

*For power and end-user executives:  
A tool for growth in times of change.*

## LESSONS TO BE LEARNED

By Rodney Olson, *Financial Editor*

Sometimes, with all the talk going on in Washington and state capitols around the country, you would think deregulation is a new phenomenon. But has everyone forgotten what the airline, telephone and natural gas industries went through in recent years? Yes, that's right. They were deregulated too.

### NationScan

*Events and actions that affect the U.S. or multiple states or regions within the country.*

The same arguments that are spurring the move to electric utility deregulation were made when legislators and customers called for competition to begin in those industries. Lower prices! More choices! Improved service! Alfred E. Kahn led the charge for airline deregulation during the Carter years. Judge Greene broke up the telephone mo-

***The same arguments that are spurring the move to electric utility deregulation were made when legislators and customers called for competition to begin in those industries.***

nopoly in 1984. The FERC unbundled natural gas generation and transmission in '92. Deregulation is not new; it's been around along time. But are there lessons to be learned from these experiences? Yes, accord-

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## THE TIMES, THEY ARE A-CHANGIN'

By Thomas Baker  
*President, TXU Electric & Gas  
Distribution Business Unit*

TXU faces changes with change.

Thirty years ago, the Internet was born when 4 Southwestern universities connected their computers in a manner that ensured the computers could communicate in the event of war.

While the network grew to include other universities and research facilities, it wasn't until 1993, when Marc Andreessen and his team at the National Center for Supercomputing Applications developed Mosaic, the graphical browser application for the Web, that the true potential for the Internet was unleashed. Andreessen, of course, went on to lead Netscape in its soft-

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ware war against Microsoft before AOL purchased his company.

But what he created was a defining moment that changed the way companies and consumers around the world do business.

If Andreessen had been asked in 1993 about the changes Mosaic would cause, he never would have predicted what's here today. The same is true for the electric industry and its future under restructuring. There's tremendous potential ahead for changes to benefit consumers and businesses, but to be able to identify them now would be impossible.

What is known, however, is that at every key event in the business world, there are companies that meet the changes head-on and those companies that prefer to wait. Compounding the issue for the electric utility industry is the fact that, in addition to responding to changing business environments, companies will have to change even

## From the Front

*The prize is control of the power industry. As the regulated utilities and those hoping to benefit from deregulating the industry wrestle for the prize, here's a participant's viewpoint. A player will always write this guest column – not an observer on the sidelines.*

the most basic business fundamentals.

The first step for TXU was to identify where our company and competitors were. Then we examined where we wanted to be when competition begins.

### MY vs. THE

Ask customers today about where they get their electricity and most will likely say, "The electric company." Ask them about the vehicle they drive, however, and they'll tell you, "My car is a Toyota," or "My car is a Taurus." In the past, electric companies had captive customers. Even if some companies' customers weren't treated with exceptional service, the customers' only choice was to do without electricity. There was no need for most electric companies to encourage the kind of brand awareness and emotion that other companies, such as car manufacturers, were forced to develop. Those days are nearing extinction.

Electric companies must embrace the consumer and get the consumer to embrace the

***While it hardly would be realistic to hope that consumers would fall in love with an electric provider, it should be every company's goal to be welcomed by the consumer – to become a "my" instead of a "the."***

electric company. While it hardly would be realistic to hope that consumers would fall in love with an electric provider, it should be every company's goal to be welcomed by the consumer – to become a "my" instead of a "the."

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## RegionScan

A region-by-region summary of the key deregulation and restructuring events for the last two weeks. For detailed executive summaries for each state; regulatory and legislative current events updated daily; current maps showing both legislative and regulatory status by state; the full text of all state-level restructuring legislation; and other resources use Deregulation Watch Online at [www.energycentral.com](http://www.energycentral.com).

**New England.** In **Vermont** in early August, 18 municipal and for-profit utilities request regulators to change or cut short power contracts they signed in the 1980s with 20 independent generators; these rates are now much higher than the going rates. Also, the 14-member Vermont Joint Owners (led by Central Vermont Public Service - the state's largest - and Green Mountain Power) and Hydro-Quebec (the largest North American electrical utility) are in third-party mediation over their 1991 contract, which runs to 2020. Over 1,400 Hydro-Quebec workers have been on strike since May 5, but the Canadian says the strike has not affected its exports to New England. The **Maine** Public Utilities Commission opens the bid process through which it will select the standard offer price; bids are due by October 1, and suppliers will be chosen by December 1. By early August, 7 companies had applied to sell power in the state. On August 9, the **New Hampshire** Public Utilities Commission approves the merger of NEES, based in Westborough, **Massachusetts**, and Britain's National Grid Group plc of Coventry.

**Middle Atlantic.** The **New Jersey** Board of Public Utilities (BPU) okays 19 energy service providers to service the state's open-access market; one of them is Exelon Energy, an unregulated affiliate of **Pennsylvania**

based PECO Energy, which will serve all consumer classes. Meanwhile, the first Energy Choice TV ad, part of the BPU's \$13.5 million campaign, catches heat from Blossom Peretz, state Ratepayer Advocate, and other critics for being pro-inertia and not sufficiently pro-customer choice.

**Southeast.** Reliant Energy of Texas joins PG&E of California, Constellation Power Development of Maryland (a BGE subsidiary) and Duke Energy of North Carolina in trying to build a power plant in **Florida**, where demand far exceeds supply. Florida-based utilities have challenged such construction by out-of-staters in the state Supreme Court. **Virginia** regulators push for divestiture by Consolidated Natural Gas of its Virginia Natural Gas subsidiary as a condition of CNG's merger with Dominion Resources, and the merger partners acquiesce on August 9.

**Midwest.** **Wisconsin's** regulators disallow the rate recovery (\$12.2 million) for Y2K expenses sought by Alliant Energy, and the utility vows to pursue every possible path to reverse the ruling. Alliant is the only major utility in the state to be denied Y2K-expense rate recovery. In **Illinois**, the fourth major power failure in less than a week hits ComEd's Chicago-area customers on August 11, intensifying state officials' investigations. According to ComEd spokesmen, the problem appears unrelated to the recent heat wave or to extraordinary demand. On August 12, NiSource announces the installation of an energy micro-cogeneration system - reportedly the country's first - at a Walgreen in Chesterton, **Indiana**, by its subsidiary EnergyUSA. On August 11, Cincinnati-based Cinergy, with 1.4 million customers in Indiana, **Kentucky** and **Ohio**, says it may leave the supply sector and it will intensify its search for a merger partner. The utility's defaults on contracts with several power mar-

keters during July's heat wave cost \$73 million (46 cents/share).

**High Plains.** The **Kansas** Corporation Commission on August 11 throws out the merger agreement worked out between its staff, Western Resources and Kansas City Power & Light. The KCC says the deal negotiated with the **Missouri** regulators is more favorable than that offered Kansas; they want the bulk of any rate relief resulting from the merger to go to KGE customers. On August 12, Topeka-based Western acknowledges both its second-quarter earnings' decline and an SEC query into its Protection One unit's financial statements.

**Southwest.** On August 11, Central and South West Corp., American Electric Power and several **Texas** wholesale customer groups resolve issues raised by their proposed merger.

**Rocky Mountains-Southern.** In **Colorado** on August 11, at the fifth public meeting held by the deregulation task force, most attendees urge the advisory panel to oppose deregulation if such a move is likely to raise rates; the panel's recommendation to the legislature is due on November 1. **Arizona** regulators on August 6 grant Enron Energy Services (EES) a license as a certified energy service provider, and Schlumberger Resource Management Services a license to sell metering services. According to EES VP for the western U.S. Martin Wenzel, the company's focus is on providing companies with energy outsourcing services, and not on residential-customer sales.

**Far West.** New Energy, the **California**-based, AES-owned energy service provider, wanting to add **Nevada** to the 6 states where it is active, files for a business license. □

### CONFERENCE ALERT

**August 23-24.** Fundamentals of Cogeneration & On-Site Generation, Boston. 770-279-4388.  
**August 23-25.** Fundamentals of Buying & Selling Energy, Boston. 770-925-9633.  
**August 23-25.** Electric Utility Fiber Optics, Denver. 800-431-8488.  
**August 23-25.** Energy '99, Orlando. 407-638-1000.  
**August 23-27.** ISH '99, London. 44 1438 313 311.  
**August 23-27.** Comprehensive 5-Day Training Program for Energy Managers, Boston. 770-925-9633.

