Proposed Policy for Version 3.0: Electrification Savings Calculations
Submitted By: Nicor Gas

Question 1: Proposed Policy and Rationale

Briefly describe the policy proposed to be included in Policy Manual Version 3.0, including rationale for why this policy is necessary in Illinois.

Questions to consider:

1. *Why does this policy require inclusion in Policy Manual Version 3.0?*
2. *What unresolved policy issue(s) will be resolved by inclusion in the Policy Manual Version 3.0?*

Please be as specific as you can. If you have specific policy language to propose at this time, please include in this template. It is not a requirement to draft policy language in the proposal template. If draft policy language is not included here, you may be assigned to draft proposed policy language for review by the Subcommittee at a future meeting.

8-103B(b-27) allows electric utilities to achieve a portion of their total savings requirements through electrification measures. It also specifies that electrification savings should be calculated using site Btu savings. (See statutory language in Question 5 below.)

The Policy Manual must define a number of issues to ensure that electric utilities calculate savings using methods that are accurate, consistent with statutory guidance, and use consensus approaches developed through the Policy Manual process. The issues to be addressed include:

- Overall Calculation Approaches:
  - To accurately calculate net savings, NTG factors will need to address both the likelihood that participants would have installed a more efficient fossil device as well as the likelihood that the participants would have switched fuels. It is our understanding that New England utilities use this approach. (Effectively, electrification measures need two NTG values.)
  - For midstream programs, leakage across service territory borders issues will need to be factored in. There may be additional midstream-specific calculation issues.
- 2022 Gross Savings Calculation Approaches
  - For 2022, the TRM specifies algorithms for residential space heating electrification.
  - For 2022, a new erratum will specify how to use existing algorithms to calculate electrification savings for some additional measures (e.g., residential dryers; residential heat pump water heaters).
  - For 2022, custom algorithms will need to be developed for residential cooking equipment, forklifts, commercial end uses, and other measures not currently captured in TRM v.10.
    - For some of these measures, algorithms finalized for the 2023 TRM will be appropriate to apply for 2022.
    - For other measures, algorithms have not been proposed for the 2023 TRM (e.g., heat pumps in “hybrid” configurations with fossil heating systems).

        - Savings calculations must ensure that the underlying useful energy delivered with electric and fossil equipment is equivalent. For example, electric cooking devices take longer to heat up than fossil equipment, and so run hours may not be equivalent. Similarly, gas dryers more effectively shed moisture.
        - There may be additional calculation issues required to accurately characterize individual end uses and measures.
- 2022 Input Values
    - The Policy Manual should address how to:
        - Address prospective vs. retrospective gross savings evaluation approaches
        - Develop consensus input values (or approaches) necessary for calculating gross savings.
        - Apply existing gas NTG values (e.g., for furnaces) as "fossil fuel NTG" in electrification algorithms
        - Develop new "fossil fuel NTG" values for natural gas measures without existing NTG values
        - Develop new "fossil fuel NTG" values for propane and other fossil fuel measures
        - Develop "electrification NTG" to use in fossil fuel algorithms
- Future Input Values
    - The Policy Manual should also address how to develop gross savings and NTG input values for future years, presumably through existing TRM and NTG processes

To use time most effectively in the Policy Manual Committee, perhaps the evaluators could propose approaches and data to be used for 2022 evaluations for each end use/measure type. Committee participants could then review and (hopefully) reach consensus on these evaluator proposals.

Question 2: Utility Impact

Describe whether the proposed policy impacts Illinois gas utilities, electric utilities, or both.

Proposal impacts electric utilities directly in their savings calculations. Gas utilities also have an interest in these calculation approaches.

Question 3: Background Research

Provide any background research completed in preparing this template, including source references and links, as applicable.

Questions to consider:

1. *Are you aware of other jurisdictions or utilities that address this policy issue?*
2. *Have any national or regional energy efficiency organizations addressed this policy topic? If so, please provide reports and any other relevant sources.*

New England utilities have developed an approach for applying multiple NTG factors to calculate electrification savings.

Other gross calculation issues have mostly been raised in current and previous TRM updates.

Optional Question 4: Commission Decision

Has the Illinois Commerce Commission previously addressed this policy or issue? If so, please provide language and specific citations, including the ICC docket number.

No.

Optional Question 5: Statutory Consistency

Have you reviewed your proposed policy against applicable Illinois law? Are there any possible conflicts? If so, please explain and provide statutory citation(s).

8-103B(b-27)

(b-27) Beginning in 2022, an electric utility may offer and promote measures that electrify space heating, water heating, cooling, drying, cooking, industrial processes, and other building and industrial end uses that would otherwise be served by combustion of fossil fuel at the premises, provided that the electrification measures reduce total energy consumption at the premises. The electric utility may count the reduction in energy consumption at the premises toward achievement of its annual savings goals. The reduction in energy consumption at the premises shall be calculated as the difference between: (A) the reduction in Btu consumption of fossil fuels as a result of electrification, converted to kilowatt-hour equivalents by dividing by 3,412 Btu's per kilowatt hour; and (B) the increase in kilowatt hours of electricity consumption resulting from the displacement of fossil fuel consumption as a result of electrification.

Optional Question 6: Additional Information

Provide additional information, as needed, to assist with understanding the proposed policy issue and your request to include it in the Policy Manual Version 3.0. For example, have any memos been drafted to the SAG related to this policy proposal?