



# iSEE Carbon Offset Program



**Project Overview:** In fulfillment of iSEE's task of meeting iCAP objective 8.7, we were tasked with establishing a local carbon offset program by **FY24**. In doing so, this program hopes to offset **30,000 metric tons** of carbon dioxide emitted from unavoidable travel on our campus. The goal of this project specifically, is to provide research on both the campus as well as surrounding communities, implementations plans, and final recommendations.

## Prairie Restoration

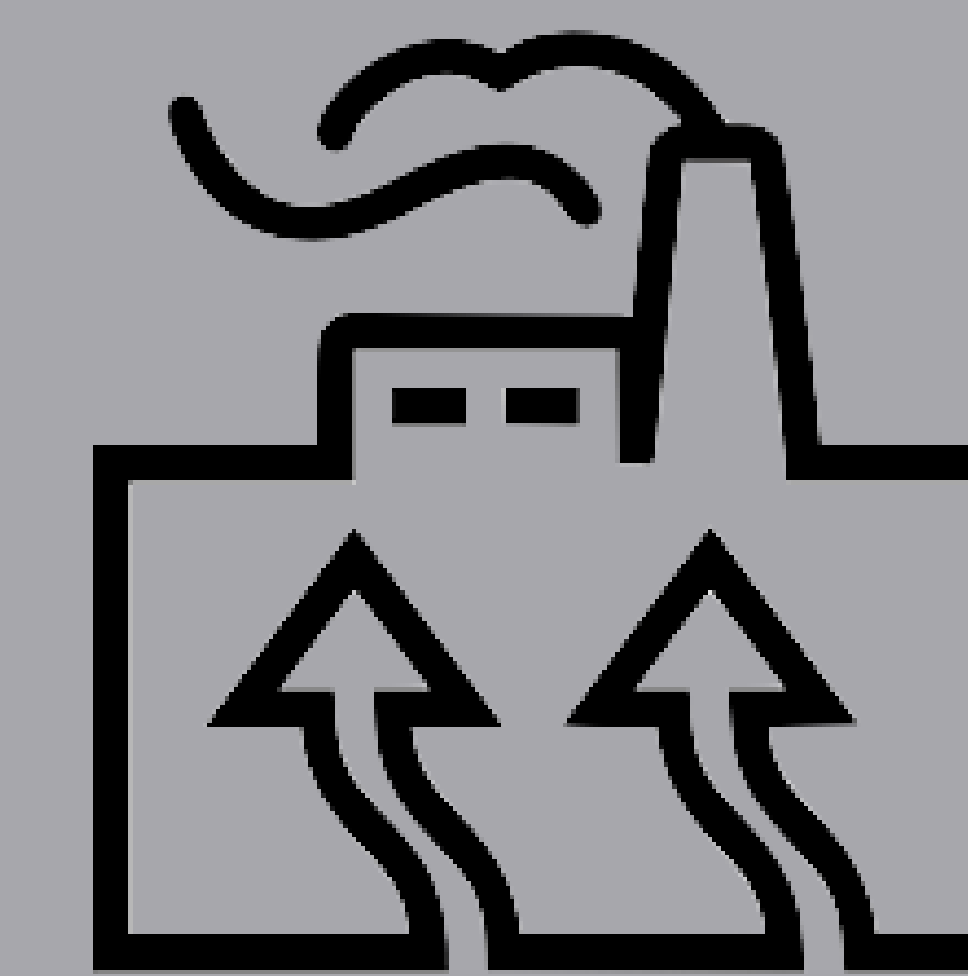
- \$400 / metric ton of CO2 (1 acre = 500 metric tons)
- Potential campus locations: 81.8 acres of Low Mow Zones
- Potential CU locations: 55 acres of tall grasslands
- Potential partners: CCFPD, CPD, and F&S