**August 23-28.** 5th Annual Outage Best-Practices Conference, Clearwater Beach, FL. 813-669-3005.  
**August 24-25.** Winning at Deregulation, Boston. 770-279-4388.  
**August 24-25.** Energy Efficiency, Chicago. 818-902-5400.  
**August 24-25.** Creating a Successful Energy Services Company, Boston. 770-925-9633.  
**August 24-25.** Reliability Centered Maintenance in a Competitive Business Environment Conference, Denver. 303-770-8800.  
**August 25-26.** Competitive Energy Congress '99, Boston. 770-279-4388.  
**August 25-26.** National Industrial & Commercial Efficiency Conference & Expo on Energy & Fac-

ility Management, Boston. 770-925-9633.  
**August 25-27.** SATIS '99, San Juan, PR. 809-832-4040 x2522.  
**August 25-28.** Elenex China 99, N/A. 44 0 171 862 2000.  
**August 26-27.** RCM for Substation, Transmission & Distribution Conference, Denver. 303-770-8800.  
**August 26-27.** Short-Term Load & Pricing Forecasting Workshop, N/A. 619-481-0081.  
**August 26-27.** Energy Companies & the World Wide Web, Boston. 818-902-5400.  
**August 29-31.** Sino-US Energy Development Conference, San Diego. 415-855-2000.

TXU initiated that brand-awareness transformation in mid-May. At the beginning of 1999, the company had more than 36 separate identities through subsidiaries and business units. Some of the names didn't bear a common company identity. Today there are still numerous business units, but all of them are strongly tied to the TXU brand.

Branding can be the strongest differentiator in a competitive market because it enables an emotional reaction by the customer. Companies that have been involved in the competitive environment already know this, or quickly learned it, as AT&T and the Baby Bells did following telecommunications divestiture in 1984.

As part of the TXU branding effort, the company has launched an advertising campaign to reintroduce the company to the customers. This is TXU's first step to becoming a "my" company.

#### **What color would you like?**

Henry Ford once said that his customers could have any color Model T they wanted, "as long as it's black." And that almost could be said about electric service today: You can have any kind of service you want, just as long as it's what the regulators and electric company decide that it's what you need.

The process today for electric products, services and prices, is as follows: Regulators, consumer groups, environmental groups and the utility go through months of discussions and legal procedures. Each side lines up an army of legal minds who debate, arbitrate and litigate the process until finally a single product is offered at a set rate. The process tends to minimize customer flexibility and options.

Now consider what happens when a large national retail chain, such as Wal-Mart,

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***That's why you don't see winter coats in the Florida location and snorkels at the Montana store.***

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opens a new store. A team of experts descends on the city and begins an exhaustive evaluation of what the customers want. The end result is a store located at the most convenient location for customers with a variety of products the consumers want to buy, priced at levels to lure customers away from

competitors but still healthy for the company's bottom line. That's why you don't see winter coats in the Florida location and snorkels at the Montana store.

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***Employees are the first-line interface with customers, and any time a company can make the changes easier for employees, that translates into a better customer experience.***

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Electric utilities must do that in the future. Already TXU has initiated marketing teams to identify what our customers want and how we can deliver. That's resulted in the company offering for the first time a green-power product and a single-source provider for services, including electric, gas, phone and Internet. Those offerings, many for the first time in Texas, are the company's starting line.

#### **Where would they go?**

Even just 5 years ago, planning at an electric utility company was a fairly straightforward process. Statisticians, economists and engineers were assembled and asked to project the demands on the company for 5, 10 and 20 years down the road. The group then went about developing formulas and charts representing their forecast, and their plans to meet that future load growth. The formulas were based on the existing customer base plus anticipated population and business growth in the region.

If reality deviated from those formulas, even by a substantial factor, it rarely was a problem because there was no fear that large segments of the customer base would leave – where would they go?

With customer choice, they'll go to the competitor down the street.

In Business 101, professors teach that consumers make a purchase based on product, price, packaging and placement. The next big challenge for electric companies is to make the company's product the choice of consumers using that set of criteria.

That's easier said than done. A company's culture, which because of its past is oftentimes bound in tradition and bureaucracy, can stifle product rollouts that in a competitive market must be done in days or

weeks rather than months or years. Moreover, the company now must find ways to offer the additional products while achieving greater efficiencies. Confusion, territorialism and uncertainty can quickly overcome the organization.

Through the insights of company executives in the United Kingdom and Australia, where deregulation already had taken place, TXU was able to see the changes coming. TXU developed a preliminary reorganization process that aligned employees' skills with the appropriate business functions that will exist in a deregulated environment. When competition begins in Texas in 2002, the company will be prepared to compete.

It's not to be the last reorganization, to be sure, but it does position the company in a way that any changes in the future likely will

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be adjustments rather than overhauls.

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#### **Putting it all together**

All of the company's efforts to move into a deregulated environment would be moot if the system were designed for failure. Several states in the U.S. have found this out firsthand, and lackluster customer response to deregulation is the result. In Texas, a great deal of effort has been spent to design a good system, and the first step was input from experts.

Corporate America discovered a long time ago that hiring experts is less expensive and more effective in the long run than operating on the learning curve. In the area of operating a successful electric company in Texas, TXU was and is one of the experts offering counsel.

When the state legislature was crafting a law to deregulate the industry, TXU, along with representatives from consumer groups, environmental groups and future competi-

*Continued on page 11*

## **Movement Along the Front**

*Key activities, policies, announcements and rulings by regulatory bodies moving electric utility restructuring forward or backward.*

### **Upcoming Activities**

#### State

#### **Arizona Corporation Commission (602-542-4251)**

8/19. Hearing, Southern Arizona Forum on Electric Transmission Service.

8/30. Hearing, Distributed Generation & Interconnections Workgroup.

#### **Delaware Public Service Commission (302-739-4247)**

8/23-8/24. Commission meetings to address electric restructuring dockets, Dover.

#### **Idaho Public Utilities Commission (208-334-0330)**

8/31. Public hearings on proposed merger of PacifiCorp and ScottishPower.

#### **Oklahoma Corporation Commission**

Joint Electric Utility Task Force; Lee W. Paden, Consultant, (918-743-7007).

8/25. Joint Electric Utility Task Force Meeting, Tulsa.

#### **Vermont Public Service Board (802-828-2358)**

8/26. (Docket 6181). Technical workshop to investigate use of a Net Metering System for the purchase and sale of electricity from small electrical generating systems to and from electric companies.

### **Recent Key Announcements and Rulings**

#### State

#### **Connecticut Department of Public Utility Control (860-827-1553)**

8/4. Connecticut regulators have issued an order stating that United Illuminating can recover \$801 million in stranded costs using a competitive transition charge on consumers' bills. The utility, which had requested recovery of \$900 million in stranded costs, distributes power to customers in the greater New Haven and Bridgeport areas of Connecticut.

#### **New Hampshire Public Utilities Commission**

**(603-271-2431)**

8/10. The New Hampshire Public Utilities Commission has orally approved the merger of New England Electric System and England's National Grid Group. A formal written order is expected in the next few weeks. The merger has received approval by the Federal Energy Regulatory Commission, the Department of Justice/Federal Trade Commission, the Committee on Foreign Investment, the Vermont Public Service Board and the Connecticut Department of Public Utility Control.

#### **Utah Division of Public Utilities (801-530-6651)**

#### **Committee of Consumer Services (801-530-6674)**

7/29. Glasgow-based ScottishPower and Portland, OR-based PacifiCorp announced that the Utah Division of Public Utilities and the Committee of Consumer Services will support and recommend approval of the merger between the 2 companies. In addition to a merger credit of \$10 million in cost savings ScottishPower had already agreed to pass on to customers in Utah, the agreement calls for another credit of \$12 million per year for 4 years starting in 2000.

#### **Virginia State Corporation Commission (804-371-9141)**

8/7. State Corporation Commission Chief Hearing Examiner Deborah V. Ellenberg is standing behind pilot-program rules developed by energy industry and consumer representatives, rejecting suggestions from the SCC regulatory staff that the rules be extensively modified. The rules, developed by a 56-member, industry-consumer task force developed by state regulators, were criticized by regulatory staff who believe the rules would actually discourage competition. However, Ellenberg stated that flexibility in the rules is necessary for the pilot programs to explore ways to implement competition.

#### Federal

#### **Federal Energy Regulatory Commission, Office of Administrative Law Judges (202-219-2500)**

8/2/99. FERC Administrative Law Judge Judith Dowd has issued a ruling stating that if Alma, Michigan forms a proposed municipal utility, it will have to pay Consumers En-

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ergy \$14.7 million in stranded costs. The utility had asked for \$56 million and the city had countered with a demand for zero payments. Dowd's decision was based on the expectation that Consumers Energy would serve Alma for 10 years beginning in January 1996. Dowd did not include load growth in her decision as "including load growth in the stranded costs calculation, in the absence of an examination of how doing this would impact the utility's shareholders, could result in costs being improperly shifted onto those shareholders." □

Prepared by Amy Farrell, *Research Editor*

#### **Legislative Wrap**

Final restructuring statute (20): AR, AZ, CA, CT, DE, IL, MA, MD, ME, MT, NJ, NM, NV, OH, OK, OR, PA, RI, TX, VA.

