Applying a Framework for Addressing Cost-Effectiveness and Distributional Equity in Distributed Energy Resource Investment Decisions

Illinois Work Group
Final Meeting

June 18, 2025

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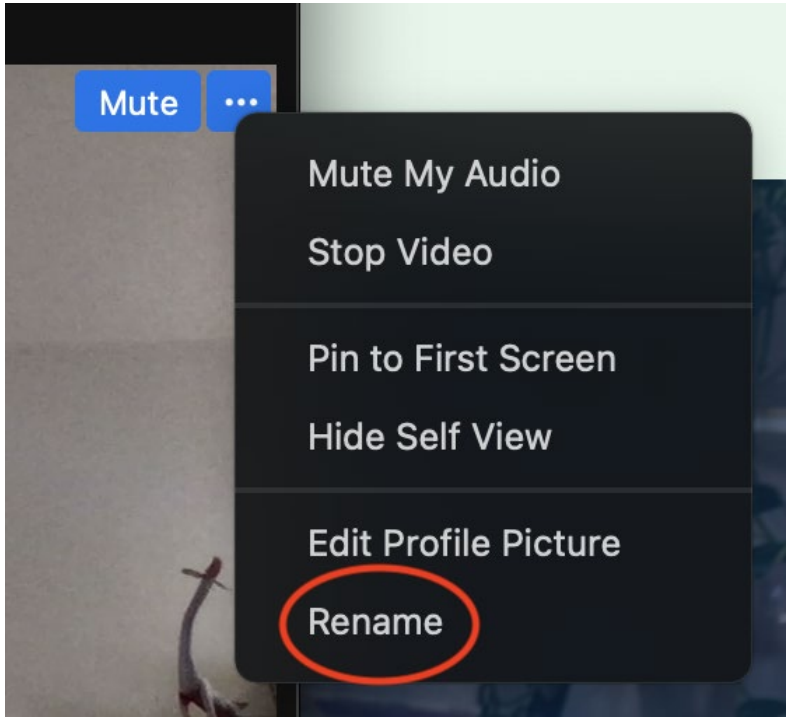
Housekeeping

- Please add your affiliations and pronouns to your Zoom name.
- Please mute yourself when you are not speaking.
- If you have a comment or question, please raise your hand or use the chat.
- We will be recording the session to share with DEA Work Group members that could not attend this call.



Agenda

1. Introduction and housekeeping
2. Project goals and objective
3. Recap Stages 1-7 of the DEA: Ameren
4. Recap Stages 1-7 of the DEA: ComEd
5. Conclusions and recommendations, lessons learned
6. Project schedule and next steps

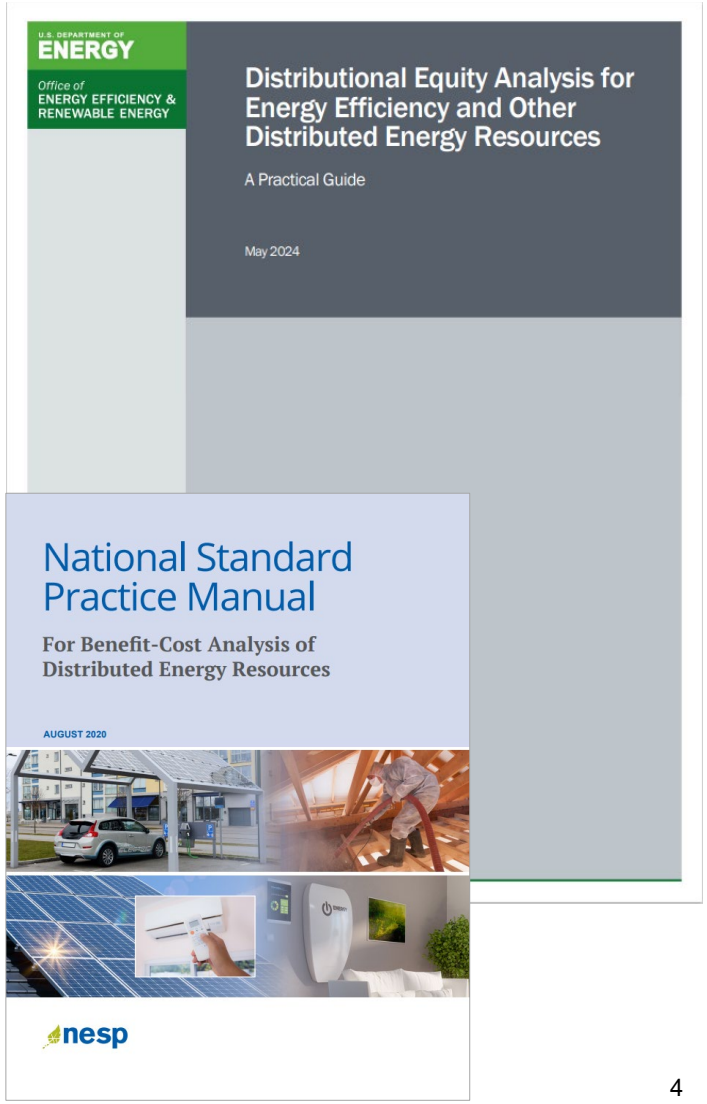
Guiding Resources for the DEA Case Studies

Distributional Equity Analysis for Energy Efficiency and Other Distributed Energy Resources *(May 2024)*

- Funded by US DOE, through Lawrence Berkeley National Lab (LBNL) and E4TheFuture
- Overseen by an Advisory Committee made up of experts in energy equity and in energy planning.
- Additional information and report available here.

National Standard Practice Manual (NSPM) for DERs

- Benefit Cost Analysis (BCA) guidance being used by states across the country
- With state focus on equity, key questions raised about how BCA addresses equity (or not…)



Project Background, Goals and Objectives

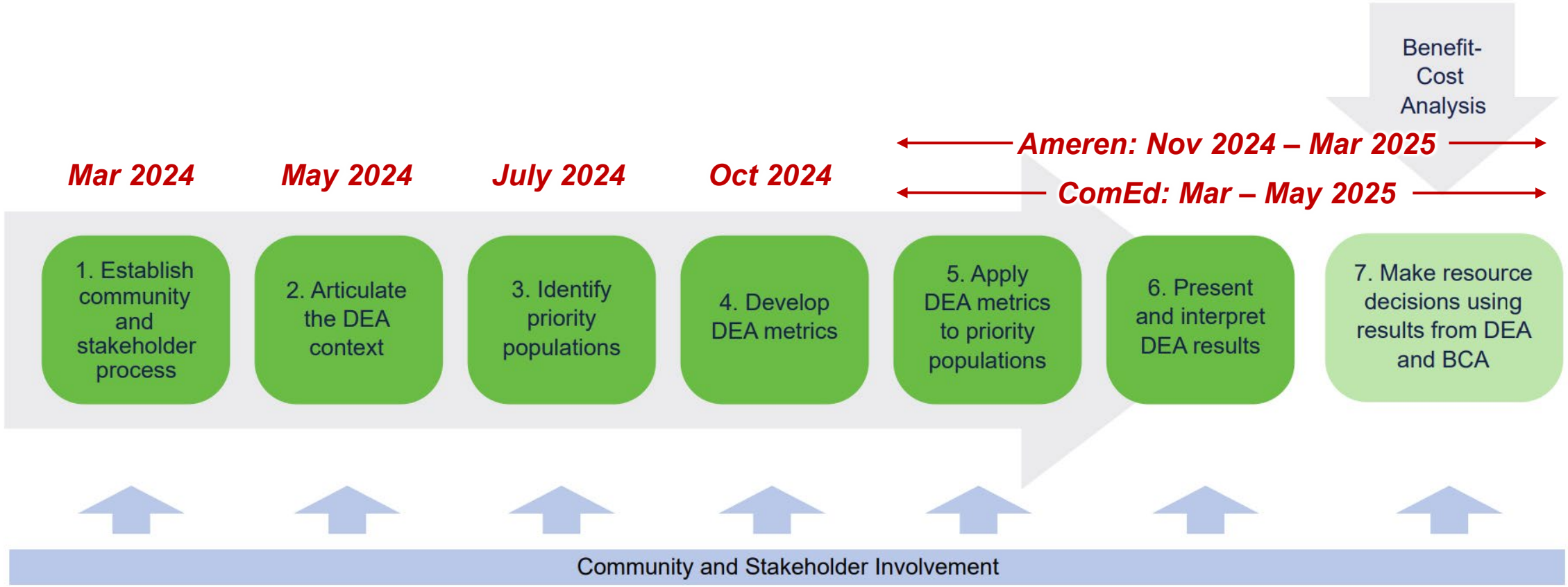
Project Funding: DEA Case Studies: Co-funded by Joyce Foundation and E4TheFuture

Overarching Goal: to demonstrate the use of a decision framework for assessing the distributional equity impacts of electric and gas resource investment decisions on disadvantaged communities and inform decision-making going forward.

Case Study Objectives:

1. Build stakeholder **understanding of the different dimensions of energy equity** and scope/role of DEA.
2. Demonstrate and practice working with **diversely represented stakeholder groups** throughout the DEA process.
3. Assess **available DEA metric data, identify gaps and limitations** and options to address gaps going forward.
4. Develop stakeholder understanding on **how to use map-based resources and spatial tools** to visualize DEA metrics for priority populations.
5. Using analysis results, **demonstrate the use of DEA, alongside BCA, to guide decision-making** on DER resource investments that accounts for impacts on priority populations.

