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Flexible Pricing and PBR: Making Rate Discounts Fair for Core Customers

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Flexible Pricing and PBR:

Making Rate Discounts

With competition looming, electric utilities increasingly resort to price discounts, both to retain customers and to alleviate some of the pressure to introduce retail competition. Performance-based ratemaking (PBR), which allows utilities greater flexibility in offering price discounts, is emerging as an integral component of many restructuring proposals.

However, flexible pricing can create inequity among ratepayers. Thus, regulators should allow flexible prices only when they yield net benefits for all customers. One way to increase the potential for net benefits to all customers is to encourage utilities to minimize the number and size of price discounts by requiring utility stockholders to absorb a significant portion of the lost revenues created from those discounts.

Flexible prices also mark one way of addressing strandable costs — even though they are rarely thought of in that way.[1] By receiving discounts, customers in effect bypass a share of strandable costs. Thus, as the electric industry moves toward greater competition, regulators should provide *all* customers with price discounts by explicitly identifying strandable costs, and requiring that they be shared between ratepayers and stockholders.

Useful Discrimination

The equity issue raised by price discounts is not as simple as it first appears. Some price discounts can produce net benefits to all ratepayers, and can therefore be considered in the public interest.

For example, if a load retention rate prevents a large customer from leaving the utility system, then the electricity sales "gained" by the discount rate will pay for a portion of the fixed costs that would otherwise have to be recovered from ratepayers that remain on the system. This type of net benefit to all ratepayers marks the primary justification offered by utilities for flexible pricing.

Flexible prices create inequity among customers and customer classes.

Whether flexible pricing serves the public interest depends in part upon the distinction between "due" and "undue" price discrimination.[2] In general, "due" price discrimination yields net benefits to all customers, as in the example above. Undue price discrimination, on the other hand, benefits one customer at another's expense—as when a customer obtains a discount even though it would not have actually left the utility's system.

Recovering Lost Revenues

For all customers to obtain net benefits, discounted rates must actually maintain an existing customer's load or attract a new customer's load. The challenge lies in demonstrating that a discounted electric rate actually affects a customer's decision to self-generate, move out of the local utility's service territory, or move into the local service territory.

[1]The term "strandable" is used here because at-risk costs are not yet actually stranded. Most utilities are still recovering these costs under traditional cost-of-service ratemaking.

[2]Price discrimination occurs, in general, when a rate differential between customers does not reflect costs.

Having the utility absorb lost revenues will help align its interests with all ratepayers, including nonparticipants.

Fair for Core Customers

By Tim Woolf and Julie Michals

Discounting in General. While a candidate for flexible rates can provide a limited amount of information to demonstrate that its electricity purchasing decisions are affected by the rate, such information is often difficult to obtain.[3] More important, such a demonstration may require significant regulatory oversight—a drawback for utilities seeking flexibility to respond to competition.

In practice, regulators may find it difficult to ensure that discounted rates are provided only in cases that truly retain or increase customer load. Therefore, utilities should be encouraged to limit price discounts to cases in which they affect decisions by customers regarding location and consumption. The most direct means of encouraging the utility to be cautious about handing out price discounts is to require that the utility absorb all, or a portion of, the revenues lost from the reduced rate. Not only does this requirement directly reduce or eliminate the amount of funds recovered from nonparticipating customers, it also gives incentives to the utility to (a) limit the number of discount rates, and (b) keep the size of the discount to the minimum necessary. Requiring the utility to absorb lost revenues from price discounts aligns the utility's interests with

[3]For example, a customer can provide an economic assessment of the benefits of moving, as well as blueprints, permits, and contracts for constructing a new facility in a different service territory.

Discounts Defined

Flexible pricing schemes generally fall into four categories:

▲ **Load Retention Rates.** Can prevent a customer from exiting system, either by relocating or choosing to self-generate. If retail competition is allowed, load retention rates can prevent customers from choosing a different generation company.

▲ **Economic Development Rates.** May attract new customers to a service territory, or encourage existing customers to expand operations and boost demand. Differ from load retention rates by purporting to create jobs.

▲ **Flexible Rates (Flexrates).** Similar to load retention rates, but utilities enjoy greater flexibility and discretion. May escape regulatory review. No separate tariff needed for each rate or customer; instead, rates must adhere to established guidelines.

▲ **Performance-based Rates (PBR).** Most common form includes single price cap for all customers, or separate caps for customer classes.Cap stays in place for predetermined period (*e.g.*, five years), giving incentive to utility to trim costs below level implied by the cap. Below-cap discounts allowed for certain customers, as long as prices to other customers do not exceed the overall (or class) cap.

