



To: Nicor Gas, Elizabeth Horne, David Brightwell, ICC Staff  
CC: Celina Aguilar, Laura Agapay-Read, Jeff Erickson, Guidehouse  
From: Ensar Biscevic, Guidehouse  
Date: August 26, 2025  
Re: Net-to-Gross Recommendation for Nicor Gas Energy Savings Kits (ESK)

## 1. Executive Summary

This memo documents our rationale to recommend 0.75 for the Net to Gross (NTG) ratio for Nicor Gas Energy Savings Kits Program (ESK) weatherization measures and 1.11 for water conservation measures<sup>1</sup> based on our secondary research. The research involved identifying potentially similar programs in comparable jurisdictions with recently researched NTG values. Guidehouse recommends using free ridership (FR) of 0.27 and participant spillover (SO) of 0.02 for weatherization kits based on Wisconsin's Focus on Energy Comfort Pack program. For Water Conservation measures, the TRM specifies a FR value of 0.00 and Guidehouse recommends using the SO value of 0.11 from Wisconsin's Focus on Energy Water Direct to Customer Packs. This is based on several criteria which Guidehouse used to rate the applicability of NTG values of other programs to these measures in the Nicor Gas program. This methodology and the criteria used are described below.

## 2. Program Background

The ESK program provides free kits containing energy-saving products that customers can install themselves. The kits are intended to deliver immediate energy and water savings, serve as an entry point for customers who may later pursue more comprehensive energy efficiency upgrades, and reach customers who may not be able to participate in other programs due to budget or capacity constraints. To receive a kit, households can opt-in to the program and request a kit be shipped to them. Two types of kits are offered. The weatherization kit includes weatherstripping, rope caulk, light switch and outlet gaskets, and a door sweep. These measures help reduce natural gas use by sealing air leaks to reduce heating needs. The water savings kit contains high-efficiency showerheads, kitchen and bathroom faucet aerators, and a shower timer. These water measures help reduce water and natural gas use by improving water efficiency and reduce water heating costs.

## 3. Research Methodology and Results

Guidehouse investigated NTG values for Nicor Gas Energy Savings Kits (ESK). We sought programs with features similar to this program, specifically targeting features that can affect a program measure's NTG including:

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<sup>1</sup> The IL TRM specifies that the free ridership for residential showerheads and aerators be set at zero when estimating gross savings using a default baseline average flow rate that includes the effect of existing low flow fixtures.

## Net-to-Gross Research Results for Nicor Gas Energy Savings Kits (ESK)

- Customer sector: Residential
- Measure technology:
  - Weatherization: Weatherstripping, rope caulk, light switch and outlet gaskets, and a door sweep
  - Water: High-efficiency showerheads, kitchen and bathroom faucet aerators and shower timer
- Space heating fuel: Natural Gas
- Delivery level channel: Opt-in Kit
- Climate/region: Cold Climate
- Installation: Resident
- Time frame: 2 years
- Market maturity: High maturity

Our research confirms that all values in the table are derived from primary research. This includes our own data collection as well as a review of utility evaluation reports and NTG memos from gas and electric utilities in 15 states with climate zones similar to Illinois. We also assessed whether the primary research was recent or measure-specific.

Among the 15 states, Guidehouse identified 13 programs with potentially analogous values, shown in Table 1 below. Guidehouse reviewed the programs and NTG values and found one that fits all our comparison criteria.

Table 1. Net-to-Gross of Programs Comparable to Nicor Gas Energy Savings Kits (ESK)

