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AMEREN ILLINOIS COMPANY 2023 ENERGY EFFICIENCY PORTFOLIO EVALUATION PLAN

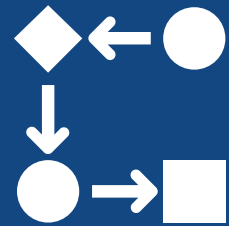
Presentation to Illinois SAG



December 6, 2022

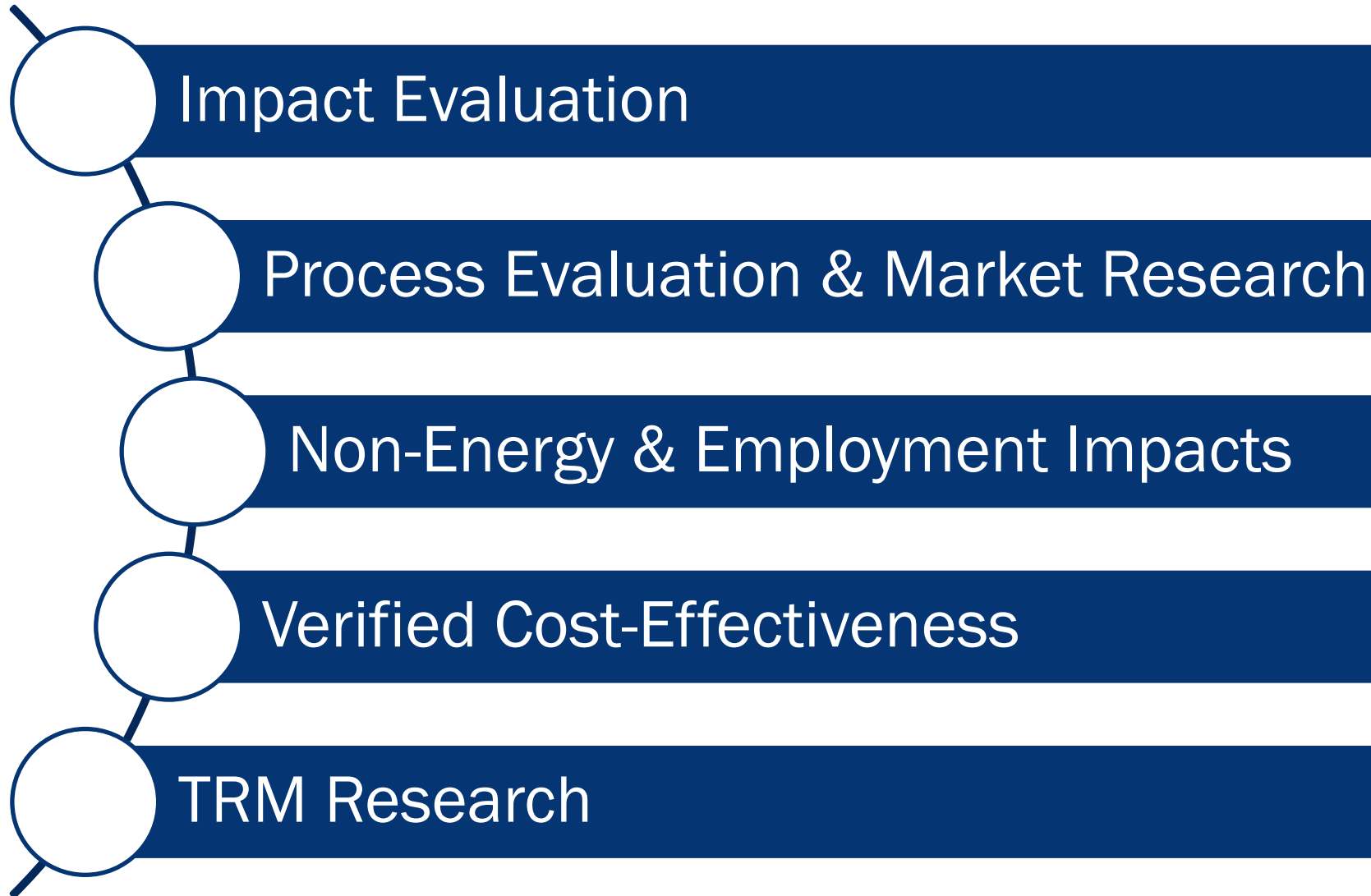
Agenda

- Overview of 2023 evaluation approach
- Program-specific evaluation activities
- Portfolio-level evaluation activities
- Evaluation budget overview



