

# EDC PRESENTS: PLANS FOR A SOLAR POWERED STUDENT UNION

## PROJECT BACKGROUND & OVERVIEW

### BUCKS FOR DUCKS

Spring of 2001, the ASUO held a \$100,000 competition open to all student groups for project proposals that would most benefit the student body in a long-term and meaningful way. The money was awarded to the Ecological Design Center to put solar panels on the EMU, producing clean renewable energy and generating renewable \$ for student benefit. The project promised to:

1. match student dollars with corporate sponsorship
2. promote campus-wide energy conservation
3. educate and inspire the student body and university community

### ECOLOGICAL DESIGN CENTER

The EDC is an interdisciplinary student group in the School of Architecture and Allied Arts dedicated to education and action in the environmental design arts and planning. The group is a recent merger of two longstanding organizations: The Solar Information Center and H.O.P.E.S. We are currently advised by Frank Vignola & the Solar Radiation Monitoring Lab, Charlie Brown & The Energy Efficiency in Buildings Lab, Ron Kellet & the Neighborhoods Lab.

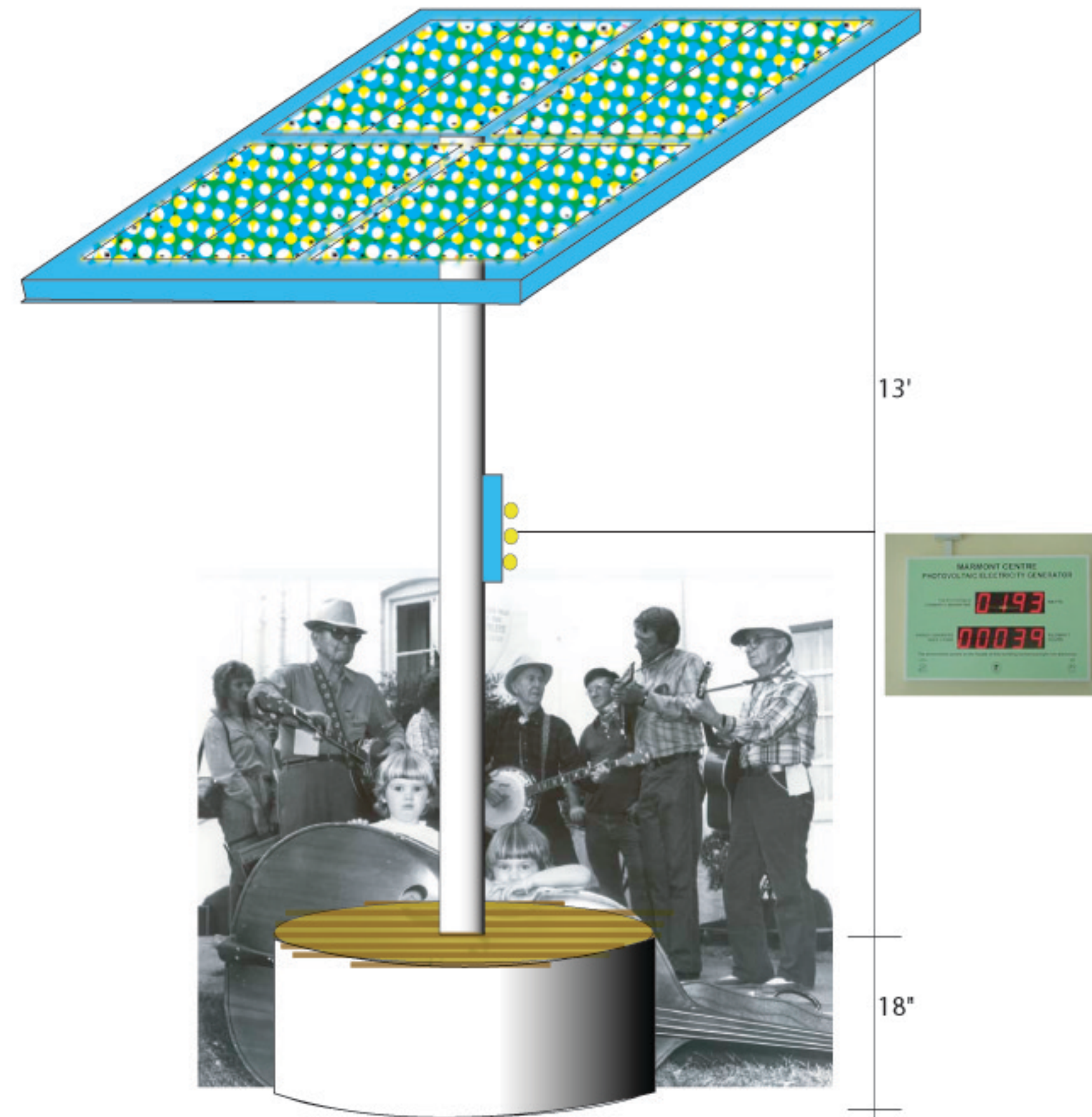
### PARTNERSHIPS

EDC has formed strategic partnerships with EWEB, the UO Corporate Foundation, Oregon Office of Energy, AAA School and EMU staff to maximize the potential of this project. We have gained the support of State Representative De Fazio, Mayor Torrey, and UO President Frohnmeyer, in pursuit of Oregon businesses who can take advantage of our 35% tax credit pass-through. Strong student initiative and community partnerships make this project a viable candidate for matching funding as well as donations to support educational goals.

