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Ameren Illinois Company 2018 Integrated Impact Evaluation Report

Final

May 15, 2019

Opinion Dynamics

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1. Executive Summary

This report presents integrated impact evaluation results from Ameren Illinois Company's (AIC) portfolio of energy efficiency programs implemented during 2018. The objective of the 2018 impact evaluation was to determine gross and net energy and demand impacts associated with the AIC energy efficiency portfolio. The purpose of this report is to aggregate results from AIC's Residential and Business Programs and present the utility's performance relative to energy savings metrics codified in the Future Energy Jobs Act (FEJA).

Key performance metrics include:

- **Cumulative Persisting Annual Savings (CPAS):** Beginning in 2018, electric energy savings goals for Illinois utilities are defined based on persisting savings as a percentage of sales. As such, annual evaluations of AIC's programs, including this one, present both first-year savings as well as persisting savings over the life of delivered measures.
- **Weighted Average Measure Life (WAML):** FEJA allows AIC to create a regulatory asset and amortize and recover the total expenditures of that regulatory asset "over a period that is equal to the weighted average of the measure lives implemented for that year that are reflected in the regulatory asset."[1] Therefore, we present WAML for AIC's electric energy efficiency programs within this report in accordance with the guidelines for calculation presented in the Illinois Stakeholder Advisory Group's (SAG) WAML Report.[2]
- **Applicable Annual Incremental Goal (AAIG):** The AAIG is defined as the difference between the cumulative persisting electric savings goal for the year being evaluated and the cumulative persisting electric savings goal for the previous year. The utility must achieve sufficient savings through its programs to replace savings from measures at the end of their measure life before progress can be counted towards the AAIG.

1.1 Background

This is the first year of the four-year 2018 Plan period, during which AIC will operate its energy efficiency programs in accordance with Illinois Senate Bill 2814 (the Future Energy Jobs Act [FEJA]) for the first time. When assessing AIC's 2018 energy efficiency programs it is important to understand the underlying changes in energy efficiency program delivery that FEJA brought about. Key changes include:

- **Discontinuation of energy efficiency programs offered through the Illinois Power Agency (IPA):** Energy efficiency programs funded through the IPA and previously available to AIC customers, including numerous small business programs, ended on May 31, 2017.
- **Discontinuation of energy efficiency programs offered through the Illinois Department of Commerce and Economic Opportunity (DCEO):** Prior to passage of FEJA, public sector nonresidential customers (e.g., schools, government buildings) and public housing facilities were ineligible for AIC energy efficiency programs and instead were served by programs offered through the DCEO. As of June 1, 2017, these customers became eligible for AIC programs. Beginning in 2018, public sector AIC customers are fully eligible for the AIC Business Program in the same manner as other AIC customers.
- **Change in eligibility for the largest AIC customers.** As part of FEJA, customers with electric demand of over 10 MW became ineligible for AIC programs as of June 1, 2017. These customers historically

[1] Weighted Average Measure Life Report. Illinois Energy Efficiency Stakeholder Advisory Group. February 20, 2018.
[2] Ibid.

provided a majority or near-majority of Business Program electric energy savings, so their exclusion from AIC programs moving forward has had significant effects on the Program and required the Program to generally pursue larger numbers of smaller projects than its past focus. This change particularly affected the Custom Initiative, which historically has derived 50% or more of its energy savings from 10 MW customers.

1.2 2018 Portfolio Savings

1.2.1 Annual Savings

Table 1 presents annual savings achieved by the 2018 AIC portfolio. The conversion of some gas savings to electric energy savings for goal attainment purposes is discussed further in Section 4.1.1.

Table 1. 2018 AIC Portfolio Annual Savings

	Energy Savings (MWh)	Demand Savings (MW)	Gas Savings (Therms)
Ex Ante Gross Savings	452,955	66.30	10,089,970
Gross Realization Rate[a]	100%	94%	102%
Verified Gross Savings	455,079	63.58	10,280,644
NTGR	0.800	0.805	0.760
Verified Net Savings Before Conversion	364,290	51.16	7,813,883
Converted Savings	13,486	0.00	(460,114)
Verified Net Savings After Conversion	377,776	51.16	7,353,769

[a] The gross realization rate for demand savings does not include verified gross savings for Behavior Modification as no ex ante gross savings were provided and therefore does not exactly equal verified gross savings ÷ ex ante gross savings.

1.2.2 Applicable Annual Incremental Goal Achievement

AIC achieved its 2018 AAIG for electric savings. 2018 AAIG achievement is presented in Table 2.

