducting secondary research and would be able to include NTG research with little extra effort and in some cases, no extra effort. The TRM provides an appropriate venue for conducting secondary research and applying the new deemed value or adjustment to the baseline.

For those programs identified as benefitting from primary NTG research, the oversight committee should start the process of prioritizing primary research areas and matching that with ongoing efforts. Some of these programs could benefit from applying a deemed value based on secondary research as an interim step until Iowa specific research is completed. We think that some of the primary research could potentially be done as part of the TRM development and

update process and that both research deemed values could be reflected in TRM savings algorithms or in baseline assumptions in the TRM. Additional primary research such as survey-based approaches, the research and application of different NTG values may be addressed in the utilities' Evaluation, Measurement, and Verification procedures and the upcoming Assessment of Potential for the utilities' 2019-2023 energy efficiency plans. These efforts are ongoing and every effort should be made to effectively incorporate NTG implementation into these efforts as appropriate. If NTG secondary and primary research is properly incorporated into these efforts, it will be possible to benefit from the information sooner and with less additional cost. We recommend that the oversight committee be tasked with coordinating implementation in order to ensure that ongoing opportunities to implement NTG in the current plan cycle and planning for future plans are not missed.

COMMENTS BY RECOMMENDATION

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.

Environmental Intervenors agree with this recommendation. There are some programs that it is appropriate to use a deemed value of 1.0. For example, Navigant found that there was likely to be little benefit to net-to-gross research for low income programs. This is consistent with the research we have seen.

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.

Environmental Intervenors agree that there are programs that already incorporate NTG by the nature of the program and/or evaluation design. For those programs, the current approach captures net savings, and we should continue to capture net savings for those programs going forward.

3. Conduct secondary research to determine and establish deemed values other than 1.0 for programs where the costs of primary NTG research are not justified, but research shows a NTG value of 1.0 to be unlikely.

Environmental Intervenors agree that secondary research is a useful and cost effective way to determine NTG values. While we generally agree with this recommendation, we think that secondary research may be appropriate for a broader range of programs. For example, the report identifies a number of programs where primary NTG research would be beneficial. Stakeholders might decide that it is appropriate to prioritize and space out primary research, but as an interim step or as a precursor to inform any primary research, secondary research would be appropriate.

In addition, secondary research should be used where it is readily available for all measures. The TRM has collected secondary research on some measures already and could potentially collect additional secondary research going forward without significantly expanding the scope of that work. This would allow for incorporating NTG into the development of the TRM in some cases, or it could prepare stakeholders to have discussions about deemed NTG values earlier and for minimal cost.

Secondary research can be done quickly and for limited cost for a number of measures. There has been a significant amount of research done in other jurisdictions on many of the measures that generate the most significant savings. Iowa should take advantage of what has been learned from other energy efficiency programs. We

recognize that these studies will not be as precise as Iowa specific research, but this information can inform Iowa research and provide immediate benefits while Iowa specific research is conducted.

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.

The Environmental Intervenors agree with this recommendation. Accurate NTG values help ensure that program savings are real while encouraging improvements in program design that maximize the effectiveness of energy efficiency investments. Well-designed primary NTG research provides the most accurate NTG values. With programs that account for significant savings and significant investments, there is value in having the most accurate NTG values. The Navigant report has identified a number of areas where primary NTG research will add value to Iowa's programs and help improve program design. Primary research has greater cost than secondary research and could have budget implications. There are opportunities to incorporate primary research into ongoing Evaluation, Measurement & Verification efforts, the forthcoming assessment of potential study and the development and updating of the TRM.

