

**Restructuring Minnesota's Electric Industry:  
Key Issues for Consumers**

**Issue 1**

**Could Deregulation Increase Electricity Prices  
in Minnesota?**

Presented to the Minnesota Legislature's Electric Energy Task Force

by

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Good morning, Mr. Chair and Task Force members. My name is Steve Corneli, and I am an economist in the residential and small business utilities division of the attorney general's office. I'm glad to be here today to offer you a consumer perspective on restructuring the electric industry in Minnesota. I also want to give you some important Minnesota-specific information about what restructuring might mean for the state's citizens and businesses.

Chapter 8.33 of Minnesota Statutes requires the Attorney General to "identify and promote" the needs and interests of residential and small business utility consumers. We do this by talking to the hundreds of consumers who call us each month with customer complaints, by meeting with consumers around the state, and by keeping up with market research and survey results. Based on this experience, it is our view that consumers want four basic things from the electric industry:

- Low, stable and fair prices;
- Reliable and safe electric service;
- Environmentally responsible electricity production; and
- Convenience-- no phone calls at dinner time!

Increased competition in the electric industry can be used to help achieve these goals. But full and rapid deregulation of electricity production could actually have the opposite effect in Minnesota and could harm consumers and the state's economy. The negative effects that could come from deregulating too much or too quickly fall in these major categories:

- Increased prices for many or most consumers
- Decreased reliability and safety
- Market power and anti-competitive market structures
- Increased consumer confusion and new deceptive or unfair business practices
- Insufficient investment in sustainable energy technologies
- Environmental degradation and/or increased future costs for pollution control

Each of these problems is serious, and needs your attention as we debate restructuring in Minnesota. But I want to focus today on just the potential for price increases, because the main argument for restructuring has been that it will reduce prices. What I want to show you is that, while deregulating electricity production probably will reduce prices in high cost states, the same exact policies could actually increase prices in low cost states like Minnesota. This means that Minnesota should not simply copy legislation from high cost states. Instead, we need to develop our own "Minnesota model" to adapt to a competitive electric industry -- a model that ensures that benefits from competition can flow to our consumers, while maintaining consumer protections against the risks of deregulation.

one of the most important issues (claim that it will lower prices) increase in low cost states like MN

How could deregulation lead to higher electric prices in Minnesota? There are three important economic factors:

- Minnesota and the MAPP region have the lowest costs of energy production in North America, and we have some of the lowest electric rates as well.
- The supply of low cost power plants in the region is limited and may be unable to grow.
- We are close to other markets with substantially higher production costs and prices.

Square Built Coal Creek PJ

These three factors mean that the regional market clearing price for electricity could very well be higher than the costs our rates are currently based on. Now, this is a very common thing in markets, where buyers often pay an average or market clearing price that is above the cost of production for the low-cost producers. Many wage earners, for example, could easily work for less pay than they now get, if they wanted to, but most --except perhaps for legislators-- don't choose to. Many home owners could sell their houses below the market price very easily, and still recover the costs of the various improvements they've made, but most choose not to. Farmers whose equipment is mostly paid for, who have really fertile fields and high-producing cattle, could sell their crops and milk at below-market prices and still pay their bills, but most choose not to. And as a result, employers, home buyers, and consumers pay a market clearing price that is above the cost of production of the low-cost workers, home-owners, and farmers. This is how most markets work.

The question for policy makers in Minnesota is not whether competition is good or bad, it is whether we want to enact policies that will force Minnesota electric consumers to switch from regulated prices at our low cost of service to unregulated market prices that could well be higher, or whether we want to build in some protections against price increases along the way.

Let me show you how the regional price numbers really compare. If we look at Minnesota's average retail electric price of 5.6 cents per kWh, we get an idea of how it compares to other states' prices. You can see that Minnesota is near the bottom of the national price range, and that the states that are significantly below Minnesota's price are all states with large amounts of hydropower--power whose energy is supplied for free by the sun and gravity, and that is generated at dams that were built a long time ago and are largely paid for.