To date, at least 41 states have allowed economic development rates, 34 states have allowed load retention rates, 4 states have established flexrates, and 5 have ok'd some form of broad-based PBR *(see Table 1)*.

Table. Summary of State Activities Regarding Flexible Pricing Practices[1]

State Agency	Load Retention Rates: Rates Offered	Load Retention Rates: Rates Exceed MC	Load Retention Rates: Lost Rev. Treatment[2]	Economic Development Rates: Rates Offered	Economic Development Rates: Rates Exceed MC	Economic Development Rates: Lost Rev. Treatment[2]	Economic Development Rates: Applicable Load[3]	Flex Rates	PBR[4]
Alabama PSC	Yes	Yes	1	Yes	No	1	A, C		
Alaska PUC	No	n/a	n/a	No	n/a	n/a	n/a		
Arizona CC	Yes	Yes	4	Yes	Yes	1	A, C		
Arkansas PSC	Yes	Yes	3	Yes	Yes	1	A, C		
California PUC	Yes	Yes	3	Yes	Yes	1	A, C		Yes
Colorado PUC	Yes	Yes	2	No	n/a	n/a	n/a		
Connecticut DPUC	Yes	n/a	n/a	Yes	n/a	n/a	A, C		
Delaware PSC	No	n/a	n/a	No	n/a	n/a	n/a		
DC PSC	Yes	Yes	3	Yes	n/a	n/a	B, C		
Florida PSC	Yes	Yes	4	n/a	n/a	n/a	n/a		
Georgia PSC	Yes	Yes	3	Yes	Yes	n/a	A, C		
Hawaii PUC	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Idaho PUC	No	n/a	n/a	No	n/a	n/a	n/a		
Illinois CC	Yes	Yes	3	Yes	Yes	1	A, C		
Indiana URC	Yes	Yes	3	Yes	Yes	2	A, C		
Iowa UB	Yes	Yes	2	Yes	Yes	2	B, C	Yes	
Kansas SCC	Yes	Yes	3	Yes	Yes	6	A, C		
Kentucky PSC	Yes	Yes	3	Yes	Yes	5	A, C		
Louisiana PSC	Yes	n/a	n/a	Yes	n/a	n/a	A, C	Yes	
Maine PUC	Yes	Yes	5	Yes	Yes	5	B, C		Yes
Maryland PSC	No	n/a	n/a	Yes	Yes	6	B, C		
Massachusetts DPU	Yes	Yes	3	Yes	Yes	6	B, C		
Michigan PSC	Yes	Yes	3	Yes	Yes	1	A, C		
Minnesota PUC	Yes	Yes	3	Yes	Yes	1	A, C		
Mississippi PSC	No	n/a	n/a	No	n/a	n/a	n/a		
Missouri PSC	Yes	Yes	3	Yes	No	5	A, C		
Montana PSC	Yes	Yes	3	No	n/a	n/a	n/a		
Nevada PSC	Yes	Yes	3	No	n/a	n/a	n/a		
New Hampshire PUC	Yes	Yes	3	Yes	Yes	6	A, C		
New Jersey BPU	Yes	n/a	4	Yes	n/a	n/a	A, C	Yes	
New Mexico PUC	Yes	n/a	n/a	Yes	n/a	4	A, C		
New York PSC	Yes	Yes	3	Yes	Yes	6	B, C	Yes	Yes
North Carolina UC	Yes	Yes	1	Yes	Yes	6	B, C		
North Dakota PSC	Yes	Yes	3	Yes	Yes	4	A, C		
Ohio PUC	Yes	Yes	2	Yes	Yes	6	A, C		
Oklahoma CC	No	n/a	n/a	Yes	No	1	A, C		
Oregon PUC	Yes	Yes	3	Yes	Yes	6	A, C		
Pennsylvania PUC	Yes	No	3	Yes	No	6	A, C		
Rhode Island PUC	No	n/a	n/a	Yes	Yes	6	A, C		
South Carolina PSC	Yes	No	1	Yes	No	6	A, C		
South Dakota PUC	Yes	Yes	3	Yes	Yes	6	A, C		
Tennessee PSC	Yes	Yes	3	Yes	No	1	A, C		
Texas PUC	Yes	Yes	3	Yes	Yes	6	A, C		Yes
Utah PSC	Yes	Yes	3	No	n/a	n/a	n/a		
Vermont PSB	No	n/a	n/a	Yes	Yes	6	A, C		
Virginia SCC	Yes	Yes	3	Yes	Yes	2	A, C		
Washington UTC	Yes	n/a	n/a	Yes	n/a	n/a	B, C		Yes
West Virginia PSC	Yes	Yes	3	Yes	Yes	1	A, C		
Wisconsin PSC	Yes	Yes	4	No	n/a	n/a	n/a		
Wyoming PSC	Yes	Yes	3	Yes	Yes	6	B, C		
Total ("Yes")	41	34		39	27			4	5