Bill(s) pending (2): MI, NY.

Task force / transitional legislation (17): AK, CO, HI, IA, ID, KS, KY, MN, NC, ND, NE, TN, UT, VT, WA, WI, WY.

Bill(s) blocked or stalled (9): AL, DC, FL, IN, LA, MO, MS, SC, WV.

Bill(s) not introduced (2): GA, SD.

#### **Regulatory Wrap**

Implementation (10): AZ, CA, CT, IL, MA, ME, MT, NJ, PA, RI.

Final restructuring order (3): MI, NH, WI.  
Transition plans ordered (unbundling, divestiture, stranded costs, pilots) (15): IA, ID, KY, MD, MO, MS, NM, NV, NY, OR, SC, TX, VA, VT, WA.

Studies, hearings, workshops; reports presented or pending (21): AK, AL, AR, CO, DC, DE, FL, GA, HI, IN, KS, LA, MN, NC, ND, NE, OH, OK, UT, WV, WY.

Inactive (2): SD, TN.

## FedWatch

*The federal government and deregulation*

♦ **A national deregulation bill is needed to help prevent the heat-related blackouts experienced in Louisiana** and other states in recent weeks, says U.S. Energy Secretary Bill Richardson. "We think these blackouts are going to be a big boost to getting a restructuring bill passed." The Clinton Administration's deregulation bill has been mired in Congressional committees for more than a year, as have others introduced by Senate and House legislators.

Richardson contends that competition will encourage utilities to construct power plants, which would help alleviate capacity shortfalls when high summer temperatures push demand to record levels. Other ways to meet demand, he says, are by the use of renewable energy sources, such as solar and wind power, and from stronger regional relationships among power utilities.

♦ **The Department of Energy has received a final quarterly report** from the North American Electric Reliability Council (NERC)

stating that, if the transition to Y2K were to occur right now, "the electric utility industry would operate reliably with the resources that are Y2K ready now." The report says Y2K rededication and testing are complete in all but a handful of plants that either have maintenance scheduled for later this year or are awaiting hardware or software shipments from vendors.

The National Rural Electric Cooperative Association says that 86% of the co-ops in a recent survey had achieved Year 2000 readiness by the June 30 deadline set by DOE. Joe Colvin, CEO of the Nuclear Energy Institute, reports that "nuclear power plant safety functions will not be affected by Y2K issues..." Industry-wide drills are scheduled on September 8-9.

♦ **Plans to store the nation's nuclear wastes at a repository in Nevada's Yucca Mountain continue to receive mixed reviews.** The Department of Energy has issued a draft environmental impact statement that concludes the site can safely contain high-level radioactive waste for thousands of years. Environmentalists have charged the agency with ignoring groundwater contamination

potential, saying that water is moving through the ground at a much faster rate than DOE projects. In response, the agency plans to conduct further water-movement studies and concedes that differences in temperature "could focus water flow back toward the repository, resulting in much higher seepage rates than this analysis considered." Only about 4 to 10 inches of water fall on Yucca Mountain each year, but most concede it's the water that will make or break the proposed repository.

The U.S. Geological Survey also questions the DOE's plans, saying the public "should know that the choices are not clear cut and that none is without risk." However, leaving the waste at more than 100 sites around the country "would pose greater risks to a broader range of society than consolidating the material all at one site," says Geological Survey researcher Tom Hanks.

The federal government has already spent \$3 billion studying the site, with total costs to finish and operate the repository estimated at \$43 billion over the next century.

Nevada Gov. Kenny Guinn has vowed to formally object to a green-light decision. □

## WorldScan

*Electricity issues outside the United States*

### ♦ Pacific Rim

**Australia** needs to simplify its regulatory system to encourage further development of its power sector, according to speakers at the National Power conference. "Australia may be the most complicated regulatory regime I have worked with in 23 countries around the world," says Terence Thorn, Enron executive v.p. for international government relations and environment affairs. The regulatory system includes state-based regulators, the Australian Competition and Consumer Commission, and the National Electricity Code Administrator.

Ian Nethercote, chief executive of Loy Yang Power, calls for a uniting of the Victorian Office of the Regulator General and the New South Wales Independent Pricing and Regulatory Tribunal: "It is no longer appropriate to have them sitting there and operating on a state-by-state basis under different rules."

Also at the conference, it was predicted that the privatization of the country's remaining gas and power assets could bring in a total of A\$70 billion, based on earnings multiples paid for Victoria's assets. Victoria completed a gas and power privatization process earlier this year that fetched A\$29.5

billion in bids. The number of energy retailers was projected to decline to a half dozen or so, down from the current 20+ participants, as the household sector opens up to competition on January 1, 2001.

Alan James, Deutsche Bank head of global utilities and energy, predicted that Victoria would have 2 to 3 retail companies, with the cross-ownership restrictions between retailers and generators due to be repealed in the next several years.

In the **Philippines**, questions continue to plague deregulation efforts as the country considers an Omnibus Electricity Bill that would unbundle the transmission function of Napocor from its generating facilities. Complicating the matter is a universal levy in the current power rate system that represents Napocor's stranded costs, or excess debt - a result of contracts it signed with independent power producers (IPPs) in the early 1990s. Buying electricity from IPPs was seen as a method to supplement Napocor's power generating capacity, which has been hindered by inefficient power plants.

No one is predicting lower prices for electricity in the near future as a result of restructuring, "but power rates will go up if we don't do anything," according to Fernando Roxas, head of Napocor's privatization and restructuring office.

The omnibus bill calls for the transmission

of electricity through high-voltage wires to be handled by Napocor with strategic partners, and distribution via low-voltage wires to stay under the ownership of Meralco.

Says Manuel Lopez, head of Meralco, "...distribution franchises are natural monopolies because the power distribution business requires efficiency levels best attained through economies of scale and integrated systems."

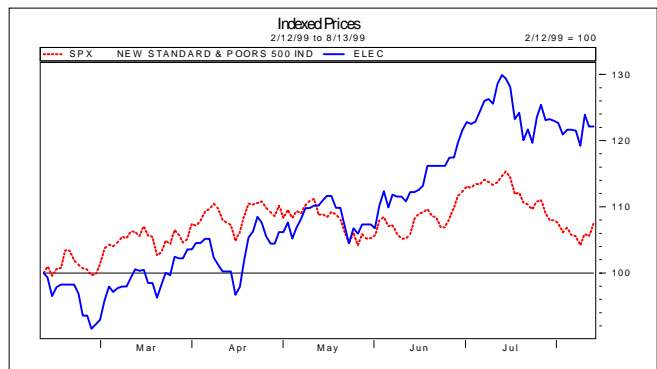
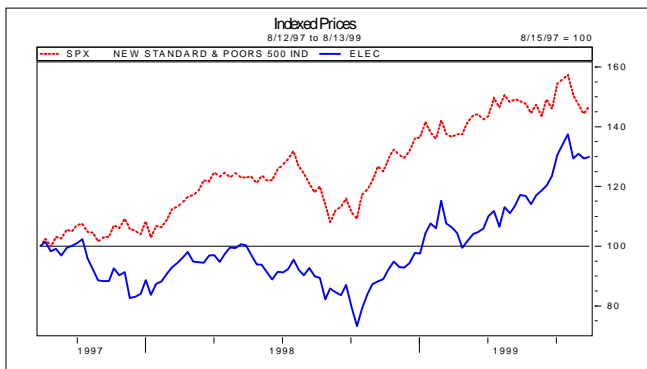
Deregulation, even if implemented today, is still expected to take more time than is left in the Estrada Administration's term of office, leading to questions about who will be in charge of long-range planning.

