



# **Plan Years 2018 through 2021 Total Resource Cost (TRC) Test Results and Impact Summary Evaluation Report**

**Third Energy Efficiency Plan:  
Gas Plan Years 2018-2021  
(1/1/2018-12/31/2021)**

**Draft**

**November 16, 2022**

**Prepared for:**

**Nicor Gas**



## Nicor Gas Total Resource Cost Test Results and Impact Summary Evaluation Report

**Submitted to:**

Nicor Gas Company  
1844 Ferry Road  
Naperville, IL 60563

**Submitted by:**

Guidehouse  
150 N. Riverside Plaza, Suite 2100  
Chicago, IL 60606

**Contact:**

Paulo Albuquerque Director 205.767.6167 palbuquerque@guidehouse.com	Stu Slote Director 802.526.5113 stu.slote@guidehouse.com	Laura Agapay-Read Associate Director 312-583-4178 laura.agapay.read@guidehouse.com
--	---	---

Disclaimer: This report was prepared by Guidehouse for Northern Illinois Gas Company d/b/a Nicor Gas Company ("Nicor Gas") based upon information provided by Nicor Gas and from other sources. Use of this report by any other party for whatever purpose should not, and does not, absolve such party from using due diligence in verifying the report's contents. Neither Guidehouse nor any of its subsidiaries or affiliates assumes any liability or duty of care to such parties, and hereby disclaims any such liability.

## Table of Contents

<b>1. Executive Summary .....</b>	<b>1</b>
1.1 Portfolio Total Resource Cost (TRC) Test Verified Results .....	1
1.2 Portfolio Net Energy Savings Verified Results .....	1
1.3 Portfolio Impact Summary Verified Results .....	1
1.4 Portfolio Economic Impact Summary of Verified Results .....	3
<b>2. Cost Effectiveness Methodology.....</b>	<b>5</b>
<b>3. Program Specific Data.....</b>	<b>10</b>
3.1 Program Specific Cost Effectiveness Results Summary .....	10
3.2 Program Specific Verified Savings and Costs Summary.....	25
<b>4. Joint Program Cost Effectiveness Summary .....</b>	<b>30</b>

## List of Tables

Table 1-1. Summary of Nicor Gas 2018-2021 TRC Results by Program – Nicor Gas Specific w/o Electric Data from Joint Programs .....	2
Table 1-2. Nicor Gas Plan 3 Portfolio 2018 through 2021 – Verified Net Energy Savings.....	1
Table 1-3. Summary of Nicor Gas Plan 3 Portfolio 2018-2021 Performance Results.....	2
Table 1-4: Economic Impacts by Time Period (2018, 2019, 2020, 2021).....	3
Table 1-5: Job-Year Impacts by Time Period (2018, 2019, 2020, 2021).....	3
Table 2-1. Data Points Needed to Conduct the Illinois TRC Test .....	7
Table 2-2. Summary of Coordinated or Jointly Implemented EEPS Programs.....	8
Table 3-1. Summary of Program Level Benefits, Costs and Illinois TRC Test for 2018-2021...	11
Table 3-2. Summary of Program Level Benefits, Costs and Illinois PACT for 2018-2021 .....	12
Table 3-3. Summary of Illinois TRC Benefits and Costs for 2018 .....	13
Table 3-4. Summary of Illinois TRC Benefits and Costs for 2019 .....	14
Table 3-5. Summary of Illinois TRC Benefits and Costs for 2020 .....	15
Table 3-6. Summary of Illinois TRC Benefits and Costs for 2021 .....	16
Table 3-7. Summary of PACT Benefits and Costs for 2018.....	17
Table 3-8. Summary of PACT Benefits and Costs for 2019.....	18
Table 3-9. Summary of PACT Benefits and Costs for 2020.....	19
Table 3-10. Summary of PACT Benefits and Costs for 2021 .....	20
Table 3-11. Summary of TRC Benefits and Costs for 2020 Plan 4 Avoided Costs .....	21
Table 3-12. Summary of TRC Benefits and Costs for 2021 Plan 4 Avoided Costs .....	22
Table 3-13. Summary of PACT Benefits and Costs for 2020 Plan 4 Avoided Costs .....	23
Table 3-14. Summary of PACT Benefits and Costs for 2021 Plan 4 Avoided Costs .....	24
Table 3-15. Summary of Verified Savings and Program Costs for 2018-2021 .....	26
Table 3-16. Summary of Verified Savings and Program Costs for 2018 .....	27
Table 3-17. Summary of Verified Savings and Program Costs for 2019 .....	27
Table 3-18. Summary of Verified Savings and Program Costs for 2020 .....	28
Table 3-19. Summary of Verified Savings and Program Costs for 2021 .....	29
Table 4-1. Summary of Jointly Implemented Programs for 2018-2021 .....	30
Table 4-2. Summary of TRC Test Values by Program and Utility – CY2018.....	31
Table 4-3. Summary of TRC Test Values by Program and Utility – CY2019.....	31

Table 4-4. Summary of TRC Test Values by Program and Utility – CY2020..... 32  
Table 4-5. Summary of TRC Test Values by Program and Utility – CY2021..... 32

## 1. Executive Summary

This report provides Guidehouse's summary reporting of verified energy savings and cost effectiveness results for the Nicor Gas Energy Efficiency Plan (EEPS) portfolio of programs for 2018 through 2021<sup>1</sup> (Plan 3). The verified first-year annual net savings of 69,739,793 therms<sup>2</sup> exceeded its Plan 3 Approved Net Energy Savings Goal<sup>3</sup> of 66,758,842 net therms by 4 percent. Based on the Illinois Total Resource Cost (TRC) calculation, the portfolio is cost-effective with a TRC of 2.9.

This report does not cover program process evaluation results or recommendations. All recommendations and process evaluation results are provided in reports produced annually, and can be found on the Illinois Energy Efficiency Stakeholder Advisory Group (SAG) website<sup>4</sup>.

### 1.1 Portfolio Total Resource Cost (TRC) Test Verified Results

This section summarizes findings regarding the cost-effectiveness of the Nicor Gas portfolio of energy efficiency programs during the four-year Plan 3 time period from program year 2018 through program year 2021. The cost effectiveness methodology and description of data inputs is provided in Section 2.

Table 1-1 summarizes the four-year combined results for the Nicor Gas portfolio at the program, sector, and portfolio levels. The results presented in this table are based on the Illinois TRC test, which includes benefits from avoided environmental damages, and is the primary test utilized by Guidehouse for ascertaining the portfolio's cost effectiveness. The results show that across the entire four program-year period, the Plan 3 portfolio was cost effective with a TRC ratio of 2.9.

---

<sup>1</sup> Each Gas Program Year starting with 2018 begins on January 1 and ends on December 31.

<sup>2</sup> Unless noted, therm values are first year annual savings.

<sup>3</sup> The Approved Net Energy Savings Goal (Approved Goal) refers to the most updated portfolio-level savings goal. In the case of Section 8-104 programs, the values match the Adjusted Energy Savings Goal contained in the Program Administrator's updated 2021 Adjustable Savings Goal Template. The Original Plan Savings Goal (Compliance Goal) approved in the Commission's Final Order submitted in Docket 17-0310 for 2018 through 2021 is 66,038,601 annual net therm savings.

<sup>4</sup> <http://www.ilsag.info/evaluation-documents.html>



## Nicor Gas Total Resource Cost Test Results and Impact Summary Evaluation Report

**Table 1-1. Summary of Nicor Gas 2018-2021 TRC Results by Program – Nicor Gas Specific w/o Electric Data from Joint Programs**

TRC Results for Nicor Gas, 2018-2021 Programs (Societal Discount Rate, Plan 3 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 118,242,316	\$ 57,958,591	\$ 8,621,832	\$ 12,978,728	\$ 60,663,208	\$ 176,200,907	\$ 69,285,040	\$ 106,915,868	2.5
Home Energy Savings	\$ 17,607,605	\$ 11,940,091	\$ 6,275,177	\$ 5,186,650	\$ 8,476,197	\$ 29,547,696	\$ 14,751,374	\$ 14,796,322	2.0
Multi-Family	\$ 14,169,132	\$ 7,921,497	\$ 4,069,396	\$ 2,510,029	\$ 3,629,877	\$ 22,090,629	\$ 7,699,273	\$ 14,391,356	2.9
Energy Saving Kits	\$ 39,391,789	\$ 29,472,913	\$ 2,110,539	\$ 2,794,094	\$ 2,947,651	\$ 68,864,702	\$ 5,058,189	\$ 63,806,512	13.6
Elementary Energy Education	\$ 3,949,115	\$ 11,871,644	\$ 987,301	\$ 1,211,934	\$ 1,361,202	\$ 15,820,759	\$ 2,348,503	\$ 13,472,256	6.7
Residential New Construction	\$ 11,006,112	\$ 7,673,955	\$ 1,448,275	\$ 1,650,215	\$ 7,027,534	\$ 18,680,068	\$ 8,475,809	\$ 10,204,259	2.2
Behavioral Energy Savings	\$ 6,103,648	\$ 2,287,307	\$ 1,793,285	\$ 1,862,055	\$ 1,951,818	\$ 8,390,956	\$ 3,745,103	\$ 4,645,853	2.2
<b>Residential Total</b>	\$ 210,469,718	\$ 129,125,999	\$ 25,305,805	\$ 28,193,704	\$ 86,057,486	\$ 339,595,716	\$ 111,363,291	\$ 228,232,425	3.0
BEER	\$ 41,013,319	\$ 18,732,436	\$ 6,713,970	\$ 4,860,871	\$ 5,365,258	\$ 59,745,755	\$ 12,079,228	\$ 47,666,528	4.9
Business and Public Sector Custom	\$ 203,448,635	\$ 75,140,158	\$ 7,020,534	\$ 7,474,030	\$ 53,849,935	\$ 278,588,793	\$ 60,870,468	\$ 217,718,325	4.6
Strategic Energy Management	\$ 19,921,798	\$ 6,774,862	\$ 1,021,008	\$ 3,003,425	\$ 3,679,426	\$ 26,696,660	\$ 4,700,434	\$ 21,996,226	5.7
Retro-Commissioning (Joint and Stand Alone)	\$ 5,665,819	\$ 1,968,646	\$ 1,056,458	\$ 1,017,501	\$ 1,604,925	\$ 7,634,465	\$ 2,661,382	\$ 4,973,083	2.9
Coordinated Non-Residential New Construction	\$ 9,922,727	\$ 3,674,615	\$ 952,969	\$ 1,026,322	\$ 4,209,586	\$ 13,597,342	\$ 5,162,556	\$ 8,434,786	2.6
Small Business	\$ 11,502,061	\$ 4,793,644	\$ 3,804,409	\$ 2,220,612	\$ 4,047,667	\$ 16,295,705	\$ 7,852,076	\$ 8,443,629	2.1
Commercial Food Service (CFS) Midstream Pilot	\$ 652,546	\$ 246,830	\$ 228,878	\$ 148,851	\$ 160,299	\$ 899,375	\$ 389,177	\$ 510,198	2.3
<b>Business and Public Sector Total</b>	\$ 292,126,906	\$ 111,331,190	\$ 20,798,226	\$ 19,751,612	\$ 72,917,095	\$ 403,458,095	\$ 93,715,321	\$ 309,742,774	4.3
IHWAP, Contractor Channel, Kits, BNP - Single Family	\$ 15,749,676	\$ 11,134,648	\$ 5,790,322	\$ 13,969,206	\$ 20,686,289	\$ 26,884,323	\$ 26,476,612	\$ 407,711	1.0
IHWAP, Contractor Channel, Kits - Multi Family	\$ 15,314,541	\$ 9,286,825	\$ 3,996,232	\$ 9,038,079	\$ 10,216,710	\$ 24,601,365	\$ 14,212,942	\$ 10,388,423	1.7
Public Housing Energy Savings	\$ 1,994,782	\$ 817,364	\$ 1,447,201	\$ 2,433,295	\$ 2,362,112	\$ 2,812,145	\$ 3,809,314	\$ (997,168)	0.7
Affordable Housing New Construction	\$ 1,539,507	\$ 563,282	\$ 561,038	\$ 661,429	\$ 826,731	\$ 2,102,789	\$ 1,387,769	\$ 715,020	1.5
<b>Income Qualified Total</b>	\$ 34,598,505	\$ 21,802,118	\$ 11,794,794	\$ 26,102,009	\$ 34,091,842	\$ 56,400,623	\$ 45,886,637	\$ 10,513,986	1.2
Building Operator Certification	\$ 32,204	\$ 11,911	\$ 10,136	\$ 3,000	\$ 10,984	\$ 44,115	\$ 21,120	\$ 22,995	2.1
Market Transformation	\$ -	\$ -	\$ 5,115,952	\$ -	\$ -	\$ -	\$ 5,115,952	\$ (5,115,952)	0.0
<b>Market Transformation Total</b>	\$ 32,204	\$ 11,911	\$ 5,126,088	\$ 3,000	\$ 10,984	\$ 44,115	\$ 5,137,072	\$ (5,092,956)	0.0
<b>Other Portfolio Costs</b>			\$ 20,529,255				\$ 20,529,255	\$ (20,529,255)	
<b>Portfolio Total</b>	\$ 537,227,333	\$ 262,271,217	\$ 83,554,167	\$ 74,050,325	\$ 193,077,408	\$ 799,498,550	\$ 276,631,575	\$ 522,866,974	2.9
<b>Portfolio Total, without Income Qualified (IQ)</b>	\$ 502,628,828	\$ 240,469,099	\$ 71,759,373	\$ 47,948,316	\$ 158,985,565	\$ 743,097,927	\$ 230,744,939	\$ 512,352,988	3.2

Source: Guidehouse Analysis

## 1.2 Portfolio Net Energy Savings Verified Results

This section summarizes verified numerical results of Guidehouse’s impact evaluation of the energy efficiency programs offered by Nicor Gas in Plan 3 program years 2018 through 2021. Verified savings<sup>5</sup> results are used to determine compliance with statutory goals and are provided in this section. Verified net energy savings are documented in Table 1-2. Detailed tables with verified program savings and costs are provided in Section 3.

**Table 1-2. Nicor Gas Plan 3 Portfolio 2018 through 2021 – Verified Net Energy Savings**

Program Year	Verified Net Energy Savings (Annual Therms)
Program Year 2018	10,671,205
Program Year 2019	27,103,486
Program Year 2020	16,206,560
Program Year 2021	15,758,543
<b>Plan 3 Portfolio Verified Total</b>	<b>69,739,793</b>
<b>Plan 3 Compliance Goal</b>	<b>66,038,601</b>
<b>Plan 3 Approved Goal</b>	<b>66,758,842</b>
<b>Portfolio Percent of Approved Goal</b>	<b>104%</b>

*Source: Guidehouse research and analysis*

## 1.3 Portfolio Impact Summary Verified Results

Table 1-3 summarizes energy savings and additional performance metrics of verified results from Guidehouse’s impact evaluation of the energy efficiency programs offered by Nicor Gas in 2018 through 2021.

<sup>5</sup> All savings shown exclude interactive effects of electric energy efficiency that reduce natural gas savings.

### Table 1-3. Summary of Nicor Gas Plan 3 Portfolio 2018-2021 Performance Results

Nicor Gas 2018 to 2021 Four-Year Combined Verified Savings Summary																			
	Ex Ante Gross	Realization Rate	Verified Gross		Deemed / Used	Verified Net				Program Costs		Participation		Verified Gross Weighted Average Measure Life	GHG Savings		Water Savings		
	Annual Savings	Annual Savings (Verified Gross / Ex Ante Gross)	Annual Savings	Lifetime Savings	Net-to-Gross Ratio	Annual Savings	Lifetime Savings	Cost per Annual Savings	Cost per Lifetime Savings	Non-Incentives	Incentives	# Units	Units Definition	Years	Annual Verified Net CO2 Savings	Lifetime Verified Net CO2 Savings	Annual Verified Net Water Savings	Lifetime Verified Net Water Savings	
	Therms (b)	% (c=d/b)	Therms (d)	Therms (e)	% (f=g/d)	Therms (g)	Therms (h)	\$/Therms (i=(k+l)/g)	\$/Therms (j=(k+l)/h)	\$ (k)	\$ (l)	(m)	(n)	(o=e/d)	metric tons CO2	metric tons CO2	Gallons	Gallons	
<b>(a)</b>																			
Home Energy Efficiency Rebate	16,351,429	96%	15,719,099	264,003,627	81%	12,779,335	208,455,514	\$ 1.69	\$ 0.10	\$ 8,621,832	\$ 12,978,728	120,035	Projects	16.8	67,615	1,102,938	-	-	
Home Energy Savings	2,476,568	102%	2,515,326	32,432,611	97%	2,429,589	31,582,685	\$ 4.72	\$ 0.36	\$ 6,275,177	\$ 5,186,650	96,301	Projects	12.9	12,855	167,104	83,840,095	744,171,923	
Multi-Family	2,210,414	103%	2,268,587	27,153,722	94%	2,133,232	25,499,515	\$ 3.08	\$ 0.26	\$ 4,069,396	\$ 2,510,029	36,416	Projects	12.0	11,287	134,918	37,391,393	353,736,968	
Energy Saving Kits	4,683,938	100%	4,683,943	79,592,336	87%	4,081,197	68,258,310	\$ 1.20	\$ 0.07	\$ 2,110,539	\$ 2,794,094	110,896	Projects	17.0	21,594	361,155	243,600,928	2,215,187,516	
Elementary Energy Education	821,189	103%	842,157	7,653,938	100%	842,157	7,653,938	\$ 2.61	\$ 0.29	\$ 987,301	\$ 1,211,934	19,782	Projects	9.1	4,456	40,497	168,734,378	1,540,405,897	
Residential New Construction	1,300,885	110%	1,429,354	25,341,334	76%	1,086,565	19,098,759	\$ 2.85	\$ 0.16	\$ 1,448,275	\$ 1,650,215	13,702	Projects	17.7	5,749	101,052	-	-	
Behavioral Energy Savings	2,884,663	86%	2,481,406	12,320,190	100%	2,481,406	12,320,190	\$ 1.47	\$ 0.30	\$ 1,793,285	\$ 1,862,055	728,914	Projects	5.0	13,129	65,186	-	-	
<b>Residential Total</b>	<b>30,729,086</b>	<b>97%</b>	<b>29,939,872</b>	<b>448,497,758</b>	<b>86%</b>	<b>25,833,482</b>	<b>372,868,911</b>	<b>\$ 2.07</b>	<b>\$ 0.14</b>	<b>\$ 25,305,805</b>	<b>\$ 28,193,704</b>	<b>1,126,046</b>	<b>Projects</b>	<b>15.0</b>	<b>136,685</b>	<b>1,972,849</b>	<b>533,566,794</b>	<b>4,853,502,304</b>	
BEER	14,440,168	103%	14,866,137	106,144,785	75%	11,145,448	80,135,066	\$ 1.04	\$ 0.14	\$ 6,713,970	\$ 4,860,871	3,517	Projects	7.1	58,971	423,995	69,230,514	515,560,063	
Business and Public Sector Custom	21,189,994	101%	21,457,141	434,827,059	79%	16,951,234	339,067,907	\$ 0.86	\$ 0.04	\$ 7,020,534	\$ 7,474,030	373	Projects	20.3	89,689	1,794,008	-	-	
Strategic Energy Management	6,960,367	99%	6,910,979	40,621,001	100%	6,910,979	40,621,001	\$ 0.58	\$ 0.10	\$ 1,021,008	\$ 3,003,425	81	Projects	5.9	36,598	214,928	-	-	
Retro-Commissioning (Joint and Stand Alone)	1,473,040	91%	1,335,288	11,021,851	96%	1,283,038	10,569,541	\$ 1.62	\$ 0.20	\$ 1,056,458	\$ 1,017,501	144	Projects	8.3	6,789	55,923	-	-	
Coordinated Non-Residential New Construction	1,420,340	91%	1,291,307	26,600,924	62%	806,973	16,623,847	\$ 2.45	\$ 0.12	\$ 952,969	\$ 1,026,322	173	Projects	20.6	4,270	87,956	-	-	
Small Business	3,900,377	99%	3,878,104	26,946,562	83%	3,212,323	22,508,885	\$ 1.88	\$ 0.27	\$ 3,804,409	\$ 2,220,612	3,307	Projects	6.9	16,996	119,095	16,515,167	123,855,047	
Commercial Food Service (CFS) Midstream Pilot	107,225	97%	103,990	1,400,862	83%	86,129	1,159,545	\$ 4.39	\$ 0.33	\$ 228,878	\$ 148,851	136	Projects	13.5	456	6,135	52,579	630,942	
<b>Business and Public Sector Total</b>	<b>49,491,511</b>	<b>101%</b>	<b>49,842,946</b>	<b>647,563,044</b>	<b>81%</b>	<b>40,396,124</b>	<b>510,685,591</b>	<b>\$ 1.00</b>	<b>\$ 0.08</b>	<b>\$ 20,798,226</b>	<b>\$ 19,751,612</b>	<b>7,731</b>	<b>Projects</b>	<b>13.0</b>	<b>213,736</b>	<b>2,702,037</b>	<b>85,798,259</b>	<b>640,046,053</b>	
IHWAP_Contractor Channel, Kits, BNP - Single Family	1,523,002	103%	1,573,567	27,189,564	100%	1,573,567	27,189,564	\$ 12.56	\$ 0.73	\$ 5,790,322	\$ 13,969,206	34,771	Projects	17.3	8,326	143,860	41,112,795	384,777,570	
IHWAP_Contractor Channel, Kits - Multi Family	1,600,886	99%	1,587,613	26,243,939	100%	1,587,613	26,243,937	\$ 8.21	\$ 0.50	\$ 3,996,232	\$ 9,038,079	13,837	Projects	16.5	8,400	138,857	24,581,724	236,226,337	
Public Housing Energy Savings	187,794	103%	194,270	3,497,888	100%	194,270	3,503,058	\$ 19.97	\$ 1.11	\$ 1,447,201	\$ 2,433,295	511	Projects	18.0	1,028	18,535	1,484,213	14,254,469	
Affordable Housing New Construction	136,652	110%	150,303	2,657,354	100%	150,303	2,657,354	\$ 8.13	\$ 0.46	\$ 561,038	\$ 661,429	20	Projects	17.7	795	14,060	-	-	
<b>Income Qualified Total</b>	<b>3,448,334</b>	<b>102%</b>	<b>3,505,753</b>	<b>59,588,746</b>	<b>100%</b>	<b>3,505,753</b>	<b>59,593,914</b>	<b>\$ 10.81</b>	<b>\$ 0.64</b>	<b>\$ 11,794,794</b>	<b>\$ 26,102,009</b>	<b>49,139</b>	<b>Projects</b>	<b>17.0</b>	<b>18,549</b>	<b>315,311</b>	<b>67,178,733</b>	<b>635,258,376</b>	
Building Operator Certification	710	625%	4,434	57,642	100%	4,434	57,642	\$ 2.96	\$ 0.23	\$ 10,136	\$ 3,000	6	Projects	13.0	23	305	-	-	
Market Transformation	-	-	-	-	-	-	-	-	-	\$ 5,115,952	\$ -	70	Projects	-	-	-	-	-	
<b>Market Transformation Total</b>	<b>710</b>	<b>625%</b>	<b>4,434</b>	<b>57,642</b>	<b>100%</b>	<b>4,434</b>	<b>57,642</b>	<b>\$ 1,156.76</b>	<b>\$ 88.98</b>	<b>\$ 5,126,088</b>	<b>\$ 3,000</b>	<b>76</b>	<b>Projects</b>	<b>13.0</b>	<b>23</b>	<b>305</b>	<b>-</b>	<b>-</b>	
<b>Other Portfolio Costs</b>																			
<b>Portfolio Total</b>	<b>83,669,641</b>	<b>100%</b>	<b>83,293,005</b>	<b>1,155,707,190</b>	<b>84%</b>	<b>69,739,793</b>	<b>943,206,059</b>	<b>\$ 2.26</b>	<b>\$ 0.17</b>	<b>\$ 83,554,167</b>	<b>\$ 74,050,325</b>	<b>1,182,992</b>	<b>Projects</b>	<b>13.9</b>	<b>368,993</b>	<b>4,990,503</b>	<b>686,543,786</b>	<b>6,128,806,733</b>	