Table 2. 2018 AIC Portfolio Electric AAIG Achievement

Metric	MWh (%)
2018 Annual Verified Net Savings	377,776
2018 Expiring CPAS from Legislation	223,286
2018 Annual Incremental Savings Achieved	154,490
2018 AAIG	134,859
% of 2018 AAIG Achieved	115%

1.2.3 Cumulative Persisting Annual Savings

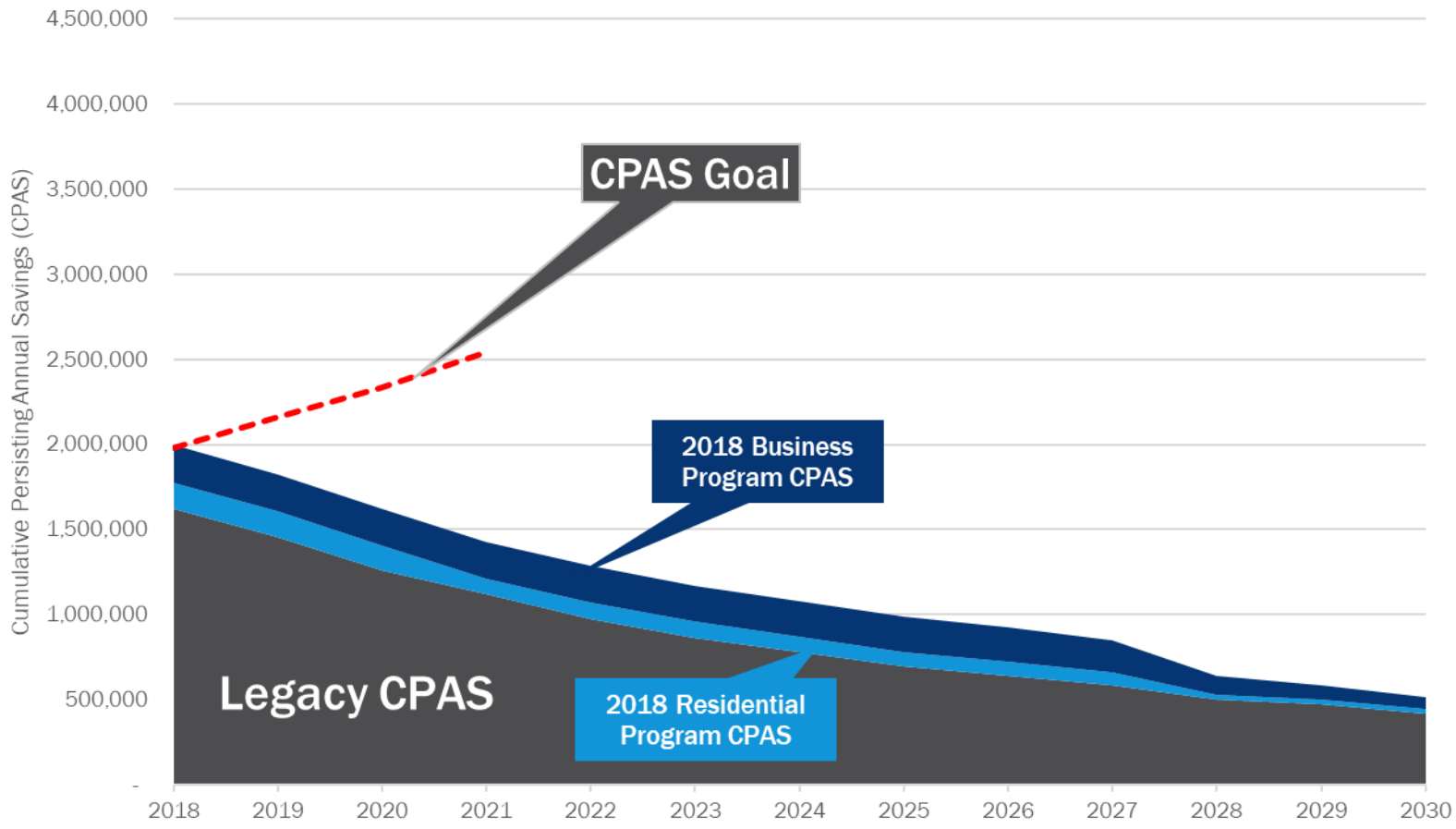
Table 3 summarizes CPAS and WAML for the 2018 AIC Portfolio at the initiative level. For additional detail around CPAS and measure life, please see the Residential Program and Business Program reports, presented under separate cover from this report, and the detailed CPAS spreadsheet, embedded in an appendix to this report. The overall WAML for the 2018 AIC Portfolio is 11.8 years.