OVERVIEW OF 2023 EVALUATION APPROACH

Key Annual Evaluation Objectives



Anticipated 2023 NTG Updates

- Residential Program
 - Retail Products Initiative – Efficient Choice Tool Channel
 - Market Rate Multifamily Initiative
 - Market Rate Single Family Initiative – Midstream HVAC Channel
- Business Program
 - Standard Initiative
 - Midstream Initiative
 - Small Business Initiative – Small Business Energy Performance Channel*
 - Retro-Commissioning Initiative – Virtual Commissioning Channel
 - Non-Participant Spillover



Evaluation Collaboration



- Ongoing collaboration occurs between the Illinois evaluation teams:
 - Monthly evaluation coordination meetings keep the teams connected and up to date
 - SAG meetings and Working Groups provide a framework for formal methodological collaboration:
 - Illinois TRM Technical Advisory Committee (TAC)
 - Illinois NTG Working Group
 - Illinois Non-Energy Impacts Working Group
 - Ad-hoc collaboration also occurs on key statewide issues



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PROGRAM-SPECIFIC EVALUATION PLANS

2022-2025 Ameren Illinois Portfolio

PROGRAM

Voltage Optimization Program		Residential Program		Business Program
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INITIATIVES

		<ul style="list-style-type: none"> ▪ Market Rate SF ▪ Market Rate MF ▪ Direct Distribution ▪ Retail Products ▪ Income Qualified ▪ Public Housing ▪ Electrification ▪ Market Transformation 		<ul style="list-style-type: none"> ▪ Standard ▪ Small Business ▪ Midstream ▪ Custom ▪ Retro-Commissioning ▪ Streetlighting ▪ Market Transformation
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- We organize our evaluation activities to most effectively use evaluation resources, minimize customer touchpoints, and provide research insights while considering the delivery strategy and unique characteristics of each AIC offering



