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# AMEREN ILLINOIS COMPANY 2024 ENERGY EFFICIENCY PORTFOLIO EVALUATION PLAN

PRESENTATION TO ILLINOIS STAKEHOLDER ADVISORY GROUP

DECEMBER 5, 2023



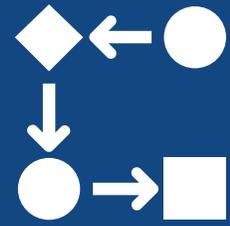
# Agenda

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- Overview of 2024 evaluation approach
- Program-specific evaluation activities
- Portfolio-level evaluation activities
- Evaluation budget overview



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# OVERVIEW OF 2024 EVALUATION APPROACH

# Key Annual Evaluation Objectives

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# Anticipated 2024 NTG Updates

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- Residential
  - Retail Products
  - Midstream HVAC
- Business
  - Midstream HVAC
  - Midstream Lighting
  - Custom
  - Small Business Direct Install
  - Virtual Commissioning

# 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
  - 2024 collaborative research planned
    - Compressed Air Leak Repair EUL Study
    - Statewide Midstream Food Service NTG Research



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# PROGRAM-SPECIFIC EVALUATION PLANS

# 2022-2025 Ameren Illinois Portfolio Overview

**PROGRAM**

Voltage Optimization Program	Residential Program	Business Program
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**INITIATIVES**

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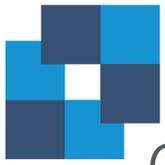
- We organize our evaluation activities to most effectively use evaluation resources, minimize customer touchpoints, and provide research insights while considering the delivery strategy and unique characteristics of each AIC offering



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# RESIDENTIAL PROGRAM



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# MARKET RATE AND KITS

# Market Rate and Kits Initiatives – 2024 Evaluation Highlights

Initiative (Channel)	Impact Approach & Focus Areas
Retail Products (Point-of-Purchase and Online Marketplace)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Participant survey: NTGR; ISR; participant satisfaction</li> </ul>
Market Rate Single Family (Midstream HVAC)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Market effects research</li> <li>• Contractor interviews</li> </ul>
Market Rate Single Family (Home Efficiency)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Participant survey: participation experience; project financing strategies; influence of federal tax credits; partial participant barriers to comprehensive retrofits</li> </ul>
Kits Initiatives (School Kits, High School Innovation)	<ul style="list-style-type: none"> <li>• Verification of TRM application; use of survey-collected household factors</li> <li>• Participating teacher surveys: feedback on curriculum &amp; in-class materials</li> </ul>
Kits Initiatives (Income Qualified Community Kits)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> </ul>

# 2024 Evaluation Activities – Retail Products Initiative

## Evaluation Context

- For several measures, in-service rates (ISR) and net-to-gross ratios (NTGR) have never been evaluated or have not been evaluated for several years
- Historically limited process research related to participants/shoppers
- The Initiative may be an important future vector for promoting electrification technologies (e.g., heat pump water heaters)

## Key Research Objectives

- Develop or update ISRs and NTGRs for a variety of Point of Purchase (POP) and Online Marketplace measures
- Understand participant interest and attitudes towards fuel-switching

## Evaluation Approach

- AIC and implementation staff interviews
- Participant survey (Point of Purchase and Online Marketplace)

2024 Evaluation Activities	
<b>Process</b>	Participant Survey (POP and Online Marketplace)
<b>Impact</b>	IL-TRM V12.0 Application
	Participant Survey (POP and Online Marketplace)

# 2024 Evaluation Activities – Midstream HVAC Channel

## Evaluation Context

- Limited response from contractors to estimate market effects, some concerns about the validity of contractor data and responses
- There may be an opportunity to survey more contractors and ask additional questions to refine and contextualize results

## Key Research Objectives

- Re-evaluate influence of Midstream HVAC Channel incentives on contractor sales practices