Table 3. 2018 AIC Portfolio CPAS and WAML

Initiative/Effort	WAML	First-Year Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)							Lifetime Savings (MWh)[a]
				2018	2019	2020	2021	...	2030	...	
Retail Products	10.3	148,825	0.713	106,060	106,060	105,893	55,309	...	8,657	...	730,126
Income Qualified	15.0	11,576	1.000	11,576	11,576	11,576	9,240	...	4,958	...	141,894
Income Qualified (gas conversion)	19.8	12,571	1.000	12,571	12,571	12,571	12,571	...	5,856	...	171,615
Public Housing	12.1	1,675	1.000	1,675	1,675	1,675	1,153	...	359	...	16,707
Behavior Modification	5.0	6,680	1.000	6,680	4,932	3,048	1,615	...	0	...	16,997
HVAC	18.3	6,955	0.752	5,230	5,230	5,230	5,230	...	3,107	...	73,210
Appliance Recycling	8.0	5,321	0.538	2,862	2,862	2,862	2,862	...	0	...	22,893
Multifamily	9.6	2,539	0.924	2,345	2,345	2,345	2,104	...	7	...	21,007
Direct Distribution of Efficient Products	8.4	1,740	0.926	1,612	1,612	1,549	1,132	...	0	...	10,968
Smart Savers	10.0	2,631	1.000	2,631	2,631	2,631	2,631	...	0	...	26,313
Smart Savers (gas conversion)	10.0	915	1.000	915	915	915	915	...	0	...	9,152
DCEO New Construction Commitments	18.8	826	1.000	826	826	826	826	...	715	...	15,514
Standard	12.5	229,444	0.835	191,518	186,282	186,221	185,444	...	60,387	...	2,157,200
Custom	12.1	28,816	0.825	23,775	23,775	23,676	23,264	...	12,918	...	288,819
Retro-Commissioning	5.1	6,416	0.914	5,864	5,864	5,018	4,075	...	0	...	29,765
Streetlighting	12.0	1,635	1.000	1,635	1,635	1,635	1,635	...	0	...	16,690
2018 CPAS		**468,565**	**0.806**	**377,775**	**370,791**	**367,672**	**310,007**	**...**	**96,965**	**...**	**3,748,871**
Expiring 2018 CPAS				**0**	**6,984**	**3,120**	**57,665**	**...**	**9,048**	**...**	
Expired 2018 CPAS				**0**	**6,984**	**10,104**	**67,769**	**...**	**280,811**	**...**	
WAML	**11.8**										

Figure 1 provides a visual depiction of CPAS achieved by the 2018 AIC portfolio, legacy CPAS, and AIC's 2018-2021 CPAS goals.

Figure 1. Visual Illustration of Achieved 2018 AIC Portfolio CPAS



2. Overview of the AIC Portfolio

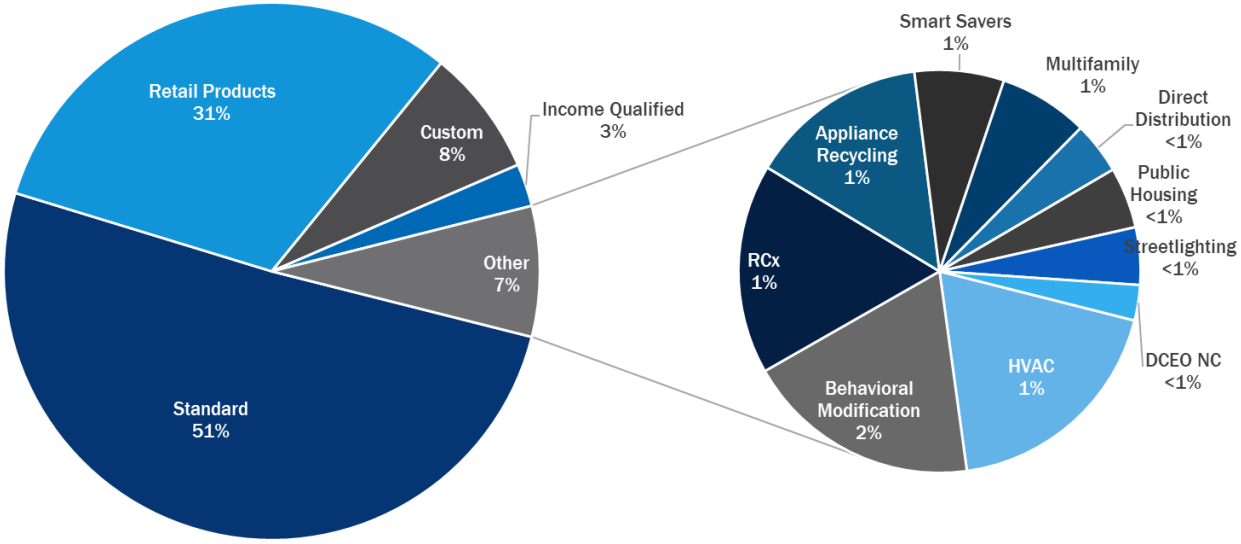
AIC's 2018 portfolio is made up of two programs: the Residential Program and the Business Program. Each program is made up of a number of initiatives as detailed in Table 4 below.

