Reassessing Retail Competition: A Chance to Modify the Mix

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Introduction

State commissions and legislatures are reassessing retail competition. The reasons are well-known: last year's high prices and supply shortages in California; in other states, a disappointing record of market entry, especially for suppliers serving residential customers.

Does the lack of success in retail competition stem from its inherent inappropriateness or from defects in design and implementation? Opinions abound, but clear proof is lacking. One purpose of this article is to set forth criteria and guidelines for obtaining this proof.

A second purpose is to argue against a type of scorekeeping, a byproduct of the artificial debate over "competition vs. regulation." Posing competition and regulation as ideological opposites misses the "central institutional issue of public utility regulation": namely, "finding the best possible mix of inevitably imperfect regulation and inevitably imperfect competition."[1] The current reassessors should seek not to swing the pendulum to their side, but to gather information on what services are appropriate for competition, what are the prerequisites for successful competition, and what are the risks and risk management methods associated with adding competition. These questions are the focus of Part I.

An assessment of competition would not complete the regulatory task. Even a clear rejection of competition, for all services and for all time, would leave unanswered those who advocated for retail competition on the grounds that traditional regulation had failed to restrain

costs and maximize innovation. Part II therefore addresses certain features of regulation that, if adjusted, could relax the boundaries between monopoly regulation and competition. Doing so would allow a coexistence of both methods for achieving accountability in the electric industry.

I. Assessment of Competition

Under effective competition, numerous competitors fight continuously for market share. This rivalry produces constant pressure to cut costs and increase innovation. The beneficiaries, where competition is effective, are (1) consumers, who see lower prices and product diversity; (2) successful sellers who are able to survive competition's pressures; and (3) the public, which benefits from a market structure and process which allocates scarce resources to the most efficient uses.

Effective competition is a market structure; it is not an ideology. An assessment of its appropriateness for the electric industry therefore should ask whether it can produce lower prices, product diversity, and an efficient market. This assessment should follow at least five steps: (1) identify the product and geographic markets in which competition is possible and practical; (2) specify the potential benefits from competition, so that we have benchmarks for later assessment; (3) establish the prerequisites for competition; (4) identify and remove market features that are inconsistent with the prerequisites for competition; and (5) assess the risks of competition, and the methods for managing those risks. Commencing competition without accomplishing these five steps would be like initiating an experiment without a purpose.

A. Identify the Markets In Which Competition is Possible and Practical

The traditional bundled electricity product consists of four major product categories: the three physical product categories of generation, transmission, and distribution; and a less

well-defined product, alternatively labeled aggregation, marketing or merchandising. This fourth category consists of the processes involved in acquiring and maintaining customers, and procuring the resources to serve them.

Within these four broad categories are many actual and potential products.

-- The generation category can include baseload, intermediate and peaking power; traditional power and "green power"; distributed generation; firm power and nonfirm power; long-term contracts and short-term contracts; backup and coordination services.

-- The transmission category can include transmission ownership, construction, maintenance, and repair; as well as the "ancillary" service FERC has identified in Order No. 888.

-- The distribution category can include the ownership, construction, maintenance and repair of the physical lines; metering ownership, installation, reading and data analysis; and the process of planning for and negotiating with distributed generators.

-- The aggregation category can include load profiling, load planning, customer services, data analysis, billing, generation planning, power supply acquisition, demand side management and other services relating to matching supply and demand.

In short, "electric service" subdivides easily into several dozen distinct services. A decision whether to implement competition should begin with an identification of which services are appropriate for competition. A service's appropriateness for competition will depend on factors like:

-- Economies of scale: Is it most efficient for the service to be provided by a single company?

-- Economies of scope: Is it most efficient for the service to be provided in a bundle with certain other services?

-- Reliability and safety: To assure reliability and safety, is it necessary for the service to be provided by a single regulated company, or can multiple companies provide the service subject to reliability and safety rules?

-- Competitor interest and viability: Is it a service which viable competitors will actually be interested in providing?

-- Aggregation costs: Assuming competitor interest and viability, is the cost of aggregating customers sufficiently small, relative to likely revenues, that new suppliers will find it profitable to enter?

-- Other entry costs: Is the cost of obtaining licenses, resources, knowledge and employees sufficiently small, relative to the expected revenues, such that new entrants will find the market attractive?

-- Shopping costs: For customers, is the cost associated with learning how to shop and actually shopping sufficiently small, relative to the expected benefit, that customers will want to shop?

