Illinois Energy Efficiency Stakeholder Advisory Group

2024 SAG Portfolio Planning Process
IQ South EE Committee Leadership Team EE Idea Submittal:
AC/High Heat Pilot Program to Address High Heat Days

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 AC/High Heat Energy Efficiency Program aims to deliver life-sustaining cooling resources during high heat episodes to communities and customers through cost-efficient packages of energy efficient measures. While resources exist to provide emergency heating resources and bill stipends to income qualified customers (Low Income Home Energy Assistance Program, LIHEAP), there is no program to support the delivery of emergency cooling resources in Illinois. The IQ-S AC/High Heat Subcommittee is proposing a program that would offer emergency cooling resources to at-risk, eligible low-income households via one or more energy efficient measure package(s), depending on the customer and residential dwelling type. Expected outcomes include generating savings for Ameren Illinois, providing bill relief to income qualified customers via higher efficiency cooling equipment, and protecting income qualified customers against potentially life-threatening high heat episodes.

   Additionally, the AC/High Heat Energy Efficiency Program will deliver supporting education materials to at risk communities and customers to educate them on the dangers of high heat. The program will offer high heat education both during customer outreach as well as during measure installation. These education materials could include information on how to stay safe during high heat episodes, the warning signs of heat stroke vs heat exhaustion, and additional risks associated with high heat and respiratory issues such as asthma and COPD. (CDC Information on High Heat) Additional education materials could also include how to efficiently use new equipment to maximize bill savings and to minimize barriers that customers may have related to utilization of cooling resources in the home.

Finally, the IQ-S AC/High Heat Subcommittee proposes the following high-level recommendations to guide the development and measure the success of the AC/High Heat Program. These recommendations are formed from direct feedback and communication with the IQ-S AC/High Heat Subcommittee Members:

- **Inclusion of AC in Weatherization:** Every comprehensive weatherization should include AC if there is no AC present in the home, or, if the AC present is not functioning well (such as less than 50% capacity). As a general rule of thumb, equipment older than 15 years old should be replaced, but capacity should also be tested.
- **Addressing the Risk to Seniors:** Per Senior Services Plus (SSP), 11 – 13% of seniors do not have working AC. It should be noted that the actual percentage of seniors lacking AC is likely higher due to underreporting (fears of being forcibly relocated and embarrassment play a role). Beyond lacking cooling resources in the home, seniors struggle to access public cooling resources (such as cooling centers) due to a lack of transportation, lack of mobility, or an unwillingness to utilize public services. The combination of lack of cooling resources and inability to access public services highlights the need for emergency cooling resources to be installed in the home.
- **Proposed Number of People Served:** The IQ-S AC/High Heat Committee proposes serving 1/10th of the vulnerable population, per year, in the next 4-year plan. To help achieve this goal, IRA funds would be leveraged for customers with a source of income in the form of a tax credit. While further investigation is needed to understand the number of customers who are vulnerable compared to available IRA funds, IRA funds are expected to become available in 2025 through the Illinois EPA. The Subcommittee recognizes that without support from IRA funds and the Illinois EPA, this effort would be challenging to successfully conduct with available IQ Utility Funds.

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

Check	Illinois Utility Impacted
☐	Ameren Illinois
☐	ComEd
☐	Nicor Gas
☐	Peoples Gas & North Shore Gas
☒	All Illinois Utilities

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

Check	Energy Efficiency Sector
☐	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)

Check	Energy Efficiency Sector
☐	Medium/Large Business Customers (commercial & industrial sector)
☐	Research & development, emerging technologies, or market transformation
☐	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?*

   While other states and jurisdictions offer emergency cooling (Alabama, for example), Illinois currently does not. Illinois' LIHEAP administrator, Department of Commerce and Economic Opportunity (DCEO) does not offer cooling resources as part of the 2023 LIHEAP plan which operates from October 2nd, 2023, through August 15th, 2024. The lack of emergency cooling resources leaves income qualified customers vulnerable to high heat days which are increasing in frequency and intensity (Union of Concerned Scientists, 2019).

   Los Angeles Department of Water and Power (LADWP) offers a $225 rebate for room air conditioners to vulnerable customers, including low-income, older adults and medically restricted.[1] Customers order the equipment through LA's efficient marketplace program, so the air conditioners are sent directly to the customer's home. Customers who are not eligible for the $225 rebate can still receive a rebate of $75 and purchase eligible room air conditioners through the LA's "marketplace" website.

   Additional research will need to be performed to investigate how other utilities have successfully implemented programs that offer emergency cooling resources while also promoting energy efficiency measures and/or other bill assistance programs for income qualified customers. The IQ-S Subcommittee staff will research program characteristics of other cooling programs including eligibility, total budget, incentive budget, marketing/outreach, delivery strategy and customer participation. Data already exists for the IL LIHEAP emergency furnace program, including participation. CAAs, CBOs, and DCEO have uptake data for the emergency furnace replacement program which we can use as a benchmark for expected uptake for the AC/High Heat Pilot Program. However, it is worth noting that the IL furnace replacement program has limited funds and so the emergency furnace replacement program participation likely does not reflect true demand.

