

RESTRUCTURING REVISITED

What we can learn from retail-rate increases in restructured and non-restructured states.



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After significant rate increases in many retail-access states, regulators and policy-makers are asking two critical questions: (1) Do the sharp increases in rates mean that customer choice and electric utility restructuring have failed? and (2) What can be done about these rate increases? The concerns about restructuring and retail access in the electric utility industry today are quite a change from 10 years ago, when it was widely anticipated that customer choice and competition would lead to lower rates, enhanced services, improved efficiency, and environmental benefits.¹

To be sure, restructuring always was a controversial issue in terms of implementation. However, back in the mid- to late 1990s few questioned the prospect of significant economic benefits that competition and customer choice would provide. For many today, that “conventional wisdom” seemingly has shifted almost 180 degrees. Much of that shift in sentiment is triggered by the rate shocks experienced in many retail access states as market prices increased and restructuring-related rate freezes expired.

In 2006, for example, Baltimore Gas & Electric’s retail rates increased 72 percent, which provoked a political uproar that almost resulted in the dismissal of the state’s five public utility commissioners by the governor. Similarly, after heated and politically charged debates, United Illuminating is phasing in a 50-percent rate increase for its Connecticut customers, and Delmarva is phasing in a 59-percent rate increase in Delaware. Most recently, after a decade of reduced and frozen retail rates in Illinois, a move to market-based retail pricing of customers’ generation service in January 2007 increased residential retail rates by an average of 21 percent for Commonwealth Edison and between 36 and 53 percent for the three Ameren distribution utilities. The fact that some of Ameren’s electric-heating customers, who enjoyed frozen rates as low as 2.5 cents per kilowatt-hour, saw their monthly bills double or even triple only added to the political upheaval that has spurred legislative efforts to roll back Illinois retail rates to their previously frozen level. This proposed extension of the 10-year rate freeze now threatens to bankrupt the Illinois utilities and already has forced their credit ratings below investment grade. To some observers these developments are a sure sign that retail restructuring has failed and that re-regulation of the industry may be the only way out.

Retail Rates Put Into Perspective

Just how unusual are these increases in retail rates? Based on a nationwide analysis of retail-rate trends in restructured and non-restructured states, we find that the large rate hikes primarily are a function of expiring retail-rate freezes at a time of

significantly higher fuel and wholesale power prices. As part of the negotiated transition from regulated to restructured markets, retail rates often were reduced and then frozen at those levels for a number of years. In several states, the recent expiration of these rate freezes coincided with significantly higher fuel costs and wholesale power prices. Hence, once the rate freezes expired, rates increased considerably to reflect the higher costs and new market fundamentals. However, despite these significant increases from frozen-rate levels, some of the new rates still compare favorably to regulated rates prior to restructuring. For example, despite the recent increase, 2007 residential rates for Commonwealth Edison are still 3 percent below their 1997 level (*i.e.*, in actual dollar terms, without even accounting for inflation).

Fig. 1 shows average retail rates in the now restructured and non-restructured states since 1985.² The figure shows that rates in restructured states on average are approximately 35 percent higher than in non-restructured states. However, the chart also shows that this discrepancy already existed in the mid-1990s, several years before restructuring was implemented. Thus, while it is correct that rates in restructured states are much higher than in non-restructured states, this difference already existed prior to restructuring. In fact, these rate trends show that significant rate increases in restructured states relative to non-restructured states happened between 1988 and 1993, when the gap in rates approximately doubled. These pre-restructuring rate trends helped cement support for restructuring efforts. Since then, as also shown in Fig. 1, rates in both types of states have trended very similarly.

Fig. 2 compares retail rates relative to their 1997 level—the last year before any state had implemented customer choice. The chart shows that from 1997 through 2006, average rates in both restructured and non-restructured states increased by 31 percent. This compares to a 26-percent increase in the consumer price index, a 34-percent increase in wages, a 93-percent increase in the average retail price of natural gas, and a 108-percent increase in gasoline prices.

