



The Politics of Electricity Use

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Prior to the oil shocks of the 1970's energy was just another input in the management of capital, labor and other operating costs. Trade offs were made between energy costs and capital spent to increase efficiency. During the natural turnover of capital equipment, energy efficiency improved along with productivity, quality and waste reduction. Effective energy use was a technical matter where efficiency had to make economic sense.

The oil and gas shortages experienced in the 1970's were caused by government interference in the pricing of these products, but the news media hyped the concept of "running out" of resources. This brought politics into the use of energy. With the stated goal of being energy independent, all sorts of federal government boondoggles were initiated. The electric utility industry faced restrictions on the use of both coal and natural gas for generation. At the time it appeared nuclear generation was the best option. A significant part of the utility industry exhibited a lemming-like propensity for doing the wrong thing in mass. State utility regulators played a part in encouraging the proliferation of what turned out to be very expensive investments.

Management of energy became a formalized separate management responsibility among end users. The price shocks from the oil market and later the power market made energy efficiency measures attractive. The market poured forth new devices and improvements in energy-using equipment that greatly reduced the energy intensity of the U.S. economy. The managers of enterprises faced an array of new energy control products that continues increasing to this day.

Along with the market response to high energy prices, new laws were complicating the use of energy. Natural gas use was discouraged in industrial as well as utility boilers. Gas supplies were perceived by policy makers as a soon-to-be-exhausted resource. Some industrial processes were switched to electricity. In such cases overall efficiency was taking a back seat to conserving natural gas. Tax credits influenced energy investments. Saving energy had patriotic implications. Building codes now included energy standards.

The shock from cost overruns on nuclear generating plants caused a loss of confidence by the upper managements of electric utilities. During this moment of weakness the concept of having a public policy on energy use came to the fore among utility regulators. The idea was that if the utilities invested in energy efficiency then they would not need to build so many power plants. In regulatory circles the new buzz words were: "least-cost planning" and "demand-side management." The utilities had the good sense to be suspicious of the grandiose claim that efficiency improvements would slow the overall demand for energy. But they were soon bought off with promises of guaranteed profits on approved but expensive efficiency programs. During the later 1980's and early 1990's a number of sound economists pointed out the flaws of asking a provider of services to reduce his own sales. Further, with amazing accuracy, these economists predicted failure.

Billions of dollars were spent by the nation's utilities on demand-side programs with little to show for it but inflated claims. The money, of course, came from utility customers. Those

who had already invested in energy efficiencies were taxed to pay for the same improvements in their competitors' facilities. According to economist Franz Wirl both the utilities and customers gamed the system of giveaways for efficiency measures.

Then a wave of rationality struck the electricity industry. Competition for end users was instituted in many states and planned in still more. Customer choice akin to that in telecommunications was seen as the wave of the future. The regulated utilities began the wholesale dumping of their wasteful customer efficiency programs. In the industry this was known as "getting trash off the books." The regulated suppliers rightly feared unregulated competitors who would not add frivolous costs to their services. End users enjoyed a period of stable and even declining rates as the utilities were forced to make rational decisions in a quasi market environment. But the retail market concept was flawed. Rather than evolving through the market process, political dictates prevailed in designing the structure. The result was a Frankenstein's monster. It looked like the real thing but lacked the essential features necessary for a real market. Entrepreneurs could not develop alternative delivery systems. The scheme could be called mandatory access with guaranteed return on overvalued assets.

However, on the wholesale level time-sensitive pricing became the norm and made electricity a commodity that is exchanged like other commodities using marginal cost pricing. This rationality spread to some sectors of the retail market and brought much-needed customer feedback to utilities.

Retail competition in electricity largely failed. With that failure came the return of regulatory-mandated, utility-administered wasteful efficiency programs. This time the programs carried the added justification of countering global warming. In typical utility program \$6 is collected for giving away low energy light bulb that a consumer can buy for less than \$1.50, and the utilities are asking to recover hundreds of millions of dollars without verifying they achieved any energy savings.

The bad news for consumers has not ended with the rebirth of these demand-side management programs. Another round of high cost nuclear plants have started. The lesson that should have been learned from the last round of nuclear plant building is that the utilities need to be subjected to market conditions and its attendant risks. Instead, we see the utilities going to their state regulators and general assemblies and getting guaranteed recovery on investments with no upper cap! Green energy mandates are driving up the cost of electricity already and will certainly get worse.

End users are trying to be politically correct and are adopting high-sounding green goals. The end user energy management function now includes issuing press releases filled with platitudes. One-size-fits-all energy measures are being promoted to obtain certification of an enterprise's commitment to saving the earth. The overhead surrounding energy saving programs has increased. Dubious environmental effects are included along with hard energy saving numbers to justify politically correct investments and practices. Utility rates which have always included cross-subsidies for politically favored groups are to be distorted even further from the market with additional features encouraging certain green behavior.

The zigs and zags of state and federal energy policies have caused massive mal-investment by both energy suppliers and users. The best energy policy is no energy policy. Market forces should replace regulation; supply and demand with unfettered competition should determine energy prices. Proper energy prices will lead to wise customer investments and practices. Energy efficiency is its own reward and needs no encouragement from governments.