### PROJECT STATEMENT

This project values the production of renewable energy for the EMU as well as the potential to educate ourselves and the larger community about renewable energy solutions. Five main factors have influenced the site selection, phasing and design of the EMU Solar Project:

1. structural capacity of available EMU locations for additional PVs (given the implications of the master planning process)
2. solar access
3. minimal maintenance over time
4. visibility of the system and
5. educational and revelatory potential



Conceptual montage of PV tower idea



Internet image of roof-mounted PVs

## PHASE 1

### SOUTH EAST BALCONY INSTALLATION & INTERACTIVE MONITORING KIOSK

The installation of three solar towers on the southeast balcony intends to:

- build awareness about renewable energy and the solar EMU project
- show student initiative and create publicity for fundraising efforts
- provide an opportunity to test and monitor photovoltaic technology, before more PVs are installed.
- create an artistic, interactive, educational, and functional solar power producing display.

An educational kiosk inside the student union is an integral part of this project proposal.

- The kiosk will inform the student body and greater University

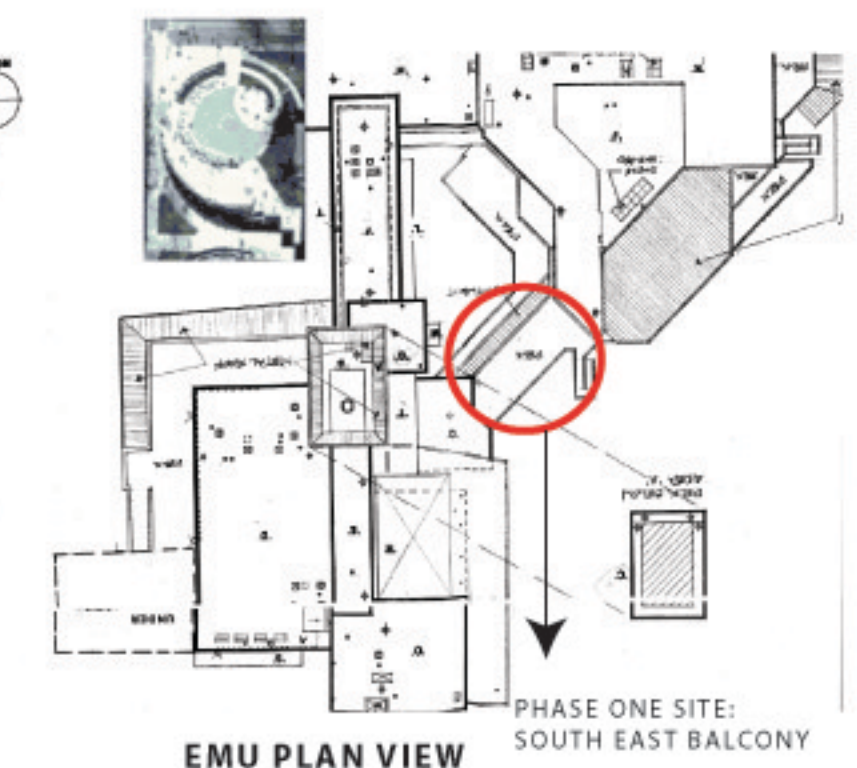
## PHASE 2

### EMU ROOF EXPANSION

Matching funds will enable the expansion of this solar system.

Expansion goals are to:

- seek to best possible site for the location of a larger PV array
- add and intertie a 10kW+ photovoltaic array to the EMU
- sell the solar power to EWEB to generate funds for the long term maintenance of this project



EMU PLAN VIEW