Fig. 2 also shows that until 2006, rate increases in restructured states for the most part lagged those in non-restructured states. This “lag” may have been largely a function of restructuring-related rate freezes under which rates could not reflect the underlying cost trends. Nevertheless, such lagged rate increases in restructured states also mean there may have been significant savings for customers (albeit possibly only temporary). From 1998 through 2006, electricity sales totaled \$1.3 trillion in the restructured states, which means the approximately 2-percent gap between the rate trends of restructured states (blue line) and non-restructured states (purple line) cumulatively amounts to \$24 billion. In other words, had rates

in restructured states trended exactly like rates in non-restructured states (*i.e.*, had the blue line in Fig. 2 moved in lockstep with the purple line), customers in restructured states would have paid \$24 billion more. While this number does not represent an estimate of restructuring-related savings to date, it does suggest that the temporary restructuring-related rate reductions and rate freezes likely benefited customers—at least while they lasted.

Simply based on press coverage, one would have expected that the rate increases in restructured states far exceeded rate increases in traditionally regulated states. But that is not the case. The rate increases in traditionally regulated states may have happened more gradually (*e.g.*, through fuel-cost adjustment clauses), with similarly large overall increases but less public outcry and fewer political repercussions. For example, since 1997, average rates in Hawaii increased 68 percent, 57 percent in Wisconsin, 53 percent in Washington, 45 percent in Florida, and 42 percent in Louisiana.

Yet the public uproar and political repercussions over such rate increases in non-restructured states tend to pale in comparison. Even the very significant recent rate increases caused by the 2005 spikes in fuel and power costs appear to have attracted less public and political attention in restructured states, such as New Jersey and Massachusetts, where utilities already had supplied customers at market-based rates for a number of years. States in which these sharp recent increases coincided with the expiration of transition-related rate freezes—such as Maryland, Delaware, Connecticut, and now Illinois—seem to have experienced much more substantial political fallout.

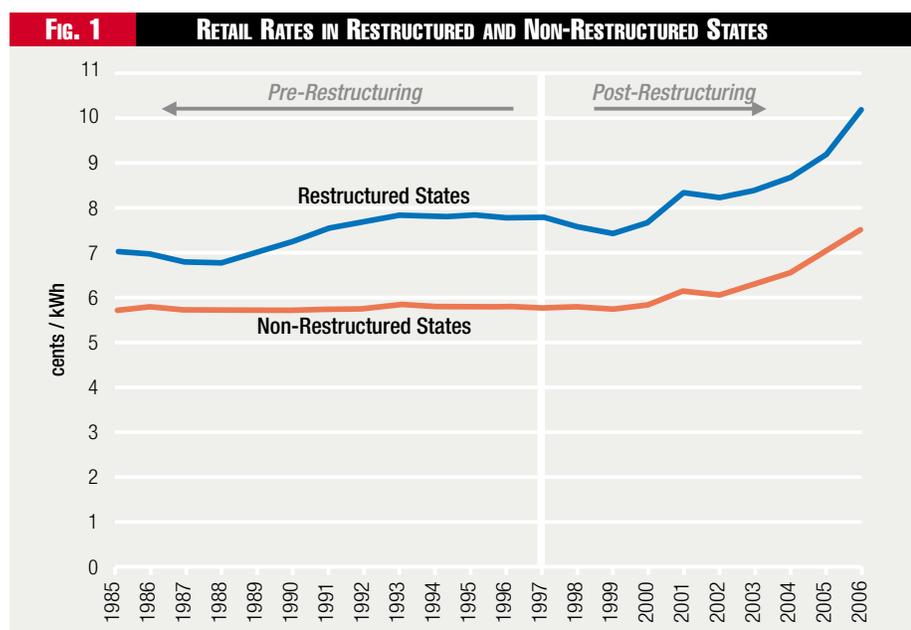
How will the 2006 decline in fuel and power prices affect retail rates in restructured and non-restructured states going forward? Considering that the 2001 spike in natural-gas prices affected rates in restructured states more strongly (*i.e.*, with larger increases and subsequent decreases), it will be interesting to see if that pattern repeats itself with respect to the 2005-2006 spike in natural gas, coal, and power prices. Just as fuel-adjustment clauses should lead to rate reductions in non-

restructured states, lower wholesale power prices should lower rates in restructured states. Recent procurement results in some of the restructured states suggest that this may in fact be happening. For example, with the decline in wholesale market prices in New Hampshire, rates for Unital's commercial and industrial customers dropped by about one-third in 2006 while rates for residential customers dropped by 10 percent earlier this year.

