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# Energy Efficiency as a Tool for Affordability

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Achieving Affordability with Innovative Rate Design

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## What is energy efficiency (EE) and why is it important for energy affordability?

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Energy efficiency is...

- Doing the same or more, using less energy
- May take the form of a technology, process improvement, or behavior change
- Measured in the number of kilowatt hours or therms that would have otherwise been needed to perform the task/function

Energy demand reduction through EE investment...

- **Reduces household energy burdens** and keeps energy costs under control for businesses
- **Reduces the need for capital improvements on new load** on our electric grid and gas system
- In competitive wholesale and capacity markets, **reduces market clearing prices**



# Costs and Benefits of Energy Efficiency



# How do we fund utility EE programming?

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Energy efficiency is expensed as a rider, or line item, on your electric or gas utility bill that includes funding for the:

- **Cost of programs** – cost of providing incentives for efficient equipment, contractor payments, customer education, program administration and evaluation, etc.
- **Utility's performance incentive for delivering programs\*** – as EE supports lower energy sales and therefore lowers a utility's revenue
- **Utility's cost recovery mechanism and related incentives\***

\*State and utility specific

# How does cost recovery affect affordability?

General utility cost recovery options – Expensed vs Capitalized

## Expensed

- Consistent with existing regulatory rules and procedures, utilities administer an EE program and then recover the cost of that program for the year it was incurred typically through a rate case process (although can also be through a public service surcharge on bills)
- Monthly bills assume the monthly cost of annual EE programming for one's utility
- The most common form of cost recovery (e.g. Michigan, Illinois Gas, etc.)

## Capitalized

- Costs to administer an EE program are amortized over the average energy savings life of said program year (i.e. over 12-13 years)
- Utilities earn a return on equity for their investment in EE like they earn for capital investments in transmission, distribution, etc.
- Monthly bills assume a small portion of the cost for annual EE programming, but since payments are aligned to true energy reduction benefits, those incremental payments stack year-to-year
- Rare form of cost recovery (e.g. Illinois electric)

# How does EE provide upward and downward pressure on rates?

## Upward pressure on rates

- Program spending
- Lost revenue – the impact of fixed costs being spread across a smaller annual sales volume when load is reduced through EE (even smaller impact with electrification)

## Downward pressure on rates

- Avoided energy costs – only for direct participants of EE initiatives
- Avoided capacity costs – less demand equals less generating capacity needed from RTOs for system reliability
- Market price effects – similarly, when demand goes down, the price of energy goes down
- Avoided Transmission & Distribution costs – reductions in load growth equals less need to upgrade transformers, substations, etc.
- Avoided Credit & Collections costs – fewer customers in arrears on their bills (small impact)

***In general, with a broad EE portfolio, the more we spend on EE over a long period of time, the more customer-specific and system-wide benefits we experience.***

# 2023 IL Utility EE Program Impacts (1/2)

~1 peaker power plant saved per year!

	ComEd	Ameren Electric	Ameren Gas	Nicor	Peoples	North Shore	Total
<b>Spending (millions \$)</b>							
Total	\$387.93	\$105.66	\$15.66	\$38.92	\$24.08	\$3.28	\$575.53
Low Income	\$102.72	\$45.59	\$6.85	\$13.81	\$13.29	\$1.34	\$183.60
<b>Electric Savings</b>							
Electric (MWh)	1,601,359	457,158					2,058,517
Peak Capacity Savings (MW)	214	61					275
Savings as % of Electric Sales	1.88%	1.31%					1.75%
Savings as % of Eligible Sales	1.99%	1.65%					
<b>Gas Savings</b>							
Gas (MCF)			411,086	1,548,828	991,736	196,827	3,148,477
Savings as % of Gas Sales			0.25%	0.32%	0.62%	0.57%	0.42%