DEA Stages – where we have been



Stage 1: Community & Stakeholder Involvement

Stage 1. Establish Community and Stakeholder Process

- Energy resource investment decisions (including those using DEA) are more effective when they involve the communities and stakeholders who will be affected by those decisions.
- Community and stakeholder input is essential at each stage of a DEA. Analytical decisions should carefully and thoroughly account for the likely impacts on communities.
- Like with BCA for utility investments, follow-up to DEA is important: investments should be carefully overseen and monitored over time to ensure that programs are implemented as planned and the expected equity benefits are achieved.

DEA Work Group – Thank you!

First	Last	Organization
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Peter	Millburg	Ameren Illinois
Agnes	Mrozowski	Ameren Illinois
Brice	Sheriff	Ameren Illinois
Celia	Johnson	Celia Johnson Consulting
Andrew	Weuve	Champaign County Regional Planning Commission
Mary Ellen	Guest	Chicago Historic Bungalow Association
Sarah	Moskowitz	Citizens Utility Board
Kyle	Danko	ComEd
Jim	Fay	ComEd
Molly	Lunn	ComEd
Cassidy	Kraimer	Community Investment Corp (CIC) Chicago
Kenyatta	Parker	Community Investment Corp (CIC) Chicago
MeLena	Hessel	Elevate
Pastor Booker	Vance	Elevate
Quinn	Parker	Encolor Consulting
Chris	Neme	Energy Futures Group (for NRDC)
Fahad	Rashid	EPE Consulting
Cheryl	Watson	Equitable Resilience Sustainability
Selena	Worster Walde	Erthe Energy Solutions
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Mark	Mandolini	Honeywell
Roger	Pavey	Illinois Association of Community Action Agencies
Elizabeth	Horne	Illinois Commerce Commission
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Caty	Lamadrid	Inova Energy Group
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Karen	Lusson	National Consumer Law Center
Kari	Ross	Natural Resources Defense Council
Scott	Metzger	Office of the Illinois Attorney General
Susan	Satter	Office of the Illinois Attorney General
Shelby	Smith	Office of the Illinois Attorney General
Hannah	Howard	Opinion Dynamics
Julia	Friedman	Oracle
Christina	Frank	Peoples Gas and North Shore Gas
Kristen	Kalaman	Resource Innovations
Deborah	Dynako	Slipstream
Nikia	Perry	Solutions for Energy Efficient Logistics (SEEL)
Keely	Hughes	The JPI Group
Stephen	Taylor	The Will Group
Boratha	Tan	Vote Solar
Erika	Dominick	Walker-Miller Energy Services
Carla	Walker-Miller	Walker-Miller Energy Services

Stage 1: Establish Community & Stakeholder Process

- 8 Work Group meetings
  - Chatham House Rule – allowed for open discussion without concern for attribution
  - Utility representatives on calls allowed for timely updates
  - Polls helped to provide a “temperature check” on key decision points and issues
  - Participation varied meeting to meeting, but participants (some more than others) provided comments either verbally or via chat box
  - CBO participation was consistent in the meetings, represented by [2] CBOs
  - Efforts were made to schedule around other Illinois Work Groups and ICC meetings

Discussion: what we could have done differently or better to enhance stakeholder input?

Stage 2: Articulate the DEA context

Stage 2. Articulate the DEA Context for each case study

The DEA context is the project scope, which should align with an existing or planned BCA scope. It should identify the **DER type**, **application** and **timeframe**.

In previous meetings we determined the DEA context for each case study.

Proposal	Utility	DER Type	*DER Application*	DER Timeframe
Case Study #1	ComEd	Energy Efficiency Plan	*Focus on residential programs*	Retrospective (2022-2025)
Case Study #1	Ameren	Beneficial Electrification Plan	*Focus on ChargeSmart & ChargeReady*	Prospective (2026-2028)

Stage 3: Priority Populations

What are Priority Populations?

- **Priority populations** are the set of electric or gas utility customers who warrant additional attention to address equity concerns, consistent with the jurisdiction's energy equity policy and with stakeholder input.
  - These include customers who have borne and continue to bear disproportionate, systemic costs and burdens from energy extraction, generation, transmission, distribution, and consumption (1)

Steps we took to identify priority populations

1. Reviewed existing state energy equity goals, e.g., Climate & Equitable Jobs Act (CEJA)
2. Reviewed existing state and utility definitions already in use
3. Solicited input from work group members and stakeholder representatives
4. Chose priority populations based on the previous steps

(1) *Distributional Equity Analysis for Energy Efficiency and Other Distributed Energy Resources, available at https://live-etabiblio.pantheonsite.io/sites/default/files/bto-distributed-equity-analysis-guide_may2024.pdf*

Stage 3: Identify Priority Populations

Illinois state policy requires EE plans to focus on Low-income and BE plans to focus on Equity Investment Eligible Communities (EIEC) and Low-income.

Low-Income ("income-eligible")

- Households whose income does not exceed 80% of area median income, adjusted for family size and revised every 2 years.(1)
- Utilities are required to dedicate a set portion of energy efficiency (EE) portfolio budget for programs targeting income-eligible customers

Equity Investment Eligible Community (EIECs)

- CEJA defines as Restore, Reinvest, Renew Areas (R3) + Environmental Justice communities (EJC).(2)
- Utility beneficial electrification plans must provide benefits to EIECs and low-income communities.(3)

(1) 102-0662 § 10-10 (Sep 15, 2021), https://epa.illinois.gov/content/dam/soi/en/web/epa/topics/ceja/documents/102-0662.pdf
(2) 102-0662 § 10-10 (Sep 2021), https://epa.illinois.gov/content/dam/soi/en/web/epa/topics/ceja/documents/102-0662.pdf
(3) 20 ILCS 627/ (Nov 2021), https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=3348&ChapterID=5

Priority Populations for the DEA Case Studies

- Based on our research and discussions with stakeholders at our July 24 Workgroup meeting, we used the priority populations as defined in statute.
- Each DEA analysis used a unique definition for priority population, as defined by CEJA and the Electric Vehicle Act:

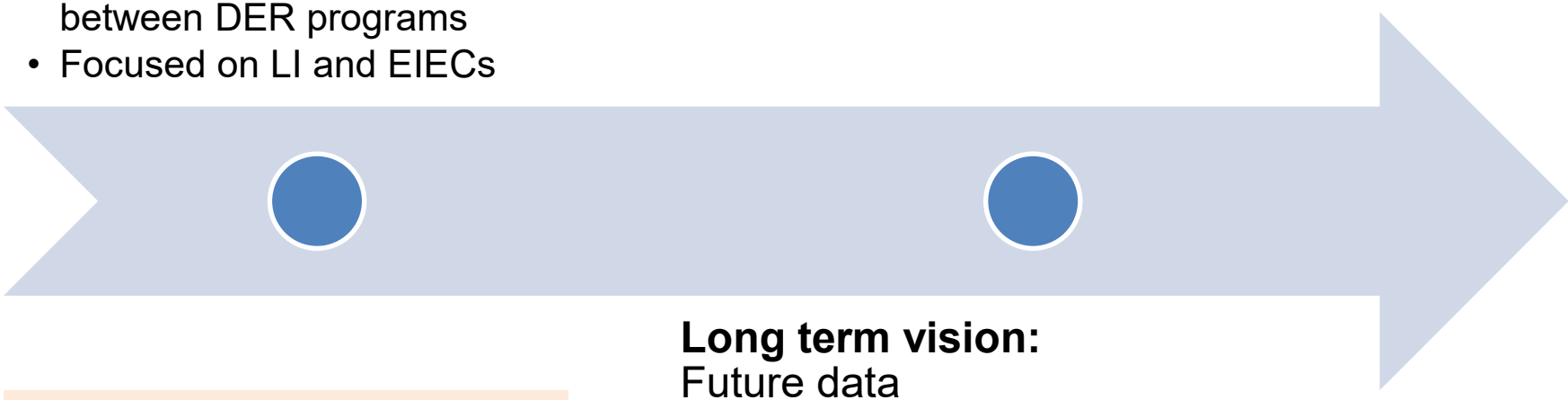
Proposal	Utility	DER	Priority Population
Case Study #1	ComEd	EE Plan	Low-income ("income-eligible"
Case Study #2	Ameren	BE Plan	EIEC and low-income

- Work group generally agreed that ideally, going forward, there would be a consistent definition for priority populations between EE and BE plans and consideration for other populations, e.g., moderate income

Defining Priority Populations Going Forward

Current status:
Existing data

- Shaped by current requirements
- Inconsistent data collection between DER programs
- Focused on LI and EIECs



With Work Group input, our report will include recommendations for changes to data collection to support other priority population definitions.

