

CENTER FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY (REEE)

Mission: To provide a sustainable - progressive, economical, and safe energy that reduces our region's dependency on fossil fuel by way of developing renewable sources of energy and improving efficiency of existing systems. The goal of the Center is to:

- Support the development of safe, reliable, environmentally sound, and affordable energy,
- Reduce California's dependency on fossil fuels for production of electric power through research and development of alternative resources,
- Develop innovative technologies for reducing peak load on the statewide electric grid and gas pipeline network by way of enhanced efficiency and year-round load leveling.

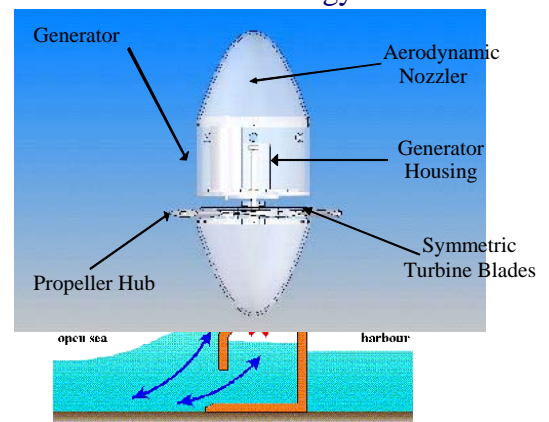
The Center will conduct focused research, technology development & deployment, and technical training. It will make a concerted effort to maintain close ties among industry, state and federal agencies, and academic and other research institutions to engage a diverse gamut of expertise.

In order to synchronize engineering to the tune of the day, we introduce our concept of sustainable engineering derived from sustainable development - synthesizing environmental protection and economic viability.

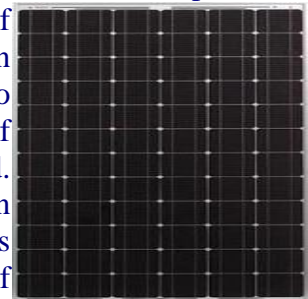
In addition to promoting renewable forms of energy, one serious aspect of *sustainable engineering* will be waste minimization. Waste reduction enhances manufacturing performance in a competing global market and also promotes a clean environment. The US disposes 4.4 lb/person per day of solid waste, the largest amount of waste disposed per person in the world. This large amount consists of such general trash materials as 247 million tires, 2 billion razor blades, and 1.6 billion pens every year. REEE attempts bringing resourceful use of materials and energy to the forefront of environmental issues as a strategic goal to reduce pollution and energy waste.

California's natural beauty (mountains, beaches, old growth forests, and deserts), Mediterranean climate, and diverse economy attract more and more residents. With this growth come problems such as ever more exacerbated traffic congestion and attendant pollution, increased strain on the electric grid, and greater demand for water. More succinctly, California experiences growing pains that are more acute than most other regions of the country. The San Francisco Bay Area and Los Angeles Basin are foci of the greatest environmental challenges.

Wave energy



Solar panels



Wind energy



Technologies and practices exist for relieving many of the problems related to energy, water, and pollution, but are not implemented nearly as fully as they could be. Other emerging technologies to further improve conditions show promise but need further development in order to make them economically viable.

San Diego, with its year round good weather offering good solar concentration, and with other renewable forms including geothermal, wave, and wind in good proximity, is an ideal candidate city to demonstrate the possibilities for clean power.

Focus Areas of Center for REEE

