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The New Electric Powerhouses: Will They Transform Your Life?

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# **ESSAY**

# THE NEW ELECTRIC POWERHOUSES: WILL THEY TRANSFORM YOUR LIFE?

By Suedeen G. Kelly\*

Over the last thirty years the price of electricity has soared. This spurred experimentation with competition in the generation of electricity. In 1992, Congress promoted wholesale competition in the generation of electricity with the passage of the Energy Policy Act. The year 1999 finds seventeen states embarking on retail competition in generation. They are looking for choice, lower costs, and innovation-typical attributes of a competitive market-but they do not want to lose the reliability, universal service, and environmental protection that the regulated generation monopoly brought us. Trying to achieve all of these goals poses an enormous challenge for state policy makers. The issues they must resolve are difficult ones, and some of them are novel to regulatory policy. They include recovery of stranded costs, criteria for approval of mergers and acquisitions, and cost-shifting from large to small electricity consumers. So far the states have worked to solve these uncommon problems with uncommon sense. They are proceeding slowly, on a state-by-state basis, using consensus-building processes, and showing willingness to devise creative solutions that will also be politically acceptable. While this is the very process that foretells a successful transition to a restructured industry, it is threatened by objections that it is too slow, lacks uniformity, and results in solutions at odds with our economic models. These objections have merit. However, they should not be heeded because their merits are outweighed by their costs.

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#### I. Introduction

I originally titled this talk: "Nothing Shocks Us Anymore, Including Electricity." Although this statement is arguably true, upon reflection, I thought you might be put off by it, thinking my presentation would involve disclosing some of the shocking revelations by Monica Lewinsky or Jerry Springer. So, instead, the title of my talk is, "The New Electric Powerhouses: Will They Transform Your Life?" This title sprang from a conversation I had last May with my often-wise, always blunt, best friend, Barbara. She was also once my student. I told her I was coming here to speak about the restructuring of the electric industry and I was wondering whether to talk about the issue of stranded costs or market power or both. She looked at me with horror in her eyes and blurted out, "Don't talk about either of those topics, talk about something interesting."

"Oh," I thought to myself. "I thought they were interesting."

I left for a beach vacation several days later, determined to think of something "interesting" to say tonight, and still without a title. Serendipity struck. In the Summer Fiction issue of *The New Yorker* magazine, which I had picked up for beach reading, was a fascinating article by the playwright Arthur Miller, about—amazingly enough—how his life had been changed by electricity. I My decision was made. If the editors of *The New Yorker* thought how our lives have been changed by electricity was interesting enough to publish an article on it, then Barbara would have no choice but to approve my topic: how our lives will be changed by the new electricity. In reaching this decision I thought it appropriate to overlook the fact that I am not Arthur Miller, and *The New Yorker* has not accepted this talk for publication. And I have one more confession to make: I am going to sneak in some stuff on stranded costs and market power.

#### A. Where the Electric Industry Is Today, and Where It Has Come From

Before we get into the future of the electric industry, I think it is important to set the scene of where the industry is today and review where it has come from. Also, I'd like to pay some tribute to Arthur Miller who has described the electric industry so endearingly. Miller begins his article, which he titled *Before Air-Conditioning*, in the summer of 1927 in New York City. He tells us how kids would cool themselves off on hot summer afternoons: by jumping on the back steps of horse-drawn ice wagons and stealing a few chips—which smelled vaguely of manure but cooled the tongue.<sup>2</sup> Families would try to keep cool at night by dragging their mattresses out to the fire escapes and sleeping there in their underwear.<sup>3</sup> Hundreds of people would spend the night on the grass in Central Park next to their big alarm clocks that tick-tocked all night until they rang a

<sup>&</sup>lt;sup>1</sup> Arthur Miller, Before Air-Conditioning, The New Yorker, June 22 & 29, 1998, at 144.

<sup>&</sup>lt;sup>2</sup> Id. at 144.

<sup>3</sup> Id.

cacophony in the early morning so people could head home for a shower before work.<sup>4</sup>

Another way of looking at life in New York City in the summer of 1927 is that, although Thomas Edison opened his first electric lighting plant in 1882,<sup>5</sup> electricity had not yet begun to change our lives—because the infrastructure to deliver it efficiently to us had not yet evolved.

### B. 1940s: Electricity Is a Big Business

Miller forwards his story to the summers before the War when there were open-air electric trolley cars on Broadway, but still no air-conditioning. People unable to endure their apartments at night in 1940 had another option: they could pay a nickel and ride aimlessly through the city for hours to cool off in the breeze caught by the open trolley.

Another way at looking at this situation is that, by 1940, electricity had become a big business. Indeed, across the country, every town had an electric utility that generated, transmitted, and distributed electricity in its franchised area.<sup>6</sup> Sometimes the utility was owned and operated by the municipality; today we call it "public power." More often, the franchise was given to an investor-owned, private company.<sup>7</sup> In return for a monopoly to serve, the company would agree to serve everyone, without undue discrimination, and have its rates regulated by the municipality.<sup>8</sup>

By 1940, many rural areas also had electricity because the Rural Electrification Administration, which was created during the Depression, offered low-interest capital to individuals in rural areas who wanted to join together to bring electricity to their homes, farms, and ranches. These rural electric cooperatives live on today, though many now serve large cities and industrial customers. In all these utilities, the business of generating, transmitting, and distributing electricity was bundled into one company: a fully integrated monopoly.

