

Illinois Energy Efficiency Stakeholder Advisory Group

2024 SAG Portfolio Planning Process
IQ South EE Committee Leadership Team EE Idea Submittal:
Mobile Homes Initiative

1. Submitter Contact Information

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2. **Description and Rationale:** Describe the proposed EE Idea and rationale for submission. Explain why this idea is needed and what main objectives the implementation of the idea would accomplish. Describe whether this is an idea that could be implemented in an existing EE program, or whether the idea involves establishing a new program. Please indicate whether additional research may be required before implementation.

Questions to consider:

- *What issue will this proposed energy efficiency idea resolve?*
- *Will the proposed change increase participation and result in increased energy savings?*
- *Will this reduce costs? Will this increase customer satisfaction?*
- *Will this help achieve statutory energy savings goals?*
- *Does the idea make EE portfolios more equitable?*
- *Would this idea require shifting budgets or resources? If so, where should the budget be shifted from?*

The Mobile Home Initiative (MHI) intends to serve the equivalent number of mobile homes, compared to single-family and multi-family homes relative to their prevalence, in all Illinois utilities. Compared to single-family homes, mobile home residents who own their homes earn half of the median annual income of site-built homeowners, about \$35,000. Over one-quarter of mobile homeowners earn less than \$20,000 annually and two-thirds earn less than \$50,000 annually. Furthermore, over one-third of Mobile Home renters earn less than \$20,000 per year and over three-quarters earn less than \$50,000 per year¹. Mobile home residents represent the lowest income in the IQ population, at the same time assuming the highest energy burden. According to the U.S. Department of Energy's Residential Energy Consumption Survey, manufactured homes built before 1980 consume an average of 84,316 BTUs per square foot, 53 percent more than all other types of homes.

A study by the energy consultant group Frontier Associates found that in extreme climates, residents in older manufactured homes pay more than \$500 a month for energy. For some, that is the majority of their income. According to [ACEEE](#), more than a quarter of residents of manufactured homes have severe energy burdens.

Finally, the 2021 Ameren Illinois Company Low Income Needs Assessment², performed by Opinion Dynamics, revealed the following information regarding mobile homes within Ameren Illinois' Service Territory:

¹ [Manufactured Housing and Manufactured Homes Landscape | Fannie Mae](#)

² [AIC-2021-LINA-Report-FINAL-2022-06-01.pdf \(ilsag.info\)](#)

- Mobile homes have a much higher energy burden on average (5.9%) compared to single-family (3.8%) or multifamily (5.0%) homes. Mobile homes are particularly problematic from an energy burden perspective, as their inhabitants have some of the lowest average incomes and yet some of the highest average annual energy costs despite being some of the smallest dwelling structures.
- Mobile home respondents, regardless of income status, have extremely high energy costs considering their smaller size, nearly the same average costs as much larger single-family homes.
- Compared to those in single-family homes, mobile home residents report greater frequency of uncomfortably warm temperatures and drafts.

Mobile homes have fewer standards for construction and deteriorate more rapidly than site-built homes. In most cases of IQ customers, these mobile homes have limited insulation, outdated windows, and inefficient and outdated heating and cooling equipment. Mobile homes suffer from chronic duct issues ranging from gaping holes to complete disconnects, some stemming from damage upon delivery or past repairs exposing the belly.

The workforce of properly trained mobile home weatherization tradespersons is extremely limited. Mobile homes can be costly and complicated to serve and as a result, are drastically underserved in many EE programs and rejected by insulation contractors.

MHI will deliver comprehensive energy efficiency improvements to manufactured and mobile homes. These improvements will include energy efficiency kits containing LED light bulbs, water-saving measures, and an advanced power strip. In addition, customers will be offered energy literacy education to help the customer actively engage in reducing their energy usage. Eligible homes will also receive a more comprehensive energy measure package installed by a trained weatherization contractor. EE measures offered to eligible customers will include air sealing and duct sealing, an ASHP (as applicable), updated HVAC equipment, and an EnergyStar Smart Thermostat. Other measures include sub-floor insulation and air sealing under the HVAC plenum. Customers will receive select H & S measures, such as a CO/smoke detector.

3. Illinois Utility Impacted: Identify which utilities are impacted by the proposed EE Idea:

Check	Illinois Utility Impacted
<input checked="" type="checkbox"/>	Ameren Illinois
<input checked="" type="checkbox"/>	ComEd
<input checked="" type="checkbox"/>	Nicor Gas
<input checked="" type="checkbox"/>	Peoples Gas & North Shore Gas
<input checked="" type="checkbox"/>	All Illinois Utilities

4. Energy Efficiency Sector: Identify which sector(s) the proposed EE Idea applies to:

Check	Energy Efficiency Sector
<input type="checkbox"/>	Residential Customers – Single Family (non-income qualified/income eligible)
<input type="checkbox"/>	Residential Customers – Multifamily (non-income qualified/income eligible)
<input checked="" type="checkbox"/>	Residential Customers – Single Family Income Qualified/Income Eligible

Check	Energy Efficiency Sector
<input type="checkbox"/>	Residential Customers – Multifamily Income Qualified/Income Eligible
<input type="checkbox"/>	Small Business Customers (commercial & industrial sector)
<input type="checkbox"/>	Medium/Large Business Customers (commercial & industrial sector)
<input type="checkbox"/>	Research & development, emerging technologies, or market transformation
<input type="checkbox"/>	Other (market development initiatives, Trade Ally support, reporting, etc.)