## Evaluation Approach

- AIC and implementer staff interviews
- Contractor interviews (market effects and NTG)

2024 Evaluation Activities
Impact
IL-TRM V12.0 Application
Contractor Survey

# 2024 Evaluation Activities – Home Efficiency Channel

## Evaluation Context

- Relatively new channel (launched in 2021) that has not received a comprehensive process evaluation
- Limited participation to date, with potentially significant barriers to completing comprehensive retrofits (e.g., customers must pay a portion of the costs)
- Inflation Reduction Act (IRA) tax credits have potentially affected customer interest in energy efficiency in general

## Key Research Objectives

- Gauge customer satisfaction with the participation experience, Channel staff and Program Allies, and measures received
- Understand how participants paid for their projects (e.g., use of upfront cash, credit cards, financing)
- Determine participant awareness of IRA tax credits and, where applicable, the relative influence of tax credits compared to Channel incentives
- Explore barriers to completing comprehensive retrofits amongst those who did not pursue them (“partial participants”)

## Evaluation Approach

- AIC and implementer staff interviews
- Participant survey (full and partial participants)

2024 Evaluation Activities	
Process	Participant Survey
Impact	IL-TRM V12.0 Application

# 2024 Evaluation Activities – Kits Initiatives

## Evaluation Context

- Previous evaluations have not collected feedback from teachers, who are critical delivery partners
- Opportunities to assess the educational and/or career-oriented benefits of the in-class curriculum

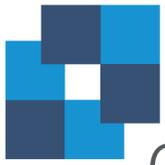
## Key Research Objectives

- Collect teacher feedback on recruitment participation processes, the quality of the curriculum and in-class activities, and student reception and engagement with the material
- Opportunities to improve partnership with teachers, curriculum, and in-class activities

## Evaluation Approach

- AIC and implementer staff interviews
- Participating teacher survey

2024 Evaluation Activities
<b>Process</b>
Participating Teacher Survey (School Kits and High School Innovation)
<b>Impact</b>
IL-TRM V12.0 Application



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INCOME QUALIFIED AND  
MULTIFAMILY

# Income Qualified Initiative – 2024 Evaluation Highlights

Initiative (Channel)	Impact Approach & Focus Areas
Income Qualified (Single Family/CAA/Joint Utility)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Process evaluation of CAA staffing pilot</li> <li>• Tree Planting Pilot Best Practices Review</li> </ul>
Income Qualified (Smart Savers)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Program Ally Interviews, including those within the Smart Self-Reliance Pilot</li> </ul>
Income Qualified (Community Kits)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> </ul>
Income Qualified (Mobile Homes)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Participant survey – onsite with local partner(s)</li> </ul>
Income Qualified (Healthier Homes)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Program design review</li> <li>• Delivery partner interviews</li> <li>• NEI research</li> </ul>
Income Qualified (Accessibility Pilot)	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• Delivery partner interviews</li> <li>• NEI research</li> </ul>

# 2024 Evaluation Focus Activities - Income Qualified Initiative

## Evaluation Context

- Major component of AIC’s portfolio
- New pilots in 2024
- Expansion of existing Channels

## Key Research Objectives

- Assess performance of pilots within the Initiative
- Find opportunities for process improvements across the Initiative

## Evaluation Approach

- AIC and implementation staff interviews
- In-depth interviews with Program Allies and delivery partners (multiple channels)
- Surveys with property managers, CAA trainees, and Mobile Homes Channel participants

2024 Evaluation Activities
<b>Process</b>
Interviews with Program Allies and Delivery Partners
Property Manager Survey
Participant Survey (Mobile Homes Channel)
CAA Staffing Pilot Trainee Survey
<b>Impact</b>
IL-TRM V12.0 Application

# Multifamily Initiatives – 2024 Evaluation Highlights

Initiative (Channel)	Impact Approach & Focus Areas
Income Qualified (Multifamily)	• Verification of TRM application
Public Housing	• NTGR research for Market Rate MF
Market Rate Multifamily	• OSS evaluability assessment • Participation analysis • Property manager survey