#### C. 1960s: The Electric Industry Has Matured and Is Successful

Miller ends his chronicle with the recollection that summers really began to improve in the early 1960s when the first air-conditioners were installed in the best hotels in the city. 11 Actually, at first they weren't re-

<sup>4</sup> Id.

 $<sup>^{5}</sup>$  National Elec. Mfrs. Ass'n, A Chronological History of Electrical Development 49 (1946).

 $<sup>^6</sup>$  David E. Nye, Electrifying America: Social Meanings of a New Technology 388 (1990).

<sup>&</sup>lt;sup>7</sup> Id.; see also Suedeen G. Kelly, Municipalization of Electricity: The Allure of Lower Rates for Bright Lights in Big Cities, 37 Nat'l Resources J. 43 (1997) (discussing the recent increase in efforts by municipalities to take over electric utility service provided by private companies).

<sup>&</sup>lt;sup>8</sup> Timothy J. Brennan et al., A Shock to the System: Restructuring America's Electricity Industry 4 (1996).

<sup>&</sup>lt;sup>9</sup> Nye, supra note 6, at 314-35 (discussing the Rural Electrification Administration).
<sup>10</sup> Id. at 20.

<sup>11</sup> Miller, supra note 1, at 147.

ally "installed." They rolled about the room on casters. And they needed to be filled regularly with water poured from pitchers. However, on the initial filling, the machine would spray water all over the room, so you had to face it toward the bathroom rather than the bed. 12

Another way of looking at this slice of life in the 1960s is that the electric industry had matured and was on a roll. The municipal electric systems had expanded and formed a pretty efficient, nationwide grid. Municipal regulation had given way to state regulation. Power moved routinely across jurisdictions over the high voltage transmission wires, and these wholesale transactions were regulated by the federal government through the Federal Power Commission, now the Federal Energy Regulatory Commission. Both federal and state regulation were successful and the postwar electric industry grew steadily, like our overall national economy. Technology improved too. The utilities built larger generating stations, capturing economies of scale. Electric rates were low. The industry was established, reliable, and efficient. It enabled the invention and widespread distribution of air-conditioning and other marvels of an electric age: refrigerators, dishwashers, and even Disneyland-at-night.

This is where Miller ends his story: with the transformation of our summer lives through air-conditioning. But this is where the story of the impending transformation of the electric industry begins. And the question is, will it happen and will it change our lives yet again? In ten years, will Arthur Miller be able to write a sequel to *Before Air-Conditioning*? A lot of people hope so, and that is what is driving the efforts in so many states to restructure the electric industry.

# II. BACKGROUND: THE PUSH TO RESTRUCTURE THE INDUSTRY TO ACHIEVE COMPETITION IN GENERATION

# A. 1960 to 1998: Prices Rise and Competition Evolves in an Effort to Keep Prices Down

In the last thirty years, electric prices in many service areas have gone through the roof. It began with the lure of cheap nuclear power in the 1960s, which turned out to be very expensive. <sup>19</sup> It was aggravated by inflation, high interest rates, and high energy costs in the wake of the Arab oil embargo of 1973. <sup>20</sup> These cost increases led to consumer conservation just at the time new long-lead-time electric generation was coming on-line

<sup>12</sup> Id.

<sup>13</sup> Brennan et al., supra note 8, at 21.

<sup>14</sup> Id. at 21-26.

<sup>&</sup>lt;sup>15</sup> Leonard S. Hyman, America's Electric Utilities: Past, Present and Future 127 (1995).

<sup>&</sup>lt;sup>16</sup> Joseph P. Tomain, *Electricity Restructuring: A Case Study in Governmental Regulation*, 33 Tulsa L.J. 827, 833 (1998).

<sup>17</sup> Id.

<sup>18</sup> Hyman, supra note 15, at 127.

<sup>&</sup>lt;sup>19</sup> See Joseph P. Tomain, Nuclear Power Transformation 2-4 (1987) (discussing the costs of abandoning, canceling, converting, and delaying nuclear plants).

