

WHEN TECHNOLOGY GIVES CUSTOMERS CHOICES, WHAT HAPPENS TO TRADITIONAL MONOPOLIES?

Originally published in Trends, Volume 45, Number 6, July/August 2014 ©2014 by the American Bar Association.

Scott Hempling

Until the 1980s, most electric utilities were vertically integrated, owning generation, transmission, and distribution facilities. As state-franchised monopolies, they controlled the retail customer experience. Today we have independent generators, transmission provided by independent regional entities, and aggregators of demand resources, all competing in regional power markets. The newest frontier pressuring the vertically integrated monopoly model is at distribution and at retail. Solar, wind, microgrids, and other forms of distributed generation, along with demand-side offerings and time-of-use rates, have the potential to shift control over power supply—from the central planners at utility headquarters to neighborhoods, industrial parks, and individual homes.

This trend has produced predictable conflict: After a century of near-choiceness, consumers want supply choices and lower costs; while after a century of solid service, traditional utilities want predictable demand and stable revenues. On both sides, the arguments shade from legitimate and public-spirited to the cagey and opportunistic. Resolving the conflicts requires us to apply economic and legal reasoning that reflects common sense, economic efficiency, and constitutional principles. This article seeks to sort out these points.

How exclusive are exclusive service territories?

New entrants at retail frequently encounter the century-old legal barrier known as the “exclusive service territory.” Most states have appointed specific, individual utilities, for an indefinite term, to be the sole seller of electricity within certain a certain geographic area of the state and prohibited competition for retail electric sales within that area. But exclusivity is no longer the regulator’s only choice, because natural monopoly is not the only factual possibility. Consider three others, each with its own variations.

“Inadequate” service and opportunity to cure: Advisors to and regulators of energy companies can learn much from the telecommunications transition, which has had to deal with the introduction of new products and services. For example, Saco River Communications proposed to offer Maine citizens discounted intrastate long-distance telephone service, purchased wholesale from other telephone companies. Saco's customers would have to dial extra numbers and sometimes wait for a line, but would pay less than they paid the incumbent. The incumbent utility opposed the request.

The Maine Public Utilities Commission asked three questions: (1) Is there a “public need” for the proposed service? (2) Does the applicant have the necessary technical ability? and (3) Does the applicant have adequate financial resources? Answering all three affirmatively, the commission granted the request and the state’s highest court affirmed: “[T]he finding of a public need for an additional type of service not being currently provided is in itself a finding that the existing service is inadequate” *Standish Tel. Co. v. Pub. Util. Comm’n*, 499 A.2d 458, 461

(Me. 1985). The court went on to quote favorably the Maine commission's decision "[W]e believe it fair to assume that the public always desires (and, therefore, there is a public need for) comparable service at lower costs." *Id.* at 463. Further, under Maine precedent, the commission need not give the incumbent a chance to cure the inadequacy, i.e., offering the very service proposed by the new entrant. *Id.* at 462.

In contrast, Wisconsin gives the incumbent a chance to cure: A public utility may extend a line to another utility's customers only if the incumbent's service "is inadequate and is not likely to be made adequate, or that the rates charged for service are unreasonable and are not likely to be made reasonable." WIS. STAT. § 196.495(1m)(b) (1997).

These variables—the definition of "inadequacy" and the presence or absence of an opportunity to cure—influence the pace of change. They can make the incumbent more or less accountable for its performance, and they can make entry more or less attractive to newcomers. An incumbent facing multiple risks of entry, with no opportunity to cure, will be more likely to keep its performance high. It will manage actively rather than indifferently, hire the help necessary to service its customers' needs, compared to a utility enjoying a statutory grant of exclusivity without exception.

Self-service, individually or in groups: Large electric customers, like automotive and chemical plants or military bases, can build, own, and operate their own generating units and distribution systems. Because self-generation actions breach the exclusive franchise wall, some states require approval. The type of review varies with the benefits and risks.

There are numerous potential benefits to the customer from self-generation. Self-generation can give the customer (a) back-up power during utility outages, (b) peak-demand power for when the utility is capacity-short, (c) economic power when the self-generator's cost is less than the utility's rate, (d) pollution reduction when the self-generator's emissions are less than the utility's, and (e) power quality enhancement where the customer's special equipment requires uninterrupted flow. Focusing on these benefits, California's Legislature required the its utility commission to adopt "[d]ifferential incentives for renewable or super clean distributed generation resources," and authorized the commission to collect funds from ratepayers to provide to self-generators. CAL. PUB. UTIL. CODE §§ 379.5(b), 379.6.

Coincident with these customer benefits, however, are economic risks to the traditional electric utility. When a utility collects its fixed costs through consumption charges, self-generators reduce their contribution to fixed costs, shifting them to either the utility's shareholders or its non-self-generating customers. There is then the risk of uneconomic bypass: where the self-generating customer's total incremental cost (the one-time cost of building the plant, plus the operating costs) is less than the total rate it pays the utility (thus making it a positive move for the customer), but greater than the utility's marginal costs (the cost of producing one more unit of energy). Uneconomic bypass wastes society's resources by creating new capacity that idles efficient, existing capacity.

