

UFM's Solar Energy Project



UFM Community Learning Center. The Big Red House on the Corner!

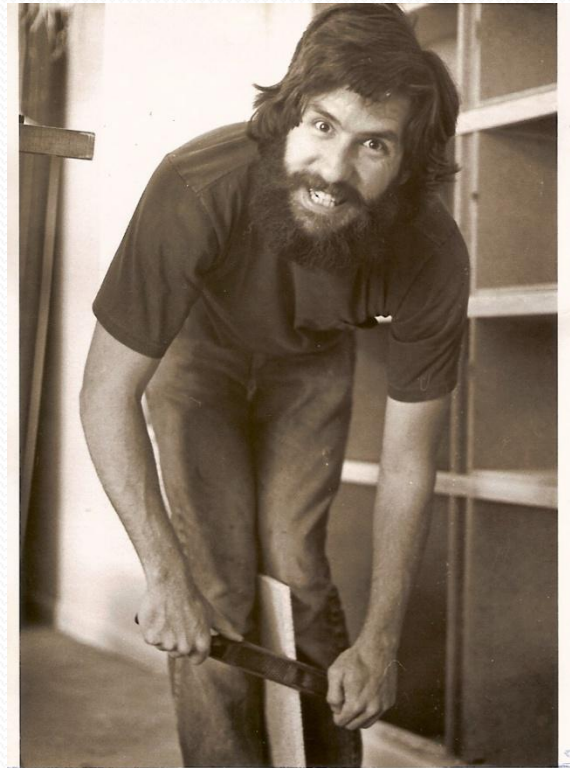


What is UFM?

- UFM is a 40 year old campus outreach program
- UFM serves KSU with credit and noncredit classes and Community Service Projects
- Sponsors the Lou Douglas Lecture Series
- Manhattan Community Garden
- Teen Mentoring Program
- Flint Hills Community Radio
- State Outreach
- Over 23,000 participants last year.

History of UFM Solar Project

- How did the project come about?
- Uses of the facility over the years.
- Time to Renovate
- Original Funding
- Renovation Plan and funding



Recent Efforts

- Goal to renovate the passive solar building and revive the facility
- Attempt to improve on original design
- Updated for easier care
- Take advantage of newer technology
- Kept some original technology
- Improved on greenhouse space
- Usage plans for facility

Assistance From:

- Funding from Caroline F. Peine Foundation and Greater Manhattan Community Foundation
- College of Architecture – Gary Coates, Todd Gabbard
- Kansas Industrial Extension – Bruce Snead
- College of Engineering – Ruth Douglas Miller and students
- Horticulture – Kim Williams, Richard Mattson, Lea Westervelt
- Westar Energy

Photovoltaic Project

- Added an array of 15 solar cells, 3 kilowatt output
- Second program in Kansas to be grid-connected
- How the PV cells work
- Electricity output



Project Goals

- Rehabilitate the use of a significant , well used UFM facility
- Provide a demonstration of passive and active solar energy use in residential-type buildings
- Provide demonstration of one way to integrate PV into an existing structure
- Develop a protocol for grid-connected alternative energy systems in Kansas

Lessons Learned from PV Integration

- Options for photovoltaic cell technology
- Batteries or Grid Connect?
- Initial Costs and Payout
- Does it make a difference?
- Is it worth the cost?



Solar energy is a key component of green energy and economic development.

Solar energy is indicative of the strong, diverse energy potential in Kansas.



UFM Solar Energy Project

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