Illinois EE Stakeholder Advisory Group
Large Group SAG Meeting

Wednesday, July 17, 2024
9:30 am – 12:30 pm
Teleconference

Attendees and Meeting Notes

Table of Contents

Meeting Materials

Posted on the July 17 meeting page:

- Wednesday, July 17 SAG Agenda
- SAG Facilitator Introduction to July Meeting
- Joint Utilities Update, Presented by Nicor Gas: Benefit Cost Assumptions
- Opinion Dynamics Presentation: Ameren Illinois Residential Market Effects Evaluation Approach
- SAG Facilitator Presentation: Introduction to Net-to-Gross for Disadvantaged Areas Policy
- Guidehouse Presentation: Impact of the Disadvantaged Areas Net-to-Gross Policy on ComEd, Nicor Gas, Peoples Gas and North Shore Gas
- Opinion Dynamics Presentation: Overview of Disadvantaged Areas Net-to-Gross Tracking for Ameren Illinois

Attendees

Name	Company or Organization
Celia Johnson	SAG Facilitator (Celia Johnson Consulting)
Jorge Medina Zambrano	SAG Meeting Support (Inova Energy Group)
Abigail Miner	IL Attorney General's Office
AJ Young	U.S. Greenlink
Alan Elliott	Opinion Dynamics
Alexis Allan	Brio

Name	Company or Organization
Alisa Garcia	ICF
Andrew Gorecki	Franklin Energy
Andrey Gribovich	DNV
Andy Vaughn	Leidos
Audrey Horner	Ameren Illinois
Cassidy Kraimer	Community Investment Corp.
Cher Seruto	EcoSpark Solutions
Chris Neme	Energy Futures Group, representing NRDC
Chris Vaughn	Nicor Gas
Christina Frank	Peoples Gas & North Shore Gas
Christopher Frye	Guidehouse
Darren McRoy	Walker-Miller Energy Services
David Lemmon	Utility Energy Services
Dena Jefferson	Franklin Energy
Elder Calderon	ComEd
Elizabeth Horne	ICC Staff
Erin Daughton	ComEd
Erin Stitz	Applied Energy Group (AEG)
Evan Tincknell	Opinion Dynamics
Fernando Morales	Ameren Illinois
Gregory Norris	Aces 4 Youth
Hannah Howard	Opinion Dynamics
Jaleesa Scott	ComEd
Jason Fegley	Ameren Illinois
Jean Gibson	Peoples Gas & North Shore Gas
Jeff Erickson	Guidehouse
Jenna DeFrancisco	Opinion Dynamics
Jennifer Alvarado	Franklin Energy
Jim Fay	ComEd
Joe Mays	Cascade Energy
John Carroll	Ameren Illinois
John Lavallee	Leidos
Jonathan Skarzynski	Nicor Gas
Josh Sharon	ComEd
Julia Friedman	Oracle
Kanchan Swaroop	Resource Innovations
Karen Lusson	National Consumer Law Center (NCLC)
Kari Ross	NRDC
Kathryn Brewer	CLEAResult
Keely Hughes	The JPI Group
Keith Cronin	VEIC (IL-TRM Administrator)
Ken Walczak	DarkSky International

Name	Company or Organization
Kevin Johnson	DNV
Kim Brown	ComEd
Kim Janas	IL Attorney General's Office
Kim Swan	ComEd
Kit White	MEEA
LaJuana Garrett	Nicor Gas
Lance Escue	Ameren Illinois
Larry Kotewa	Elevate
Mark Milby	Elevate
Matt Armstrong	Ameren Illinois
Mia Berrios	People for Community Recovery
Michael Collins	Franklin Energy
Michele McSwain	Sustainable Environmental and Economic Development Solutions
Neil Curtis	Guidehouse
Nelson May	Future Energy Enterprises (IQ South Facilitation Team)
Nick Moshage	Walker-Miller Energy Services
Nick Warnecke	Ameren Illinois
Nikki Pacific	Ameren Illinois
Nora Fitton	ICC Office of General Counsel
Omayra Garcia	Peoples Gas & North Shore Gas
Paul Higgins	Abacus Energy Works
Philip Halliburton	ComEd
Philip Mosenthal	Optimal Energy, representing NCLC
Rashaan Keeton, CEE	Center for Energy & Environment
RIck Tonielli	ComEd
Sam Dent	VEIC (IL-TRM Administrator)
Samuel Morris	The Will Group
Sara Castleberry	Resource Innovations
Sarah Evans	DNV
Selena Bell Heise	Brio
Seth Craigo-Snell	SCS Analytics
Shivana Shrestha	Walker-Miller Energy Services
Sri Paruchuri	Resource Innovations
Tamika J. Cole	Walker-Miller Energy Services
Tara Cunningham	Rinnai
Ted Weaver	First Tracks Consulting, representing Nicor Gas
Tina Grebner	Ameren Illinois
Tyler Sellner	Opinion Dynamics
Victoria Nielsen	ScottMadden
Zach Obert	Franklin Energy

Name	Company or Organization
Zach Ross	Opinion Dynamics
Zachary Froio	AEG

Opening and Introductions

Purpose of July 17 meeting:

1. For Illinois utilities to follow-up on Total resource Cost Test non-measure level inputs changes for the 2026-2029 EE Plans;
2. To educate participants on market effects evaluation efforts for Ameren Illinois; and
3. For Illinois utility evaluators to educate SAG on the approach to tracking the Net-to-Gross for Disadvantaged Areas policy.