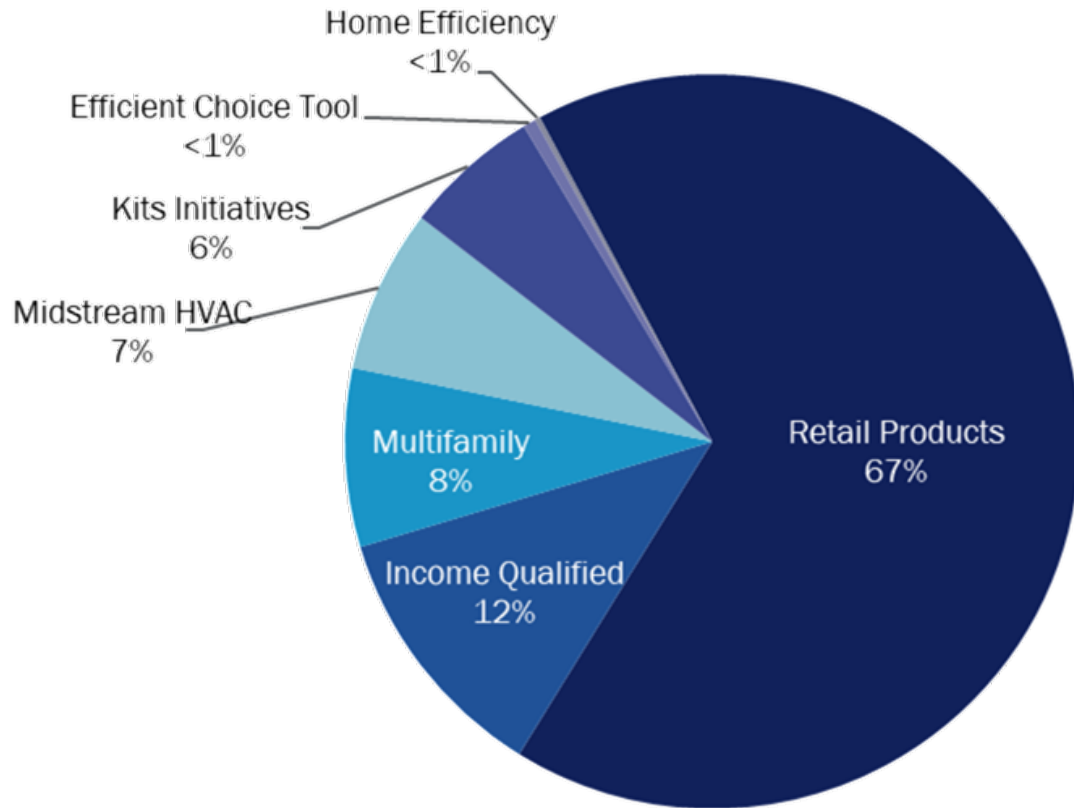
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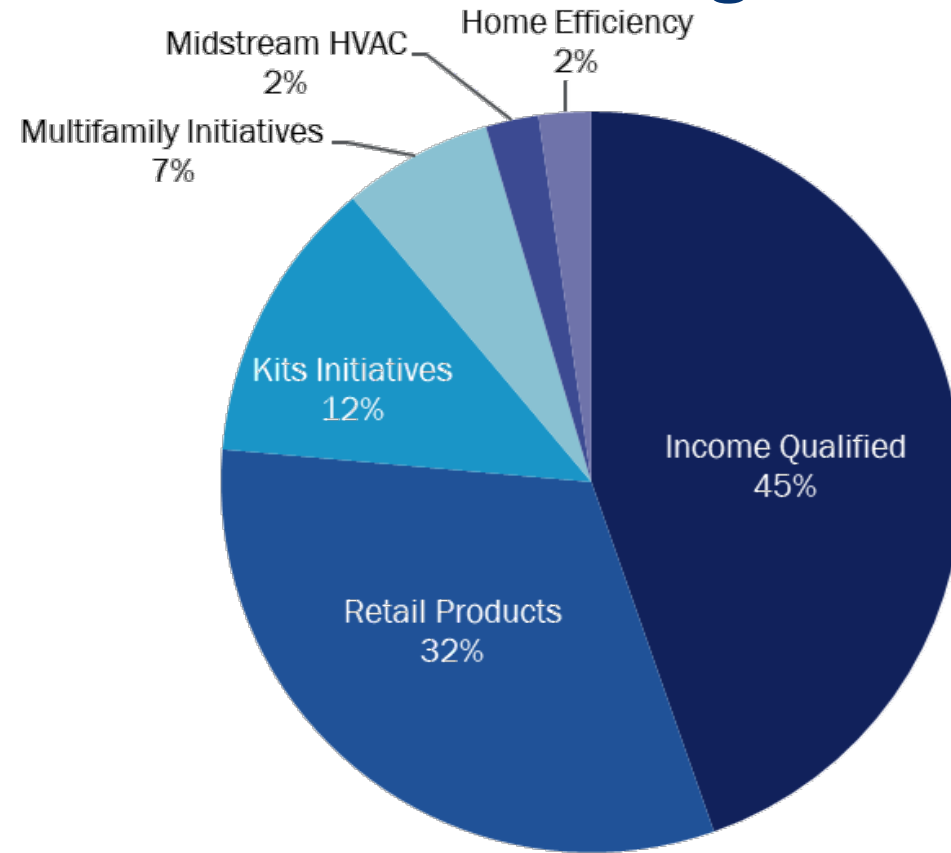
RESIDENTIAL

2023 Residential Program

Energy Savings



Gas Savings



2023 Residential Sector Evaluation Summary

Initiative	Channel	Impact Approach & Focus Areas
Retail Products	Efficient Choice Tool	<ul style="list-style-type: none"> Deemed purchase rates based on past research + TRM approach
Market Rate Single Family	Midstream HVAC	<ul style="list-style-type: none"> Verification of TRM application Market effects NTG research Distributor process research
Retail Products	Point of Purchase & Online Marketplace	<ul style="list-style-type: none"> Verification of TRM application
Market Rate Single Family	Home Efficiency	<ul style="list-style-type: none"> Verification of TRM application
Kits Initiatives (School Kits, High School Innovation, Community Kits)		<ul style="list-style-type: none"> Verification of TRM application

2023 Evaluation Activities – Retail Products (ECT)

Research Context

- Third full year of AIC implementation of the Efficient Choice Tool
- Extensive research from 2020-2022 led to IL-TRM workpaper and deemed NTGRs
- Goal now is to test deemed approach for 2023 evaluation to decrease required effort to evaluate this program