5. **Background:** Describe where the EE Idea originated from, including whether this idea has been successfully implemented in other jurisdiction(s). Provide specific background information that will help utilities and SAG participants understand the proposed idea.

Questions to consider:

- *If this idea has been successfully implemented outside Illinois, do you have information on eligible customers, participation achieved, and/or savings achieved?*
- *Are reports available describing the successful idea / program approach?*

In PY23, Mobile Home Initiative (MHI) successfully completed 153 mobile home energy efficiency projects in Ameren service territory. MHI generated 1,567,394 kWh and 14,197 Therms worth of savings, averaging 10,244 kWh and 93 Therms per mobile home. MHI expertly served 153 mobile homes, averaging \$9766 per mobile home. Savings do not reflect electrification savings from current year pilot program.

In the same program year, MHI trained 12 insulation contractors by the nationally recognized mobile home weatherization expert, Chris Clay. We continue to recruit, train and develop diverse contractors to support our growing program with Ameren IL. MHI has partnered with CAA and CBO's in our service territory for outreach, income verification, application management and project execution for crew based agencies. Customers are recruited through LIHEAP intake, mobile home outreach events, park manager relationships, energy literacy presentations, social media, program ally marketing, etc. MHI Senior Management was successful in lobbying for simplification of IQ documentation requirements outlined by SAG for residents living within a mobile home community where their land space is rented, allowing for more timely and less costly administrative processes for approved applicants.

MHI has shown that mobile homes can be served cost-effectively and equitably, paving the way to becoming best in class in the weatherization of mobile homes. MHI seeks to bring our program to all utilities in IL. We are well prepared with the infrastructure in place to seamlessly implement our program into the additional utilities in IL.

6. **References:** If any additional information will be useful to Illinois utilities and SAG participants in reviewing the EE Idea, please provide a description and links or attachment(s) to the source of information.

- *Puget Sound Energy, Cadmus Manufactured Homes Market Study, July 29, 2019. Filed in UTC Docket UE[1]171087. <https://apiproxy.utc.wa.gov/cases/GetDocument?docID=136&year=2017&docketNumber=17108>*
- *Press Release-ACEEE-Analysis: Low Income Residents Would Save if DOE Strengthened Manufacturer Housing Plan 2.10.22 <https://www.aceee.org/press-release/2022/02/analysis-low-income-residents-would-save-if-doe-strengthened-manufactured>*

- [OPB-Aging Mobile Homes Burden The Grid And Their Owners- Aging Mobile Homes Burden The Grid And Their Owners - OPB](#)

7. **Optional Additional Information:**

- a. **Estimated Budget:** Provide the total estimated budget for each program year (2026 – 2029).

Program incentives account for 65% of the overall budget. Incentives include a comprehensive weatherization and mechanical upgrade package for each mobile home, as well as an electrification upgrade for 25 homes. Year over year budget includes a standard 3% increase for increase in living. Numbers reflect the current program goals for MHI Ameren IL. We propose that the budget and number of homes served by utility and braided programs for ComEd, Nicor Gas, People Gas/North Shore Gas should be equivalent in the number of mobile homes compared to single-family and multi-family dwellings, relative to their prevalence.

Total Budget-Based on 150 Mobile Homes	Ameren IL 2026	Ameren IL 2027	Ameren IL 2028	Ameren IL 2029	Percentage of Overall Cost
Diagnostics	\$ 101,250	\$ 107,325	\$ 110,545	\$ 113,861	5%
Weatherization Measures	\$ 749,100	\$ 794,046	\$ 817,867	\$ 842,403	36%
DIMs	\$ 17,727	\$ 18,791	\$ 19,354	\$ 19,935	1%
HVAC Upgrade	\$ 658,595	\$ 698,111	\$ 719,054	\$ 740,626	32%
H & S	\$ 38,550	\$ 40,863	\$ 42,089	\$ 43,352	2%
	\$ 1,565,222	\$ 1,659,135	\$ 1,708,909	\$ 1,760,177	76%
Electrification Upgrade-25 Mobile Homes					
Diagnostics	\$ 23,850	\$ 25,281	\$ 26,039	\$ 26,821	1%
HVAC and Mechanicals	\$ 365,300	\$ 387,218	\$ 398,835	\$ 410,800	18%
Panel Upgrades	\$ 105,300	\$ 111,618	\$ 114,967	\$ 118,416	5%
	\$ 494,450	\$ 524,117	\$ 539,841	\$ 556,036	24%
Total Budget-Based on 150 Mobile Homes Including 25 Electrification Upgrades	\$ 2,059,672	\$ 2,183,252	\$ 2,248,750	\$ 2,316,212	

- b. **Estimated Participation:** Provide participation totals for each program year (i.e. number of measures installed, number of customer participants, etc.)

PY2026 MHI Participation-Ameren IL	
Kits-DIMS	300
Assessments	300
BE Measures	150
HVAC Replacement	128
Smart Stat	135

- c. **Estimated Savings:** Provide estimated savings for each program year (i.e. total numbers of therms for gas EE programs; total number of kWh for electric EE programs).

Estimated Savings PY2026 Ameren IL		
Average Saving Per Mobile Home	15,366 kWh	40 Therms
Total PY Savings	2,304,900 kWh	20,925 Therms

8. **Presenting to SAG:** EE Idea submittals will be presented to SAG in April. The SAG Facilitator is reviewing whether to schedule one of the April SAG meetings in-person. Are you interested in presenting this proposed EE Idea in-person?

Check	Are you interested in presenting to SAG in-person?
<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No