You can also see that nearby states like Illinois and Michigan have far higher average prices than we do.

Now, if we want to look at the likely competitive prices for electric production, we have to take out the portion of that 5.6 cents that will still be regulated to cover transmission and distribution costs. Here you can see some estimates of how NSP's average rate of 5.33 cents per kWh would be "unbundled" into transmission, distribution, and administrative costs; and into energy production costs and the fixed costs of owning that generating equipment. You can see that about one third of the cost comes from actually producing the energy, while another one third

2/3 is wholesale

comes from owning the power plants, whether they run or not. These are the kinds of costs that will drive the competitive market.

The variable production costs are a lot like the fuel and other costs of using your car, while the fixed costs are a lot like the monthly payment on the loan or lease. You make the fixed cost payment whether you drive or not, but you only incur variable costs if and when you drive. If you were going to rent your car out, you'd like to get enough to pay for both and have some left over, but you could benefit from renting out the car so long as you charge more per mile than it actually costs to use it. In fact, utilities are already doing more and more of this kind of transaction at the wholesale level.

To see what a retail electricity market price might look like, we can compare these production costs to others in the region. Here you can see the same kind of figures for MAPP as a whole, for NSP, for Commonwealth Edison in Chicago, and for New England as a whole. As you can see, MAPP's energy costs are a little lower than NSP's, but both are a lot lower than ComEd's, while New England's are even higher. This means that MAPP producers can make a little money renting their power plants out to NSP, but that both NSP and MAPP could make a lot more by selling power into the Illinois market. If we look at the total cost of production, that is, at variable and fixed costs, we see a similar picture. NSP's fixed costs, at least as I've estimated them, are slightly lower than the MAPP average, but both MAPP and NSP fixed and total costs are far lower than ComEd's.

So what will happen if the Illinois legislature really passes restructuring legislation in this fall's veto session? ComEd customers will be able to avoid paying for some of ComEd's variable costs and a huge portion of the company's fixed costs by buying from lower-cost producers like those in MAPP. MAPP producers will sell for something above their own variable costs. The difference between what ComEd charges now and what it would have to charge to match those competitive alternatives is exactly what the words "stranded costs" are all about. And a key part of the deal that your counterparts will be trying to put together this fall in Springfield is how to satisfy ComEd's claims that it deserves to get all of those stranded costs back no matter who their customers buy from.

That is really the big question in Springfield, Illinois; in Sacramento, California; in Albany, New York, in Harrisburg, Pennsylvania, and even in Washington, DC. A lot of people have given you the impression that the stranded cost issue will be a big question here in St. Paul, too. It might be. But it is at least as likely that we will have to deal instead with the flip side of the stranded cost question. Here's why.

Let's suppose that the market clearing price that develops in our region is lower than ComEd's cost of energy but higher than NSP's, MP's, UPA's, and our other utilities' cost of energy. Like I said, this is typically how markets, and especially commodity markets, work--prices are above the costs of the lowest cost producers. The same regional price that creates stranded costs for ComEd--and estimates are that it will have some \$9 billion worth of stranded costs--would be above the costs of our Minnesota producers. This higher price would create "negative stranded

False  
Issue  
Just like  
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Tax

costs" for Minnesota utilities, or, more plainly, windfall profits. And since our current rates are based on the cost of production, it would also create higher prices for Minnesota customers.

As an economist, I have to say that I think this is a very real possibility. And I'm not the only economist who thinks so. Last February, you had the opportunity to hear from Alfred Kahn, who is most famous for deregulating the airline industry when he was chair of the Civil Aeronautics Board, but who is also a tenured professor of economics at Cornell, the author of one of the most widely used and comprehensive textbooks on regulation, and was the chair of the New York Public Service Commission for a great many years. Here is what Dr. Kahn told you in response to Senator Scheevel's concerns about price increases from deregulation:

"If Minnesota is able to generate power at relatively low costs, and other states have much higher prices, ... that might have a tendency to push up Minnesota's electric rates. That's the way free markets work."