Total Resource Cost Test (TRC) Non-Measure Level Inputs

Ted Weaver, First Tracks Consulting, representing Nicor Gas – joint utility update

Introduction

- This discussion is an update on benefit cost assumptions. This is a follow-up discussion to information presented to SAG by the utilities on June 12.
- Some of the approaches have been under discussion with the utilities in a separate forum from SAG – the potential study working group.
- Illinois utilities use a variety of benefit cost assumptions in EE portfolio planning, including:
    - Avoided energy supply costs
    - Avoided emissions costs
    - Avoided transmission and distribution costs
    - Avoided losses
    - Other non-energy impacts
    - Economic inputs

Avoided Energy Supply Costs

- Discussed high-level table without diving into details – see slide 3.
- Focused on resolving cost forecasting issues.
- High Costs:
    - Electric Side: Costs from ISO to generate electricity.
    - Gas Side: Costs from gas suppliers contracted with the utility.
- Resolution:
    - Narrowed down to two reliable forecasts for supply costs.
    - Chosen Forecast: Department of Energy's Annual Energy Outlook.
        - Note: May have updates every year, but sometimes takes over a year for the next version.
    - Consistency:
        - Using the same forecast for both electric and gas supply costs.
        - Ensures consistent input for gas prices affecting electric supply prices.

Chris Neme – The starting point is related to the current market prices. The forecast uses future energy pricing, correct?

Ted Weaver – We're starting from prices and emissions today but then transitioning to futures.

Karen Lusson – Wondering why using the national cost assumptions vs local Illinois?

Ted Weaver – This forecast on the electric side in the north for ComEd and the south for the ISO that serves Ameren. They are localized even though it is part of the national forecast.

Chris Neme – Starting with current to Illinois energy prices and then escalating to national energy averages forecast.

Philip Mosenthal – Do the national forecasts reflecting the same as PJM and MISO forecasts?

Ted Weaver – National energy forecast does localized forecasting specific to the area. Both PJM and MISO have shot-term focused.

Chris Neme – PJM capacity is 3-4 years.

Electric Energy Demand Forecasts

- Electric emissions rates are shown for greenhouse gas emissions – see slide 4.
    - Four colors represent different forecasts:
        - Green: NREL short-run marginal emissions rate (higher value).
        - Orange: NREL long-run marginal emissions rate (lower value).
        - Yellowish: Blended forecast from AEO and NREL.
- Short-run forecast (green):
    - Represents which plants will run on the margin, usually more gas plants.
- Long-run forecast (orange):
    - Represents which plants will be built and run, primarily renewables.
- Blended Forecast:
    - Combines NREL and AEO long-run forecasts.
    - AEO forecast shows much higher sales (about 50% higher by 2050) due to assumptions like building electrification and electric vehicles.
- Adjustments made for short-term and long-term inconsistencies.
- Emissions rates drop as more renewables are added to the grid.
- General Consensus:
    - Long-run perspective (orange) is considered better for analysis.
- AEO shows gas prices declining initially then gradually increasing in real terms.
- Similar approach used for MISO forecasts.
- The imputed long-run forecast from AEO didn't make sense, so the average forecast was used.
- Average forecast provided a similar pattern, higher than NREL long-run but closer to it than the short-run.
- Overall pattern shows a transition from a fossil fuel-intensive grid to a more renewable grid.

Avoided Emissions Costs

See slide 7

Emissions Types:

- Greenhouse gas emissions (global warming and climate change).
- Criteria emissions (NOx, SOx, etc., causing pollution and health issues).

Forecasting Emissions:

- Electric Side: Simulated grid changes using Annual Energy Outlook forecasts.
- Gas Side: Simpler engineering calculations for combustion emissions.

Agreements:

- Results from this discussion will not be held to in future proceedings.
- Focus on direct combustion emissions (from burning gas in furnaces, generators) rather than upstream emissions.

Emissions Calculation:

- Electric Side: Using Annual Energy Outlook forecasts and converting emissions rates to dollars using EPA's social cost of carbon.
- Gas Side: Engineering calculations, using the Avert model for criteria pollutants, translating emissions into dollars using the Cobra model.

Discount Rate Issue:

- Need to discount future damages to present value.
- Two discount rates being considered, with ongoing discussions.
- Guidehouse used a different discount rate in their study, creating inconsistency.
- The cumulative costs of three main factors are illustrated:
    - Blue line: Energy costs.
    - Orange line: Adds greenhouse gas costs.
    - Green line: Adds criteria pollutants costs.

Zach Ross – Are you assuming that Ameren will use the Opinion Dynamics study for criteria pollutants instead of the Guidehouse study, as you referenced for Nicor? Are you planning to use the same discount rate for social costs of criteria pollutants as for other value streams, or are you considering different rates for different value streams?