<sup>&</sup>lt;sup>20</sup> Tomain, supra note 16, at 834.

and also needed to be financed.<sup>21</sup> The glut of expensive generation capacity, which consumers nevertheless had to finance, shot up electricity prices.<sup>22</sup> People looked for new ways to bring them down. Experimentation with competition in generation, which had long been a monopoly of the electric utility, began (Figure 1).<sup>23</sup>

# B. Independent Generation Grows from a Small Beginning in 1978 to a Real Presence by 1996

In 1978, after the Arab oil embargo, Congress passed the Public Utility Regulatory Policies Act<sup>24</sup> to encourage the creation of nonutility generators of electricity that were small and efficient or used alternative energy resources like wind and hydropower.<sup>25</sup> Congress required the local utility to buy the power these independent generators put out.<sup>26</sup> This was a real change for the electric industry, although, on balance, the change was small. Only a small class of generators qualified for this treatment. While these generators could sell their power to the local utility, they did not have access to the utility's transmission lines to wheel their power to any other utility.<sup>27</sup>

The big change occurred in 1992 when Congress passed the Energy Policy Act.<sup>28</sup> This legislation spurred increases in the building of nonutility generation by effectively requiring utilities to give these generators access to their transmission lines to wheel their power to other utilities.<sup>29</sup> However, the new market for independent generators is not without limit. These generators can only sell wholesale power; they cannot sell retail power.<sup>30</sup> This means that while they can sell power to utilities, they cannot sell power to individual consumers. Congress did not expand the independent generators' market to include retail sales because the retail wheeling of power historically has been controlled by the states, and Congress chose not to invade the states' historic jurisdiction.<sup>31</sup>

# C. Today: The New Electric Powerhouses Are Establishing Themselves in the States

Today, numerous states are deciding to unbundle or split off the generation part of the business from the utility monopoly and to allow all

<sup>&</sup>lt;sup>21</sup> *Id*.

<sup>&</sup>lt;sup>22</sup> *Id*.

<sup>&</sup>lt;sup>23</sup> Hyman, *supra* note 15, at 339, 348.

 $<sup>^{24}</sup>$  Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified in scattered sections of 16 U.S.C.).

<sup>&</sup>lt;sup>25</sup> Id. §§ 824a-3, 824j.

 $<sup>^{26}</sup>$  See American Paper Inst., Inc. v. American Elec. Power Serv. Corp., 461 U.S. 402 (1983).

<sup>&</sup>lt;sup>27</sup> Hyman, supra note 15, at 343-44.

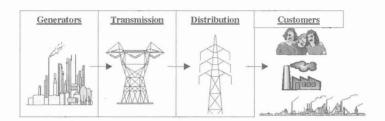
<sup>&</sup>lt;sup>28</sup> Pub. L. No. 102-486, 106 Stat. 2776 (1992) (codified as amended in scattered sections of 16 U.S.C., 25 U.S.C., 42 U.S.C.).

<sup>&</sup>lt;sup>29</sup> Notice of FERC Order No. 888, 61 Fed. Reg. 21,546 (May 10, 1996).

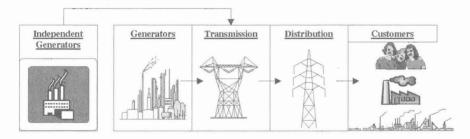
<sup>&</sup>lt;sup>30</sup> Tomain, *supra* note 16, at 840-41.

<sup>31</sup> Act of Aug. 14, 1935, § 722(3)(g)(h), Pub. L. No. 90-248, 81 Stat. 915 (repealed 1968).

# Utility 1930s to 1978



# Utility 1978 to 1996



# Utility 1996 to Future

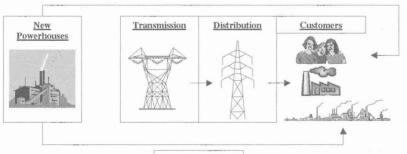


Figure 1

generators, whether owned by a utility or not, equal access to the transmission and distribution systems owned by the utility.<sup>32</sup> This will result in a competitive business: new electric powerhouses. Thus, electric industry restructuring is a move from generation, transmission, and distribution "combined and neat" to "generation discrete." This change will allow all consumers to choose from whom their electricity will come.

## D. An Awesome Change for Society, But Hopefully Not Cataclysmic

The severance of generation from the traditional utility monopoly on the diagram (Figure 1) might make it seem easy to accomplish, but I do not really want to convey that impression. Actually, I think the change is more like the earthquake that took place in the Pacific Ocean last July. While there was hardly a ripple on the surface of the ocean, the shift of the fault on the ocean floor tore apart geologic structures that had been knitted together over centuries and set off a disastrous tidal wave that eventually hit the northern coast of Papua New Guinea.33 Over the years that the electricity industry matured, institutional structures have been knitted around and have reinforced the integrated monopoly organization. Besides business relationships, these include economic, political, and legal institutions designed to regulate the industry economically in order to protect society from the dangers of monopoly. The dangers include economic power, high prices, discrimination in pricing and delivery of power, and unreliability. In changing how the industry is structured, we also are tearing apart these institutional structures. The magnitude of the change will be awesome. Many fear that the change will also be cataclysmic, like the earthquake. This well-placed fear is one reason why change has been undertaken cautiously in the states (except in California, which I guess should not be surprising, because Californians are probably numb to the fear of cataclysmic change).

### III. GOALS OF RESTRUCTURING: CHOICE, LOWER COSTS, AND INNOVATION

In summary, we are restructuring the electric industry to achieve competition in generation with the new electric powerhouses. Why? The hope is to gain three things our regulated monopoly is not providing today: choice, lower-cost electricity, and greater innovation. The fear is that we will lose three things we do have today: reliability, universal service, and, to an extent, environmental protection.