Table 4. 2018 AIC Portfolio Program Descriptions

Program	Initiative	Description
Residential	Retail Products	Residential efficient products, including upstream lighting and advanced thermostat rebates
	Income Qualified	Whole-building low-to-moderate income program, including direct install and shell measures for single family and multifamily homes
	Public Housing	Public housing program providing energy efficiency measures to public housing facilities
	Heating and Cooling (HVAC)	HVAC program offering instant or mail-in rebates on energy efficient heating and cooling equipment
	Behavioral Modification	Home energy reports program targeting both electric and gas customers
	Appliance Recycling	Refrigerator and freezer recycling program
	Multifamily	Market-rate multifamily program providing direct install measures
	Direct Distribution of Efficient Products (Direct Distribution)	K-12 energy efficiency education program providing take-home energy efficiency kits to students
	Smart Savers	2018 pilot program offering advanced thermostats through multiple channels; not expected to continue in 2019
	DCEO New Construction Commitments (DCEO NC)	Income qualified new construction projects initiating as legacy DCEO projects assumed by AIC in 2018; not expected to continue in 2019
Business	Standard	Non-residential prescriptive incentive program, also including small business direct install, midstream lighting, and online store components
	Custom	Non-residential custom incentive program providing incentives for more complex non-residential projects
	Retro-Commissioning (RCx)	Non-residential retro-commissioning program including compressed air and industrial refrigeration components in addition to more traditional whole-building RCx measures
	Streetlighting	Program incentivizing municipalities to upgrade municipality- or AIC-owned streetlighting to LED technology

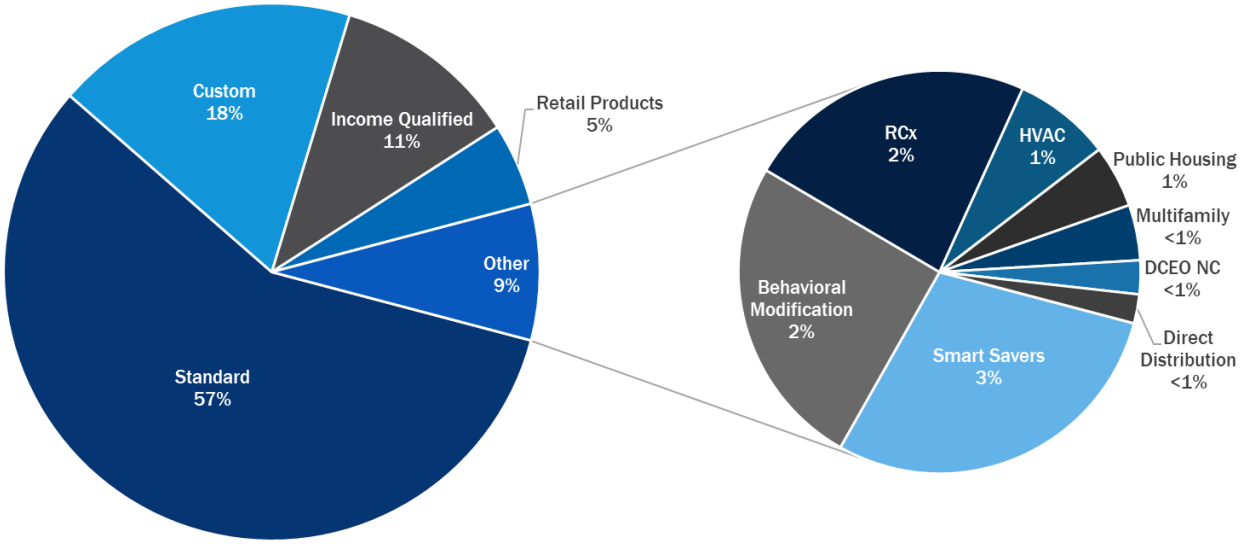
The portfolio's savings are driven heavily by a small number of initiatives. The Business Program's Standard Initiative and the Residential Program's Retail Products Initiative together provide over 80% of portfolio ex ante electric savings. Figure 2 shows portfolio ex ante electric energy savings by initiative.