Source: Guidehouse Analysis



## 1.4 Portfolio Economic Impact Summary of Verified Results

Table 1-4 and Table 1-5 present results of the Guidehouse analysis of the economic and employment impacts produced by the Plan 3 Nicor Gas energy efficiency portfolio. Figure 1 below summarizes the methodology for estimating economic impacts and jobs resulting from the Plan 3 portfolio.

**Table 1-4: Economic Impacts by Time Period (2018, 2019, 2020, 2021)**

Time Period	Impact Type	Job Years			Labor Income			Industry Output		
		Utility Territory	Rest of State	State Total	Utility Territory	Rest of State	State Total	Utility Territory	Rest of State	State Total
2021 - 2045	Direct	415	0	415	\$28.6M	\$0M	\$28.6M	\$77.5M	\$0M	\$77.5M
2021 - 2045	Indirect	189	2	191	\$13.1M	\$0.15M	\$13.2M	\$34.8M	\$0.6M	\$35.4M
2021 - 2045	Induced	540	1	541	\$29.3M	\$0.11M	\$29.4M	\$118.1M	\$0.4M	\$118.5M
<b>2021 - 2045</b>	<b>Total</b>	<b>1,145</b>	<b>3</b>	<b>1,148</b>	<b>\$71.0M</b>	<b>\$0.3M</b>	<b>\$71.3M</b>	<b>\$230.4M</b>	<b>\$1.1M</b>	<b>\$231.4M</b>
2020 - 2044	Direct	383	0	383	\$24.0M	\$0.0M	\$24.0M	\$71.9M	\$0 M	\$71.9M
2020 - 2044	Indirect	174	2	176	\$12.0M	\$0.14M	\$12.1M	\$31.9M	\$0.6M	\$32.4M
2020 - 2044	Induced	202	1	203	\$10.9M	\$0.06M	\$10.9M	\$29.7M	\$0.2M	\$29.9M
<b>2020 - 2044</b>	<b>Total</b>	<b>759</b>	<b>3</b>	<b>762</b>	<b>\$46.8M</b>	<b>\$0.2M</b>	<b>\$47.0M</b>	<b>\$133.4M</b>	<b>\$0.8M</b>	<b>\$134.2M</b>
2019 - 2043	Direct	778	0	778	\$69.0M	\$0M	\$69.0M	\$149.5M	\$0M	\$149.5M
2019 - 2043	Indirect	344	4	349	\$24.5M	\$0.26M	\$24.7M	\$65.0M	\$1.1M	\$66.1M
2019 - 2043	Induced	548	3	550	\$29.5M	\$0.14M	\$29.7M	\$82.6M	\$0.5M	\$83.1M
<b>2019 - 2043</b>	<b>Total</b>	<b>1,670</b>	<b>7</b>	<b>1,677</b>	<b>\$123.0M</b>	<b>\$0.4M</b>	<b>\$123.4M</b>	<b>\$297.1M</b>	<b>\$1.6M</b>	<b>\$298.7M</b>
2018 - 2042	Direct	283	0	283	\$19.0M	\$0M	\$19.0M	\$56.0M	\$0M	\$56.0M
2018 - 2042	Indirect	133	1	134	\$9.3M	\$0.10M	\$9.4M	\$24.5M	\$0.4M	\$25.0M
2018 - 2042	Induced	218	1	219	\$11.8M	\$0.05M	\$11.8M	\$38.1M	\$0.2M	\$38.3M
<b>2018 - 2042</b>	<b>Total</b>	<b>633</b>	<b>2</b>	<b>636</b>	<b>\$40.9M</b>	<b>\$0.2M</b>	<b>\$41.1M</b>	<b>\$118.7M</b>	<b>\$0.6M</b>	<b>\$119.3M</b>
<b>2018 - 2045</b>	<b>Sum Total</b>	<b>4,207</b>	<b>15</b>	<b>4,223</b>	<b>\$281.7M</b>	<b>\$1.1M</b>	<b>\$282.8M</b>	<b>\$779.6 M</b>	<b>\$4.1M</b>	<b>\$783.6M</b>

Source: Guidehouse analysis of Nicor Gas Tracking data

**Table 1-5: Job-Year Impacts by Time Period (2018, 2019, 2020, 2021)**

Time Period	Direct Job-Years		Indirect Job-Years		Induced Job-Years		State Total
	Utility Territory	Rest of State	Utility Territory	Rest of State	Utility Territory	Rest of State	
2021 - 2045	415	0	189	2	540	1	1,148
2020 - 2044	383	0	174	2	202	1	762
2019 - 2043	778	0	344	4	548	3	1,677
2018 - 2042	283	0	133	1	218	1	636
<b>2018 - 2045</b>	<b>1,859</b>	<b>0</b>	<b>840</b>	<b>9</b>	<b>1,508</b>	<b>6</b>	<b>4,223</b>

Source: Guidehouse analysis of Nicor Gas Tracking data

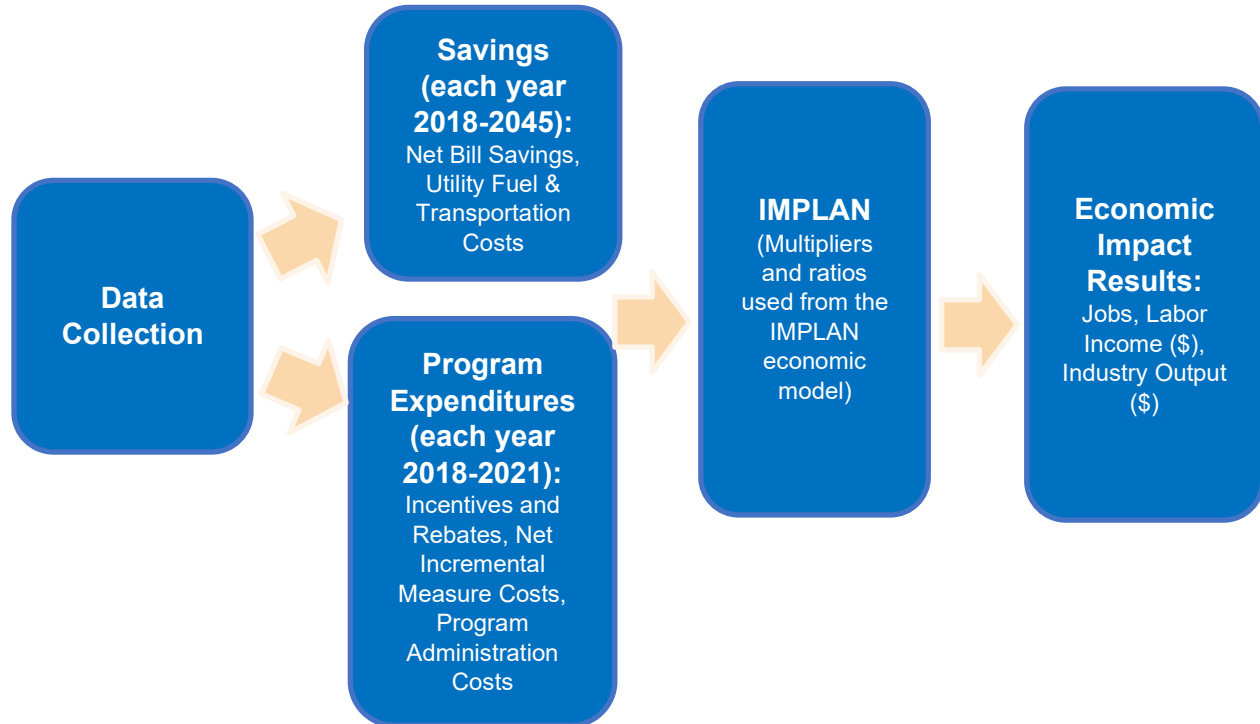
The economic impact assessment for energy efficiency programs follows a three-step process (depicted in Figure 1)<sup>6</sup>:

- 1) Data collection of the economic activities of the energy efficiency programs

<sup>6</sup> Methodology details can be found on the SAG web site at <https://www.ilsag.info/evaluation-documents/>

- 2) Economic modeling of these activities using IMPLAN (Impact Analysis for Planning software, an industry standard economic input-output modeling tool). IMPLAN is a rigorous and in-depth approach to assessing these impacts, and uses annually updated economic data to reflect changes in the Illinois economy.
- 3) Analysis of the results – summarizing and assessing the economic measures (e.g. industry output, labor income, and jobs)

**Figure 1. Economic Impact Assessment Methodology**



Source: Guidehouse

## 2. Cost Effectiveness Methodology

As part of Guidehouse's evaluation of Nicor Gas energy efficiency programs for gas program years 2018 to 2021, we performed benefit-cost calculations based upon a combination of data provided by Nicor Gas, evaluated program results, and other available resources. The focus of this review is on the basis and calculations used to conduct the Illinois TRC test. The Illinois TRC test is defined in 220 ILCS 5/8-104(b)<sup>7</sup> as follows:

*“Cost-effective” means that the measures satisfy the total resource cost test which, for purposes of this Section, means a standard that is met if, for an investment in energy efficiency, the benefit-cost ratio is greater than one. The benefit-cost ratio is the ratio of the net present value of the total benefits of the measures to the net present value of the total costs as calculated over the lifetime of the measures. The total resource cost test compares the sum of avoided natural gas utility costs, representing the benefits that accrue to the system and the participant in the delivery of those efficiency measures, as well as other quantifiable societal benefits, including avoided electric utility costs, to the sum of all incremental costs of end use measures (including both utility and participant contributions), plus costs to administer, deliver, and evaluate each demand-side measure, to quantify the net savings obtained by substituting demand-side measures for supply resources. In calculating avoided costs, reasonable estimates shall be included for financial costs likely to be imposed by future regulation of emissions of greenhouse gases. The low-income programs described in item (4) of subsection (f) of this Section shall not be required to meet the total resource cost test.*

The Illinois TRC test differs from traditional TRC tests in its requirement to include a reasonable estimate of the financial costs associated with future regulations and legislation on the emissions of greenhouse gases (GHG). Additional benefits included in the calculation are the non-energy benefits and water savings. This difference adds an additional benefit to investments in efficiency programs that typically are included in the Societal Test in other jurisdictions.

The results of the Program Administrator Cost Test (PACT) are also presented<sup>8</sup>. The PACT approaches cost-effectiveness from the perspective of the utility as program administrator. It determines whether the energy supply costs avoided by the utility exceed the overhead and cost outlays that the utility incurred to implement energy efficiency programs. Since the PACT is primarily focused on utility outlays, incentives paid by the utility to either participants or third-party implementers are included in the calculation, rather than incremental or participant costs. Additionally, since non-energy benefits accrue to society rather than to the utility implementing energy efficiency programs, these benefits are not included in the PACT formula.

---

<sup>7</sup> Public Utilities Act, Illinois Compiled Statutes maintained by the Legislative Reference Bureau, <http://www.ilga.gov/legislation/ilcs/fulltext.asp?DocName=022000050K8-104>.

<sup>8</sup> Also referred to as the Utility Cost Test (UCT), which assumes utilities are the program administrators.

## **Incremental Measure Cost Approach**

Incremental cost means the difference between the cost of the efficient measure and the cost of the most relevant baseline measure that would have been installed (if any) in the absence of the efficiency program. The Illinois Energy Efficiency Policy Manual<sup>9</sup> instructs that installation costs (material and labor) and Operations and Maintenance (O&M) costs shall be included if there is a difference between the efficient measure and the baseline measure. In cases where the efficient measure has a significantly shorter or longer life than the relevant baseline measure, the avoided baseline replacement measure costs should be accounted for in the TRC analysis. The incremental cost input in the TRC analysis is not reduced by the amount of any incentives.

## **Data Assumptions in the Cost-Effectiveness Calculations**

The data points needed to conduct the Illinois TRC test are identified in Table 2-1 and are divided into generic and program-specific categories. The program-specific data points are further subdivided into those provided by the utility, those that are a result of evaluation activities, and those from multiple sources.

---

<sup>9</sup> Illinois Energy Efficiency Policy Manual, available at: <https://www.ilsag.info/policy/>

**Table 2-1. Data Points Needed to Conduct the Illinois TRC Test**

Category	Data Point	Source
Generic	• Avoided Natural Gas Costs: Plan 3 and Plan 4	Nicor Gas / ComEd
	• Avoided Electricity Costs	
	• Loss Factor (Unaccounted-for-Gas Factor)	
	• Plan 3 Non-Energy Benefits (NEBs) Adder	
	• Plan 4 Non-Energy Impacts Additional Quantifiable Benefit	
	• Weighted Average Cost of Capital	
Generic	• Societal Discount Rate	Illinois TRM <sup>10</sup> and Energy Efficiency Stakeholders Advisory Group
	• Greenhouse Gas (GHG) Adder	
Program Specific	• Verified Participants / Measure Count	Final Evaluation Reports <sup>11</sup>
	• Verified Gross and Net Energy Savings	
	• Realization Rate	
	• Net-to-Gross Ratio	
	• Non-Incentive Costs	Nicor Gas
	• Utility Incentive Costs	
	• Incremental Measure Costs	
	• Measure Life	Nicor Gas / Evaluation / Illinois TRM / Other
	• Water Gallon Savings and Avoided Costs	

Source: Evaluation Research

The values for the generic data points used in the cost-effectiveness calculations for all programs and the portfolio are summarized below.

- For the TRC, a discount rate of 2.38 percent was applied, based on guidance in TRM version 9.0.
- For the PACT, the discount rate was a weighted average cost of capital (WACC) for Nicor Gas (8.09%).
- Natural gas avoided costs are based on two sets of values provided by Nicor Gas:
  - **Plan 3:** For the years 2018 and beyond, avoided costs were forecast values from Nicor Gas. A GHG adder of \$0.134 per therm (based on a carbon adder of \$25/metric ton) agreed to by the Illinois SAG is included starting in 2020 for the

<sup>10</sup> Illinois Statewide Technical Reference Manual (Illinois TRM). Available at: <https://www.ilsag.info/technical-reference-manual/>

<sup>11</sup> Evaluation documents are available at: <https://www.ilsag.info/evaluation-documents/final-evaluation-reports/>

- TRC analysis and escalating at 5 percent. A Non-Energy Benefits adder of 7.5% is included and the GHG adder is zero prior to 2020.
- **Plan 4:** Actual avoided costs were used through 2021. For the years 2022 and beyond, avoided costs were forecast values from Nicor Gas. A GHG adder of \$0.253 per therm is included starting in 2020 and escalating thereafter. Additional Quantifiable Benefits (Non-Energy) are included based on research conducted by Guidehouse<sup>12</sup>. Plan 4 avoided costs were only available for 2020 and 2021.

The following points are noted for the program-specific data used in the cost-benefit calculations.

Benefits

- Energy saving benefits represent natural gas only taken from final evaluation verified results from 2018 through 2021.
- For all joint and coordinated programs with ComEd or Ameren Illinois, the interactive energy effects (resulting in negative gas savings) and costs due to electric saving measures were not included in our analysis. The impact of electric interactive savings effects and costs are analyzed separately and presented in a joint electric-gas TRC memo. Coordinated or joint programs in the EEPS portfolio include:

**Table 2-2. Summary of Coordinated or Jointly Implemented EEPS Programs**

Program	ComEd	Ameren IL	Nicor Gas
Income Eligible Programs	X	X	X
Home Energy Assessment / Home Energy Savings	X		X
Multi-Family Retrofit	X		X
Elementary Energy Education	X		X
Coordinated Retro-Commissioning	X		X
Coordinated Non-Residential New Construction	X		X
Strategic Energy Management	X		X
Commercial Food Service	X		X

Source: Guidehouse analysis

- For programs that are not joint with ComEd, some measures implemented by Nicor Gas have electricity savings that are not claimed by ComEd. In addition, Nicor Gas provides gas service to some municipalities that do not have ComEd as their electricity provider. These electricity savings are credited to the gas company in the TRC cost-effectiveness calculation as an “Other Benefit”. Most electric benefits for Nicor Gas are generated from advanced thermostats rebated or installed through non-joint offerings, demand-controlled ventilation, non-joint weatherization projects, and the contractor channel income qualified programs.
- For early replacement measures, Guidehouse calculated the savings for the remaining life of the existing equipment and the savings for the remaining measure life per the dual baseline algorithms deemed in the TRM. This analysis is not included in the evaluation

<sup>12</sup> Guidehouse, *Recommended Non-Energy Impacts for Nicor Gas’ Cost-Effectiveness Tests*, February 19, 2021, available at <https://www.ilsag.info/evaluation-documents/evaluation-research/>

reports as they only list the first-year savings value for each measure. Dual baseline adjustments have a negligible impact on the Nicor Gas portfolio TRC.

- Water saving benefits from water saving measures rely upon the Illinois TRM and Nicor Gas analysis to estimate gallons of water saved per device. Water avoided costs were estimated using assumptions developed by Nicor Gas. Water savings have a substantial impact to increase the benefits and TRC for programs that include water saving measures prominently, such as kit and direct installation programs for the residential sector, and steam traps for the non-residential sector.

#### Costs

- Incentives and non-incentive program costs were provided by Nicor Gas.
- For joint programs with ComEd, the measure costs are the Nicor Gas share of full incremental costs. Incentives and non-incentive costs are the Nicor Gas share of costs.
- Guidehouse reviewed the IMC values provided by Nicor Gas. After analyzing the tracking data measure costs, the measure specific IMC deemed by the TRM, and other IMC data, Guidehouse was confident that Nicor Gas assigned an appropriate IMC value to measures in most cases. We used the TRM or Guidehouse research in cases where Guidehouse disagreed a Nicor Gas IMC value or Nicor Gas did not provide an IMC.
- Since some IMCs are estimated using TRM, planning, and secondary research, the IMC estimates may not include all relevant and up-to-date installation and equipment costs for some programs. We set program incremental measure costs equal to incentives for income eligible programs when incentives paid were greater than the initial IMC estimate, except for the IHWAP programs. For IHWAP, incremental measure costs are twice the amount that Nicor Gas records as incentive costs, to account for the 50% contribution to total measure cost from non-utility IHWAP funding sources. This adjustment resulted in a minor increase to portfolio incremental costs.

### **3. Program Specific Data**

#### **3.1 Program Specific Cost Effectiveness Results Summary**

A summary of the components of the cost effectiveness calculations for each program are shown in Table 3-1 for the Illinois TRC calculations and Table 3-2 for the Program Administrator Cost Test calculations. The tables include the value of each benefit and cost component for each program totaled over four years, as well as portfolio level totals for each component.

