

Biography of Mark Sardella

(updated January 2010)



Photo by Meredith Ogilby

I have been researching and developing energy policies and projects since 1993, always with a focus on how energy systems can be designed and built to benefit communities. I am fascinated by the way social and political structures tend to mirror energy structures: Communities with decentralized energy systems that are owned and controlled within the community tend to have more equitable economies and be more democratic, while communities with central power systems that are owned and controlled by outside investors tend to have greater wealth disparity and higher concentrations of political power. So my work is dedicated to helping communities develop energy systems that empower citizens and allow greater decision-making at the local level.

Before working in energy I developed spaceflight instruments for the GOES weather satellite platform, and also for the University of Maryland's Department of Space Physics. I designed and built precision mechanisms, structural housings, and electronics enclosures for spaceflight, and developed mathematical models and test procedures for ensuring the performance of assemblies that must rotate for long periods in the vacuum of space.

My early work in energy was with off-grid solar and hydroelectric power systems, and CNN even featured one of my micro-hydroelectric projects on their "Earth Matters" program. When grid-connected solar power systems became possible I moved to Santa Fe and installed the first residential net-metered system in the state. I joined the New Mexico Solar Energy Industries Association (NMSEIA), which had 26 solar businesses as members, and led the fight to stop Public Service Company of New Mexico (PNM) from building the world's largest solar power plant in 1998. We did it by showing state utility regulators that NMSEIA members could install three times the capacity for the same money, and the project died shortly after the New Mexican ran a story about our group's objections to the project.

In 1998 I co-founded the Southwest Energy Institute to pursue policy research full time, and created an ad hoc group called People for Independent Energy to work on two goals: stop electricity deregulation, and give every New Mexican the legal right to generate electricity in parallel with the power grid. Bill Althouse and David Bacon were co-principals in those efforts, and although we fell short of our goals we inspired a lot of discussion and articles on the benefits of distributed generation.

As director of the Southwest Energy Institute, I testified on energy policy matters before the New Mexico Legislature and Public Regulation Commission, as well as Santa Fe's City Council and Board of County Commissioners. In 2001, the Union of Concerned Scientists recruited me to lobby on Capitol Hill on the role of renewable energy businesses in the campaign against global warming. Around that time I also worked with the Institute of Electrical and Electronics Engineers to develop IEEE 1547, the standard which defines the technical requirements for interconnecting distributed energy resources to the power grid.

For the next two years I was the Technical Director for Rebuild New Mexico, a joint program of the New Mexico State Energy Office and the U.S. Department of Energy, and I audited commercial buildings around the state and wrote reports identifying more than \$3 million in annual energy savings for New Mexico businesses.

I co-founded Local Energy, a 501(c)(3) nonprofit organization, in 2003 to help communities develop energy self-reliance in preparation for rising energy costs and declining oil and gas supplies. In its first four years, Local Energy carried out more than \$2 million in research, education, and demonstration projects to better define the relationship between energy and the local economy. With funding from the U.S. Department of Agriculture, we showed the feasibility and quantified the benefits of using local biomass resources to heat downtown for Santa Fe. I presented the results at several conferences including the Central European Biomass Conference in Graz, Austria, and at home I received a 2006 Santa Fe Future award for the effort.

In the fall of 2009, Corinne Platt and Meredith Ogilby released a book entitled *Voices of the American West*, which included a profile of me and my work alongside that of Amory Lovins and Randy Udall – household names in the clean energy movement.

I currently maintain an engineering practice in New Mexico, and I consult on community-scale energy projects through Local Energy. I research and write about energy and policy for Local Energy News, and I like to teach and lecture as often as I can.