2022

## Solar

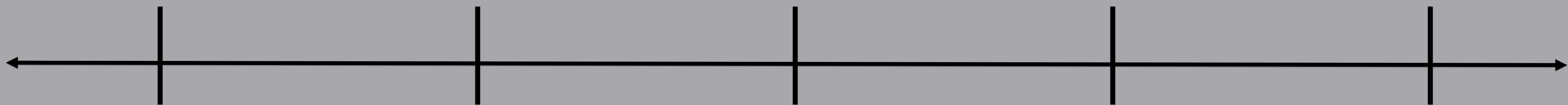
- Cost: \$20 million for 54 acres solar panels; \$3 / metric ton of CO2
- CU: Millard Airport
- Partners: Ameren, MISO, IllinoisSolar.org, Prairieland Energy Inc., and Urbana City



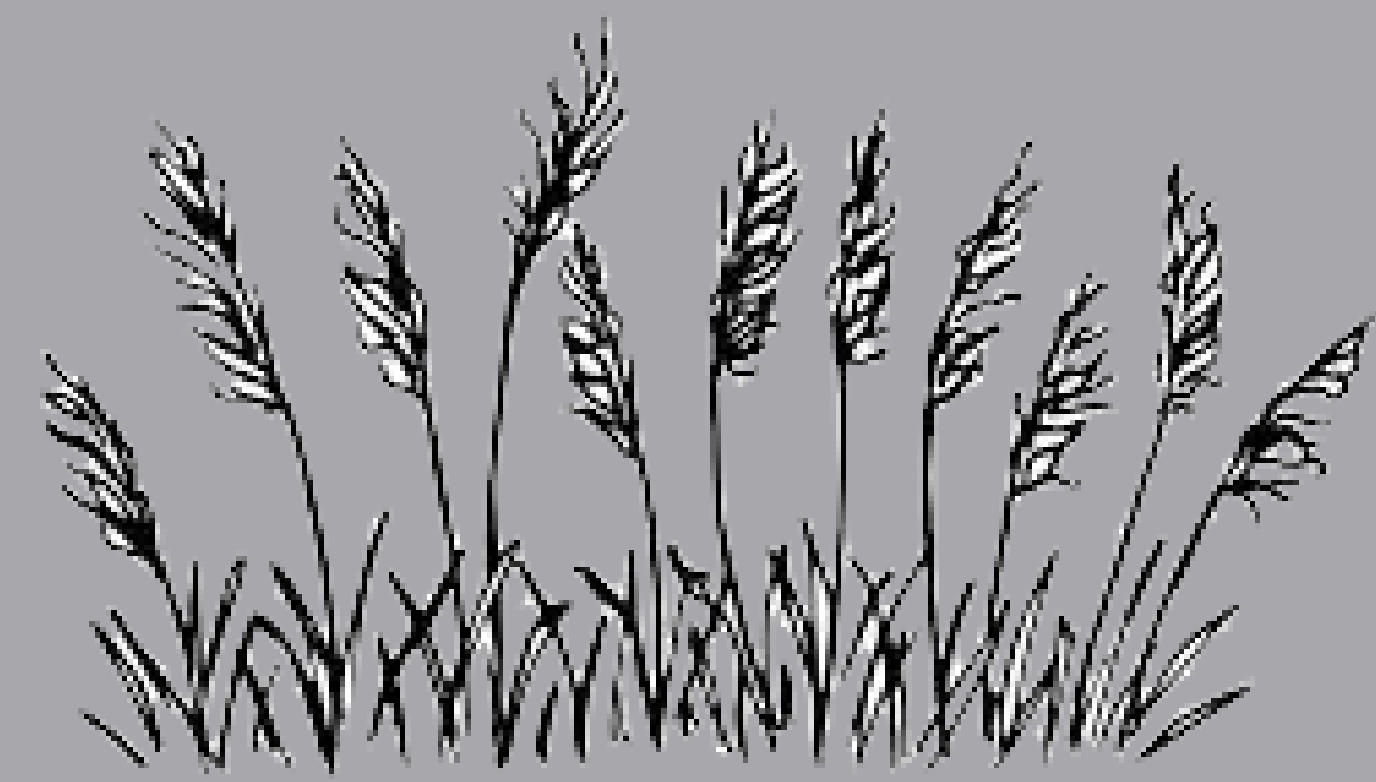
2030

## Biodigester

- Cost: \$10,375,000 over a 15 year period
- Potential campus location: UIUC Dairy Farm
- Potential partners: SYSTEMA.bio