A summary of the components of the Illinois TRC benefits and costs for each program are shown in Table 3-3 through Table 3-6 for each program year. The tables include the component values for each program, as well as portfolio level totals for each component.

A summary of the components of the PACT benefits and costs for each program are shown in Table 3-7 through Table 3-10 for each program year. The tables include the component values for each program, as well as portfolio level totals for each component.

A summary of the 2020 and 2021 TRC and PACT results using Plan 4 avoided costs are shown in Table 3-11 through Table 3-14. The tables include the component values for each program, as well as portfolio level totals for each component.



**Table 3-1. Summary of Program Level Benefits, Costs and Illinois TRC Test for 2018-2021**

TRC Results for Nicor Gas, 2018-2021 Programs (Societal Discount Rate, Plan 3 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 118,242,316	\$ 57,958,591	\$ 8,621,832	\$ 12,978,728	\$ 60,663,208	\$ 176,200,907	\$ 69,285,040	\$ 106,915,868	2.5
Home Energy Savings	\$ 17,607,605	\$ 11,940,091	\$ 6,275,177	\$ 5,186,650	\$ 8,476,197	\$ 29,547,696	\$ 14,751,374	\$ 14,796,322	2.0
Multi-Family	\$ 14,169,132	\$ 7,921,497	\$ 4,069,396	\$ 2,510,029	\$ 3,629,877	\$ 22,090,629	\$ 7,699,273	\$ 14,391,356	2.9
Energy Saving Kits	\$ 39,391,789	\$ 29,472,913	\$ 2,110,539	\$ 2,794,094	\$ 2,947,651	\$ 68,864,702	\$ 5,058,189	\$ 63,806,512	13.6
Elementary Energy Education	\$ 3,949,115	\$ 11,871,644	\$ 987,301	\$ 1,211,934	\$ 1,361,202	\$ 15,820,759	\$ 2,348,503	\$ 13,472,256	6.7
Residential New Construction	\$ 11,006,112	\$ 7,673,955	\$ 1,448,275	\$ 1,650,215	\$ 7,027,534	\$ 18,680,068	\$ 8,475,809	\$ 10,204,259	2.2
Behavioral Energy Savings	\$ 6,103,648	\$ 2,287,307	\$ 1,793,285	\$ 1,862,055	\$ 1,951,818	\$ 8,390,956	\$ 3,745,103	\$ 4,645,853	2.2
<b>Residential Total</b>	<b>\$ 210,469,718</b>	<b>\$ 129,125,999</b>	<b>\$ 25,305,805</b>	<b>\$ 28,193,704</b>	<b>\$ 86,057,486</b>	<b>\$ 339,595,716</b>	<b>\$ 111,363,291</b>	<b>\$ 228,232,425</b>	<b>3.0</b>
BEER	\$ 41,013,319	\$ 18,732,436	\$ 6,713,970	\$ 4,860,871	\$ 5,365,258	\$ 59,745,755	\$ 12,079,228	\$ 47,666,528	4.9
Business and Public Sector Custom	\$ 203,448,635	\$ 75,140,158	\$ 7,020,534	\$ 7,474,030	\$ 53,849,935	\$ 278,588,793	\$ 60,870,468	\$ 217,718,325	4.6
Strategic Energy Management	\$ 19,921,798	\$ 6,774,862	\$ 1,021,008	\$ 3,003,425	\$ 3,679,426	\$ 26,696,660	\$ 4,700,434	\$ 21,996,226	5.7
Retro-Commissioning (Joint and Stand Alone)	\$ 5,665,819	\$ 1,968,646	\$ 1,056,458	\$ 1,017,501	\$ 1,604,925	\$ 7,634,465	\$ 2,661,382	\$ 4,973,083	2.9
Coordinated Non-Residential New Construction	\$ 9,922,727	\$ 3,674,615	\$ 952,969	\$ 1,026,322	\$ 4,209,586	\$ 13,597,342	\$ 5,162,556	\$ 8,434,786	2.6
Small Business	\$ 11,502,061	\$ 4,793,644	\$ 3,804,409	\$ 2,220,612	\$ 4,047,667	\$ 16,295,705	\$ 7,852,076	\$ 8,443,629	2.1
Commercial Food Service (CFS) Midstream Pilot	\$ 652,546	\$ 246,830	\$ 228,878	\$ 148,851	\$ 160,299	\$ 899,375	\$ 389,177	\$ 510,198	2.3
<b>Business and Public Sector Total</b>	<b>\$ 292,126,906</b>	<b>\$ 111,331,190</b>	<b>\$ 20,798,226</b>	<b>\$ 19,751,612</b>	<b>\$ 72,917,095</b>	<b>\$ 403,458,095</b>	<b>\$ 93,715,321</b>	<b>\$ 309,742,774</b>	<b>4.3</b>
IHWAP, Contractor Channel, Kits, BNP - Single Family	\$ 15,749,676	\$ 11,134,648	\$ 5,790,322	\$ 13,969,206	\$ 20,686,289	\$ 26,884,323	\$ 26,476,612	\$ 407,711	1.0
IHWAP, Contractor Channel, Kits - Multi Family	\$ 15,314,541	\$ 9,286,825	\$ 3,996,232	\$ 9,038,079	\$ 10,216,710	\$ 24,601,365	\$ 14,212,942	\$ 10,388,423	1.7
Public Housing Energy Savings	\$ 1,994,782	\$ 817,364	\$ 1,447,201	\$ 2,433,295	\$ 2,362,112	\$ 2,812,145	\$ 3,809,314	\$ (997,168)	0.7
Affordable Housing New Construction	\$ 1,539,507	\$ 563,282	\$ 561,038	\$ 661,429	\$ 826,731	\$ 2,102,789	\$ 1,387,769	\$ 715,020	1.5
<b>Income Qualified Total</b>	<b>\$ 34,598,505</b>	<b>\$ 21,802,118</b>	<b>\$ 11,794,794</b>	<b>\$ 26,102,009</b>	<b>\$ 34,091,842</b>	<b>\$ 56,400,623</b>	<b>\$ 45,886,637</b>	<b>\$ 10,513,986</b>	<b>1.2</b>
Building Operator Certification	\$ 32,204	\$ 11,911	\$ 10,136	\$ 3,000	\$ 10,984	\$ 44,115	\$ 21,120	\$ 22,995	2.1
Market Transformation	\$ -	\$ -	\$ 5,115,952	\$ -	\$ -	\$ -	\$ 5,115,952	\$ (5,115,952)	0.0
<b>Market Transformation Total</b>	<b>\$ 32,204</b>	<b>\$ 11,911</b>	<b>\$ 5,126,088</b>	<b>\$ 3,000</b>	<b>\$ 10,984</b>	<b>\$ 44,115</b>	<b>\$ 5,137,072</b>	<b>\$ (5,092,956)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 20,529,255				\$ 20,529,255	\$ (20,529,255)	
<b>Portfolio Total</b>	<b>\$ 537,227,333</b>	<b>\$ 262,271,217</b>	<b>\$ 83,554,167</b>	<b>\$ 74,050,325</b>	<b>\$ 193,077,408</b>	<b>\$ 799,498,550</b>	<b>\$ 276,631,575</b>	<b>\$ 522,866,974</b>	<b>2.9</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 502,628,828</b>	<b>\$ 240,469,099</b>	<b>\$ 71,759,373</b>	<b>\$ 47,948,316</b>	<b>\$ 158,985,565</b>	<b>\$ 743,097,927</b>	<b>\$ 230,744,939</b>	<b>\$ 512,352,988</b>	<b>3.2</b>

Source: Guidehouse Analysis

**Table 3-2. Summary of Program Level Benefits, Costs and Illinois PACT for 2018-2021**

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2018-2021 Programs (WACC Discount Rate, Plan 3 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Test Net Benefits	PACT Test
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 72,219,626	\$ -	\$ 8,621,832	\$ 12,978,728	\$ 62,389,581	\$ 72,219,626	\$ 21,600,559	\$ 50,619,067	<b>3.3</b>
Home Energy Savings	\$ 11,120,394	\$ -	\$ 6,275,177	\$ 5,186,650	\$ 8,476,197	\$ 11,120,394	\$ 11,461,827	\$ (341,433)	<b>1.0</b>
Multi-Family	\$ 9,304,019	\$ -	\$ 4,069,396	\$ 2,510,029	\$ 3,629,877	\$ 9,304,019	\$ 6,579,425	\$ 2,724,594	<b>1.4</b>
Energy Saving Kits	\$ 23,606,829	\$ -	\$ 2,110,539	\$ 2,794,094	\$ 2,947,651	\$ 23,606,829	\$ 4,904,633	\$ 18,702,197	<b>4.8</b>
Elementary Energy Education	\$ 2,986,324	\$ -	\$ 987,301	\$ 1,211,934	\$ 1,361,202	\$ 2,986,324	\$ 2,199,235	\$ 787,088	<b>1.4</b>
Residential New Construction	\$ 6,624,194	\$ -	\$ 1,448,275	\$ 1,650,215	\$ 7,027,534	\$ 6,624,194	\$ 3,098,490	\$ 3,525,703	<b>2.1</b>
Behavioral Energy Savings	\$ 5,251,637	\$ -	\$ 1,793,285	\$ 1,862,055	\$ 1,951,818	\$ 5,251,637	\$ 3,655,340	\$ 1,596,297	<b>1.4</b>
<b>Residential Total</b>	<b>\$ 131,113,022</b>	<b>\$ -</b>	<b>\$ 25,305,805</b>	<b>\$ 28,193,704</b>	<b>\$ 87,783,860</b>	<b>\$ 131,113,022</b>	<b>\$ 53,499,509</b>	<b>\$ 77,613,513</b>	<b>2.5</b>
BEER	\$ 30,844,224	\$ -	\$ 6,713,970	\$ 4,860,871	\$ 5,365,258	\$ 30,844,224	\$ 11,574,841	\$ 19,269,383	<b>2.7</b>
Business and Public Sector Custom	\$ 114,025,863	\$ -	\$ 7,020,534	\$ 7,474,030	\$ 53,849,935	\$ 114,025,863	\$ 14,494,564	\$ 99,531,299	<b>7.9</b>
Strategic Energy Management	\$ 16,662,981	\$ -	\$ 1,021,008	\$ 3,003,425	\$ 3,679,426	\$ 16,662,981	\$ 4,024,433	\$ 12,638,548	<b>4.1</b>
Retro-Commissioning (Joint and Stand Alone)	\$ 4,391,832	\$ -	\$ 1,056,458	\$ 1,017,501	\$ 1,604,925	\$ 4,391,832	\$ 2,073,958	\$ 2,317,874	<b>2.1</b>
Coordinated Non-Residential New Construction	\$ 5,566,861	\$ -	\$ 952,969	\$ 1,026,322	\$ 4,209,586	\$ 5,566,861	\$ 1,979,291	\$ 3,587,570	<b>2.8</b>
Small Business	\$ 8,804,952	\$ -	\$ 3,804,409	\$ 2,220,612	\$ 4,047,667	\$ 8,804,952	\$ 6,025,021	\$ 2,779,930	<b>1.5</b>
Commercial Food Service (CFS) Midstream Pilot	\$ 438,275	\$ -	\$ 228,878	\$ 148,851	\$ 160,299	\$ 438,275	\$ 377,729	\$ 60,546	<b>1.2</b>
<b>Business and Public Sector Total</b>	<b>\$ 180,734,989</b>	<b>\$ -</b>	<b>\$ 20,798,226</b>	<b>\$ 19,751,612</b>	<b>\$ 72,917,095</b>	<b>\$ 180,734,989</b>	<b>\$ 40,549,838</b>	<b>\$ 140,185,151</b>	<b>4.5</b>
IHWAP, Contractor Channel, Kits, BNP - Single Family	\$ 9,379,644	\$ -	\$ 5,790,322	\$ 13,969,206	\$ 21,310,861	\$ 9,379,644	\$ 19,759,528	\$ (10,379,884)	<b>0.5</b>
IHWAP, Contractor Channel, Kits - Multi Family	\$ 9,190,716	\$ -	\$ 3,996,232	\$ 9,038,079	\$ 10,216,710	\$ 9,190,716	\$ 13,034,311	\$ (3,843,595)	<b>0.7</b>
Public Housing Energy Savings	\$ 1,163,286	\$ -	\$ 1,447,201	\$ 2,433,295	\$ 2,362,112	\$ 1,163,286	\$ 3,880,497	\$ (2,717,211)	<b>0.3</b>
Affordable Housing New Construction	\$ 920,278	\$ -	\$ 561,038	\$ 661,429	\$ 826,731	\$ 920,278	\$ 1,222,467	\$ (302,189)	<b>0.8</b>
<b>Income Qualified Total</b>	<b>\$ 20,653,924</b>	<b>\$ -</b>	<b>\$ 11,794,794</b>	<b>\$ 26,102,009</b>	<b>\$ 34,716,414</b>	<b>\$ 20,653,924</b>	<b>\$ 37,896,803</b>	<b>\$ (17,242,879)</b>	<b>0.5</b>
Building Operator Certification	\$ 22,087	\$ -	\$ 10,136	\$ 3,000	\$ 10,984	\$ 22,087	\$ 13,136	\$ 8,951	<b>1.7</b>
Market Transformation	\$ -	\$ -	\$ 5,115,952	\$ -	\$ -	\$ -	\$ 5,115,952	\$ (5,115,952)	<b>0.0</b>
<b>Market Transformation Total</b>	<b>\$ 22,087</b>	<b>\$ -</b>	<b>\$ 5,126,088</b>	<b>\$ 3,000</b>	<b>\$ 10,984</b>	<b>\$ 22,087</b>	<b>\$ 5,129,088</b>	<b>\$ (5,107,001)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 20,529,255				\$ 20,529,255	\$ (20,529,255)	
<b>Portfolio Total</b>	<b>\$ 332,524,022</b>	<b>\$ -</b>	<b>\$ 83,554,167</b>	<b>\$ 74,050,325</b>	<b>\$ 195,428,353</b>	<b>\$ 332,524,022</b>	<b>\$ 157,604,492</b>	<b>\$ 174,919,529</b>	<b>2.1</b>

Source: Guidehouse Analysis

**Table 3-3. Summary of Illinois TRC Benefits and Costs for 2018**

TRC Results for Nicor Gas, 2018 Programs (Societal Discount Rate, Plan 3 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 28,596,238	\$ 9,637,528	\$ 2,325,577	\$ 3,078,824	\$ 15,793,864	\$ 38,233,767	\$ 18,119,441	\$ 20,114,326	2.1
Home Energy Savings	\$ 5,119,457	\$ 2,869,573	\$ 1,990,009	\$ 1,312,052	\$ 1,687,601	\$ 7,989,030	\$ 3,677,610	\$ 4,311,420	2.2
Multi-Family	\$ 2,128,950	\$ 1,339,559	\$ 749,640	\$ 335,465	\$ 752,329	\$ 3,468,509	\$ 1,501,969	\$ 1,966,541	2.3
Energy Saving Kits	\$ 1,038,009	\$ 3,361,510	\$ 383,545	\$ 57,015	\$ 210,572	\$ 4,399,519	\$ 594,117	\$ 3,805,402	7.4
Elementary Energy Education	\$ 878,084	\$ 2,675,720	\$ 296,387	\$ 331,102	\$ 344,176	\$ 3,553,804	\$ 640,563	\$ 2,913,241	5.5
Joint Residential New Construction	\$ 1,632,399	\$ 549,674	\$ 403,466	\$ 252,439	\$ 432,325	\$ 2,182,073	\$ 835,791	\$ 1,346,282	2.6
Behavioral Energy Savings	\$ 11,058	\$ 818	\$ 212,133	\$ -	\$ -	\$ 11,876	\$ 212,133	\$ (200,257)	0.1
<b>Total Residential</b>	<b>\$ 39,404,195</b>	<b>\$ 20,434,383</b>	<b>\$ 6,360,757</b>	<b>\$ 5,366,897</b>	<b>\$ 19,220,867</b>	<b>\$ 59,838,578</b>	<b>\$ 25,581,624</b>	<b>\$ 34,256,954</b>	<b>2.3</b>
BEER Program	\$ 6,478,680	\$ 2,711,187	\$ 1,631,815	\$ 822,430	\$ 792,924	\$ 9,189,866	\$ 2,424,739	\$ 6,765,128	3.8
Business and Public Sector Custom	\$ 14,250,793	\$ 4,882,723	\$ 1,486,278	\$ 886,428	\$ 7,860,302	\$ 19,133,516	\$ 9,346,580	\$ 9,786,936	2.0
Strategic Energy Management	\$ 2,518,616	\$ 622,565	\$ 301,422	\$ 617,081	\$ 617,081	\$ 3,141,181	\$ 918,503	\$ 2,222,678	3.4
Coordinated Retro-Commissioning	\$ 1,381,211	\$ 406,785	\$ 416,279	\$ 163,534	\$ 312,186	\$ 1,787,996	\$ 728,465	\$ 1,059,531	2.5
Coordinated Business New Construction	\$ 2,805,785	\$ 970,805	\$ 291,681	\$ 268,902	\$ 1,205,279	\$ 3,776,590	\$ 1,496,960	\$ 2,279,631	2.5
Small Business	\$ 2,942,602	\$ 1,012,565	\$ 1,053,283	\$ 786,356	\$ 335,631	\$ 3,955,166	\$ 1,388,914	\$ 2,566,252	2.8
<b>Total Business and Public Sector</b>	<b>\$ 30,377,686</b>	<b>\$ 10,606,629</b>	<b>\$ 5,180,758</b>	<b>\$ 3,544,731</b>	<b>\$ 11,123,403</b>	<b>\$ 40,984,316</b>	<b>\$ 16,304,161</b>	<b>\$ 24,680,155</b>	<b>2.5</b>
Illinois Home Weatherization Assistance Program (IHWAP) and Kits - Single-Family	\$ 940,693	\$ 357,235	\$ 881,805	\$ 907,126	\$ 1,795,838	\$ 1,297,928	\$ 2,677,643	\$ (1,379,715)	0.5
Illinois Home Weatherization Assistance Program (IHWAP) and Kits - Multi-Family	\$ 36,811	\$ 12,130	\$ 66,563	\$ 136,193	\$ 266,713	\$ 48,941	\$ 333,276	\$ (284,335)	0.1
Public Housing Energy Savings	\$ 396,440	\$ 160,021	\$ 712,716	\$ 520,685	\$ 449,502	\$ 556,462	\$ 1,162,218	\$ (605,756)	0.5
Affordable Housing New Construction	\$ 412,992	\$ 140,174	\$ 325,858	\$ 247,105	\$ 347,834	\$ 553,166	\$ 673,692	\$ (120,526)	0.8
<b>Total Income Qualified Programs</b>	<b>\$ 1,786,937</b>	<b>\$ 669,560</b>	<b>\$ 1,986,942</b>	<b>\$ 1,811,109</b>	<b>\$ 2,859,887</b>	<b>\$ 2,456,497</b>	<b>\$ 4,846,829</b>	<b>\$ (2,390,333)</b>	<b>0.5</b>
<b>Other Portfolio Costs</b>			\$ 4,552,432			\$ -	\$ 4,552,432	\$ (4,552,432)	
<b>Portfolio Total</b>	<b>\$ 69,781,881</b>	<b>\$ 31,041,012</b>	<b>\$ 16,093,947</b>	<b>\$ 8,911,628</b>	<b>\$ 30,344,269</b>	<b>\$ 100,822,893</b>	<b>\$ 46,438,216</b>	<b>\$ 54,384,677</b>	<b>2.2</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 71,568,818</b>	<b>\$ 31,710,572</b>	<b>\$ 18,080,889</b>	<b>\$ 10,722,737</b>	<b>\$ 33,204,157</b>	<b>\$ 103,279,390</b>	<b>\$ 51,285,045</b>	<b>\$ 51,994,344</b>	<b>2.0</b>