ID	State	Utility	Region	Sector	Program Type	End Uses	Program Name	Delivery Channel	NTG	FR	PSO	Year of Primary Research	NTG Research at Measure or Program Level?
<b>Assessment</b>													
1	WI	Focus on Energy	MW	RES	Gas and Electric	Weatherization	Direct to Customer Comfort Packs <sup>2, 3</sup>	Opt-in Kit	0.75	0.27	0.02	2023	Measure <sup>4</sup>
Similar program with recently researched measure-level NTG values. 2023 measure-level data aggregated using Nicor Gas's measure level verified gross savings.													
2	WI	Focus on Energy	MW	RES	Gas and Electric	Water	Direct to Customer Packs	Opt-in Kit	0.96	0.15	0.11	2020	Measure <sup>5</sup>
Average of measure level values. Measures similar to Nicor Gas Water Kit measures.													
3	MI	DTE	MW	RES	Gas and Electric	Weatherization, LEDs, & insulation	Schools Program	School Kit	1.99	0.2	1.19	2022	Program
Actual NTG used was agreed to be 0.92 and delivery channel does not match the Nicor Gas program.													
4	PA	PECO	NE	RES	Gas and Electric	Weatherization, & Appliances	Rebates and Marketplace	Opt-in Kit	0.85	0.15	NA	2023	Program
Not applicable as there are no kit specific values.													
5	NJ	ACE	NE	RES	Electric	Weatherization & Power Strips	Community Kits	Opt-in Kit	0.71	0.29	0.00	2024	Measure
Weighted average of measure level NTG. Electric only utility so not applicable.													

<sup>2</sup> [WI Focus on Energy CY 2023 Volume II Evaluation Report](#)

<sup>3</sup> [WI Focus on Energy CY 2023 Volume III Appendices](#)

<sup>4</sup> The values for the Focus on Energy Direct to Customer Packs use measure level NTG values weighted by Nicor Gas savings.

<sup>5</sup> The values for the Focus on Energy Direct to Customer water measure packs are the straight average of measure level NTG values. SO is consistent across all the measure therefore there was no need to do a weighted average.

Net-to-Gross Research Results for Nicor Gas Energy Savings Kits (ESK)

ID	State	Utility	Region	Sector	Program Type	End Uses	Program Name	Delivery Channel	NTG	FR	PSO	Year of Primary Research	NTG Research at Measure or Program Level?
<b>Assessment</b>													
6	IL	ComEd	MW	RES	Electric and Gas	LEDs, & Water	Elementary Ed	School Kit	0.88	0.10	0.00	2021	Measure
Average measure level NTG but delivery channel does not match the Nicor Gas Water Kits.													
7	MI	Indiana Michigan Power	MW	RES	Gas and Electric	LEDs, & Water	Online Energy Checkup	Opt-in Kit	1.06	NA	NA	2023	Program
Combination of Gas and Electric NTG values, LEDs make up <1% of total program but included a customized energy efficiency assessment which could greatly increase spillover.													
8	PA	PPL	NE	RES	Electric	LED, & Water	Energy Efficient Homes	Opt-in Kit	0.94	0.14	0.08	2022	Measure
Electric only utility so not applicable.													
9	PA	Met-Ed	NE	RES	Electric	LED, & Water	Energy Efficiency Kits	Opt-in Kit	0.82	NA	NA	2022	Program
Electric only utility so not applicable.													
10	PA	Pen Elec	NE	RES	Electric	LED, & Water	Energy Efficiency Kits	Opt-in Kit	1.06	NA	NA	2022	Program
Electric only utility so not applicable.													
11	IN	NIPSCO	MW	RES	Gas	Water	HomeLife Calculator	Opt-in Kit	0.99	0.10	0.10	2023	Program
Gas Only NTG value, measures similar to Nicor Gas Water Kits but included a customized energy efficiency assessment which could greatly increase spillover.													
12	IN	NIPSCO	MW	RES	Electric	LED, & Water	HomeLife Calculator	Opt-in Kit	0.96	0.14	0.10	2023	Program

Net-to-Gross Research Results for Nicor Gas Energy Savings Kits (ESK)

ID	State	Utility	Region	Sector	Program Type	End Uses	Program Name	Delivery Channel	NTG	FR	PSO	Year of Primary Research	NTG Research at Measure or Program Level?
<i>Assessment</i>													
Electric Only NTG value, similar to Gas Only program with the addition of LEDs.													
13	IL	Nicor Gas	MW	Res	Gas	Water	Water Savings kits	Opt-in Kit	1.10	0.00	0.10	2021	Program
Nicor Gas 2021 spillover research.													

