

# Neighborhood Decarbonization Evaluation

## Ann Arbor Office of Sustainability and Innovations

Evaluation DRAFT scope of work  
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### | Project Overview

As the City of Ann Arbor described in the Scope of Services document:

The City of Ann Arbor is looking to conduct a series of holistic evaluations with the residents of the Bryant neighborhood in S.E. Ann Arbor to understand the impact and efficacy of a series of sustainability-related home and neighborhood improvements. As background, for over three (3) years, the City (A2) has been working with Community Action Network (CAN) and the residents of the Bryant neighborhood to envision what it would look like to make this neighborhood one of the most sustainable in America. The ideas brought forward by residents have informed a series of projects and fundraising efforts conducted largely by CAN and A2. Recently, the neighborhood has focused on activities that will **make the entire neighborhood carbon neutral**, with an emphasis on implementing deep energy efficiency, beneficial electrification, geothermal, solar, and energy storage systems on / in all viable households in the neighborhood. These improvements are also paired with as needed home health and safety improvements.

Through a series of successful fundraising efforts, A2 and CAN have raised notable funds to help make the identified improvements in between 50-75 homes in the neighborhood. These funding streams include:

- \$1,250,000 for energy efficiency, home health and safety improvements, and appliance electrification through MSHDA.
- \$10,000,000 to finalize designs and install a networked geothermal system in between 100 and all 262 households in the neighborhood to support sustainable and healthy heating and cooling options.
- \$5,000,000 to staff and establish a virtual power plant with up to 20 households in Bryant.
- \$3,100,000 to support up to 50 households in the neighborhood with becoming carbon neutral.

In addition to the above, CAN and A2 have been seeking administrative funding support to hire more on the ground engagement folk as well as a project manager to assist with helping residents move seamlessly through the assessment, contractor selection, home improvement, and installation process.

Dr. Lesli Hoey's evaluation team at the University of Michigan, along with Lilly Fink Shapiro, have been hired by the Ann Arbor office of Sustainability and Innovations (A2 Project Team) to conduct a mixed methods evaluation of the project. The evaluation team will work alongside the Ann Arbor Sustainability office on the following project components:

### **Workstream 1 | Pre and Post Survey with Bryant Residents**

The evaluation team will develop a survey tool to use with households in the Bryant neighborhood to assess resident experience and perception of indoor air quality and comfort, safety, and energy use and expenditures pre- and post-intervention, along with resident satisfaction with the City's decarbonization project. Surveys will be administered at the start of the project (once households have been recruited) and at the end of the project (once the project has been implemented). The survey tool will be developed in collaboration with the A2 Project Team as well as other stakeholders, as appropriate.

Survey distribution may take place virtually (i.e. texting or emailing a survey link to participants) or in person, shared by the A2 Project Team or other project staff when working directly with residents. If needed to increase response rates, the evaluation team will go door-door or attend community meetings to carry out the survey in person.

#### *Deliverables:*

- IRB Approval from UM (for the survey, interviews and other aspects of the project)
- Co-develop pre and post survey tool with the A2 Project Team

- Translate the survey into Spanish and Arabic and involve interpreters during in-person distribution, with A2 Project Team support (as needed)
- Administer pre- and post-survey to households in the Bryant neighborhood who are participating in the program. Aim to complete:
  - 50 pre-surveys
  - At least 30 post surveys
- Results compiled for individual households and collectively

## **Workstream 2 | Interviews with Key Stakeholders**

The evaluation team will collaborate with A2 Project Team staff to develop an interview protocol to triangulate with the survey. Our team will schedule, conduct, and analyze 1:1 interviews. Interviewees will likely include household participants, A2 Project Team implementers, and other stakeholders such as project ambassadors and landlords. Interviews may take place in person and/or remotely via phone/zoom. Our team will analyze all interviews by theme and identify key quotes.

### *Deliverables:*

- Co-develop interview protocol with the A2 Project Team for diverse stakeholders
- Conduct ~10-15 interviews with household participants in the Bryant neighborhood to capture a range of experiences with the program
- Conduct ~5-10 interviews with other key informants
- Thematic coding/analysis

## **Workstream 3 | Analysis and Reporting**

The evaluation team will pull out quantitative and qualitative key findings across the survey and interviews into data visualization graphics, in accordance with the A2 Project Team's style and marketing guidelines. Our evaluation team will develop an engaging report (formatted depending on the A2 Project Team's priorities). This may include a graphic slide deck with detailed program data and findings, and a short report summarizing high level findings. High resolution visuals can be shared with the clients in whatever format the A2 Project Team prefers. We will also supply the A2 Project Team with relevant evaluation findings for grant reports.

### *Deliverables:*

- Quantitative and qualitative data visualizations reflecting program impacts
- A detailed, graphic slide deck reflecting evaluation findings as well as suggestions for future directions of the program.