Source: Guidehouse Analysis

**Table 3-4. Summary of Illinois TRC Benefits and Costs for 2019**

TRC Results for Nicor Gas, 2019 Programs (Societal Discount Rate, Plan 3 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 24,611,868	\$ 8,901,620	\$ 1,987,394	\$ 2,376,586	\$ 11,050,778	\$ 33,513,488	\$ 13,038,172	\$ 20,475,316	2.6
Home Energy Savings	\$ 3,674,064	\$ 3,089,522	\$ 1,503,859	\$ 1,381,187	\$ 2,781,559	\$ 6,763,586	\$ 4,285,418	\$ 2,478,168	1.6
Multi-Family	\$ 2,670,727	\$ 1,730,145	\$ 836,641	\$ 657,415	\$ 1,266,122	\$ 4,400,872	\$ 2,102,763	\$ 2,298,109	2.1
Energy Saving Kits	\$ 10,410,006	\$ 8,175,350	\$ 500,134	\$ 732,052	\$ 732,052	\$ 18,585,357	\$ 1,232,186	\$ 17,353,171	15.1
Elementary Energy Education	\$ 1,162,333	\$ 3,667,445	\$ 280,826	\$ 338,779	\$ 402,131	\$ 4,829,778	\$ 682,957	\$ 4,146,821	7.1
Residential New Construction	\$ 1,780,365	\$ 638,277	\$ 410,257	\$ 348,626	\$ 1,177,320	\$ 2,418,642	\$ 1,587,577	\$ 831,065	1.5
Behavioral Energy Savings	\$ -	\$ -	\$ 973,483	\$ -	\$ -	\$ -	\$ 973,483	\$ (973,483)	0.0
<b>Residential Total</b>	<b>\$ 44,309,363</b>	<b>\$ 26,202,359</b>	<b>\$ 6,492,594</b>	<b>\$ 5,834,645</b>	<b>\$ 17,409,962</b>	<b>\$ 70,511,722</b>	<b>\$ 23,902,556</b>	<b>\$ 46,609,166</b>	<b>2.9</b>
BEER	\$ 14,765,798	\$ 6,106,523	\$ 1,601,402	\$ 1,121,612	\$ 1,352,596	\$ 20,872,321	\$ 2,953,998	\$ 17,918,323	7.1
Business and Public Sector Custom	\$ 152,812,134	\$ 56,464,249	\$ 2,290,051	\$ 3,267,868	\$ 16,717,507	\$ 209,276,383	\$ 19,007,558	\$ 190,268,825	11.0
Strategic Energy Management	\$ 6,684,802	\$ 2,111,541	\$ 277,801	\$ 1,015,144	\$ 1,490,871	\$ 8,796,343	\$ 1,768,672	\$ 7,027,671	5.0
Retro-Commissioning (Joint and Stand Alone)	\$ 1,429,554	\$ 491,144	\$ 49,123	\$ 189,858	\$ 441,091	\$ 1,920,698	\$ 490,214	\$ 1,430,484	3.9
Coordinated Non-Residential New Construction	\$ 1,064,422	\$ 390,852	\$ 243,849	\$ 46,327	\$ 188,759	\$ 1,455,275	\$ 432,608	\$ 1,022,666	3.4
Small Business	\$ 4,010,713	\$ 1,635,079	\$ 945,816	\$ 580,625	\$ 1,487,626	\$ 5,645,792	\$ 2,433,442	\$ 3,212,350	2.3
<b>Business and Public Sector Total</b>	<b>\$ 180,767,423</b>	<b>\$ 67,199,388</b>	<b>\$ 5,408,042</b>	<b>\$ 6,221,434</b>	<b>\$ 21,678,450</b>	<b>\$ 247,966,811</b>	<b>\$ 27,086,492</b>	<b>\$ 220,880,320</b>	<b>9.2</b>
IHWAP - Single-Family	\$ 1,992,624	\$ 776,757	\$ 736,453	\$ 3,306,695	\$ 5,720,533	\$ 2,769,381	\$ 6,456,986	\$ (3,687,605)	0.4
IHWAP - Multi-Family	\$ 21,956	\$ 12,388	\$ 8,217	\$ 110,949	\$ 221,898	\$ 34,345	\$ 230,115	\$ (195,770)	0.1
Contractor Channel Single-Family	\$ 635,627	\$ 880,486	\$ 259,240	\$ 1,018,956	\$ 1,018,956	\$ 1,516,113	\$ 1,278,196	\$ 237,917	1.2
Energy Savings Kit - Liheap Single Family	\$ 556,591	\$ 924,315	\$ 321,011	\$ 58,426	\$ 58,426	\$ 1,480,905	\$ 379,437	\$ 1,101,468	3.9
Contractor Channel Multi-Family	\$ 1,196,474	\$ 755,573	\$ 696,620	\$ 1,597,954	\$ 1,597,954	\$ 1,952,047	\$ 2,294,574	\$ (342,527)	0.9
Energy Savings Kit - Liheap Multi-Family	\$ 192,525	\$ 305,059	\$ 113,369	\$ 18,003	\$ 18,003	\$ 497,584	\$ 131,371	\$ 366,213	3.8
Public Housing Energy Savings	\$ 1,256,872	\$ 475,115	\$ 407,407	\$ 1,492,862	\$ 1,492,862	\$ 1,731,988	\$ 1,900,269	\$ (168,281)	0.9
Affordable Housing New Construction	\$ 170,512	\$ 61,298	\$ 66,258	\$ 25,958	\$ 90,530	\$ 231,810	\$ 156,788	\$ 75,022	1.5
<b>Income Qualified Total</b>	<b>\$ 6,023,182</b>	<b>\$ 4,190,990</b>	<b>\$ 2,608,574</b>	<b>\$ 7,629,802</b>	<b>\$ 10,219,161</b>	<b>\$ 10,214,172</b>	<b>\$ 12,827,735</b>	<b>\$ (2,613,563)</b>	<b>0.8</b>
Market Transformation	\$ -	\$ -	\$ 1,476,087	\$ -	\$ -	\$ -	\$ 1,476,087	\$ (1,476,087)	0.0
<b>Market Transformation Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,476,087</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,476,087</b>	<b>\$ (1,476,087)</b>	
<b>Other Portfolio Costs</b>			\$ 5,106,268				\$ 5,106,268	\$ (5,106,268)	
<b>Portfolio Total</b>	<b>\$ 231,099,968</b>	<b>\$ 97,592,738</b>	<b>\$ 21,091,565</b>	<b>\$ 19,685,881</b>	<b>\$ 49,307,573</b>	<b>\$ 328,692,706</b>	<b>\$ 70,399,138</b>	<b>\$ 258,293,568</b>	<b>4.7</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 225,076,786</b>	<b>\$ 93,401,748</b>	<b>\$ 18,482,991</b>	<b>\$ 12,056,079</b>	<b>\$ 39,088,412</b>	<b>\$ 318,478,534</b>	<b>\$ 57,571,403</b>	<b>\$ 260,907,131</b>	<b>5.5</b>

\* Results for Business and Public Sector Custom reflect participation of a very large industrial process retrofit.

Source: Guidehouse Analysis

**Table 3-5. Summary of Illinois TRC Benefits and Costs for 2020**

TRC Results for Nicor Gas, 2020 Programs (Societal Discount Rate, Plan 3 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 28,565,444	\$ 14,455,499	\$ 2,220,996	\$ 3,637,794	\$ 15,770,009	\$ 43,020,943	\$ 17,991,005	\$ 25,029,938	2.4
Home Energy Savings	\$ 3,548,560	\$ 2,506,296	\$ 1,374,851	\$ 982,221	\$ 1,720,983	\$ 6,054,856	\$ 3,095,834	\$ 2,959,022	2.0
Multi-Family	\$ 6,421,529	\$ 3,260,180	\$ 1,246,100	\$ 926,843	\$ 985,933	\$ 9,681,710	\$ 2,232,033	\$ 7,449,677	4.3
Energy Saving Kits	\$ 14,559,178	\$ 9,407,680	\$ 660,120	\$ 1,286,722	\$ 1,286,722	\$ 23,966,858	\$ 1,946,842	\$ 22,020,017	12.3
Elementary Energy Education	\$ 747,924	\$ 2,308,887	\$ 208,366	\$ 143,610	\$ 216,451	\$ 3,056,811	\$ 424,817	\$ 2,631,994	7.2
Residential New Construction	\$ 2,250,993	\$ 1,916,693	\$ 347,250	\$ 329,450	\$ 1,643,308	\$ 4,167,686	\$ 1,990,558	\$ 2,177,128	2.1
Behavioral Energy Savings	\$ 3,007,261	\$ 1,128,595	\$ 349,690	\$ 957,360	\$ 957,360	\$ 4,135,856	\$ 1,307,050	\$ 2,828,806	3.2
<b>Residential Total</b>	<b>\$ 59,100,890</b>	<b>\$ 34,983,830</b>	<b>\$ 6,407,372</b>	<b>\$ 8,263,999</b>	<b>\$ 22,580,766</b>	<b>\$ 94,084,720</b>	<b>\$ 28,988,138</b>	<b>\$ 65,096,582</b>	<b>3.2</b>
BEER	\$ 8,124,203	\$ 4,481,748	\$ 1,675,297	\$ 1,037,758	\$ 1,340,668	\$ 12,605,951	\$ 3,015,964	\$ 9,589,987	4.2
Business and Public Sector Custom	\$ 26,905,111	\$ 10,145,334	\$ 1,737,336	\$ 1,457,955	\$ 20,033,117	\$ 37,050,446	\$ 21,770,453	\$ 15,279,993	1.7
Strategic Energy Management	\$ 6,419,360	\$ 2,420,055	\$ 261,465	\$ 716,451	\$ 916,725	\$ 8,839,415	\$ 1,178,190	\$ 7,661,225	7.5
Retro-Commissioning (Joint and Stand Alone)	\$ 1,472,901	\$ 552,375	\$ 310,045	\$ 311,312	\$ 457,045	\$ 2,025,276	\$ 767,090	\$ 1,258,186	2.6
Coordinated Non-Residential New Construction	\$ 3,445,498	\$ 1,316,690	\$ 224,289	\$ 428,126	\$ 1,665,396	\$ 4,762,187	\$ 1,889,684	\$ 2,872,503	2.5
Small Business	\$ 2,866,243	\$ 1,321,567	\$ 894,901	\$ 518,625	\$ 815,324	\$ 4,187,810	\$ 1,710,225	\$ 2,477,585	2.4
Commercial Food Service (CFS) Midstream Pilot	\$ 339,197	\$ 130,085	\$ 137,991	\$ 60,300	\$ 71,748	\$ 469,283	\$ 209,739	\$ 259,543	2.2
<b>Business and Public Sector Total</b>	<b>\$ 49,572,514</b>	<b>\$ 20,367,854</b>	<b>\$ 5,241,323</b>	<b>\$ 4,530,527</b>	<b>\$ 25,300,022</b>	<b>\$ 69,940,368</b>	<b>\$ 30,541,346</b>	<b>\$ 39,399,022</b>	<b>2.3</b>
IHWAP - Single-Family	\$ 2,095,600	\$ 829,098	\$ 1,261,611	\$ 2,027,897	\$ 3,695,739	\$ 2,924,698	\$ 4,957,351	\$ (2,032,652)	0.6
IHWAP - Multi-Family	\$ 196,318	\$ 74,949	\$ 227,207	\$ 386,764	\$ 773,528	\$ 271,267	\$ 1,000,734	\$ (729,467)	0.3
Contractor Channel Single-Family	\$ 1,888,741	\$ 1,952,862	\$ 1,032,151	\$ 1,756,985	\$ 1,756,985	\$ 3,841,604	\$ 2,789,136	\$ 1,052,468	1.4
Energy Savings Kit - Liheap Single Family	\$ 1,338,290	\$ 901,773	\$ 40,961	\$ 71,099	\$ 71,099	\$ 2,240,063	\$ 112,060	\$ 2,128,003	20.0
Contractor Channel Multi-Family	\$ 5,068,201	\$ 3,350,294	\$ 1,845,018	\$ 3,140,693	\$ 3,140,693	\$ 8,418,495	\$ 4,985,710	\$ 3,432,785	1.7
Energy Savings Kit - Liheap Multi-Family	\$ 483,578	\$ 333,524	\$ 14,493	\$ 24,672	\$ 24,672	\$ 817,103	\$ 39,165	\$ 777,938	20.9
Public Housing Energy Savings	\$ 204,565	\$ 77,605	\$ 133,928	\$ 227,980	\$ 227,980	\$ 282,170	\$ 361,908	\$ (79,737)	0.8
Affordable Housing New Construction	\$ 607,814	\$ 229,219	\$ 113,924	\$ 193,929	\$ 193,929	\$ 837,033	\$ 307,853	\$ 529,180	2.7
<b>Income Qualified Total</b>	<b>\$ 11,883,109</b>	<b>\$ 7,749,325</b>	<b>\$ 4,669,293</b>	<b>\$ 7,830,018</b>	<b>\$ 9,884,624</b>	<b>\$ 19,632,434</b>	<b>\$ 14,553,917</b>	<b>\$ 5,078,517</b>	<b>1.3</b>
Market Transformation	\$ -	\$ -	\$ 1,034,201	\$ -	\$ -	\$ -	\$ 1,034,201	\$ (1,034,201)	0.0
<b>Market Transformation Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ (1,034,201)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,343,845				\$ 5,343,845	\$ (5,343,845)	
<b>Portfolio Total</b>	<b>\$ 120,556,513</b>	<b>\$ 63,101,009</b>	<b>\$ 22,696,034</b>	<b>\$ 20,624,544</b>	<b>\$ 57,765,413</b>	<b>\$ 183,657,522</b>	<b>\$ 80,461,447</b>	<b>\$ 103,196,075</b>	<b>2.3</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 108,673,404</b>	<b>\$ 55,351,684</b>	<b>\$ 18,026,741</b>	<b>\$ 12,794,526</b>	<b>\$ 47,880,789</b>	<b>\$ 164,025,088</b>	<b>\$ 65,907,530</b>	<b>\$ 98,117,558</b>	<b>2.5</b>

Source: Guidehouse Analysis

**Table 3-6. Summary of Illinois TRC Benefits and Costs for 2021**

TRC Results for Nicor Gas, 2021 Programs (Societal Discount Rate, Plan 3 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 36,468,766	\$ 24,963,943	\$ 2,087,865	\$ 3,885,524	\$ 18,048,556	\$ 61,432,709	\$ 20,136,422	\$ 41,296,288	3.1
Home Energy Savings	\$ 5,265,524	\$ 3,474,701	\$ 1,406,458	\$ 1,511,190	\$ 2,286,054	\$ 8,740,225	\$ 3,692,513	\$ 5,047,712	2.4
Multi-Family	\$ 2,947,925	\$ 1,591,613	\$ 1,237,015	\$ 590,306	\$ 625,494	\$ 4,539,538	\$ 1,862,509	\$ 2,677,030	2.4
Energy Saving Kits	\$ 13,384,595	\$ 8,528,373	\$ 566,740	\$ 718,305	\$ 718,305	\$ 21,912,968	\$ 1,285,045	\$ 20,627,923	17.1
Elementary Energy Education	\$ 1,160,774	\$ 3,219,592	\$ 201,722	\$ 398,443	\$ 398,443	\$ 4,380,366	\$ 600,165	\$ 3,780,200	7.3
Residential New Construction	\$ 5,342,355	\$ 4,569,311	\$ 287,302	\$ 719,700	\$ 3,774,580	\$ 9,911,667	\$ 4,061,883	\$ 5,849,784	2.4
Behavioral Energy Savings	\$ 3,085,330	\$ 1,157,894	\$ 257,979	\$ 904,695	\$ 994,458	\$ 4,243,224	\$ 1,252,437	\$ 2,990,787	3.4
<b>Residential Total</b>	<b>\$ 67,655,270</b>	<b>\$ 47,505,426</b>	<b>\$ 6,045,082</b>	<b>\$ 8,728,163</b>	<b>\$ 26,845,891</b>	<b>\$ 115,160,696</b>	<b>\$ 32,890,973</b>	<b>\$ 82,269,723</b>	<b>3.5</b>
BEER	\$ 11,644,639	\$ 5,432,979	\$ 1,805,456	\$ 1,879,071	\$ 1,879,071	\$ 17,077,617	\$ 3,684,527	\$ 13,393,090	4.6
Business and Public Sector Custom	\$ 9,480,598	\$ 3,647,851	\$ 1,506,869	\$ 1,861,779	\$ 9,239,009	\$ 13,128,449	\$ 10,745,877	\$ 2,382,571	1.2
Strategic Energy Management	\$ 4,299,020	\$ 1,620,701	\$ 180,320	\$ 654,749	\$ 654,749	\$ 5,919,721	\$ 835,069	\$ 5,084,652	7.1
Retro-Commissioning (Joint and Stand Alone)	\$ 1,382,153	\$ 518,342	\$ 281,011	\$ 352,797	\$ 394,603	\$ 1,900,495	\$ 675,613	\$ 1,224,882	2.8
Coordinated Non-Residential New Construction	\$ 2,607,022	\$ 996,268	\$ 193,150	\$ 282,967	\$ 1,150,153	\$ 3,603,290	\$ 1,343,303	\$ 2,259,987	2.7
Small Business	\$ 1,682,503	\$ 824,433	\$ 910,409	\$ 335,006	\$ 1,409,086	\$ 2,506,936	\$ 2,319,495	\$ 187,441	1.1
Commercial Food Service (CFS) Midstream Pilot	\$ 313,349	\$ 116,744	\$ 90,887	\$ 88,551	\$ 88,551	\$ 430,093	\$ 179,438	\$ 250,655	2.4
<b>Business and Public Sector Total</b>	<b>\$ 31,409,283</b>	<b>\$ 13,157,318</b>	<b>\$ 4,968,102</b>	<b>\$ 5,454,920</b>	<b>\$ 14,815,221</b>	<b>\$ 44,566,601</b>	<b>\$ 19,783,323</b>	<b>\$ 24,783,278</b>	<b>2.3</b>
IHWAP - Single-Family	\$ 2,004,464	\$ 794,270	\$ 625,205	\$ 2,210,327	\$ 3,957,018	\$ 2,798,734	\$ 4,582,223	\$ (1,783,489)	0.6
IHWAP - Multi-Family	\$ 193,169	\$ 74,854	\$ 119,244	\$ 421,572	\$ 843,143	\$ 268,023	\$ 962,388	\$ (694,364)	0.3
Contractor Channel, Kits, BNP - Single Family	\$ 4,297,046	\$ 3,717,851	\$ 631,886	\$ 2,611,695	\$ 2,611,695	\$ 8,014,897	\$ 3,243,581	\$ 4,771,316	2.5
Contractor Channel, Kits - Multi Family	\$ 7,925,507	\$ 4,368,053	\$ 905,502	\$ 3,201,280	\$ 3,330,107	\$ 12,293,560	\$ 4,235,609	\$ 8,057,952	2.9
Public Housing Energy Savings	\$ 136,904	\$ 104,622	\$ 193,150	\$ 191,769	\$ 191,769	\$ 241,526	\$ 384,919	\$ (143,393)	0.6
Affordable Housing New Construction	\$ 348,188	\$ 132,592	\$ 54,998	\$ 194,438	\$ 194,438	\$ 480,780	\$ 249,435	\$ 231,344	1.9
<b>Income Qualified Total</b>	<b>\$ 14,905,277</b>	<b>\$ 9,192,243</b>	<b>\$ 2,529,985</b>	<b>\$ 8,831,080</b>	<b>\$ 11,128,170</b>	<b>\$ 24,097,520</b>	<b>\$ 13,658,155</b>	<b>\$ 10,439,365</b>	<b>1.8</b>
Building Operator Certification	\$ 32,204	\$ 11,911	\$ 10,136	\$ 3,000	\$ 10,984	\$ 44,115	\$ 21,120	\$ 22,995	2.1
Market Transformation	\$ -	\$ -	\$ 2,605,664	\$ -	\$ -	\$ -	\$ 2,605,664	\$ (2,605,664)	0.0
<b>Market Transformation Total</b>	<b>\$ 32,204</b>	<b>\$ 11,911</b>	<b>\$ 2,615,800</b>	<b>\$ 3,000</b>	<b>\$ 10,984</b>	<b>\$ 44,115</b>	<b>\$ 2,626,784</b>	<b>\$ (2,582,669)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,526,710				\$ 5,526,710	\$ (5,526,710)	
<b>Portfolio Total</b>	<b>\$ 114,002,034</b>	<b>\$ 69,866,898</b>	<b>\$ 21,685,679</b>	<b>\$ 23,017,163</b>	<b>\$ 52,800,266</b>	<b>\$ 183,868,933</b>	<b>\$ 74,485,945</b>	<b>\$ 109,382,988</b>	<b>2.5</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 99,096,757</b>	<b>\$ 60,674,655</b>	<b>\$ 19,155,694</b>	<b>\$ 14,186,083</b>	<b>\$ 41,672,096</b>	<b>\$ 159,771,412</b>	<b>\$ 60,827,790</b>	<b>\$ 98,943,623</b>	<b>2.6</b>