B. Specify the Potential Benefits From Competition

Competition can bring price and non-price benefits. In both categories, advance thinking can increase the possibility of success.

1. Price Benefits

In the political marketplace, discussion of pricing has been central. The predominance of

price has had three significant effects:

-- Competition statutes have been discussed and enacted more frequently in high-cost states than in low-cost states. As a result, many low-cost states have not had the opportunity to debate the nonprice benefits of competition.

-- Decisionmakers aiming to please the public on price have used means that can undermine competition. Examples are rate freezes, special default service programs priced at traditional cost rather than market, long term contracts between utilities and utility-affiliated generators, and deferred cost programs in which today's customers shift costs to tomorrow's customers.

-- The focus on immediate price reductions has obscured market structure problems which can leave prices high in the long term. Examples are entry problems associated with the next generation of power plants (tax differentials, siting difficulties, transmission constraints, absence of efficient regional transmission pricing).

2. Non-Price Benefits

Traditional regulatory processes, and the staff carrying them out, usually focus on assuring reasonable prices, reliability and safety. They do not focus on assuring that each utility brings forth, consistently and continuously, the most creative array of products. Thus in state regulatory commissions it is more common to find experts on accounting, ratemaking and reliability than on innovative product development, such as energy management services, advanced metering services, billing and pricing options, distributed energy, and renewable energy.

Furthermore, notwithstanding the emphasis on "market pricing" for wholesale generation,

the traditional retail regulatory treatment of utilities makes it less likely they will offer products that reduce profits. Consider energy efficiency services and distributed generation systems, which reduce consumers' consumption of utility-provided power. Under traditional rate design, utility revenues are tied to the quantity of power sold. Energy efficiency services and distributed generation, on the other hand, reduce the quantity of power sold. In contrast, a competitive supplier has an incentive to sell energy efficiency services as part of its product offerings in order to maintain its competitive position.

Under regulation, moreover, non-utility providers of energy efficiency and distributed generation products depend on utility assistance. For example, energy efficiency providers need access to customer data for marketing purposes, but the data may be in the utility's exclusive control. Interruptible rates cannot be made available without utility cooperation. Energy management software and hardware may require special meters that cannot be deployed without utility cooperation. Customer-side generation technologies, such as solar hot water heaters, fuel cells, and photovoltaics, require the utility to facilitate interconnection and to purchase unused energy in order to be cost-effective.

Given present approaches to regulation, there is a reasonable argument that competition, if otherwise effective and efficient, could bring more diversity in service offerings. In a competitive market, sellers survive by anticipating consumers' interests. Sellers face competitive pressure to keep up with quickly evolving technological advances, and the opportunities and pressures these advances bring to customers. Failure to offer attractive products and services means loss of market share.

In summary, an assessment of the benefits of competition should focus on the price and nonprice aspects. The price analysis should address the short term and the long term, and should

disregard temporary rate fixes. The nonprice analysis should identify specific types of services which could benefit each major customer category, and assess whether such services would emerge more surely under competition than under regulation, including whether adjustments to traditional regulatory approaches could stimulate the necessary services.

C. Establish the Prerequisites for Competition

Where a market has been dominated by a single company for decades, viable competitors and competition will not emerge automatically, just because a statute says they should. Consistent with the premise that competition is a market structure, not an ideology, decisionmakers must establish the prerequisites of competition before authorizing it. These prerequisites, in the abstract, are well known: many sellers who are viable, knowledgeable and trusted by customers; knowledgeable buyers; and nondiscriminatory access to facilities and information which are essential to competition but not economically duplicable.

In the context of retail electricity competition, decisionmakers must establish these prerequisites for each of the products for which competition is to be authorized. In contrast, most electricity competition statutes did not condition the commencement of competition on the establishment of these prerequisites. These statutes instead declare a date for the commencement of competition (although some allowed the state commission to extend or delay the date). Consequently, the failure of competition in these jurisdictions cannot with certainty be attributed to the inherent inappropriateness of competition when the cause of the failure may be the absence of the prerequisites.

A policy of establishing competition's prerequisites early will --

1. afford sufficient time to account for the complexity of the analysis and the long lead times for solutions;

2. give new entrants confidence that the state takes competition seriously, and sees market power as a problem flowing from past government decisions which the government now has to resolve;
3. save time, because it allows for a systematic identification of problems and solutions, rather than reactive approach applied piecemeal;
4. save money, because a single set of proceedings can address each prerequisite;
5. reduce the entry costs of newcomers, who otherwise would have to invest large sums to litigate the issues;
6. reduce uncertainty, because establishing the prerequisites should be accomplished through a known workplan and timeline;
7. increase public accountability, because responsibility for identifying and establishing the prerequisites to successful competition can be lodged in one place.
8. give the state more flexibility in choosing a competition commencement date; DELETE OR REWORK; and
9. be more likely to succeed, compared to approaches which allow market power problems to develop and solidify, causing competitive distortion and damage that is difficult later to undo.