### ♦ Europe

Utility regulators in Great Britain should be amalgamated into a single body as companies are increasingly offering a wide range of services to their customers, including electricity, gas, telephony and water. This from David Varney, BG chief executive, who says BG's gas pipeline operator Transco wants to simultaneously install electricity lines, gas and water pipes, and new interactive media cables. Lower prices for consumers would result "because we would only need to dig up the roads once," he contends. Varney calls for combining the regulators - Ofgem for electricity and gas, Ofcom for telecommunications and Ofwat for water - into a single entity with the working name of Ofutil. □

**ELECTRIC STOCK PRICE MOVERS AND SHAKERS**

Top Gainers							Under Performers						
		Price Change							Price Change				
		Two				12-Mon			Two				12-Mon
Company	Ticker	Week	30-day	90-day	YTD	TRAIL	Company	Ticker	Week	30-day	90-day	YTD	TRAIL
<b>Two Weeks</b>													
United Illuminating	UIL	6.2	6.8	17.0	-8.1	-6.1	MidAmerican Energy	MEC	-13.2	-13.7	-9.3	-12.4	8.5
Madison G&E *	MDSN	4.8	-1.1	15.2	-4.4	-4.7	General Public Utilities	GPU	-11.7	-18.9	-18.4	-23.3	-8.8
Florida Progress	FPC	4.0	3.8	6.4	-5.0	5.4	Cinergy	CIN	-7.7	-12.8	-15.3	-19.6	-14.5
PacifiCorp	PPW	3.4	1.7	6.7	-10.4	-12.0	Nevada Power Company	NVP	-7.5	-4.9	-2.8	-7.5	-1.5
Dominion Resources	D	2.6	2.0	9.5	-3.3	7.9	Sierra Pacific Resources	SRP	-7.5	-4.9	-2.8	-7.5	-1.5
Public Service Enterprise	PEG	1.4	0.8	0.6	2.2	19.1	Minnesota P&L	MPL	-6.6	-7.5	-14.2	-19.6	-12.4
Consolidated Edison	ED	1.0	-0.7	-5.9	-16.9	-2.4	Conectiv (DEW/ATE)	CIV	-6.5	-13.4	-10.7	-12.5	5.5
Energy East (NYSEG)	NEG	1.0	-2.4	-4.0	-9.1	19.8	Western Resources	WR	-6.2	-5.5	-12.9	-26.3	-38.4
Central & South West	CSR	0.9	-2.3	-14.0	-21.6	-18.1	Texas Utilities Company	TXU	-5.9	-1.2	-7.1	-14.3	-1.4
<b>30-Day</b>													
United Illuminating	UIL	6.2	6.8	17.0	-8.1	-6.1	General Public Utilities	GPU	-11.7	-18.9	-18.4	-23.3	-8.8
Illinova	ILN	-2.3	6.6	21.8	28.5	27.2	MidAmerican Energy	MEC	-13.2	-13.7	-9.3	-12.4	8.5
Allegheny Energy	AYE	0.7	4.0	-1.3	-1.4	17.7	Conectiv (DEW/ATE)	CIV	-6.5	-13.4	-10.7	-12.5	5.5
Black Hills Corp	BKH	-1.7	3.9	9.1	-6.4	5.1	Cinergy	CIN	-7.7	-12.8	-15.3	-19.6	-14.5
Florida Progress	FPC	4.0	3.8	6.4	-5.0	5.4	Potomac Electric Power	POM	-5.4	-12.1	-3.3	3.1	12.7
Dominion Resources	D	2.6	2.0	9.5	-3.3	7.9	New Century	NCE	-3.6	-10.7	-13.0	-31.4	-22.8
PacifiCorp	PPW	3.4	1.7	6.7	-10.4	-12.0	Pennsylvania P&L	PPL	-3.9	-9.4	-4.1	-0.2	15.6
New England Electric	NES	0.4	1.5	5.9	8.1	30.2	Kansas City P&L	KLT	-4.6	-8.7	-14.4	-20.7	-19.8
CILCO	CER	0.6	1.1	5.3	5.2	32.4	Unicom	UCM	-2.4	-8.5	-3.5	-0.6	9.5
<b>90-Day</b>													
CMP Group	CTP	0.5	0.9	33.5	41.1	35.2	General Public Utilities	GPU	-11.7	-18.9	-18.4	-23.3	-8.8
Illinova	ILN	-2.3	6.6	21.8	28.5	27.2	Cinergy	CIN	-7.7	-12.8	-15.3	-19.6	-14.5
United Illuminating	UIL	6.2	6.8	17.0	-8.1	-6.1	CMS Energy Corp.	CMS	0.2	-6.4	-14.8	-22.7	-13.3
Madison G&E *	MDSN	4.8	-1.1	15.2	-4.4	-4.7	American Electric Power	AEP	0.2	-3.2	-14.7	-24.7	-19.7
Dominion Resources	D	2.6	2.0	9.5	-3.3	7.9	Kansas City P&L	KLT	-4.6	-8.7	-14.4	-20.7	-19.8
Black Hills Corp	BKH	-1.7	3.9	9.1	-6.4	5.1	Minnesota P&L	MPL	-6.6	-7.5	-14.2	-19.6	-12.4
PS of New Mexico	PNM	-0.6	-3.1	7.8	-3.1	-3.9	Central & South West	CSR	0.9	-2.3	-14.0	-21.6	-18.1
Otter Tail Power*	OTTR	-0.6	-1.5	7.6	4.7	17.6	New Century	NCE	-3.6	-10.7	-13.0	-31.4	-22.8
PacifiCorp	PPW	3.4	1.7	6.7	-10.4	-12.0	Western Resources	WR	-6.2	-5.5	-12.9	-26.3	-38.4
<b>Indexes</b>													
S&P 500		-2.3	-6.8	-3.0	5.6	19.7							
Dow Utility Index		-0.7	-2.4	-1.1	0.1	11.3							
S&P Utility Index		-1.3	-3.1	-2.7	-3.6	6.0							
Phil Index		-1.0	-2.7	-4.5	-10.1	-1.8							
Baird Electric Index		-1.9	-3.5	-3.2	-10.0	-0.9							



<sup>1</sup> During the past three years, Robert W. Baird & Co. Incorporated was a manager or co-manager in the public offering of securities of this company or a subsidiary of this company.  
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ing to speakers at the 11th Annual Rocky Mountain Natural Gas Strategy & Marketing Fair, sponsored by the Colorado Oil & Gas Association this week in Denver. At a seminar focusing on the impacts of deregulation in both natural gas and electricity, panel members stressed that although real competition can bring many positive benefits, getting to that goal is not always easy.

John Anderson, executive director of the Electricity Consumers Resource Council, pointed out that even though it has been almost a decade since deregulation came to the natural gas industry, there is still a lot of work to be done. The process is "extremely time-consuming," he emphasized, and the benefits have not been equally distributed, either. "The large customers, primarily industrial clients, who have been aggressive in pursuing new options have benefited the most," he said. Prices for airline tickets have only fallen where "real competition" exists. "Regulation kept prices high and low-capacity routes were subsidized by other routes with higher load factors." But now in many of the smaller markets, the benefits of competition are largely nonexistent. "Anyone

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***"Market power can be used to stall competition and shape it to benefit those companies already in place. Some utilities are talking the talk but not walking the walk."***

***John Anderson, ELCON***

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who has flown in one of those little, two-prop planes with every seat filled knows what I'm talking about," said Anderson. Prices may have fallen in many markets, he added, but not in those that are now being served by only one or two carriers.

The same can be said of the telephone industry. Although technological innovations have dramatically increased the number and types of product offerings, most consumers are still obligated to purchase their local phone service from one of the original Baby Bell operating companies created with the breakup of AT&T in 1984, according to Anderson. And despite the proliferation of new entrants offering long-distance service, "AT&T still has almost 60% of this business."

But there have been benefits, and they are many, noted the ELCON chief. Prices have fallen significantly and supply has been more than adequate. A spate of new product offerings was spurred by technological advancements, including tools such as pricing futures, options and swaps that have

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***"The bottleneck won't be a scarcity of commodity supply, but rather a scarcity of intellectual capital that can take advantage of the benefits deregulation can bring."***

***Ken Malloy, Center for the Advancement of Energy Markets***

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helped alleviate the risks involved in natural gas trading.

But there are always negatives. Even though price transparency exists, prices have not been stable. "Volatility in natural gas prices has not disappeared," Anderson said. And the anger of smaller customers who have been left on the sidelines will not go away overnight, he added.

R. Brent Alderfer, former commissioner with the Colorado Public Utilities Commission and currently principal with Competitive Utility Strategies, pointed out how technology has been a driving force in any deregulation movement, whether for natural gas, telephones or airlines. "Just look at how advances in natural gas technology have dramatically lowered the optimum size of power-generating facilities," he said. The smaller size of these natural gas-powered plants allows them to be built much closer to population centers where the electricity is needed. And, noted Alderfer, pipelines to supply gas to these sites can be easily extended from existing distribution networks.

So what can we learn from these experiences? A lot. "Electric prices have the potential to fall and fall significantly," said Anderson. Hardware and service options will increase dramatically, but marketing efforts to promote these new products will have to overcome years of built-in inertia. And concerns about supply and reliability are being overblown, said Ken Malloy, founder and president of the Center for the Advancement of Energy Markets and formerly with the

Department of Energy and consulting firm Hagler Bailly. "The bottleneck won't be a scarcity of commodity supply, but rather a scarcity of intellectual capital that can take advantage of the benefits deregulation can bring," he said.

Malloy also called on regulators to stop looking at restructuring of the electric industry in a "stovepipe fashion." With the convergence being seen between natural gas and electric utility companies, it's time to take a broader view of how the process should work in the future.