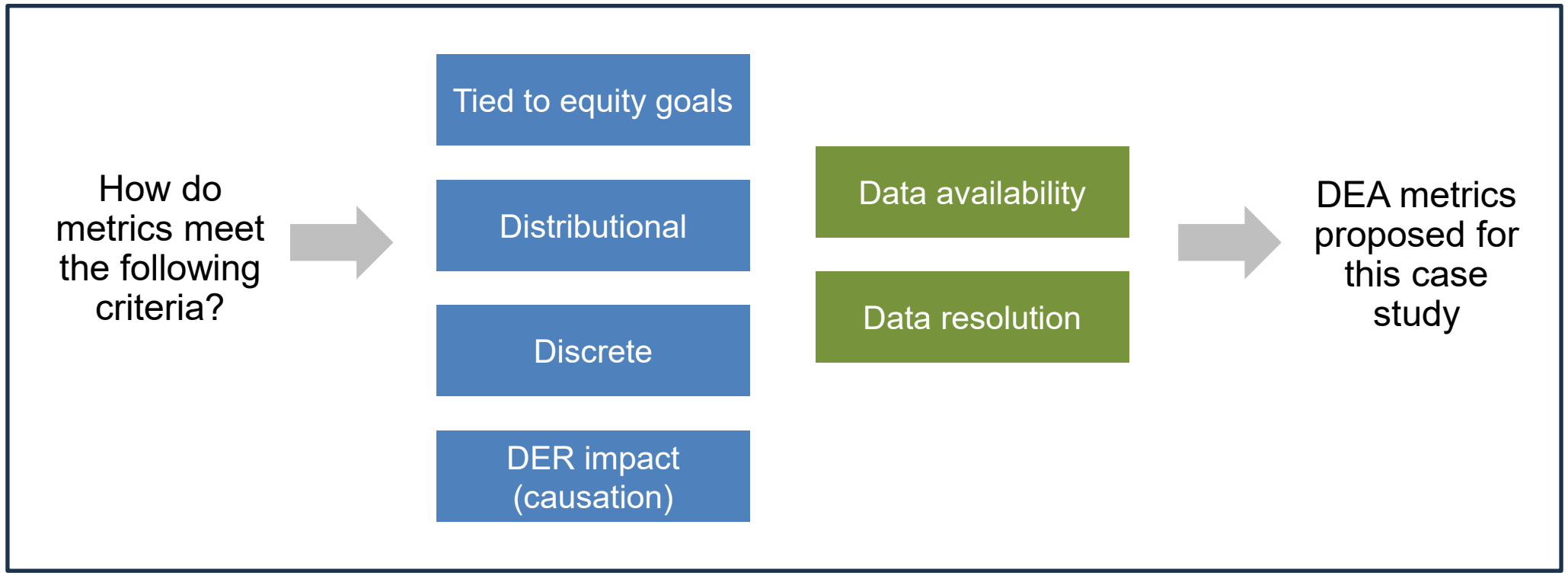
Long term vision:
Future data

- Shaped by broad equity considerations
- Organized, consistent data collection between DER programs
- Could include other characteristics (e.g. moderate income, BIPOC)

Stage 4: Identify DEA Metrics

Stage 4. Develop DEA Metrics

- "**DEA metric**" refers to a small subset of metrics used to determine if costs and benefits of a utility program or investment are equitably distributed between priority populations and other customers.



DEA Metrics Considered

DEA Metrics	Ameren	ComEd
1. Participation	Yes	Yes
2. Utility Investment	Yes	Yes
3. Rate and bill impacts	Yes	No - insufficient data – missing fuel switching data (natural gas usage)
4. Energy savings	No – BE programs increase energy use and metric overlaps with bill impacts	Yes
5. Shutoffs	No – not applicable, BE programs increase energy use and are not tied to shutoffs	No - insufficient data – lack of causation/correlation for DER impact
6. Reliability – outages	No – not applicable, BE programs increase energy use and are not tied to outages	No – insufficient data to tie outages to EE programs
7. GHG impacts	No – impacts are near impossible to allocate to customer groups	No – impacts are near impossible to allocate to customer groups
8. Employment & Jobs	No – insufficient data and tracking to include as a metric	No – insufficient data and tracking to include as a metric
9. Public Health Impacts or Air Quality	No – societal public health impacts included in BCA	No – societal public health impacts included in BCA

Metrics not analyzed for this case study

Metric	Key reasons for not analyzing	Recommendation & next steps
Shutoffs	Lack of available data & measurable DER impact	***Not recommended as a DEA metric for BE; not currently recommended as a DEA metric for EE*** *Research inconclusive about a correlation between EE programs and shutoffs.(1) A lack of data and difficulty tying impacts to a specific program make this metric not well-suited for a DEA at this time.* → Continue to promote energy savings measures in highest disconnection zip codes; → Continue to collect and publish shutoffs data → Consider research study to explore relationship between shutoffs and EE
Reliability/ Outages	Lack of available data & measurable DER impact	***Not recommended as a DEA metric for EE or BE plans*** *Research supports a correlation between EE programs and a reduction in number of outages.(2) A lack of data and difficulty tying outages to a specific program make this metric not well-suited for a DEA* → Consider further research to explore relationship between reliability and EE and BE offerings

(1) ComEd Utility Non-Energy Impacts Research. Guidehouse (Apr 2021). Available at https://www.ilsag.info/wp-content/uploads/ComEd-Utility-NEI-Overview_2021-04-19.pdf
(2) Carvallo, J., Mims Frick, N., Schwartz, N. A review of examples and opportunities to quantify the grid reliability and resilience impacts of energy efficiency (Oct 2022). Available at https://www.sciencedirect.com/science/article/pii/S0301421522004062#:~:text=In%20deterministic%20analysis%2C%20energy%20efficiency,demand%20relative%20to%20available%20supply.

Metrics not analyzed for this case study

Metric	Key reasons for not analyzing	Recommendation & next steps
Employment & Jobs	Lack of available data & challenging to measure distributional impacts	***Not currently recommended as a DEA metric for these case studies. Could be considered as programs mature, contingent upon future studies.*** → Evaluate current utility tracking methods and data collected → Evaluate external sources of jobs data (i.e. Illinois Dept. of Employment Security) → Work with utilities to align on both data tracking and accurate measures of jobs impacts, if appropriate
Public health impacts from air emissions	Lack of available data, DER impact, and challenging to measure distributional impacts	***Not currently recommended as a DEA metric for these case studies*** *Current EPA tools cannot estimate public health impacts at a sufficiently detailed level. Monetized public health benefits from avoided emissions already appear in a BCA* → Continue exploring how BE/EE programs can improve public health outcomes and how to measure impacts
GHG emissions	Lack of distributional impacts, data, and DER impact	***Not recommended as a DEA metric for EE and BE plans*** *GHGs are a global pollutant (unlike other air emissions). Isolating a DER's impact on GHG-driven, weather-related events is extremely challenging.* → Continue monetizing and including GHG emissions in the BCA

Stage 5: Apply DEA metrics to priority populations

Stage 6: Present and Interpret DEA results

Ameren BE Case Study
ComEd EE Case Study

Ameren BE case study: context and metrics

Proposal	Utility	DER Type	*Programs*	Priority Population	Perspective
Case Study #2	Ameren	BE Plan	ChargeSmart & ChargeReady	EIEC/LI	Prospective

DEA Metrics	*Assessment level*	Included in DEA?
1. Participation	*Program-level*	Included
2. Utility Investment	*Program-level*	Included
3. Rate and bill impacts	*Program-level*	Included
4. Energy savings	*Program-level*	No
5. Shutoffs	*n/a*	No

Ameren BE DEA – Programs

1. ChargeSmart

Purpose: to provide time-of-use rate discounts and charges to encourage customers to charge EVs during low-cost hours.

Residential offering: Participants receive electric bill credits for charging their EVs during a preferred charging period and electric bill charges for charging their vehicle during non-preferred hours(1)

Residential program: same offerings for EIEC/LI and all other customers

2. ChargeReady

Purpose: to increase access to charging infrastructure.

Residential offering: Complete coverage of costs to install and purchase level 2 residential chargers

Residential program: available only to EIEC/LI customers (other customers not eligible)

Summary of metric results - Ameren

Metric	Metric Unit	ChargeSmart – EIEC/LI	ChargeReady – EIEC/LI
Participation (chargers)	% of participants	*n/a*	84%
Participation (vehicles)	% of participants	26%	26%
Utility investment	% of program budget ($)	26%	84%
Rate impacts	Relative change in rates	rates reduced	rates increased
Bill impacts	1st year monthly bill savings	$6-$92	$6-$108

Source: See previous WG #6, https://www.mwalliance.org/sites/default/files/media-document/DEA%20Work%20Group%20Meeting%206%20-%203-13-2025%20v3.pdf

Summary of metric results - Ameren

Metric	Metric Unit	ChargeSmart	ChargeReady
Participation (chargers)	% of participants	*n/a*	*Benefits weighted more towards EIEC/LI customers.*
Participation (vehicles)	% of participants	*Benefits weighted more towards all other customers.*	*Inconclusive benefits*
Utility investment	% of residential program budget ($)	*Benefits weighted more towards all other customers.*	*Benefits weighted more towards EIEC/LI customers.*
Rate impacts	Relative change in rates	*Benefits weighted equally.*	*Benefits weighted equally.*
Bill impacts	1st year monthly bill savings	*Benefits weighted equally.*	*Benefits weighted more towards EIEC/LI customers.*

Green – net benefits weighted more towards EIEC/LI customers than all other customers
Yellow – net benefits between EIEC/LI and all other customers are equivalent
Red – net benefits weighted more towards all other customers than EIEC/LI customers
Gray – inconclusive benefits/not enough data to make a conclusion

ComEd EE case study: context and metrics

Proposal	Utility	DER	*Programs*	Priority Population	Perspective
Case Study #1	ComEd	Energy Efficiency Plan	*Focus on residential programs*	Low-income ("income eligible", or IE)	Retrospective

Metric	*Assessment level*	*Included in DEA?*
1. Participation	*Residential sector*	Included
2. Utility Investment	*Residential sector*	Included
3. Energy Savings	*Residential sector*	Included
4a. Rate Impacts	*Entire portfolio*	Insufficient data
4b. Bill Impacts	*Entire portfolio*	Insufficient data
5. Shutoffs	*Residential sector*	Insufficient data

ComEd Residential EE Programs Overview

Focus of this DEA is on the residential sector programs, which include offerings for income-eligible (IE) customers in addition to market rate programs.