#13 highest performing state in 2022, ~60% below top 3 states

#6 highest performing state in 2022, ~15% below top 3 states

# 2023 IL Utility EE Program Impacts (2/2)

	ComEd	Ameren Electric	Ameren Gas	Nicor	Peoples	North Shore	Total
<b>Cost-Effectiveness (mix of 2022 &amp; 2023 results)</b>							
Utility Cost Savings (millions \$)	\$202	\$101		\$31	\$10	\$2	\$346
Utility System Ben-Cost Ratio	1.40	1.88		1.80	1.50	1.90	1.54
Societal Benefits (millions \$)	\$1,202	\$198		\$106	\$33	\$8	\$1,548
Societal Ben-Cost Ratio	2.99	2.47		2.60	1.70	3.10	2.80
Levelized \$/kWh	\$0.025	\$0.025					\$0.025
Levelized \$/therm			\$0.336	\$0.230	\$0.275	\$0.252	\$0.259
<b>Jobs</b>							
Jobs-Years Created	17,040	8,827		1,063	612	73	27,615
<b>CO2 Emissions</b>							
CO2 Reduction (metric tons/year)	611,775	161,655	21,763	81,994	52,502	10,420	940,109
CO2 Reduction (avg cars)	132,994	35,142	4,731	17,825	11,414	2,265	204,372

>\$1.5B net societal value over life of efficiency measures installed in just 1 program year (utility bill reductions + value of reduced emissions - both utility and customer costs of investing in efficiency)

~\$350M reduction in utility bills (net of program costs) over life of efficiency measures installed in just 1 program year



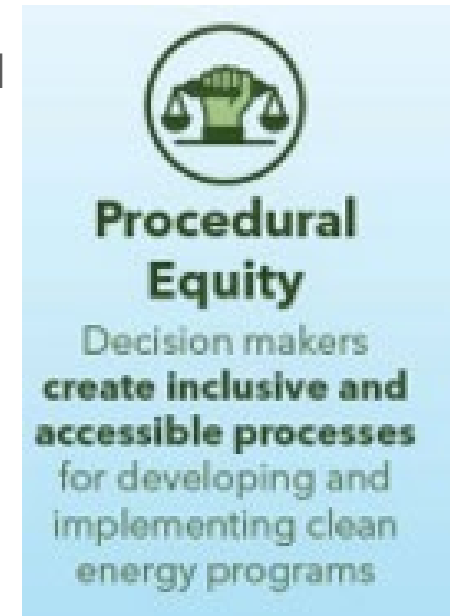


# **Energy Efficiency and Affordability in Practice**



# Procedural Equity + EE

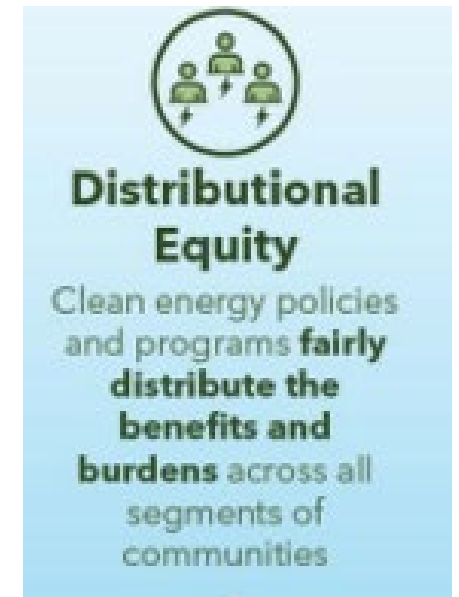
- IL's 2016 Future Energy Jobs Act (FEJA) **created a low-income energy efficiency collaborative space** through the ICC – the IL EE Stakeholder Advisory Group (SAG).
  - Updates in 2021's Clean and Equitable Jobs Act (CEJA) allowed the workgroups to be led by and be more explicitly inclusive of community-based organizations and environmental justice groups (previously led by the utilities), with compensation for their expertise. Requires the utilities to track and report changes influenced by committee.
- MI's 2023 Clean Energy and Jobs Act includes:
  - MI Utility Consumer Participation Board – Enables legal and technical intervenor funding for groups that would otherwise face significant financial hardship from participating in casework at the MPSC. Updates specifically emphasize **grantmaking to environmental justice communities and communities with the highest energy burdens**.
  - MPSC required to conduct a **docketed proceeding to explore options that will increase procedural equity decision-making** surrounding accessibility and transparency, opportunities to hear from and respond to communities experiencing high energy burdens and low incomes, and improve the process used to review rate case applications.