In the past, we wanted our ice automatically dispensed from sanitary machines—so much so that, although we did not really want to lose horse-drawn ice wagons, we were willing to sacrifice the wagons for a better way of life. Today, we want to move beyond air-conditioning only if we

<sup>&</sup>lt;sup>32</sup> See 1997 U.S. Energy Info. Admin., Electricity Prices in a Competitive Environment: Marginal Cost Pricing of Generation Services and Financial Status of Electric Utilities; A Preliminary Analysis Through 2015 (visited Feb. 23, 1999) <a href="http://www.eia.doe.gov/bookshelf.html">http://www.eia.doe.gov/bookshelf.html</a> [hereinafter U.S. Energy Info. Admin., Electricity Prices].

<sup>&</sup>lt;sup>33</sup> Richard Monastersky, *How a Middling Quake Made a Giant Tsunami*, Sci. News, Aug. 1, 1998, at 69.

move up to Air-Conditioning II. We are adamant about not losing the way of life associated with air-conditioning. How far are we willing to go to accomplish the goals of restructuring? Do we think choice, lower cost, and innovation will change our lives significantly enough to risk reliability, universal service, and environmental protection? Or, better yet, can we save the good things regulation brought us and still have the best of competition? These questions can be answered initially by examining how much people seem to want choice, lower-cost electricity, and innovation.

#### A. Choice

The desirability of being able to make a choice cannot be underestimated. This point is demonstrated by the story of a young gymnastics teacher in Siberia, as told by Martin Cruz Smith in his best-selling novel, *Gorky Park*. <sup>34</sup> While fishing on a lake, the teacher falls through the ice. The temperature is minus forty degrees. His choices: stay in the water and freeze to death in forty seconds, or crawl out and freeze to death immediately. Smith writes, "He looked up at us; I'll never forget that look. He couldn't have been in the water for more than five seconds when he pulled himself out . . . [b]ut he got out, that was the important thing. He didn't just wait to die."<sup>35</sup>

Having the freedom to make a choice is a freedom of fundamental importance to most of us, though sometimes the choices are very difficult to make. We are not, however, facing death in Siberia. We can continue to let utilities buy electricity under the watchful eyes of regulators, or we can give ourselves the power to make that decision. This power will likely be difficult to exercise. Nevertheless, people all over the country are demanding it.

#### B. Lower Cost

<sup>34</sup> Martin Cruz Smith, Gorky Park (1981).

<sup>35</sup> Id. at 214.

<sup>&</sup>lt;sup>36</sup> U.S. Energy Info. Admin., *Electricity Prices*, supra note 32, at ix.

<sup>37</sup> Notice of FERC Order No. 888, supra note 29, at 21,544.

<sup>&</sup>lt;sup>38</sup> See U.S. Energy Info. Admin., *Electricity Prices*, supra note 32, for a comprehensive study of how prices for electric power supply and related services will change in a competitive marketplace. For example, the report estimates that average electricity prices could drop by as much as 13%. *EIA Sees Lower Electricity Prices Under Restructuring—With Caveat*, Inside F.E.R.C., Aug. 18, 1997, at 3.

#### C. Innovation

As for innovation, some people believe that in the post-air-conditioning future lies the fuel cell. Fuel cells currently exist, but mostly in a prototype mode. They produce electricity by converting liquid fuel into electricity through a chemical, catalytic reaction rather than combustion.<sup>39</sup> Until recently fuel cells were so expensive, fragile, and time-consuming to fabricate that they were only practical for specialized uses like in space craft.<sup>40</sup> Due to some technological advances initiated by the Gore Company, including putting their signature product, Gore-Tex, into the membranes of fuel cells, cells being tested today are powerful, flexible, and reliable.41 While they are still expensive, the emphasis now among researchers has shifted from making fuel cells work, to making them work cheaply.<sup>42</sup> Last June, the *New York Times* reported that a prototype fuel cell system about the size of a central air-conditioning unit was installed in a house in suburban Albany to supply all its electric power, and it quoted an Assistant Secretary of the Department of Energy as saying, "The launch of a fuel-cell-powered house is up there with the introduction of the electric refrigerator, the room air-conditioner and the fluorescent light."43 While I cannot fully appreciate how fuel cells might change our lives, I can see that a future with fuel cells could equate to a future without generators, transmission lines, or distribution lines. Eliminating these will be much more positive than losing horse-drawn ice wagons. Getting cool without having to sacrifice clean air to the pollutants of generators will probably be even better than getting cool without having to sacrifice the open space of Central Park at night.

#### IV. STATE RESTRUCTURING EFFORTS

A dream of many people is that the Summer of the Future in the electric industry can be even better than the Summer of '98, and they have acted to realize that dream. To wit, twelve states have passed legislation to restructure their electric companies. These states include the usual suspect, California; but also the unusual, Arizona, Montana, and Oklahoma; and the unusually thoughtful, Connecticut, Illinois, Maine, Massachusetts, New Hampshire, Pennsylvania, Rhode Island, and Virginia; as well as the uncategorable, Nevada (Figure 2).<sup>44</sup> Another five states are embarking on

 $<sup>^{39}\,</sup>$  Mathew L. Wald, Fuel Cell Will Supply All Power to a Test House, N.Y. Times, June 17, 1998, at A28.

