# Illinois Energy Efficiency Stakeholder Advisory Group

# Energy Efficiency Policy Manual

## ISSUE:

Defining and Tracking Savings Performance Targets

## POLICY:

Illinois will define savings goals and performance against those goals using gross savings.

## DEFINITIONS:

(From SEE Action, Energy Efficiency Program Impact Evaluation Guide, December 2012)

* **Gross Savings:** The change in energy consumption and/or demand that results directly from program-related actions taken by participants in an energy efficiency program, regardless of why they participated.
* **Net Savings:** The change in energy consumption and/or demand that is attributable to a particular energy efficiency program. This change in energy use and/or demand may include, implicitly or explicitly, consideration of factors such as free ridership, participant and non-participant spillover, and induced market effects. These factors may be considered in how a baseline is defined (e.g., common practice) and/or in adjustments to gross savings values.
* **Net-to-Gross (NTG) Ratio:** A factor representing net program savings divided by gross program savings that is applied to gross program impacts to convert them into net program load impacts. The factor itself may be made up of a variety of factors that create differences between gross and net savings, commonly including free riders and spillover. Can be applied separately to either energy or demand savings.
* **Free Rider:** A program participant who would have implemented the program’s measure(s) or practice(s) in the absence of the program. Free riders can be (1) total, in which the participant’s activity would have completely replicated the program measure; (2) partial, in which the participant’s activity would have partially replicated the program measure; or (3) deferred, in which the participant’s activity would have partially or completely replicated the program measure, but at a future time beyond the program’s time frame.
* **Spillover (Participant and Non-Participant):** Reductions in energy consumption and/or demand caused by the presence of an energy efficiency program, beyond the program-related gross savings of the participants and without direct financial or technical assistance from the program. There can be participant and/or non-participant spillover. *Participant spillover* is the additional energy savings that occur as a result of the program’s influence when a program participant independently installs incremental energy efficiency measures or applies energy-saving practices after having participated in the energy efficiency program. *Non-participant spillover* refers to energy savings that occur when a program non-participant installs energy efficiency measures or applies energy savings practices as a result of a program’s influence.
* **Market Effect:** A change in the structure of a market or the behavior of participants in a market that is reflective of an increase (or decrease) in the adoption of energy efficient products, services, or practices and is causally related to market interventions (e.g., programs). Examples of market effects include increased levels of awareness of energy efficient technologies among customers and suppliers, increased availability of energy efficient technologies through retail channels, reduced prices for energy efficient models, build out of energy efficient model lines, and—the end goal— increased market share for energy efficient goods, services, and design practices.

## POLICY RATIONALE:

### Illinois law does not require performance goals to be measured with net savings

The Public Utilities Act does not explicitly define whether utility savings goals are to be measured as net or gross savings. The Act does mention net savings in defining the role of the independent evaluator, however Illinois could limit the application of net savings evaluations to the purposes of refining program design and calculating cost-effectiveness, while tracking program savings goals using gross savings metrics.

In addition, in the latest round of Illinois Energy Efficiency Plan (EEP) proceedings, the Illinois Commerce Commission approved modified savings goals for all six of the Illinois electric and natural gas utilities, as well as for the Department of Commerce and Economic Opportunity (DCEO). The Act’s modified savings goal provisions allow the Commission latitude for setting goals that differ from those defined in Sections 8-103(b) and 8-104(c). The Commission could set goals defined with either gross savings or net savings metrics. Further, the Commission could set goals using additional metrics consistent with the Act’s goal of using “cost-effective energy efficiency to reduce direct and indirect costs to consumers.” For example, the Commission could set goals based on lifecycle savings instead of annual savings.

### Other states deliver effective energy efficiency portfolios with gross savings goals

A number of other states rely on gross savings metrics to define energy efficiency performance goals, and program administrators in these states continue to offer well run, cost effective programs.

* In its 2012 report *National Survey of State Policies and Practices for the Evaluation of Ratepayer-Funded Energy Efficiency Programs*, the American Council for an Energy Efficient Economy (ACEEE) surveyed 42 states with formally approved ratepayer-funded portfolios, and, of these, 12 states rely on gross performance goals and 9 use gross savings for some reporting purposes.
* The Midwest Energy Efficiency Alliance, relied on the same ACEEE report to determine that 4 of its 11 member states rely on gross performance goals and another 4 states use gross savings for some reporting purposes.
* A number of states also employ some form of “adjustable savings goals” to adjust savings performance for differences between measured evaluation results and original planning assumptions. (In Illinois, the Commission has approved this approach for Ameren Illinois Utilities.) This approach functionally reaches a similar outcome to that provided by gross savings policies.

The states relying on gross savings goals (or similar adjustable savings goals) continue to offer successful, cost effective energy efficiency programs, as evidenced by a number of awards bestowed by industry groups on portfolios operating in these states. For example, these states represent five of the ten states ranked highest for “Utility and Public Benefits Programs and Policies” in the ACEEE *2013 State Energy Efficiency Scorecard*. In addition, these states are home to 14 of the 23 program administrators designated by ENERGY STAR as *Partners of the Year* in 2014.

### Net savings policies create large and unreasonable risks for program administrators

Illinois program administrators currently face substantial downside risks when NTG evaluation results differ from the planning assumptions used in setting goals These risks continue even with the prospective NTG policies adopted by the Commission in the recent EEP proceedings, because the current NTG framework maintains risk from NTG changes that occur within the three-year planning horizon.

These risks can be substantial. For example, in GPY1, the Nicor Gas independent evaluation lowered savings for the largest program in the Nicor Gas portfolio by more than one third. Similarly, across the first five program years, the ComEd independent evaluation of its second largest program estimated values that varied by almost one quarter*.* Since these programs represented the most economical energy efficiency resources in each portfolio, overcoming these downward evaluation risks, while maintaining the fixed overall budgets required by the Public Utilities Act, created considerable management challenges.

When NTG reductions are caused by simple random statistical variation rather than utility management decisions, they create risks that are unreasonable to expect utilities to effectively manage. For example, in GPY1/EPY4, the five custom business programs offered in Illinois used substantially identical delivery approaches, and yet received NTG evaluations that varied by more than 40%.

### Net savings policies discourage innovation and collaboration

Net savings policies can discourage program administrators from developing innovative new program offerings, since new programs create new NTG risks that could limit portfolio performance and trigger performance penalties. Net savings policies can encourage program administrators to limit new offerings and changes to existing offerings in order to maintain stable NTG results.

To the extent that net savings policies penalize program administrators for market effects supported by collaborative programs operated by local cities or the federal government, these policies can also discourage program administrators from fully leveraging these collaboration opportunities.

### Gross evaluation policies will leverage limited evaluation resources

Because the Public Utilities Act limits evaluation budgets to 3% of total portfolio costs, Illinois independent evaluators must prioritize evaluation efforts. Current NTG policies have led to substantial disagreement among Illinois program administrators and stakeholders, and therefore require evaluators to expend additional resources to develop and defend NTG results. A gross savings policy will allow limited evaluation resources to be deployed on more valuable activities such as impact evaluations to improve TRM algorithms and process evaluations to improve program effectiveness.

In addition to direct expenditures by the independent evaluators, the gross savings policy in Illinois will free up limited resources available from program administrators and SAG that are currently dedicated to NTG issues. SAG has spent substantial resources defining, implementing, and debating NTG policies over the first six years of its existence. For example, SAG devoted the majority of its efforts from March through November of 2013 on various NTG topics.