Ted Weaver – Deferring to the last part of the presentation, but assuming that the same discount rate will be used for everything.

Chris Neme – The substantial emissions value will result in a smaller percentage difference in energy prices once escalated by AEO and including capacity, T&D, and line loss rates, though the absolute difference remains the same.

Ted Weaver – Emissions factors don't change over time. The ATO price is described as the generation price, assumed to cover everything, but not yet translated due to the lack of short-term prices from various sources. The emissions costs are substantial, with greenhouse gas emissions doubling energy prices on the electric side and more than tripling them on the gas side.

Avoided Transmission and Distribution Costs

- See slide 13.
- Discussed previously in Large SAG meeting.
- Every utility's internal engineering group determines these.
- Actual numbers for utilities are not available to share.

Avoided Losses

- See slide 14.

Other Non-Energy Impacts

- Include water savings and O&M costs from the TRM.
- Additional health benefits from weatherization:
- Seeking advice from evaluators on usage.
- Applicable at a minimum to low-income weatherization programs, potentially all weatherization programs.

  Karen Lusson – Have you considered the broader benefits of low-income weatherization programs, such as increased affordability, preventing displacement due to disconnections, and how these impacts are accounted for beyond just health benefits?

  Ted Weaver – Evaluators couldn't find any quantifiable benefit.

  Phil Mosenthal – In other states they do count non-collection reduction but not in IL.

  Jeff Erickson – Will follow up.

  Chris Neme – About 10 years ago, NRDC proposed including a range of non-energy benefits in benefit-cost analyses, especially for low-income customers, and presented recommended values for various programs based on studies from other states.

  Karen Lusson – Do customers notice differences in their bill?

  Ted Weaver – How difficult is it to quantify specific non-energy impact issues?

Economic Inputs

- Determining application in terms of dollars per home or dollars per effective kilowatt hour is ongoing.
- Current method yielding inappropriate answers; needs updating.
- Real discount rate.
- Inflation rate.
- Consensus on current expectations (2-2.5%).
- Agreement to use the Annual Energy Outlook forecast (~2.4%).
- Debating whether 1.5% or 2% is more appropriate.

  Cher Seruto (via chat) – ComEd societal NEI report: https://www.ilsag.info/wp-content/uploads/ComEd-CY2020-Societal-NEI-Report-2021-03-10-Final.pdf states they used the COBRA tool here: https://www.abtglobal.com/projects/developing-the-cobra-health-impacts-screening-and-mapping-tool#:~:text=COBRA%20is%20a%20screening%2Dlevel,ambient%20fine%20particulate%20matter%20(PM2. which looks like it focuses on health not any benefits of retained occupancy

  Michele McSwain (via chat) – Who are the Evaluators?

Celia Johnson, Facilitator (via chat) – Guidehouse is the evaluator for ComEd, Nicor Gas, Peoples Gas and North Shore Gas.Opinion Dynamics is the evaluator for Ameren.

Keely Hughes – What methods are being used to determine bill reduction? How is this currently being shown in its effectiveness?

Ted Weaver – For each plan, we evaluate energy savings by reviewing site-specific estimates for implemented projects over the past year and translating these into real savings, with past evaluations, such as the one by the program implementer, showing good estimates of bill savings.

Celia Johnson, Facilitator (via chat) – Final NEI research is posted on the SAG NEI Working Group webpage, under "Non-Energy Impact Resources": https://www.ilsag.info/nei-working-group/

Zach Ross (via chat) – For Ameren Illinois, we scoped (but did not execute as a result of data constraints) the study type that Chris described - which we called "Utility NEIs" (the value accrued to the utility of reducing arrearages etc.). As part of the IQ program health benefits studies we have done for Ameren, we have asked some (not all) of the questions Karen mentioned. We have reported on those results and I can share them. However, we did not find effects that were monetizable from a cost-effectiveness testing perspective. Finally, as part of Ameren's compliance with the CEJA provision that requires arrearage reduction studies, we are currently in progress doing a study looking at how participation in Ameren's IQ programs change a number of metrics related to customer bill effects. However, we have not designed this study in a manner that would directly produce monetizable benefits in a way you would incorporate into a CE test.

Karen Lusson, National Consumer Law Center (via chat) – Zach, which CEJA provision are you referring to related to required arrearage reduction studies?

Zach Ross (via chat) – Under 220 ILCS 5/8-103B(c). The utilities shall also pilot targeting customers with high arrearages, high energy intensity (ratio of energy usage divided by home or unit square footage), or energy assistance programs with energy efficiency offerings, and then track reduction in arrearages as a result of the targeting. This targeting and bundling of low-income energy programs shall be offered to both low-income single-family and multifamily customers (owners and residents).

Karen Lusson, National Consumer Law Center (via chat) – Per Zach's citation to 8-103B(c): What is the status of ComEd's and Ameren's use of arrearages to target its IQ weatherization outreach? Is that being done now?

