



# Nicor Gas Home Energy Savings Program

**PY6 & CY2018 Process Evaluation Results**

NAVIGANT

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**Submitted to:**  
Nicor Gas

**Submitted by:**  
Cherlyn Seruto  
Christy Zook  
Laura Agapay-Read  
Kevin Grabner

December 2018

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# 01

## Process Evaluation Activities

# PY6 & CY2018 Evaluation Snapshot

## QUESTIONS



Is the program tracking to meet yearly goals?



Are program marketing efforts impactful?



What are the program's metrics for success?



What are the program's opportunities for improvement?

# 1



What measures are driving participation and savings?



What is the conversion rate from the Assessment offering?



Are there geographical trends in participation?

# 2



Are the participants satisfied with the program?



What works and what needs improvement?



How are participants discovering the program?

# 3

## ACTIVITIES

### Program Manager and Implementation Contractor Interviews

- Two, one-hour interviews with staff at Nicor Gas

- Program Materials Review
- Participation Database Review and Analysis

### Participant Satisfaction Survey Conducted Summer 2018

- Spillover survey participation from June 2016-July 2017
- Free-ridership survey participation from August 2017 – June 2018



# 02

## Program Details

# Measure distribution

The program installed the following measures in CY2018, shown by the percentage of households that had the measures installed, from highest to lowest, and by the percentage of savings achieved by measure. High efficiency showerheads achieved the most savings amongst direct install measures, where air sealing achieved the most savings amongst weatherization measures. Note that thermostat measures have a high contribution to savings per participant.

## Direct Install

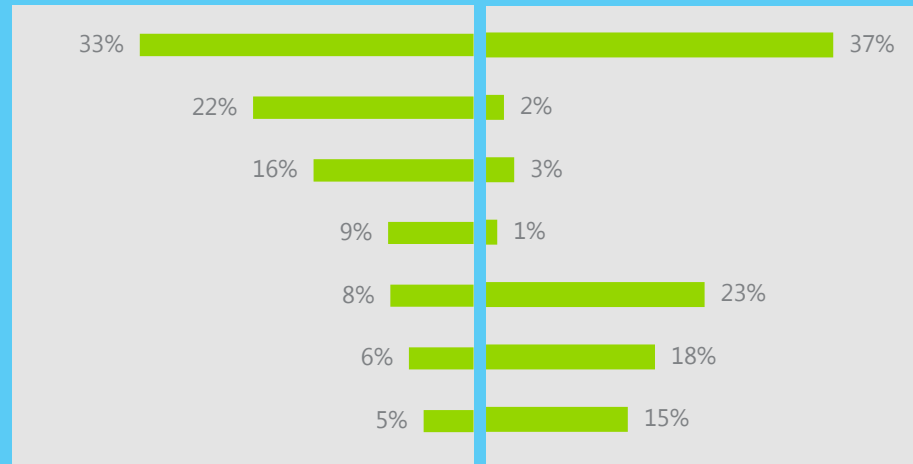
Percent of Total Program

Participation **88%**  
Savings **64%**

Showerhead  
Bathroom Aerator  
Hot Water Pipe Insulation  
Kitchen Aerator  
Programmable Thermostat  
Thermostat Education  
Smart Thermostat

### Households

### Verified Gross Savings

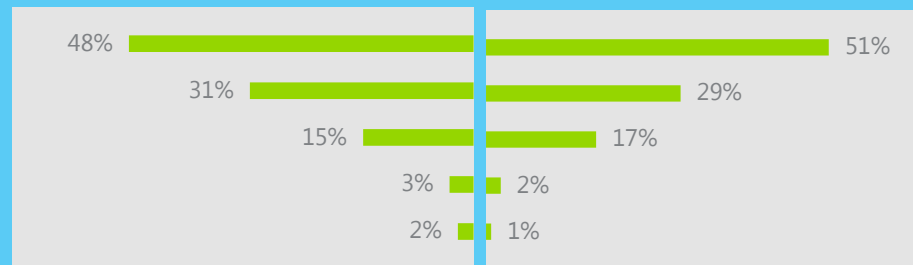


## Weatherization

Percent of Total Program

Participation **12%**  
Savings **36%**

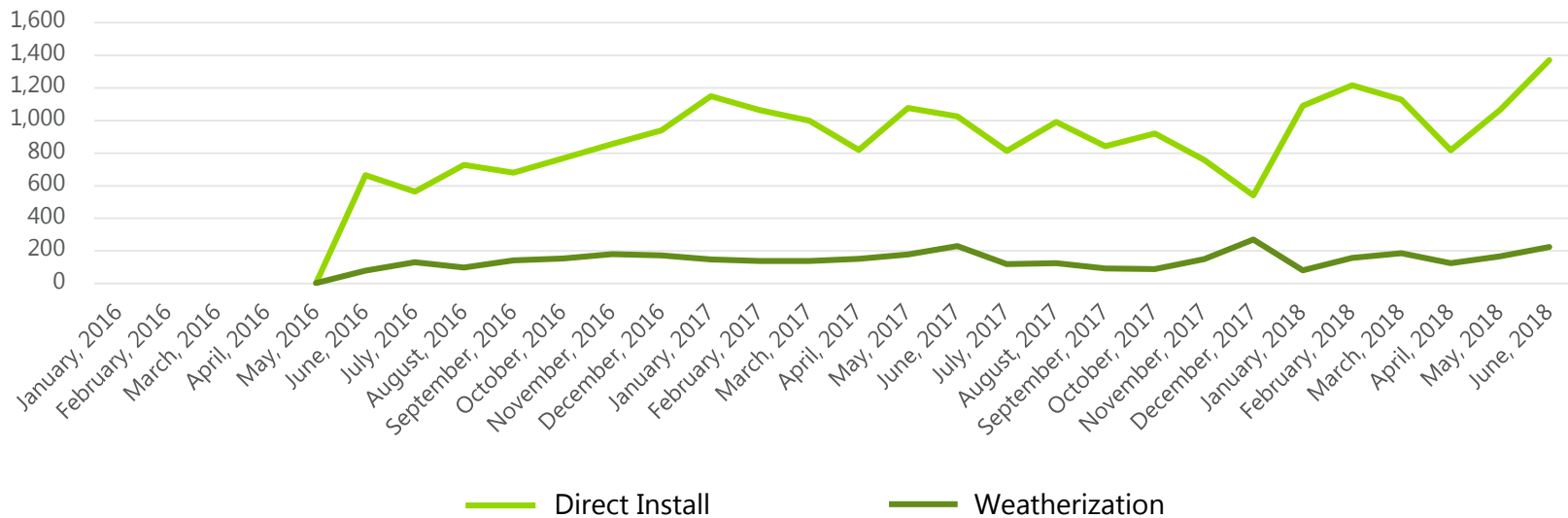
Air Sealing  
Attic Insulation  
Duct Sealing  
Wall Insulation  
Basement / Sidewall Insulation