*possibility  
we  
should  
guard  
against*

That's really all I'm saying, too. It's also worth noting what Dr. Kahn went on to say:

"Deregulation, in a way, is being overpromised... 'bring competition in and our rates are going to go from 13 cents to 4 cents for combined cycle gas' ...that's not going to happen, and the reason is the 13 has all these costs in it that the companies have incurred"

We've seen that, too, in the ComEd stranded cost example. And if rates are not going to go down significantly even where prices are 13 cents, we really have to ask how they could go down much where they are only 5 or 6 cents.

Another economist who has testified that deregulation could lead to higher prices is Dr. W.H. Hieronymus, who NSP and WEPCO hired to testify on their behalf in the FERC and Wisconsin hearings on the Primergy merger. Dr. Hieronymus is an international expert on electric restructuring, and based his testimony on the results of a computer model he used to examine the prices that would result from partial deregulation. What he found was that even partial deregulation would allow regional prices to increase by three percent without the merger and by eight percent with the merger. Because of this problem, he testified that

If Minnesota does not deregulate prices and remove native load obligations to a significant degree, then the merger will have virtually no effect on price levels...Conversely, if we had assumed [in our computer model] that prices for 100 percent of pwr were deregulated, it is likely that Primergy's ability to raise prices would have appeared greater. However, for the foreseeable future, I think that it is very likely that the PSCW and other state commissions will maintain regulatory oversight over service to customers choosing to remain with the incumbent utility. (From WPSC Docket 6630-UM-101)

*raised under  
balk  
may have  
been right*

Clearly, if NSP's own hired expert on deregulation and prices testified under oath that deregulation could well lead to price increases even without a merger, we should be very concerned about the possibility that he was right.

Now, what about these combined cycle gas plants? Let's look at some cost estimates for natural gas combined cycle technology, widely thought to be the most likely new source of competitive generation. The lowest and most optimistic estimate I have found suggests that these new power plants will be able to stay in business profitably if they sell their power at three cents per kWh. A conservative estimate, more consistent with NSP's most recent resource plan, suggests that the price might be more like 4.2 cents per kWh. As you can see, at the lower price, retail competition could eventually cause Minnesota average prices to fall, while at the higher price, these technologies would "cap" regional prices at a level 25% above our current costs.

Now, I'll be the first one to say that the legislature should examine carefully any predictions that an individual or an organization might make about the effects of electric restructuring. So far, all I've presented is an economic rationale for how deregulation could lead to price increases. But prices are not determined by the costs of a couple of producers, or even by the opinions of a couple of economists. They are determined by the interaction of all of the supply and demand factors in the market. What I want to show you next are the results of one of the few comprehensive, fact-based studies to look at these factors and to estimate market-clearing electricity prices across the nation and compare them to current rates.

What you see here are some results from the study "Power Markets in the U.S.," performed by Resource Data International. RDI is an internationally-respected data and consulting firm that specializes in the electric industry. What this study did was take operating cost data from each power plant in the United States, along with price and capacity data for transmission between the various utilities in the country, and with the help of computer simulation, then estimated the market-clearing price that would be faced by each utility in the country. That is, the computer has calculated prices for delivered energy and capacity that would recover at least the vendors' operating costs and that would not be undercut by a profit-maximizing competitor. The study then compared the revenues that utilities would realize from these market-clearing prices to the fixed cost payments each utility makes to its shareholders and in taxes.

Where the revenues from market prices are less than the fixed cost payments, stranded costs are created, as shown in red on the map. Where the revenues from market prices are greater than the utilities current fixed cost payments, negative stranded costs are created, as shown in blue on the map. Note that Minnesota has, according to the RDI study, negative stranded costs of \$764 million, while Illinois has positive stranded costs of \$13.3 billion.

