

Introductions Are In Order

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Welcome to my world of electricity pricing and consumer behavior. I thought I'd share my perspective from time to time through this blog, to let researchers, utilities, regulators and other stakeholders know more about my work and the insights I'm gleaning from it.

But first, it seems appropriate to give a summary of how I arrived at the outlook I am about to share. I've certainly picked up some perspective in my academic work, post-graduate experiences and the research I've been involved with thus far – but some of my most formative insights were gained in my early twenties, when I packed up my undergraduate degrees in Mathematics and Psychology and what little I owned, and moved to Japan for three years. Why I moved to Japan is best suited for an article of an entirely different nature, but the experience was one that helped influence my thinking and my subsequent academic direction.

In contrast with the United States, culturally and with respect to energy, the Japanese are very community minded, living according to the tenet that “we're all in this together.” Living on an island with limited natural resources, they are necessarily frugal. Most hang their clothes to dry rather than using energy-hogging clothes dryers, and use point-source hot water rather than keeping large tanks of hot water perpetually ready for use.

I returned home with a fresh appreciation for energy efficiency and the potential for renewable energy to solve many of our country's current and future challenges. Cutting waste and crafting a more sustainable means of supplying and consuming power could enhance sustainability while providing a foundation for continued economic stability, pillars of our American lifestyle. These realizations led me to earn my master's degree in Environmental Studies and my Ph.D. in Energy and Resources, the latter from the University of California at Berkeley.

While large commercial and industrial customers have long had the rates and tools needed to use electricity efficiently and control costs, we're now entering an era in which the residential customer will have that opportunity as well. I'm a big proponent of giving utility customers – particularly small commercial and residential consumers – the tools they need to make intelligent decisions about their electricity use and reduce their bills.

I'm also a firm believer that actual data on real people making real decisions in their own homes and businesses will give implementers of the updated power grid a factual basis for crafting effective, ergonomic programs. Thus I seek to do research that produces meaningful and actionable results that other researchers, utilities, and policymakers can understand and apply.

As utilities install interval meters in their service territories across the country and test various technologies and pricing programs, learning how consumers behave in response will be critical to moving the industry ahead smoothly. To me, this is a fascinating time to be involved in the power industry, as the grid truly becomes more interactive and we – utilities and customers – collaborate to manage the dynamics of supply and demand for everyone's benefit.

It's necessary to keep the utility business aspect in mind, too. Utilities must make intelligent, fact-based decisions on investments that will increase safety and reliability while delivering affordable power. Although interest in how electricity is produced, transmitted and distributed has been a low priority for most people, that is likely to change. The advent of distributed generation, electric vehicles and smart appliances for consumers, to name a few factors, will drive interest, the need for education and gradual participation. Proactive utility programs should provide that education and foster participation, whether in energy efficiency, demand response, dynamic pricing or other programs.

The modernization of the nation's electrical grid is just one element in a national conversation about how to maintain national security, environmental sustainability, and economic stability. Solid research on what works and what doesn't should help keep the conversation focused and solutions-oriented. The notion of a dynamic grid where supply and demand respond to each other in myriad ways does not necessitate that customers give up comfort, control, or lifestyle. To the contrary, I believe that intelligent participation by all parties in a dynamic grid will equate to a wiser use of valuable, finite resources and sustain our lifestyles going forward.

I founded Herter Energy Research Services (yes, HERS) in 2009 to pursue this vision through continued research and demonstration of utility offerings that combine our considerable knowledge of energy efficiency with new and improved incentives, information, and customer control technologies. Today, I'm honored to be involved in projects across the country, as many utilities seek to understand what programs work and how consumers respond to them. I work to help electric utilities transition to a new pact with their customers, one in which both parties participate for their mutual benefit. I believe that through a thoughtful approach on many fronts, today's utilities will meet our nation's need for safe, reliable and affordable electricity in an environmentally responsible manner. This is not an easy task, as utilities face myriad constraints and demands at a time when their aging infrastructure needs upgrading. Although the challenges are many, I believe that there *is* a way to make it all work and I look forward to sharing some of my promising research findings in future writings.

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