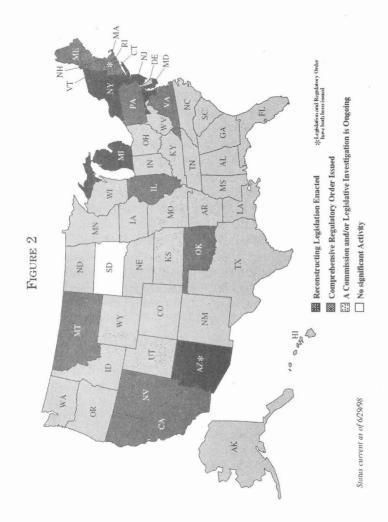
<sup>40</sup> Id.

<sup>&</sup>lt;sup>41</sup> *Id*.

<sup>42</sup> Id.

<sup>43</sup> Id.

<sup>&</sup>lt;sup>44</sup> Cal. Pub. Util. Code § 391 (West 1998); Ariz. Rev. Stat. Ann. § 30-803 (West 1998); Mont. Code Ann. §§ 69-8-101 to 69-8-104 (1998); Okla. Stat. tit. 17, §§ 190.1-190.9 (1998); Conn. Gen. Stat. Ann. § 16-244 (West 1998); 220 Ill. Comp. Stat. 5/16-101 to 5/16-130 (West 1998); Me. Rev. Stat. Ann. tit. 35-A, §§ 3201-3217 (West 1998); Mass. Gen. Laws ch. 164, § 1A (1998); N.H. Rev. Stat. Ann. § 374-F:1 to 374-F:7 (1998); 66 Pa. Cons. Stat. Ann. §§ 2801-



restructuring by regulatory order,<sup>45</sup> and at least seven other states have initiated pilot projects.<sup>46</sup>

The states that have developed restructuring plans have, by and large, tried to keep the benefits of regulation we have talked about (reliability, universal service, environmental protection) while also seeking the benefits of competition. Of course, it is one thing to want change and another thing to succeed with it. With the exception of California, none of these states has gone beyond the threshold of restructuring, so it is difficult to predict whether they will succeed. But, by and large, they seem to have gone about solving the problems associated with restructuring in a promising way.

#### A. Common Sense Can Be a Mistake

Always using common sense to solve problems is sometimes a mistake. I believe this is particularly true with the restructuring of the electric industry, where the goals are so uncommon. To succeed in this effort, we need decision makers with uncommon sense. There are three uncommon things going on in restructuring efforts across the states that lead me to believe we may succeed with reform.

### 1. Uncommon Characteristic Number One: Proceeding Slowly

First, we are proceeding very slowly—with, of course, the exception of California. However, we thank California for its bold experiments that so richly benefit the rest of us. Restructuring has been under consideration to some degree in most states since Congress passed the Energy Policy Act<sup>47</sup> in 1992. While seventeen states have announced industry restructuring, sixteen of them are only just getting started.<sup>48</sup> In short, there's been no rush to abandon the old and bring in the new, a sometimes uncommon response in the face of strong political pressure to change.

# 2. Uncommon Characteristic Number Two: Restructuring State-by-State

Second, we are restructuring on a state-by-state basis rather than at the federal level. Although there have been more than a dozen bills introduced in the House and Senate of Congress to restructure at the federal

<sup>2812 (</sup>West 1998); R.I. Gen. Laws § 39-1-43 (1998); 1998 Va. Acts ch. 633; Nev. Rev. Stat. Ann. § 704.976 (Michie 1998).

<sup>&</sup>lt;sup>45</sup> These states are: Maryland, Michigan, New Jersey, New York, and Vermont. 181 P.U.R.4th 185 (Md. P.S.C. Dec. 3, 1997) (Nos. 8738, 73834); 177 P.U.R.4th 201, (Mich. P.S.C. June 5, 1997) (No. U-11290); Docket No. EX94120585Y (N.J.B.P.U. April 3, 1997); 168 P.U.R.4th 515 (N.Y.P.S.C. May 20, 1996) (Nos. 94-E-0952, 96-12); 174 P.U.R.4th 409 (Vt.P.S.B. Dec. 30, 1996) (No. 5854).

<sup>&</sup>lt;sup>46</sup> These states include: Idaho, Iowa, Missouri, New Mexico, Ohio, Texas, and Washington. See U.S. Energy Info. Admin., Status of Electric Industry Restructuring by State (last modified Feb. 1, 1999) <a href="http://www.eia.doe.gov/cneaf/electricity/chg\_str/tab5rev.html">http://www.eia.doe.gov/cneaf/electricity/chg\_str/tab5rev.html</a> [hereinafter U.S. Energy Info. Admin., Restructuring by State].