Key Research Objectives

- Estimate net impacts associated with the ECT

Evaluation Approach

- Staff Interviews – assess experiences to-date, expectations, goals, operations, etc.
- Program Material Review – review materials supporting the program, specifically web traffic information (Unique Active Shoppers)
- Impact Evaluation – Deeming purchase rates for 2023 based on 2020-2022 research; combine with IL-TRM V11.0 protocol & deemed NTGRs to estimate net impacts

2023 Evaluation Activities
Process
Staff Interviews / Material Review
Impact
Estimate Unit Sales Associated with ECT
IL-TRM V11.0 Application
Application of Deemed NTGRs

2023 Evaluation Activities – MR SF Midstream HVAC

Research Context

- Year 3 of AIC’s implementation of Midstream HVAC
- Continued focus on exploring broader market effects due to this Initiative
- Attribution still somewhat uncertain
- IRA tax credits may impact program outcomes in 2023

Key Research Objectives

- Explore attribution and consider IRA effects
- Estimate net impacts associated with offering, including market effects
- Continue to assess distributor experience with the offering

Evaluation Approach

- In-depth interviews with participating distributors
- Additional research as needed to assess market effects

2023 Evaluation Activities
Process / Market
Distributor Interviews
Impact
IL-TRM V11.0 Application
Application of Deemed NTGRs
Market Effects



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INCOME QUALIFIED

2023 Income Qualified (IQ) Sector Evaluation Summary

Initiative	Channel	Impact Approach & Focus Areas
IQ	Single Family	<ul style="list-style-type: none"> Verification of TRM application Additional Health & Safety opportunities
IQ	Mobile Homes & Air Sealing (MHAS)	<ul style="list-style-type: none"> Verification of TRM application Early process evaluations focused on delivery partners/Program Allies
IQ	Healthier Homes (HH)	
IQ	Community Action Agency (CAA)	<ul style="list-style-type: none"> Verification of TRM application Annual review of performance/key changes
IQ	Smart Savers	
IQ	Electrification	
Multifamily Initiatives		<ul style="list-style-type: none"> Verification of TRM application Deep dive into property manager and tenant experience

2023 Evaluation Focus Activities - Income Qualified Initiative

Evaluation Context

- Major component of AIC's portfolio
- Several new channels added in 2022
- CEJA requires greater focus on Health, Comfort, and Safety (HCS)
- Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA) will provide significant additional funding to IQ customers

Key Research Objectives

- Understand IRA funding impact on IQ Initiative
- Assess performance of newest channels: HH and MHAS
- Find opportunities for additional HCS measures

Evaluation Approach

- AIC and implementation staff interviews
- In-depth interviews with Program Allies and delivery partners (multiple channels)
- Site visits to IQ Single Family Channel participant homes

2023 Evaluation Focus Activities

Process

- Delivery partner/Program Ally interviews for HH and MHAS
- Site visits for HCS opportunities

2023 Evaluation Focus Activities – Multifamily Initiatives

Evaluation Context

- Holistic review of three segments: IQ (largest), market-rate, and public housing
- One-stop shop (OSS) approach connects multiple Initiatives
- Very large market-rate project underway in 2022-2023

Key Research Objectives

- Monitor property manager/owner experiences with OSS
- Understand tenant experience and end-use behavior, particularly related to heat pumps)
- Update tenant unit in-service rates (ISRs)

Evaluation Approach

- AIC and implementation staff interviews
- Surveys with tenants of participating properties (process and ISR focus)
- In-depth interviews with participating property managers/owners (process focus)

