

## SSAFE PILOT PROJECT CASE STUDY

Determine the Feasibility of Installing a Solar Panel Field at Kendal

Kendal: Kendal at Oberlin Location: Oberlin, Ohio Date Submitted: 3/1/2023 Keywords: solar panel installation, feasibility of;

**Summary:** Kendal at Oberlin acquired a very large vacant field at our main entrance. More recently, Kendal Northern Ohio acquired an older low-income housing complex lacking many modern energy-saving improvements across the street from this vacant field. We're looking for ways to reduce our greenhouse gas production by 50% by 2030.

**Objective:** We want to explore the feasibility of Kendal building a large solar field in the vacant field to help supply the energy needs first of our low-income neighbors and then of our Kendal campus. If we find that it is practical to build a solar field at this site, we plan to approach Kendal's Board and Administration, requesting that this plan be implemented. As an added benefit, a solar field at this site would be a witness to the city that we take seriously the need to switch to sustainable energy sources.

**Project Description:** Our goal is to generate credible information about the feasibility of building this solar panel field so we will be thoroughly prepared when we approach the Board and Administration. We made a list of the questions we want answers to:

- Will current City Zoning Regulations allow a solar field at this site?
- Exactly how big is our site?
- How much energy will we want the solar field to supply?
- How much energy can a single panel typically generate at Oberlin's latitude and usual cloud-cover condition?
- How many panels would we need, and how many can we fit on our site?
- What would be the purchase and installation cost of the final number of panels?
- What payment schemes might help bear the cost of the project?
  - Government (state and federal) grants?
  - Other granting sources?
  - Resident fund raisers, such as an "Adopt a Panel" program?

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**Methodology:** We approached the faculty at near-by Oberlin College's Environmental Studies Department to see if they might be interested in having students take this on as a class project. Fortunately, they are enthusiastic, and we are currently working on implementing this with some fleshed-out educational opportunities. For example, there are already two large solar fields in Oberlin, one at Oberlin College and the other at the Board of Education's new Elementary School that the students will want to investigate, and the work load from our project may be large enough to carry over to a second semester.

**Funding Needed:** Determining the amount of funding needed and its possible source(s) are two of the questions to be answered by the project.

**Involvement of support of Community Administration:** We recognize the importance of first, determining if the project is even practical, and then being knowledgeable about its different facets before presenting it to the Board and Administration so we plan to wait until we have answers before interacting with them.

**Key Challenges:** Needless to say, this prime piece of land has attracted many eyes over the years, hopeful for other projects. Even though we have not talked much of this project (since we don't even know if it's feasible), some opposition has arisen. For example, others have hopes for a restaurant, an office building with artist studios, town houses, storage units, etc.

**Outcome:** The project is currently under way.