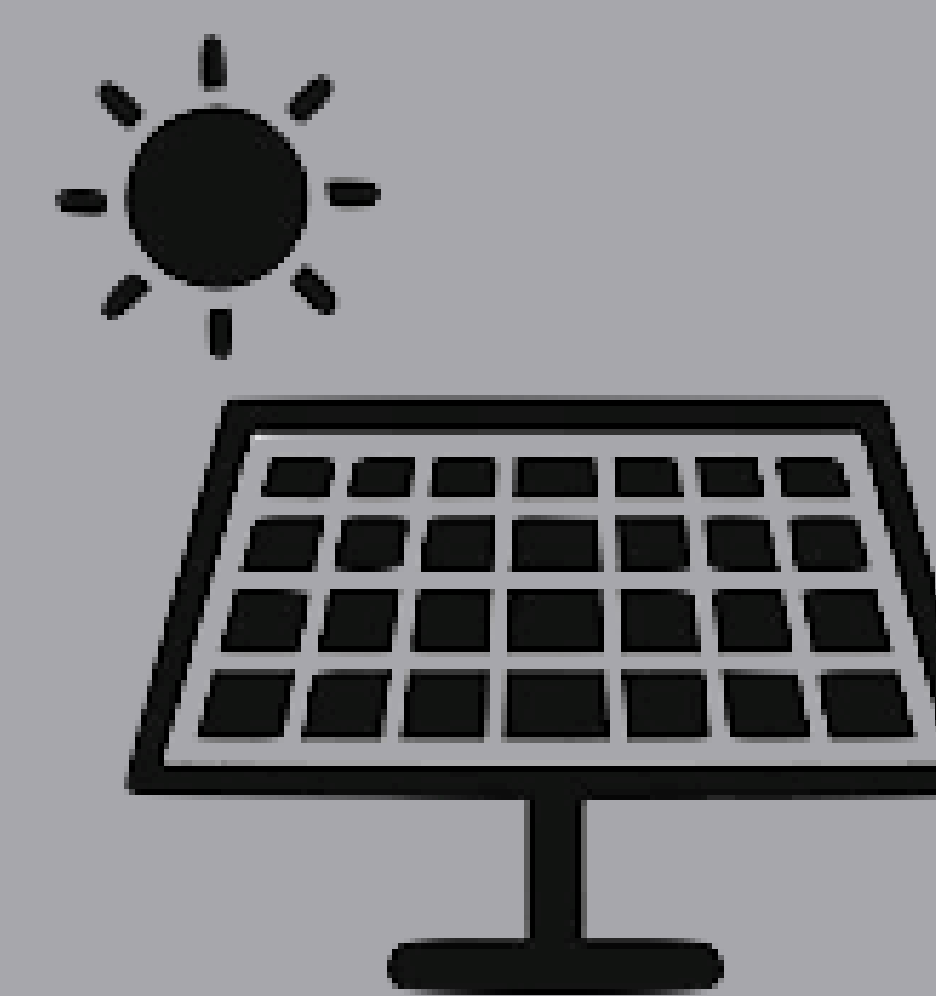
2022



## Tree Planting

- \$51.27 / metric ton of CO2
- Potential campus locations: Field at Kirby and Oak St.
- Potential CU locations: Vacant tree lots
- Potential partners: Urbana & Champaign Park Districts and F&S