ACEEE, adapted from USDN

# Distributional Equity + EE

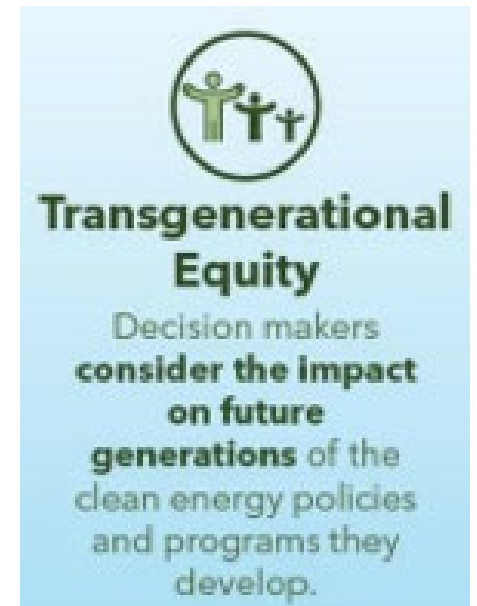
- Creation of the IL EE (SAG) leads to robust **portfolio plan settlement agreements with community-driven priorities**. In 2020, this included:
  - \$50 Million increase in funding to low-income and, specifically, low-income multifamily programs
  - Focused investment into whole-building, comprehensive efficiency offerings
  - Increased health and safety budgets to help address pre-weatherization issues like mold and asbestos
  - Increases in contracting and workforce opportunities explicitly for diverse businesses in Equity Investment Eligible Communities (EIEC)
  - Improvements in transparent data reporting
- Passage of the MI 2023 Clean Energy & Jobs Act expanded Energy Waste Reduction (EWR) benefits and minimum standards, including:
  - Increases to the electric efficiency savings requirements and goals to 1.5% of sales, with incentives that will get the utilities to 2% annually, making Michigan a leader in energy efficiency in the Midwest and nationally
  - **First ever codified low-income energy efficiency spending requirement** for the state
  - Health & safety measures specifically allowed and encouraged for low-income programs



ACEEE, adapted from USDN

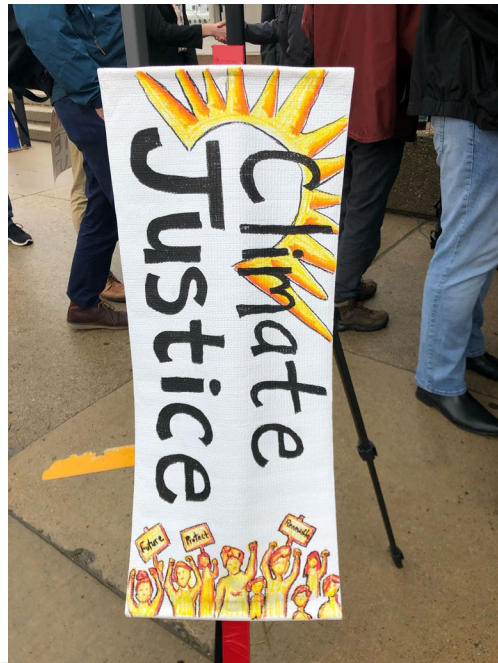
# Transgenerational Equity + EE

- **Creates family-sustaining jobs**
  - EE accounted for 517,388 jobs in MEEA's region in 2023, or 66% of the region's clean energy jobs
- **Improves comfort and health**
  - Better indoor air quality and temperature control reduces respiratory illness, cardiovascular issues, mental health issues, etc.
- **Provides wealth-building opportunities by increasing the value of our homes**
  - Homes appreciate through targeted efficiency investment when paired with community engagement and anti-displacement tools



ACEEE, adapted from USDN

# Thanks to all moving the needle on EE + Affordability!



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**Thank you**



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