This is far more than mere opinion, or the sorts of "studies" you may have seen that apply abstract economic theory to aggregate data or that make simple analogies to other industries. While the study is complex, and may or may not be fully accurate, it provides unavoidable evidence that different states will have drastically different results from the sort of deregulation that has been passed in New Hampshire, California, Pennsylvania, and is being contemplated in the Schaefer bill in Congress and even in some bills in front of this legislature. It strongly

suggests the very real possibility that prices in Minnesota, like in Wisconsin, Iowa and the Dakotas, could increase from deregulation, at least in the short run. What it really argues, and I think fairly convincingly, is that we can not simply copy the policies of the red states on the map without creating the very real risk that Minnesota's consumers and our economy will be harmed instead of helped, at least during a transition period of perhaps eight to ten years.

Let's take a minute to think about this difference between Minnesota and a state like Illinois. From a consumer perspective in Illinois, Schaefer-style deregulation makes sense: consumers get to buy from producers who, as we all know, have lower costs of production than ComEd does. This means consumers get lower prices. ComEd's shareholders, however, get hurt -- to the tune of nine billion dollars. Therefore, the state of Illinois is likely to make a deal: consumers get some lower prices now, shareholders get some stranded cost recovery to keep them from being hurt too badly. That's the deal that will be in front of the Illinois legislature this fall: real benefits for consumers, mitigated pain for shareholders.

What happens if we apply the same deal to Minnesota? If Minnesota consumers get to buy from alternative providers, many of whom have higher costs of production, at higher market clearing prices, there is no consumer benefit. There is consumer harm, at least to the residential and small business customers who don't have the buying power to sign rock-bottom price contracts with low cost producers. By the way, why would huge international firms like USX be signing these long-term contracts with Minnesota Power if they don't expect higher prices from deregulation? And while consumers will be harmed by higher electricity prices, the same higher prices will make the value of generating assets increase for shareholders. They will get windfall profits, while consumers get higher prices. That's what the map shows. That's the deal that could result from enacting a policy in Minnesota that is pro-consumer in Illinois.

I hope this shows you that the Scheafer approach, and any approach that does not explicitly protect against this kind of price increase, runs the risk of being bad for Minnesota's consumers and for our economy. We do not need higher prices for our electricity. We should not adopt policies that have even a reasonable likelihood of increasing prices for electricity. Instead, we should approach restructuring with the following principles:

Minnesota is different: we should develop a "Minnesota model" for low cost states to adapt to an increasingly competitive electric industry.

We should move in a time frame that allows us to learn from other states' successes and failures--including low cost states like Montana that have gone ahead and adopted a "high cost state model" bill.

We need to find ways for competition to bring lower prices and better service to all Minnesotans.

Let's "trust but verify" that competition will benefit consumers--develop *consumer protections* that allow consumers to get better competitive deals, *without having to put their current prices and service at risk first.*