No one predicted the road to deregulation would be an easy one. The transition will be difficult, just as it has been in other industries. But the \$200 billion in stranded costs that utilities claim they need as compensation to cover the "bad investments" they made in a regulated environment is clear evidence that the old way is not working, said Anderson. And the market power that utilities currently enjoy will be another stumbling

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***"The large customers - primarily industrial clients - who have been aggressive in pursuing new options have benefited the most."***

***John Anderson, ELCON***

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block. "Market power can be used to stall competition and shape it to benefit those companies already in place," said Anderson. Some utilities are "talking the talk but not walking the walk."

A level playing field needs to exist, including full access to wires to all suppliers in a nondiscriminatory way, he continued. "But even a level playing field wasn't enough for the lions to prevail in Roman times," Anderson concluded. Maybe the most important lesson to be learned is that we can take the experiences from how deregulation occurred in other industries and use them to shape how deregulation should proceed in the electric utility industry.

Right now, it seems like states "are not only reinventing the wheel, but they are also reinventing the spokes of the wheel and even the physics of the wheel," said Malloy.

We don't need to make the process any more difficult than it needs to be. Lesson learned. Class dismissed. □

## The R&D Corner

### Under-Investment: The Energy Technology and R&D Policy Challenge

By Daniel M. Kammen and Robert M. Margolis

There has been a recent wave of interest in R&D policy in general and energy R&D in particular. This attention comes at an important time, particularly with respect to the development of renewable energy and low-carbon fossil-fuel energy technologies that are likely to be critical in meeting future energy supply and environmental needs. In most OECD countries, however, government energy technology R&D budgets have been declining significantly in real terms since the early 1980s.

While the end of the Cold War and low fossil-fuel prices have decreased the level of public attention focused on energy planning, the domestic and global political challenges as well as the investments needed to develop clean energy technologies are now more dramatic and pressing than ever.

We find that inputs (R&D funding and research infrastructure) and outputs (innovations in energy technologies) are closely linked, and that the energy sector dangerously under-invests relative to other technology-intensive sectors of the economy. Declining investments in energy R&D in developed nations will also adversely impact

developing nations that often have limited capacity for energy R&D and rely instead on importing, adapting, or collaborative policies to install new energy systems.

This situation is particularly troubling given the need for increased international capacity to respond to emerging risks such as the threats to human and environmental health and global climate change.

A recent survey of energy technology R&D in the 22 member countries of the International Energy Agency (IEA) documents the dramatic declines in the scale and diversity of energy technology R&D. A comparison of the federal energy technology R&D budgets for these 10 countries, in 1980 and 1995, is displayed in Figure 1.

The declines were particularly sharp in Germany, the United Kingdom and the United States, while only Japan and Switzerland showed increases. The changes represent an overall decline of 39% in energy technology R&D funding. Investments in energy R&D have been falling across the board: Between 1980 and 1995 nuclear funding fell 40%, fossil funding 58%, and renewables funding 56%.

In this environment of reduced attention to the broad needs of energy security, diversity and sustainability, national energy policies have been chaotic. In 1995, 98% of all IEA member country energy technology R&D was carried out by only 10 countries. Japan, Spain and Switzerland all increased their budgets for energy conservation R&D

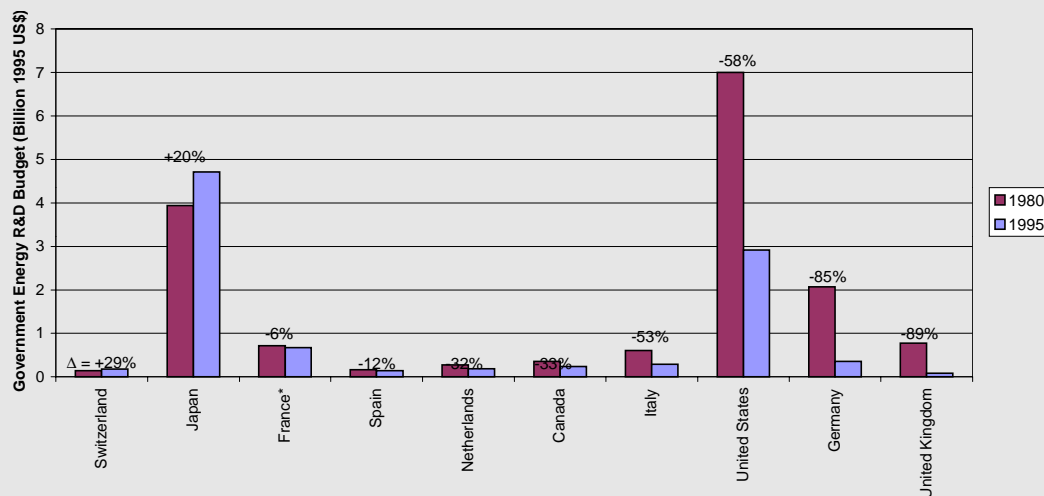
by 100% or more between 1980 and 1995, while France, Germany and the United Kingdom all cut back their investments by more than 80%.

The variation among countries with respect to nuclear energy R&D was similarly diverse: The U.S., Germany, Italy and the U.K. all cut back their nuclear R&D budgets by at least 70%, while Japan and France increased their nuclear R&D budgets by 20% and 7%, respectively. Overall, some countries have eliminated broad classes of energy technology R&D from their research portfolios, shifting their priorities towards a favored technology, while other countries have cut back energy technology R&D across the board.

The cutbacks in energy technology R&D funding among IEA member countries should sound an alarm. The wholesale dismantling of large portions of the industrial world's energy technology R&D infrastructure could seriously impair our ability to envision and to develop new technologies to meet emerging challenges.

Reduced or volatile budgets for energy R&D and implementation require careful evaluation and allocation of financial, material and human resources. While the aggregate returns on investments in R&D across sectors have been studied, little has been done on energy. Investments in particular technologies are inherently risky, and past efforts to pick winners among energy options have produced a number of high-pro-

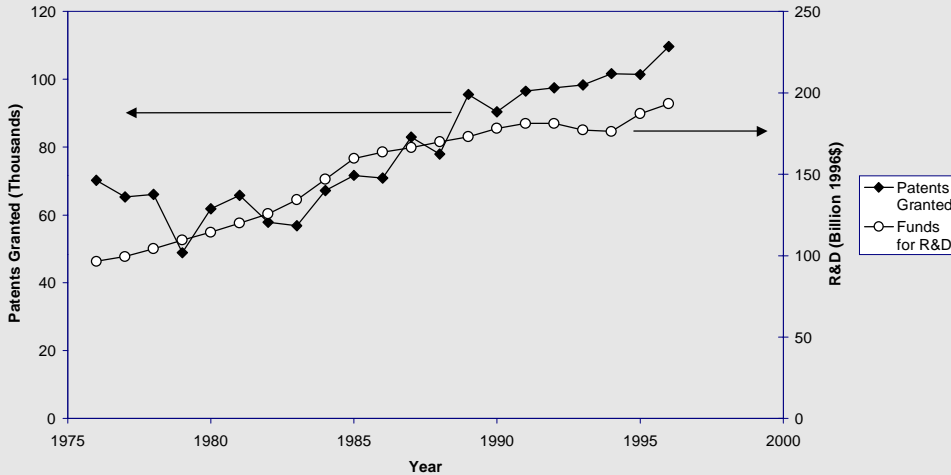
Figure 1. Comparison of government energy R&D budgets for selected IEA countries, 1980 and 1995



Government energy technology R&D budgets for selected IEA countries show the difference in spending (\*) between 1980 and 1995. "IEA Energy Technology R&D Statistics, 1974-1995" (International Energy Agency, Organisation for Economic Co-operation and Development, 1997). As data for France before 1990 are unavailable, the figure displays 1990 and 1995 data for France, which is likely to understate the decline in R&D funding in France.



**Figure 2. Total U.S. patents granted and total U.S. investments in R&D.**



**Total U.S. investments in R&D include both public and private R&D. Dollar values in this paper, unless otherwise noted, have been converted from current to constant 1996\$ using the GDP Chain-type Price Index (<http://www.bea.doc.gov/bea/dn/0898nip3/table3.htm>).**

file failures.

It is therefore critical to develop a variety of useful metrics that can be used to guide energy policy. We consider two measures: patents and the pattern of private-sector investment.

Between 1976 and 1996 the total U. S. investment in R&D increased from roughly \$100 to \$200 billion, and the number of U.S. patents issued increased from roughly 60,000 to 110,000. These trends are shown in Figure 2.

Thus between 1976 and 1996 both R&D investments and the number of patents is-

sued in the U.S. roughly doubled. The fact that, as R&D investments increased, patents increased proportionally over this period provides empirical support for the hypothesis that there is a significant link between R&D investments and innovation.