# HES Participation from PY6 through CY2018

The chart below shows program participation by Account ID over time. The decline in participation seen for the direct install program component beginning October 2017 is a result of the switch in implementation contractors from CLEAResult to Franklin from PY6 to CY2018. Franklin began CY2018 with a waitlist of about 3,000 customers that could not be served in 2017. Participation rates increase rapidly once Franklin took over implementation in January 2018. Weatherization participation has some seasonality as participation is slightly higher in months with cold and hot weather extremes (June 2017, December 2017 and January 2018). In 2018, there were a total of 10,635 customers who received an assessment and 1,479 who participated in the weatherization component of the program.

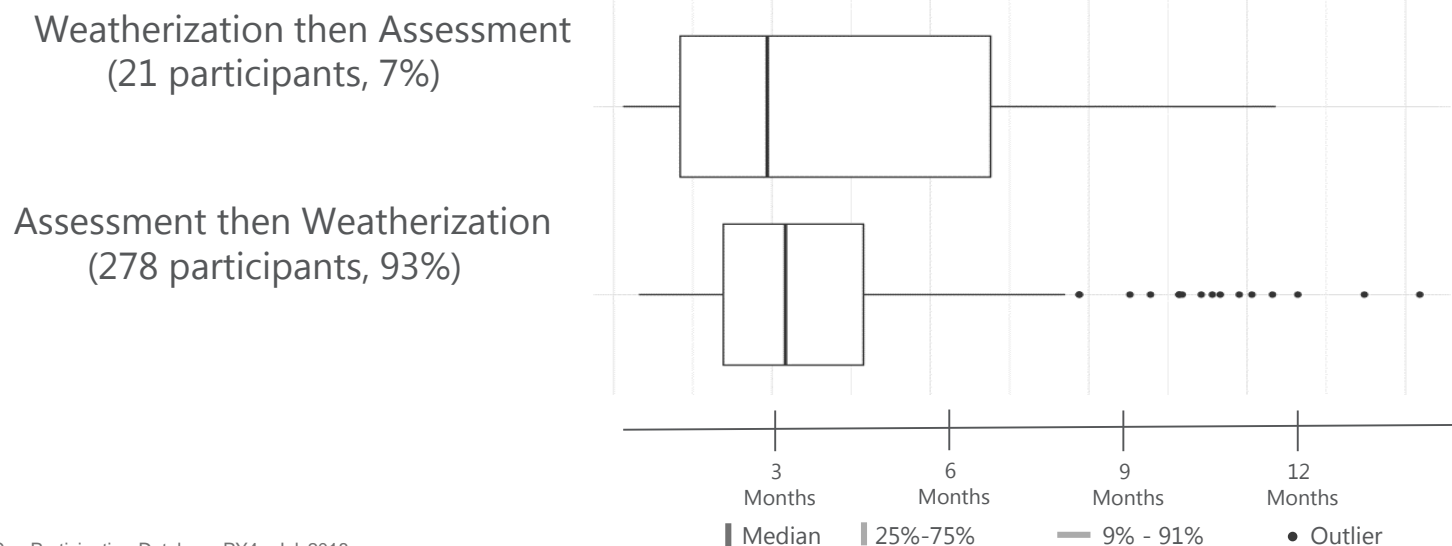
Count of Participants by Account ID



# Assessment to weatherization conversion rate

Navigant calculated the conversion rate from the assessment program component to the weatherization program component. This analysis includes the number of program participants from PY4 to present<sup>1</sup>. Of the 24,148 participants of the HES Program over this time, 299 or 1% participated in both program components<sup>2</sup>. **This low conversion rate indicates a large opportunity to increase participation in the alternate program component among program participants.** (Of these 299 participants, 93% participated in the assessment track first, whereas 7% participated in the weatherization track first.) The average customer participated in the subsequent program component within four months of the first component, indicating rapid follow-up will likely prove most effective in encouraging follow-up participation.