# 2024 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

## Key Research Objectives

- Gauge the feasibility and appropriateness of conducting an evaluation of the OSS model
- Understand property manager experience and OSS design

## Evaluation Approach

- AIC and implementation staff interviews
- Evaluability assessment of OSS
- Participation analysis
- Surveys with property managers of participating properties

2024 Evaluation Activities	
<b>Process</b>	
	Interviews with property managers and owners
	Property Manager Survey
<b>Impact</b>	
	IL-TRM V12.0 Application



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# BUSINESS PROGRAM

# Business Program – 2024 Evaluation Highlights

Initiative (Channel)	Impact Approach & Focus Areas
Standard	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> </ul>
Custom	<ul style="list-style-type: none"> <li>• Custom M&amp;V</li> <li>• NTG research with participating customers</li> <li>• Continuation of process research</li> </ul>
Small Business	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> <li>• NTG research with participating Small Business Direct Install (SBDI) Channel customers</li> </ul>
Midstream	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> </ul>
Retro-Commissioning	<ul style="list-style-type: none"> <li>• Custom M&amp;V for traditional Retro-Commissioning</li> <li>• Statistical impacts for Virtual Commissioning™ (VCx)</li> <li>• NTG research with participating VCx customers</li> </ul>
Streetlighting	<ul style="list-style-type: none"> <li>• Verification of TRM application</li> </ul>

# 2024 Evaluation Activities – Small Business Initiative

## Evaluation Context

- The Initiative includes two channels – Direct Install (SBDI) and Energy Performance (SBEP)
- NTG research has not been conducted for SBDI since 2020
- The SBEP channel targets customers in disadvantaged communities and therefore has an NTGR of 1.0

## Key Research Objectives

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

## Evaluation Approach

- Participant survey to support process and attribution research

2024 Evaluation Activities
<b>Process</b>
Data Requests, Material Reviews, Staff Interviews
<b>Impact</b>
NTG Research
IL-TRM V12.0 Application

# 2024 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
- AIC has scaled up the VCx channel in recent years
- We conducted NTG research with participants in 2023 but did not receive enough responses to recommend a NTG value; we plan to bolster the results with another wave of responses

## Key Research Objectives

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

## Evaluation Approach

- Participant survey to support process and attribution research

2024 Evaluation Activities
<b>Process</b>
Data Requests, Material Reviews, Staff Interviews
<b>Impact</b>
NTG Research
Statistical Impact Analysis

# 2024 Evaluation Activities – Custom Initiative

## Evaluation Context

- The Custom Initiative is expected to be the largest Initiative in the 2024 Business Program in terms of gas savings, and the third largest in terms of electric energy savings
- The evaluation team conducted a comprehensive process evaluation of the Initiative in 2023 and expects to complete follow-up work based on some of the findings of this research
- NTG research has not been completed for this Initiative since 2020

## Key Research Objectives

- Identify areas for improvement to help deliver more consistent, stable savings
- Determine free-ridership and spillover rates in the Initiative
- Assess participant satisfaction with the Initiative

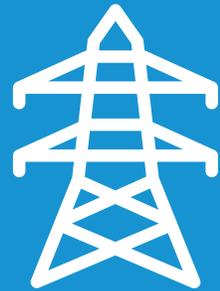
## Evaluation Approach

- Process research: TBD
- Participant survey to support process and attribution research

2024 Evaluation Activities
<b>Process</b>
Data Requests, Material Reviews, Staff Interviews
Follow-up Process Research
<b>Impact</b>
NTG Research
Desk Reviews, Onsite M&V, Early Reviews



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# VOLTAGE OPTIMIZATION PROGRAM

