

2008 Annual Report



The mission of the Humboldt Energy Independence Fund is to reduce the environmental impact of energy use at HSU through student driven projects.

Goals of the HEIF

The HEIF will achieve its mission through projects that are developed by students and, to the extent possible, implemented, monitored, and maintained with strong student involvement.



The HEIF will require accountability by measuring and reporting quantitative and qualitative results, as well as levels of involvement by students and other participants, in all its projects.



The HEIF will strive to make its projects derive from and be connected to the curriculum of the university.



The HEIF will support dissemination of information about its projects through public outreach and educational activities.



The HEIF will seek to publicize accomplishments and experiences associated with its program and projects through a variety of media.

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Introduction

The 2007-2008 school year marked the inauguration of the Humboldt Energy Independence Fund following years of student lobbying. Our first year involved creating the organizational framework needed for HEIF to fulfill its mission and goals. We thank those who have helped deliver this innovative and forward thinking program to a state of clarity.

This annual report includes a brief overview of HEIF's history, administrative committee, and a recap of HEIF activities and projects. This year's milestones include:

- ✓ The creation of the HEIF committee membership and bylaws.
- ✓ The establishment of HEIF's mission and goals.
- ✓ The development of a Request for Proposals (RFP) process.
- ✓ Awarding of \$101,000 to two exemplary student initiated energy projects.

A Brief History

The HEIF was first conceived in 2000 by then student Michael Winkler and has since continued to be an initiative spearheaded by student action. The establishment of this outstanding program marks a successful and ongoing collaboration between students, staff, faculty, and administrators.

Funding for the HEIF is made possible by a \$10 contribution per student per semester, collected through Associated Students' pre-existing Instructionally Related Activities Fee. HEIF funds are allocated by a student majority committee to facilitate implementation of energy conservation and self-generation measures at HSU. The HEIF promotes service-learning at HSU by providing a formalized process through which student initiative and expertise may be channeled for the advancement of sustainability at Humboldt State University.

2008 HEIF Committee

A diverse team of students, staff, faculty, and community advisors serve as the administrative body for the HEIF, collectively known as the HEIF committee. Students constitute the backbone of the committee by holding the chairperson position, and four of the seven voting seats. Responsibilities of the committee include the issuance of RFPs, development of funding procedures, the allotment of HEIF funds, and the monitoring of previously funded projects. Committee by-laws may be found online at HEIF's website: www.humboldt.edu/~heif. The members of the HEIF committee for the 2007-2008 school year include:

<u>Students</u>	<u>Major</u>
Jessica Lamm	Political Advocacy
Jeffrey Steuben	Envir. Science
Tyler Smith	Geology
Jeff Hinton, co-chair	Envr. Engineering
<u>Faculty</u>	<u>Department</u>
Arne Jacobsen	Envr. Engineering
Steve Hackett	Economics
John Meyer	Political Science
Ann Alter	Film (TFD)

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<u>Staff</u>	<u>Position</u>
Tall Chief Comet	Sustainability Coord.
Tim Moxon, co-chair	Dir. Plant Operations
Dean Hart	Univ. Advancement
Rosemary Smith	Financial Coord.
Kim King	Recording Secretary

<u>Community</u>	<u>Position</u>
Michael Winkler	SERC* Engineer
Peter Lehman	SERC Co-Director
Beckie Menten	Arcata Energy Spec.

Student Projects

The HEIF committee issued a Request for Proposals on February 1, 2008, in search of unique student driven projects which fulfill the mission and goals of the HEIF. This year's RFP was in many ways viewed as a test run for the procedures which had been formulated and adopted by the committee.

Four student teams submitted project proposals spanning topics including solar thermal installations, photovoltaic arrays, stadium lighting efficiency, and on-campus real time solar radiation monitoring. The committee evaluated the proposals and ultimately selected two projects for HEIF funding: A 10.5 kW (DC) photovoltaic installation on the Old Music Building, and enhancements to the existing solar radiation monitoring station to enable remote data acquisition.

Project: Solar Radiation Monitoring Station Phase II

Authors: Andrea Allen, Juliette Bohn, James Apple, Colin Sheppard

Award: \$4686

In 2006, the Renewable Energy Student Union (RESU) constructed a solar radiation monitoring station (SoRMS) on the HSU library roof (Fig. 1). The student managed station provides valuable data to the National Solar Radiation Database. HEIF funds purchased equipment for enabling remote data acquisition from the station, and to install a third pyranometer on the system. The project meets the mission of the HEIF by providing valuable data for the development of campus solar energy technologies. In addition, the SoRMS project creates ongoing opportunities for students to gain first-hand experience in solar resource data collection, monitoring, and processing.

Project: Old Music Building Photovoltaic Project

Authors: Kristin Radecky, Peter Johnstone, James Robinson, Nathan Chase

Award: \$94,943

Photovoltaic systems (PV) are an effective way of utilizing the sun's energy to create electricity with little environmental impact. This project aims to develop HSU's self-generation capability through the installation of a 10.5 kW (DC) grid-connected photovoltaic array. HEIF funded hardware and installation of the system, the development

* Schatz Energy Research Center

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of interpretive signs and an art display to emphasize the system. The project meets the mission of the HEIF by increasing the portion of HSU's electrical load which is met through renewable sources. The project also provides multidisciplinary educational opportunities to students interested in PV system installation and monitoring, design of interpretive graphics, and creation of a permanent art installation.



Figure 1. Students, Andrea Allen (foreground) and Juliette Bohn (background) perform maintenance on SoRMS.



Figure 2. View of the Old Music Building from the main HSU quad.