D. Identify and Remove Market Features that are Inconsistent With the Prerequisites for Competition

Establishing the prerequisites for competition requires eliminating the commanding market advantage possessed by the incumbent utilities. It is not possible to have effective competition while also allowing the incumbent advantages not earned through competition but

instead accrued from the history of monopoly service.

Thus competition statutes or state decis should not allow the incumbent to:

1. recover "going forward" costs in "stranded cost" charges;
2. enter into long-term contracts with large customers in the interim between enactment of the statute and the commencement of competition;
3. install major new facilities that are attractive to new customers, and then recover the costs of such facilities in stranded cost charges;
4. control depreciated generation whose capital costs have been paid off by existing customers, while newcomers have to procure or construct new generation at their own cost; and
5. provide rate-capped "default service" to customers who do not shop, thereby making it harder for new entrants to penetrate the market.

This last item warrants special emphasis because it is so common. Where a statutory rate reduction applies only to those customers who do not choose an alternative supplier, it can undermine competition by creating an artificial incentive (that is, one not based on actual cost) to remain with the regulated provider.

At the same time, one cannot dismiss the rational political desire to protect consumers from the uncertainties associated with an uncharted transition to competition. The question is whether there is a form of protection which does not undermine competition. Two possible approaches warrant attention:

The first is to select the standard offer provider -- still subject to the statutory rate cap -- by competitive bid, rather than automatically assigning non-shoppers to the distribution company. The Massachusetts statute, for example, provides that if a utility cannot meet the

required rate reduction for the standard offer, the Department may choose an alternative supplier to provide standard service.[2]

The second is to extend the mandated rate reduction to shoppers as well as nonshoppers. The statute or commission could make the reduction available to all customers, by applying the reduction to all nonbypassable charges, including the distribution service charge and transition charges. This method would ensure that all customers benefit from the reduction, without discouraging customers from choosing alternative suppliers. The New Jersey statute seems to follow this approach, at least in part:

> The board shall determine, consistent with the provisions of this act, the manner in which to apply the rate reductions ... among some or all of the unbundled rate components, including the distribution and transmission charges and market transition charges, in order to provide for a sustainable aggregate rate reduction for customers and to encourage a competitive retail supply marketplace.[3]

E. Assess the Risks of Competition, and the Methods for Managing Those Risks

Prior to choosing the competition path for one or more services, it is necessary to identify all risks and design a plan for their elimination or mitigation. One risk frequently cited in low cost states is that prices will rise to a regional average or higher. This argument often assumes that the implementation of competition requires the state's utilities to export their low-cost power and replace it with high-cost power. This assumption is not consistent with appropriate regulatory policy, which should be codified where not clearly established.

Specifically, low-cost states have the legal ability to introduce competition while preserving low-cost power for the consumers who have paid for the plants that generate that power. Traditional regulation has long held that "benefits follows the burdens." Thus when ratepayers shoulder the risk of a utility investment they should receive any benefits resulting from that investment.

In Democratic Central Committee of the Dist. of Columbia v. Washington Metropolitan Area Transit Comm'n, 485 F.2d 786, 808 (1973), cert. denied, 415 U.S. 935 (1975), the Court overturned decisions by WMATC, the regulator, to credit the shareholders of D.C. Transit System, Inc. (Transit) with the capital gains on the sale of properties sold out of rate base. The court concluded (at 822) "that a reasonable and fair allocation of [the] appreciation in market value [of the assets sold] accords that gain to the farepayers." The Court observed (id. at 808) that

> [r]atepayers bear the expense of depreciation, including obsolescence and depletion, on operating utility assets through expense allowances to the utilities they patronize. It is well settled that utility investors are entitled to recoup from consumers the full amount of their investment in depreciable assets devoted to public service. This entitlement extends, not only to reductions in investment attributable to physical wear and tear (ordinary depreciation) but also to those occasioned by functional deterioration (obsolescence) and by exhaustion (depletion).