# 2024 Evaluation Activities – Voltage Optimization

## Evaluation Context

- AIC is deploying approximately 215 VO circuits in 2023, which will start operating on January 1, 2024
- VO represents approximately 18% of AIC’s planned portfolio electric energy savings in 2024

## Key Research Objectives

- Estimate energy and demand impacts from these 215 circuits based on the IL-TRM V12.0 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

2024 Evaluation Activities
<b>Process</b>
Data Requests, Material Reviews, Staff Interviews
<b>Impact</b>
Verification of VO Deployment to Date
IL-TRM V12.0 Application



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# PILOTS AND EMERGING AREAS

# Areas of Note in 2024

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Luminaire Level  
Lighting Controls  
MT Initiative

Virtual SEM

Business Energy  
Analyzer

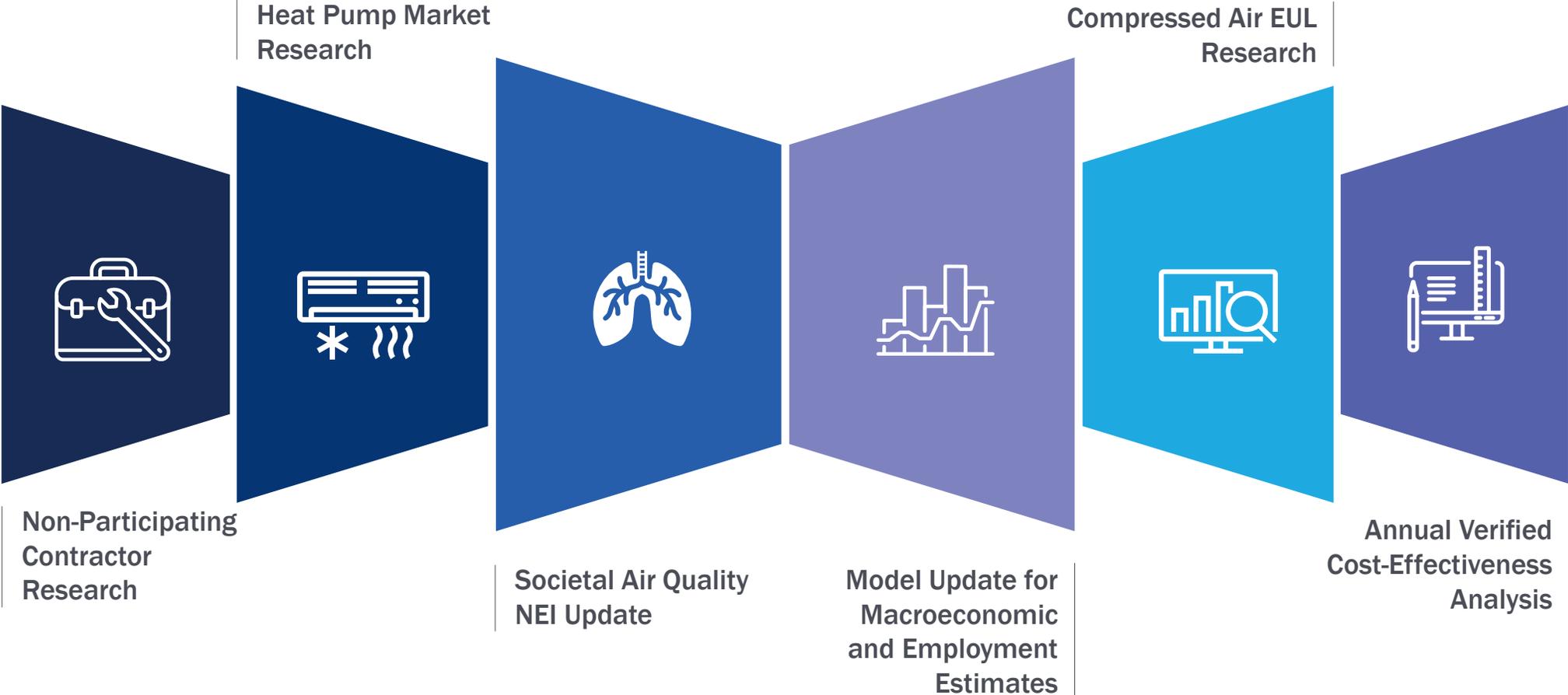


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# CROSS-CUTTING RESEARCH & ACTIVITIES