Time between participating in the first then subsequent program component



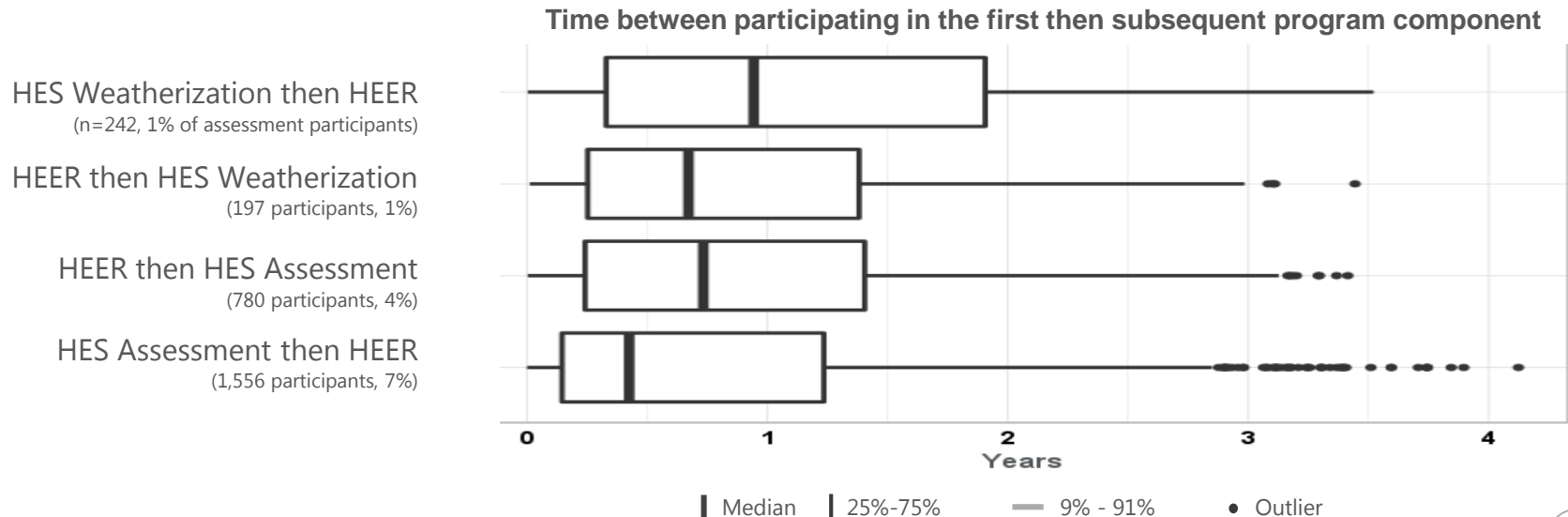
<sup>1</sup> Nicor Gas Participation Database PY4 - July 2018

<sup>2</sup> We also calculated the conversion rate from Assessment to Weatherization with 2019 participants to date, and it was also 1%.



# HES to HEER conversion rate

Navigant also calculated the conversion rate from HES to the Home Energy Efficiency Rebate (HEER) energySMART offering. This includes participants from PY4 to present\*. The HES to HEER conversion rate is higher than the conversion rates within the HES offering, with 11% of Assessment participants and 14% of Weatherization participants having also participated in the HEER program. However, of the 100,839 HEER participants from PY4-present, only 3% (2,775) participated in both offerings. The median time between HES and HEER program participation ranges from 5-11 months. It is more common for Assessment participants to follow-up with the HEER program (7% of assessment participants). Almost all HEER projects that are completed after an assessment are equipment upgrades (97%†). We calculated the conversion rate of assessment participants **who received a specific recommendation for an HVAC or water heating related measure**. Of the 7,930 assessment participants from 2018 - Q2 2019 who received an HVAC recommendation, 11% installed an HVAC related HEER measure, and 20% installed a water heating related HEER measure. Of the 7,256 assessment participants who received a water heating related recommendation, 4% installed an HVAC related HEER measure, and 8% installed a water heating related HEER measure.



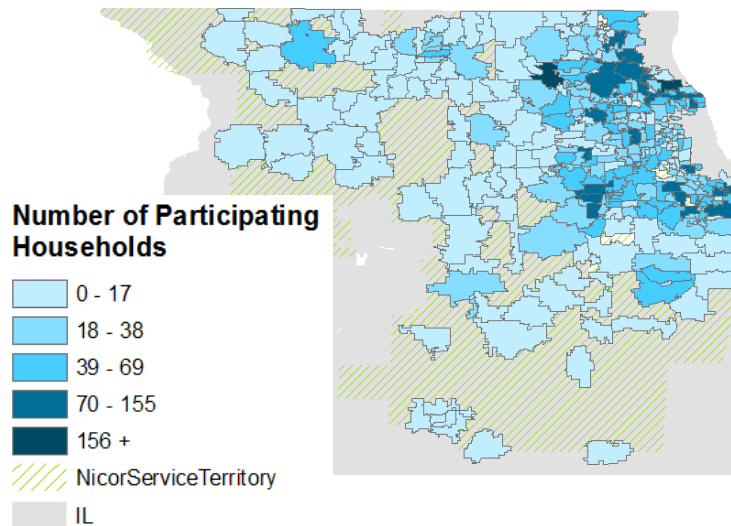
\*Nicor Gas Participation Database PY4 - July2018

†Of the 97%, 58% of the HEER projects that also received assessments are thermostat only measures, 39% are equipment measures (furnaces, boilers, and/or water heaters). The other 3% are weatherization measures.

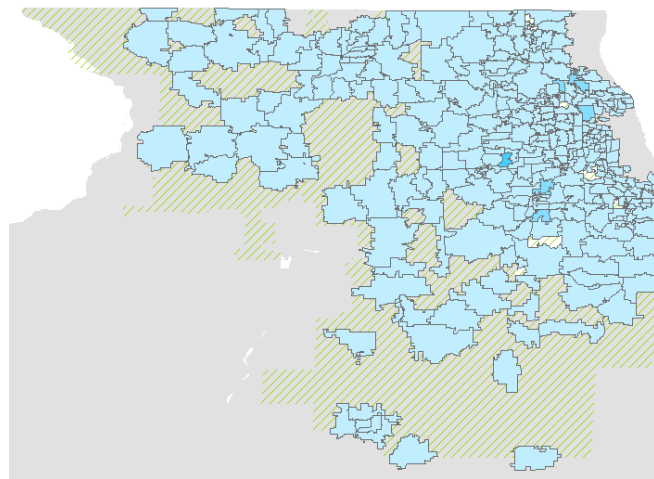
# Program Participation by Zip Code

Navigant used Nicor Gas HES Program participation tracking data and census data to create the following maps. These maps represent the number of participating Account ID's in the direct install and weatherization channels. The maps below show the number of participating Account IDs in each zip code of the Nicor Gas service territory. Looking solely at the location of participants illustrates there are pockets of higher direct install participation near the city, and there are more direct install participants in a further radius from the city core compared to weatherization participants. We also normalized population density by zip code to create a map of participant saturation. Saturation results are presented in the next slides.