The total number of U.S. energy-related patents and the total of both public and private U.S. investments in energy R&D between 1976 and 1996 are shown in Figure 3.

Again we find that R&D investments and patents are highly correlated. However, the trends in this figure are very different from those seen for all patents, as shown in Fig-

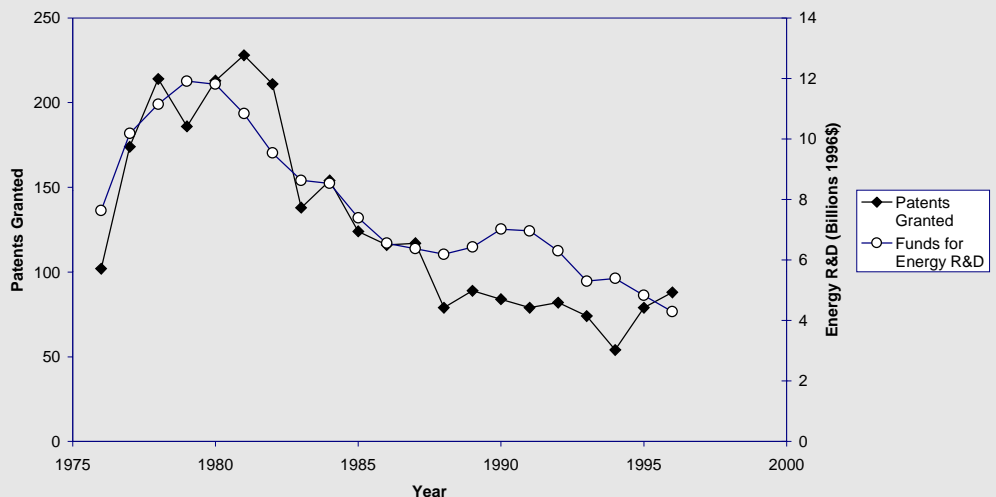
ure 2. Between 1976 and 1996 U.S. energy R&D investments went through a dramatic boom-bust cycle, rising from \$7.6 billion in 1976 to a high of \$11.9 billion in 1979, and then decreasing through the 1980s and early 1990s to a low of \$4.3 billion in 1996.

Similarly, the number of patents related to energy technology experienced a boom-bust cycle, rising from 102 patents in 1976 to a high of 228 in 1981, and then declining to a low of 54 in 1994. This clearly illustrates that cutbacks in energy-related R&D can have a significant impact on innovation in the energy sector.

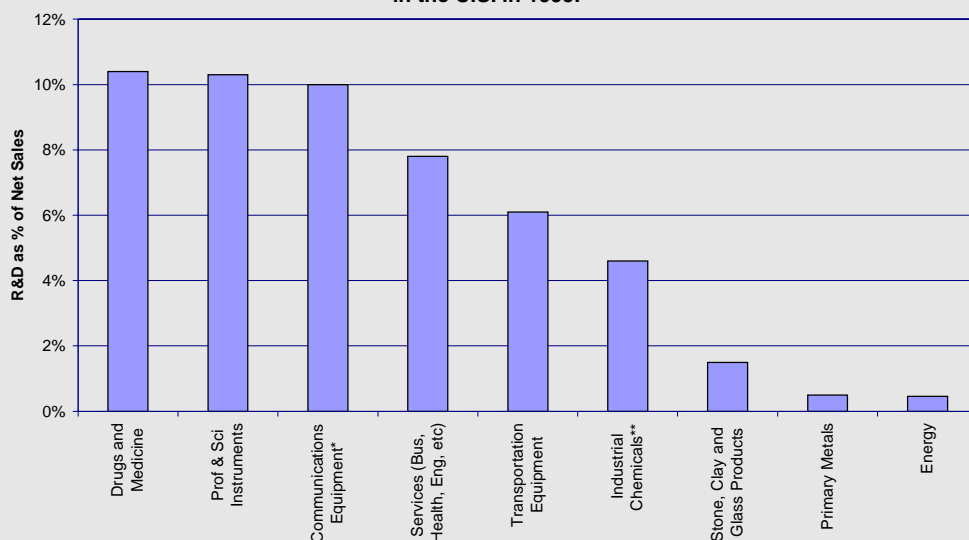
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**Data were generated from keyword searches in the U.S. Patent Office Patent Bibliographic Database, <http://www.uspto.gov/web/offices/ac/ido/oeip/patbib/index.html>. The key words were: (oil or natural gas or coal or photovoltaic or hydroelectric or hydropower or nuclear or geothermal or solar or wind) and (electric or energy or power or generat or turbine). Total U.S. energy R&D includes both public and private R&D investments related to energy. It was defined as the sum of the following: DOE energy technology R&D, non-federal industrial energy R&D and EPRI R&D ("Federal R&D Funding by Budget Function," National Science Foundation, Annual, Table 12; "Research and Development in Industry, National Science Foundation, Annual; and EPRI Annual Reports.)**

**Figure 3. U.S. energy technology patents and total U.S. energy R&D.**



**Figure 4. R&D as percent of net sales for selected sectors in the U.S. in 1995.**



Data for each industrial category, except energy, were drawn directly from "Research and Development in Industry," National Science Foundation, Annual; the energy R&D data is gathered across industrial sectors, i.e., it is for industry as a whole. The data shown in the figure include both public and private funding for R&D. Energy R&D as a percent of net sales was calculated from total (public and private) industrial energy R&D and total energy expenditures in the U.S. ("Federal R&D Funding by Budget Function," National Science Foundation, Annual.)

## R&D Corner... *continued from page 9*

The divergence between the overall trends (Figure 2) and energy sector trends (Figure 3) during the 1976-1996 period is striking. Yet despite diverging trends, both figures convey a similar message. For the U.S. economy as a whole and for the energy sector specifically, R&D investments and patents were highly correlated between 1976 and 1996.

This supports the hypothesis that investments and innovation are closely linked, and the view that patents may be a useful barometer of R&D activity.

A second measure of commitment to the development of new energy technologies is R&D intensity (defined as R&D as a percentage of net sales) across sectors. This reinforces our concern about the level of investment in energy technology R&D.

As illustrated in Figure 4, the energy sector's R&D intensity is extremely low in comparison to many other sectors. In fact, the high-tech drugs and medicine, professional and scientific equipment, and communications equipment sectors all exhibit R&D intensities that are more than an order of magnitude above the 0.5% of sales devoted to R&D in the energy sector.

R&D intensities will of course vary across sectors and the low investment levels in energy are in part related to the uncertainty caused by deregulation, and in part because utilities operate with very low prof-

its per unit sales (with, however, high sales volumes) However, the differences between sectors, as shown in Figure 4, are so striking that they force us to confront a critical question. In terms of encouraging technological change, is the energy sector being viewed more as a low-tech sector or a high-tech economic driver?

Technology and technology policy play a pivotal role in finding, transforming and utilizing energy resources, particularly in an environmentally sound manner. The challenges and expense of energy R&D, and the slow turnover time for current power generation infrastructure, mean that the energy sector's extremely low R&D intensity is not only a cause for concern today, but for decades to come.

We have presented data on international trends in energy technology R&D funding, U.S. energy technology patents and R&D funding, and U.S. R&D intensities across selected sectors. The data present a disturbing picture.

First, energy technology funding levels have declined significantly over the past two decades throughout the industrial world. The most dramatic reductions have taken place in the U.S., Germany, and the U.K. Unless this trend is reversed, these cutbacks are likely to reduce the capacity of the energy sector to innovate both today and into the future.

Second, our examination of energy technology R&D and patents in the U.S. reveals a telling correlation between R&D investments and patents. This finding is consistent with and extends previous work examining the relationship between R&D, patents and innovation.

Further, the data support the assertion that investments in R&D provide significant and important returns.

Again we find that declining investments in energy technology R&D are likely to reduce our capacity to innovate.

Lastly, we observe that the R&D intensity of the U.S. energy sector is significantly below that of other technology intensive sectors.

The energy technology and policy options of developed and developing nations are closely linked in a global energy economy. Over the past 50 years the progression to cleaner fuels and more efficient use of fossil-fuels has resulted in an annual decrease in the emission of carbon to the atmosphere of about 0.08 grams of carbon per mega-joule of energy produced (gC/MJ).

This rate of decarbonization is not sufficient even to meet the modest Kyoto Protocol target of a 5% decrease in greenhouse gas emissions (GHG) from developed nations by 2010. Many scientists have instead argued that emissions reductions of 70% or more are really necessary to stabilize the at-

*Continued on page 11*

## R&D Corner... *continued from page 10*

mospheric GHG concentrations at 550 or 450 parts per million (ppmv). Achieving these levels would require a doubling or tripling, respectively, of the current rate of decarbonization. Without a sustained and diverse program of energy R&D and implementation, we are crippling our ability to make the necessary improvements in the global energy economy.