<sup>47</sup> See supra note 28.

<sup>48</sup> U.S. Energy Info. Admin., Restructuring by State, supra note 46.

level,<sup>49</sup> the word out of Washington is that, at least for the time being, the leadership is not going to move this legislation.

# 3. Uncommon Characteristic Number Three: Using Consensus-Building Processes

Third, it seems in most states, reform is occurring through a variety of attempt-to-build-consensus processes. For example, even in California, which moved quicker than any other state, the administrative proposal was on the table for public comment and rearrangement for twenty months before a final administrative plan was adopted. Then, the legislature scrutinized it for nine months and replaced it with legislation that was the product of a three-week-long, eighteen-hour-a-day, give-and-take marathon negotiation among the California legislative leadership and all the stakeholders in the industry. The restructuring legislation ended up being passed unanimously by both houses of the legislature.

# B. Three Common Sense Threats to This Approach

This restructuring process, which involves moving slowly on a stateby-state basis and taking into account the interests of the many stakeholders in this business, holds promise for successful reform because it fosters novel and creative solutions to the many issues that are implicated by restructuring. However, this uncommon approach is being assaulted on three fronts by objections that are, arguably, common-sense ones.

First, the frustration of some with the slowness and diversity of a state-by-state process is creating pressure in Congress to mandate a universal solution. Second, the common knowledge that there is no pre-existing solution to some of these first-ever problems is creating pressure to duck these issues and restructure without first resolving all the problems. Third, the belief that some problems are plausibly susceptible to solution using existing models is creating pressure to abandon real problem solving and substitute "the model."

I'd like to discuss three restructuring issues that illustrate what I'm talking about, that is, successfully using uncommon solutions for a problem that, arguably and unsuccessfully, could be solved with common solutions.

### 1. Uncommon Example Number One: Stranded Costs—Who Pays?

Common sense is the knowledge a person attains based on society's conventional wisdom. But, as Chris Marianetti, only sixteen years old but

 $<sup>^{49}</sup>$  See, e.g., S. 1276, 105th Cong. (1997); S. 237, 105th Cong. (1997); H.R. Res. 655, 105th Cong. (1997).

<sup>&</sup>lt;sup>50</sup> U.S. Energy Info. Admin., *Treatment of Stranded Costs in States as of April 30, 1998, Appendix E* (visited Feb. 23, 1998) <a href="http://www.eia.doe.gov/cneaf/electricity/chg\_str\_iss\_rpt/appende.html">http://www.eia.doe.gov/cneaf/electricity/chg\_str\_iss\_rpt/appende.html</a>> [hereinafter U.S. Energy Info. Admin., *Treatment of Stranded Costs*].

<sup>&</sup>lt;sup>51</sup> See generally id. (discussing the legislature's adoption of some of the California Public Utilities Commission's decisions and enlargement of others).

<sup>&</sup>lt;sup>52</sup> Cal. Pub. Util. Code § 391 (West 1998).

a national oratory finalist, put it, "Too often common sense serves as a sort of thoughtless mastery, and that is not an oxymoron,"53 In electric industry restructuring, stranded costs are an uncommon problem that cannot be eliminated with a common solution. Stranded costs are what many of today's utility generators are going to have when competition comes to electricity. For example, today generators may need to be paid, say, six cents per kilowatt-hour (Kwh)<sup>54</sup> to cover all the costs of having built, and now having to operate, an electric generator, Today, that's not a problem because they have a monopoly on the sale of electricity, and the regulator will set the price to allow them to recover the six cents per Kwh they need. Tomorrow, however, when the competitive market takes hold and the lower cost generators start producing, the market price might well be just four cents per Kwh. By market definition, today's utility will only be able to sell its power at four cents, although to make ends meet it needs to sell it at six cents. The two cents per Kwh difference is the utility's stranded cost. Who is going to carry this loss? There are only three potential payers: the utility's shareholders, if it's an investor-owned utility, the consumers of electricity, or the taxpayer—or some combination of these.

Different states have approached this issue differently, and with unusual ideas. In California and Massachusetts, for example, utilities are potentially going to be able to recover all stranded costs associated with their own generation facilities from consumers. Although, in California the recovery period is four years, while in Massachusetts it is ten years.<sup>55</sup>

In Connecticut, in order to recover from consumers the stranded costs associated with their generation facilities, utilities must first sell their generation assets.<sup>56</sup> They must sell their nonnuclear generation by January 2000 and their interest in nuclear generation by January 2004.<sup>57</sup> Each state has a variation on how stranded costs will be determined and how they will be recovered.<sup>58</sup>

The threat to continuing to solve the stranded-cost problem in this case-by-case mode is the notion that a universal solution to this issue would expedite the restructuring process and add certainty of outcome for all stakeholders. Indeed, this is a common sense solution, but it is a thoughtless one because the issue of stranded costs is much more than an economics issue. It is a big values issue, especially to consumers. Many of today's consumer advocates were involved in administrative disputes in the 1970s and 1980s over the building of these generators. They took the position that they were too costly to build. They lost the cases then. Now they are in an "I told you so" mood. They are angry at having had to pay

 $<sup>^{53}</sup>$  Chris Marianetti, Uncommon Sense, Oration at National Forensic League Competition (June 19, 1998).