Since ratepayers "have shouldered these burdens," the court reasoned (at 810-11), when the asset produces a gain, "the equities clearly preponderate in their favor. . . .[I]t is eminently just that consumers, whose payments for service reimburse investors for the ravages of wear and waste occurring in service, should benefit in instances where gain eventuates -- to the full extent of the gain."[4]

In several alternative ways, states may require that low-cost assets, when historically paid for by ratepayers, continue to provide benefits to customer classes. For example:

1. If the utility sells a low-cost generation asset, regulators can condition the sale with a requirement that the buyer sell the electrical output to consumers, at a cost-based or indexed rate, for a specified period.

2. If the utility retains its generation assets, regulators can require the utility to share

the proceeds from sales of electricity with the ratepayers who have paid for the plant.

Using this legal principle and these techniques, the state can preserve for customers the benefits of the generation whose costs they have borne, while also allowing newcomers to enter the market. The latter action need not obstruct the former.

II. Adjustments to Regulation That are Consistent With Competition

A rejection of the sea change from monopoly regulation to deregulation should not leave regulation unexamined. Rather, accompanying any "return to regulation" should be a reassessment of regulation as well. Such transition planning can create more options within the status quo structure, while also making competition more feasible should the state later select that option.

This section explores three areas in which state action can improve the status quo structure of the electric industry regardless of whether the state proceeds subsequently to implement retail customer choice: (1) actions aimed at facilitating wholesale generation competition; (2) competitive acquisition by the utility of metering and billing services; and (3) special contracts. Finally, during this adjustment period regulators must take care to distinguish between actions which improve service and actions which harden the incumbent's competitive advantages.

A. Actions Aimed at Facilitating Wholesale Generation Competition

A utility can build generation itself, or buy it on the wholesale market. If utilities build rather than buy, a wholesale market will not develop. A key step in the development of a wholesale generation market, therefore, is to have traditional utilities purchase their generation

rather than build it, provided that purchase options are viable.

Under traditional utility regulation, not all utilities would view such a step as consistent with their individual interests. Some utilities prefer to build rather than buy. A utility that builds its own generation must invest capital to do so. Under traditional utility ratemaking, when a utility invests capital it may recover in rates a profit on that investment. If a utility buys instead of builds, its rates will recover its purchase costs, but not a profit because it has made no investment. Rather, the profit on the generation investment goes to the wholesale seller that made the investment. Therefore, a decision to buy rather than build is a decision to reduce total profit. Regulators and decisionmakers therefore will need to create mandates or incentives to assure that utilities favor acquisitions over construction.

B. Competitive Acquisition by the Utility of Metering and Billing Services

The local utility traditionally has been the sole provider of metering and billing services for electric customers. The utility owns, installs and maintains a simple electromechanical device that a utility employee manually reads and reports back to the utility. Customers have had few, if any, billing and metering service options beyond basic service.

New technologies are transforming the billing and metering industries. In a report to the Virginia Legislature, the Virginia State Corporation Commission explained:

> In recent years, the metering and billing industries have changed significantly. These changes include new products, such as (1) automated meter reading ("AMR") technology, which uses communications systems to provide the benefits of frequent meter readings from a remote location and access to other home services, and (2) new billing services, including Internet access to billing information and a single bill for various services and locations.
>
> AMR and other technologies offer benefits to customers and competitive suppliers of electricity alike, thereby promoting competition in the retail electricity market. The communications networks that AMR systems employ allow electricity suppliers (1) to predict demand more accurately and avoid

> financial penalties associated with contracting for the delivery of too little or too much generation and (2) to compete for customers by offering creative pricing programs based upon time of usage and value-added services, such as Internet access, home security and appliance control.[5]

The Virginia report explains that some advanced meters also permit customers to obtain "value-added" services, including the ability to program home appliances and thermostats to respond to changes in the price of energy; telephone, cable and Internet access; and home security.

Benefits in billing and metering services are attainable regardless of whether a state is implementing retail competition. The benefits can be obtained through outsourcing. The Virginia report thus explains:

> Outsourcing in metering and billing is increasing for at least two reasons. First, metering and billing technologies are becoming more complex, requiring greater specialization; a utility may not have the expertise to maintain sophisticated AMR equipment and communications facilities. Second, metering and billing processes are becoming more standardized, allowing providers in non-electric industries to provide high-volume services to electric customers. A company that specializes in billing services for several industries may be able to provide billing services more efficiently than the utility itself.[6]

Modifying current regulation to promote advanced billing and metering services could provide benefits to the current industry structure as well as enhance prospects for successful retail generation competition later. Potential benefits might include:

1. lower-priced metering and billing services due to increased efficiencies and competitive procurement;
2. enhanced consumer access to products and services, including value-added products and information about electric needs and competitive processes;
3. the unbundling of metering and billing from other utility services; and

4. the introduction of competitive billing and metering suppliers to the state, where they will be more readily accessible to other retail suppliers when retail competition begins.

