

memo

TO: Margret Lang

FROM: Ky Wagner

SUBJECT: CCAT and SERC Tour

Purpose:

The purpose of touring CCAT and SERC was to gain knowledge on the types of research and deployment of green practices and technologies on campus and learn about possible opportunities to expand our education outside of the classroom.

Discussion:

We started our tour at the Hydrogen Fueling station on campus that makes up one of several on the “Hydrogen Highway” in California. The station was given to us in the form of a grant won through a design competition, and Humboldt State University operates a fleet of two hydrogen-fueled vehicles. The vehicles are used for research purposes for the plausibility of hydrogen-fueled vehicles. The station on campus was built in the last few years and is one of the more advanced systems currently deployed. However, the station can only produce a few kilograms of H₂ gas a day, which is fine for a fleet of two cars, but would make it difficult to scale the project up to a feasible size.

Our next visit was at the Schatz Energy Research Center (SERC). There we were introduced to the programs researchers who described several of the projects they worked on. The most notable project was a grid-sharing project in Bhutan, which has had a 90% success rate in reducing power outages. A large amount of research at SERC is focused on small solar powered lights for developing nations. SERC tests commercially available products and rates their light output and lifespan. This allows companies to improve their products and consumers can figure the best product for their limited budgets.

Our final stop was at the Campus Center for Appropriate Technology (CCAT). CCAT is a student created project to simulate sustainable living and educate the public. The primary way CCAT arrives at sustainable living is to reduce their consumption of manufactured goods, read: reusing and recycling materials, growing their own food, using unconventional build materials. CCAT is a good model for teaching people what can be done currently to move toward sustainability with out a large capital investment. CCAT is starting to build a green house on its property. I think it would be great experience to work on that project, for green planning and design experience, as well as construction experience. Touring these facilities made me realize the wealth of opportunities for out of classroom learning that is at my fingertips.