[1]Given the extent of recent activity, this table may not include every example of flexible pricing in practice today.
[2]Lost Revenues Treatment: 1= Paid by Ratepayers, 2=Paid by Stockholders, 3=Not Determined Until Rate Case, 4=Shared Between RP/SH, 5=Other, 6=Not Considered
[3]Applicable Load: A=Existing Business Incremental Load, B=Existing Business Entire Load, C=New Business Entire Load
[4]While only certain utilities in a number of states have adopted PBR, it is currently being proposed in many states, generally as a part of electric industry restructuring proposals.

Sources: National Association of Regulatory Utility Commissioners, Utility Regulatory Policy in the United States and Canada. 1994-95. Lawrence Berkeley Laboratory, Performance-Based Ratemaking for Electric Utilities, November 1995. LBL-37577.

those of all ratepayers, including those that do not participate in the discounted rates. In addition, retaining load, or attracting new load, works to the benefit of utility shareholders as well as customers. Therefore, utility shareholders should bear some responsibility for the costs necessary to achieve those benefits.

Requiring utility stockholders to absorb a portion of the lost revenues from discounted rates is not uncommon. As indicated in Table 1, five states require utility stockholders to absorb all of the lost revenues from load retention or economic development rates; six states require stockholders and ratepayers to share these lost revenues.[4] Recent legislation in New Jersey requires utilities to absorb at least 50 percent of lost revenues from flexrates; the New York Public Service Commission requires 30 percent; and the California Public Utilities Commission recently made Pacific

[4]In addition, 26 states require that lost-revenue recovery be determined at the next rate case, which may cause utilities to absorb some, or all, of the lost revenues.

Gas & Electric stockholders responsible for 35 percent of revenue losses due to economic development rates, and 50 percent of revenue losses from load retention rates. Detroit Edison recently established discount rate contracts with its three big automobile industry customers, and the Michigan Public Service Commission required the company to absorb 100 percent of the revenue losses.[5]

However, the extent to which regulators can require utilities to absorb a portion of lost revenues will depend upon the type of flexible pricing practice allowed. With load retention rates and economic development rates, a PUC can explicitly determine the amount of lost revenues that should be absorbed by utility shareholders based on the specific conditions associated with each customer that receives a discount rate. As regards flexrates, where a PUC has less oversight over each individual discount rate, regulators can establish a generic policy mandating that a certain amount of lost revenues should be absorbed by utility shareholders as a means of aligning ratepayers' and shareholders' interests.

Price Caps. PBR mechanisms make it much harder for regulators to ensure that shareholders take responsibility for revenues lost to discounts. In theory, regulators could design PBR mechanisms to prevent utilities from collecting the lost revenues of price discounts from nonparticipating customers; in practice this goal proves difficult to achieve.

A well-designed price-cap scheme must set the initial rates for each customer class fairly, based upon an appropriate allocation of costs. The price cap may

By receiving discounts, customers in effect bypass a share of strandable costs.

then increase from year to year to allow for inflation, but must also decline over time to encourage increased productivity. Once a price cap is set, the utility can offer prices below the cap, enabling management to choose between lowering prices to compete for customers and increasing profits. A utility that can cut costs will have even more flexibility to lower prices or increase profits. PBR assumes that even if utilities decide to lower prices mostly for large customers, small customers are still better off with a price cap, as long as the original cap is set sufficiently low.

A PBR plan that sets up specific price caps for different customer classes (as opposed to a single average price cap for all customers) is better designed to prevent cross-subsidization of costs between customer classes. If the price caps are set low enough to accurately represent the costs of serving each customer type, the utility will not have the ability to recover from one customer type the lost revenues created by price discounts to other customer types. Those lost revenues would have to be recouped by reducing operating costs or shareholder profits.

However, the job of accurately representing the costs of serving different customer types has historically proven extremely contentious in traditional ratemaking contexts. In addition, over time, the initial price cap for any given customer type may deviate from the costs of serving that customer type, obscuring whether and/or to what extent lost revenues are recovered from customers that do not receive discount rates. Therefore, as compared to other flexible pricing schemes, PBR mechanisms create a much greater risk that nonparticipating customers will pay the lost revenues created by price discounts. Further, they may allow utilities to offer discounted rates beyond those that would be necessary to maintain or attract customer load.