Figure 2. 2018 AIC Portfolio Ex Ante Electric Energy Savings by Initiative



Gas savings are somewhat more diversified across initiatives. Four initiatives (Business Standard and Custom, as well as Residential Income Qualified and Retail Products) provide 5% of portfolio gas savings or more. Figure 3 shows portfolio ex ante gas savings by initiative.

Figure 3. 2018 AIC Portfolio Ex Ante Gas Savings by Initiative



3. Evaluation Approach

The following section of the report describes the evaluation approach taken for the impact evaluation of the 2018 AIC portfolio. As part of the evaluation process, the evaluation team applied versions of the Illinois Energy Efficiency Policy Manual and the Illinois Technical Reference Manual (IL-TRM) applicable to the 2018 program year (Version 1.1 and Version 6.0, respectively) wherever relevant.[3]

3.1 Research Objectives

The overarching research objectives for the impact evaluation of AIC's 2018 energy efficiency programs are as follows:

- What were the estimated gross energy and demand impacts from this program?
- What were the estimated net energy and demand impacts from this program?

The evaluation team met these objectives by conducting the impact evaluation activities outlined in Table 5.

Table 5. 2018 Impact Evaluation Activities

Initiative	Gross Impacts			Net Impacts		
	IL-TRM Application Review	Engineering Desk Reviews	On-Site Verification	Consumption Analysis	Application of SAG-Approved NTGRs	Retrospective NTGR Modifications
Retail Products	✓				✓	
Income Qualified	✓				✓	
Public Housing	✓				✓	
Behavioral Modification				✓		
HVAC	✓				✓	
Appliance Recycling	✓				✓	
Multifamily	✓				✓	
Direct Distribution	✓				✓	
Smart Savers	✓					
DCEO NC Commitments		✓			✓	
Standard	✓				✓	✓
Custom		✓	✓		✓	✓
Retro-Commissioning		✓	✓		✓	
Streetlighting		✓			✓	

The following sections provide further detail on the gross and net impact evaluation activities.

[3] In future years, the evaluation team will apply updated versions of these manuals to the evaluation of this program as required by law, ICC orders and changes to the manuals themselves.

3.2 Verified Gross Impact Analysis Approach

3.2.1 Application of IL-TRM V6.0

To determine verified gross impacts associated with the majority of measures delivered through the 2018 AIC portfolio, we reviewed the content of initiative tracking databases to identify database errors and duplicate records, and to ensure that the implementer correctly applied savings algorithms and assumptions stated in the IL-TRM V6.0 and the IL-TRM V6.0 errata document. In particular, we applied the algorithms and assumptions provided in the IL-TRM V6.0, while using project-specific data from the initiative tracking databases where appropriate. As part of this process, we also verified measure installations through analysis of initiative tracking databases, as well as through the review of supporting project documentation.

We resolved any discrepancies found in the databases and provide details related to any gross savings adjustments in the initiative-specific sections of this report.

3.2.2 Application of Custom Impact Methods

The Custom, Retro-Commissioning, and Streetlighting initiatives as well as the DCEO NC Commitments are not suitable for gross impact analysis using the IL-TRM. These initiatives require custom energy savings calculations to determine all gross impacts.[4] In addition, for a very small number of measures provided through the Standard Initiative during the 2018, we conducted engineering desk reviews to determine savings if the measure was not currently included in the IL-TRM. Further details regarding the custom impact methods applied for these initiatives are presented in the final 2018 Business and Residential Program impact evaluation reports.

3.3 Verified Net Impact Analysis Approach

To determine verified net savings for the 2018 AIC Portfolio, we primarily applied SAG-approved net-to-gross ratios (NTGRs) to verified gross savings. There are three exceptions to this approach.