# Key Cross-Cutting Research and Evaluation Activities in 2024



# 2024 Evaluation Activities – Non-Participant Contractor Survey

## Evaluation Context

- AIC is looking to expand Program Ally (i.e., participating trade ally) networks in historically underserved regions (e.g., Southern Illinois)
- Technical knowledge gaps and staffing capacity shortages create challenges for recruiting capable Program Allies to expand reach
- AIC is interested in finding opportunities to support new and diverse trade allies to become involved with AIC Energy Efficiency Programs

## Key Research Objectives

- Characterize the types of services offered by trade allies, alignment of those services with AIC’s needs, and gaps in the market
- Explore barriers to become a participating Program Ally (e.g. awareness, financial risk, resource constraints, lack of qualifications or experience)
- Gauge trade ally interest in workforce development offerings available through the Market Development Initiative, such as the Program Ally Incubator and the Diverse Vendor Procurement Program

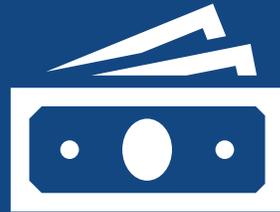
## Evaluation Approach

- Survey of non-participating contractors in priority regions (defined by ZIP code or county)

2024 Evaluation Activities
Market
Non-Participant Contractor Survey



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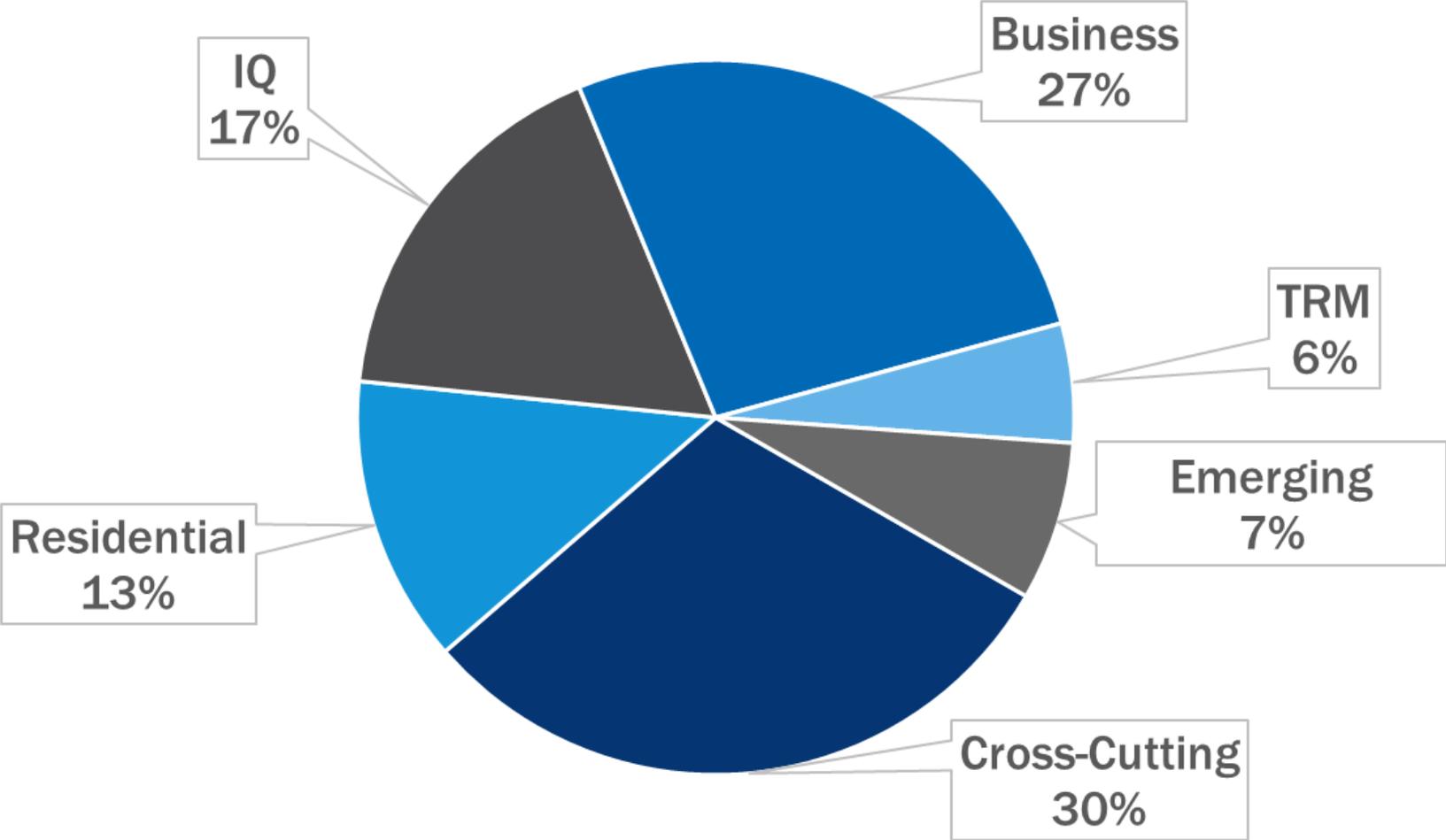
# BUDGET OVERVIEW