## Direct Install



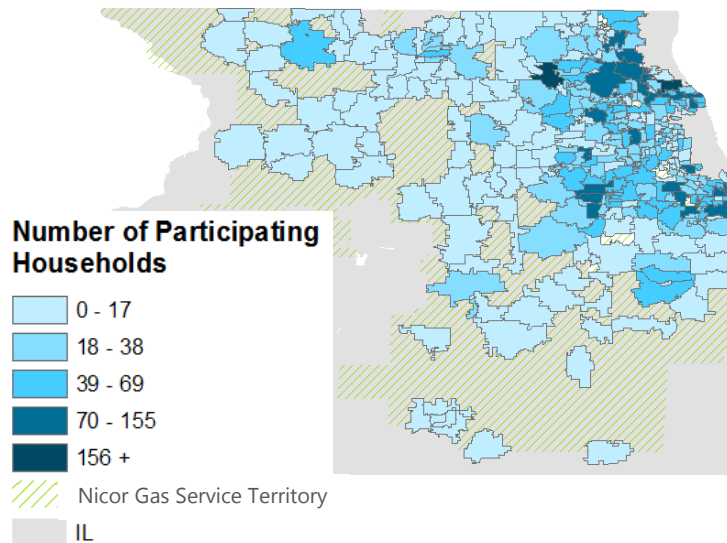
## Weatherization



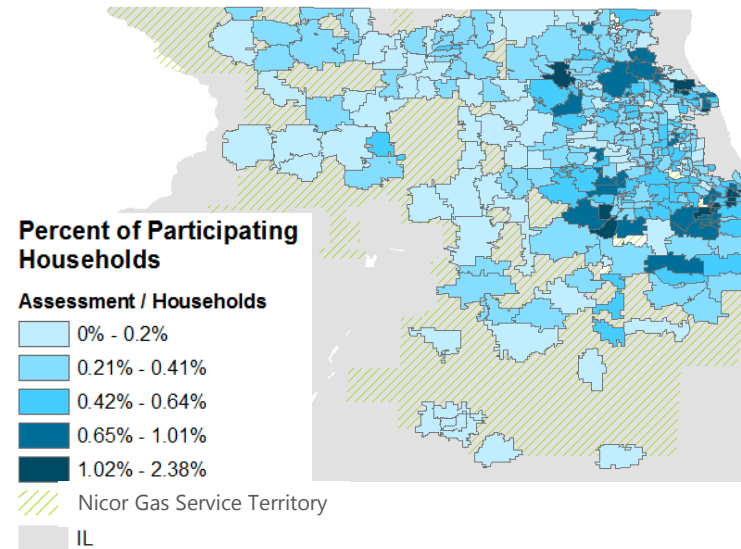
# Direct Install Participation and Saturation by Zip Code

After normalizing for population density by zip code (shown by the map on the right-hand side), we see a similar pattern in density of participation as the count of households. It is apparent there remains ample opportunity for additional participation in the program.

## Count of Households



## Saturation

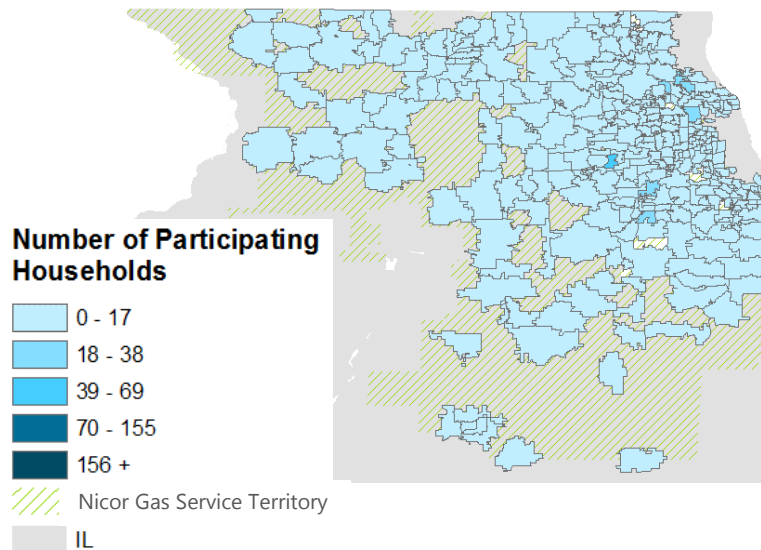


Sources: Nicor Gas tracking data 7/14/2017 to 8/17/2018; census data for calculating percent of households from U.S. Census Bureau; 2012-2016 American Community Survey 5-Year Estimates, Table S1101; [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S1101&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1101&prodType=table). Saturation is calculated by dividing participating households in a given zip code by the census count of households in that zip code.

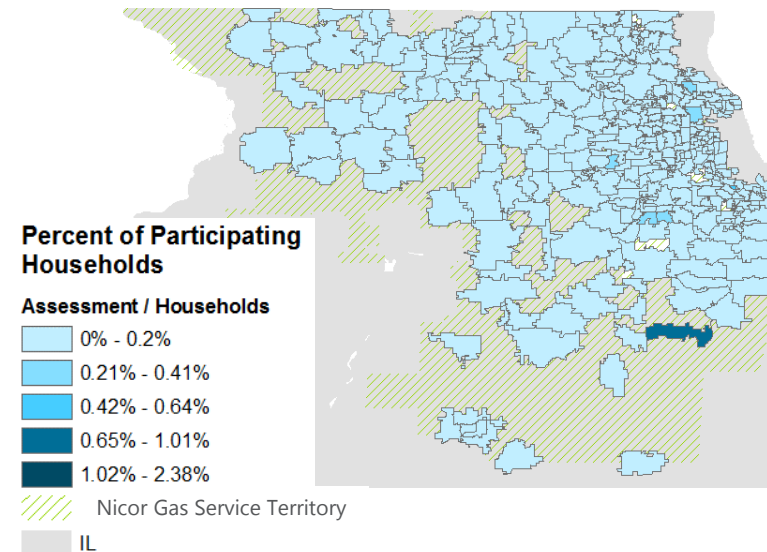
# Weatherization Participation and Saturation by Zip Code

Normalizing for population density by zip code (shown by the map on the right-hand side) for the weatherization channel indicates a much higher rate of participation in zip code 60927. It may be useful to assess why this particular area has a higher rate of participation, which could lead to insights to increase participation throughout Nicor Gas territory. Navigant recommends conducting a customer segmentation analysis in the future that compares participation rates to demographic characteristics. This analysis may lead to useful insights regarding characteristics of populations that participate at higher or lower rates.