<sup>&</sup>lt;sup>54</sup> A kilowatt-hour (Kwh) is "the amount of electricity produced by running a generator that is one kilowatt in size for one hour." HYMAN, *supra* note 15, at 4.

<sup>&</sup>lt;sup>55</sup> Cal. Pub. Util. Code § 368 (West 1998); Mass. Gen. Laws Ann. ch. 164, § 1G (West Supp. 1998).

<sup>&</sup>lt;sup>56</sup> U.S. Energy Info. Admin., Treatment of Stranded Costs, supra note 50.

<sup>&</sup>lt;sup>57</sup> *Id*.

<sup>58</sup> Id..

high costs, and they don't want to take it anymore. Many utilities with high-cost generation have suffered, too. Often, rates were set at a level insufficient to recover totally the costs they incurred and their stock values and bond ratings tumbled.<sup>59</sup> They don't want to be handicapped with stranded costs at the same time they look to compete with new entrants in the generation market.

In short, the country's stranded cost problems are local, historical, and ideological, as well as economic. They need to be solved in individual and uncommon ways.

### 2. Uncommon Example Number Two: Utility Mergers—Good or Bad?

In order to achieve all the economic objectives of restructuring (i.e., choice, lower costs, and innovation) the market for generation has to work when all is said and done. Unfortunately, there is a lot we do not yet know about the relationship between the structure of a market and its performance. However, we do know that highly concentrated markets do not usually perform as well as less concentrated markets. If we are to have a competitive market in generation, we need to be concerned about the expected competitive effects of proposed utility mergers, especially with respect to likely future concentration. This is not an easy issue with which to grapple.

Although our antitrust history provides us with quite a bit of data regarding the likely competitive effects of proposed mergers in existing unregulated, competitive markets, there is little available on proposed mergers in new markets being formed by regulators out of regulated markets. This is different because when a market is just forming, particularly when it is forming under a regulatory regime, regulators can and will take regulatory actions that will affect it. For example, in the electric industry, if regulators are willing to take action to force utilities' transmission systems to eliminate transmission constraints regionally or nationally, the electricity market will be broadened and a particular merger might then pose less of a concentration threat.

The bottom line is that developing criteria for approving mergers in the emerging new market is going to be a difficult and complex undertaking. Today, most utility mergers must be approved by the Federal Energy Regulatory Commission (FERC) as well as by the state public utility commissions of the states affected by the merger. FERC only looks at the likely effects of the merger on wholesale competition.<sup>60</sup> The states have exclusive jurisdiction over the effects of the merger on retail competition.<sup>61</sup>

Because this will be a difficult issue to decide, the danger is that state decision makers will forego a serious attempt at analysis and adopt a reflex reaction that could either be that bigger is better, or bigger is worse. Certainly, in some instances bigger will be better, like when it is necessary

<sup>&</sup>lt;sup>59</sup> Hyman, *supra* note 15, at 145.

<sup>60</sup> Federal Power Comm'n v. Southern Cal. Edison Co., 376 U.S. 205 (1964).

<sup>61</sup> Id.

to create a new entrant in the market. But in some instances bigger will not be better because it will have an anticompetitive effect.

About a year ago, in one state, which should go nameless but which I can tell you is situated next to Washington, D.C., and is not Virginia, a merger of the two largest utilities in the state was approved with absolutely no evaluation of the likely effects on retail competition. Et might be said that it was a common sense approach to the merger (not to analyze anticompetitive effects on retail competition) because the state did not have any retail competition in place. However, shortly after the commission approved the merger, which resulted in the newly combined utility serving over eighty percent of the state's market in generation, it announced that it was going to actively consider restructuring the industry in the state.

Needless to say, if the state had initially acted in considering the merger with some thoughtfulness, it likely would not have ended up with the handicap it now has in trying to introduce competition successfully into generation in the state. To quote John Wooden, UCLA's legendary coach with extraordinary success in competitive endeavors, "It's what you learn after you know it all that counts."

In restructuring the electric industry, we are likely going to face numerous problems whose solutions will demand knowledge beyond that which we already have acquired. Success will lie in forcing ourselves to learn more than we now know.

3. Uncommon Example Number Three: Cost-Shifting—From Regulated Rates to Market Rates, or Something In-Between?

In their book, For the Common Good, <sup>64</sup> Herman Daly and John Cobb, Jr., have observed that "[o]utside the physical sciences no field of study has more fully achieved the ideal form of academic discipline than economics." <sup>65</sup> And precisely because of its success, it has been particularly liable to the commission of the "Fallacy of Misplaced Concreteness." <sup>66</sup> The fallacy of misplaced concreteness, as Daly and Cobb explain it, is the application of tried and true economic conclusions to the real world—without recognizing that the seemingly concrete conclusions are actually the product of a high level of abstraction and sometimes are not appropriately applicable. <sup>67</sup> The fallacy of misplaced concreteness is a threat to devising creative solutions to the cost-shifting problem in electric industry restructuring.