- One exception to this approach is the Behavioral Modification Initiative, which is implemented as a randomized controlled trial (RCT) and is evaluated using a consumption analysis approach that directly estimates net savings.[5]
- In addition, the evaluation team did not apply a NTGR to savings achieved from the installation of advanced thermostats. By SAG agreement, savings achieved by these measures are considered to be net and therefore not subject to adjustment with an NTGR.
- Finally, following our approach from past years, we also conducted research with Business Program Staffing Grant participants to estimate the influence of grants on their associated project(s). As a result of these interviews, we adjusted NTGRs for several 2018 Business Program projects.[6]

[4] Note that while the Streetlighting impact calculations are technically custom (as there is no IL-TRM V6.0 section for this measure), in practice the calculations are essentially prescriptive. Beginning in 2019, the IL-TRM will specifically include Streetlighting as a prescriptive measure.
[5] Further details around the methods employed for the evaluation of this initiative are presented in the final 2018 Residential Program Impact Evaluation Report.
[6] Further detail on these adjustments is presented in the final 2018 Business Program Impact Evaluation Report.

3.4 Sources and Mitigation of Error

The evaluation team took steps to mitigate potential sources of error throughout the planning and implementation of the 2018 evaluation. In particular, we took the following actions to address potential sources of error.

- **Analysis Error:**
  - **Prescriptive Gross Impact Calculations:** For prescriptive gross impact calculations, we applied IL-TRM V6.0 calculations to the participant data in the tracking database to calculate gross impacts. To minimize data analysis error, a separate team member reviewed all calculations to verify their accuracy.
  - **Custom Gross Impact Calculations:** We determined custom gross impacts using desk reviews and data collected during on-site M&V. To minimize data analysis errors, the evaluation team had all calculations reviewed by a separate team member to verify that calculations were performed accurately.
  - **Net Impact Calculations:** For net impact calculations, we applied SAG-approved NTGRs to estimated gross impacts to derive net impacts. To minimize analytical errors, all calculations were reviewed by a separate team member to verify their accuracy.
- **Sampling Error:**[7]
  - **Custom Impact Sample:** The evaluation team completed an impact review for 56 of 185 Custom projects achieving savings in 2018, drawing three waves of stratified samples separately for projects claiming electric and gas savings. For gross impact results, at the 90% confidence level, we achieved a relative precision of 10.9% for electric energy savings, 11.0% for electric demand savings, and 7.5% for gas savings.
  - **Retro-Commissioning Impact Sample:** The evaluation team completed desk reviews for a census (12) of Retro-Commissioning projects, and drew a stratified sample of six electric projects for on-site M&V. While we adjusted electric impacts as a result of desk reviews for a number of projects, we made adjustments to electric projects as a result of on-site M&V for only certainty stratum projects. Therefore, there is no sampling error around electric impacts. All gas projects received desk reviews and on-site M&V, and therefore there also is no sampling error around gas impacts.
- **Non-Sampling Error:**
  - **Measurement Error**: To minimize data collection error during site visits, the evaluation team used trained engineers and technicians familiar with the equipment covered by the Custom and Retro-Commissioning initiatives and the methods used to calculate the gross impacts.

For the Behavioral Modification Initiative, we also worked to address the following types of error:

- **Model Specification Error**: The most difficult type of modeling error, in terms of bias and the ability to mitigate it, is specification error. In this type of error, variables that predict model outcomes are included when they should not be or left out when they should be included, possibly producing biased estimates. The team addressed this type of error by using a fixed-effects model, which adjusts for constant differences from one household to the next using customer-specific intercepts. Over time, treatment and control groups in a randomized experiment can drift apart due to attrition, causing

[7] There is no sampling error or measurement error associated with any Residential Program evaluation activity because we did not conduct any sampling-based evaluation activities for the 2018 evaluation.

imbalance between the groups that must be addressed in the model specification. When there is imbalance in consumption, weather, or other factors between treatment and control groups, model specification error can become much more pronounced. For this reason, the team also included models that control for weather conditions to account for differences in temperatures experienced by treatment and control populations.

- **Measurement Errors**: Measurement error can come from variables such as weather data, which are commonly included in the billing analysis models. If an inefficient base temperature is chosen for calculating degree-days or if an incorrect climate zone weather station is chosen, the model results could be subject to measurement error. We addressed this type of error by very carefully choosing the closest weather station for each customer in the model. Specifying an incorrect time period (either pre-treatment or post-treatment) can also lead to measurement error. To the extent that the data received from the implementer are correct, this should not be a problem; however, little can be done if there is an error in the source data.