It will also be necessary to identify a plan to conduct primary research taking into account opportunities to incorporate that research into existing efforts while identifying areas where future research will necessary. In some cases, the primary research could be sufficiently important that it would justify additional resources during this plan cycle. For example, lighting is an area that is experiencing significant and rapid change, and Iowa specific lighting research in the near term would likely be beneficial. For other measures it might be possible to map out a longer time frame for conducting this research. For

program areas where detailed study could take significant time or where study might be delayed a number of years because of cost and prioritizing other research areas first, secondary research can and should be used to develop NTG values sooner. We also support conducting primary research on a coordinated, statewide basis to the extent possible and appropriate, rather than on a utility-specific basis.

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.

We support further investigating the different methods for accounting for free-ridership using primary research. We would support further work on the common practice market baselines as well as other potential methods identified in the report. We recognize that the Navigant report provides a comprehensive overview of possible methods and approaches to NTG research and application of NTG information. Some methods, such as the common practice baseline approach, have been used in limited jurisdictions (e.g., Pacific Northwest). We think there is value in further exploring the common practice baseline approach as well as the other approaches that are used in more jurisdictions and jurisdictions closer to Iowa, such as developing NTG values other than 1.0 with primary research. We would support identifying certain programs to test the application of the common practice baseline approach as well as the application of NTG values other than 1.0, and then evaluate the implementation of these different approaches. It may be appropriate to then decide on a single approach for most programs or continue to pursue multiple approaches depending on the program.

6. NTG research should begin immediately rather than during the next five-year planning cycle, and resulting NTG values should be applied prospectively.

The Environmental Intervenors support the recommendation to start NTG research immediately. There is immediate value to program design to using the most current and accurate information. NTG research needs to be implemented promptly. While applying some NTG values would impact savings this plan cycle, there would be a clear explanation for why the savings are impacted – an effort to more cost effectively spend bill payer dollars to maximize the savings generated.

It is also feasible to make significant progress on NTG research as part of the existing efforts. Some secondary research through the TRM has already been done, and the parties could identify measures where additional secondary research could be conducted as part the first TRM update process that will take place this plan cycle. The current Evaluation, Measurement and Verification process provides some opportunity for incorporating additional primary or secondary research. In addition, the upcoming assessment of potential study could be another avenue for additional joint research. The parties could also identify additional priority areas that where research would provide a benefit sooner rather than later.

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 or new NTG research should be conducted.

Environmental Intervenors agree that NTG research should be conducted on an ongoing basis with a particular focus on programs and measures that contribute

significant savings and keeping up with changing markets. This may mean that an approach to updating NTG makes greater use of secondary research to both inform the need for additional primary research and to adjust values to stay current based on the most recent research trends from other programs.

The TRM provides a framework for this secondary research. The TRM will be updated on an ongoing basis with a focus on the most significant programs and areas that are experiencing rapid market changes. A review of secondary research will be a part of the TRM and making that review a little more extensive to account for NTG would be appropriate. The TRM could identify updates to deemed values and areas where additional research should be prioritized.

8. Periodic review of all established deemed NTG values should be conducted to ensure they remain relevant and appropriate.

The Environmental Intervenors agree that deemed values should be reviewed regularly to ensure that they are relevant and appropriate. Again, the TRM provides a venue to review secondary research, and NTG research could be incorporated into that review with minimal additional effort.

CONCLUSION

Applying NTG values more accurately accounts for program savings and encourages program design that more efficiently allocates resources to the most effective programs and measures. The Navigant report provides a useful framework for how to best implement NTG in Iowa. We recommend that the oversight committee be tasked with coordinating implementation in order to ensure that ongoing opportunities to implement NTG in the current plan cycle and planning for future plans are not missed.

DATED: January 22, 2016.

Respectfully submitted,

/s/ Joshua T. Mandelbaum
Joshua T. Mandelbaum
Environmental Law & Policy Center
505 5th Avenue, Suite 333
Des Moines, Iowa 50309
P: (515) 244-0253
jmandelbaum@elpc.org

/s/ Nathaniel Baer
Nathaniel Baer
Iowa Environmental Council
521 East Locust, Suite 220
Des Moines, Iowa 50309
P: (515) 244-1194 x206
baer@iaenvironment.org