Illinois Energy Efficiency Stakeholder Advisory Group

2020 SAG Portfolio Planning Process
Proposed Energy Efficiency Ideas Template

Submitter Contact Information

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Energy Efficiency Idea Questions

Please check the boxes below to identify 1) the type of idea; 2) which Illinois utility or utilities will be impacted by the idea; and 3) which EE sector the idea impacts.

Check	Type of Energy Efficiency Idea
☒	New Measure or New Program Idea
☒	Proposed Program Approach
☒	Innovative Idea

Check	Illinois Utility Impacted by Energy Efficiency Idea
☐	Ameren Illinois
☐	ComEd
☒	Nicor Gas
☒	Peoples Gas & North Shore Gas
☒	All Illinois Utilities (***all, but particularly gas***)

Check	Energy Efficiency Sector Targeted by Energy Efficiency Idea
☐	Residential Customers – Single Family (non-income qualified/income eligible)
☐	Residential Customers – Multifamily (non-income qualified/income eligible)
☒	Residential Customers – Single Family Income Qualified/Income Eligible
☐	Residential Customers – Multifamily Income Qualified/Income Eligible
☐	Small Business Customers (commercial & industrial sector)
☐	Medium/Large Business Customers (commercial & industrial sector)
☐	Other (research & development, emerging technologies, market transformation)

Additional Questions

1. **Description of Idea:** Describe the proposed idea, including the purpose of the suggested idea and rationale. Describe whether this is an idea that could be implemented in an existing EE program, or whether the idea involves establishing a new measure or program. Please indicate whether additional research may be required before implementation.

   Questions to consider: What issue will this proposed change 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 goals? Will this help increase program penetration?

Whole house, non-IQ, single family retrofit program. This program would endeavor to significantly ramp up efforts to improve the heating and cooling efficiency of non-IQ homes, with particular emphasis on building envelops and HVAC distribution systems. Historically, utility efforts in this area have had very low levels of participation. That should change in the next plan filing. This will be particularly important for the gas utilities since most of the benefits are likely to be associated with improved gas heating efficiency; however, the electric utilities should target market electrically heated customers and provide some support for cooling and any other electric savings in gas heated homes. To ensure that more homes are treated, the program offering would be different from past/current offers in several ways:

- **Comprehensive, blower door-guided air sealing and duct sealing performed at the time of an in-home audit/assessment**. This would be a minimum half day and often all-day effort. It would ensure substantial building envelop savings for almost every home assessed (whereas many home retrofit programs across the country see 25% or less of customers following through on recommendations for insulation, air sealing, etc.). The assessment with air sealing could be offered at a very reduced costs – perhaps $99. All low-cost measures would also be installed at no cost, and smart t-stats at reduced costs (e.g. $49). There would be recommendations for other major measures, such as insulation upgrades and HVAC replacements. This approach has been used for years by the Connecticut utilities with significant success (projecting about 36,000 participants – or about 2.5% of total residential customers[1] – in 2021. See the embedded file below.

[1] It would be a higher percentage of non-low income customers.

- **Increased incentives for insulation upgrades**. Incentives should be initially designed to cover 50% of insulation upgrades. They could be lowered in subsequent years if market traction remains strong and follow through on program recommendations – the "close rate" – remains relatively high.
- **Aggressive promotion of cold climate heat pumps for customers currently using electric heat**. Ameren's 2015 potential study suggests that about 15% of residential single family homes have electric resistance heat.[2] ComEd's 2013 Residential Saturation Survey suggested only 4% of its single family homes had electric heat as their primary system, but a quarter of the single family homes had some electric heat, suggesting opportunities for retrofitting parts of homes with ductless mini-splits. For any such customers, retrofitting of cold climate heat pumps would provide substantial savings. Incentives for the heat pumps should initially be set at 50% of their cost, but could be reduced over time as the technology and its benefits get better known by customers and contractors. Particular emphasis on apartments with older central A/Cs may be worth considering (as the heat pumps can also provide cooling extremely efficiently).
- **Current incentive levels for furnaces/boilers**. These should be promoted to those participants whose existing gas heating equipment is old and inefficient.
- **Aggressive promotion of on-bill financing or other innovative financing for insulation upgrades, heat pumps and/or other HVAC upgrades.** This would could simply use the existing OBF mechanism to cover the portion of the cost not covered by rebates. However, other innovative financing vehicles could also provide customers with immediate positive cash flow while eliminating the need for large up-front costs. For example, there are efficiency contractors that offer "pay-for-performance" models that simply have the customer purchase the "negawatts" as they occur, keeping a share of the negawatt savings while the contactor collects most of it to pay off their investment in the efficiency measure. Ameren currently has at least one trade ally contractor offering this service in its small business DI program; the approach might also work well for non-IQ major home retrofits.
- **Negotiation of affordable fixed prices from participating retrofit contractors.** This is also a core component of the current CT utilities' program, which includes fixed price payments for assessments and blower door test, and variable prices per unit of air leakage reduction, per unit of duct leakage reduction, per light bulb, etc.

2. **Implementation:** How will this idea be delivered to the target market? Describe marketing strategies used to reach the target market and minimize market confusion.

Marketing would likely be through a variety of channels, but particularly vendors/contractors hired to perform assessments and air sealing. This may require some training of contractors to ensure they can deliver building science assessments to program standards. Utilities could also target market to high gas users and electric heat customers (identified through billing analysis).

3. **Background:** Describe where the idea originated from, including whether this idea has been successfully implemented in other jurisdictions. Provide specific background information that will help utilities and SAG participants understand the proposed idea.

   Questions to consider: In what jurisdiction has this idea been successfully implemented? Do you have information on eligible customers, participation achieved, and/or savings achieved? Do you have access to reports describing the successful idea / program approach?

See above.

[2] Volume 2, Figure 5-6.

4. **Idea Impact:** Provide additional information on the customer segment that will be targeted with the program idea, including how and why this idea will have a positive impact on customers participating in Illinois EE programs.

   Questions to consider: What level of impact will this idea have on current EE programs? How much additional market share do you estimate this change will impact?

See above.

5. **Duration:** Is this idea intended to be offered for the duration of the 4-year EE Plan or as a pilot measure or program?

All four years. Ideally start in 2021 to hit the ground running in 2022.

6. **Estimated Budget:** Provide the total estimated budget for each program year (2022 – 2025).

NRDC would like to see the gas utilities devote at least 20% of their total EE budgets to such non-IQ whole building retrofits by the end of the next plan cycle. There will likely be a ramp up requirement to get to that point.

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

NRDC has not yet developed participation estimates. That can/should be done as part of more detailed plan negotiations.

Sources

If any sources will be useful to Illinois utilities in reviewing ideas, please either provide links within this template or send attachment(s) to the SAG Facilitator with the Energy Efficiency Idea submittal.