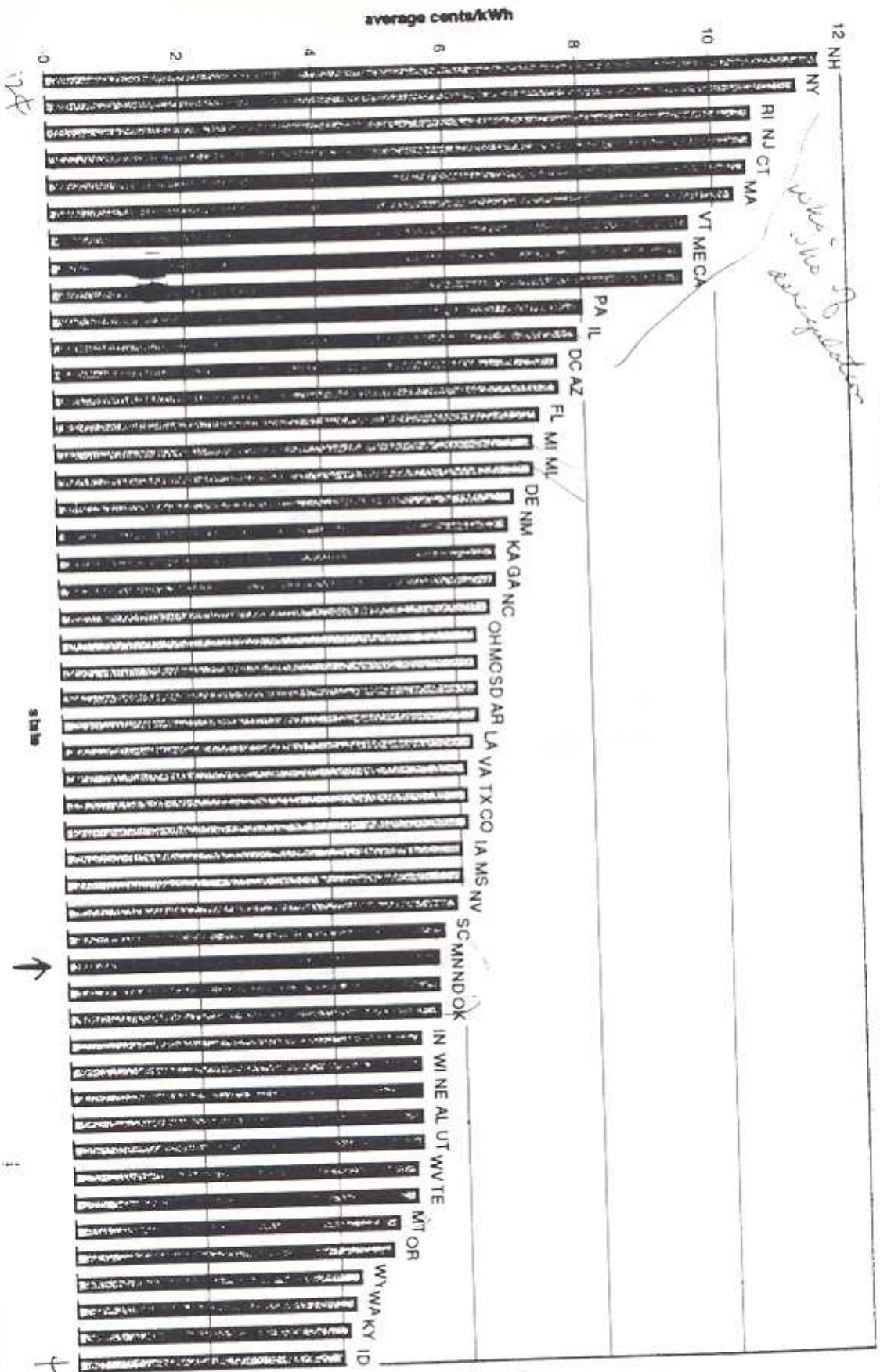
shouldn't  
initiate  
New Approach

I'd like to add that I recently saw the results of the Jefferson Center's citizen jury, and was heartened to see that, like our office, informed citizens are not opposed to competition, but they do want real consumer protection to make sure that Minnesota consumers are not harmed by restructuring. And I get some personal satisfaction from that, because I was the witness who addressed the jury on consumer protection issues. And while I was not aware at that time of the RDI study, the main issue I stressed to the citizens was the possibility that competition could create either higher or lower prices, and the resulting need for consumer protection against the possibility of price increases. And I suspect that as more and more informed citizens become aware of the information I have presented to you today, they will further underscore the jury's perception that competition and customer choice for electricity production may be good things, but only as part of a package that offers effective protection against higher prices, market power, decreased reliability, environmental degradation, and unfair business practices like the slamming and loading you are working so hard to eradicate in the telephone industry.

