



Memorandum

To: Christina Pagnusat, Omayra Garcia, Peoples Gas & North Shore Gas; Michael Marks, Erin Stitz, Applied Energy Group; Paige Knutsen, Jim Heffron, Katie Baehring, Heidi Gorrill, Franklin Energy Services

CC: Jennifer Morris, David Brightwell, ICC Staff; Celia Johnson, Future Energy Enterprises/SAG

From: Kevin Grabner, Rob Neumann, Randy Gunn, Navigant

Date: January 25, 2018

Re: Net-to-Gross Recommendations for Bridge Period Public-Sector and Income-Eligible Programs

Summary and Recommendations

This memo provides Navigant's net-to-gross (NTG) recommendations for evaluating net impacts of public-sector and income-eligible energy efficiency programs and projects formerly administered by the Department of Commerce and Economic Opportunity (DCEO) for the bridge period (June 1, 2017 – December 31, 2017).

Navigant recommends that the most recent NTG ratios (without the free ridership adjustment of a "plans score" where available) calculated by DCEO's evaluator, ADM Associates, Inc (ADM) available on the Illinois Energy Efficiency Stakeholder Advisory Group (SAG) web site should be used to calculate net savings for the former DCEO Public-Sector programs in the bridge period. We are not making this same recommendation for the NTG values for 2018 and do not consider our recommendation in this memo to establish precedent for the 2018 values. Rather, we are presenting this memo as a simplified approach to report the savings associated with the former DCEO programs which will not affect PGL and NSG savings goals.

There were six DCEO programs that generated term savings through energy efficiency projects in the Public-Sector and had researched NTG values. The most recent evaluation reports for DCEO are draft reports for EPY8/GPY5, but only one of the draft reports covered Public-Sector efficiency projects and it did not provide usable results.¹ The EPY8/GPY5 draft report evaluated the Custom and Standard programs. We reviewed this draft report for NTG research findings, and found that ADM had completed only one interview that covered gas projects. The single interview covered one or more Custom projects, but we observed that retro-commissioning and steam trap projects were offered Custom Program incentives. We were unable to determine which project types the interview covered, and could not use the NTG finding in our recommendations.

¹ *Evaluation of Illinois Energy Now Public Sector Custom and Standard Incentives Programs: June 2015 through May 2016*, Prepared by ADM for DCEO. The draft report is available at http://www.ilsag.info/draft_evaluation_reports.html, Department_of_Commerce_Public_Sector_CS_Programs_EPY8_GPY5_Draft.docx

With further research, Navigant found that the most recent ADM evaluation reports with valid gas NTG research values are the final EPY7/GYP4 reports. Navigant Public-Sector NTG recommendations for the bridge period are presented in Table 1. Although ADM reported utility-specific gas NTG values that show minor differences, we used ADM's GPY4 statewide values because they either met a 90/10 confidence and precision statistical benchmark (when reported) or covered a percentage of program savings we judged acceptable (indicated in Table 1). The ADM reports do not claim statistical significance at the utility level. The number of interviews completed statewide is noted for each Public-Sector NTG result in Table 1. Comparisons with PGL and NSG GPY6 NTG ratios from similar programs are also included in Table 1 for reference.

For some programs covered in the EPY7/GPY4 reports, ADM included an "Energy Efficiency Plans Score" adjustment in their calculation of free-ridership. Navigant recommends using NTG ratios without the "plans score" adjustment to be consistent with other PGL and NSG evaluations and because ADM's approach to the "plans score" is not allowable based on the current TRM NTG protocol. The TRM does not specify that the "had plans" criteria should be addressed in survey questions nor does it specify how the result should be treated in the algorithm. ADM reported the free ridership estimates without the "plans score" adjustment in the appendices of the EPY7/GPY4 evaluation reports for the Custom, Standard, New Construction, and Retro-Commissioning programs. Navigant used the appendices to determine the NTG without the "plans score" reported in Table 1.