Sector	Program	% Res Budget[(1)]	Description
Residential & Income Eligible	Retail/Online*	27%	Rebates for Energy Star certified appliances, home products and lighting products.
	Single Family Upgrades*	23%	Free assessments and installation of energy savings products
	Multi-Family Upgrades*	23%	Efficiency upgrades for multi-family properties, including gas and electric measures for tenant units and common areas
	Whole Home Electric*	7%	Comprehensive upgrades and weatherization to convert income-eligible single-family and multifamily buildings to all-electric.
	Product Distribution*	10%	Kits and distribution of products through Food Banks, Food pantries and other partners
	Residential New Construction*	3%	Affordable Housing New Construction (AHNC) and Electric Homes New Construction (EHNC)
	Contractor/Midstream Rebates	2%	Incentives for replacing heating & cooling equipment with energy efficient measures.
	Home Energy Reports	5%	Reports on household energy usage patterns and personalized efficiency advice, including behavioral principles

**includes income-eligible offerings*

Data source: ComEd 2022-2025 EE and DR Plan, available at: https://www.icc.illinois.gov/docket/P2021-0155/documents/321073/files/558684.pdf

ComEd metric results

Metric	Metric Unit	Program	IE % Participation
Participation	% of program participants	*Retail/Online - appliances*	33%
		Retail/Online - lighting	51%
		Single Family Upgrades	62%
		Multi-Family Upgrades	76%
		Whole Home Electric	100%
Utility investment	% of residential program budget ($)	All	71%
Energy savings	% of total energy savings	All	67%

Green – net benefits weighted more towards IE customers than all other customers
Gray – inconclusive benefits/not enough data to make a conclusion

Source: See previous WG #7, slides 14-37 https://www.mwalliance.org/sites/default/files/media-document/Work%20Group%20Meeting%207%20update%2020250429%20v2.pdf

Summary of metric results - ComEd

Metric	Metric Unit	Conclusion
Participation	% of participants	*Benefits weighted more towards IE customers than other customers.*
Utility investment	% of residential program budget ($)	*Benefits weighted more towards IE customers than other customers.*
Energy savings	% of total energy savings	*Benefits weighted more towards IE customers than other customers.*
Rate impacts	Relative change in rates	*Insufficient data*
Bill impacts	1st year monthly bill savings	*Insufficient data*

Green – net benefits weighted more towards IE customers than all other customers
Gray – inconclusive benefits/not enough data to make a conclusion

Topics of Work Group Feedback

Ameren

- Concern about the EV adoption barriers, including cost of EVs and lack of charging infrastructure
- Interest in other Illinois and private programs to fund EV charger deployment
- Interest in assumptions behind Ameren's avoided emissions calculations
- Emphasis on the importance of public education and outreach in reaching underserved communities

ComEd

- Questions about how low-income participants are counted when using zip code definition for certain IE programs
- Interest in capturing long-term lifetime benefits of EE measures (e.g., heat pump) and how they are captured in a BCA
- Concerns on how EE programs account for diverse building stock in low-income communities
- Concerns around extreme heat impacts and how EE can provide cooling benefits to vulnerable populations
- Desire and interest to quantify bill and rate impacts for ComEd EE plan in the future

Cross-cutting

- Importance of intersectional solutions and cross collaboration when it comes to addressing equity (community planning, housing, etc.)
- Concern about the impact of federal administration changes on BE and EE plans (particularly EV chargers for Ameren's BE plan)
- Noted potential overlap between DEA metrics and other ongoing utility performance metrics
- Interest as well as uncertainty in how these DEA results can be used for future Illinois processes, in the SAG, or development of future EE and BE plans
- Desire for more action-oriented and specific recommendations based on results and findings

Stage 7: Make resource decisions using results from DEA and BCA

Limits of Benefit-Cost Analysis (BCA)

- Benefit Cost Analysis (BCA) compares the present value of a DER's benefits with the present value of its costs
- Some jurisdictions conduct rate, bill, and/or participation impact analyses, which address equity between program participants and non-participants
- However, BCA is not designed to address distributional equity
  - BCA measures impacts *on average* across the utility system
  - BCA cannot distinguish impacts on priority populations
  - BCA focuses mostly on monetary results, but many equity metrics cannot be put into monetary terms
  - BCA should not account for rate, bill, or participation impacts

Distributional Equity Analyses

DEA can be conducted alongside BCA

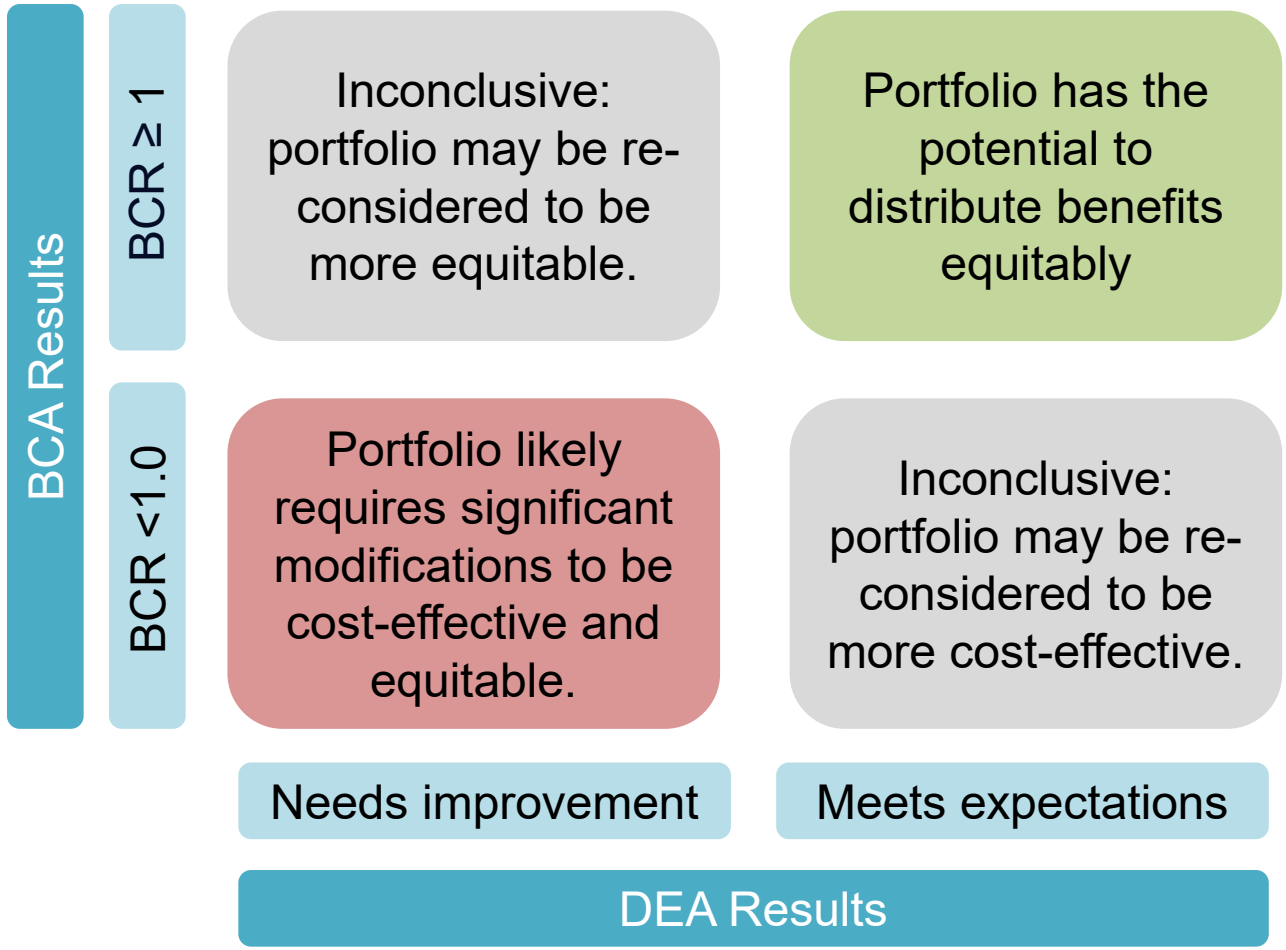
- DEA provides additional information on equity
- DEA uses many of the same inputs, methods, and assumptions as BCA

Key differences between DEA and BCA

- DEA separates customers into priority populations and other customers.
  - To indicate how the costs and benefits are distributed across different customers
- DEA includes metrics to provide energy equity data

Together the two analyses can inform decisions about whether and to what extent utilities should invest in DERs.

Stage 7. Generic Decision Framework

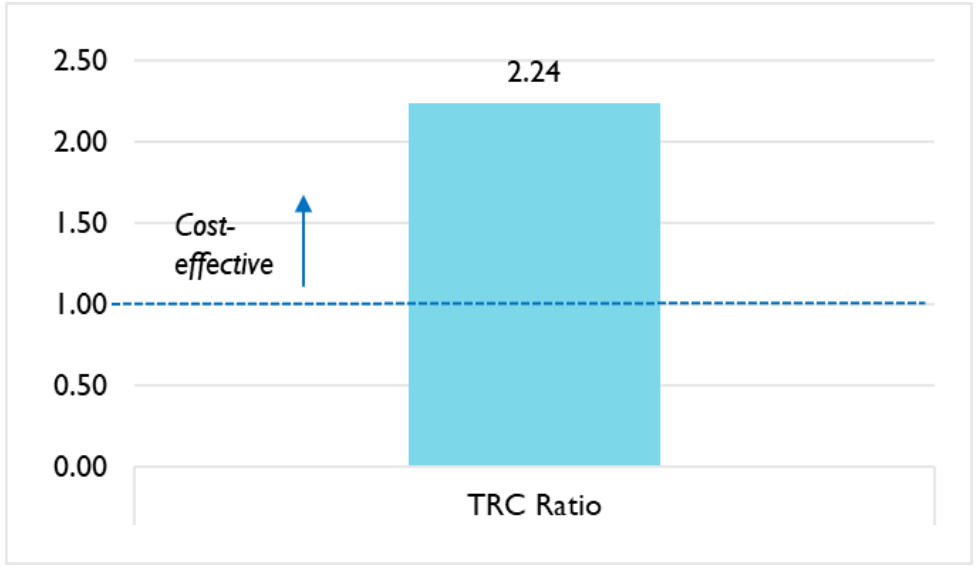


Framework from DOE Distributed Equity Analysis Guidebook

In the next slides, we present our findings for where Ameren and ComEd's programs fall in this figure.