Are There Any Restructuring Benefits?

Although this rate comparison does not offer conclusive proof as to either the benefits or harms associated with restructuring, it does provide an important indication of how consumers in restructured states have fared relative to those in non-restructured states. Assuming costs increased similarly, it would appear restructuring did about as well as traditional regulation. If restructuring truly was a failure, one would have expected to see larger average rate increases in restructured states than in non-restructured states. This is not the case. In fact, utilities in restructured states on average not only face costs that tend to be higher than in non-restructured states, but these costs have also been increasing faster.

For example, since 1997 wages in restructured states are up 35 percent compared with 33 percent in non-restructured states. The differential is even larger for fuel. Considering the average 1997-2005 fuel mix in restructured and non-restructured states, our preliminary analysis indicates that the 2005 average cost of fuel delivered to generators (*i.e.*, the weighted average costs of coal, natural gas, petroleum, and nuclear fuels on a \$/MMBtu basis) increased approximately 90 percent in



the more natural-gas-dependent restructured states, compared with “only” 62 percent in non-restructured states. (By 2006, the differential in fuel-cost increases appears to have narrowed to approximately 80 and 70 percent, but not all 2006 fuel-cost data is available and 2006 fuel costs probably are not reflected fully in 2006 electricity rates due to regulatory and procurement-related lags).³ Given these higher cost increases in restructured states, the similar trend in average retail rates suggests potentially significant restructuring-related benefits that go beyond any temporary saving enjoyed while rates were frozen.

The extent to which restructuring might or might not have benefited customers has been analyzed more closely by more than a dozen studies over the last few years.⁴ Some of these studies specifically evaluate the impact of retail choice, some assess only the benefits of centralized wholesale markets, and others attempt to quantify the combined benefits of wholesale and retail restructuring. The majority of these studies found that restructuring—either retail competition, centralized wholesale power markets, or the combination of retail and wholesale restructuring—have produced significant benefits for consumers. However, some reviewers of these studies contend that due to poor study designs, the quantified benefits cannot be relied upon. Only a few studies find that the impact of restructuring is either unclear or may have resulted in more quickly increasing customer rates.

To be sure, it is inherently difficult to quantify the benefits associated with restructuring because one must compare actual rates or industry efficiency to the hypothetical rates or industry efficiency that would have existed but for restructuring. With respect to retail competition, the analysis is complicated further by the fact that most customers have become exposed to market-based retail rates only very recently when transition-related rate freezes expired. Given this very limited experience with market-based retail pricing, it likely is too early to quantify reliably the benefits or harms from retail restructuring. But it is clear that restructuring has failed to produce the