Source: Guidehouse Analysis

**Table 3-7. Summary of PACT Benefits and Costs for 2018**

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2018 Programs (WACC Discount Rate, Plan 3 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Net Benefits	PACT Ratio
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 17,350,339		\$ 2,325,577	\$ 3,078,824	\$ 15,793,864	\$ 17,350,339	\$ 5,404,401	\$ 11,945,938	3.2
Home Energy Savings	\$ 3,275,291		\$ 1,990,009	\$ 1,312,052	\$ 1,687,601	\$ 3,275,291	\$ 3,302,061	\$ (26,770)	1.0
Multi-Family	\$ 1,385,468		\$ 749,640	\$ 335,465	\$ 752,329	\$ 1,385,468	\$ 1,085,105	\$ 300,363	1.3
Energy Saving Kits	\$ 794,044		\$ 383,545	\$ 57,015	\$ 210,572	\$ 794,044	\$ 440,560	\$ 353,484	1.8
Elementary Energy Education	\$ 679,404		\$ 296,387	\$ 331,102	\$ 344,176	\$ 679,404	\$ 627,489	\$ 51,915	1.1
Joint Residential New Construction	\$ 985,769		\$ 403,466	\$ 252,439	\$ 432,325	\$ 985,769	\$ 655,905	\$ 329,864	1.5
Behavioral Energy Savings	\$ 11,058		\$ 212,133	\$ -	\$ -	\$ 11,058	\$ 212,133	\$ (201,075)	0.1
<b>Total Residential</b>	<b>\$ 24,481,372</b>	<b>\$ -</b>	<b>\$ 6,360,757</b>	<b>\$ 5,366,897</b>	<b>\$ 19,220,867</b>	<b>\$ 24,481,372</b>	<b>\$ 11,727,654</b>	<b>\$ 12,753,718</b>	<b>2.1</b>
BEER Program	\$ 4,945,999		\$ 1,631,815	\$ 822,430	\$ 792,924	\$ 4,945,999	\$ 2,454,245	\$ 2,491,754	2.0
Business and Public Sector Custom	\$ 8,184,157		\$ 1,486,278	\$ 886,428	\$ 7,860,302	\$ 8,184,157	\$ 2,372,706	\$ 5,811,451	3.4
Strategic Energy Management	\$ 2,179,611		\$ 301,422	\$ 617,081	\$ 617,081	\$ 2,179,611	\$ 918,503	\$ 1,261,108	2.4
Coordinated Retro-Commissioning	\$ 1,098,075		\$ 416,279	\$ 163,534	\$ 312,186	\$ 1,098,075	\$ 579,813	\$ 518,262	1.9
Coordinated Business New Construction	\$ 1,573,076		\$ 291,681	\$ 268,902	\$ 1,205,279	\$ 1,573,076	\$ 560,583	\$ 1,012,493	2.8
Small Business	\$ 2,368,962		\$ 1,053,283	\$ 786,356	\$ 335,631	\$ 2,368,962	\$ 1,839,639	\$ 529,323	1.3
<b>Total Business and Public Sector</b>	<b>\$ 20,349,880</b>	<b>\$ -</b>	<b>\$ 5,180,758</b>	<b>\$ 3,544,731</b>	<b>\$ 11,123,403</b>	<b>\$ 20,349,880</b>	<b>\$ 8,725,489</b>	<b>\$ 11,624,390</b>	<b>2.3</b>
Illinois Home Weatherization Assistance Program (IHWAP) and Kits - Single-Family	\$ 572,979		\$ 881,805	\$ 907,126	\$ 1,795,838	\$ 572,979	\$ 1,788,931	\$ (1,215,951)	0.3
Illinois Home Weatherization Assistance Program (IHWAP) and Kits - Multi-Family	\$ 28,404		\$ 66,563	\$ 136,193	\$ 266,713	\$ 28,404	\$ 202,756	\$ (174,353)	0.1
Public Housing Energy Savings	\$ 239,633		\$ 712,716	\$ 520,685	\$ 449,502	\$ 239,633	\$ 1,233,401	\$ (993,768)	0.2
Affordable Housing New Construction	\$ 245,289		\$ 325,858	\$ 247,105	\$ 347,834	\$ 245,289	\$ 572,963	\$ (327,674)	0.4
<b>Total Income Qualified Programs</b>	<b>\$ 1,086,305</b>	<b>\$ -</b>	<b>\$ 1,986,942</b>	<b>\$ 1,811,109</b>	<b>\$ 2,859,887</b>	<b>\$ 1,086,305</b>	<b>\$ 3,798,051</b>	<b>\$ (2,711,746)</b>	<b>0.3</b>
<b>Other Portfolio Costs</b>			\$ 4,552,432			\$ -	\$ 4,552,432	\$ (4,552,432)	
<b>Portfolio Total</b>	<b>\$ 45,917,557</b>	<b>\$ -</b>	<b>\$ 18,080,889</b>	<b>\$ 10,722,737</b>	<b>\$ 33,204,157</b>	<b>\$ 45,917,557</b>	<b>\$ 28,803,626</b>	<b>\$ 17,113,931</b>	<b>1.6</b>

Source: Guidehouse Analysis

**Table 3-8. Summary of PACT Benefits and Costs for 2019**

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2019 Programs (WACC Discount Rate, Plan 3 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Net Benefits	PACT Ratio
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 14,693,073		\$ 1,987,394	\$ 2,376,586	\$ 11,596,798	\$ 14,693,073	\$ 4,363,980	\$ 10,329,093	<b>3.4</b>
Home Energy Savings	\$ 2,413,398		\$ 1,503,859	\$ 1,381,187	\$ 2,781,559	\$ 2,413,398	\$ 2,885,046	\$ (471,648)	<b>0.8</b>
Multi-Family	\$ 1,737,611		\$ 836,641	\$ 657,415	\$ 1,266,122	\$ 1,737,611	\$ 1,494,056	\$ 243,555	<b>1.2</b>
Energy Saving Kits	\$ 6,264,222		\$ 500,134	\$ 732,052	\$ 732,052	\$ 6,264,222	\$ 1,232,186	\$ 5,032,036	<b>5.1</b>
Elementary Energy Education	\$ 875,857		\$ 280,826	\$ 338,779	\$ 402,131	\$ 875,857	\$ 619,605	\$ 256,252	<b>1.4</b>
Residential New Construction	\$ 1,072,499		\$ 410,257	\$ 348,626	\$ 1,177,320	\$ 1,072,499	\$ 758,883	\$ 313,616	<b>1.4</b>
Behavioral Energy Savings	\$ -		\$ 973,483	\$ -	\$ -	\$ -	\$ 973,483	\$ (973,483)	
<b>Residential Total</b>	<b>\$ 27,056,660</b>	<b>\$ -</b>	<b>\$ 6,492,594</b>	<b>\$ 5,834,645</b>	<b>\$ 17,955,982</b>	<b>\$ 27,056,660</b>	<b>\$ 12,327,239</b>	<b>\$ 14,729,421</b>	<b>2.2</b>
BEER	\$ 11,872,438		\$ 1,601,402	\$ 1,121,612	\$ 1,352,596	\$ 11,872,438	\$ 2,723,014	\$ 9,149,424	<b>4.4</b>
Business and Public Sector Custom	\$ 84,456,561		\$ 2,290,051	\$ 3,267,868	\$ 16,717,507	\$ 84,456,561	\$ 5,557,920	\$ 78,898,641	<b>15.2</b>
Strategic Energy Management	\$ 5,768,675		\$ 277,801	\$ 1,015,144	\$ 1,490,871	\$ 5,768,675	\$ 1,292,945	\$ 4,475,730	<b>4.5</b>
Retro-Commissioning (Joint and Stand Alone)	\$ 1,101,135		\$ 49,123	\$ 189,858	\$ 441,091	\$ 1,101,135	\$ 238,980	\$ 862,155	<b>4.6</b>
Coordinated Non-Residential New Construction	\$ 596,477		\$ 243,849	\$ 46,327	\$ 188,759	\$ 596,477	\$ 290,176	\$ 306,301	<b>2.1</b>
Small Business	\$ 3,058,461		\$ 945,816	\$ 580,625	\$ 1,487,626	\$ 3,058,461	\$ 1,526,441	\$ 1,532,020	<b>2.0</b>
<b>Business and Public Sector Total</b>	<b>\$ 106,853,747</b>	<b>\$ -</b>	<b>\$ 5,408,042</b>	<b>\$ 6,221,434</b>	<b>\$ 21,678,450</b>	<b>\$ 106,853,747</b>	<b>\$ 11,629,476</b>	<b>\$ 95,224,271</b>	<b>9.2</b>
IHWAP - Single-Family	\$ 1,176,373		\$ 736,453	\$ 3,306,695	\$ 6,005,969	\$ 1,176,373	\$ 4,043,148	\$ (2,866,775)	<b>0.3</b>
IHWAP - Multi-Family	\$ 13,121		\$ 8,217	\$ 110,949	\$ 221,898	\$ 13,121	\$ 119,166	\$ (106,044)	<b>0.1</b>
Contractor Channel Single-Family	\$ 384,796		\$ 259,240	\$ 1,018,956	\$ 1,018,956	\$ 384,796	\$ 1,278,196	\$ (893,400)	<b>0.3</b>
Energy Savings Kit - Liheap Single Family	\$ 368,799		\$ 321,011	\$ 58,426	\$ 58,426	\$ 368,799	\$ 379,437	\$ (10,638)	<b>1.0</b>
Contractor Channel Multi-Family	\$ 729,700		\$ 696,620	\$ 1,597,954	\$ 1,597,954	\$ 729,700	\$ 2,294,574	\$ (1,564,873)	<b>0.3</b>
Energy Savings Kit - Liheap Multi-Family	\$ 129,113		\$ 113,369	\$ 18,003	\$ 18,003	\$ 129,113	\$ 131,371	\$ (2,258)	<b>1.0</b>
Public Housing Energy Savings	\$ 717,243		\$ 407,407	\$ 1,492,862	\$ 1,492,862	\$ 717,243	\$ 1,900,269	\$ (1,183,026)	<b>0.4</b>
Affordable Housing New Construction	\$ 103,835		\$ 66,258	\$ 25,958	\$ 90,530	\$ 103,835	\$ 92,216	\$ 11,620	<b>1.1</b>
<b>Income Qualified Total</b>	<b>\$ 3,622,981</b>	<b>\$ -</b>	<b>\$ 2,608,574</b>	<b>\$ 7,629,802</b>	<b>\$ 10,504,597</b>	<b>\$ 3,622,981</b>	<b>\$ 10,238,376</b>	<b>\$ (6,615,395)</b>	<b>0.4</b>
Market Transformation	\$ -		\$ 1,476,087	\$ -	\$ -	\$ -	\$ 1,476,087	\$ (1,476,087)	
<b>Market Transformation Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,476,087</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,476,087</b>	<b>\$ (1,476,087)</b>	
<b>Other Portfolio Costs</b>			\$ 5,106,268				\$ 5,106,268	\$ (5,106,268)	
<b>Portfolio Total</b>	<b>\$ 137,533,387</b>	<b>\$ -</b>	<b>\$ 21,091,565</b>	<b>\$ 19,685,881</b>	<b>\$ 50,139,029</b>	<b>\$ 137,533,387</b>	<b>\$ 40,777,446</b>	<b>\$ 96,755,941</b>	<b>3.4</b>

Source: Guidehouse Analysis



### Table 3-9. Summary of PACT Benefits and Costs for 2020

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2020 Programs (WACC Discount Rate, Plan 3 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Test Net Benefits	PACT Test
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 17,393,540		\$ 2,220,996	\$ 3,637,794	\$ 16,316,030	\$ 17,393,540	\$ 5,858,789	\$ 11,534,751	3.0
Home Energy Savings	\$ 2,204,458		\$ 1,374,851	\$ 982,221	\$ 1,720,983	\$ 2,204,458	\$ 2,357,071	\$ (152,613)	0.9
Multi-Family	\$ 4,277,177		\$ 1,246,100	\$ 926,843	\$ 985,933	\$ 4,277,177	\$ 2,172,943	\$ 2,104,233	2.0
Energy Saving Kits	\$ 8,625,787		\$ 660,120	\$ 1,286,722	\$ 1,286,722	\$ 8,625,787	\$ 1,946,842	\$ 6,678,945	4.4
Elementary Energy Education	\$ 561,557		\$ 208,366	\$ 143,610	\$ 216,451	\$ 561,557	\$ 351,976	\$ 209,581	1.6
Residential New Construction	\$ 1,346,609		\$ 347,250	\$ 329,450	\$ 1,643,308	\$ 1,346,609	\$ 676,700	\$ 669,909	2.0
Behavioral Energy Savings	\$ 2,586,714		\$ 349,690	\$ 957,360	\$ 957,360	\$ 2,586,714	\$ 1,307,050	\$ 1,279,664	2.0
<b>Residential Total</b>	<b>\$ 36,995,841</b>	<b>\$ -</b>	<b>\$ 6,407,372</b>	<b>\$ 8,263,999</b>	<b>\$ 23,126,787</b>	<b>\$ 36,995,841</b>	<b>\$ 14,671,371</b>	<b>\$ 22,324,469</b>	<b>2.5</b>
BEER	\$ 5,605,389		\$ 1,675,297	\$ 1,037,758	\$ 1,340,668	\$ 5,605,389	\$ 2,713,055	\$ 2,892,334	2.1
Business and Public Sector Custom	\$ 16,031,493		\$ 1,737,336	\$ 1,457,955	\$ 20,033,117	\$ 16,031,493	\$ 3,195,291	\$ 12,836,203	5.0
Strategic Energy Management	\$ 5,219,331		\$ 261,465	\$ 716,451	\$ 916,725	\$ 5,219,331	\$ 977,916	\$ 4,241,415	5.3
Retro-Commissioning (Joint and Stand Alone)	\$ 1,131,157		\$ 310,045	\$ 311,312	\$ 457,045	\$ 1,131,157	\$ 621,357	\$ 509,800	1.8
Coordinated Non-Residential New Construction	\$ 1,933,974		\$ 224,289	\$ 428,126	\$ 1,665,396	\$ 1,933,974	\$ 652,415	\$ 1,281,560	3.0
Small Business	\$ 2,339,120		\$ 894,901	\$ 518,625	\$ 815,324	\$ 2,339,120	\$ 1,413,526	\$ 925,594	1.7
Commercial Food Service (CFS) Midstream Pilot	\$ 227,391		\$ 137,991	\$ 60,300	\$ 71,748	\$ 227,391	\$ 198,291	\$ 29,100	1.1
<b>Business and Public Sector Total</b>	<b>\$ 32,487,855</b>	<b>\$ -</b>	<b>\$ 5,241,323</b>	<b>\$ 4,530,527</b>	<b>\$ 25,300,022</b>	<b>\$ 32,487,855</b>	<b>\$ 9,771,850</b>	<b>\$ 22,716,005</b>	<b>3.3</b>
IHWAP - Single-Family	\$ 1,228,242		\$ 1,261,611	\$ 2,027,897	\$ 3,886,029	\$ 1,228,242	\$ 3,289,508	\$ (2,061,267)	0.4
IHWAP - Multi-Family	\$ 110,562		\$ 227,207	\$ 386,764	\$ 773,528	\$ 110,562	\$ 613,970	\$ (503,409)	0.2
Contractor Channel Single-Family	\$ 1,111,309		\$ 1,032,151	\$ 1,756,985	\$ 1,756,985	\$ 1,111,309	\$ 2,789,136	\$ (1,677,826)	0.4
Energy Savings Kit - Liheap Single Family	\$ 796,226		\$ 40,961	\$ 71,099	\$ 71,099	\$ 796,226	\$ 112,060	\$ 684,166	7.1
Contractor Channel Multi-Family	\$ 2,947,323		\$ 1,845,018	\$ 3,140,693	\$ 3,140,693	\$ 2,947,323	\$ 4,985,710	\$ (2,038,388)	0.6
Energy Savings Kit - Liheap Multi-Family	\$ 289,885		\$ 14,493	\$ 24,672	\$ 24,672	\$ 289,885	\$ 39,165	\$ 250,720	7.4
Public Housing Energy Savings	\$ 119,056		\$ 133,928	\$ 227,980	\$ 227,980	\$ 119,056	\$ 361,908	\$ (242,852)	0.3
Affordable Housing New Construction	\$ 367,513		\$ 113,924	\$ 193,929	\$ 193,929	\$ 367,513	\$ 307,853	\$ 59,660	1.2
<b>Income Qualified Total</b>	<b>\$ 6,970,116</b>	<b>\$ -</b>	<b>\$ 4,669,293</b>	<b>\$ 7,830,018</b>	<b>\$ 10,074,913</b>	<b>\$ 6,970,116</b>	<b>\$ 12,499,311</b>	<b>\$ (5,529,195)</b>	<b>0.6</b>
Market Transformation	\$ -		\$ 1,034,201	\$ -	\$ -	\$ -	\$ 1,034,201	\$ (1,034,201)	0.0
<b>Market Transformation Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ (1,034,201)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,343,845				\$ 5,343,845	\$ (5,343,845)	
<b>Portfolio Total</b>	<b>\$ 76,453,812</b>	<b>\$ -</b>	<b>\$ 22,696,034</b>	<b>\$ 20,624,544</b>	<b>\$ 58,501,722</b>	<b>\$ 76,453,812</b>	<b>\$ 43,320,578</b>	<b>\$ 33,133,233</b>	<b>1.8</b>

Source: Guidehouse Analysis

**Table 3-10. Summary of PACT Benefits and Costs for 2021**

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2021 Programs (WACC Discount Rate, Plan 3 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Test Net Benefits	PACT Test
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 22,782,674		\$ 2,087,865	\$ 3,885,524	\$ 18,682,890	\$ 22,782,674	\$ 5,973,389	\$ 16,809,285	<b>3.8</b>
Home Energy Savings	\$ 3,227,247		\$ 1,406,458	\$ 1,511,190	\$ 2,286,054	\$ 3,227,247	\$ 2,917,648	\$ 309,598	<b>1.1</b>
Multi-Family	\$ 1,903,764		\$ 1,237,015	\$ 590,306	\$ 625,494	\$ 1,903,764	\$ 1,827,321	\$ 76,443	<b>1.0</b>
Energy Saving Kits	\$ 7,922,777		\$ 566,740	\$ 718,305	\$ 718,305	\$ 7,922,777	\$ 1,285,045	\$ 6,637,732	<b>6.2</b>
Elementary Energy Education	\$ 869,506		\$ 201,722	\$ 398,443	\$ 398,443	\$ 869,506	\$ 600,165	\$ 269,340	<b>1.4</b>
Residential New Construction	\$ 3,219,318		\$ 287,302	\$ 719,700	\$ 3,774,580	\$ 3,219,318	\$ 1,007,002	\$ 2,212,315	<b>3.2</b>
Behavioral Energy Savings	\$ 2,653,866		\$ 257,979	\$ 904,695	\$ 994,458	\$ 2,653,866	\$ 1,162,674	\$ 1,491,192	<b>2.3</b>
<b>Residential Total</b>	<b>\$ 42,579,150</b>	<b>\$ -</b>	<b>\$ 6,045,082</b>	<b>\$ 8,728,163</b>	<b>\$ 27,480,224</b>	<b>\$ 42,579,150</b>	<b>\$ 14,773,245</b>	<b>\$ 27,805,905</b>	<b>2.9</b>
BEER	\$ 8,420,398		\$ 1,805,456	\$ 1,879,071	\$ 1,879,071	\$ 8,420,398	\$ 3,684,527	\$ 4,735,871	<b>2.3</b>
Business and Public Sector Custom	\$ 5,353,652		\$ 1,506,869	\$ 1,861,779	\$ 9,239,009	\$ 5,353,652	\$ 3,368,648	\$ 1,985,004	<b>1.6</b>
Strategic Energy Management	\$ 3,495,365		\$ 180,320	\$ 654,749	\$ 654,749	\$ 3,495,365	\$ 835,069	\$ 2,660,296	<b>4.2</b>
Retro-Commissioning (Joint and Stand Alone)	\$ 1,061,465		\$ 281,011	\$ 352,797	\$ 394,603	\$ 1,061,465	\$ 633,807	\$ 427,657	<b>1.7</b>
Coordinated Non-Residential New Construction	\$ 1,463,334		\$ 193,150	\$ 282,967	\$ 1,150,153	\$ 1,463,334	\$ 476,117	\$ 987,217	<b>3.1</b>
Small Business	\$ 1,038,409		\$ 910,409	\$ 335,006	\$ 1,409,086	\$ 1,038,409	\$ 1,245,415	\$ (207,006)	<b>0.8</b>
Commercial Food Service (CFS) Midstream Pilot	\$ 210,884		\$ 90,887	\$ 88,551	\$ 88,551	\$ 210,884	\$ 179,438	\$ 31,447	<b>1.2</b>
<b>Business and Public Sector Total</b>	<b>\$ 21,043,507</b>	<b>\$ -</b>	<b>\$ 4,968,102</b>	<b>\$ 5,454,920</b>	<b>\$ 14,815,221</b>	<b>\$ 21,043,507</b>	<b>\$ 10,423,022</b>	<b>\$ 10,620,486</b>	<b>2.0</b>
IHWAP - Single-Family	\$ 1,179,004		\$ 625,205	\$ 2,210,327	\$ 4,105,866	\$ 1,179,004	\$ 2,835,532	\$ (1,656,528)	<b>0.4</b>
IHWAP - Multi-Family	\$ 105,074		\$ 119,244	\$ 421,572	\$ 843,143	\$ 105,074	\$ 540,816	\$ (435,742)	<b>0.2</b>
Contractor Channel, Kits, BNP - Single Family	\$ 2,561,917		\$ 631,886	\$ 2,611,695	\$ 2,611,695	\$ 2,561,917	\$ 3,243,581	\$ (681,664)	<b>0.8</b>
Contractor Channel, Kits - Multi Family	\$ 4,837,534		\$ 905,502	\$ 3,201,280	\$ 3,330,107	\$ 4,837,534	\$ 4,106,782	\$ 730,752	<b>1.2</b>
Public Housing Energy Savings	\$ 87,354		\$ 193,150	\$ 191,769	\$ 191,769	\$ 87,354	\$ 384,919	\$ (297,566)	<b>0.2</b>
Affordable Housing New Construction	\$ 203,640		\$ 54,998	\$ 194,438	\$ 194,438	\$ 203,640	\$ 249,435	\$ (45,795)	<b>0.8</b>
<b>Income Qualified Total</b>	<b>\$ 8,974,522</b>	<b>\$ -</b>	<b>\$ 2,529,985</b>	<b>\$ 8,831,080</b>	<b>\$ 11,277,017</b>	<b>\$ 8,974,522</b>	<b>\$ 11,361,065</b>	<b>\$ (2,386,543)</b>	<b>0.8</b>
Building Operator Certification	\$ 22,087		\$ 10,136	\$ 3,000	\$ 10,984	\$ 22,087	\$ 13,136	\$ 8,951	<b>1.7</b>
Market Transformation	\$ -		\$ 2,605,664	\$ -	\$ -	\$ -	\$ 2,605,664	\$ (2,605,664)	<b>0.0</b>
<b>Market Transformation Total</b>	<b>\$ 22,087</b>	<b>\$ -</b>	<b>\$ 2,615,800</b>	<b>\$ 3,000</b>	<b>\$ 10,984</b>	<b>\$ 22,087</b>	<b>\$ 2,618,800</b>	<b>\$ (2,596,713)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,526,710				\$ 5,526,710	\$ (5,526,710)	
<b>Portfolio Total</b>	<b>\$ 72,619,266</b>	<b>\$ -</b>	<b>\$ 21,685,679</b>	<b>\$ 23,017,163</b>	<b>\$ 53,583,446</b>	<b>\$ 72,619,266</b>	<b>\$ 44,702,842</b>	<b>\$ 27,916,424</b>	<b>1.6</b>

