

A Short History of Utility Transformation

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A utility executive responsible for energy efficiency programs commented to me that too many of his colleagues were emphasizing market transformation programs instead of directly offering efficiency projects to customers. A utility executive saying this shows just how much the market has already transformed! For those who would understand what can drive utilities to become vehicles for end-use efficiency, the secret is hidden in twenty five years of history.

In the United States, the electric utilities' first involvement in energy efficiency beyond its own plants was legislated in response to the oil crises of 1973 and 1977. The federal government directed energy conservation programs, aimed primarily at residential heating fuel, to be implemented by states through Public Utility Commissions (PUCs) and the regulated utilities. The programs consisted of information services—bill inserts and energy audits—and low cost loans, reimbursing costs from the rate base.

But there was no change in how the utilities saw themselves. In the same epoch independent energy service companies (ESCOs) first appeared in the US. When, with failing oil prices in the 1980's, these ESCOs turned to electricity conservation projects, they received a cold shoulder from utilities. The reason: under a cost-plus regulatory regime, increasing demand justifies capacity upon which profit is earned.

Only in the late 1980's did an elegant regulatory innovation alter this dynamic. For many years the California PUC had been concerned about the financial structure of the industry with its emphasis on costly nuclear plant construction. They had become convinced that a low growth scenario was both feasible and more reliable and therefore had been struggling to push the utilities to a more active role in

electrical conservation through efficiency measures.

But the self-interest of the utilities was only overcome with an ingenious ruling that shifted incentives: utilities would be allowed to *earn profit on kilowatts not sold*. The savings, “negative watts,” of course, had to be demonstrated through programmatic effort.

OUT OF THE BOTTLE

It was as if a “negawatt genie” had been let out of the bottle. The reform rapidly spread across the country. Utilities nationwide suddenly become eager promoters of electrical efficiency under “demand side management” (DSM) programs. They offered rebates on equipment, made markets in negawatts through “standard offers,” and prepared solicitations and auctions for negawatt capacity.

In this new environment, the independent ESCO industry flourished. In essence, decentralized end-use efficiency projects became recognized as part of a utility’s productive assets, its rate base. These new assets had lower costs and shorter lead times. Profits could be earned with lower operating expenses (no fuel or labor expenses, maintenance costs borne by the host site). In fact, the utilities gained a way to leverage customers’ capital and operating budgets, along with the resources brought by their ESCO trade allies.

With de-regulation in the late 1990’s the transformation of utilities deepened. Some utilities, worried about low-cost competition, abandoned perceived non-essentials such as DSM programs. But the most aggressively expansionist have used ESCO subsidiaries to enter new markets and develop new customer relationships. In what at first appears to be a commodity-driven market, ESCO services differentiate one’s product, create a solutions-oriented brand name, and skim revenue from the customer’s most attractive opportunities.

Through their combination of financial resources and technical knowledge, these firms will be market-makers for energy efficiency in tomorrow’s global economy.

ABOUT THE AUTHOR

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