## Count of Households



## Saturation



Sources: Nicor Gas tracking data 7/14/2017 to 8/17/2018; census data for calculating percent of households from U.S. Census Bureau; 2012-2016 American Community Survey 5-Year Estimates, Table S1101; [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S1101&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1101&prodType=table). Saturation is calculated by dividing participating households in a given zip code by the census count of households in that zip code.

# Evaluation Questions

The Process research examined opportunities to increase program participation and sought recommendations for program improvement via the following key evaluation questions.



What are sources of program awareness?



How satisfied are participants with the program?



What are recommended program improvements?



**The evaluation team answered these questions by surveying program participants. Results are provided in the following slides.**

- We conducted two rounds of computer-assisted telephone interview (CATI) surveys.
  - A spillover survey with GPY6 participants
    - 100 direct install participants completed the survey
    - 12 weatherization participants completed the survey
  - A free ridership survey with GPY6 and CY2018 participants
    - 164 direct install participants completed the survey
    - 49 weatherization participants completed the survey



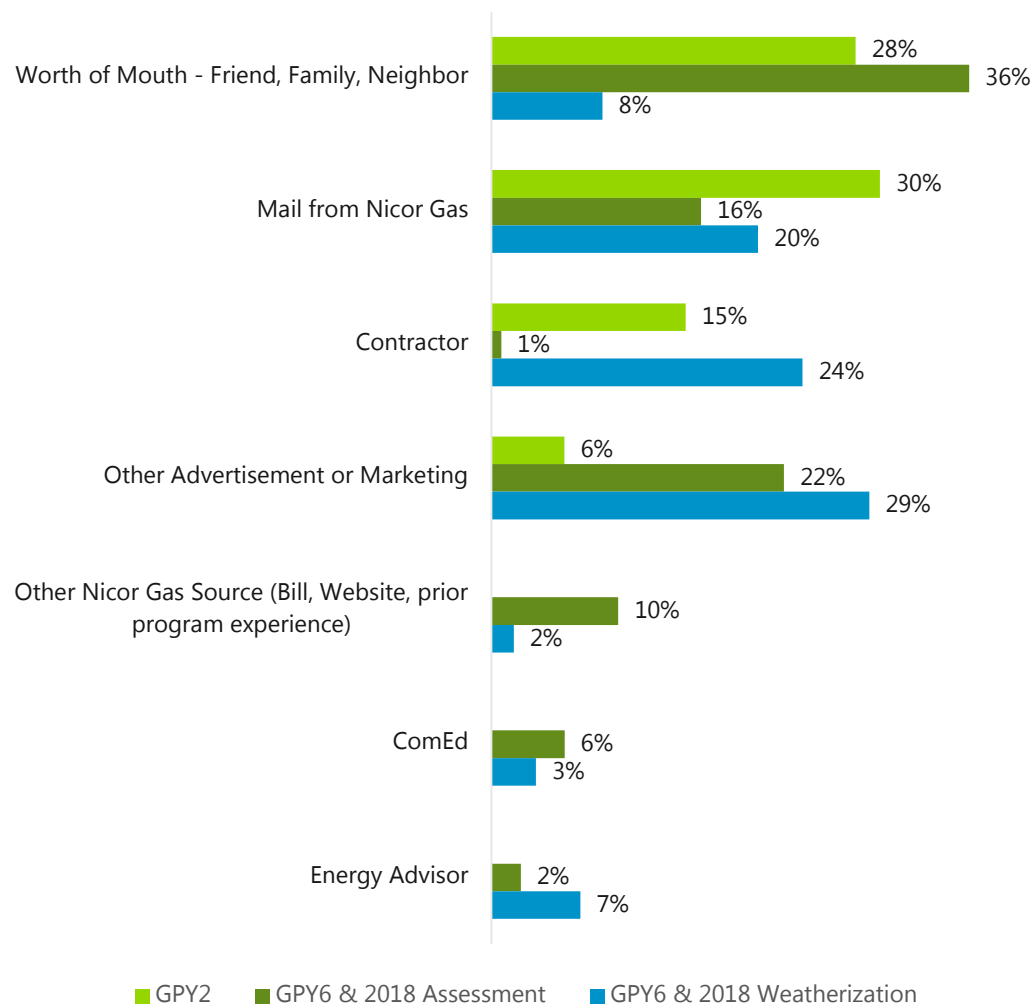
03

**Participant  
Survey Results**

# Awareness sources are diversifying

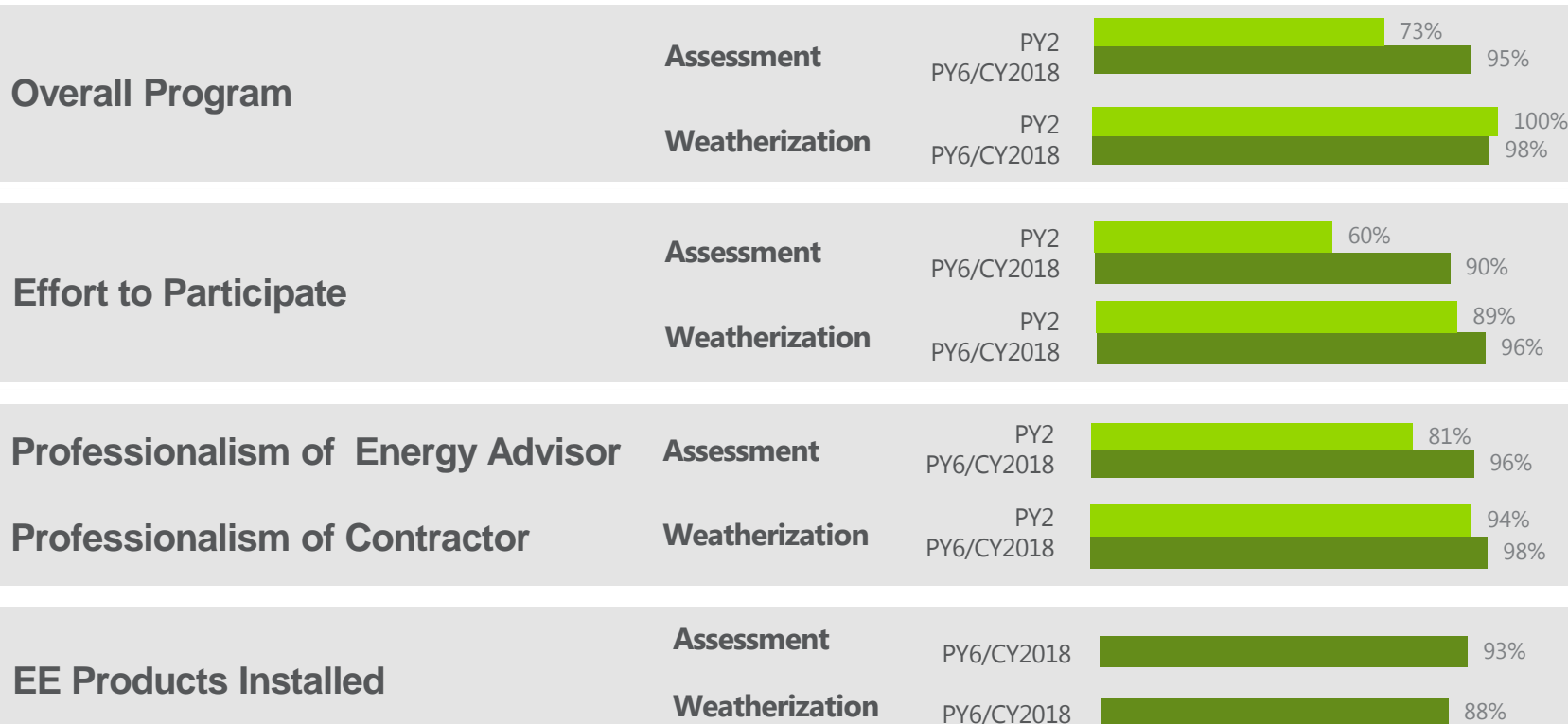
Weatherization and direct install participants in GPY6/CY2018 differed in their *primary* mentioned sources of awareness in that **direct install participants primarily heard about the program via word of mouth**, whereas **weatherization participants primarily became aware through general advertising and through their contractor**.

Navigant compared awareness results from GPY1/2 to GPY6/CY2018. In GPY1/2, mail from Nicor Gas was the *primary* source of awareness for participants, whereas for both weatherization and assessment participants in GPY6/CY2018, “Mail from Nicor Gas” was the third most mentioned source of program awareness. This is indicative of a mature program with awareness occurring from a wide range of sources.



# Satisfaction remains high across all categories

Navigant compared satisfaction results from the PY6/CY2018 survey to PY2 survey results. Overall satisfaction remains very high for the program, with higher satisfaction ratings compared to PY2 for nearly every response category researched. PY6/CY2018 rebate participants also expressed satisfaction with the rebate amount, with 86% of participants giving a satisfaction ranking of 7-10 on a scale of 0-10 where 0 is “not at all satisfied” and 10 is “extremely satisfied”. Navigant summarized satisfaction results by the following time periods to determine if there are any substantial differences driven by the transition: prior to October, 2017 (CLEAResult), October 2017 – December 2017 (Waitlist period), and January 2018 – present.