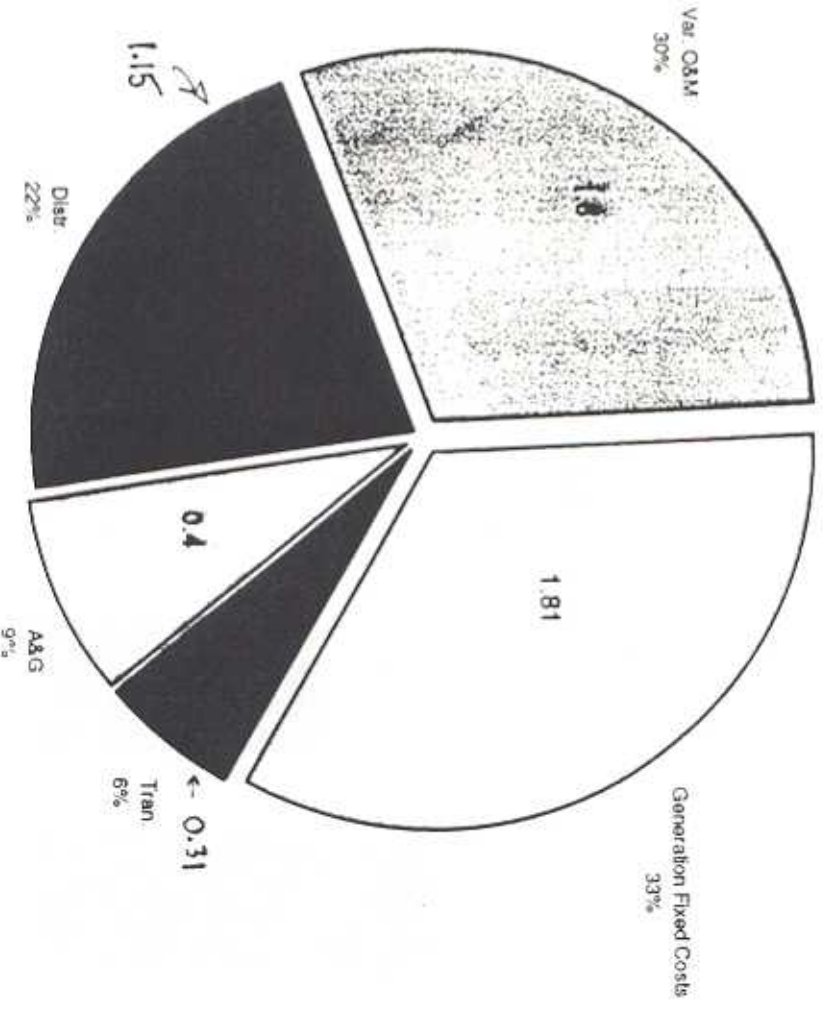
Our office looks forward to working closely with the task force and with the legislature as a whole to achieve these goals. Thank you for your attention, and I am available to answer any questions you have.



