

# 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
<input type="checkbox"/>	New Measure or New Program Idea
<input type="checkbox"/>	Proposed Program Approach
<input checked="" type="checkbox"/>	Innovative Idea

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

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

One of the biggest challenges for delivering savings is identifying homes in which there is a large savings potential and then targeting retrofits to the measures that will deliver those savings. Residential smart meters are now installed throughout Illinois. These smart meters record usage data at small time intervals, potentially small enough to be able to develop algorithms that can disaggregate end uses. If these end uses can be disaggregated, it becomes possible to both target enrollment efforts at homes with superior savings potential AND more efficiently implement pertinent measures. If successful, use of these algorithms should achieve all of the above-mentioned goals:

- Increased energy savings, because inefficient homes and measures will be targeted
- Reduced costs, because assessors and contractors will have advance knowledge of priority measures in each home
- Customer satisfaction, because of increased energy savings and less time required by implementers
- Achieve statutory goals, because increased energy savings plus reduced per-home costs will better position utilities to meet these goals
- Increase program penetration, because with greater success will come increased demand

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.

If the approach is successful, customized marketing materials identifying specific potential high-return measures can be developed.

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?*

Our team at the University of Illinois at Urbana-Champaign, through an NDA with the Environmental Defense Fund, has obtained access to substantial quantities of anonymized smart meter data from ComEd's service territory. The team has been conducting some preliminary exploratory analyses of the data to assess the potential for disaggregating data at the end use level. This is being done using a small pilot project fund. While the analysis is not complete, and with the pilot funds it will not be able to be comprehensive, we have found that we can identify patterns within the data that may be able to lead to such algorithms if sufficient additional support can be obtained.

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?*

While we are unable to project a change in market share, we do expect that targeted energy efficiency marketing will have benefits across the residential sector since we believe that residents will be more likely to participate if they can relate directly to recommendations about their home and they can see the potential for savings.

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?

This would be a research project, with a potential pilot phase.

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

\$100,000/year for three years, total \$300,000.

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

As a research effort followed by a pilot phase there is not an estimate of participation totals, other than for the potential pilot phase. We believe that the size of the pilot is better decided at that time.

## **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.