DCEO programs targeting income-eligible participants applied a NTG of 1.00. Navigant recommends a NTG of 1.00 for income-eligible programs during the bridge period, based on guidance provided in the Illinois TRM. The NTG protocols in Attachment A of Volume 4 of the Illinois TRM, Version 6.0² assign a NTG of 1.00 for programs delivered to residential low-income (income-eligible) participants. Navigant Income-Eligible NTG recommendations are presented in Table 1.

² Available at: http://www.ilsag.info/il_trm_version_6.html

Table 1. Navigant Recommended NTG ratios for Natural Gas for Public-Sector and Income-Eligible Bridge Period Programs Offered by PGL and NSG

| Public-Sector and Income-Eligible Programs | Recommended Bridge Period NTG Ratios (Therms) | Source ³ for Recommendation | PGL and NSG Comparison Program | PGL and NSG GPY6 NTG Ratios ⁴ |
|--|---|---|--------------------------------|--|
| Custom and Standard | Custom: 0.74 (21 respondents, 31% of savings) | Evaluation of Illinois Energy Now Public Sector Custom, Standard, and New Construction Incentives Programs: June 2014 through May 2015 ⁵ | Business Custom | 0.69 |
| | Standard: 0.46 (16 respondents, 23% of savings) | | Business Prescriptive Rebates | 0.79 |
| New Construction | 0.65 (5 respondents, 97% of savings) | | Business New Construction | 0.67 |
| Public Sector Natural Gas Boiler System Efficiency Program | 0.87 (24 respondents, 90/9) | Evaluation of Illinois Energy Now Public Sector Natural Gas Boiler System Efficiency Program: June 2014 through May 2015. ⁶ | Business Prescriptive Rebates | 0.79 |
| Savings Through Efficient Products (STEP) | 0.90 (10 respondents, 90/4) | Evaluation of Illinois Energy Now Savings Through Efficient Products Program: June 2014 through May 2015 ⁷ | NA | NA |
| Public Sector Retro-Commissioning Program | 0.94 (17 respondents, 69% of savings) | Evaluation of Illinois Energy Now Public Sector Retro-Commissioning Program: June 2014 through May 2015 ⁸ | Retro-Commissioning | 1.02 |
| Energy Efficient Affordable Housing Construction Program | 1.00 | | NA | 1.00 |
| Low Income Residential Retrofit Program | 1.00 | Value provided in the TRM ⁹ | NA | 1.00 |
| PHA Efficient Living Program | 1.00 | | NA | 1.00 |

Source: Navigant research and analysis

³ Available at: <http://www.ilsag.info/evaluation-documents.html>

⁴ Available at: <http://www.ilsag.info/net-to-gross-framework.html>

⁵ Department_of_Commerce_Public_Sector_CS_NC_Programs_EPY7-GPY4_Final.pdf. Navigant used the EPY7-GPY4 results because the EPY8-GPY5 evaluation completed only one gas NTG interview and the type of projects covered was not provided (Department_of_Commerce_Public_Sector_CS_Programs_EPY8_GPY5_Draft.docx). Navigant recommended NTGs do not include the “plans score” adjustment.

⁶ DCEO_Public_Sector_Boiler_System_Efficiency_EPY7_GPY4_Final_REVISIED_10-04-16.pdf. A draft report is not available for EPY8/GPY5.

⁷ DCEO_STEP_Program_EPY7_GPY4_Final_Report.pdf. Navigant selected the most current NTG ratios from ADM's evaluation of STEP in EPY7/GPY4. NTG was not calculated in EPY8/GPY5 due to limited participation.

⁸ Department_of_Commerce_Public_Sector_Retro-Commissioning_EPY7_GPY4_Final.pdf. A draft NTG result for Retro-Commissioning is not available for EPY8/GPY5. Navigant recommended NTG does not include the “plans score” adjustment.

⁹The TRM NTG section recommends a NTG ratio of 1.00 for the low-income (income-eligible) sector per Attachment A: Illinois Statewide Net-to-Gross Methodologies, Section 4.