Declining investments, in an area at the heart of the environment-economy nexus, are detrimental for both long-term U.S. energy security and for global environmental sustainability.

First, it is necessary to understand and evaluate the impacts of current energy R&D efforts.

Second, meeting the emerging global challenges will require increasing both U.S. and international energy R&D. And finally, a broader collaborative environment is needed to support diverse energy research and implementation options and policies that work within and between developed and developing nations. □

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*For more information, contact D. M. Kammen, or explore <http://socrates.berkeley.edu/~erg> A longer version of this paper appeared in Science, 7.30.99, volume 285, pp. 690-92.*

## From the Front... *continued from page 3*

tors, offered perspectives on the issues.

The result was a law that guaranteed electricity price reductions for the residential consumer, included environmental provisions, and crafted a system where companies could fairly compete for everyone's business.

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***At every key event in the business world, there are companies that meet the changes head-on and companies that prefer to wait. The electric utility industry, in addition to responding to changing business environments, will have to change even the most basic business fundamentals.***

good, it's not to say that it's comfortable. History books are filled with case studies of once successful companies that elected for comfort over change and perished in the pro-

cess. Business school textbooks, meanwhile, are filled with studies of companies that endured the discomfort and, as a result, redefined the industry and created value both for customers and shareholders.

It's only been 6 years since the defining moment when Mosaic was developed and

***Business school textbooks, meanwhile, are filled with studies of companies that endured the discomfort and, as a result, redefined the industry and created value both for customers and shareholders.***

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For TXU, the defining moment came when electric industry restructuring was adopted in Texas.

And this is our stake in the ground. □

**About the Author:** *Thomas Baker, President of the Distribution Business Unit for TXU Electric & Gas, led the company's efforts in the 1999 session of the Texas Legislature to restructure the state's electric utility industry. With the passage of the legislation, he now is responsible for the company's transition into a deregulated market. Baker is a graduate of the University of Texas at Austin with an engineering degree and attended the Advanced Management Program at Harvard University.*

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# EVERYBODY IN THE POOL

By Rodney Olson, *Financial Editor*

*As deregulation winds its way around the country, more and more entities are looking for ways to take advantage of the restructuring movement. Towns and cities in Connecticut are using aggregation - banding together to form a larger buying pool - in an effort to lower the prices they pay for electricity. We asked Andrew Merola, Manager of Enterprise Programs for the Connecticut Conference of Municipalities (CCM), to give us some insight into what his organization is doing to prepare for competition when it begins in the state on January 1, 2000.*

## Q&A

*Probing for insights on deregulation's past, present and future*

### **Q: How does CCM view the coming of deregulation?**

**Merola:** We definitely look at it as an opportunity for the municipalities to save on their energy bills.

In Connecticut, deregulation is a twofold process. The January 1 date is for what are called distressed municipalities. There's about 25 of them in Connecticut, including Hartford, New Haven and Bridgeport. There is a statutory definition for these, but basically they are communities that have been targeted for special treatment by the federal government. They have the opportunity to sign up with a new electric supply company on January 1. The remainder of the state has that opportunity on July 1.

What we are trying to do is to have our program in place so the distressed municipalities can take advantage of what we hope are lower energy prices as of the first of the year.

### **Q: The deregulation statute calls for the standard rate for electricity to be at least 10% lower than the rates established in 1996. Do you intend to beat this?**

**Merola:** That's our goal, yes. We're working with National Energy Choice [NEC] on an aggregation plan for our members. CCM used a competitive process to select an aggregator.

An RFP was issued for the services and NEC was chosen.

### **Q: In Massachusetts and Rhode Island, NEC teamed up with Select Energy to be the supplier of electricity. Has a supplier been picked for Connecticut?**

**Merola:** Oh no. That will be in the future.

### **Q: Select Energy is an unregulated retail marketing subsidiary of Northeast Utilities, which is also the parent of Connecticut Power & Light. Any conflict here?**

**Merola:** You have to understand that Select Energy is a supplier and National Energy Choice is an aggregator. In the last RFP process, we were only looking at choosing an aggregator. In terms of the RFP that will be issued for suppliers of electric power, I would expect Select Energy to be one of the suppliers that will be receiving an RFP. They will have the opportunity to respond to it like, hopefully, many others.

### **Q: What kind of savings do you expect?**

**Merola:** I can't really estimate what the savings will be. It really depends on what the standard offer is going to be, which is due to come out on October 1. At that point we will know if we can beat it and by how much. The continuation of the program depends on our ability to save money for the municipalities. If we can't save money for them on the energy procurement side, there are still other areas where we think we can definitely save money for them.

But right now we're all kind of looking to

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*We definitely look at deregulation as an opportunity for the municipalities to save on their energy bills.*

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the standard offer benchmark. At that point the suppliers will let us know what the better price can be.

### **Q: Do your aggregation efforts extend to commercial and residential customers?**

**Merola:** For our program, it's just the towns and their agencies - schools, water divisions, things like that - where there is a definite

municipal connection. So this would not include a commercial or non-profit establishment.

### **Q: What are the other ways you can save money for the munis? Energy efficiency and auditing, for example?**

**Merola:** Absolutely. We want to have what, we hope, is a complete energy program.

In terms of services over and above the

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*We are trying to have our program in place so the distressed municipalities can take advantage of what we hope are lower energy prices as of the first of the year.*

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aggregation part, we are going through another competitive bid process. We have already issued an RFP for those services and expect to get proposals back within a week or so from whoever is going to bid for those. NEC will definitely, I'm sure, be included among the bidders.

Because we're an organization that's municipally oriented, it's very important that CCM conduct due diligence when selecting a vendor. That's why we go through the process of issuing an RFP and getting proposals in from the marketplace. Then we can analyze them and narrow the group down to a few that can be brought in and interviewed before a committee of CCM members. That's the process that is going to be done again for the other services.

### **Q: Who reviews these proposals?**

**Merola:** We have an electric committee that's basically made up of municipal people who, in turn, report to the board of directors. It also includes CCM staff members.

### **Q: Can each of your 148-member towns and cities decide on their own whether or not they want to join this aggregation effort?**

**Merola:** Is it mandatory? No. It's a service, a program, which is for their benefit. We have been and are continuing to provide them education about deregulation. Once hard and fast numbers come in, I think they will find it's in their best interest to join the program. But it's up to them.

**Q: How do you pay NEC?**

**Merola:** It's based on a percentage of the amount of money we save. Say we realize a cost savings of 5%, then they get back a part of that amount.

**Q: How long is your contract with NEC?**

**Merola:** In order not to mix things up, I think the contract length that would probably be most in discussion concerns the supply contracts. In the past, it seems suppliers have offered at the very least a couple of options, one for a 2-year and one for a 5-year contract. I'm not sure if we've settled in for what the specific terms will be for a supply contract, but that is a separate question than the contract between NEC and CCM.

**Q: Will NEC pick the electric supplier on its own, or will you have any input?**

**Merola:** The entire process is being monitored in a very collaborative way with CCM staff. So we definitely have had, and will continue to have, input in the way that the program is unfolding.

**Q: Do your members have any reliability concerns under deregulation?**

**Merola:** That question could be better answered by the program administrator who was around when the first RFP went out. I wasn't. But, in general, any time there is deregulation there is a concern about suppliers. If you remember back to when the tele-

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*Deregulation has certainly been catching on in Connecticut in terms of the amount of news coverage it's been getting in the state.*

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phone industry was deregulated, a major consumer concern was about the choice of who should provide their long-distance service. We really only knew one long-distance carrier then. How could we depend on someone else?

But we've found that it's kind of worked itself out. And there are safeguards built into the entire system. Certainly the DPUC [Department of Public Utility Control] is having a lot to do with building in safeguards for

when the transition takes place, at the very least in terms of distribution and transmission.

So I don't think it should be a large concern given the fact that the only portion being deregulated is supply. The actual movement of energy and things related to that are still being regulated.

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*What the savings will be really depends on what the standard offer is going to be, which is due to come out on October 1. At that point we will know if we can beat it and by how much.*

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**Q: How has deregulation been progressing in Connecticut?**

**Merola:** It's certainly been catching on in terms of the amount of news coverage it's been getting in the state. We were very gratified to see how much coverage our collaboration with NEC received in the media. And the fact that Connecticut is situated such that we get reception from neighboring states, such as New Jersey, about electric choice helps to increase awareness.

So even if the coverage is not necessarily from Connecticut sources, I think in general there is a lot of attention being called to it.

**Q: NRECA CEO Glenn English has called cooperatives the original aggregators. Have any of your members looked into the possibility of forming their own electric utility?**

**Merola:** There are some municipalities within Connecticut that have their own utilities. There is an exception in the statute for them unless they market outside their own municipality. Certainly as they exist already, I would imagine these utilities to continue to, at least in part, buy in bulk for their own residents.

