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Energy, Sustainability, Collaboration: Learning it, Teaching it, and Living it – At Cal Poly, in Guatemala, and at Home
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Three questions have become important to me:

1. “What is the future of our energy dilemma, and how can I participate toward a solution?” Since 2007, I have been teaching “Energy, Society, and the Environment” at Cal Poly as well as developing and analyzing renewable energy technologies. In the process I have learned as much as my students. This interest was initially sparked by making “sustainable” changes to my home and lifestyle, and has since fueled constant domestic experimentation.
2. The above question extends to “Environmental Justice”, which is essentially a question of “who benefits and who suffers as a result of our societal choices?” For the past three years, I’ve developed and directed a collaborative (Guatemalan/Cal Poly) appropriate technology field school. Students from both countries learn together during the two-month summer program in a small mountain village in Guatemala (www.guateca.com).
3. “What happens to learning efficacy when students become friends?” For the past three years, I’ve been actively engaged with a group of Cal Poly instructors in a quest to create community in the learning environment (www.sustainslo.org). Additionally, I’ve begun to teach all my classes “inside out”, consistent with the advice of Physics Nobel Prize Laureate Carl Weiman (*Science*, 13 May **2011**, VOL 332 862 – 864). Students learn the material at home by reading or watching videos available on the web. This opens up class time for guided discussion, experimentation, and calculations. The Guateca field school provides an extreme example of this principle, as all the students *do* become friends. . . . with very interesting results.