

# Solar Slider

After two years of planning and labor by a team of undergraduates at UC San Diego (UCSD) and their advisors, the Solar Slider is a mobile power source for utility vehicles, consumer electronics and anything that plugs into a wall. Built atop a 14-foot trailer, 8 solar panels are attached to a custom-built cage. 4 panels rest on the top and four panel slider out from inside the cage. The cage's angle is adjustable for maximum solar energy. All together, the system makes enough power for half of a small home.

The project started when project founder Joseph Ocampo submitted a letter of intent in November of 2010 on behalf of UCSD's chapter of Engineers for a Sustainable World (ESW). Throughout the process, the team built institutional support at UCSD, including the Director of Building Commissioning and Sustainability, and partnered with advisors from the San Diego Renewable Energy Society. The team was eventually awarded \$10,900 from ESW National, SunEdison and Autodesk.



The Solar Slider pictured above at the First Launch Ceremony at UC San Diego, Jacob's School of Engineering

## Quick Facts

- Power output of 1.9 kW (rated), capable of charging about 30 laptops for as long as there is sun.
- Total charging capacity is being upgraded by another ESW student project. With the current battery, it can charge 30 laptops for about 1.5 hours without sunlight.
- Funded by \$10,900 Green Island Grant from ESW, SunEdison and Autodek, \$1000 from Butler Sun Solutions, \$490 from The Green Initiative Fund at UC San Diego and the project members.
- The final product is a permanent display on UC San Diego's sustainability tours and a mobile power source for UC San Diego's Fleet Services.

## Solar Slider Today

The project team is giving the Solar Slider to Jim Ruby, Fleet manager of UCSD's Fleet Services, to use as a mobile charging station for its utility vehicle fleet. Dave Weil, Director of Building Commissioning and Sustainability, and others of UCSD plan to make the Solar Slider a permanent stop on the UCSD Sustainability Tours. ESW at UCSD will also be using the Solar Slider periodically for education and community building.

Thanks to the following for their support throughout the project: ESW National, SunEdison, Autodesk, Industrial Metal Supply, F&L Industries, Butler Sun Solutions, San Diego Renewable Energy Society, Kurt Lund, Charlie Johnson, Dave Weil, Jim Ruby, Byron Washom, Jan Kleissl, Pecca Laine.

*ESW is a student organization dedicated to creating a more sustainable world through student engineering projects, community-building and knowledge-sharing.*