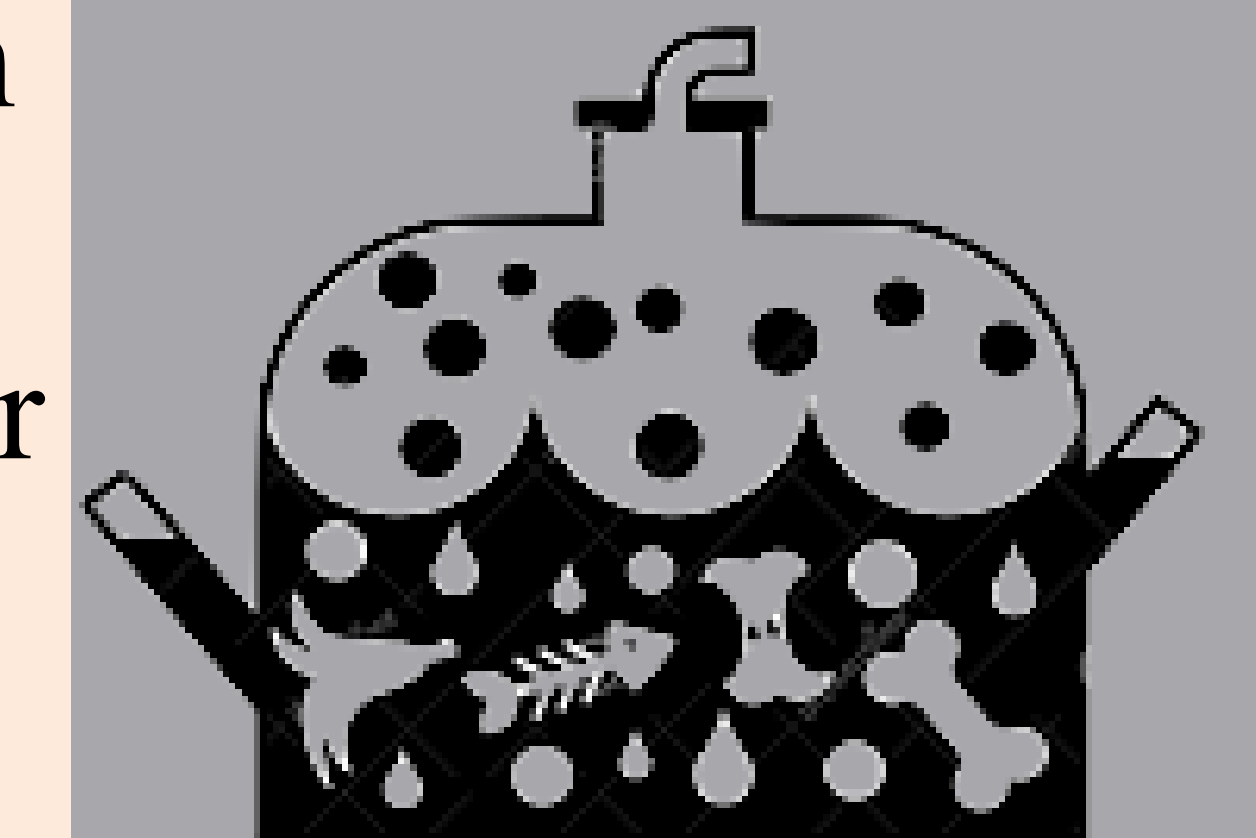
2030



## Geothermal

- Cost: \$27.5 million over a 50 year period with a NPV of \$19 million
- Campus: Sequester 66% of CO2 emissions per building
- CU: Costs \$30,000- 40,000 per building
- Partners: Geothermal Exchange Organization, Geothermal Coalition, F&S

2050



**Final Recommendations:** In summary of our research, we recommend a combination of **solar and geothermal implementation** in the coming years with supplemental continued investment in tree planting and prairie restoration efforts, to reach iCAP objective 8.7 by **FY24**. With biodigesters requiring further technological advancements before becoming a feasible offset technology, we recommend this as a future objective and addition to a local offset program.