

Solar-Electric Cooking: Starting Companies with the Global Learning Community... Maybe in your town too?



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We “invented” Insulated Solar Electric Cooking (ISEC) at Cal Poly in 2015. A 100-Watt solar panel can cook a family’s dinner in a well-insulated pot in a few hours, while charging a cell phone and lighting system – answering two of the largest concerns for the global poor: combustion-free cooking and electricity access. With the continuing decrease in cost of solar panels, Direct DC Solar (DDS) is increasingly more desirable. Instead of heating food all day, we can also store the heat by melting a phase change medium, providing higher power and the convenience of cooking after dark. Over the past 2 years, about 100 students have innovated via classes and projects to make the technology more consumer ready, and it has moved from the laboratory into the kitchen. Rather than mass producing patent-protected technology in an industrial setting for global distribution, we are building a global learning community to help local enterprises produce the *open-source technology* for local dissemination. This grass-roots dissemination model has many benefits including:

- Product development is more responsive to local preferences, resources, and challenges.
- The diversity of the Global Learning Community more quickly explores different ideas.
- The decreased costs of labor and resources in poor countries lowers manufacturing costs.
- Local development and production of a product (for local consumption) benefits the local economy.

... Maybe you join us?

Please see our research website: <http://sharedcurriculum.peteschwartz.net/solar-electric-cooking/>

Please see video we made in Ghana: <https://www.youtube.com/watch?v=vK-XyyHJaX4&>

About Pete: I am interested in sustainability in all facets: energy, resources, equity, and collaboration especially with poor communities. In what I see as an imminent transition in energy, resources, and information, I am interested in both the technologies and the related societal transitions. I make innovating our life style part of my life at home as well as my classes. If we are to be accountable for our choices, then I think it’s important that we consider alternatives, and be alive the change process within ourselves and ambient society.

At home, my family and I innovate: <http://sharedcurriculum.peteschwartz.net/files/10%20years%203-7-18.pdf>

In the classroom, we look at student centered learning in intro mechanics:

<http://sharedcurriculum.peteschwartz.net/parallel-pedagogy/>

Resume: <http://sharedcurriculum.peteschwartz.net/pete-schwartz-current-cv-resume/>