- **Multi-Collinearity**: This type of modeling error can both bias the model results and produce very large variances in the results. The team dealt with this type of error by using model diagnostics such as variance inflation factor (VIF), though the relatively simple models used in the impact analysis have essentially no chance of problems with multi-collinearity.

- **Heteroskedasticity**: This type of modeling error can result in imprecise model results due to variance changing across customers with different levels of consumption. The team addressed this type of error by using robust standard errors. Most statistical packages offer a robust standard error option and make conservative assumptions in calculating the errors, which has the effect of making significance tests conservative as well.

- **Serial Correlation**: This type of modeling error can result in imprecise model results (due to multiple observations being highly correlated within the customer). The team addressed this type of error by clustering the errors by customer and using robust error estimation.

4. 2018 Portfolio Verified Savings

Within the following sections, the evaluation team presents initiative-level detail on verified Annual Savings (annualized 2018 energy savings)

4.1 2018 Residential Program Annual Savings

The 2018 Residential Program achieved 154,983 MWh, 21.43 MW, and 1,847,931 therms in verified net savings. These savings are reported after accounting for the FEJA-allowed "conversion" of gas savings to electric energy savings for the purpose of goal attainment. Table 6, Table 7, and Table 8 present ex ante gross, verified gross, and verified net electric energy, electric demand, and gas savings by initiative for the 2018 Residential Program.

Table 6. 2018 Residential Program Electric Energy Annual Savings Summary

Initiative/Effort	Ex Ante Gross MWh	Gross Realization Rate	Verified Gross MWh	Net-to-Gross Ratio (NTGR)	Verified Net MWh
Retail Products	141,201	105%	148,825	0.713	106,060
Income Qualified	11,615	100%	11,576	1.000	11,576
Public Housing	1,742	96%	1,675	1.000	1,675
Behavioral Modification	6,729	99%	6,680	N/A	6,680
HVAC	6,718	104%	6,955	0.752	5,230
Appliance Recycling	5,108	104%	5,321	0.538	2,862
Multifamily	2,558	99%	2,539	0.924	2,345
Direct Distribution	1,485	117%	1,740	0.926	1,612
Smart Savers	2,560	103%	2,631	1.000	2,631
DCEO NC Commitments	1,011	82%	826	1.000	826
Residential Program Subtotal	*180,726*	*104%*	*188,769*	*0.750*	*141,497*
Income Qualified (gas conversion)	N/A	N/A	N/A	N/A	12,571
Smart Savers (gas conversion)	N/A	N/A	N/A	N/A	915
Residential Program Total					**154,983**

Table 7. 2018 Residential Program Electric Demand Annual Savings Summary

Initiative/Effort	Ex Ante Gross MW	Gross Realization Rate[a]	Verified Gross MW	NTGR	Verified Net MW
Retail Products	19.92	94%	18.77	0.722	13.54
Income Qualified	3.62	89%	3.21	1.000	3.21
Public Housing	0.24	89%	0.21	1.000	0.21
Behavioral Modification	N/A	N/A	1.15	N/A	1.15
HVAC	2.25	110%	2.48	0.748	1.85
Appliance Recycling	0.62	105%	0.65	0.537	0.35
Multifamily	0.27	117%	0.31	0.930	0.29
Direct Distribution	0.18	132%	0.23	0.952	0.22
Smart Savers	0.36	155%	0.56	1.000	0.56

Initiative/Effort	Ex Ante Gross MW	Gross Realization Rate[a]	Verified Gross MW	NTGR	Verified Net MW
DCEO NC Commitments	0.04	141%	0.05	1.000	0.05
Residential Program Total	**27.49**	**96%**	**27.61**	**0.776**	**21.43**

[a] Because the implementer did not provide ex ante demand savings, we do not include the Behavioral Modification Initiative in calculations of gross realization rate for demand.