Next Steps

- Incorporate what is possible on non-energy impacts now; reconvene the Non-Energy Impacts Working Group post-plan filings.
- Address discount rate issues and related economic inputs.
- Combine inflation and real discount rates to determine the nominal discount rate.
- Use a consistent approach for inflation across utilities, based on the Annual Energy Outlook (AEO).

Discount Rate Estimates

- 10-year treasury note estimates
- Real discount rates have been historically low, around 3-4% based on Treasury notes.
- Academic and social cost of carbon analyses suggest a range of 1.5% to 2.5% for real discount rates.
- Open question – whether to use a discount rate of 1.5% or 2%. Utilities will share an update with SAG when EE Plans are presented.

Celia Johnson, Facilitator (via chat) – Keely, Ted mentioned a previous SAG presentation on income eligible bill impacts. That meeting occurred in September 2023. Here is a link to meeting materials: https://www.ilsag.info/event/tuesday-september-26-q3-sag-meeting/

Follow-up Items:

- Benefit Cost Assumptions
  - Zach Ross (Opinion Dynamics) will send previous criteria pollutant update for Ameren Illinois. This is currently being updated and it will be ready next month.
  - Open question – whether to use a discount rate of 1.5% or 2%. Utilities will share an update with SAG when EE Plans are presented.
- Non-Energy Impacts
  - Jeff Erickson (Guidehouse) will follow-up on results of previous research of quantifying benefits of arreages, collection reduction.
  - Guidehouse and Opinion Dynamics will share their assessments of non-energy impact values with Ted Weaver. Ted will circulate to the other utilities.
  - National Consumer Law Center Question: What is the status of ComEd's and Ameren's use of arrearages to target IQ weatherization outreach, per Section 8-103B(c). Is that being done now?
  - SAG Facilitator will request evaluators to highlight non-energy impact research when draft evaluation plans are presented to SAG in December.
  - Consider reconvening the Non-Energy Impacts Working Group after EE Plan filings in 2025.

Opinion Dynamics Presentation: Ameren Illinois Residential Market Effects Evaluation Approach

Nick Warnecke, Ameren Illinois; Evan Tincknell, Opinion Dynamics; Selena Bell-Heise, Brio

Market Effects Background

- TRM V12 Definition:
  - A change in the structure of a market or the behavior of participants reflective of a change in adoption of energy-efficient products, services, or practices causally related to market interventions/programs.
- Examples of market effects include increased levels of awareness of energy-efficient technologies among customers and suppliers, increased availability or reduced prices for energy-efficient equipment, and (the end goal) increased market shares for energy efficient goods, services, and design practices.
- Market effects are structural changes to the market. Behavioral changes among market actors (e.g., end users, contractors, distributors).
- Traditional focus of energy efficiency evaluation: Incentive sales.

Broader market effects:

- Shifts in market awareness and acceptance.
- Spurring adoption of efficient products beyond direct incentives.
- Midstream Age Back Channel:
- Part of the Amarillo, Illinois single-family market rate initiative.
- Focused on promoting high-efficiency HVAC and water heating equipment.
- Implementation partners include:
- Brio: Leads program strategy and design.
- Leidos: Handles day-to-day implementation and program tracking.
- CMC Energy Services: Engages with distributors, facilitates training, and manages distributor incentives.
- Midstream incentives are provided directly to distributors for approved high-efficiency HVAC and water heating sales.
- Distributors pass these incentives to contractors, who then offer discounted efficient products to end users.
- The program theory logic model addresses cost as a barrier and other aspects of the program.
- The program theory logic model includes:
    - Barriers addressed: cost, customer awareness, contractor awareness, and distributor practices.
    - Activities and outputs: incentives, marketing, education, and training.
    - End goal: increased sales of high-efficiency HVAC and water heating equipment.

Market Effects Evaluation Framework

- In 2022, Opinion Dynamics, AIC, and implementation partners collaborated to develop the market effects evaluation framework based in part on the Midstream HVAC PTLM
- Framework centers on two sources of information:
- Distributor-reported sales data
    - Tracking program incentive sales to get total sales data
- Contractor-reported feedback
- Distributors can speak to broader sales figures and stocking practices
- Contractors work directly with both distributors and end-users
    - Additional primary feedback
- The market effects evaluation framework is developed by Ameren Illinois partners.
- It is based on the CRM and the program theory logic model.
- The framework uses two main pieces of information:
- Distributor-reported sales data, including both incentivized and non-incentivized sales.
- Tracking of incentive program sales and total sales from distributors.

Distributor Sales Data

- LEIDOS includes sales data reporting expectations in agreements with distributors.
- Quarterly data requests are sent via email by LEIDOS and followed up in person and by email by CMC's distributor account management team.
- Collected data is reviewed, processed, and shared with ODC for analysis.
- Questions about the data collection approach are welcomed before detailing specific data requests.
- Brio, with support from CMC, collects total sales data from participating distributors.
- Data includes both incentivized and non-incentivized sales, with details on qualifying energy-efficient equipment.
- Starting this year, data is requested quarterly from all participating distributors.