# Satisfaction across the transition period

Navigant summarized satisfaction results by the following time periods to determine if there are any substantial differences driven by the transition period\*. The following survey satisfaction results are averaged and categorized by the following time periods: prior to October, 2017 (Implementer = CLEAResult), October 2017 – December 2017 (Waitlist period), and January 2018 – present (Implementer = Franklin). While the variance is too great to claim any statistical significance to these results, there is a trend towards increased reported energySMART program satisfaction for those that participated beginning in January 2018 under program implementation by Franklin.

## Spillover Survey



## Assessment Free-Ridership Survey



## Air Sealing & Insulation Free-Ridership Survey



\* CLEAResult implemented the program prior to October 2017, then there was a waitlist period from October 2017 to December 2017, and Franklin began program implementation in January 2018.

Source: Navigant Participant Surveys, PY6/CY2018. Reported value represents the average of respondents rank on a scale of 0-10 where 0 is "not at all satisfied" and 10 is "extremely satisfied".

# Participant experience and suggestions for improvement



## Repeat energySMART participation

Weatherization participants most frequently participated in other energySMART offerings, and this effect compounds with time

**21% | 48%**

Assessment | Weatherization



## Suggestions for improvement

Respondents overwhelmingly mention increase advertising and marketing of the program. It is clear participants feel that the program is so good that if more people knew about it they would participate.

**86% | 69%**

HES | Other Nicor Gas programs

\*Spillover respondents were 41% more likely to have participated in another energySMART program vs free-rider survey participants. This could be due to the fact that spillover respondents have had more time to be repeat participants, as they were selected because they participated in the program over a year ago where free-ridership respondents participated in the program more recently. The programs customers mention having participated in include 5 mentions of the HVAC program, 3 mentions of budget billing, 2 mentions each of other rebates and Nicor Gas Home Solutions, and one mention each of LIHEAP, Raydon, Nicor Share, AC Cycling, Home Energy Kit, and an Air Purifier Rebate.