Ameren: ChargeSmart BCA and DEA Results

BCA Results



BCA Conclusion

ChargeSmart is cost-effective

DEA Results

Metric	Metric Unit	ChargeSmart
Participation (vehicles)	% of participants	*Benefits weighted more towards all other customers.*
Utility investment	% of residential program budget ($)	*Benefits weighted more towards all other customers.*
Rate impacts	Relative change in rates	*Benefits weighted equally.*
Bill impacts	1st year monthly bill savings	*Benefits weighted equally.*

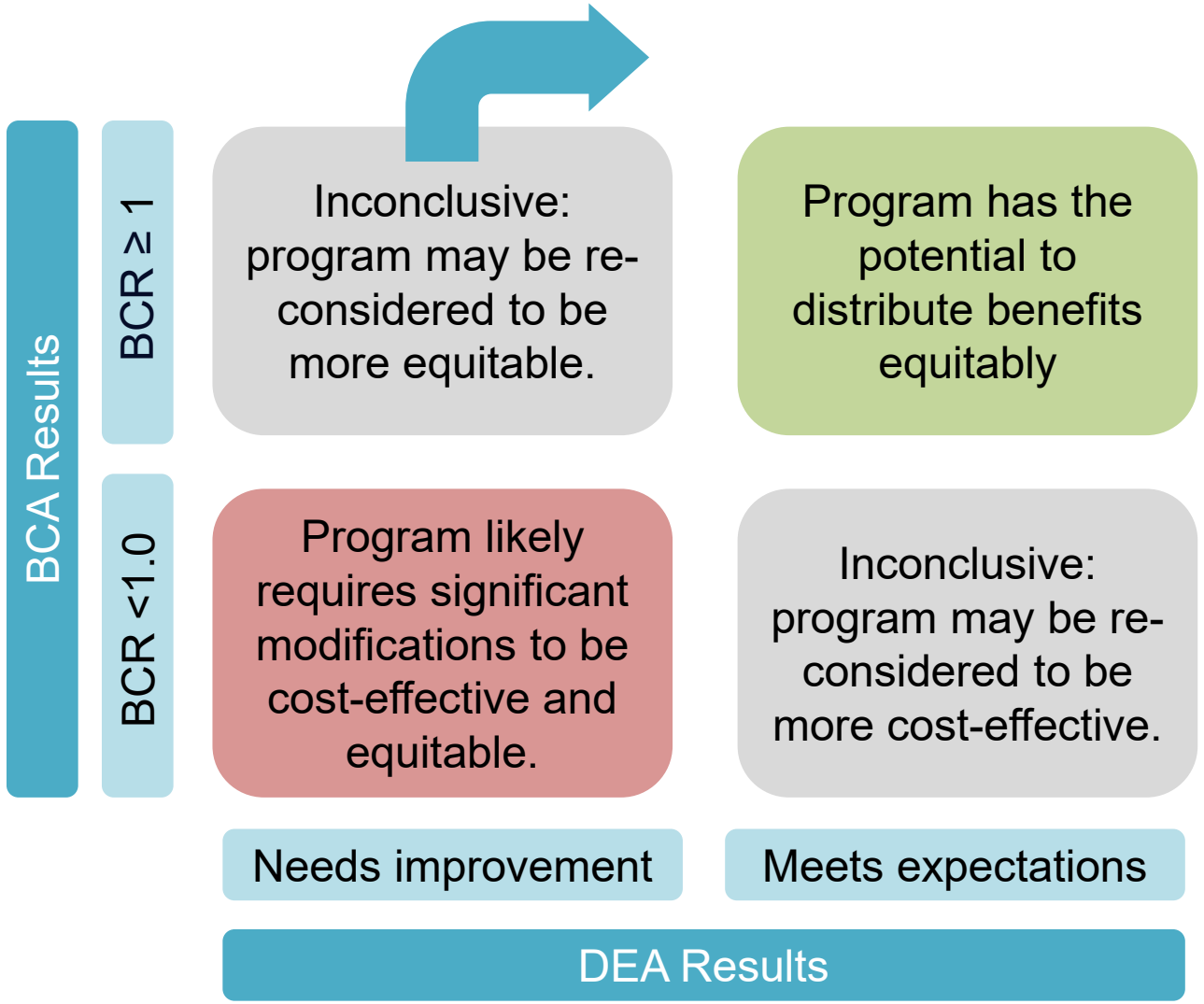
Green – net benefits weighted more towards EIEC/LI than other customers
Yellow – net benefits between EIEC/LI and other customers are equivalent
Red – net benefits weighted more towards other customers than EIEC/LI
Gray – inconclusive benefits/not enough data to make a conclusion

DEA Conclusion

Benefits are generally weighted equally but EIEC participation levels are relatively low

Questions?

Decision Framework: Ameren ChargeSmart

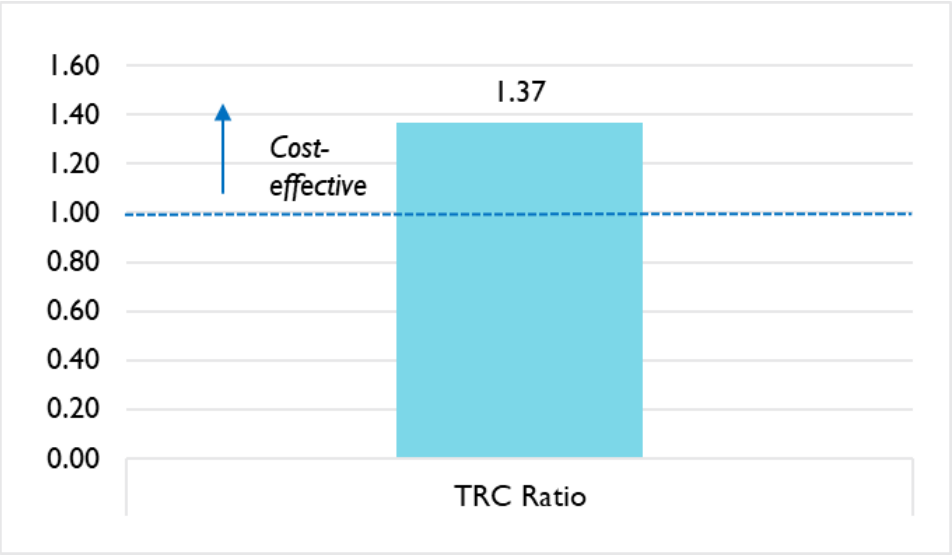


Recommendations:

1. Increase EIEC/LI participation
   - Ameren's customers that are EIEC/LI: **32%**
   - Actual participation (2023): **15.5%**
   - Assumed participation (2026-2028): **25%**
2. Seek opportunities to improve program offerings to EIEC/LI (e.g. greater rate discounts)

Ameren ChargeReady: BCA and DEA Results

BCA Results



Conclusion:

ChargeReady is cost-effective.

DEA Results

Metric	Metric Unit	ChargeReady
Participation (vehicles)	% of participants	*Inconclusive benefits*
Participation (chargers)	% of participants	*Benefits weighted more towards EIEC/LI customers.*
Utility investment	% of residential program budget ($)	*Benefits weighted more towards EIEC/LI customers.*
Rate impacts	Relative change in rates	*Benefits weighted equally.*
Bill impacts	1st year monthly bill savings	*Benefits weighted more towards EIEC/LI customers.*