- The non-incentivized energy-efficient sales data is used to quantify market effects.
- Midstream HVAC Channel staff collect sales data from distributors reflecting total sales
- (inclusive of non-incentivized)
- Distributors provide extracts with detailed equipment information for all Illinois sales
- As of 2024, this data is provided quarterly by participating distributors
- The non-incented, energy-efficient portion of these sales from participating distributors
- serve as the basis for quantifying potential market effects

Approach to Capturing Distributor Sales Data

1. Integrated sales data reporting expectations into distributor agreements
2. Deploy quarterly data requests to distributors (CMC)
3. Collect & process sales data from distributors
4. Provide incented and non-incented sales data to ODC for analysis

Distributors are requested to provide total heat pump water heater and HVAC sales data.

- Requested details include quantity sold, manufacturer name, model numbers, month/year, and distributor location.
- No specific format is prescribed to allow distributors flexibility in data submission.
- The team will organize data as needed once received.
- The floor is returned to Evan to discuss the contractor approach.

Distributor Data Request

- Total sales
    - Distributor Name
    - Month/Year
    - Equipment Type
    - Quantity Sold
    - Manufacturer Name
    - Model #
    - Model # Description (if available)
    - Distributor Branch location (if available)
    - Installer sold to (if available)
- Duration
    - Monthly data (daily or weekly sales data also accepted)
- Format
    - Email to campaign representative (CMC)
    - Excel and email preferred, but not required
    - Distributor POS system format accepted

Contractor Feedback

- Direct feedback is collected from contractors to understand customer purchase decisions and equipment preferences.
- Distributor sales data provides a pool of total high-efficiency, non-incentive sales eligible for market effects analysis.
- Contractors help contextualize this data by estimating the proportion of sales relevant to Illinois customers.
- Initial sales data is requested for Illinois, but not specific to Ameren Illinois residential customers.

- Contractor feedback informs two adjustment factors used to determine the portion of distributors' non-incented sales that should be considered "market effects"
- In-region factor representing the share of distributor-reported (non-incentivized energy-efficient) sales that go to AIC customers
- Attribution factor indicating the share of distributor-reported (non-incentivized energy-efficient) sales that can be attributed to program interventions—i.e., the degree of influence their experience with the AIC offering had on non-incented energy-efficient sales

Market Effects Calculation

- An in-region factor represents the portion of distributor sales going to Ameren Illinois residential customers.
- An attribution factor estimates the program's influence on non-incentivized energy-efficient sales by contractors.
- These factors are applied to distributor sales data to determine the amount of high-efficiency, non-incentivized sales attributable to Ameren Illinois and the program.
- Illinois TRM-based savings assumptions are then used to quantify market effects savings.
- Recent research included interviews with distributors to understand data availability and inform the sales data request process.
    - Non-Incentivized, Energy-Efficient Sales (Distributor-Reported Sales Data)
    - x In-Region Factor (Contractor Feedback)
    - x Attribution Factor (Contractor Feedback)
    - = Sales Attributable to Market Effects → Savings Estimated Per IL TRM Guidance

Ongoing Evaluation Activities

- Last year, a contractor survey provided initial estimates with an enrichment factor of 65% and an attribution factor of 52.5%.
- Recent in-depth interviews with contractors, mostly from a different subset, aim to refine these estimates and clarify contractors' understanding of high-efficiency, non-incented sales.
- In 2023, Opinion Dynamics conducted initial research with distributors and contractors to gauge market effects potential and verify applicability market data
- Distributor interviews informed understanding of available market data
    - Template and process for soliciting this data from distributors has since been improved
- Contractor survey provided preliminary estimates
    - In-region factor: 65.0%
    - Attribution factor: 52.5%
- Currently conducting in-depth interviews with contractors (n=13) to develop in-region and attribution factors and explore sales practices and program influence
- Later this year, we will apply in-region and attribution factors to 2024 distributor-report market data

Phil Mosenthal – How will evaluation handle potential double counting of market effects in midstream and upstream programs, considering the existing baseline code efficiency and the lag in updating net-to-gross values?

Evan Tincknell – To avoid double counting, we use sales data from the same

distributors for both incentive and non-incentive sales, allowing us to subtract incentivized sales from the total and focus on the non-incentive sales for accurate estimates. The focus is on sales for a specific period (e.g., 2024), using data from that year to separate high-efficiency sales with and without incentives, and only use the non-incentivized high-efficiency sales for market effects analysis.

Chirs Neme – Are you interviewing contractors to address the attribution question, considering the program's influence on distributors and their stock and sales to contractors?

Selena Bell-Haise – Contractors can pinpoint where the equipment was sold, whereas distributors generally don't have that level of detail about the end customer.

Evan Tincknell – Contractors are closer to the end users and can provide insights into the customer's decision-making process and the impact of the program on those decisions, which is why their input is valuable for understanding attribution.

Kim Janas – How is the data being collected?

Evan Tincknell – Examples of the questions focus on how the program influences contractors' sales practices, and can be shared offline for further review.

Kim Janas – Are you asking customers about their purchases, instead of relying on distributor data, and notes the importance of granular evaluation details?

Evan Tincknell – The rationale for focusing on contractor feedback is that contractors have a comprehensive view of available equipment, recommendations, and customer choices, which provides a clearer picture of market effects compared to direct customer feedback.