The cost-shifting problem arises from the fact that electric utilities have forever been subject to rate regulation. Rate regulators do not like to

<sup>&</sup>lt;sup>62</sup> Richard J. Pierce, Jr., The Antitrust Implications of Energy Restructuring, 12 Nat. Resources & Env't 269, 272 (Spring 1998).

<sup>63</sup> Id.

<sup>64</sup> HERMAN E. DALY & JOHN B. COBB, JR., FOR THE COMMON GOOD (1989).

<sup>65</sup> Id. at 25.

<sup>66</sup> Id. at 35.

<sup>67</sup> Id.

raise rates, particularly residential rates, because of the political fallout that always occurs. I learned this lesson painfully with one of my decisions as a novice rate regulator. A particular utility had sought a rate increase. My fellow commissioners and I ultimately determined the facts necessitated a rate decrease. It would be the first time anyone could recall a New Mexico utility regulator ordering a rate decrease. We announced the decision with great relief that we did not have to order residential rates increased and deal with the usual attendant political fallout. Naively, we thought the residential customers would be happy. But we were quite anxious about the political fallout that might occur at the behest of angry shareholders. We were right to be anxious, but we were wrong about what to be anxious about. The State Attorney General, the advocate for residential consumers, was the angry and vocal one—for our failure to lower residential rates enough. Ah, the pitfalls associated with acting on misplaced conventional wisdom.

One more observation on the subject of residential utility rates: regulators almost universally have tried to keep residential rate increases to a minimum by raising industrial rates a bit more than a politically blind cost analysis would peg them. <sup>68</sup> In economic terms, in today's regulated world, the larger consumers more often than not subsidize the smaller ones. When generation becomes competitive (i.e., when the market sets electricity rates) this will change. Smaller consumers will feel the burden of the shifting costs from the larger consumers to them.

Whether smaller consumers will actually feel a rate increase in a particular jurisdiction in a new market setting is difficult to predict. One New Mexico legislator has said that if it were to happen, it would be political suicide for the legislators or regulators deemed responsible for restructuring. Indeed, even the possibility that residential consumers might not see as big a rate decrease as industrial consumers is a big political concern. In sum, the fact that there will be cost-shifting is an issue that must be addressed in planning for restructuring.

The traditional economics-based solution would be to accept the shifting of costs to smaller consumers as a fact of economic life—indeed a necessary development of the efficient marketplace. "Homo economicus" would say the problem is not the shifting of costs but the negative perception of the shifting of costs. As "Hamlet the Economist" might argue "there is nothing either good or bad but thinking makes it so." <sup>69</sup> The economist's response would be to focus on the negative perception as the problem and solve it by educating the public, or by spin-doctoring, or a combination of both. Thus, the economic argument goes, if the worst happens (such as the rates rise so that the most needy among us cannot afford the new cost of electricity), devise a safety net through the welfare or tax system.

<sup>&</sup>lt;sup>68</sup> See Douglas D. Anderson, Regulatory Politics and Electric Utilities: A Case Study in Political Economy 77-78 (1981) (discussing the political pressure on regulators exerted by residential consumer groups seeking to impose higher rates on industrial users).

<sup>69</sup> William Shakespeare, The Tragedy of Hamlet, Prince of Denmark act 2, sc. 2.

"Homo politicus" would respond that allowing the market to handle this issue as it saw fit would be committing the fallacy of misplaced concreteness, not to mention political suicide.

So far, most states have rejected the common sense economic solution of letting the market handle the cost-shifting issue in its conventional and efficient wisdom. For example, in California the legislature ordered all utilities to freeze customer rates at levels in existence on June 1996, except that rates for residential and small commercial customers must be lowered by ten percent. To allow utilities to accomplish this without losing money, the legislature authorized a secure stranded cost recovery mechanism that resulted in the utilities actually being able to lower their costs. In other words, as the restructured industry moves forward, small customers have been guaranteed a rate decrease.

Cost shifting has been held at bay by a guaranteed rate decrease in a number of states. It is not an elegant mechanism; it is not an efficient mechanism. It is an unconventional mechanism. Will it work? It is too soon to say, but I cannot help but think about the first air-conditioner that Arthur Miller described. A cooling machine rolling about on casters was certainly unconventional. Having to fuel it with pitchers of water was not very efficient. The fact that it spurted water everywhere upon its filling was hardly elegant. But it did come to change our lives, for the better.

Reordering an industry that began one hundred sixteen years ago, that came of age sixty years ago, and that hit productive middle age thirty years ago is an unconventional development. The process going on in the states to restructure the industry is likewise unconventional but seems to be working uncommonly well. I think there is hope that Arthur Miller can write a sequel to his story and call it "Beyond Air-Conditioning."

<sup>70</sup> Cal. Pub. Util. Code § 367 (West 1998).

<sup>71</sup> Id.