2023 Evaluation Focus Activities

Process

Tenant survey

In-depth interviews with property managers



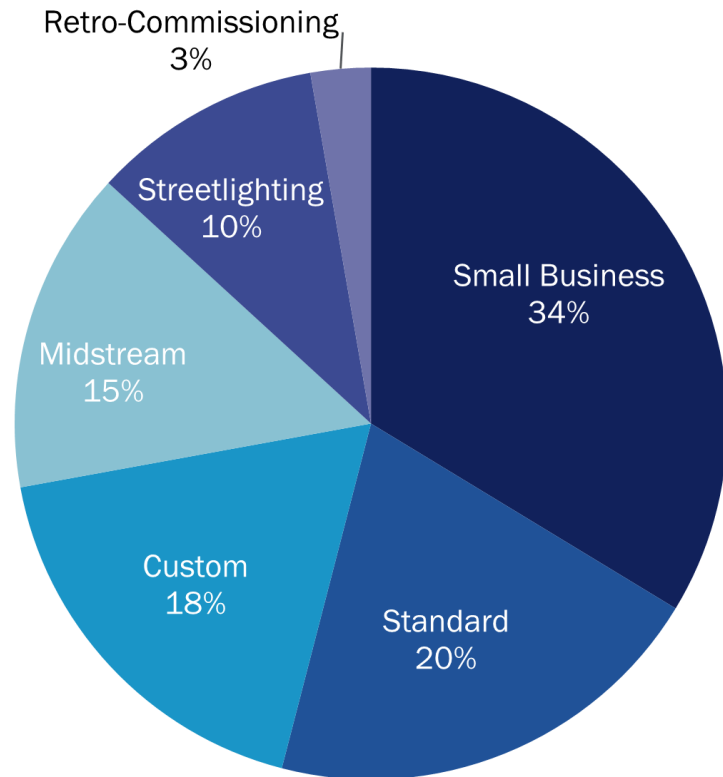
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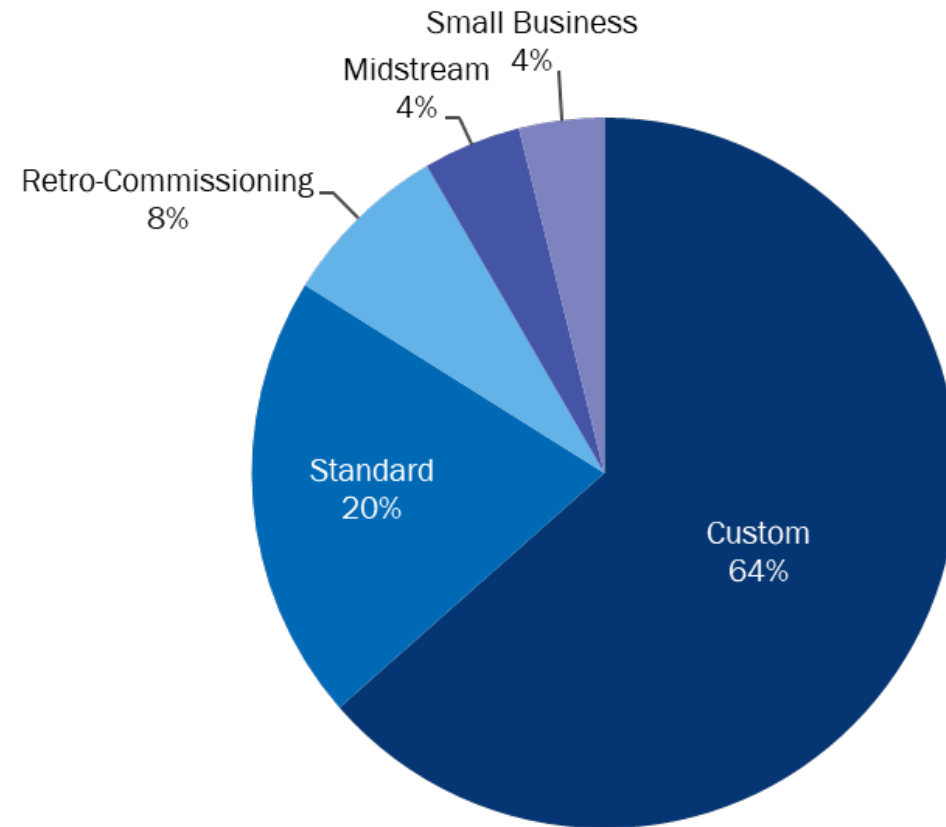
BUSINESS

2023 Business Program

Energy Savings



Gas Savings



2023 Business Program Evaluation Summary

Initiative	Impact Approach & Focus Areas
Standard	<ul style="list-style-type: none"> ▪ Verification of TRM application ▪ Research with participating contractors and customers to support NTG updates
Small Business	<ul style="list-style-type: none"> ▪ Verification of TRM application ▪ Market study ▪ Research with participants in SBEP channel, including NTG update pending Policy Manual updates regarding NTGRs for disadvantaged communities
Midstream	<ul style="list-style-type: none"> ▪ Verification of TRM application ▪ Research with participating customers, contractors, and distributors in the HVAC and Food Service channels including NTG updates
Streetlighting	<ul style="list-style-type: none"> ▪ Verification of TRM application
Building Operator Certification	<ul style="list-style-type: none"> ▪ Verification of TRM application