C. Discount Contracts to Retail Customers

State regulation often permits utilities to enter into special contracts to retain existing large customers and attract new large customers. These special contracts are a double-edged sword. On the one hand, they allow the utilities to offer, and customers to receive, some terms not available under their regular tariffs. On the other hand, no entity other than the utility can actually compete for the customer. Consequently, real competition does not develop, and later entrants may find the customer locked up.

As part of a transition strategy, the state can balance more explicitly the competing considerations involved in special contracts. Such balancing could take at least two forms:

1. Special contracts would terminate on or before the beginning date of competition. (Whether this requirement can be applied to existing contracts would require research under each state's law and the Takings and Contract Clauses of the U.S. Constitution.)
2. Special contracts would give the customer the option of selecting one or more new entrants to supply the generation underlying the contract, subject to fair treatment of any stranded costs. Since special contracts often are offered in the name of competition, it is consistent to subject them to real competition. This requirement would mitigate the potential anticompetitive qualities of special contracts; and stimulate competitive supplier interest in the state, enhancing the likelihood of successful retail competition in the future. The fair treatment of

stranded cost is necessary to prevent shifting of utility costs to customers not eligible for special contracts.

D. Service Improvement or Competitive Advantage?

Notwithstanding the uncertainty over competition's future, utilities still must carry out their public service obligations. Regulators and utilities find themselves in an odd position: efforts to improve the quality of service could entrench the utility's reputation further, making competition hard to implement later.

For example, utilities are training and educating employees for changes in the marketplace related to competition. Such education and training may relate to competitive activities or to monopoly activities that will remain under competition. Some of these activities may be charged appropriately to ratepayers if they improve future regulated services. Other activities should be at the expense of shareholders because they are intended to facilitate the utility's future competitive efforts.

Other types of actions, which can straddle the boundary between service improvement and creation of new barriers to competition, include:

-- marketing and advertising aimed at retaining and building customer loyalty;

-- entering into long-term agreements to serve large customers at favorable rates;

-- securing control of local and regional generation (e.g., through construction or purchase of new or existing generation);

-- conducting internal restructuring to enhance productivity; and

-- obtaining large customer agreements to defer or avoid self-generation plans.

During this interim period, therefore, regulators must distinguish between actions which improve service and actions which harden the incumbent's competitive advantages. Making this

distinction will be difficult, because the efforts to prepare for competition frequently resemble the actions utilities typically must take to serve their franchised customers. Regulators will need to establish clear criteria, before such actions are proposed, which encourage innovation for the regulated businesses without giving the incumbent unearned advantages in a future competitive business. Absent such articulation, the confidence of outsiders in the state's commitment to evenhanded competition will be diminished.

Conclusion

Treating competition and regulation as opposites risks losing the benefits of each. The present electric service bundle comprises several dozen individual services. Some of these services already are subject to competition, and others could be. The timing for implementation of competition may vary among the services. An analytical assessment should determine appropriateness of competition for each of these services, and establish the prerequisites. At the same, regulators should review current practices to assure that incumbent activities during the assessment period do not become incumbent advantages under competition.

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[1] A. Kahn, The Economics of Regulation xxxvii (1971, 1988).

[2] Mass. Ann. Laws ch. 164, sec. 1G(c)(3),(4).

[3] Section 4(f), New Jersey Electric Discount and Energy Competition Act (1999).

[4] Democratic Central Committee followed earlier cases addressing the same issue. See, e.g., City of Lexington v. Lexington Water Co., 458 S.W.2d 778, 779 (Ky. 1970) (allocating gain on sale of utility property to shareholders when a loss on the sale would have be charged to shareholders); New York Water Serv. Corp. v. Pub. Serv. Comm'n, 12 A.D.2d 122 (App. Div. 1960) (allocating gain on sale to ratepayers when ratepayers bore the risk of a loss in value of the assets).

[5] Competition for Electric Metering, Billing, and Other Services 11, Virginia State

Corporation Commission, Report to the General Assembly (Sept. 1, 1999) (hereinafter "Virginia Report"). The Law Offices of Scott Hempling advised the Virginia Commission on this report.

[6] Virginia Report, at 14.