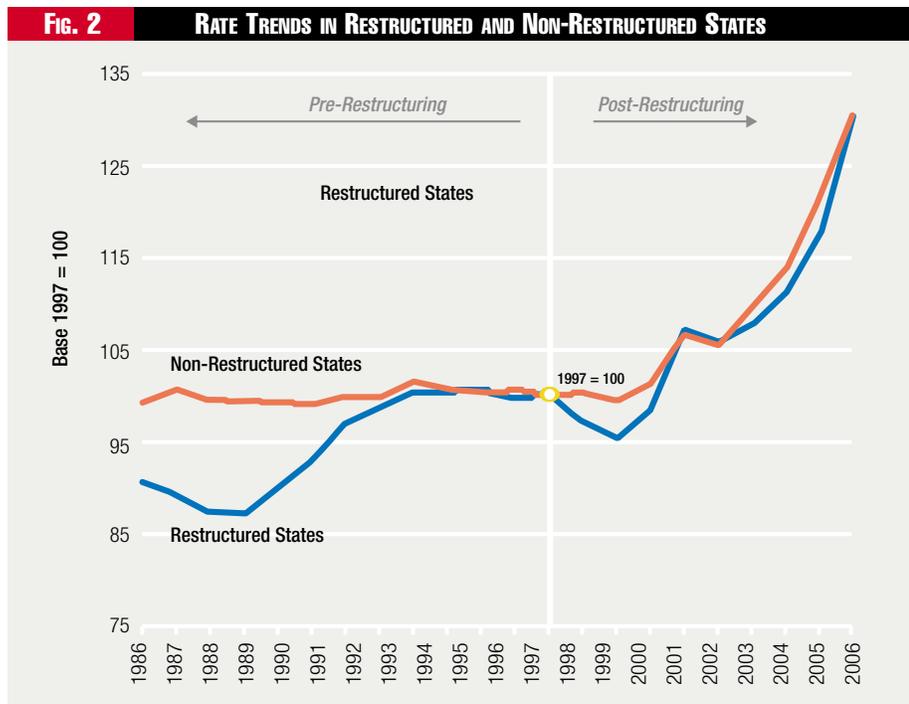
massive hoped-for benefits, the basis on which restructuring was sold politically.

Time to Re-Regulate?

The large price adjustments coming out of rate freezes have triggered legislative calls for suspension of retail access (in particular for small customers) and the re-regulation of the utility industry in several states, including Virginia, Michigan, Connecticut, and Montana. However, despite the failure to meet high expectations and the rate hikes triggered by abruptly ending rate freezes, the available facts do not support a conclusion that customers in restructured states actually would have been better off under traditional cost-of-service regulation. It is even less clear that re-regulation would provide net benefits. Thus, despite the superficial appeal of re-regulation as a means of addressing the sharp recent rate increases, such initiatives must be viewed with significant caution and skepticism. After all, one must recall that the gap in rates between restructured and non-restructured states increased sharply under the regulated industry structure of the mid-1980s to the mid-1990s but, despite more rapidly increasing fuel costs, has not increased further since the onset of restructuring efforts.

Because those “good old regulated days” perhaps weren’t as good as some of us may remember them, we ought to be careful about what we are asking for. Re-regulation would be a risky and potentially costly undertaking.

This concern is shared by others. For example, although Standard and Poor’s notes that it “does not consider the



Source: The Edison Electric Institute, based on EIA data.

prospects for significant re-regulation to be broad based, and therefore we consider threats to utility credit quality—at this time—to be fairly muted,” and that thoughtful re-regulation efforts could be “beneficial for credit quality,” the agency also stresses that “especially in a political environment that is certain to be highly contentious” re-regulation “is a risky proposition that could threaten utility balance sheets, destroy value, and impair credit ratings.”⁵ In fact, in its April 3 statement, S&P goes on to note further that:

“It is not definitively clear whether liberalization has succeeded or failed. . . . Would a return to traditional regulation lower electricity prices? Absent liberalization, would electricity prices have been lower, all else being equal? Forecasting what might have been is always difficult. And, of course, all else is rarely equal, such as the rapid rise in fuel prices and more recently a surge in capital costs. Nevertheless, the introduction of competition into generation resulted in greater efficiencies, lower heat rates, greater reliability, lower nonfuel operating costs, and in general, more widely adopted best practices. Consider how nuclear power plant operations have improved dramatically in competition’s short tenure. Would a reversion to regulation preserve these gains? Absent the pressure of competition, it is hard to believe so, given cost-of-service regulation’s history.”