Seth Craigo-Snell (via chat) – When ODC is referring to "attribution" here, it is ONLY about the program influence on the qualifying units that were sold but did NOT receive an incentive (for whatever reason). The in-region correction handles the geography, and the attribution correction is accounting for the program's influence on the sales. Contractors, in their position between distributors and end-users in the sales process tend to have a good assessment of the program influence on the non-incented sales where distributors don't tend to have that level of detail/information.

Chris Neme (via chat) – Thanks Seth. I get the point about non-incented equipment. I was just questioning whether contractors are best to assess attribution in a program that targets distributors for behavior change. To use an extreme hypothetical to make a point, what if a distributor decided Ameren's incentives were enough to stop selling anything other than high efficiency equipment. In that scenario, they are influencing what the contractor sells and the contractors-customer interaction isn't really relevant. The point is that the contractors may not always know what influence the program is having.

Seth Craigo-Snell (via chat) – Agreed and understood. I just wanted to make sure that you were seeing clearly that ODC is only looking at the non-incented sales for this market effects work. Of course, the overall NTG framework for the Midstream Programs (which is currently being discussed comprehensively in the SAG NTG working group) tries to account for the various levels of market actors and program intervention strategies (such as stocking levels like you are discussing). It all is rather complicated in that effort, but the intention is always to try to account for what is happening and which market actor has the best line of sight on what is being accomplished/what can be attributed to the program.

Jim Fay – Do you have an estimate of the total market shipments from the participating distributors? How much of the total market does the data represent?

Evan Tincknell – We don't have that data. Only data is from participating distributors. Only focused on sub-set of market from participating distributors. Will follow up with more updates on this question.

Follow-up item: Evan Tincknell (Opinion Dynamics) to send IL Attorney General's Office information about the questions asked for this research.

SAG Facilitator Presentation: Introduction to Net-to-Gross for Disadvantaged Areas Policy

- New Policy was added to Policy Manual Version 3.0, which was approved by the Commission in Dec. 2023: "Net-to-Gross for Disadvantaged Areas Policy" (also called "DAC")
- Purpose: Establishes a 1.0 net-to-gross ratio for certain customers in economically disadvantaged areas.
- Net-to-Gross Ratio: Factor converting gross savings into net impacts; produced annually by independent evaluators.
- Policy Rationale: Aims to address lower participation rates among smaller customers in economically disadvantaged areas compared to others.
- Policy language and components are available in Section 7.4 of the Policy Manual.

Guidehouse Presentation: Impact of the Disadvantaged Areas Net-to-Gross Policy on ComEd, Nicor Gas, Peoples Gas and North Shore Gas

Questions to Address:

1. How do the utilities track and monitor data that allows evaluation to identify installed measures affected by the DAC NTG policy?
2. What is the impact of the DAC NTG policy on IL EE programs? (We will focus the answer on net savings.)

How ComEd Tracks DAC NTG-relevant Data

- Program tracking data includes, at a minimum, the zip code of the end user where the equipment was installed.
- Residential Market Rate Programs: The evaluation uses tracking data zip codes and ComEd's zip code list created by Elevate, to flag, project-by-project, whether projects are in or out of the DAC zip codes.
- Residential IE Programs

    - Most IE programs use a deemed 1.0 NTG ratio, as such the DAC policy is not applied by evaluation
    - Retail / Online Program IE Lighting uses a NTG ratio less than 1.0. Evaluation applies the DAC policy to retailers located in DAC identified zip codes.
- For Business Programs
    - For all projects, evaluation uses tracking data zip codes and ComEd's zip code list to identify projects that are in or out of the DAC zip codes.
    - Additionally, for private projects, ComEd provides a field in the tracking data called "Delivery Service Class/Customer Class" to identify small load delivery class projects (< 100kW).

How ComEd Tracks DAC NTG-relevant Data

- The tracking data cannot contain, by the nature of the program, specific customer information. e.g., Home Energy Reports (HER), Voltage Optimization.
- For HER, net savings are a natural outcome of the analysis. There is no NTG ratio to be applied.
- For Voltage Optimization, the NTG ratio is deemed at 1.0.
- For Building Operator Certification, the savings information referenced in the TRM is net. Therefore, this measure does not require the additional application of a NTG ratio.
- For Business New Construction, no delivery service class, customer class, or energy usage information is available. Building type(e.g. office, retail, etc.)and building area is used as a proxy for energy consumption using typical energy intensity values for code-compliant buildings. Public sector buildings are assigned a NTG of 1.0.
- For contractors and distributors selling products or services through a business midstream or upstream program, if either the contractor or distributor is located in a DAC-designated area, all resulting projects will get a NTG of 1.0.
- If the contractor or distributor is NOT located in a DAC-designated area, we would use recipient zip code and rate class and will assume the recipient is the end user (not contractor).
- If the tracking data indicates the recipient is a general delivery service municipal, public school or local government customer, we will not use the rate class in the NTG criteria.