NA = Not Available. RES = Residential, COM = Commercial, FR = Free Ridership, PSO = Participant Spillover

Source: *Guidehouse Evaluation Team*

## 4. Final NTG Recommendations

### 4.1 Weatherization Kits:

Based on our secondary research, we recommend using the free ridership value of 0.27 for weatherization measures and spillover value of 0.02 for weatherization measures based on Wisconsin’s Focus on Energy Comfort Pack programs measure-level impact evaluation.

The Comfort Pack program stands out as a valid comparison program due to its program design and service territory. Like the Nicor Gas program construction, the Comfort Pack Program focuses primarily on weatherization with measures including door sweeps, door weatherization, LED night light, outlet gaskets, switch gaskets, and window film insulation. Both programs are opt-in, and measures are self-install. The Focus on Energy program targets residential customers and is implemented across Wisconsin which is a cold climate state.

With the NTG evaluation of the Comfort Pack program breaking down NTG values by measure, we had the unique opportunity to attribute a NTG value to each weatherization kit measure. To get the Program level NTG value, we weighted the Comfort Pack measure level NTG values by the share of total weatherization savings for each measure in Nicor Gas’ 2024 program year. The result is a kit-type NTG value that is accurate to the measure level.

Table 2 shows the measure specific. The NTG values shown in the table for the two Focus on Energy programs are savings-weighted averages. The columns labelled FR (Free-Ridership), SO (Spillover), and NTG (Net-to-Gross) reflect the original values reported in the Focus study for each measure or program component. To calculate the overall NTG value for each program, we multiplied each component’s NTG value by its share of total program savings. These weighted values were then summed at the bottom to produce the final NTG value shown in the table.

**Table 2. Mapping Measure level Net-to-Gross from Focus on Energy Comfort Packs to Nicor Gas Energy Savings Kits, Weatherization**

Nicor Gas Kit Measure	Comfort Pack Measure	Share of Total Verified Gross 2024 Weatherization Savings	Nicor Gas		Focus on Energy	
			FR	SO	NTG	
Rope Caulk	Door Weatherstripping*	27%	0.30	0.02	0.72	
Foam Tape Weatherstrip	Door Weatherstripping	22%	0.30	0.02	0.72	
V-Seal Weatherstrip	Door Weatherstripping	20%	0.30	0.02	0.72	
Door Sweep	Door Sweep	18%	0.26	0.02	0.76	
Outlet & Switch Cover	Outlet & Switch Gasket	12%	0.04	0.02	0.98	

	Nicor Gas	Focus on Energy		
<b>Total Weatherization Kit:</b>	<b>100%</b>	<b>0.27</b>	<b>0.02</b>	<b>0.75</b>

\*Rope caulk was not included in the Comfort Packs, so door weatherstripping was used as a proxy. Excluding the rope caulk measure from the analysis leads to same NTG value.

Source: *Guidehouse Evaluation Team*

## 4.2 Water Savings Kits:

According to the Illinois TRM, water savings kits have a FR value of 0.00. Based on our secondary research of similar water savings kits with spillover values calculated, we recommend using the spillover value of 0.11 from Wisconsin’s 2020 Water Direct to Customer Packs program.<sup>6</sup> The Water Direct to Customer Pack measures all had the same spillover value, which we used as our recommended value for the water savings kits.

As with the Comfort Packs, the Water Direct to Customer Pack program stands out as a close comparison program due to its program design and service territory. Like the Nicor Gas program construction, the Water Direct to Customer Pack Program focuses on primarily Water measures including faucet aerators, pipe insulation, and showerhead upgrades. As stated above, both programs are opt-in and measures are self-install. The Focus on Energy program targets residential customers and is implemented across Wisconsin, which is a cold climate state.

<sup>6</sup> [WI Focus On Energy Evaluation Report CY 2020 Volume II.pdf](#)