

Research Department
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Utility Costs and Pricing

The experience of the electric-utility industry this past year, highlighted first by Con Edison's well-publicized problems and more recently by unprecedented rate-increase requests throughout the nation, has generated a corollary to Murphy's Law. "When utilities need no regulation, they will be well regulated; when regulation is necessary, regulation will not work smoothly." Regulation is a matter of reconciling the interests of electricity producers and consumers. When these interests seriously diverge, regulation becomes increasingly essential yet extremely difficult to carry out.

Most firms have a simple, time-honored method of offsetting increased costs of production—simply by passing them on to their customers. This move is not always successful—witness the disastrous effects of the auto industry's recent increase—but the act of raising product prices in itself generally is not very difficult.

For electric utilities, on the other hand, it is not so easy to raise prices, nor is it obvious that such increases **should** be easy. One major reason is the very structure of the industry. It is cheaper to provide the customer with electricity from a single source in a given geographical region, rather than to duplicate facilities and lose the advantages of economies of scale. In other words, the utility industry provides a classic case of natural monopoly—a monopoly created because competition would raise the prices

consumers pay. Nonetheless, to insure a "reasonable" electricity rate, regulatory authorities have been established in most localities to pass judgment upon requested rate increases.

Industry problems

Rate-setting has been complicated by a number of fundamental problems now afflicting the industry. Utilities have had to contend with the soaring costs of low-sulphur fuel oil, and in many cases have been held back by environmental regulations from shifting to cheaper substitutes such as coal. In addition, they have been faced with the still-high cost of non-fuel inputs—labor and equipment, plus the money with which to finance new capacity. Meanwhile, revenues have risen at a much slower pace, partly because of a reduction in electricity usage by consumers who are beset by the rising prices of all budget items, but also because of the slowness of the regulatory process in handling requests for general rate increases.

Regulatory commissions generally permit fuel price increases to be passed along automatically to consumers via "fuel adjustment" clauses, but they frequently move slowly in ruling upon rate increases designed to meet cost hikes on non-fuel items. Consequently, even after rate increases, the utilities find their profit margins eroding, their debt-coverage ratios shrinking, and their capital-spending plans endangered. Electric utilities now expect a slight decline in outlays in 1975, in

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contrast to last year's 11-percent increase, as a result of numerous cancellations or deferments of building plans.

The cost, availability and environmental effects of the utilities' fuel supplies are crucial elements in the industry's pricing decisions. For example, the National Environmental Policy Act of 1969 and subsequent court rulings have dramatically increased the cost of providing the nation's electricity. According to the 1972 report of the Council on Environmental Quality, investment in air- and water pollution control facilities will probably approach \$18 billion, about \$300 per customer, and will lead to increased operating costs as well. Moreover, these costs will improve the consumers' lot only indirectly, through a cleaner environment, but will not produce a single extra kilowatt. The difficulty from the utilities' point of view is that the consumer does not thank the utilities when he breathes cleaner air, but he still gets angry when he finds a higher monthly bill in his mail.

In late 1973, while the environmental cork was being installed on the electric utilities' smokestack, its supply line was plugged by the Arab oil embargo. For the public generally, the most dramatic effects of the embargo and subsequent

OPEC actions were the long lines at gasoline stations and subsequent sharp increases in the price of gasoline. But the cost situation was more complex (and much worse) for the utilities. Utility costs were affected in 1974 by both a 57-percent rise in the price of refined petroleum products and a 78-percent rise in the price of coal. (Bituminous coal constitutes about 50 percent of the total fuel consumed by utilities.)

Conflicting priorities

Increased fuel costs have forced the nation to re-evaluate its entire energy program. The objective of a cleaner environment is no longer the key national objective. Two other priorities, the familiar one of low-cost electricity and now the priority of energy independence, have elbowed their way into the picture.

The combination of rapid cost increases and new priorities has created a serious dilemma for regulatory commissions. They must meet their responsibility of providing the best possible service to consumers at the least possible cost within a regulatory framework geared to decisions made in the past, and ill-suited to handle the decisions that must be made today. Ideally, after a suitable dialogue among all parties concerned, new regulations could be constructed to bring about a proper ordering of national priorities for the utility industry. Unfortunately, rather than choosing new regulations to fit cur-

rent priorities, government-regulated industries frequently fit priorities to old regulations.

The regulation permitting an automatic pass-through of increased fuel prices to electric-utility rates, for example, is reasonable at a time of relatively stable fuel prices. When annual fuel-cost increases are no greater than (say) 5 percent and when utility rates are trending downward, no great harm is done in passing fuel costs along. But when fuel prices rise at the 1974 pace, all sorts of difficulties arise. First, there is the problem of measurement of fuel-cost increases. Secondly, there is the problem of accidental distortion of national energy priorities.

The measurement problem is now at issue in a case involving the California Public Utilities Commission and Southern California Edison. The utility had requested a \$65.4-million rate increase, but a commission staff member countered by recommending a \$23.8-million rate **reduction**, mainly because of differences in accounting for fuel-oil costs. The commission analyst argued that the fuel the utility consumes should be priced at the (low) earlier price paid for the first oil added to the company's inventory (FIFO, or first-in-first-out), while the company contended that its oil costs should be measured at the current cost of oil (LIFO, or last-in-first-out). In the case of private industry, economists generally agree that LIFO leads to more efficient resource allocation.

Our view of the usefulness of cost pass-throughs depends on our view of the ranking of national priorities. Automatic pass-through will hamper the attainment of energy independence; with the pass-through, there is a reduced incentive to worry about future electricity shortages, because such shortages could be overcome by bidding up the relative price of fuel for electricity to the point where fuel is diverted from other uses. The pass-through procedure also will hinder us from reaching the goal of low-cost electricity; this procedure reduces the incentive to invest in new processes that would economize on fuel and utilize greater amounts of non-fuel inputs.

In contrast, automatic pass-through seems to be a tailor-made solution to the environmental problem, because it encourages utilities to utilize the least-polluting type of fuel, regardless of price. In addition, fuel-adjustment clauses can ease the industry's urgent cost-squeeze problem—particularly the problem of inflationary cost increases—because they represent the only major element of the utility pricing decision that is not subject to prolonged regulatory delays. However, it is not desirable for regulations to set our priorities; instead, we must adjust regulations to satisfy national priorities.

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