Source: Guidehouse Analysis

**Table 3-11. Summary of TRC Benefits and Costs for 2020 Plan 4 Avoided Costs**

TRC Results for Nicor Gas, 2020 Programs (Societal Discount Rate, Plan 4 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 18,029,273	\$ 25,046,085	\$ 2,220,996	\$ 3,637,794	\$ 15,770,009	\$ 43,075,358	\$ 17,991,005	\$ 25,084,353	2.4
Home Energy Savings	\$ 2,245,714	\$ 3,836,850	\$ 1,374,851	\$ 982,221	\$ 1,720,983	\$ 6,082,564	\$ 3,095,834	\$ 2,986,730	2.0
Multi-Family	\$ 4,061,273	\$ 6,027,934	\$ 1,246,100	\$ 926,843	\$ 985,933	\$ 10,089,208	\$ 2,232,033	\$ 7,857,175	4.5
Energy Saving Kits	\$ 9,156,293	\$ 14,854,755	\$ 660,120	\$ 1,286,722	\$ 1,286,722	\$ 24,011,047	\$ 1,946,842	\$ 22,064,206	12.3
Elementary Energy Education	\$ 490,138	\$ 2,628,696	\$ 208,366	\$ 143,610	\$ 216,451	\$ 3,118,834	\$ 424,817	\$ 2,694,017	7.3
Residential New Construction	\$ 1,414,904	\$ 2,623,416	\$ 347,250	\$ 329,450	\$ 1,643,308	\$ 4,038,320	\$ 1,990,558	\$ 2,047,762	2.0
Behavioral Energy Savings	\$ 2,052,237	\$ 2,500,532	\$ 349,690	\$ 957,360	\$ 957,360	\$ 4,552,770	\$ 1,307,050	\$ 3,245,720	3.5
<b>Residential Total</b>	<b>\$ 37,449,832</b>	<b>\$ 57,518,269</b>	<b>\$ 6,407,372</b>	<b>\$ 8,263,999</b>	<b>\$ 22,580,766</b>	<b>\$ 94,968,101</b>	<b>\$ 28,988,138</b>	<b>\$ 65,979,963</b>	<b>3.3</b>
BEER	\$ 5,315,963	\$ 7,974,178	\$ 1,675,297	\$ 1,037,758	\$ 1,340,668	\$ 13,290,141	\$ 3,015,964	\$ 10,274,177	4.4
Business and Public Sector Custom	\$ 16,850,875	\$ 20,222,007	\$ 1,737,336	\$ 1,457,955	\$ 20,033,117	\$ 37,072,882	\$ 21,770,453	\$ 15,302,429	1.7
Strategic Energy Management	\$ 4,333,723	\$ 5,297,114	\$ 261,465	\$ 716,451	\$ 916,725	\$ 9,630,837	\$ 1,178,190	\$ 8,452,647	8.2
Retro-Commissioning (Joint and Stand Alone)	\$ 978,295	\$ 1,192,481	\$ 310,045	\$ 311,312	\$ 457,045	\$ 2,170,776	\$ 767,090	\$ 1,403,686	2.8
Coordinated Non-Residential New Construction	\$ 2,159,431	\$ 2,570,523	\$ 224,289	\$ 428,126	\$ 1,665,396	\$ 4,729,954	\$ 1,889,684	\$ 2,840,270	2.5
Small Business	\$ 1,930,275	\$ 2,605,412	\$ 894,901	\$ 518,625	\$ 815,324	\$ 4,535,688	\$ 1,710,225	\$ 2,825,463	2.7
Commercial Food Service (CFS) Midstream Pilot	\$ 213,914	\$ 265,435	\$ 137,991	\$ 60,300	\$ 71,748	\$ 479,348	\$ 209,739	\$ 269,609	2.3
<b>Business and Public Sector Total</b>	<b>\$ 31,782,477</b>	<b>\$ 40,127,150</b>	<b>\$ 5,241,323</b>	<b>\$ 4,530,527</b>	<b>\$ 25,300,022</b>	<b>\$ 71,909,626</b>	<b>\$ 30,541,346</b>	<b>\$ 41,368,280</b>	<b>2.4</b>
IHWAP - Single-Family	\$ 1,315,778	\$ 1,608,481	\$ 1,261,611	\$ 2,027,897	\$ 3,695,739	\$ 2,924,259	\$ 4,957,351	\$ (2,033,092)	0.6
IHWAP - Multi-Family	\$ 123,019	\$ 146,506	\$ 227,207	\$ 386,764	\$ 773,528	\$ 269,525	\$ 1,000,734	\$ (731,210)	0.3
Contractor Channel Single-Family	\$ 1,186,000	\$ 2,505,017	\$ 1,032,151	\$ 1,756,985	\$ 1,756,985	\$ 3,691,018	\$ 2,789,136	\$ 901,882	1.3
Energy Savings Kit - Liheap Single Family	\$ 842,183	\$ 1,403,586	\$ 40,961	\$ 71,099	\$ 71,099	\$ 2,245,769	\$ 112,060	\$ 2,133,709	20.0
Contractor Channel Multi-Family	\$ 3,178,187	\$ 5,107,921	\$ 1,845,018	\$ 3,140,693	\$ 3,140,693	\$ 8,286,107	\$ 4,985,710	\$ 3,300,397	1.7
Energy Savings Kit - Liheap Multi-Family	\$ 304,690	\$ 515,590	\$ 14,493	\$ 24,672	\$ 24,672	\$ 820,281	\$ 39,165	\$ 781,116	20.9
Public Housing Energy Savings	\$ 128,343	\$ 153,374	\$ 133,928	\$ 227,980	\$ 227,980	\$ 281,717	\$ 361,908	\$ (80,191)	0.8
Affordable Housing New Construction	\$ 381,233	\$ 458,689	\$ 113,924	\$ 193,929	\$ 193,929	\$ 839,921	\$ 307,853	\$ 532,068	2.7
<b>Income Qualified Total</b>	<b>\$ 7,459,432</b>	<b>\$ 11,899,164</b>	<b>\$ 4,669,293</b>	<b>\$ 7,830,018</b>	<b>\$ 9,884,624</b>	<b>\$ 19,358,597</b>	<b>\$ 14,553,917</b>	<b>\$ 4,804,680</b>	<b>1.3</b>
Market Transformation	\$ -	\$ -	\$ 1,034,201	\$ -	\$ -	\$ -	\$ 1,034,201	\$ (1,034,201)	0.0
<b>Market Transformation Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ (1,034,201)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,343,845				\$ 5,343,845	\$ (5,343,845)	
<b>Portfolio Total</b>	<b>\$ 76,691,741</b>	<b>\$ 109,544,583</b>	<b>\$ 22,696,034</b>	<b>\$ 20,624,544</b>	<b>\$ 57,765,413</b>	<b>\$ 186,236,324</b>	<b>\$ 80,461,447</b>	<b>\$ 105,774,877</b>	<b>2.3</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 69,232,308</b>	<b>\$ 97,645,419</b>	<b>\$ 18,026,741</b>	<b>\$ 12,794,526</b>	<b>\$ 47,880,789</b>	<b>\$ 166,877,727</b>	<b>\$ 65,907,530</b>	<b>\$ 100,970,197</b>	<b>2.5</b>

Source: Guidehouse Analysis

**Table 3-12. Summary of TRC Benefits and Costs for 2021 Plan 4 Avoided Costs**

TRC Results for Nicor Gas, 2021 Programs (Societal Discount Rate, Plan 4 Avoided Costs)									
Program  (a)	Benefits		Costs			IL Total Resource Cost (TRC) Test			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
	(b)	(c)	(d)	(e)	(f)	(g) = (b+c)	(h) = (d+f)	(i) = (g-h)	(j) = (g/h)
Home Energy Efficiency Rebate	\$ 20,040,772	\$ 30,833,636	\$ 2,087,865	\$ 3,885,524	\$ 18,048,556	\$ 50,874,409	\$ 20,136,422	\$ 30,737,987	2.5
Home Energy Savings	\$ 2,876,929	\$ 4,376,780	\$ 1,406,458	\$ 1,511,190	\$ 2,286,054	\$ 7,253,709	\$ 3,692,513	\$ 3,561,196	2.0
Multi-Family	\$ 1,641,508	\$ 2,139,817	\$ 1,237,015	\$ 590,306	\$ 625,494	\$ 3,781,325	\$ 1,862,509	\$ 1,918,816	2.0
Energy Saving Kits	\$ 7,239,371	\$ 10,887,478	\$ 566,740	\$ 718,305	\$ 718,305	\$ 18,126,849	\$ 1,285,045	\$ 16,841,804	14.1
Elementary Energy Education	\$ 683,894	\$ 3,457,967	\$ 201,722	\$ 398,443	\$ 398,443	\$ 4,141,860	\$ 600,165	\$ 3,541,695	6.9
Residential New Construction	\$ 2,898,278	\$ 5,190,245	\$ 287,302	\$ 719,700	\$ 3,774,580	\$ 8,088,523	\$ 4,061,883	\$ 4,026,640	2.0
Behavioral Energy Savings	\$ 2,014,534	\$ 1,852,828	\$ 257,979	\$ 904,695	\$ 994,458	\$ 3,867,362	\$ 1,252,437	\$ 2,614,925	3.1
<b>Residential Total</b>	<b>\$ 37,395,285</b>	<b>\$ 58,738,752</b>	<b>\$ 6,045,082</b>	<b>\$ 8,728,163</b>	<b>\$ 26,845,891</b>	<b>\$ 96,134,037</b>	<b>\$ 32,890,973</b>	<b>\$ 63,243,064</b>	<b>2.9</b>
BEER	\$ 6,983,248	\$ 7,804,273	\$ 1,805,456	\$ 1,879,071	\$ 1,879,071	\$ 14,787,521	\$ 3,684,527	\$ 11,102,994	4.0
Business and Public Sector Custom	\$ 5,093,375	\$ 5,284,628	\$ 1,506,869	\$ 1,861,779	\$ 9,239,009	\$ 10,378,003	\$ 10,745,877	\$ (367,875)	1.0
Strategic Energy Management	\$ 2,685,696	\$ 2,560,999	\$ 180,320	\$ 654,749	\$ 654,749	\$ 5,246,695	\$ 835,069	\$ 4,411,626	6.3
Retro-Commissioning (Joint and Stand Alone)	\$ 832,438	\$ 808,307	\$ 281,011	\$ 352,797	\$ 394,603	\$ 1,640,745	\$ 675,613	\$ 965,132	2.4
Coordinated Non-Residential New Construction	\$ 1,394,858	\$ 1,442,882	\$ 193,150	\$ 282,967	\$ 1,150,153	\$ 2,837,740	\$ 1,343,303	\$ 1,494,437	2.1
Small Business	\$ 930,230	\$ 1,132,125	\$ 910,409	\$ 335,006	\$ 1,409,086	\$ 2,062,355	\$ 2,319,495	\$ (257,140)	0.9
Commercial Food Service (CFS) Midstream Pilot	\$ 174,878	\$ 176,317	\$ 90,887	\$ 88,551	\$ 88,551	\$ 351,196	\$ 179,438	\$ 171,758	2.0
<b>Business and Public Sector Total</b>	<b>\$ 18,094,723</b>	<b>\$ 19,209,532</b>	<b>\$ 4,968,102</b>	<b>\$ 5,454,920</b>	<b>\$ 14,815,221</b>	<b>\$ 37,304,255</b>	<b>\$ 19,783,323</b>	<b>\$ 17,520,932</b>	<b>1.9</b>
IHWAP - Single-Family	\$ 1,081,696	\$ 1,146,073	\$ 625,205	\$ 2,210,327	\$ 3,957,018	\$ 2,227,769	\$ 4,582,223	\$ (2,354,454)	0.5
IHWAP - Multi-Family	\$ 103,367	\$ 107,608	\$ 119,244	\$ 421,572	\$ 843,143	\$ 210,975	\$ 962,388	\$ (751,413)	0.2
Contractor Channel, Kits, BNP - Single Family	\$ 2,329,030	\$ 4,333,353	\$ 631,886	\$ 2,611,695	\$ 2,611,695	\$ 6,662,384	\$ 3,243,581	\$ 3,418,803	2.1
Contractor Channel, Kits - Multi Family	\$ 4,289,665	\$ 5,691,650	\$ 905,502	\$ 3,201,280	\$ 3,330,107	\$ 9,981,315	\$ 4,235,609	\$ 5,745,707	2.4
Public Housing Energy Savings	\$ 76,332	\$ 129,882	\$ 193,150	\$ 191,769	\$ 191,769	\$ 206,213	\$ 384,919	\$ (178,706)	0.5
Affordable Housing New Construction	\$ 188,168	\$ 193,680	\$ 54,998	\$ 194,438	\$ 194,438	\$ 381,848	\$ 249,435	\$ 132,413	1.5
<b>Income Qualified Total</b>	<b>\$ 8,068,257</b>	<b>\$ 11,602,247</b>	<b>\$ 2,529,985</b>	<b>\$ 8,831,080</b>	<b>\$ 11,128,170</b>	<b>\$ 19,670,504</b>	<b>\$ 13,658,155</b>	<b>\$ 6,012,349</b>	<b>1.4</b>
Building Operator Certification	\$ 17,941	\$ 18,078	\$ 10,136	\$ 3,000	\$ 10,984	\$ 36,019	\$ 21,120	\$ 14,899	1.7
Market Transformation	\$ -	\$ -	\$ 2,605,664	\$ -	\$ -	\$ -	\$ 2,605,664	\$ (2,605,664)	0.0
<b>Market Transformation Total</b>	<b>\$ 17,941</b>	<b>\$ 18,078</b>	<b>\$ 2,615,800</b>	<b>\$ 3,000</b>	<b>\$ 10,984</b>	<b>\$ 36,019</b>	<b>\$ 2,626,784</b>	<b>\$ (2,590,765)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,526,710				\$ 5,526,710	\$ (5,526,710)	
<b>Portfolio Total</b>	<b>\$ 63,576,207</b>	<b>\$ 89,568,608</b>	<b>\$ 21,685,679</b>	<b>\$ 23,017,163</b>	<b>\$ 52,800,266</b>	<b>\$ 153,144,815</b>	<b>\$ 74,485,945</b>	<b>\$ 78,658,870</b>	<b>2.1</b>
<b>Portfolio Total, without Income Qualified (IQ)</b>	<b>\$ 55,507,949</b>	<b>\$ 77,966,361</b>	<b>\$ 19,155,694</b>	<b>\$ 14,186,083</b>	<b>\$ 41,672,096</b>	<b>\$ 133,474,311</b>	<b>\$ 60,827,790</b>	<b>\$ 72,646,521</b>	<b>2.2</b>

Source: Guidehouse Analysis

**Table 3-13. Summary of PACT Benefits and Costs for 2020 Plan 4 Avoided Costs**

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2020 Programs (WACC Discount Rate, Plan 4 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Test Net Benefits	PACT Test
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 11,109,587		\$ 2,220,996	\$ 3,637,794	\$ 16,316,030	\$ 11,109,587	\$ 5,858,789	\$ 5,250,798	1.9
Home Energy Savings	\$ 1,411,905		\$ 1,374,851	\$ 982,221	\$ 1,720,983	\$ 1,411,905	\$ 2,357,071	\$ (945,167)	0.6
Multi-Family	\$ 2,744,775		\$ 1,246,100	\$ 926,843	\$ 985,933	\$ 2,744,775	\$ 2,172,943	\$ 571,832	1.3
Energy Saving Kits	\$ 5,489,748		\$ 660,120	\$ 1,286,722	\$ 1,286,722	\$ 5,489,748	\$ 1,946,842	\$ 3,542,906	2.8
Elementary Energy Education	\$ 369,780		\$ 208,366	\$ 143,610	\$ 216,451	\$ 369,780	\$ 351,976	\$ 17,804	1.1
Residential New Construction	\$ 856,677		\$ 347,250	\$ 329,450	\$ 1,643,308	\$ 856,677	\$ 676,700	\$ 179,978	1.3
Behavioral Energy Savings	\$ 1,759,625		\$ 349,690	\$ 957,360	\$ 957,360	\$ 1,759,625	\$ 1,307,050	\$ 452,575	1.3
<b>Residential Total</b>	<b>\$ 23,742,097</b>	<b>\$ -</b>	<b>\$ 6,407,372</b>	<b>\$ 8,263,999</b>	<b>\$ 23,126,787</b>	<b>\$ 23,742,097</b>	<b>\$ 14,671,371</b>	<b>\$ 9,070,726</b>	<b>1.6</b>
BEER	\$ 3,698,897		\$ 1,675,297	\$ 1,037,758	\$ 1,340,668	\$ 3,698,897	\$ 2,713,055	\$ 985,842	1.4
Business and Public Sector Custom	\$ 10,165,235		\$ 1,737,336	\$ 1,457,955	\$ 20,033,117	\$ 10,165,235	\$ 3,195,291	\$ 6,969,945	3.2
Strategic Energy Management	\$ 3,520,464		\$ 261,465	\$ 716,451	\$ 916,725	\$ 3,520,464	\$ 977,916	\$ 2,542,548	3.6
Retro-Commissioning (Joint and Stand Alone)	\$ 753,042		\$ 310,045	\$ 311,312	\$ 457,045	\$ 753,042	\$ 621,357	\$ 131,685	1.2
Coordinated Non-Residential New Construction	\$ 1,225,063		\$ 224,289	\$ 428,126	\$ 1,665,396	\$ 1,225,063	\$ 652,415	\$ 572,648	1.9
Small Business	\$ 1,576,885		\$ 894,901	\$ 518,625	\$ 815,324	\$ 1,576,885	\$ 1,413,526	\$ 163,359	1.1
Commercial Food Service (CFS) Midstream Pilot	\$ 145,361		\$ 137,991	\$ 60,300	\$ 71,748	\$ 145,361	\$ 198,291	\$ (52,930)	0.7
<b>Business and Public Sector Total</b>	<b>\$ 21,084,947</b>	<b>\$ -</b>	<b>\$ 5,241,323</b>	<b>\$ 4,530,527</b>	<b>\$ 25,300,022</b>	<b>\$ 21,084,947</b>	<b>\$ 9,771,850</b>	<b>\$ 11,313,097</b>	<b>2.2</b>
IHWAP - Single-Family	\$ 780,372		\$ 1,261,611	\$ 2,027,897	\$ 3,886,029	\$ 780,372	\$ 3,289,508	\$ (2,509,137)	0.2
IHWAP - Multi-Family	\$ 70,031		\$ 227,207	\$ 386,764	\$ 773,528	\$ 70,031	\$ 613,970	\$ (543,940)	0.1
Contractor Channel Single-Family	\$ 706,199		\$ 1,032,151	\$ 1,756,985	\$ 1,756,985	\$ 706,199	\$ 2,789,136	\$ (2,082,937)	0.3
Energy Savings Kit - Liheap Single Family	\$ 507,076		\$ 40,961	\$ 71,099	\$ 71,099	\$ 507,076	\$ 112,060	\$ 395,016	4.5
Contractor Channel Multi-Family	\$ 1,870,303		\$ 1,845,018	\$ 3,140,693	\$ 3,140,693	\$ 1,870,303	\$ 4,985,710	\$ (3,115,407)	0.4
Energy Savings Kit - Liheap Multi-Family	\$ 184,848		\$ 14,493	\$ 24,672	\$ 24,672	\$ 184,848	\$ 39,165	\$ 145,683	4.7
Public Housing Energy Savings	\$ 75,600		\$ 133,928	\$ 227,980	\$ 227,980	\$ 75,600	\$ 361,908	\$ (286,307)	0.2
Affordable Housing New Construction	\$ 233,317		\$ 113,924	\$ 193,929	\$ 193,929	\$ 233,317	\$ 307,853	\$ (74,536)	0.8
<b>Income Qualified Total</b>	<b>\$ 4,427,747</b>	<b>\$ -</b>	<b>\$ 4,669,293</b>	<b>\$ 7,830,018</b>	<b>\$ 10,074,913</b>	<b>\$ 4,427,747</b>	<b>\$ 12,499,311</b>	<b>\$ (8,071,564)</b>	<b>0.4</b>
Market Transformation	\$ -		\$ 1,034,201	\$ -	\$ -	\$ -	\$ 1,034,201	\$ (1,034,201)	0.0
<b>Market Transformation Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,034,201</b>	<b>\$ (1,034,201)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,343,845				\$ 5,343,845	\$ (5,343,845)	
<b>Portfolio Total</b>	<b>\$ 49,254,792</b>	<b>\$ -</b>	<b>\$ 22,696,034</b>	<b>\$ 20,624,544</b>	<b>\$ 58,501,722</b>	<b>\$ 49,254,792</b>	<b>\$ 43,320,578</b>	<b>\$ 5,934,213</b>	<b>1.1</b>

