
MEMORANDUM

TO: EILEEN CASHMAN & KYLE SIPES
FROM: KYLE REESE
SUBJECT: CCAT VISIT
DATE: NOVEMBER 31, 2016

Purpose

The purpose of this memorandum is to give a review of a field trip to the Campus Center for Appropriate Technology (CCAT) and the Schatz Energy Research Center (SERC) on November 29, 2016. Included is a design project being implemented by SERC and the environmental benefits/costs of said project, how to be involved in future projects, and what I found to be most interesting from the field trip.

Discussion

The Schatz Center is currently working alongside the Blue Lake Rancheria to install a 500kW solar array with an equivalent amount of storage using Tesla battery banks. The goal of this micro-grid is to provide the Rancheria with a renewable power generation source that will provide about fifty percent of the energy used for the casino and hotel. This project will potentially outpace the state mandate requiring that 33 percent of California's energy come from renewable resources. Also, in the event of a natural disaster, the micro-grid will provide continuous renewable energy for the Rancheria which can be used as an emergency shelter.

If a student is interested in being involved with future projects, CCAT offers many opportunities to volunteer or attend workshops throughout the school year. Every Friday between 10am and 4pm, students can volunteer to help build new projects or help to maintain ongoing projects. CCAT also provides a free lunch to those who volunteer.

The most interesting thing I learned on the field trip was CCAT had a toilet that uses the water from a sink to flush the toilet. This system is a great way to effectively reuse the gray water generated when washing your hands.

Conclusion

The field trip proved to be very interesting, and opened my eyes to the many opportunities provided by CCAT and SERC. SERC is leading the way in helping many developing countries with energy efficiency by working on over 20 individual projects. CCAT is continuing to take the lead in implementing appropriate technology in order to provide economically and environmentally sustainable solutions throughout our area.