Programs Not Impacted by Policy:

- Home Energy Reports: Uses randomized control trials, so no net-to-gross ratio is applied.
- Voltage Optimization: Already has a deemed net-to-gross ratio of 1.0.
- Building Operators Certification: Savings are already net savings, so no additional net-to-gross ratio is applied.
- Business New Construction: Uses a proxy based on building size due to variable consumption data.
- Midstream/Upstream Programs: Apply the policy based on distributor zip codes if the distributor is in a disadvantaged area.

Impact on Individual Programs:

- Significant savings increase in programs targeting income-eligible populations and those in disadvantaged areas.
- Impact varies by program size and focus.

Impact on Portfolio:

- Overall, 1.2% increase in portfolio savings.

- Business sector contributes most to the increase, with smaller programs showing less impact.
- Midstream upstream had the biggest effect.

How Nicor Gas Tracks DAC NTG-relevant Data

- Program tracking data includes, at a minimum, the zip code of the end user where the equipment was installed. Include field with census tract designation and a field with Yes/No if a project is in DAC area
- Residential Market Rate Programs: The evaluation uses Nicor's census tract IDs provided in the tracking data or flag, project-by-project, whether projects are in or out of the DAC zip codes.
- 2023 market rate net savings accounted for a residential non-participant spillover (NPSO) factor of 1.048. This was not applied to DAC designation sites. We assume the DAC NTG of 1.0 is a combination of free ridership and spillover, therefore applying the1.048 multiplier will double count spillover. This approach will continue in2024
- Home Energy Report net savings are a natural outcome of the analysis. There is no NTG ratio to be applied.
- Residential IE Programs: IE programs use a deemed 1.0 NTG ratio, as such the DAC policy is not applied by evaluation
- Tracking Data and Net-to-Gross Ratio Application:
    - Nicor Gas: Uses zip codes and census tracts to track if projects are in disadvantaged areas (DACs). Projects in DACs receive a net-to-gross (NTG) ratio of 1.0. Residential non-participant spillover factors are used to avoid double counting.
    - Business Programs: Similar approach, with tracking by zip code and criteria for DACs. Includes business energy efficiency rebates and business new construction, with proxies used for building consumption.
- For Business Programs:
    - For all projects, evaluation uses tracking data census tract ID provided by Nicor Gasto identify projects that are in or out of the DAC area and eligible for NTG of 1.0
    - For public projects, Nicor Gas provided additional field designating the municipalities and facility type of the DAC project.
    - For Building Operator Certification, the savings information referenced in the TRM is net. Therefore, this measure does not require the additional application of a NTG ratio.
    - For joint utility programs, zip code and ComEd rate class or gas utility Therms usage Is used to determine DAC eligibility and get a NTG of 1.0.If a project qualifies as DAC for one utility criteria, it qualifies for all utilities (e.g. NRNC, RCx, MF-IE).
    - For Business New Construction, no delivery service class, customer class, or energy usage information is available. Building type (e.g. office, retail, etc.) and building area is used as a proxy for energy consumption using typical energy intensity values for code-compliant buildings. Public sector buildings are assigned a NTG of 1.0.

Impact on Nicor Gas Programs:

- Program Level: Notable impacts on public buildings and smaller programs such as business energy efficiency rebates (BEER) and home energy savings.

- Sector Level: Modest percentage increases in net savings at the sector level for CY 2023.
- Portfolio Level: Overall modest impact, similar to ComEd's results
- Similar tracking and application processes as Nicor Gas. Residential projects in DACs receive an NTG ratio of 1.0. Business programs follow the same criteria for DAC eligibility and usage. Joint utility programs follow the principle that if one qualifies, all do.

How PGL/NSG Tracks DAC NTG-relevant Data

- Program tracking data includes zip code of the end user where the equipment was installed. Include a field with census tract designation and a field with Yes/No if a project is in DAC area
    - Residential Market Rate Programs: The evaluation used census tract information provided in the tracking data to flag, project-by-project in or out of the DAC designated area. The data has a field with Yes/No if a project is in DAC area
        - Not applicable in 2023, but in 2024 the Market Rate net savings will account for a residential non-participant spillover (NPSO) factor of 1.083. Like Nicor Gas, this factor will not apply to DAC designation sites to avoid double counting of spillover.
- Residential IE Programs: IE programs use a deemed 1.0 NTG ratio, as such the DAC policy is not applied by evaluation
- For Business Programs:
    - For all projects, evaluation used census tract designation, a list of projects which Usage <35k Therms, and a field with Yes/No if a project is in DAC area eligible for NTG of 1.0
    - For public projects, PGL/NSG provided additional field designating the DAC municipalities and DAC project.
- For joint utility programs, we used zip code and ComEd rate class or gas utility Therms usage to determine DAC eligibility. If a project qualifies as DAC for one utility criteria, it qualifies for all utilities (e.g. NRNC, RCx, MF-IE).