# Suggested Equipment Additions

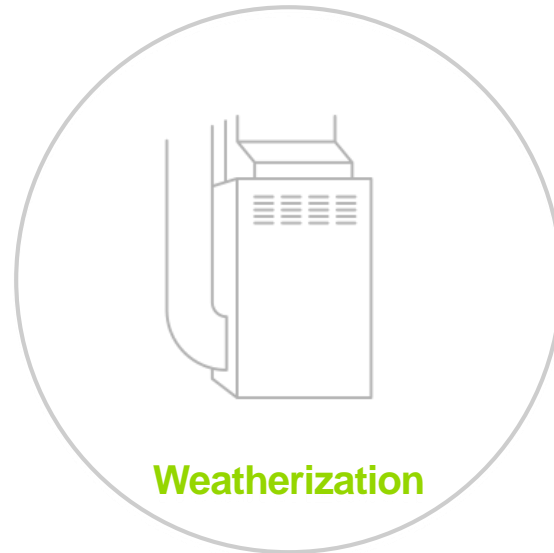


## Assessment

Windows & doors are the most commonly requested program additions by assessment participants, though additional weatherization and HVAC measures are also mentioned.

**14% | 10% | 7%**

Windows & Doors | Weatherization | HVAC



## Weatherization

HVAC measures are most commonly mentioned additions weatherization customers would like to see as part of the program. The next most frequently mentioned item is additional weatherization.

**10% | 3%**

HVAC | Weatherization



# 04

## Findings and Recommendations

# Findings and Recommendations

## FINDING 1

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Nicor has increased focus on community based outreach events to increase program awareness and participation. Survey results indicate this strategy is effective as customers are learning about this program from increasingly diverse sources.

## RECOMMENDATION 1

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**Current outreach and marketing methods are well-received and effective.** Consider focusing marketing efforts especially on community-based outreach and engagement events, and consider opportunities to engage with customers in their native language. Navigant understands Nicor Gas marketing is currently focused on these inclusions to their existing marketing strategies.

## FINDING 2

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Seven percent of Assessment, and ten percent of Weatherization survey respondents recommended HVAC equipment be included in the program, suggesting they may not be aware of existing HVAC rebates available through other Nicor Gas energySMART offerings.

## RECOMMENDATION 2

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Improvements to furnace efficiency is most effective after weatherization has been conducted. **Nicor Gas should connect HES participants that are good candidates for furnace upgrades to the Home Energy Efficiency Rebate (HEER) program.** This can include passive material sharing such as leave-behind promotional materials on applicable rebates delivered to the customer, or more active follow-up activities with HES participants on potentially applicable incentive opportunities. One active follow-up scenario example is the implementation contractor can flag applicable HES participants as a potential HEER participant, then the HEER program team can follow up with the flagged HES participant to connect them with a contractor.

# Findings and Recommendations

## FINDING 3

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Participant satisfaction ratings indicate the program is running smoothly, and satisfaction scores have increased over time across all measure categories. Of particular note is an increase in satisfaction with the effort to participate in the assessment program track from 60% of program participants in PY2 that rated satisfaction from 7-10 on a 0-10 scale, to 90% of PY6 and CY2018 participants.

## RECOMMENDATION 3

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**Satisfaction ratings indicate Nicor Gas should continue to operate and implement the program as they are currently.**

## FINDING 4

---

Customer geographic analysis indicates there are high and low pockets of participation. Specifically for the weatherization program component, zip code 60927 has a higher rate of participation than the surrounding territory.

## RECOMMENDATION 4

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**Navigant recommends researching demographic characteristics of their territory and overlaying this with a participation analysis.** This can lead to insights into population trends and demographic characteristics that are associated with regions of high and low participation. These insights can inform marketing and outreach strategies to increase participation.

## FINDING 5

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Income eligible customer participants are not currently tracked in the HES participation database.

## RECOMMENDATION 5

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**Navigant recommends Nicor Gas track income eligible participation in the HES Program to help inform how this population can best be served by energySMART.** Nicor Gas has the ability to track income eligible participation based on whether or not they receive Low Income Home Energy Assistance Program (LIHEAP) benefits or participate in the sharing program.

# Findings and Recommendations

## FINDING 6

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Fourteen percent of assessment respondents mentioned desiring windows and doors be included in the program.

## FINDING 7

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From PY4 to present, the conversion rate from the assessment program component to the weatherization program component is low at 1% of total program participants. This low conversion rate indicates a large opportunity to increase savings per participant.

## RECOMMENDATION 6

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**Nicor Gas can equip trade allies with explanations as to why windows and doors are not included to better inform customers.** Windows and doors are typically not included in programs like HES as they are generally not cost effective.

## RECOMMENDATION 7a

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**Future evaluation activities should investigate why this conversion rate is low.** Questions to participants might include if they knew about the alternate program component, and if so, reasons why they did not participate. In the meantime Nicor Gas can review assessment reports and leave behinds with the goal of investigating opportunities to better promote the weatherization program component. Nicor Gas can also review participating contractor and trade ally marketing and communication materials to assess opportunities for cross-promotion. The program may consider adding a follow-up procedure or additional incentives for assessment participants who are likely participants of weatherization.

## RECOMMENDATION 7b

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**Set a conversion goal from Assessment to Weatherization based on common characteristics between participant demographics.** Research demographic characteristics of Weatherization participants, and research the percent of Assessment participants that approximate that profile. Set a goal based on this common data for participation in both programs, and try to recruit identified participants from one offering to the other.

# Findings and Recommendations

## FINDING 8

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Eleven percent of Assessment participants, and 14% of Weatherization participants also participated in the HEER program (this totals 3% of HEER participants).