Requiring the self-generator to bear the existing costs it would have left behind causes the customer to rethink its math. On departure, its total cost will be its new construction costs, plus its own operating costs, plus its share of the utility's existing fixed costs. Only if this total is less than the utility's incremental cost (as reflected in its rate to the customer) will self-generation be economical *for both the customer and the utility*. Sometimes called an "exit charge," this type of

charge aims to align the customer's interest with the utility's interest, and with society's interest in avoiding waste.

If the benefits of self-service outweigh the costs, a question arises whether the self-provider should be subjected to some form of regulation. As long as traditional state statutes remain in place, must regulators and courts determine whether neighborhoods and industrial parks acting as providers to their residents are "public utilities" subject to state regulation? In answering this question, the Maine Public Utility Commission used the following criteria: (a) the size of the undertaking, (b) whether the enterprise is non-profit, (c) whether the system is owned by the users, (d) whether the terms of the service are under the control of its users, (e) whether service is "offered to any prospective user ... where [the provider] is physically capable of providing service," in which case the service is not restricted to a particular class," (f) whether service is limited to organization members or other readily identifiable individuals, and (g) whether membership in the group is mandatory. *Kimball Lake Shores Ass'n & Douglas P. Forbes*, Order M. #221, 1980 Me. PUC LEXIS 1, at *12-13, 29-37 (Jan. 31, 1980) (quoting other sources).

Specialty utilities: The preceding discussion focused on customer reactions to the incumbent utility. A distinct method of modifying the traditional customer-utility relationship is to appoint a new utility, in instances where the incumbent utility lacks the necessary expertise for performing a particular activity. The state commissions of Hawaii, Vermont, Oregon, and Maine each have appointed non-utility entities to provide energy efficiency services formerly provided by the utility. And the Maine commission is investigating whether to appoint a "smart grid coordinator." The coordinator's franchise would be exclusive: "[T]he commission may authorize no more than one smart grid coordinator within each transmission and distribution utility service territory." ME. REV. STAT. tit. 35-A § 3143(5) (2009). These situations anticipate multiple franchisees in the same service territory, each having an exclusive right and obligation to provide defined services.

What are the incumbent utility's legal rights?

The Fifth Amendment to the U.S. Constitution states, in part that "private property [shall not] be taken for public use, without just compensation." When the government authorizes self-service in a historically monopoly market, it disappoints utility shareholders. The utility's market position, and the associated profit expectations, is no longer secure. Does this disappointment violate the Fifth Amendment?

A utility's obligation to serve includes the obligation to invest in the infrastructure necessary to serve. Shareholders expect that the utility's obligation to serve will be matched by its customers' obligation to pay, assuring a stable revenue flow to cover expenses, debt, recovery of the shareholders' investment, and a return on that investment. With self-supply, the utility's revenue flow is stable no longer. The incumbent then faces two distinct disappointments: It might not recover its prior investment (what economists call "sunk costs"), and it will no longer earn the relatively secure profit associated with continued monopoly service. These two disappointments are often conflated into the single term "stranded investment." The conflation is inaccurate, because the concepts differ in their legal and practical treatment.

The *sunk cost problem* arises if the unrecovered book costs associated with assets built or acquired to serve obligatory captive load exceed the market value of those assets. The *future profits* arise because the utility forgoes the prospective profit flow that came with it. Even if the departing customers pay off the past, there is no profit future. This is a disappointment, but it is not a constitutionally protected one. Once the utility recovers its sunk costs, it is free to invest those dollars somewhere; it has no constitutional right to keep them in the local utility business.

Conclusions: Gradations in exclusivity provide options for accountability

Regulators wishing to encourage self-supply, in all its forms, face tradeoffs: between stability and predictability on the one hand, and innovation and competitive pressure on the other. Alfred Kahn said it best: The “central, continuing responsibility of legislatures and regulatory commissions [is] finding the best possible mix of inevitably imperfect regulation and inevitably imperfect competition.” A. KAHN, *The Economics of Regulation: Principles and Institutions*, Vol. I, Introduction at xxxvii; Vol. II at 114 (1970; 1988 ed.). We can expand this statement to include the responsibility to re-examine the role of exclusivity and its variations, by asking these questions:

1. When the commission identifies the possibility of new services, should the incumbent have the first shot at providing new services, or should the commission invite competitors?
2. Should the commission wait for the incumbent or others to propose new services, or should the commission itself continuously identify new service needs and call for applications?
3. Which context leads to better performance: One where the utility faces no risk of losing business opportunities by failing to offer new services, or one where any applicant who shows “need,” defined as a new service not presently provided, can enter the market to provide that service?
4. How do we ensure that any losses in static efficiency associated with traditional vertical integration are at least matched by the dynamic efficiencies brought by the new entrants?

The pressure to perform—or lose status, revenues, and profits—can be a useful tool in achieving regulation's goal: excellent performance at reasonable cost. Rather than reflexively rely on the incumbent, regulators should identify all cost-effective ways for new entrants to offer new services. Given the chronic differential in expertise and resources between a utility and its regulators, regulators need all the help they can get.