Source: Guidehouse Analysis

**Table 3-14. Summary of PACT Benefits and Costs for 2021 Plan 4 Avoided Costs**

Program Administrator Cost Test (PACT) Results for Nicor Gas, 2021 Programs (WACC Discount Rate, Plan 4 Avoided Costs)									
Program	Benefits		Costs			Program Administrator Cost Test (PACT)			
	Avoided Gas Savings	Other Benefits	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	PACT Benefits	PACT Costs	PACT Test Net Benefits	PACT Test
(a)	(b)	(c)	(d)	(e)	(f)	(g) = (b)	(h) = (d+e)	(i) = (g-h)	(k) = (g/h)
Home Energy Efficiency Rebate	\$ 12,881,119		\$ 2,087,865	\$ 3,885,524	\$ 18,682,890	\$ 12,881,119	\$ 5,973,389	\$ 6,907,730	<b>2.2</b>
Home Energy Savings	\$ 1,816,419		\$ 1,406,458	\$ 1,511,190	\$ 2,286,054	\$ 1,816,419	\$ 2,917,648	\$ (1,101,229)	<b>0.6</b>
Multi-Family	\$ 1,093,149		\$ 1,237,015	\$ 590,306	\$ 625,494	\$ 1,093,149	\$ 1,827,321	\$ (734,172)	<b>0.6</b>
Energy Saving Kits	\$ 4,413,850		\$ 566,740	\$ 718,305	\$ 718,305	\$ 4,413,850	\$ 1,285,045	\$ 3,128,805	<b>3.4</b>
Elementary Energy Education	\$ 518,671		\$ 201,722	\$ 398,443	\$ 398,443	\$ 518,671	\$ 600,165	\$ (81,495)	<b>0.9</b>
Residential New Construction	\$ 1,798,185		\$ 287,302	\$ 719,700	\$ 3,774,580	\$ 1,798,185	\$ 1,007,002	\$ 791,183	<b>1.8</b>
Behavioral Energy Savings	\$ 1,722,943		\$ 257,979	\$ 904,695	\$ 994,458	\$ 1,722,943	\$ 1,162,674	\$ 560,269	<b>1.5</b>
<b>Residential Total</b>	<b>\$ 24,244,336</b>	<b>\$ -</b>	<b>\$ 6,045,082</b>	<b>\$ 8,728,163</b>	<b>\$ 27,480,224</b>	<b>\$ 24,244,336</b>	<b>\$ 14,773,245</b>	<b>\$ 9,471,091</b>	<b>1.6</b>
BEER	\$ 5,164,727		\$ 1,805,456	\$ 1,879,071	\$ 1,879,071	\$ 5,164,727	\$ 3,684,527	\$ 1,480,200	<b>1.4</b>
Business and Public Sector Custom	\$ 2,960,375		\$ 1,506,869	\$ 1,861,779	\$ 9,239,009	\$ 2,960,375	\$ 3,368,648	\$ (408,273)	<b>0.9</b>
Strategic Energy Management	\$ 2,187,368		\$ 180,320	\$ 654,749	\$ 654,749	\$ 2,187,368	\$ 835,069	\$ 1,352,299	<b>2.6</b>
Retro-Commissioning (Joint and Stand Alone)	\$ 644,566		\$ 281,011	\$ 352,797	\$ 394,603	\$ 644,566	\$ 633,807	\$ 10,759	<b>1.0</b>
Coordinated Non-Residential New Construction	\$ 805,849		\$ 193,150	\$ 282,967	\$ 1,150,153	\$ 805,849	\$ 476,117	\$ 329,732	<b>1.7</b>
Small Business	\$ 592,450		\$ 910,409	\$ 335,006	\$ 1,409,086	\$ 592,450	\$ 1,245,415	\$ (652,965)	<b>0.5</b>
Commercial Food Service (CFS) Midstream Pilot	\$ 120,614		\$ 90,887	\$ 88,551	\$ 88,551	\$ 120,614	\$ 179,438	\$ (58,824)	<b>0.7</b>
<b>Business and Public Sector Total</b>	<b>\$ 12,475,949</b>	<b>\$ -</b>	<b>\$ 4,968,102</b>	<b>\$ 5,454,920</b>	<b>\$ 14,815,221</b>	<b>\$ 12,475,949</b>	<b>\$ 10,423,022</b>	<b>\$ 2,052,928</b>	<b>1.2</b>
IHWAP - Single-Family	\$ 655,466		\$ 625,205	\$ 2,210,327	\$ 4,105,866	\$ 655,466	\$ 2,835,532	\$ (2,180,066)	<b>0.2</b>
IHWAP - Multi-Family	\$ 57,835		\$ 119,244	\$ 421,572	\$ 843,143	\$ 57,835	\$ 540,816	\$ (482,981)	<b>0.1</b>
Contractor Channel, Kits, BNP - Single Family	\$ 1,430,287		\$ 631,886	\$ 2,611,695	\$ 2,611,695	\$ 1,430,287	\$ 3,243,581	\$ (1,813,294)	<b>0.4</b>
Contractor Channel, Kits - Multi Family	\$ 2,697,606		\$ 905,502	\$ 3,201,280	\$ 3,330,107	\$ 2,697,606	\$ 4,106,782	\$ (1,409,175)	<b>0.7</b>
Public Housing Energy Savings	\$ 50,245		\$ 193,150	\$ 191,769	\$ 191,769	\$ 50,245	\$ 384,919	\$ (334,674)	<b>0.1</b>
Affordable Housing New Construction	\$ 113,334		\$ 54,998	\$ 194,438	\$ 194,438	\$ 113,334	\$ 249,435	\$ (136,101)	<b>0.5</b>
<b>Income Qualified Total</b>	<b>\$ 5,004,773</b>	<b>\$ -</b>	<b>\$ 2,529,985</b>	<b>\$ 8,831,080</b>	<b>\$ 11,277,017</b>	<b>\$ 5,004,773</b>	<b>\$ 11,361,065</b>	<b>\$ (6,356,292)</b>	<b>0.4</b>
Building Operator Certification	\$ 12,604		\$ 10,136	\$ 3,000	\$ 10,984	\$ 12,604	\$ 13,136	\$ (532)	<b>1.0</b>
Market Transformation	\$ -		\$ 2,605,664	\$ -	\$ -	\$ -	\$ 2,605,664	\$ (2,605,664)	<b>0.0</b>
<b>Market Transformation Total</b>	<b>\$ 12,604</b>	<b>\$ -</b>	<b>\$ 2,615,800</b>	<b>\$ 3,000</b>	<b>\$ 10,984</b>	<b>\$ 12,604</b>	<b>\$ 2,618,800</b>	<b>\$ (2,606,196)</b>	<b>0.0</b>
<b>Other Portfolio Costs</b>			\$ 5,526,710				\$ 5,526,710	\$ (5,526,710)	
<b>Portfolio Total</b>	<b>\$ 41,737,662</b>	<b>\$ -</b>	<b>\$ 21,685,679</b>	<b>\$ 23,017,163</b>	<b>\$ 53,583,446</b>	<b>\$ 41,737,662</b>	<b>\$ 44,702,842</b>	<b>\$ (2,965,180)</b>	<b>0.9</b>

Source: Guidehouse Analysis

### 3.2 Program Specific Verified Savings and Costs Summary

A summary of the components of the verified savings and costs for each program are shown in Table 3-15 through Table 3-19 for each program year and the total over four years. The tables include the component values for each program, as well as portfolio level totals for each component.

**Table 3-15. Summary of Verified Savings and Program Costs for 2018-2021**

Nicor Gas 2018 to 2021 Four-Year Combined Verified Savings Summary																		
	Ex Ante Gross	Realization Rate	Verified Gross		Deemed / Used	Verified Net				Program Costs		Participation		Verified Gross Weighted Average Measure Life	GHG Savings		Water Savings	
	Annual Savings	Annual Savings (Verified Gross / Ex Ante Gross)	Annual Savings	Lifetime Savings	Net-to-Gross Ratio	Annual Savings	Lifetime Savings	Cost per Annual Savings	Cost per Lifetime Savings	Non-Incentives	Incentives	# Units	Units Definition	Years	Annual Verified Net CO2 Savings	Lifetime Verified Net CO2 Savings	Annual Verified Net Water Savings	Lifetime Verified Net Water Savings
	Therms (b)	% (c=d/b)	Therms (d)	Therms (e)	% (f=g/d)	Therms (g)	Therms (h)	\$/Therms (i=(k+l)/g)	\$/Therms (j=(k+l)/h)	\$ (k)	\$ (l)	(m)	(n)	(o=e/d)	metric tons CO2	metric tons CO2	Gallons	Gallons
<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>	<b>(e)</b>	<b>(f)</b>	<b>(g)</b>	<b>(h)</b>	<b>(i)</b>	<b>(j)</b>	<b>(k)</b>	<b>(l)</b>	<b>(m)</b>	<b>(n)</b>	<b>(o)</b>				
Home Energy Efficiency Rebate	16,351,429	96%	15,719,099	264,003,627	81%	12,779,335	208,455,514	\$ 1.69	\$ 0.10	\$ 8,621,832	\$ 12,978,728	120,035	Projects	16.8	67,615	1,102,938	-	-
Home Energy Savings	2,476,568	102%	2,515,326	32,432,611	97%	2,429,589	31,582,685	\$ 4.72	\$ 0.36	\$ 6,275,177	\$ 5,186,650	96,301	Projects	12.9	12,855	167,104	83,840,095	744,171,923
Multi-Family	2,210,414	103%	2,268,587	27,153,722	94%	2,133,232	25,499,515	\$ 3.08	\$ 0.26	\$ 4,069,396	\$ 2,510,029	36,416	Projects	12.0	11,287	134,918	37,391,393	353,736,968
Energy Saving Kits	4,683,938	100%	4,683,943	79,592,336	87%	4,081,197	68,258,310	\$ 1.20	\$ 0.07	\$ 2,110,539	\$ 2,794,094	110,896	Projects	17.0	21,594	361,155	243,600,928	2,215,187,516
Elementary Energy Education	821,189	103%	842,157	7,653,938	100%	842,157	7,653,938	\$ 2.61	\$ 0.29	\$ 987,301	\$ 1,211,934	19,782	Projects	9.1	4,456	40,497	168,734,378	1,540,405,897
Residential New Construction	1,300,885	110%	1,429,354	25,341,334	76%	1,086,565	19,098,759	\$ 2.85	\$ 0.16	\$ 1,448,275	\$ 1,650,215	13,702	Projects	17.7	5,749	101,052	-	-
Behavioral Energy Savings	2,884,663	86%	2,481,406	12,320,190	100%	2,481,406	12,320,190	\$ 1.47	\$ 0.30	\$ 1,793,285	\$ 1,862,055	728,914	Projects	5.0	13,129	65,186	-	-
<b>Residential Total</b>	<b>30,729,086</b>	<b>97%</b>	<b>29,939,872</b>	<b>448,497,758</b>	<b>86%</b>	<b>25,833,482</b>	<b>372,868,911</b>	<b>\$ 2.07</b>	<b>\$ 0.14</b>	<b>\$ 25,305,805</b>	<b>\$ 28,193,704</b>	<b>1,126,046</b>	<b>Projects</b>	<b>15.0</b>	<b>136,685</b>	<b>1,972,849</b>	<b>533,566,794</b>	<b>4,853,502,304</b>
BEER	14,440,168	103%	14,866,137	106,144,785	75%	11,145,448	80,135,066	\$ 1.04	\$ 0.14	\$ 6,713,970	\$ 4,860,871	3,517	Projects	7.1	58,971	423,995	69,230,514	515,560,063
Business and Public Sector Custom	21,189,934	101%	21,457,141	434,827,059	79%	16,951,234	339,067,907	\$ 0.86	\$ 0.04	\$ 7,020,534	\$ 7,474,030	373	Projects	20.3	89,689	1,794,008	-	-
Strategic Energy Management	6,960,367	98%	6,910,979	40,621,001	100%	6,910,979	40,621,001	\$ 0.58	\$ 0.10	\$ 1,021,008	\$ 3,003,425	81	Projects	5.9	36,598	214,928	-	-
Retro-Commissioning (Joint and Stand Alone)	1,473,040	91%	1,335,288	11,021,851	96%	1,283,038	10,569,541	\$ 1.62	\$ 0.20	\$ 1,056,458	\$ 1,017,501	144	Projects	8.3	6,789	55,923	-	-
Coordinated Non-Residential New Construction	1,420,340	91%	1,291,307	26,600,924	62%	806,973	16,623,847	\$ 2.45	\$ 0.12	\$ 952,969	\$ 1,026,322	173	Projects	20.6	4,270	87,956	-	-
Small Business	3,900,377	99%	3,878,104	26,946,562	83%	3,212,323	22,508,885	\$ 1.88	\$ 0.27	\$ 3,804,409	\$ 2,220,612	3,307	Projects	6.9	16,996	119,095	16,515,167	123,855,047
Commercial Food Service (CFS) Midstream Pilot	107,225	97%	103,990	1,400,862	83%	86,129	1,159,545	\$ 4.39	\$ 0.33	\$ 228,878	\$ 148,851	136	Projects	13.5	456	6,135	52,579	630,942
<b>Business and Public Sector Total</b>	<b>49,491,511</b>	<b>101%</b>	<b>49,842,946</b>	<b>647,563,044</b>	<b>81%</b>	<b>40,396,124</b>	<b>510,685,591</b>	<b>\$ 1.00</b>	<b>\$ 0.08</b>	<b>\$ 20,798,226</b>	<b>\$ 19,751,612</b>	<b>7,731</b>	<b>Projects</b>	<b>13.0</b>	<b>213,736</b>	<b>2,702,037</b>	<b>85,798,259</b>	<b>640,046,053</b>
IHWAP_Contractor Channel, Kits, BNP - Single Family	1,523,002	103%	1,573,567	27,189,564	100%	1,573,567	27,189,564	\$ 12.56	\$ 0.73	\$ 5,790,322	\$ 13,969,206	34,771	Projects	17.3	8,326	143,860	41,112,795	384,777,570
IHWAP_Contractor Channel, Kits - Multi Family	1,600,886	99%	1,587,613	26,243,939	100%	1,587,613	26,243,937	\$ 8.21	\$ 0.50	\$ 3,996,232	\$ 9,038,079	13,837	Projects	16.5	8,400	138,857	24,581,724	236,226,337
Public Housing Energy Savings	187,794	103%	194,270	3,497,888	100%	194,270	3,503,058	\$ 19.97	\$ 1.11	\$ 1,447,201	\$ 2,433,295	511	Projects	18.0	1,028	18,535	1,484,213	14,254,469
Affordable Housing New Construction	136,652	110%	150,303	2,657,354	100%	150,303	2,657,354	\$ 8.13	\$ 0.46	\$ 561,038	\$ 661,429	20	Projects	17.7	795	14,060	-	-
<b>Income Qualified Total</b>	<b>3,448,334</b>	<b>102%</b>	<b>3,505,753</b>	<b>59,588,746</b>	<b>100%</b>	<b>3,505,753</b>	<b>59,593,914</b>	<b>\$ 10.81</b>	<b>\$ 0.64</b>	<b>\$ 11,794,794</b>	<b>\$ 26,102,009</b>	<b>49,139</b>	<b>Projects</b>	<b>17.0</b>	<b>18,549</b>	<b>315,311</b>	<b>67,178,733</b>	<b>635,258,376</b>
Building Operator Certification	710	625%	4,434	57,642	100%	4,434	57,642	\$ 2.96	\$ 0.23	\$ 10,136	\$ 3,000	6	Projects	13.0	23	305	-	-
Market Transformation	-	-	-	-	-	-	-	-	-	\$ 5,115,952	\$ -	70	Projects	-	-	-	-	-
<b>Market Transformation Total</b>	<b>710</b>	<b>625%</b>	<b>4,434</b>	<b>57,642</b>	<b>100%</b>	<b>4,434</b>	<b>57,642</b>	<b>\$ 1,156.76</b>	<b>\$ 88.98</b>	<b>\$ 5,126,088</b>	<b>\$ 3,000</b>	<b>76</b>	<b>Projects</b>	<b>13.0</b>	<b>23</b>	<b>305</b>	<b>-</b>	<b>-</b>
<b>Other Portfolio Costs</b>																		
										\$ 20,529,255								
<b>Portfolio Total</b>	<b>83,669,641</b>	<b>100%</b>	<b>83,293,005</b>	<b>1,155,707,190</b>	<b>84%</b>	<b>69,739,793</b>	<b>943,206,059</b>	<b>\$ 2.26</b>	<b>\$ 0.17</b>	<b>\$ 83,554,167</b>	<b>\$ 74,050,325</b>	<b>1,182,992</b>	<b>Projects</b>	<b>13.9</b>	<b>368,993</b>	<b>4,990,503</b>	<b>686,543,786</b>	<b>6,128,806,733</b>

