# REDUCING BARRIERS TO RESIDENTIAL ENERGY SECURITY THROUGH AN INTEGRATED CASE-MANAGEMENT, DATA-DRIVEN, COMMUNITY-BASED APPROACH

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**Background**

- Access to affordable energy is "a foundational pillar of our American Way of life
- Yet, 37 million households experience energy insecurity
- In Michigan 18-22% of household have unaffordable energy burdens
- 57% of low-income households in Detroit have unaffordable energy burdens, the 9th highest of large U.S. cities
- Many households do not know about or participate in existing programs

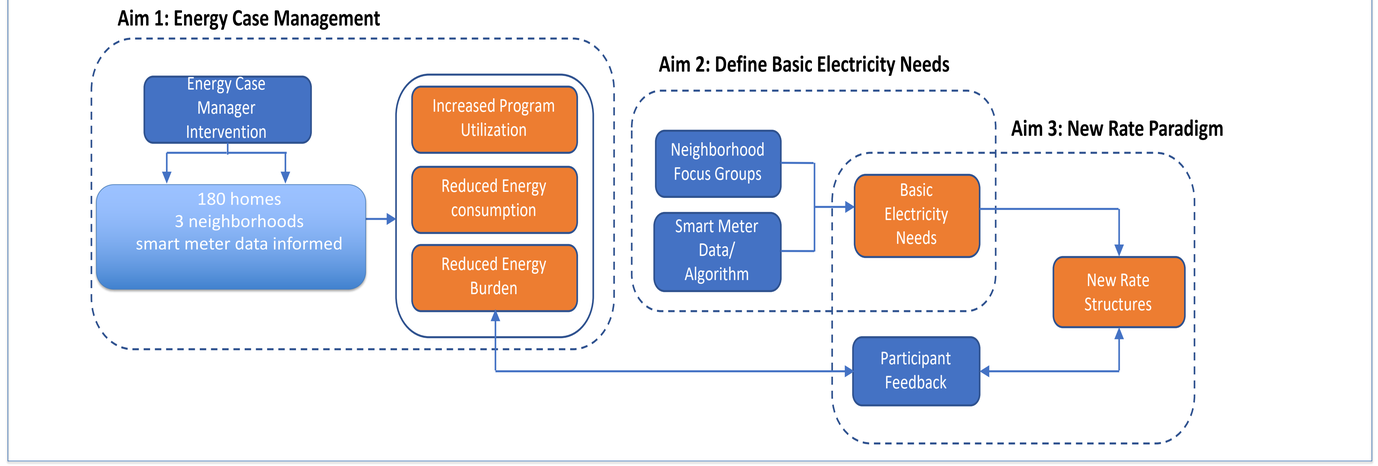
**Y1, Planning Activities**

- Partnership planning meetings
- Developing case-manager training kit
- Developing integrated participant application process informed by existing program qualifications and energy consumption patterns to inform individual household energy improvement plan.
- Developing household targeting and recruitment strategy
- Developing household survey and monitoring protocols

**Research Question 1**, What is the efficacy of a neighborhood-embedded energy case management intervention to facilitate reducing household energy insecurity?

**Research Question 2**, How can integrated social and technological methods help determine the amount of electricity that should be considered a basic right in LMI households and communities?

**Research Question 3**, How can integrated social and technological methods facilitate development a new electricity rate paradigm that achieves the following objectives: *i)* a free level of basic electricity, *ii)* supplemental electricity priced to cover utility provider costs, *iii)* dynamic stability, and *iv)* rates that encourage energy efficiency and renewable energy investments?




**Broader impacts - society**

- Advance understanding of the strategies to reduce energy insecurity through the exploration of smart technology, data-driven decision-making, the integration of social innovations, and community-based participatory research approaches.
- Will immediately help households, energy justice and housing advocates, utilities & policy makers.

**Broader impacts- sustainability**

- Partnership will continue to live through the Climate Hazards, Housing and Health community—university partnership established to carry out this and other complementary projects in Detroit.
- Disseminate knowledge (white papers, peer-reviewed articles, conference presentations, and media and web)
- Incorporate course modules based on this research, particularly new datasets and publications; i.e. Michigan Sustainability Cases

**Next steps**

- Profile energy demand curves for neighborhoods, and households
- Hire energy case managers
- Recruit and implement energy case management intervention with 180 households



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