Table 8. 2018 Residential Program Gas Annual Savings Summary

Initiative/Effort	Ex Ante Gross Therms	Gross Realization Rate	Verified Gross Therms	NTGR	Verified Net Therms
Retail Products	682,501	75%	510,661	1.000	510,661
Income Qualified	1,208,020	96%	1,155,691	1.000	1,155,691
Public Housing	41,235	102%	42,243	1.000	42,243
Behavioral Modification	177,590	120%	212,435	N/A	212,435
HVAC	57,136	115%	65,737	0.930	61,151
Appliance Recycling	0	N/A	0	N/A	0
Multifamily	37,383	100%	37,480	1.000	37,480
Direct Distribution	54,877	36%	19,543	1.038	20,294
Smart Savers	247,233	99%	245,238	1.000	245,238
DCEO NC Commitments	24,878	92%	22,851	1.000	22,851
Residential Program Subtotal	*2,530,853*	*91%*	*2,311,881*	*0.998*	*2,308,045*
Income Qualified (gas conversion)	N/A	N/A	N/A	N/A	(428,888)
Smart Savers (gas conversion)	N/A	N/A	N/A	N/A	(31,226)
Residential Program Total					**1,847,931**

4.1.1 Savings Conversion

FEJA allows electric utilities that jointly offer an energy efficiency measure or program with a gas utility to fund said measures or programs if the gas utility discontinues doing so and to recover the cost of doing so. In this case, the electric utility is allowed to "convert" non-electric energy savings achieved through said measures or programs to electric savings for the purposes of goal attainment. The total amount of savings allowed to be converted is capped at a maximum of 10% of the utility's AAIG.

AIC met the above criteria in 2018 and chose to convert savings from the Income Qualified and Smart Savers initiatives. Per FEJA, AIC was capped at a total conversion of no more than 13,486 MWh in electric savings (10% of AIC's 2018 AAIG of 134,859 MWh). Using the SAG-approved conversion factor of 29.31 kWh per therm, this equals 460,114 therms that could be converted to electric savings.

AIC identified a number of specific gas measures included in the Income Qualified Initiative for conversion to the evaluation team. We determined that these measures accounted for 428,888 therms in verified net savings and include this conversion as a line item in Table 6 and Table 8. AIC also indicated to the evaluation team that 31,226 therms in verified net savings from the Smart Savers pilot should be converted to electric energy, which we also include as a line item in Table 6 and Table 8. These conversions reach AIC's cap of 460,114 therms, and therefore no more savings conversion is conducted in 2018.

4.2 2018 Business Program Annual Savings

The 2018 Business Program achieved 222,792 MWh, 29.73 MW, and 5,505,837 therms in verified net savings. Table 9, Table 10, and Table 11 present ex ante gross, verified gross, and verified net electric energy, electric demand, and gas savings by initiative for the 2018 Business Program.

Table 9. 2018 Business Program Electric Energy Annual Savings Summary

Initiative	Ex Ante Gross MWh	Gross Realization Rate	Verified Gross MWh	Net-to-Gross Ratio (NTGR)	Verified Net MWh
Standard	230,044	100%	229,444	0.835	191,518
Custom	34,555	83%	28,816	0.825	23,775
Retro-Commissioning	5,992	107%	6,416	0.914	5,864
Streetlighting	1,638	100%	1,635	1.000	1,635
Business Program Total	**272,229**	**98%**	**266,310**	**0.837**	**222,792**

Table 10. 2018 Business Program Electric Demand Annual Savings Summary

Initiative	Ex Ante Gross MW	Gross Realization Rate	Verified Gross MW	NTGR	Verified Net MW
Standard	34.14	95%	32.40	0.826	26.76
Custom	4.06	79%	3.19	0.825	2.63
Retro-Commissioning	0.61	61%	0.37	0.914	0.34
Streetlighting	0.00	N/A	N/A	N/A	N/A
Business Program Total	**38.81**	**93%**	**35.96**	**0.827**	**29.73**

Table 11. 2018 Business Program Gas Annual Savings Summary

Initiative	Ex Ante Gross Therms	Gross Realization Rate	Verified Gross Therms	NTGR	Verified Net Therms
Standard	5,885,866	100%	5,891,848	0.604	3,560,533
Custom	1,482,699	127%	1,880,202	0.939	1,765,510
Retro-Commissioning	190,552	103%	196,712	0.914	179,795
Streetlighting	0	N/A	N/A	N/A	N/A
Business Program Total	**7,559,118**	**105%**	**7,968,762**	**0.691**	**5,505,837**

Appendix A. 2018 Detailed Ex Post Savings Results

These results will be provided once the evaluation team receives AIC's portfolio spending information, which is expected in June 2019.

Appendix B. 2018 High Impact Measure List

This list will be provided with the Detailed EM&V Tables.

Appendix C. 2018 Program Evaluation Reports

The 2018 Business and Residential Program Impact Evaluation Reports are available on the Illinois Stakeholder Advisory Group website (http://www.ilsag.info/draft_evaluation_reports.html).

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