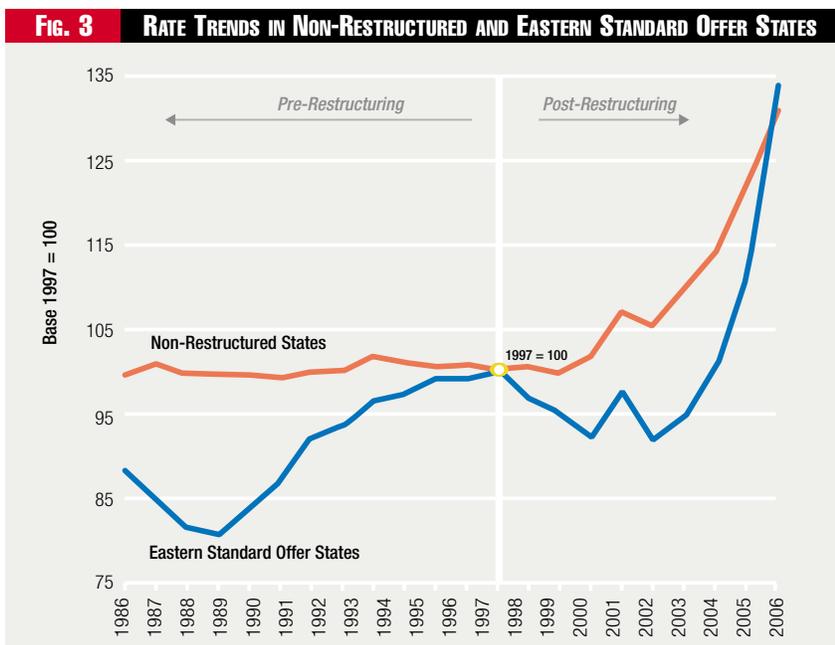
What Can Be Done?

Concerns about re-regulation do not mean that the recent rate hikes should not be addressed or that nothing can be done to mitigate rate hikes and reduce rate pressures going forward.⁶ Available options include:

- Phase out the remaining rate freezes over a multi-year

period, rather than ending them abruptly;

- Defer (and if possible securitize) portions of transition-related rate increases over a multi-year period;



Rate Trends in Eastern Retail Access States

Significant concerns over the outcome of restructuring have been raised in several Eastern U.S. retail-access states in which distribution utilities have begun to use auctions or auction-like RFP processes to procure generation supply for their remaining regulated “standard offer” or “basic generation service” customers. By the end of 2006, these Eastern “standard offer” states included Maine, New Jersey, Massachusetts, Maryland, D.C., Delaware, and Connecticut. During the mid-1990s, average rates in these states were approximately 60% above the average for non-restructured states. By 2003, that gap in rate levels had dropped to 39%, but it has since widened again to 47% in 2005 and 65% in 2006. This sharp recent increase, in part due to the transition from frozen to market-based rates, has caused particular political uproar in Maryland, Delaware, and Connecticut.

As shown in Fig. 3, the trend of average retail rates for this set of Eastern states differs from the trend for all restructured states shown in Fig. 2. Fig. 3 shows that following implementation of retail access, average rates first declined significantly relative to non-restructured states until 2002, only to “catch up” more quickly through significant rate hikes. Surprisingly, however, over the entire post-restructuring period rate the average increase in these Eastern states is 34% since 1997, which is, again, almost identical to the 31% rate increase in non-restructured states. These similar increases in retail rates also point to potentially significant restructuring-related benefits considering that, since 1997, the average cost of fuel delivered to generators in these states (on a \$/MMBtu basis, weighted at the 1997-2005 average fuel mix) increased by approximately 120% through 2005 and 110% through 2006. This compares to increases in weighted average delivered fuel costs of 62% and approximately 70% in non-restructured states. And while the lagged rate increases resulted in steeper increases during the most recent years, the delay would appear to have benefited customers additionally: With total electricity sales of \$218 billion from 1998 through 2006, the price gap between these restructured Eastern states (thin blue line) and non-restructured states (purple line) accumulates to \$18 billion.