PGL/NSG Net Savings Impact on Programs

- NorthShore Gas: New construction shows high percentages due to its small footprint, which significantly impacts the net savings graph at the program level.
- Sector Level: Percentages are more modest compared to the program level, with differences observed between People's Gas and Northshore Gas.
- Portfolio Level: Results are somewhat similar across People's Gas, Northshore Gas, and Nicor Gas, with some variations.
- Final Slide: Provides tabular data for detailed review

<u>Opinion Dynamics Presentation: Overview of Disadvantaged Areas Net-to-Gross Tracking for Ameren Illinois</u>

Determining Project / Measure Eligibility for Disadvantaged Areas NTG

- Three criteria that need to be determined:
    - Criteria 1: Does the NTGR for Disadvantaged Areas Policy apply to the offering?
    - Criteria 2: Was the project/measure implemented in an eligible geography? If so, which type?
    - Criteria 3: Was the project/measure implemented by an eligible customer type? If so, which type?

- If the policy applies, we then analyze the geographic and customer type criteria to determine if the project/measure should receive a NTGR of 1.00
- If relevant information is unavailable for any of the criteria, we will not apply the policy to that project or measure and will default to the existing NTGR

Tracking and Evaluating Policy:

- Criteria: Ameren evaluates if the policy applies by checking:
    - Does the policy apply to the offering?
    - Was the project in an eligible geography?
    - Was the project by an eligible customer type?
- Flowchart: A visual tool helps determine if the policy applies based on the project's geography and customer type.

Policy Application:

- A small number of residential programs and a larger number of business programs.
- Exceptions:
    - Retail products initiative: Ameren uses a different approach for low-income eligibility.
    - Certain business measures: Some already have a deemed net-to-gross ratio of over 1.0.
    - Municipality-owned streetlighting: Under discussion for applicability.

Eligible Geographies:

- Disadvantaged Neighborhoods: Defined by census tracts from Illinois Solar for All.
- Disadvantaged Municipalities: Municipalities where at least 50% of the population is income eligible.

Customer Types:

- Residential Customers: All are eligible in disadvantaged neighborhoods.
- Business Customers: Based on rate classes or annual consumption thresholds. Special cases include dual fuel projects and municipal streetlighting.

    Karen Lusson, National Consumer Law Center (via chat) – On non-energy impacts, here is a California Presentation that is now out for comment: https://pda.energydataweb.com/#!/documents/3999/view

    Karen Lusson, National Consumer Law Center (via chat) – Zach, didn't we exclude big box stores from this eligibility? Or does that rate class and consumption threshold eliminate them automatically?

    Zach Ross – The policy does not apply to Amazon's retail products program due to conflicts with existing approaches. Generally big box stores are not eligible based on the rate class definitions table.

- AIC chose not to apply the policy in 2023 and therefore we do not have historical results to present; 2024 will be the first program year where we apply the policy
- However, as part of the development of the policy in 2023, Opinion Dynamics conducted a rough sensitivity analysis to estimate (at a high level) the expected effects of the policy on the AIC electric portfolio

- We presented this sensitivity analysis to the Policy Manual Subcommittee while the policy was still under development
- The sensitivity analysis included “high,” “medium,” and “low” cases
- In these cases, the policy was estimated to add 3.0%, 2.2%, and 1.5%, respectively, to 2022 portfolio net electric savings (12,753, 9,478, and 6,204 MWh respectively)
- Our analysis showed that policy effects were expected to predominantly affect the SBDI and Standard Core (rebates) offerings, accounting for 48% and 22% of expected portfolio impact, respectively
- Sensitivity analysis suggests a potential 1.5% to 3% increase in net savings for the 2022 portfolio.
- Most additional savings are expected from small business direct install and standard rebate programs.
- The policy will be applied starting in 2024.
- Future net-to-gross research will separate data for disadvantaged and non-disadvantaged areas.

Closing and Next Steps

Next Large Group SAG Meeting:

- Tuesday, August 13 – Ameren Illinois, ComEd, and Nicor Gas draft baseline and potential study results

Summary of Follow-up Items:

1. **Total Resource Cost (TRC) Test Non-Measure Level Inputs**
   - Benefit Cost Assumptions
     - Zach Ross (Opinion Dynamics) will send previous criteria pollutant update for Ameren Illinois. This is currently being updated and it will be ready next month.
     - Open question – whether to use a discount rate of 1.5% or 2%. Utilities will share an update with SAG when EE Plans are presented.
   - Non-Energy Impacts
     - Jeff Erickson (Guidehouse) will follow-up on results of previous research of quantifying benefits of arreages, collection reduction.
     - Guidehouse and Opinion Dynamics will share their assessments of non-energy impact values with Ted Weaver. Ted will circulate to the other utilities.
     - National Consumer Law Center Question: What is the status of ComEd's and Ameren's use of arrearages to target IQ weatherization outreach, per Section 8-103B(c). Is that being done now?
     - SAG Facilitator will request evaluators to highlight non-energy impact research when draft evaluation plans are presented to SAG in December.
     - Consider reconvening the Non-Energy Impacts Working Group after EE Plan filings in 2025.

2. **Ameren Illinois Residential Market Effects Evaluation Approach**
   - Evan Tincknell (Opinion Dynamics) to send IL Attorney General’s Office information about the questions asked for this research.

3. **Evaluator Updates on Tracking Approach for Net-to-Gross (NTG) for Disadvantaged Areas Policy**
   - No follow-up items