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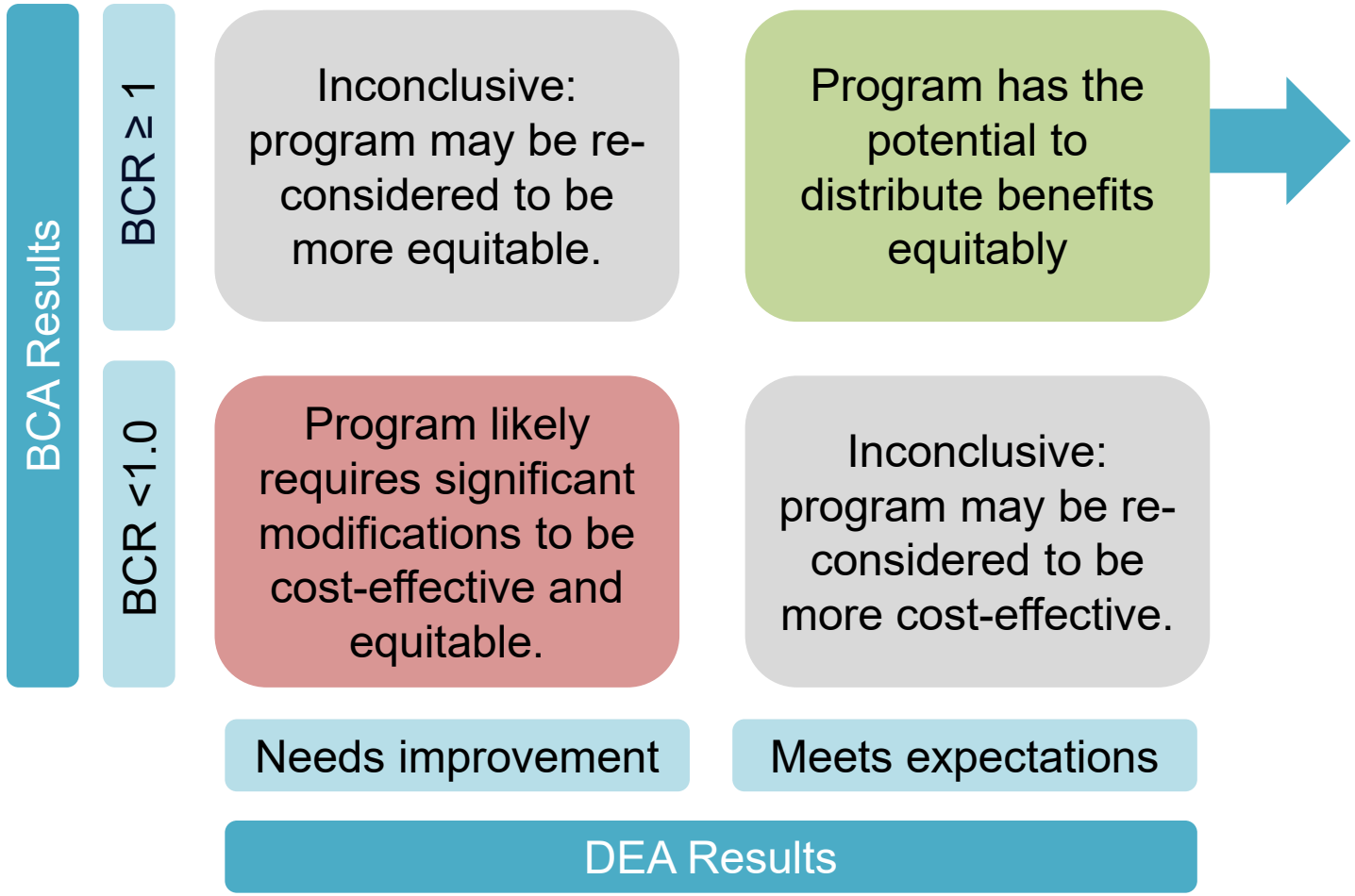
Questions?

Decision Framework: Ameren ChargeReady

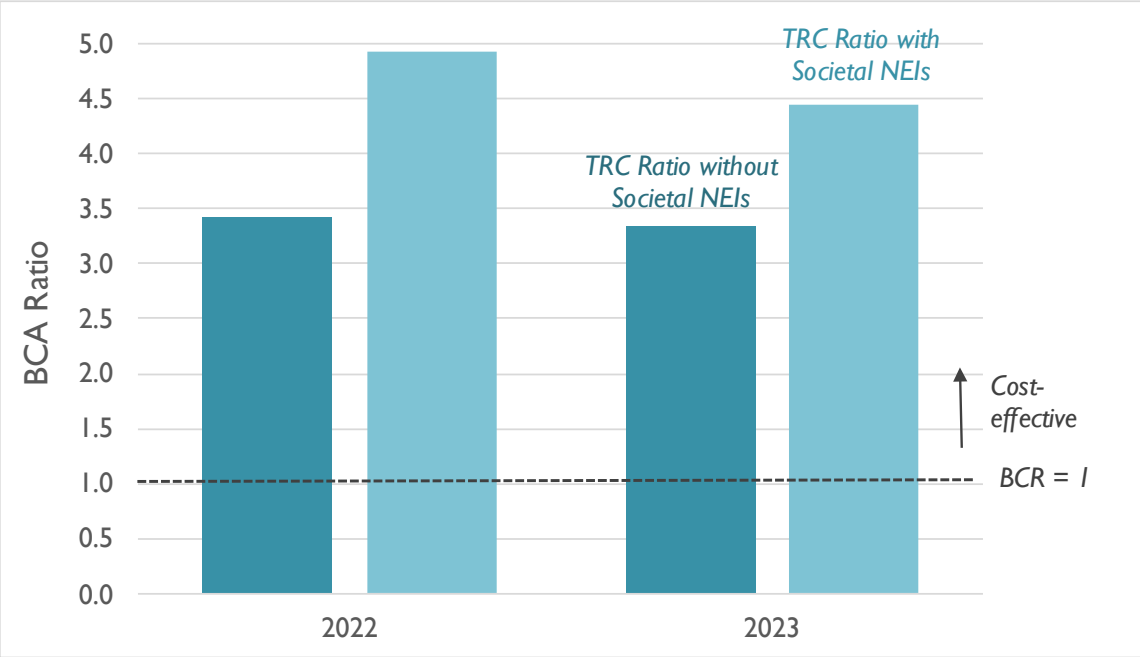


Recommendations:

1. Implement the program as planned
2. Monitor the program and collect data on EV usage for EIEC/LI

ComEd: BCA and DEA Results

BCA Results - Residential



BCA Conclusion

Residential EE programs are cost-effective

DEA Results

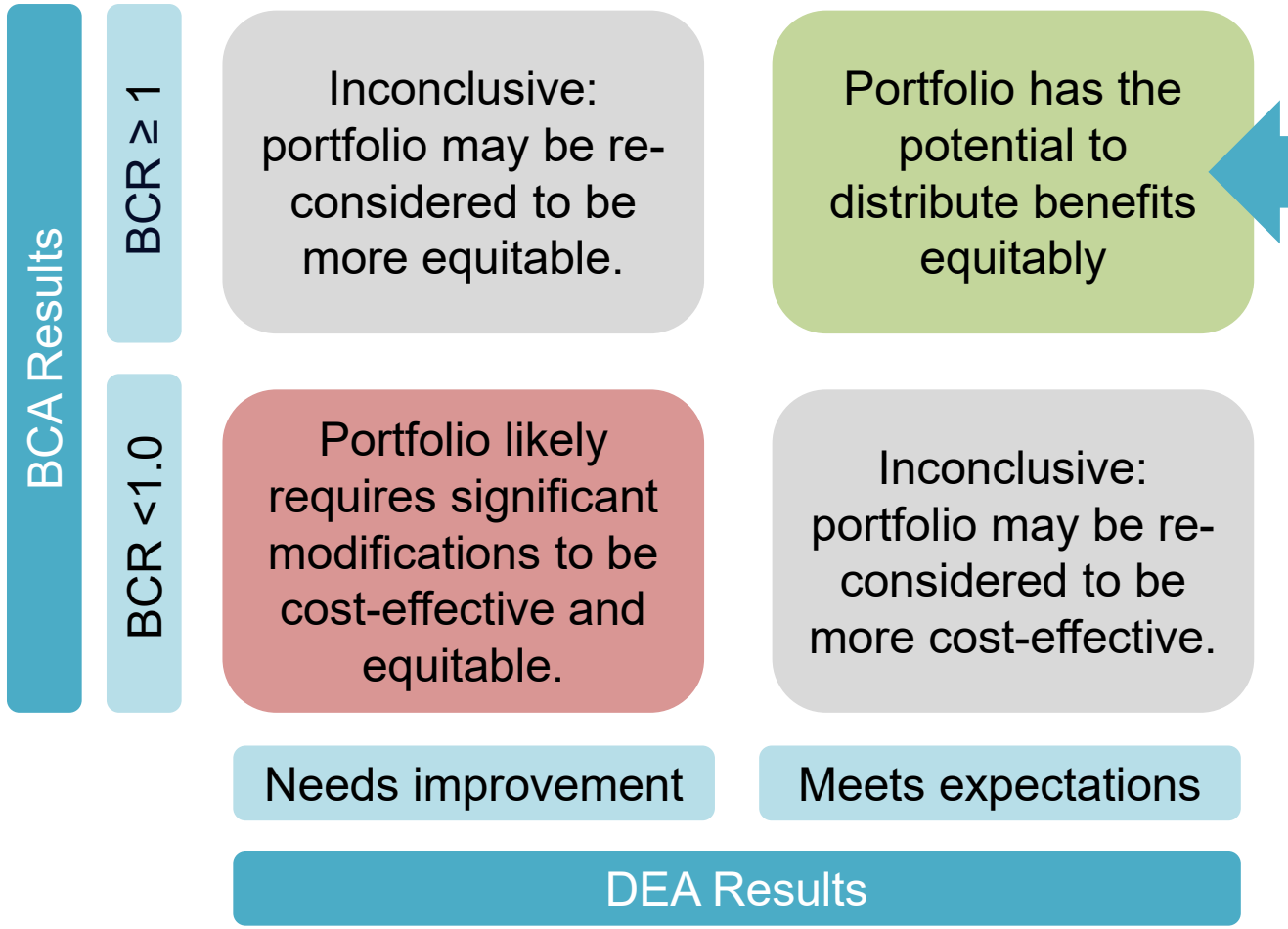
Metric	Conclusion
% of participants	*Benefits weighted more towards IE customers than other customers.*
% of residential program budget ($)	*Benefits weighted more towards IE customers than other customers.*
% of total energy savings	*Benefits weighted more towards IE customers than other customers.*
Rate impacts	*Insufficient data*
Bill savings	*Insufficient data*

DEA Conclusion

Residential EE program benefits are generally weighted more towards IE customers

Questions?