# Average 1996 electric rates, ranked by state



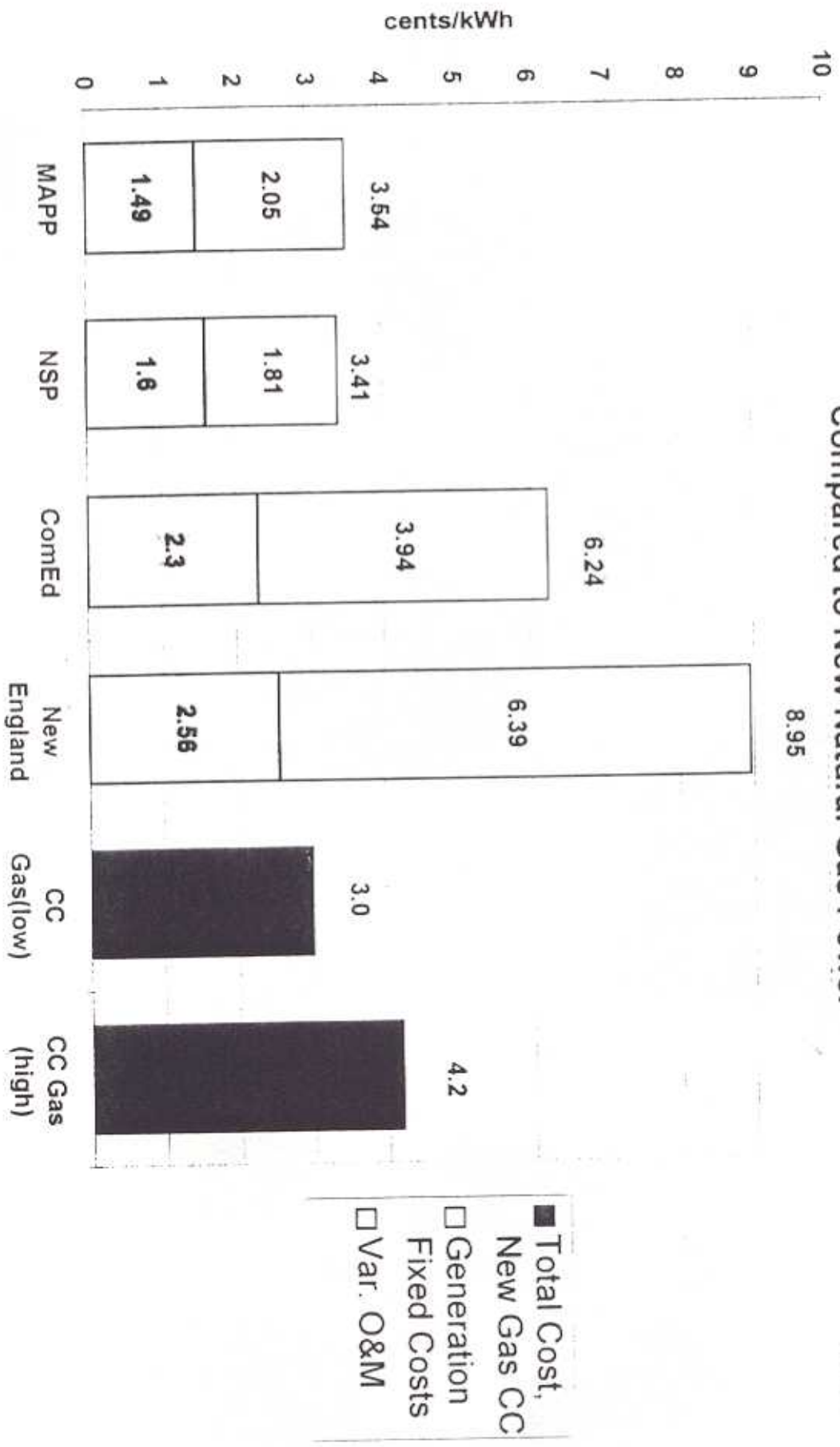
## Components of NSP's Average Rate of 5.33 Cents/kWh



\*The costs and average rate from Public Utilities Fortnightly, June 15, 1997.  
 †The costs and average rate from MPUC Unbundling Subcommittee

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 7/22/97

**Costs of Potentially Competitive Existing Generation  
in MAPP, NSP, ComEd, New England,  
Compared to New Natural Gas Power**



