

Electric Utilities Making Major Cuts in R&D Spending

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Funding for electricity-related research and development by electric utilities decreased about 33% from 1993 through 1996, and further reductions were expected in 1997. So says a recent report by the US General Accounting Office (GAO).

The Committee on Science of the House of Representatives had asked the GAO to look at the following questions:

- What changes have occurred in the amount of electricity-related R&D funding?
- What were the primary reasons for those changes?
- What has been the impact of the changes on the types of R&D being funded?

The GAO found that the Department of Energy's R&D budget went from \$1 billion in 1993 to \$1.3 billion in 1995, and back again to \$1 billion in 1996. However, electric utility R&D funding over the same period of time dropped from \$708 million to \$476 million. State energy programs were also reduced. The GAO report was limited to government and utility funding. Information on manufacturers R&D was not available.

The reductions in utility R&D spending obviously are significant. Indeed, the National Association of Regulatory Utility Commissioners recommended in 1992 that utilities devote 1% of their revenues to R&D. In 1993, six of the 112 investor-owned utilities met that target. Since then, all six have cut back their R&D spending substantially. In 1994, utility

spending on R&D averaged 0.3% of revenues, and utility R&D managers expect this downward trend to continue.

The primary reason found for the reduction in governmental funding was the overall effort to reduce budget deficits. Utilities, by contrast, cut R&D costs in anticipation of the shift from a regulated electric power industry to a competitive market. Historically, utilities were allowed to include R&D costs in their rate base, which resulted in utilities earning a guaranteed rate of return on those costs. With the coming of open markets and price competition, however, utilities no longer will be able to forecast fixed returns on R&D expenditures. Instead, R&D will become just another expense item affecting the bottom line. In short, R&D spending has become the victim of utility attempts to meet demands for lower prices.

Along with the reduction in funding, the GAO reported a shift in the types of R&D being funded by electric utilities. Many utilities apparently are moving away from collaborative and long-term projects, which may benefit all utilities, and instead are concentrating on those projects that appear to have near-term competitive benefits, what the GAO calls "proprietary R&D with a short-term payback." Utilities are concerned that collaborative R&D that benefits the entire industry could put funding companies at a competitive disadvantage because (i) the increased R&D costs may force the companies to charge higher rates, and (ii) non-funding companies may get the benefit of the research without making the investment.

Utilities are shifting away from long-term, advanced-technology R&D, such as work on advanced gas turbines, coal gasification and new fuel cells, to more short-term projects that they hope will turn a quick profit. Apparently this shift is resulting, in part, from the utilities new belief that they are in the "transmission and distribution" business, and no longer are power generators.

Utility R&D managers, and industry and governmental officials who expressed concerns about the reduced R&D funding levels, suggested alternative funding sources. Those suggestions include a state surcharge on all in-state retail sales of electricity, and a nationwide charge on all electricity entering the transmission system (a so-called "wires charge").

An interesting sidelight to the GAO report is the reported belief of EPRI officials that electricity storage will become increasingly important as utilities are deregulated and more entities are involved in electric

power. In that regard, the GAO specifically cited increasing efforts to develop advanced batteries for the electric car industry, and a transportable battery system that can be moved to utility sites to improve network reliability and stability.

Clearly, the movement to a more competitive electric power market is having a great impact on many facets of the industry, including reliability and R&D. Keep your eye closely focused on further developments.

ABOUT THE AUTHOR

Barry J. Fleishman is part of Dickstein Shapiro Morin & Oshinsky's litigation section. He concentrates on products liability and disaster avoidance in the areas of electric power and power quality, computers, and telecommunications. Mr. Fleishman is a regular contributor to, and serves on the Editorial Advisory Board of, *Power Quality Assurance* magazine. He is the current chair of the Energy Resources Law Committee of the Tort and Insurance Practice Section of the American Bar Association, and a member of the ABA's Coordinating Group on Energy Law.

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