**Background on Current vs. Forward-Looking Heat Rates**

**Peoples Gas / North Shore Gas and Nicor Gas (6/25/2021)**

The total energy consumption of an electric device depends on the electric grid heat rate. A larger heat rate means more energy is required to operate the device.

The current TRM uses a first-year source energy calculation based on U.S. EPA reported heat rates to determine fuel switch eligibility. A proposal was brought forth to the TAC to forecast future heat rates so that the average heat rate over the lifetime of the measure could be used in the source energy screening test. However, inputs to a forward-looking savings calculation rely on numerous assumptions, such as the future electricity generating fuel mix, each of which the TAC must reach consensus on and increase the uncertainty of the calculation.

Before the TAC spends more time discussing how best to forecast the future, further clarification of the fuel switch eligibility requirements and whether or not estimated future energy consumption screening criteria are requested.

While it may be possible for a fuel switch to cause negative energy savings (energy increase) in the early years of the measure life and be projected to cause positive energy savings in the later years due to forecasted changes in the grid heat rate, the estimates for the later years are the most uncertain and could be substantially over/underestimated.

If the policy decision is made to include future energy consumption estimates in the fuel switch screening criteria, this will bring up additional policy questions that would need to be resolved first. The current time constraints do not allow for in-depth discussion of the issues. Therefore, we propose a solution for this TRM that is forward-looking and reflects more recent data than the existing method.

**Proposal**

*Our proposal is to use the current year’s heat rate in the source energy savings test agreed upon in IL TRM v9 instead of the two-year-old heat rates published by the U.S. EPA.*

The method for projecting the current year heat rate is most appropriately addressed by the TAC.

**Policy Questions for Future Discussion**

Predictions to calculate future heat rates beyond the current year for the source energy savings test in IL TRM v10 would require the resolution of several policy questions. Including, but not limited to, the “Thomas questions”:

* Is a measure that increases energy consumption today but is projected to save *more* energy in the future eligible for fuel switching? (first year savings negative, lifetime savings positive)
* Can savings be claimed in the current 4-year plan cycle from a measure that is not projected to produce savings until a future plan cycle?
* Should electric utilities claim AAIG/CPAS savings that reflect the annual changes in the forecasted heat rate (negative in the early years, projected to become positive in the later years)?