*included costs  
All new cost  
generation  
negative standard  
costs*

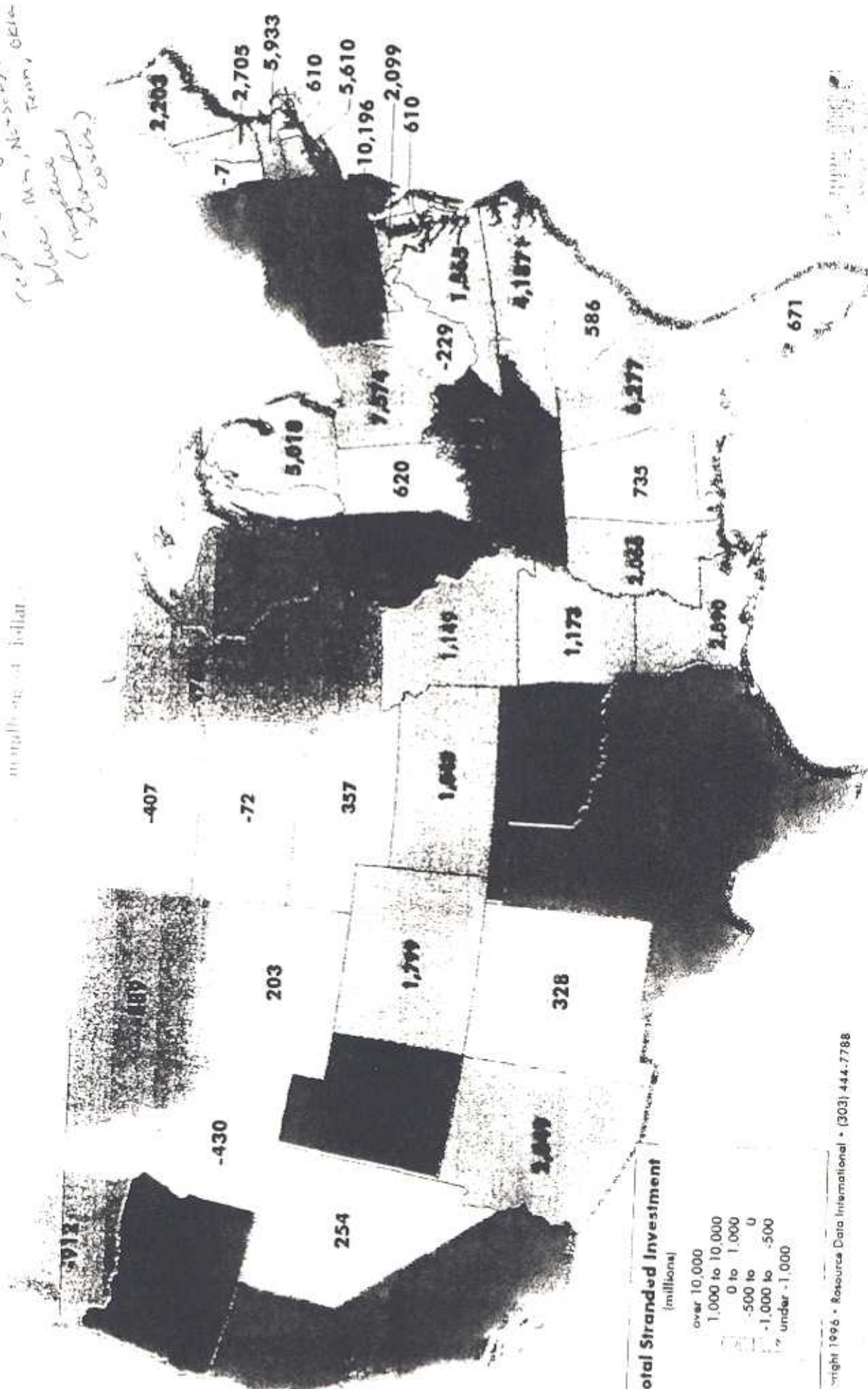
*comparing*

*Complete the grid  
with your data*

# RDI's Estimate of Net Stranded Investment

from Power Markets in the US, 1996

*red - Calif, NY, PA, IL, TN  
NH  
blue - Md, No-SD, Wis, IA, OK, Ark  
white - (unstranded  
investments)*



**Total Stranded Investment**  
(millions)

- over 10,000
- 1,000 to 10,000
- 0 to 1,000
- 500 to 0
- 1,000 to -500
- under -1,000