- Improve and expand low-income assistance and energy-efficiency programs to mitigate impacts for the most vulnerable customers;
- Educate customers and facilitate municipal aggregation and entry of alternative retail suppliers to provide even small customers with a choice of service and pricing options;
- Establish overlapping supply contracts and more frequent procurements of generation supply to avoid rate shocks resulting from disproportional impacts of individual procurement efforts;
- Improve supply contracts and procurement processes to reduce the risk premium required by suppliers to serve the utilities' residual regulated load;
- Adopt rate structures that better reflect market prices and more broadly implement demand-response, efficiency, and dynamic-pricing programs to reduce peak loads, enhance competition, and lower standard-offer procurement costs;
- Improve wholesale-power markets by reducing seams, rate pancaking, and other market-related barriers to efficient trade and plant dispatch; and
- Improve fuel and fuel-transportation markets to avoid or mitigate the effects of fuel-price shocks that drive up power prices (such as the 2005 hurricane-related disruption of natural-gas supply and coal-transportation-related spikes of coal prices).

The Bottom Line

Since restructuring started in 1997, average retail rates in both restructured and non-restructured states have increased by approximately 31 percent. This is surprising for two reasons. First, based on the public outcry over the sharp recent increases in retail-access states, one would have expected higher overall rate increases in restructured states. As it turns out, the sharp recent increases are mostly an artifact of abruptly ending restructuring-related rate freezes. Second, the fact that rates in restructured states have increased approximately the same as rates in non-restructured states appears to be good news, considering the more pronounced increases in average fuel and labor costs. While it is correct that average rates in restructured states significantly are above the rates in non-restructured states, that was already the case in the mid-1990s, before these states were restructured—which helped cement support for restructuring efforts.

Although retail restructuring has failed to live up to its high expectations, the available facts do not support a conclusion that customers in restructured states would have been better off under traditional cost-of-service regulation, nor that cus-

tomers would likely benefit from re-regulation. But our skepticism about the effectiveness of re-regulation options does not mean that the recent rate hikes should not be addressed, as our suggestions on mitigating rate hikes and reducing rate pressures going forward indicate. Rather, despite the superficial appeal of re-regulation in light of the sharp recent rate increases, we are concerned that such initiatives carry a substantial risk of being ineffective and more costly in the long-run. ■

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Endnotes:

1. Our discussion focuses only on average retail rates as the bellweather in many of the currently ongoing discussions about the success or failure of retail access. We are not specifically addressing the other hoped-for benefits of retail access, nor the extent to which restructuring of transmission access and wholesale generation markets affected market efficiency, plant availability, transmission utilization, infrastructure investment, and reliability.
2. Average rates are calculated as the ratio of total retail revenues in restructured and non-restructured states to total kWh retail sales as reported by the Energy Information Administration. We define "restructured states" as the 20 states plus D.C. that implemented retail access for some or all customers, including Connecticut, D.C., Delaware, Illinois, Massachusetts, Maryland, Maine, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Texas, and Virginia as well as Arizona, California, Montana, Nevada, and Oregon (the five states that have already limited, suspended, or reversed some of their restructuring effort). For an overview of restructuring and resource procurement in these states, see Pfeifenberger, Schumacher and Wharton, "Keeping Up with Retail Access? Developments in U.S. Restructuring and Resource Procurement for Regulated Retail Service," *The Electricity Journal*, December 2004, pp. 50-64.
3. Note again that these cost increases are based on a fixed 1997-2005 fuel mix. If the actual fuel mix for 1997 and 2005 is used, the 1997-2005/06 average percentage cost increases are quite similar due to a significant increase in nuclear output in restructured states, but also due to increasing reliance on natural gas in non-restructured states.
4. Some of these recent studies are listed and summarized in Appendix C of the Electric Energy Market Competition Task Force's *Report to Congress on Competition in Wholesale and Retail Markets for Electric Energy*, April 6, 2007 (posted at <http://www.usdoj.gov/atr/public/taskforces/eeemttaskforce.htm>).
5. Standard & Poor's "The Credit Implications of U.S. Electric Utility Re-Regulation," April 12, 2007 and "Re-Regulation of U.S. Electric Utilities: The Toothpaste Challenge," April 3, 2007.
6. See also Graves, Hanser, and Basheda, *Rate Shock Mitigation*, prepared on behalf of the Edison Electric Institute (forthcoming).