Decision Framework: ComEd DEA



ComEd's residential programs are cost-effective and are likely to distribute benefits equitably

Recommendations:

1. Research participant and utility non-energy impacts, study assess bill impacts
2. Continue current reporting, consider finer geographic resolution where practical

Case Study-Specific Recommendations

Recommendations Outline

Issue	Description
Category	DEA stage
Driving Issue	Issue, challenge, or data gap that inspired the recommendation
Recommendation	Project Team recommendation to address the issue
Priority-Level	Low, medium, high: How important the recommendation is to evaluating and improving distributional equity in EE and BE plans
Timeframe	Near-term: to be addressed as soon as possible Medium-term: addressed for or during upcoming plan cycles Long-term: an effort that may span multiple years
Relative level of effort	Low, medium, high: Dependent on the time, resources, and data availability to implement the recommendation
Relevant parties	Involved groups to carry out & provide feedback on the recommendation (utilities, ICC, external 3rd party, CBOs, stakeholders)

Discussion:
(1) Do you have other recommendations for analysis, research studies, program design, or evaluation?
(2) Do you have opinions on priority levels of these recommendations?

Recommendations: Ameren BE Case Study

Category	Driving issue	Recommendation	Priority-Level	Timeframe	Relative level of effort	Relevant parties
DEA Context	Project team conducted program-level DEAs only	**Conduct a DEA on the entire Ameren BE portfolio** in 2026 using actual reported program data and results	Medium	Near-term: end of program cycle	Medium (2nd DEA should be easier)	**Ameren** – data-sharing **Other party** – analysis
Priority Populations	EIEC/LI participation assumption is not well-explained	Review, justify, and/or update the **25% EIEC/LI participation** assumption	High	Near-term	Low	**Ameren**
Metrics	Utility data can be challenging to access for the public	Create a **common reporting dashboard or map** so that stakeholders can more easily access program data; publish data on types of EVs participating	High	Medium-term, ongoing	High	**Ameren** – data-sharing **Other party** – analysis
	There are no specific targets for EIEC/LI participation or investment	Utilize retrospective evaluation practices to **confirm that plan assumptions were met**	Medium	Medium-term, ongoing	Medium	**Ameren**

Recommendations: Ameren BE Case Study

Recommendation	Driving Issue	Recommendation	Priority-Level	Timeframe	Relative level of effort	Relevant parties
Other: future analysis & research	CEC program is community-driven and could offer insights into program design	**Utilize lessons learned** from the Community Engagement and Consultation program to improve other BE programs (e.g. outreach methods, program offerings)	High	Near-term	Medium	**Ameren** & **CBOs**
	BE plan addresses a limited range of EV adoption hurdles	Study **EV adoption barriers**, including up front cost and public charger access	High	Near-term	High	**Ameren** – data-sharing **Other party** – analysis
		Map existing charger distribution for insights into where gaps in public charging exist and where home level 2 chargers are needed	Medium	Near-term	Medium	**Ameren** – data-sharing **Other party** – analysis

Recommendations: ComEd EE Case Study

Category	Driving Issue	Recommendation	Priority-Level	Timeframe	Relative level of effort	Relevant parties
DEA Context	Full portfolio DEAs give a fuller picture of equity implications	Conduct a **full DEA** on the 2022-2025 ComEd EE portfolio in 2026 using reported program data to ensure programs are reaching IE communities	Medium	Long-term	High	**ComEd** – data-sharing **Other party** – analysis **CBOs** – feedback
	Prior EE plans may provide insight for historic distribution of benefits	Conduct a future DEA to assess the distribution of benefits from **multiple plan cycles** (’18-’21 and ‘22-’25)	Low	Long-term	High	
Priority Populations	Data aggregation in reporting loses key detail about populations	Consider using **census tracts for priority population** reporting over zip codes	High	Medium-term	High	**ICC & ComEd**
	More than just LI individuals could benefit from enhanced EE program offerings	Consider **expanding priority population definition** to include EIECs and potentially moderate-income populations	Medium	Medium-term	Medium	

Recommendations: ComEd EE Case Study

Category	Driving Issue	Recommendation	Priority-Level	Timeframe	Relative level of effort	Relevant parties
Metrics	Shutoffs were of high-interest to work group members but not easily tied to EE programs	Study relationship between **EE programs and service shutoffs**	Medium	Long-term	High	**ComEd** – data-sharing **Other party** – analysis
	Inconsistent program reporting made comparing across customer groups challenging	**Standardize reporting methods** for program participation and clarify accounting methods.	Medium	Near-term	Medium	**ComEd**
	IE participation is not clearly reported	Estimate the **total eligible IE customers** and estimate a **participation rate** as a share of eligible customers	High	Near-term	Medium	**ComEd**
	Bill & rate impacts were of high-interest to work group members but were not able to be quantified	Coordinate with gas utilities to share data and **analyze bill and rate impacts**	High	Medium-term	High	**ComEd** & **gas utilities** – data-sharing **Other party** – analysis

Discussion

1. Do you have other recommendations for analysis, research studies, program design, or evaluation

2. Do you have opinions on priority levels of these recommendations?

Recommendations for Improving DEA

Lessons learned for future DEAs in Illinois

DEA Stage	Issue/Lesson	Recommendation	Relevant Parties
DEA Context	Utility plan cycles were ongoing or ramping up, leading to challenges on data availability	Conduct prospective **DEAs during DER design**; conduct retrospective DEAs **during post program review**	DEA analyst, ICC
Priority Populations	Different definitions across EE and BE programs prevents cross-portfolio comparisons	Possible **long-term goal to align** definitions	ICC, utilities, work groups
DEA Metrics	Lack of publicly reported census-tract specific data for public health modeling	Continue studying **how EE and BE programs can improve public health** for priority populations and the best ways to measure this impact for priority populations	Work group, ICC
	Jobs & employment programs are ramping up and lack publicly available data	Continue to explore how to **track local jobs impacts;** continue to **focus workforce development** programs in **EIEC/LI and IE communities**	Work group, utilities
	Community priorities need to inform metric development	Stronger **up-front stakeholder involvement** to ensure metrics incorporate community perspectives	DEA analyst, work group

Lessons learned for future DEAs in Illinois

DEA Stage	Issue/Lesson	Recommendation	Relevant Parties
Data access	Long and involved process to share data between Project Team and utilities	Develop **utility partnerships** and share NDAs as early as possible	DEA analyst, utilities
	Accessing data stored in utility databases was challenging for the Project Team	Collaborate with utility to establish a list of **data available in the utility database** and strea**mline data requests** to the utility	DEA analyst, utilities
	Strong community interest in metrics that weren't tracked by utilities or had insufficient granularity	Track and report available data on a **census-tract level** in a **publicly accessible dashboard**	Utilities
Stakeholder Engagement	Ongoing work groups, processes, and meetings in Illinois presented scheduling challenges	**Consider ongoing processes** and **coordinate with existing meeting schedules** that may impede utility or stakeholder participation	DEA analyst
	Limited CBO participation	Better advertisement of the participation stipend and conducting **specific outreach to CBOs**	DEA analyst
Other	Relationship between DEA metrics and other ongoing utility data or metrics proceedings not a focus of the analysis	Explore using **other utility reporting avenues** (rate cases, performance metrics) to enable utilities to track the data needed for a DEA	DEA analyst, work group, ICC

Discussion

1. Do you have other recommendations for analysis, research studies, program design, or evaluation?

2. What are your key takeaways?

Project Schedule Recap

Work Group Meeting	Date
#1 - Introduction to process, relevant policies	March 6, 2024
#2 – Proposed Case Studies & DEA Context	May 10, 2024
#3 – Priority Populations and DEA Metrics	July 24, 2024
#4 – DEA Metrics	Oct 9, 2024
#5 –Ameren BE DEA – Results I	Dec 13, 2024
#6 – Ameren BE DEA – Results II	March 13, 2025
#7 – ComEd EE DEA – Results	May 1, 2025
#8 – Summary and final conclusions & recommendations	June 18, 2025
Final report published	July 2025

Next Steps

- Our team will publish our final report in July 2025
- Please reach out to team with any questions/comments following this meeting (see next slide)
  - Project Coordination: Julie Michals at jmichals@e4thefuture.org
  - Lead Work Group contact: Greg Ehrendreich at gehrendreich@mwalliance.org

Thank you!
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Check out NESP Events for NSPM and BCA webinars

Stay informed with NESP News

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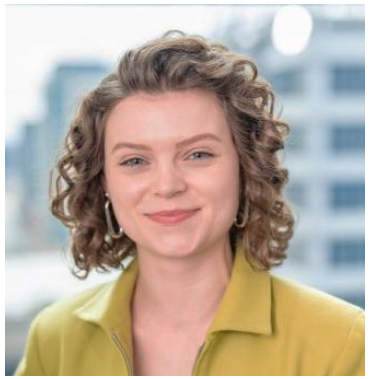

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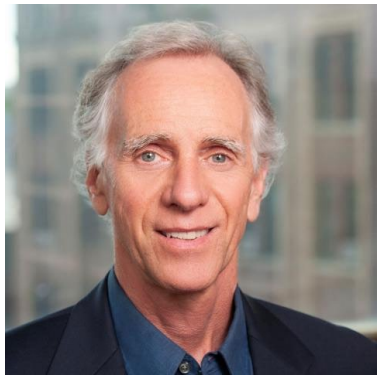