   Additionally, it should be noted that the Illinois Association of Community Action Agencies (IACAA) has submitted the following comments to the Department of Commerce and Economic Opportunity (DCEO) regarding a summer cooling program:

   - *"IACAA requests inclusion of a summer cooling program in the Illinois state plan. Climate change has increased the number and severity of high-heat days in Illinois, exacerbating the health and safety risk to Illinoisans. The summer cooling program should include RA payments up to the annual household maximum, central air conditioning repair up to $2,000 per household, and the purchase of single room air conditioning appliances. The summer*

[1] https://www.ladwpnews.com/demand-heats-up-for-ladwps-cool-la-225-air-conditioner-rebates/.

cooling program should be written into the state plan but would only be implemented as funding is available after the winter heating season"

The IQ-S Committee would like to align the AC/High Heat Program with the goals of IACAA as much as possible. This would include pushing for the inclusion of an AC/High Heat Program in the Illinois State Plan.

Before launching the program, the IQ-S Committee plans to run a pilot of this program prior to the next four-year portfolio. This pilot is intended to refine the program proposal through data gathered. For the Pilot year of the program, we anticipate serving 40 homes. 20 homes via the CAA channel with the help of C.E.F.S Economic Opportunity Corporation and 20 homes via the CBO channel with the help of Senior Services Plus. The pilot year of the program will focus on optimizing outreach, education, measure type and measure delivery. There are unknowns related to customer uptake of new cooling technologies that we need to understand prior to scaling up and delivering an effective program. Education materials will need to be developed to help customers understand their new equipment, what savings they can expect, and how to efficiently use the equipment to maximize savings. We also need to understand how customers react to those education materials and adjust as needed.

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.

Table 1.0 – High Level Measure Table detailing proposed cooling measures:

Measure	Product Image	Measure Cost	Installation	Energy Star	Pros	Cons
CAC -14 SEER -15.2 SEER2 -2.5 Ton SW -3 Ton DW -Energy Star		**$4200**	-Requires HVAC Technician	YES	-Cools the entire home -Expensive -Cannot fit 16 SEER A-Coil in MH Furnace Cabinet	-Expensive -Currently Cannot Claim Savings in Mobile Homes
Window AC		**$635** < 8000 BTU **$750**-8,000 to 11,999 BTU	-Self Installation -Easy Installation	YES	-Inexpensive -Self Installation -Low Maintenance	-MH lack a dedicated circuit -Limited cooling range -Security

						-Unsightly -Noisy
Ductless Minisplit		**$8750** (Average) -12,000 BTU -Cost vary based on brand, installation requirement, electrical service	-Requires HVAC Technician	YES	-Very Efficient -Better IAQ -Silent -Heating and Cooling Ability	-Higher Installation Costs -Unsightly -Lower Performance in Extreme Temps -Maintenance
Portable ASHP -15 SEER -9 HSPF		**$600** (Average)	-Self Installation -Easy Installation	YES	-Ease of Install -Very Efficient -Affordable -Mobility-small size	-Limited Range -Performance in extreme temps -Noisy

7. **<u>Optional</u> Additional Information:**

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

   The IQ-S Committee would want to have further discussions with the EE SAG and IQ Stakeholders, but at a minimum, any IQ home (MF, SF or mobile home) should also be offered cooling resources if they don't have any or their AC is over 15 years old. The IQ-S AC/High Heat Subcommittee is also investigating options for leveraging incoming IRA funding to create a more sustainable program, not 100% reliant on Utility Funding.

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

   Pilot: For the pilot, we propose offering forty (40) measures, ten of each measure type set forth in the measure table. 20 via the CAA channel and 20 via the CBO channel. CAAs, CBOs, and DCEO have uptake data for the emergency furnace replacement program which we can use as a benchmark for expected uptake for the AC/High Heat Pilot Program. However, it is worth noting that the IL furnace

replacement program has limited funds and so the emergency furnace replacement program participation likely does not reflect true demand.
Portfolio Program (2026 – 2029): Further analysis needs to be done on costs, savings, cost-effectiveness and customer preference and satisfaction to determine the appropriate cooling resource measures for the next four (4) – year portfolio. Per IACAA, the current proposal sent to the DCEO includes RA payments up to the annual household maximum, central air conditioning repair up to $2,000 per household, and the purchase of single room air conditioning appliances.

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).

   Pilot: Estimated Savings will require additional research. Savings will be dependent on which measures are delivered and whether savings can be claimed on replacing existing cooling units.

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?
☒	Yes
☐	No