# 2024 Evaluation Budget Overview

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- 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

# 2024 Draft Evaluation Budget Breakdown





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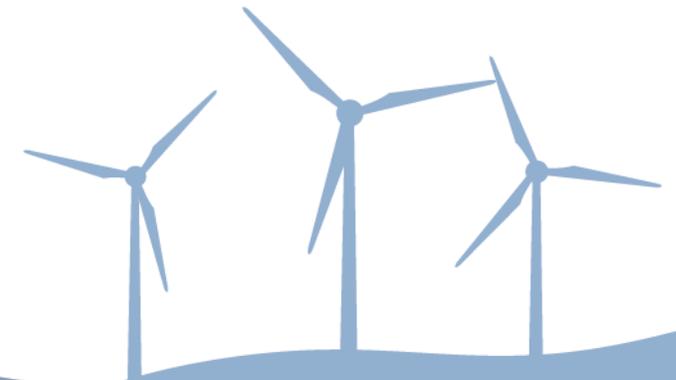
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# SUPPLEMENTAL SLIDES

# 2024 Evaluation Activities – Luminaire Level Lighting Controls

## Evaluation Context

- Business Plan for LLLC MT Initiative now approved by SAG
- Multi-year evaluation plan developed and approved by SAG as part of that Business Plan

## Key Research Objectives

- Explore areas for pilot improvement, including increasing its overall effectiveness and ease of implementation
- Measure the amount of knowledge gained from the LLLC training and determine if an increase in recommendations of LLLCs to clients occurred
- Assess the level of awareness and understanding of LLLCs among market actors
- Measure how the market share of LLLCs shifts over the evaluation period
- Estimate energy savings associated with the initiative

## Evaluation Approach

- Begin measuring progress toward MT goals through pre- and post-training assessments, market actor surveys, and market data analysis

2024 Evaluation Activities	
<b>Process</b>	
Materials Review	
Pre- and Post- Training Assessments	
Market Actor Surveys	
MPI Assessments	
<b>Impact</b>	
NLC and LLLC Sales Data Analysis	
Estimation of MT Savings	