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Senior VP

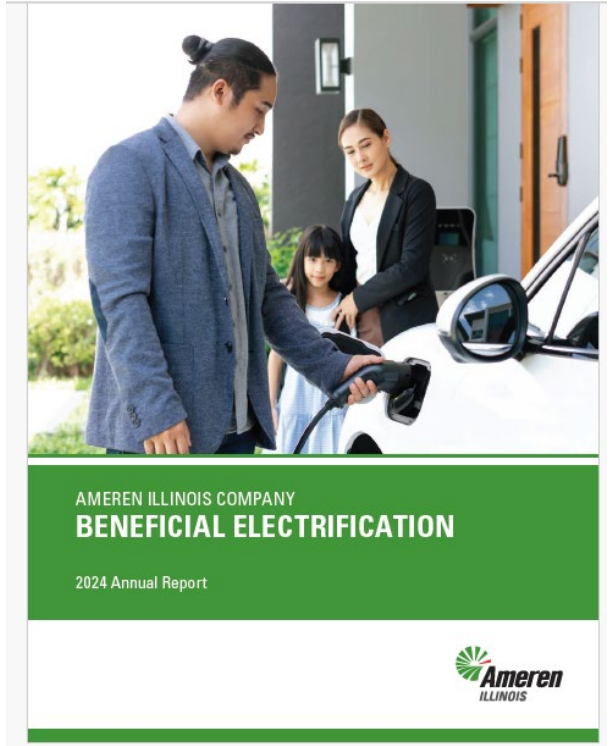
Background Slides

Choosing DEA Metrics: Metric & Data Considerations

Metric Consideration	Description
Tied to equity goals	Does the metric address one or more of the jurisdictional equity goals?
Distributional	Does the metric focus on distributional equity impacts, i.e., whether some customers are receiving greater benefits than others for the required costs?
Discrete	Does the metric overlap with BCA metrics or other DEA metrics?
DER impact (causation)	Will the DER being considered have an impact on the metric?
Data availability	Is the relevant metric data currently or anticipated to be available? *i.e. Does the utility collect this data? Is this data available elsewhere?*
Data resolution	Is the data at a level that is detailed enough to provide sufficient resolution? *i.e. Is the available data at Census tract, town, or zip code-level resolution?*

Data sources and methods for Ameren DEA metrics

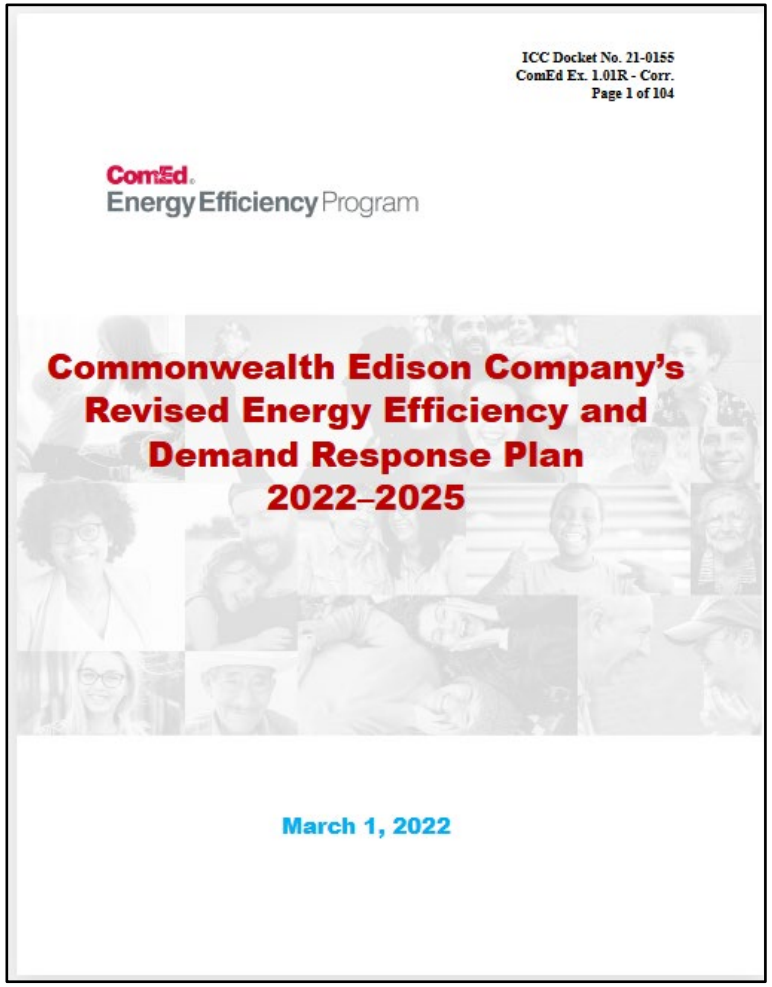
- Data sources
  - **BE Plan #1 and BE Plan #2** – program descriptions, benefit cost analysis, rate impact analysis data
  - **BE Plan Annual Report (July 2024**) - ChargeSmart data and program descriptions
  - **Ameren's BCA analysis** – underlying data for metrics
  - **Testimony from relevant dockets** – benefit cost analysis methods
  - Communication with Ameren staff (calls and emails)
- Calculation of metrics: sorting, filtering, and summarizing data in Ameren's BCA analysis workbook
  - Bill impacts: we used Ameren's assumptions and external, publicly available data about electricity rates, EV energy usage, and avoided gas costs



Ameren Illinois Company - BE Plan Annual Report (July 2024)

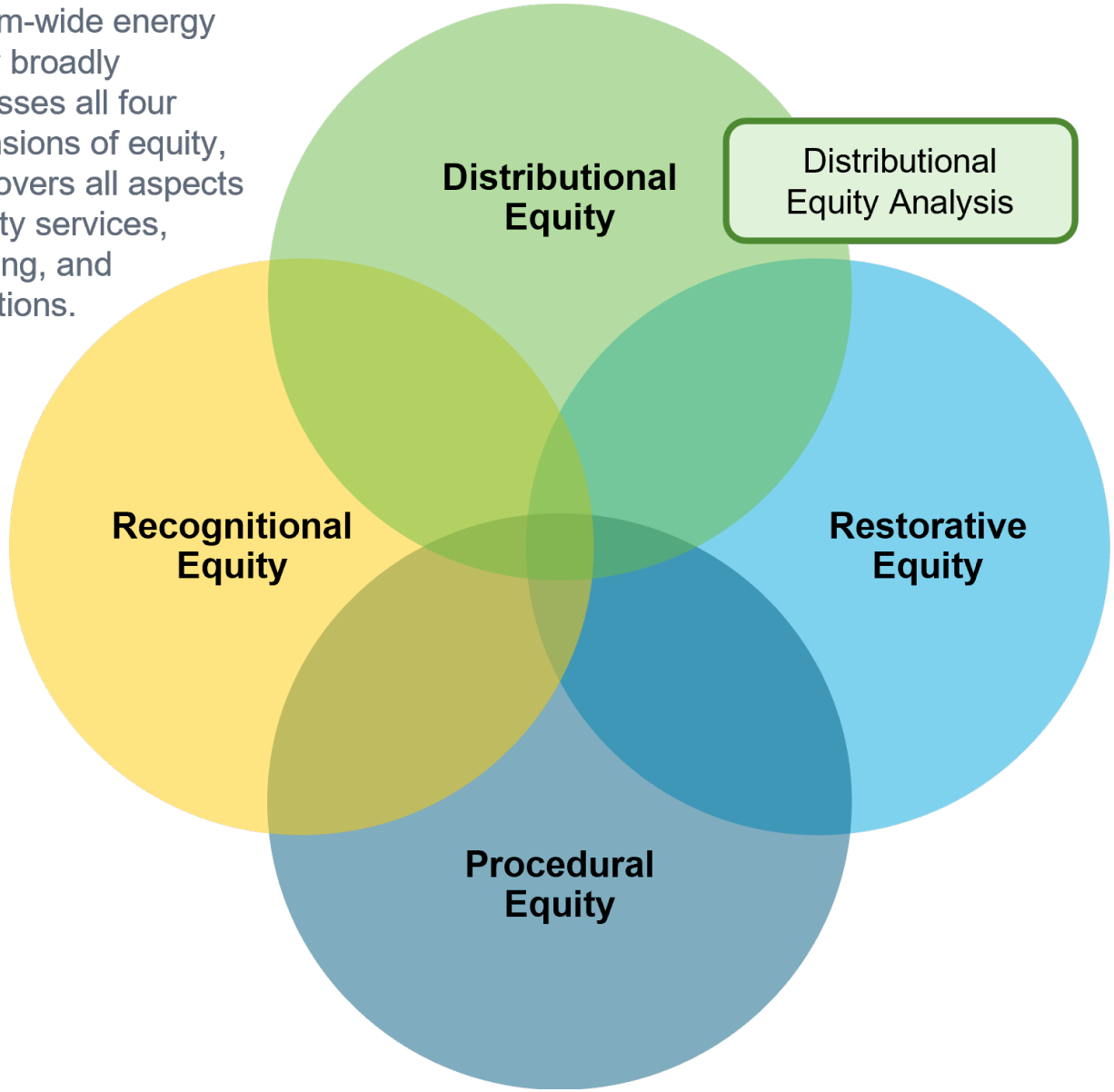
Data sources for ComEd DEA metrics

- **2022-2025 Revised EE and DR Plan** – program descriptions, budget, energy savings forecasts
- **Quarterly Reports (2022-2024)**
- **Cost effectiveness reports (2022-2024)**
- **Testimony from relevant dockets** – benefit cost analysis methods
  - 21-055 – Revised ComEd 2022-2025 EE and DR Plan
- Communication with ComEd staff (calls and emails)



ComEd Revised EE and DR Plan 2022-2025

System-wide energy equity broadly addresses all four dimensions of equity, and covers all aspects of utility services, planning, and operations.



Distributional Equity Analysis + Benefit Cost Analysis

DEA and BCA address one aspect of distributional equity:

What are the distributional equity impacts of utility resource investments?