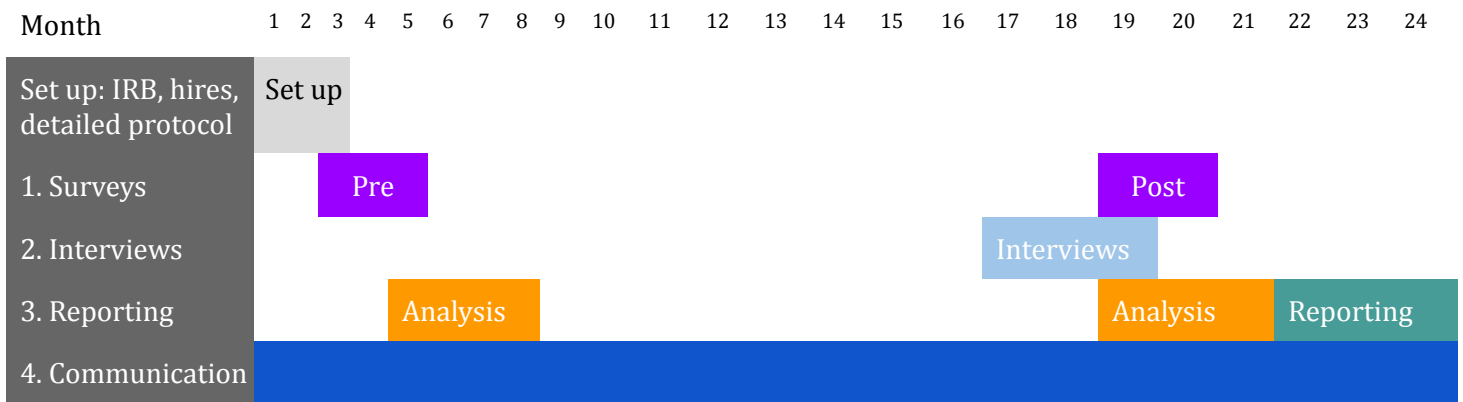
- A short report of high level findings (graphically formatted)
- Likely, a series of 3 to 6 short case studies that depict program impacts on diverse households
- At least one peer reviewed publication, likely co-authored with A2 Project Team staff and Bryant neighborhood community leaders
- Public facing materials to share with the Bryant community and/or via social media
- Data, as needed, for grant reports.

### Workstream 4 | Ongoing Team Communication

The evaluation team will communicate on an ongoing, regular basis with the A2 Project Team. One member of our team will attend all joint team meetings, at least monthly, to stay abreast of and better understand the detailed project plans, implementation strategy, and adjustments made. We will also host at least one “data interpretation meeting” with the A2 Project Team - and if useful, with community residents - in the final phase of the project.

## | Timeline

This project is anticipated to take place over two years, beginning in early 2025.



## Budget and Invoice Schedule

The total project cost is \$80,000, which covers staff and \$2,060 for travel and supplies.

CATEGORY	YEAR 1	YEAR 2	CUMULATIVE
Salaries & Wages			
Lesli Hoey	\$7,648	\$7,877	\$15,525
Lilly Shapiro	\$13,104	\$13,497	\$26,601
Research Assistants	\$12,000	\$12,000	\$24,000
<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$32,752</b>	<b>\$33,374</b>	<b>\$66,126</b>
Fringe Benefits			
Fringe - Lesli Hoey	\$2,294	\$2,363	\$4,658
Fringe - Lilly Shapiro	\$2,621	\$2,699	\$5,320
Fringe - Research Assistants	\$918	\$918	\$1,836
<b>TOTAL FRINGE BENEFITS</b>	<b>\$5,833</b>	<b>\$5,981</b>	<b>\$11,814</b>
Materials & Supplies	\$494	\$494	\$988
<b>TOTAL MATERIALS &amp; SUPPLIES</b>	<b>\$494</b>	<b>\$494</b>	<b>\$988</b>
Domestic Travel	\$536	\$536	\$1,072
<b>TOTAL TRAVEL COSTS</b>	<b>\$536</b>	<b>\$536</b>	<b>\$1,072</b>
<b>TOTAL DIRECT COSTS</b>	<b>\$39,615</b>	<b>\$40,385</b>	<b>\$80,000</b>
<i>Modified Direct Costs</i>	<i>\$39,615</i>	<i>\$40,385</i>	<i>\$80,000</i>
<b>TOTAL INDIRECT COSTS/OVERHEAD</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTAL AMOUNT REQUESTED</b>	<b>\$39,615</b>	<b>\$40,385</b>	<b>\$80,000</b>

Other activities that will be managed by the A2 Project Team include:

- Incentives for community residents who participate in surveys and interviews
- Translation of evaluation materials (e.g. the survey) and publicly facing reporting into Spanish and Arabic, as well as in-person interpretation, as needed
- Food for hosting if the A2 Project Team and evaluation team deem it useful for the data interpretation meeting(s) or other community meetings.

The evaluation team will invoice as often as quarterly for actual time and material costs incurred, not to exceed the approved budget. Invoices will indicate hourly rates, number of hours, and fringe benefit costs for all project personnel and include documentation of any travel or supply expenses billed.