Recovering Strandable Costs

In the transition to a fully competitive retail generation market, utilities will increasingly employ flexible pricing schemes to retain large customer loads, and PBR will likely become the preferred mechanism for offering discount prices.

Discounting in General. It is important to recognize that any revenues lost because of flexible pricing essentially represent a portion of a utility's strandable costs. In general, strandable costs occur when a utility's embedded costs exceed "market" prices. The primary rationale for a utility to offer a discount rate is that its embedded cost (*i.e.*, nondiscounted price) exceeds what a customer could get elsewhere in "the market." In effect; the difference between prices based on embedded costs and discounted rates will represent a portion of a utility's strandable costs. Therefore, customers with discounted rates avoid paying a portion of, or all of, their share of strandable costs, while customers that do not receive discounted rates pay their full share.

A further inequity is created if nonparticipating customers also pay for some or all of the lost

[5]*See, Re Standards for Off-Tariff Rate Agreements, Docket No. EX95070320, Oct. 27, 1995, 165 PUR4th 193 (N.J.B.P.U.); Re Competitive Opportunities Available to Customers of Electric and Gas Service, Case 93-M-0229, Opinion No. 94-15, July 11, 1994, 154 PUR4th 19 (N.Y.P.S.C.); Re Pacific Gas & Elec. Co., Decision 95-10-033, Application 91-11-036, Oct. 18, 1995, 164 PUR4th 484 (Cal.P.U.C.).*

revenues caused by the discount rates. In this case, nondiscounted customers pay not only their share of strandable costs, but also a share (or all) of the discounted customers' strandable costs.

Such an outcome is inconsistent with the principles of stranded-cost recovery under development by many PUCs around the country. While recent restructuring debates present drastically different views about the magnitude of strandable costs and the extent to which ratepayers or shareholders should be responsible for paying these costs, there is widespread agreement that the utility should only recover strandable costs from its customers on a nonbypassable, nondiscriminatory basis. Discount rates, however, depart from this goal of equitable sharing among customers.

Instead of implicitly addressing strandable costs through discount rates, regulators should establish explicit policies. First, strandable costs should be identified, and utility stockholders required to absorb a meaningful portion of those costs.[6] This policy would create a price discount (relative to full embedded costs) for all customers—not just the large customers with the greatest amount of market power. All customers would pay a generation rate based on a market price plus some portion of strandable costs.[7] Second, any strandable costs that are recovered from ratepayers should be collected from all ratepayers on an equitable basis through a nonbypassable wires charge, such as the competitive transition charge proposed in California.

Will flexible pricing afford utilities more market-like agility, or an opportunity to cross-subsidize large customers?

Price Caps. In the case of PBR, the goal of establishing equitable sharing of strandable costs among customers is more complex. If PBR is established without an explicit mechanism to address stranded costs, we run a significant risk that large customers will be allowed to bypass their share of strandable costs through discounts. If, instead, PBR is applied along with a wires charge to recover strandable costs, then the generation costs subject to a price cap should be set by regulators to reflect market prices, since by definition strandable costs represent the difference between embedded costs and market prices. In this way, the utility would not be able to price generation above market to any of its customers. If the utility chooses to price below that cap for selected customers, it should bear the full cost of any associated lost revenues.

* * *

Regulators should consider whether flexible pricing practices are consistent with their overall objectives for competition in the electric utility industry. Will flexible pricing afford utilities more market-like agility, or will it provide utilities with an opportunity to cross-subsidize large customers? Will flexible pricing practices, especially PBR, allow some customers to bypass strandable costs that are intended to be nonbypassable?

If regulators decide that price discounts are necessary to keep a utility (or a state) competitive, they should consider applying such price discounts to all customers of that utility. This could be achieved through an explicit sharing of strandable costs among ratepayers and stockholders. In this way, utilities will more likely be able to retain customer loads, avoid undue discrimination, promote competition, and lower electricity prices to all customers. ▼

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[6]The issue of sharing strandable costs is broad, controversial, and beyond the scope of this article. For a further discussion of this issue, please see "Linked Generation Pricing: Providing All Electricity Customers with the Benefits of Competition," Tellus Institute, June 1996.

[7]Utilities could continue to offer discount rates priced below market to selected customers, but should be required to absorb all resulting lost revenues. The California and New York commissions have decided that once direct access is allowed in the state, lost revenues resulting from discount rates must be absorbed 100 percent by utility shareholders. *See* note 5, *supra*, for citations.