2023 Business Program Evaluation Summary

Initiative	Impact Approach & Focus Areas
Custom	<ul style="list-style-type: none">▪ Custom M&V▪ Process mapping▪ Program ally research▪ Review of ex ante impact approach
Retro-Commissioning	<ul style="list-style-type: none">▪ Custom M&V for traditional RCx, statistical impacts for VCx▪ Participant research for VCx channel including NTG updates

2023 Evaluation Activities – Standard Initiative

Evaluation Context

- The Standard Initiative is expected to be the second largest Initiative in the 2023 Business Program in terms of energy and gas savings
- Updated NTG estimates are needed
- The evaluation team has not historically researched contractor spillover for this Initiative

Key Research Objectives

- Assess participant satisfaction with the Initiative
- Determine participant free-ridership and contractor spillover rates

Evaluation Approach

- In-depth interviews with contractors and surveys with participants to support process and attribution research

2023 Evaluation Focus Activities

Process/Market

- | |
|---|
| Participant Process Research |
| Contractor and Participant NTG Research |

2023 Evaluation Activities – Small Business Initiative

Evaluation Context

- The Small Business Initiative was created as part of the 2022-2025 Plan
- The Initiative includes two channels – Direct Install (SBDI) and Energy Performance (SBEP), which AIC designed to holistically meet the needs of customers in the Small Business segment
- NTG estimates are needed for SBEP

2023 Evaluation Focus Activities
Process/Market
Small Business Market Study
SBEP Process Research
SBEP NTG Research

Key Research Objectives

- Explore whether the design of the Initiative aligns with the barriers reported by small business customers, assess whether the Initiative interventions sufficiently address these barriers, and understand knowledge of and interest in energy efficiency among customers in this segment
- Assess participant satisfaction with the SBEP channel
- Determine free-ridership and spillover rates in the SBEP channel

Evaluation Approach

- General population survey to support the market study
- Participant survey to support process and attribution research

2023 Evaluation Activities – Midstream HVAC Channel

Evaluation Context

- The Midstream Initiative was created as part of the 2022-2025 Plan
- The Initiative includes three channels: Lighting, HVAC, and Food Service
- NTG estimates are needed for the HVAC and Food Service channels
 - We plan to conduct HVAC and Food Service research in 2023

2023 Evaluation Focus Activities

Process/Market

HVAC Contractor and Distributor
Process Research

HVAC Contractor and Distributor NTG
Research

Key Research Objectives

- Assess contractor and distributor satisfaction with the HVAC channel
- Determine free-ridership and spillover rates in the HVAC channel

Evaluation Approach

- In-depth interviews with contractors and distributors to support process and attribution research

2023 Evaluation Activities – Midstream Food Service Channel

Evaluation Context

- The Midstream Initiative was created as part of the 2022-2025 Plan
- The Initiative includes three channels: Lighting, HVAC, and Food Service
- NTG estimates are needed for the HVAC and Food Service channels
 - We plan to conduct HVAC and Food Service research in 2023

Key Research Objectives

- Assess participant and distributor satisfaction with the Food Service channel
- Determine free-ridership and spillover rates in the Food Service channel

Evaluation Approach

- In-depth interviews with distributors and surveys with participants to support process and attribution research

2023 Evaluation Focus Activities

Process/Market

Food Service Participant and
Distributor Process Research

Food Service Participant and
Distributor NTG Research

2023 Evaluation Activities – Custom Initiative

Evaluation Context

- The Custom Initiative is expected to be the largest Initiative in the 2023 Business Program in terms of gas savings, and the third largest in terms of electric energy savings
- Given the nature of EM&V activities, significant risk exists for AIC around Custom.
- Custom has exhibited a declining electric gross realization rate over the past 3 years
- Changes in eligible customers has created opportunity and additional risk

2023 Evaluation Focus Activities

Process/Market

Comprehensive Process Evaluation

Key Research Objectives

- Assess performance of Custom Initiative in key areas, including but not limited to:
 - Pipeline development and management
 - Program ally engagement, support, and management
 - Ex ante impact evaluation approach and management
- Identify areas for improvement to help deliver more consistent, stable savings

Evaluation Approach

- Process mapping to document existing Custom Initiative approach top to bottom and review ex ante impact evaluation approach
- Interviews with key program staff and stakeholders to understand existing pipeline development and management approach
- Program ally interviews to understand engagement, support, and management of allies