## RECOMMENDATION 8a

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**Every HEER participant should be encouraged to also complete weatherization.** Navigant recommends Nicor gas encourage all HEER participants to also complete weatherization upgrade. One way Nicor Gas can encourage this is to offer additional incentives to customers who complete both Weatherization and furnace upgrades.

## RECOMMENDATION 8b

---

**Set a conversion goal from Assessment to HEER based on common characteristics between participant demographics.** Research demographic characteristics of Assessment participants, and research the percent of HEER participants that approximate that profile. Set a goal based on this common data for participation in both programs, and try to recruit identified participants from one offering to the other.





# 05

## Future Evaluation Questions

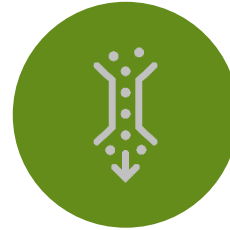
# Future Evaluation Questions



Are sources of awareness remaining constant or shifting over time?



Are there any changes to program satisfaction, and if so, what are the sources of these changes?



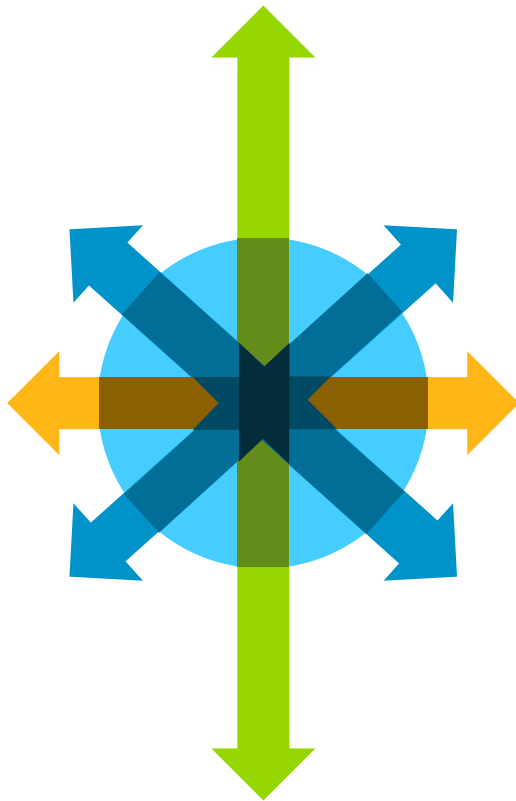
Would it be most beneficial to encourage program savings for Nicor Gas to increase the rate of participation across their territory, or focus on the areas of high participation?



What are the primary motivating factors for participants when they opt to enroll in this program?

# Appendix

# What are the program goals?



The Home Energy Savings (HES) Program offers a free assessment and direct install measures as well as discounted air sealing and insulation improvements and is jointly offered by Nicor Gas and ComEd.

**The primary objective** of this program is to obtain natural gas and electricity savings in existing single family homes by overcoming market barriers to the installation of energy efficiency measures. The HES Program provides weatherization and shell improvement opportunities using standard and prescriptive approaches. These approaches include the following measures:

## **Direct Install Measures**

- High efficiency showerheads
- Faucet aerators (kitchen and bathroom)
- Hot water heater pipe insulation
- Programmable thermostats
- Reprogrammable thermostats
- Smart thermostats
- LEDs (ComEd customers only)
- Advanced power strips (ComEd customers only)

## **Weatherization Measures (Air Sealing and Insulation)\***

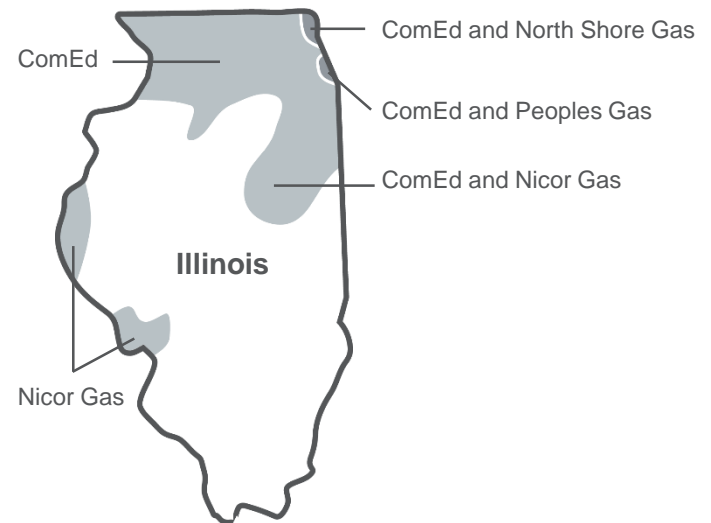
- Attic insulation
- Air sealing
- Duct sealing
- Wall insulation
- Basement sidewall insulation

\*Air Sealing and Insulation component is referred to as Weatherization in this report

# How is the program implemented?

In PY6, CLEAResult implemented the program in the Nicor Gas and ComEd territory, and Franklin Energy implemented the program in the ComEd and Peoples Gas and North Shore Gas territory.

In CY2018, Franklin Energy implemented the program in the Nicor Gas, Peoples Gas and North Shore Gas, and ComEd territories.



# Delivery channels



**Assessment  
Application**

Customers can schedule an assessment by calling 877.886.4239, free direct install measures offered.

**88% | 64%**

Percentage of the total number of participants by channel | Percentage of total savings by channel



**Weatherization  
Rebates**

Approved certified participating contractors offer participants instant rebates on air sealing, insulation, and weatherization

**12% | 36%**

# PY6 / CY2018 Participant Survey Disposition

Surveys were conducted in the summer of 2018. Participation dates ranged from June 2016 – July 2017 for the spillover survey, and Aug 2017 - June 2018 for the free-ridership survey.

SURVEY DISPOSITION			
	Spillover	FR Assessment	FR Weatherization
Total Population	5,333	2,088	416
Invalid calls	141	45	35
Valid Calls	1,139	1,316	330
Completes	100	164	49
Response Rate	9%	12%	15%
Not Contacted	3,953	563	0