Source: Guidehouse Analysis







# Nicor Gas Total Resource Cost Test Results and Impact Summary Evaluation Report

**Table 3-18. Summary of Verified Savings and Program Costs for 2020**

Nicor Gas 2020 Verified Savings Summary																					
	Ex Ante Gross	Realization Rate	Verified Gross			Deemed / Used	Verified Net				Program Costs		Participation		Verified Gross Weighted Average Measure Life Years	GHG Savings		Water Savings			
			Annual Savings	Annual Savings (Verified Gross / Ex Ante Gross)	Annual Savings		Lifetime Savings	Net-to-Gross Ratio	Annual Savings	Lifetime Savings	Cost per Annual Savings	Cost per Lifetime Savings	Non-Incentives	Incentives		# Units	Units Definition	Annual Verified Net CO2 Savings	Lifetime Verified Net CO2 Savings	Annual Verified Net Water Savings	Lifetime Verified Net Water Savings
(a)	(b)	(c-d)(b)	(d)	(e)	(f-g)(d)	(g)	(h)	(i-(k+)(j))	(j-(k+)(i))	(k)	(l)	(m)	(n)	(o-e)(d)							
Home Energy Efficiency Rebate	3,784,273	99%	3,750,235	63,860,353	80%	2,989,474	49,161,805	\$ 1.96	\$ 0.12	\$ 2,220,998	\$ 3,637,794	28,615	Projects	17.0	15,817	260,115	-	-			
Home Energy Savings	499,188	96%	477,280	6,291,875	96%	456,969	6,158,885	\$ 5.16	\$ 0.38	\$ 1,374,851	\$ 982,221	26,176	Projects	13.2	2,418	32,587	17,331,113	137,644,070			
Multi-Family	1,052,115	100%	1,052,440	12,212,123	93%	963,103	11,396,107	\$ 2.21	\$ 0.19	\$ 1,246,100	\$ 926,843	10,718	Projects	11.6	5,202	60,297	8,622,085	75,163,796			
Energy Saving Kits	1,628,706	100%	1,628,706	29,009,386	87%	1,411,154	24,798,296	\$ 1.38	\$ 0.08	\$ 660,120	\$ 1,286,722	34,640	Projects	17.8	7,466	131,208	64,808,068	584,055,158			
Elementary Energy Education	155,708	100%	155,708	1,411,123	100%	155,708	1,411,123	\$ 2.26	\$ 0.25	\$ 208,366	\$ 143,610	284	Projects	9.1	824	7,466	32,942,698	304,480,810			
Residential New Construction	243,248	100%	261,917	4,691,507	83%	217,737	3,843,439	\$ 3.11	\$ 0.18	\$ 347,250	\$ 329,450	3,340	Projects	17.9	1,152	20,336	-	-			
Behavioral Energy Savings	1,189,693	102%	1,214,089	6,070,445	100%	1,214,089	6,070,445	\$ 1.08	\$ 0.22	\$ 349,690	\$ 957,360	154,999	Projects	5.0	6,424	32,119	-	-			
<b>Residential Total</b>	<b>8,552,931</b>	<b>100%</b>	<b>8,540,375</b>	<b>123,546,812</b>	<b>87%</b>	<b>7,428,234</b>	<b>102,840,100</b>	<b>\$ 1.98</b>	<b>\$ 0.14</b>	<b>\$ 6,407,372</b>	<b>\$ 8,263,999</b>	<b>258,772</b>	<b>Projects</b>	<b>14.5</b>	<b>39,303</b>	<b>544,127</b>	<b>123,703,964</b>	<b>1,101,343,833</b>			
BEER	2,046,332	100%	2,052,804	17,328,252	86%	1,765,412	14,902,311	\$ 1.54	\$ 0.18	\$ 1,675,297	\$ 1,037,758	721	Projects	8.4	9,341	78,848	20,748,900	148,915,123			
Business and Public Sector Custom	3,169,507	101%	3,190,808	56,540,245	79%	2,520,831	44,668,649	\$ 1.27	\$ 0.07	\$ 1,737,336	\$ 1,457,955	136	Projects	17.7	13,338	236,342	-	-			
Strategic Energy Management	1,833,490	99%	1,816,530	12,715,710	100%	1,816,530	12,715,710	\$ 0.54	\$ 0.08	\$ 201,465	\$ 716,451	16	Projects	7.0	9,611	67,279	-	-			
Ratio-Commissioning (Unit and Stand Alone)	340,487	98%	334,040	2,830,545	94%	313,998	2,640,676	\$ 1.98	\$ 0.24	\$ 310,045	\$ 311,312	49	Projects	8.4	1,661	13,973	-	-			
Coordinated Non-Residential New Construction	532,718	89%	473,847	9,757,128	58%	274,715	5,659,129	\$ 2.37	\$ 0.12	\$ 224,289	\$ 428,126	74	Projects	20.6	1,454	29,942	-	-			
Small Business	1,127,382	100%	1,127,384	6,790,768	83%	936,945	5,654,693	\$ 1.51	\$ 0.25	\$ 894,901	\$ 518,625	692	Projects	6.0	4,957	29,919	4,914,743	32,394,943			
Commercial Food Service (CFS) Midstream Pilot	54,110	102%	54,975	752,463	80%	43,978	601,949	\$ 4.51	\$ 0.33	\$ 137,991	\$ 60,300	44	Projects	13.7	233	3,185	52,579	630,942			
<b>Business and Public Sector Total</b>	<b>9,103,986</b>	<b>99%</b>	<b>9,050,168</b>	<b>106,694,111</b>	<b>85%</b>	<b>7,672,409</b>	<b>86,843,416</b>	<b>\$ 1.27</b>	<b>\$ 0.11</b>	<b>\$ 5,241,323</b>	<b>\$ 4,530,527</b>	<b>1,732</b>	<b>Projects</b>	<b>11.8</b>	<b>40,595</b>	<b>459,489</b>	<b>25,716,221</b>	<b>181,941,008</b>			
IHWAP - Single-Family	192,763	100%	192,755	3,353,524	100%	192,755	3,353,524	\$ 17.07	\$ 0.93	\$ 1,261,611	\$ 2,027,897	2,902	Projects	18.4	1,020	18,802	518,179	5,181,788			
IHWAP - Multi-Family	15,604	101%	15,774	326,245	100%	15,774	326,245	\$ 38.92	\$ 1.88	\$ 227,207	\$ 386,764	7	Projects	20.7	83	1,726	-	-			
Contractor Channel Single-Family	145,778	121%	175,762	3,206,268	100%	175,762	3,206,268	\$ 15.87	\$ 0.87	\$ 1,032,151	\$ 1,756,985	4,154	Projects	18.2	930	16,964	1,853,810	18,538,105			
Energy Savings Kit - Liheap Single Family	132,679	100%	132,671	2,283,318	100%	132,671	2,283,318	\$ 0.84	\$ 0.05	\$ 40,961	\$ 71,099	3,024	Projects	17.2	702	12,081	6,738,313	59,278,989			
Contractor Channel Multi-Family	449,182	103%	461,056	8,568,322	100%	461,056	8,568,322	\$ 10.81	\$ 0.58	\$ 1,845,018	\$ 3,140,693	879	Projects	18.6	2,439	45,335	5,928,394	59,283,939			
Energy Savings Kit - Liheap Multi-Family	49,193	100%	49,193	827,588	100%	49,193	827,588	\$ 0.80	\$ 0.05	\$ 14,493	\$ 24,672	1,054	Projects	16.8	260	4,379	2,495,963	22,575,310			
Public Housing Energy Savings	18,741	101%	18,698	345,960	100%	18,698	345,960	\$ 19.15	\$ 1.05	\$ 133,928	\$ 227,960	13	Projects	10.3	100	1,831	-	-			
Affordable Housing New Construction	59,951	100%	59,807	1,026,811	100%	59,807	1,026,811	\$ 5.15	\$ 0.30	\$ 113,924	\$ 193,929	6	Projects	17.2	316	5,433	-	-			
<b>Income Qualified Total</b>	<b>1,063,891</b>	<b>104%</b>	<b>1,105,917</b>	<b>20,138,056</b>	<b>100%</b>	<b>1,105,917</b>	<b>20,138,056</b>	<b>\$ 11.30</b>	<b>\$ 0.62</b>	<b>\$ 4,669,293</b>	<b>\$ 7,830,018</b>	<b>12,039</b>	<b>Projects</b>	<b>18.2</b>	<b>5,851</b>	<b>106,550</b>	<b>17,534,660</b>	<b>164,858,131</b>			
Market Transformation	-	-	-	-	-	-	-	-	-	\$ 1,034,201	\$ -	3	Projects	-	-	-	-	-			
<b>Market Transformation Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 1,034,201</b>	<b>\$ -</b>	<b>3</b>	<b>Projects</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>			
Other Portfolio Costs	-	-	-	-	-	-	-	-	-	\$ 5,343,845	\$ -	-	-	-	-	-	-	-			
<b>Portfolio Total</b>	<b>18,720,808</b>	<b>100%</b>	<b>18,696,459</b>	<b>250,378,979</b>	<b>87%</b>	<b>16,206,560</b>	<b>209,821,572</b>	<b>\$ 2.67</b>	<b>\$ 0.21</b>	<b>\$ 22,696,034</b>	<b>\$ 20,624,544</b>	<b>272,546</b>	<b>Projects</b>	<b>13.4</b>	<b>85,749</b>	<b>1,110,166</b>	<b>166,954,845</b>	<b>1,448,142,972</b>			

Source: Guidehouse Analysis



# Nicor Gas Total Resource Cost Test Results and Impact Summary Evaluation Report

**Table 3-19. Summary of Verified Savings and Program Costs for 2021**

Nicor Gas 2021 Verified Savings Summary																				
(a)	Ex Ante Gross		Realization Rate		Verified Gross		Deemed / Used	Verified Net				Program Costs		Participation		Verified Gross Weighted Average Measure Life	GHG Savings		Water Savings	
	Annual Savings	Annual Savings (Verified Gross / Ex Ante Gross)	Annual Savings	Lifetime Savings	Net to Gross Ratio	Annual Savings	Lifetime Savings	Cost per Annual Savings	Cost per Lifetime Savings	Non-Incentives	Incentives	# Units	Units Definition	Years	Annual Verified Net CO2 Savings metric tons CO2	Lifetime Verified Net CO2 Savings metric tons CO2	Annual Verified Net Water Savings Gallons	Lifetime Verified Net Water Savings Gallons		
																			(b)	(c)
Home Energy Efficiency Rebate	4,754,168	100%	4,754,168	73,637,750	97%	4,128,852	63,300,293	\$ 1.45	\$ 0.09	\$ 2,067,865	\$ 3,865,524	40,159	Projects	15.5	21,846	335,345	-	-		
Home Energy Savings	675,752	106%	713,566	9,865,267	92%	653,369	9,062,503	\$ 4.47	\$ 0.32	\$ 1,406,458	\$ 1,511,190	37,030	Projects	13.8	3,457	48,056	22,232,787	167,560,727		
Multi-Family	418,245	115%	482,646	5,545,239	94%	453,035	5,195,491	\$ 4.03	\$ 0.35	\$ 1,237,015	\$ 590,308	10,846	Projects	11.5	2,397	27,489	7,925,612	71,750,564		
Energy Saving Kits	1,491,552	100%	1,491,552	26,062,110	87%	1,297,908	22,789,190	\$ 0.99	\$ 0.06	\$ 566,740	\$ 718,305	33,674	Projects	17.9	6,867	120,676	58,897,737	519,001,511		
Elementary Energy Education	233,106	100%	233,106	2,167,997	100%	233,106	2,167,997	\$ 2.57	\$ 0.27	\$ 201,222	\$ 386,443	649	Projects	9.4	1,233	11,577	45,223,215	417,966,442		
Residential New Construction	618,135	104%	645,334	11,291,973	82%	529,461	9,146,707	\$ 1.90	\$ 0.11	\$ 267,202	\$ 719,700	8,207	Projects	17.4	2,801	49,769	-	-		
Behavioral Energy Savings	1,673,260	74%	1,245,607	6,226,035	100%	1,245,607	6,226,035	\$ 0.93	\$ 0.19	\$ 257,979	\$ 904,696	572,834	Projects	5.0	6,591	32,963	-	-		
<b>Residential Total</b>	<b>9,864,221</b>	<b>97%</b>	<b>9,565,362</b>	<b>135,378,351</b>	<b>89%</b>	<b>8,541,539</b>	<b>118,010,206</b>	<b>\$ 1.73</b>	<b>\$ 0.13</b>	<b>\$ 6,045,082</b>	<b>\$ 8,728,163</b>	<b>703,359</b>	<b>Projects</b>	<b>14.2</b>	<b>45,192</b>	<b>624,392</b>	<b>134,269,350</b>	<b>1,176,293,243</b>		
BEER	2,927,568	115%	3,356,719	24,963,942	86%	2,949,540	21,826,626	\$ 1.25	\$ 0.17	\$ 1,805,456	\$ 1,879,071	1,343	Projects	7.4	15,606	115,485	16,963,617	141,815,423		
Business and Public Sector Custom	824,825	122%	1,005,561	20,108,517	79%	794,359	15,895,708	\$ 4.24	\$ 0.21	\$ 1,508,869	\$ 1,861,779	162	Projects	20.0	4,203	84,051	-	-		
Statistical Energy Management	1,180,570	100%	1,218,523	6,515,661	100%	1,218,523	6,515,661	\$ 0.69	\$ 0.10	\$ 180,320	\$ 654,746	31	Projects	7.0	6,437	45,056	-	-		
Rebate-Commissioner (Joint and Stated Alone)	366,109	81%	313,459	2,695,747	94%	294,632	2,534,007	\$ 2.15	\$ 0.25	\$ 281,011	\$ 352,797	38	Projects	8.6	1,559	13,407	-	-		
Coordinated Non-Residential New Construction	395,159	97%	384,929	7,929,537	94%	207,862	4,261,957	\$ 2.29	\$ 0.11	\$ 193,150	\$ 282,967	50	Projects	20.6	1,100	22,656	-	-		
Small Business	266,765	92%	244,772	3,217,336	86%	214,356	2,893,986	\$ 5.81	\$ 0.43	\$ 910,409	\$ 335,006	905	Projects	13.1	1,134	15,259	2,879,267	26,395,045		
Commercial Food Service (CFS) Midstream Pilot	53,115	92%	49,015	649,396	86%	42,151	557,596	\$ 4.26	\$ 0.32	\$ 90,887	\$ 89,551	92	Projects	13.2	223	2,950	-	-		
<b>Business and Public Sector Total</b>	<b>6,834,151</b>	<b>109%</b>	<b>6,570,576</b>	<b>68,069,140</b>	<b>87%</b>	<b>5,713,476</b>	<b>56,485,541</b>	<b>\$ 1.82</b>	<b>\$ 0.18</b>	<b>\$ 4,958,102</b>	<b>\$ 5,454,520</b>	<b>2,621</b>	<b>Projects</b>	<b>16.4</b>	<b>30,262</b>	<b>258,855</b>	<b>19,843,084</b>	<b>158,210,468</b>		
IHMVAP - Single Family	169,019	100%	169,016	3,422,423	100%	169,016	3,422,423	\$ 15.08	\$ 0.63	\$ 625,205	\$ 2,210,327	4,263	Projects	18.1	995	19,022	5,200,111	-		
IHMVAP - Multi-Family	37,871	36%	14,548	316,806	100%	14,548	316,806	\$ 37.17	\$ 1.71	\$ 119,244	\$ 421,572	14	Projects	21.8	77	1,676	-	-		
Contactor Channel, Kios, BNP - Single Family	420,487	100%	420,480	7,335,589	100%	420,480	7,335,589	\$ 7.71	\$ 0.44	\$ 631,886	\$ 2,611,695	10,627	Projects	17.4	2,225	36,813	16,310,432	160,221,401		
Contactor Channel, Kios - Multi-Family	816,630	100%	816,621	13,595,691	100%	816,621	13,595,691	\$ 5.02	\$ 0.30	\$ 905,502	\$ 3,201,280	6,527	Projects	16.6	4,331	71,935	8,991,128	86,516,869		
Public Housing Energy Savings	19,059	102%	19,467	240,227	100%	19,467	240,227	\$ 19.75	\$ 1.60	\$ 193,150	\$ 191,769	119	Projects	12.3	103	1,271	8,32,865	7,940,170		
Affordable Housing New Construction	31,924	101%	32,141	585,340	100%	32,141	585,340	\$ 7.76	\$ 0.43	\$ 54,968	\$ 194,436	5	Projects	18.2	170	3,097	-	-		
<b>Income Qualified Total</b>	<b>1,514,191</b>	<b>95%</b>	<b>1,433,234</b>	<b>25,476,078</b>	<b>100%</b>	<b>1,433,234</b>	<b>25,476,078</b>	<b>\$ 7.61</b>	<b>\$ 0.45</b>	<b>\$ 2,529,385</b>	<b>\$ 8,831,080</b>	<b>21,555</b>	<b>Projects</b>	<b>17.1</b>	<b>7,901</b>	<b>134,794</b>	<b>26,654,436</b>	<b>259,870,581</b>		
Building Operator Certification	710	625%	4,434	57,642	100%	4,434	57,642	\$ 2.96	\$ 0.23	\$ 10,136	\$ 3,000	6	Projects	13.0	23	305	-	-		
Market Transformation	-	-	-	-	-	-	-	-	-	\$ 2,605,664	\$ -	-	Projects	-	-	-	-	-		
<b>Market Transformation Total</b>	<b>710</b>	<b>625%</b>	<b>4,434</b>	<b>57,642</b>	<b>100%</b>	<b>4,434</b>	<b>57,642</b>	<b>\$ 2.96</b>	<b>\$ 0.23</b>	<b>\$ 2,615,800</b>	<b>\$ 3,000</b>	<b>6</b>	<b>Projects</b>	<b>13.0</b>	<b>23</b>	<b>305</b>	<b>-</b>	<b>-</b>		
Other Portfolio Costs	-	-	-	-	-	-	-	-	-	\$ 5,26,719	\$ -	-	-	-	-	-	-	-		
<b>Portfolio Total</b>	<b>17,413,273</b>	<b>101%</b>	<b>17,634,688</b>	<b>229,011,250</b>	<b>89%</b>	<b>15,758,543</b>	<b>200,029,467</b>	<b>\$ 2.84</b>	<b>\$ 0.22</b>	<b>\$ 21,688,679</b>	<b>\$ 29,017,163</b>	<b>727,581</b>	<b>Projects</b>	<b>13.0</b>	<b>83,378</b>	<b>1,058,356</b>	<b>180,766,871</b>	<b>1,604,388,293</b>		

Source: Guidehouse Analysis

## 4. Joint Program Cost Effectiveness Summary

In 2018-2021, there were 10 programs and one pilot (referred to collectively as “programs”) that were jointly implemented by ComEd, Nicor Gas, Peoples Gas (PGL), and North Shore Gas (NSG). Guidehouse used ComEd’s and the gas utilities’ cost-effectiveness test information each program year to prepare annual memos on cost-effectiveness test results of jointly implemented programs.<sup>13</sup>

Table 4-1 lists the programs jointly implemented by ComEd and the gas utilities and indicates which utilities jointly implemented the programs in 2018-2021.

**Table 4-1. Summary of Jointly Implemented Programs for 2018-2021**

Sector	Program	ComEd	Nicor Gas	PGL	NSG
Income Eligible	<b>Single-Family Retrofits - CBA and IHWAP*</b>	x			
	Illinois Home Weatherization Assistance Program (IHWAP)**		x	x	x
	Chicago Bungalow Association (CBA)**			x	
Income Eligible	<b>Multi-Family Retrofits - IEMS and IHWAP*</b>	x			
	Multi-Family IHWAP**		x	x	x
	Income Eligible Multifamily Savings (IEMS)**			x	x
Income Eligible	Public Housing Energy Savings	x	x	x	x
Income Eligible	Affordable Housing New Construction	x	x	x	x
Business & Public Sector	Coordinated Non-Residential New Construction	x	x	x	x
Business & Public Sector	Coordinated Retro Commissioning	x	x	x	x
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	x	x	x	x
Residential	Single Family Assessment	x	x	x	x
Residential	Elementary Education Kits	x	x	x	x
Residential	Multi-Family Assessments	x	x	x	x

\* Programs reported by ComEd as combined.

\*\* Programs reported by gas utilities individually

A summary of the TRC results for each joint program for each program year is shown in Table 4-2 through Table 4-5. The tables include TRC values of each utility and program, and when aggregated across all utilities that were involved in its joint implementation.

<sup>13</sup> Annual memos are available on the SAG web site at: [https://www.ilsag.info/evaluation-documents/trc\\_reports/](https://www.ilsag.info/evaluation-documents/trc_reports/)

**Table 4-2. Summary of TRC Test Values by Program and Utility – CY2018**

Sector	Program	All	ComEd	Nicor Gas	PG	NSG
Income Eligible	Single Family Retrofits – Illinois Home Weatherization Assistance Program (IHWAP)	0.49	0.38	0.65	0.70	0.76
Income Eligible	Multi-Family Retrofits - IHWAP	0.45	0.24	0.67	0.71	0.60
Income Eligible	Single Family Retrofits - Chicago Bungalow Association (CBA)	0.70	0.68	NA	0.71	NA
Income Eligible	Multi-Family Savings– IEMS	0.76	0.75	NA	0.79	4.73
Income Eligible	Public Housing Energy Savings	0.79	1.22	0.48	0.47	1.48
Income Eligible	Affordable Housing New Construction (AHNC)	0.62	0.53	0.82	0.88	NA
Income Eligible	Coordinated Non-Residential New Construction	2.00	2.03	2.52	1.47	1.37
Business & Public Sector	Coordinated Retro Commissioning	1.99	2.01	2.45	1.49	1.48
Business & Public Sector	Strategic Energy Management (SEM)	1.70	1.68	3.42	NA	NA
Residential	Home Energy Savings/HEA/Home Energy Jumpstart	1.40	1.01	2.17	3.18	3.83
Residential	Elementary Education Kits (EEE)	8.43	8.21	5.55	14.88	15.90
Residential	Multi-Family Assessments	1.80	1.36	2.31	2.09	1.27
Residential	Residential New Construction	2.02	0.99	2.61	NA	NA

Source: Guidehouse analysis

**Table 4-3. Summary of TRC Test Values by Program and Utility – CY2019**

Sector	Program	All	ComEd	Nicor Gas	PG	NSG
Income Eligible	Single Family Retrofits – Illinois Home Weatherization Assistance Program (IHWAP)	0.54	0.30	0.88	0.58	0.50
Income Eligible	Multi-Family Retrofits - IHWAP	0.47	0.44	0.25	0.79	0.64
Income Eligible	Single Family Retrofits - Chicago Bungalow Association (CBA)	0.45	0.34	NA	0.70	NA
Income Eligible	Multi-Family Savings– IEMS	0.49	0.37	NA	1.08	0.36
Income Eligible	Public Housing Energy Savings	0.61	0.30	0.91	0.94	0.81
Income Eligible	Affordable Housing New Construction (AHNC)	0.57	0.50	1.48	2.01	NA
Income Eligible	Coordinated Non-Residential New Construction	1.23	1.05	3.36	1.72	1.83
Business & Public Sector	Coordinated Retro Commissioning	1.11	0.94	3.92	2.75	3.40
Residential	Home Energy Savings/HEA/Home Energy Jumpstart	0.99	0.68	1.58	2.40	2.63
Residential	Elementary Education Kits (EEE)	6.06	3.55	6.86	18.31	20.39
Residential	Multi-Family Assessments	2.01	1.06	2.09	2.65	1.50
Residential	Residential New Construction	1.17	0.58	1.52	NA	NA

Source: Guidehouse analysis

**Table 4-4. Summary of TRC Test Values by Program and Utility – CY2020**

Sector	Program	All	ComEd	Nicor Gas	PGL	NSG
Income Eligible	Single-Family Retrofits - CBA and IHWAP	0.66	0.68	0.59	0.72	0.28
Income Eligible	Multi-Family Retrofits - IEMS and IHWAP	0.65	0.72	0.27	0.55	0.40
Income Eligible	Public Housing Energy Savings	0.40	0.31	0.78	0.44	--
Income Eligible	Affordable Housing New Construction	1.07	0.67	2.72	1.94	--
Business & Public Sector	Coordinated Non-Residential New Construction	2.16	2.19	2.52	1.58	1.67
Business & Public Sector	Coordinated Retro Commissioning	2.88	2.86	2.64	3.25	3.76
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	1.56	0.35	2.24	2.69	1.60
Residential	Single Family Assessment	1.30	0.90	1.96	1.38	2.44
Residential	Elementary Education Kits	6.49	4.56	7.20	17.07	21.84
Residential	Multi-Family Assessments	2.27	0.79	4.34	2.95	1.68

Source: Guidehouse analysis

**Table 4-5. Summary of TRC Test Values by Program and Utility – CY2021**

Sector	Program	All	ComEd	Nicor Gas	PGL	NSG
Income Eligible	Single-Family Retrofits - CBA and IHWAP	0.74	0.76	0.62	0.85	1.42
Income Eligible	Multi-Family Retrofits - IEMS and IHWAP	0.77	0.84	0.28	0.59	1.27
Income Eligible	Public Housing Energy Savings	0.55	0.61	0.70	0.34	--*
Income Eligible	Affordable Housing New Construction	1.14	0.81	1.93	2.76	--*
Business & Public Sector	Coordinated Non-Residential New Construction	2.09	2.07	2.68	1.72	1.82
Business & Public Sector	Coordinated Retro-Commissioning	4.04	4.36	2.81	2.68	3.07
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	1.89	1.39	2.40	1.95	1.49
Residential	Single Family Assessment	2.45	2.64	2.44	1.32	2.88
Residential	Elementary Education Kits	8.86	6.52	7.30	19.11	19.78
Residential	Multi-Family Assessments	1.87	1.37	2.56	2.09	1.10

\* NSG did not implement projects in CY2021.

Source: Guidehouse analysis