2023 Evaluation Activities – Virtual Commissioning Channel

Evaluation Context

- The channel leverages AMI data of small and medium businesses to identify opportunities for energy and gas savings
- We conducted preliminary research with participants in 2021 to understand participants' experience with the channel, as well as attribution of savings
- AIC has scaled up the VCx channel in recent years, and there is now enough past participation to support robust attribution research

Key Research Objectives

- Assess participant satisfaction with the VCx channel
- Determine free-ridership and spillover rates in the VCx channel

Evaluation Approach

- Participant survey to support process and attribution research

2023 Evaluation Focus Activities

Process/Market

VCx Process Research

VCx NTG Research

2023 Evaluation Activities – Non-Participant Spillover (NPSO)

Evaluation Context

- We last completed nonresidential NPSO research in 2018

Key Research Objectives

- Assess NPSO resulting from the Business Program for inclusion in SAG-approved NTGRs
- Identify barriers to participation that AIC can overcome to boost engagement among key market segments

Evaluation Approach

- Survey with eligible AIC business customers who have not participated in the Business Program within the past three years
- Follow-up engineering analysis to quantify any savings
- Expect to conduct in coordination with at least one Northern Illinois utility

2023 Evaluation Focus Activities

Process/Market

NPSO Survey



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PILOTS & EMERGING AREAS

2023 Evaluation Activities – LLLC Offering

Evaluation Context

- LLLC is relatively new to the AIC portfolio having launched in 2022
- This is the only market transformation initiative currently offered by AIC

Key Research Objectives

- Develop short term MPI assessments and refine PTLM and longer term MPIs as needed
- Develop baselines of awareness of and familiarity with LLLC technology among key customer and market actor populations
- Assess effectiveness of outreach and educational components of the program
- Work with LLLC team to refine the natural market baseline
- Identify possible program improvements and/or opportunities

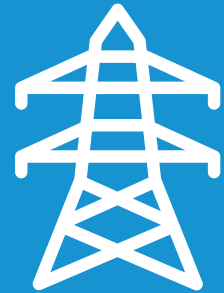
Evaluation Approach

- Complete baseline surveys with end use customers and trade allies that are the focus of the intervention
- Surveys and post-training interviews with recipients of training and outreach
- Quantify short- and mid-term MPIs (i.e., MPI II, III, IV, and VI)

2021 Evaluation Activities	
Process	
	Refine Logic Model
	Staff Interviews/Program Material Review
	Pre/Post Training Surveys
Impact	
	Baseline Surveys
	Natural Market Baseline Review
	Short term MPI assessments
	Verify savings from LLLC Pilot projects



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VOLTAGE OPTIMIZATION

2023 Evaluation Activities – Voltage Optimization

Evaluation Context

- AIC is deploying approximately 180 VO circuits in 2022, which will start operating on January 1, 2023
- VO represents over 20% of AIC’s planned portfolio electric energy savings in 2023

Key Research Objectives

- Estimate energy and demand impacts from these 180 circuits based on the IL-TRM V11.0 approach
- Confirm ongoing operation of VO deployed in previous years

Evaluation Approach

- Review of pre-period and post-period AMI data
- Verification that VO circuits deployed in previous years are still operational
- IL-TRM based impact evaluation approach with multiple interim impact evaluations

2023 Evaluation Activities	
Process	
	Data Requests and Material Reviews
Impact	
	Verification of VO Deployment to Date
	IL-TRM V11.0 Application



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PORTFOLIO-LEVEL

2023 IL-TRM Evaluation Activities

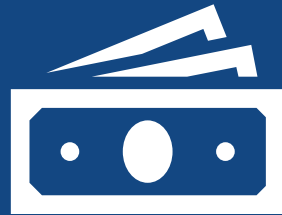
- Specific research items currently being scoped for 2023
 - Focus on TRM parameter updates for air source heat pumps
 - Income Qualified appliance baselines
 - Small business parameter updates from market study
 - Nonresidential lighting updates
 - Incremental costs
 - Mogul lighting

NEI Scopes

- Residential
 - IQ NEIs
 - Post-treatment survey concludes in Q1 2023
 - Analysis and reporting in Q2/Q3 2023
 - Considering timing/budget availability for Societal NEI update
- Business
 - No research currently planned



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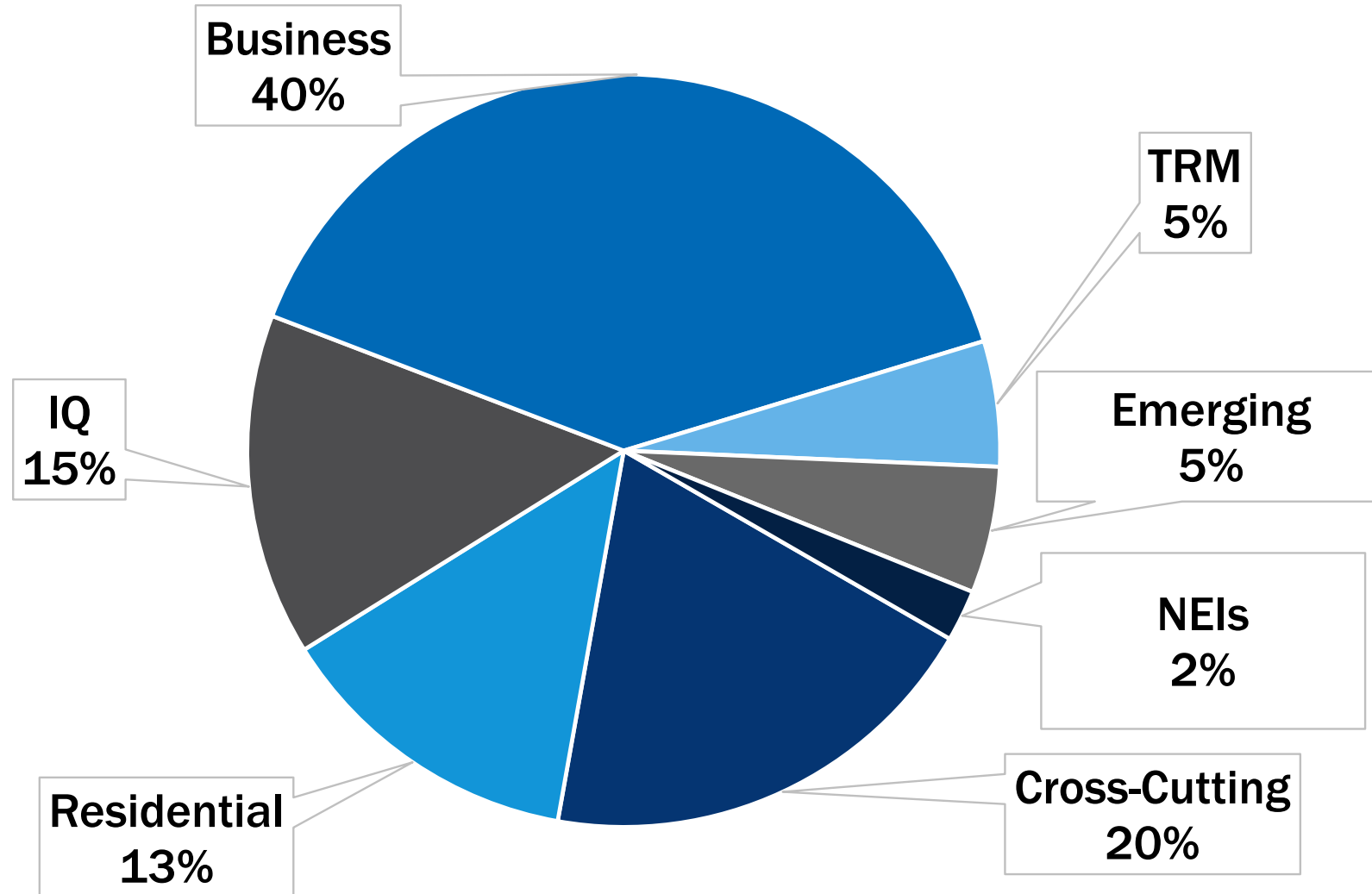


BUDGET OVERVIEW

2023 Evaluation Budget Overview

- Budgets are split between initiative-specific and other evaluation efforts
 - Initiative size and/or expected savings is a guiding factor taken into account - but not used as a rule - in determining budget allocations
- AIC is a dual-fuel program administrator, and therefore budgets are also split between electric and gas evaluation activities
- Budget is reserved for ad-hoc requests as items emerge from AIC/ICC/SAG discussion

2023 Draft Evaluation Budget Breakdown





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