But, in general, I think this idea is still a little bit new in terms of Connecticut. I haven't heard a lot about it.

**Q: So privatization is not considered a viable option?**

**Merola:** I don't think it's been a hot topic of discussion, that's for sure.

**Q: How do you become an aggregator in Connecticut?**

**Merola:** CCM has filed as an aggregator with the DPUC. It was the right thing to do.

**Q: Were you legally required to file?**

**Merola:** That's a good question. There are legal issues involved, but there are other issues involved as well. We just thought it was the best thing to do for CCM. Certainly NEC would necessarily file for a license as an aggregator.

**Q: Where do your members get their power from now?**

**Merola:** In Connecticut you have United Illuminating and Connecticut Light & Power.

**Q: Are they aggressively marketing themselves as deregulation approaches?**

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*CCM Energy will be handling the electricity part and will, at some point, also be handling natural gas.*

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**Merola:** They're kind of going through the process as outlined by the DPUC. Certainly the unregulated supply companies are marketing what they have to offer.

**Q: Have your members tried aggregation before?**

**Merola:** Well, natural gas has been unregulated for a few years. And there has been some kind of a buyer's pool created for natural gas among municipalities. There are different groups, different associations, to which the municipalities belong. CCM is basically statewide, but there are other organizations on a less-than-statewide basis. So their members might very well be members of CCM and one or more local organizations.

**Q: So is aggregating for natural gas purchases part of CCM's function?**

**Merola:** Yes, it's definitely part of our program. CCM Energy is a new program for CCM. CCM Energy will be handling the electricity part and will, at some point, also be handling natural gas. □

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“That depends on your point of view. If federal mandates simply set a national policy for guaranteed stranded-cost recovery and the so-called standard contract, then power companies wouldn’t mind federal intervention of that sort, even if it is redundant. But that policy does nothing for deregulation, and hence, nothing for real change in electric generation markets.

Power companies must be saved from their near-sighted ‘deregulation’ business strategies, and only federal legislation could make that happen. Under present policies, there is no economic incentive for power companies to become truly competitive. As a result, both power companies and the markets they serve are not responding positively. The best evidence is that (a) we continue to have shortages during summer peaks, (b) customers yawn at the latest ‘deregulation’ plan, and (c) there are no new entrants in the markets. And, most significantly, utility stocks continue to be punished by Wall Street.

Right now, the only beneficiaries from ‘deregulation’ plans are the aged management teams pursuing these very short-sighted business strategies. In many ways, it’s “après moi, le deluge.” The stockholders deserve a lot more than what they are getting.” *Stephen Maloney, President, Devonrue Ltd., Hingham, MA, smaloney@devonrue.com*

“After watching what Oregon has just gone through crafting and recently passing - quite innovative restructuring legislation here - I would say there’s not much more that a federal mandate could accomplish. Every state has taken a different approach. Each state feels that the approach it’s taken is the best (at least for them). And, those that haven’t acted at all likely feel that doing nothing is the best course of action (at least now). If the federal government wanted to get out in front and lead this issue, I think they missed the boat.” *Curt Nichols, Senior Energy Program Manager, Portland Energy Office, Portland, OR, 503-823-7418, fax 503-823-5370, curt@ci.portland.or.us*

“No, I don’t believe it is moot. At the heart of deregulation is the goal to let the free market system work. If deregulation occurs on a state-by-state basis, all states may not opt for deregulation. The bigger problem, though, is that the different states will try to legislate the ground rules under which deregulation itself occurs; and also how intra-

and interstate business is conducted. This would be a nightmare for companies trying to sell in regional and national markets, where the rules may differ in every state they operate in. No, to grease the skids to allow a truly competitive market nationally, there needs to be one set of rules for all players, and one seamless national market area.” *John Linn, Project Support Analyst, Nuclear Engineering & Regulatory, Southern Co., Birmingham, jwlinn@southernco.com*

“There are about 20 states which have adopted retail competition in electricity markets, with 4 of the 20 most recently going forward in the past quarter. A date certain will likely not be required to gain passage of the proposed acts before Congress. The basic supply/demand economics and prices for competitive retail electricity supply will open markets in states where the business economics make sense.

The main question is whether both customers and suppliers will benefit from retail competition.” *Bob Adkins, Director of Corporate Forecasting at leading energy utility, rcadkins@worldnet.att.net*

“It’s not moot, but there’s no pressing need to pass legislation either. It may be chaotic, but in chaos there’s opportunity!

What we need right now is a continuation of learning experiences at the state level. None of us are so smart as to know what works and what doesn’t. Things tried at the state level that don’t work - and there’s lots of it as we get deregulation off the ground - can be corrected much more easily than if there is one Federal bill that will sit unchanged for 10 years.

Further, any Federal bill will invariably turn into a Christmas tree, with all sorts of unrelated, unnecessary items like environmental mandates tied onto it. My view is, Let’s allow the states to continue moving things along, then have a Federal bill at a later date to clean things up and standardize across the industry.” *Art Malatzky, former manager, Energy Purchasing & Policy, Arch Chemicals, Inc., Norwalk, CT, energetic1@worldnet.att.net*

“Let me get this straight. We want the federal government to impose on us something that some of the 50 states think is a bad idea. I like the concept of 50 social experiments trying to find the best way to do things. I seem to remember my mother or father telling me something about putting all my eggs

in one basket. Remind me, was that a good or bad thing?” *Mark Lively, Consulting Utility Economics Engineer, Gaithersburg, MD, 301-428-3618 (phone & fax), MbeLively@aol.com*

“What is happening within the state legislation concerning electrical deregulation does not cancel the need of any federal legislation. The states are addressing the issue as it concerns their local conditions. These conditions are not consistent from state to state or region to region. National, international and global deregulation factors need to be addressed which are many times not considered within the state legislation or out of the jurisdiction of the states themselves. With the recent mergers within the electrical utility market, many utilities service multiple states.

Managing and following the legislation within each of these states is often conflicting and confusing. The Independent System Operators (ISO) also need federal deregulation direction and guidelines.

For example, legislation proposed a few years ago considered taxing energy in various ways. Many proposals discussed basing the tax of energy on its environmental emissions. These proposals did not get through the legislative process.

Due to this, the current situation has seen an increased generation from cheap electrical generating plants (i.e., high-sulfur coal, etc.) and a decreased generation from expensive electrical generating plants (i.e., nuclear, etc.). The environmental emission conditions of electrical generation have a direct effect on its ultimate cost. There are currently not adequate state-to-state guidelines for emissions from electrical generation.

For example, Western Pennsylvania has been restricted lately by high ozone (poor air pollution) conditions. Due to these conditions our area will be required to enforce more restrictive EPA requirements. Much of our air quality is a direct effect of emissions from Ohio generators.

In conclusion, there are many state-to-state deregulation conditions which must be outlined in federal legislation which will not be defined in individual state legislation. To have truly national electrical deregulation, we need some federal limitations and guidelines. This should not be a federal mandate but a guide on state-to-state deregulation concerns.” *J. Christopher Larry, P.E., C.E.P., C.E.M., C.I.P.E., Siemens Building Technologies, Pittsburgh, chris.larry@us.landisstaefa.com*

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a framework within which the federal government can continue to play a role in the market place. For example, the recent legislation (HR 2602) to require and authorize regional electric reliability organizations is made feasible by the federal mandate to open the electricity markets. The regional organizations, and federal oversight thereof, would be confounded if only part of the country participated in the long term." *Bill McTigue, wjmctigue@yahoo.com*

"The deregulation plan of the feds is moot! Any power companies that plan to be successful in the future deregulated market have already set their own time table. To not be prepared is to admit that you are prepared to fail. All of the larger power companies are positioning themselves at this time for the future market because they see a large amount of profit to be made in the deregulated market. You can see alliances being formed between power companies that are preparing for the future unregulated market so that they can get their product to the customer at the lowest rate. The name of the game is to be ready to deliver low-cost power to the largest base of people. This means getting into the non-regulated mode of operation now and not waiting for the government to tell you that you have to do it." *Harold Jones, Electrical Supervisor, Virginia Power, Surry, VA, Harold\_Jones@vapower.com*

"No. What is occurring at the state level is re-regulation, not deregulation. With each state charting its own course and each utility cutting its own deal, inefficiencies are created. There should be federal guidelines for the basic market structure to ensure an equitable playing field. Working within this framework, the states should optimize the rules for their local market conditions." *Brad Kitterman, Vice President, Schlumberger Norcross, GA, kitterman@norcross.rms.slb.com*

"No, I do not think that it is moot. It is important that Government leads from the 'front'. Once a decision is made that has benefits to the country as a whole, then that change has to be fostered by legislation visionary enough to facilitate change by each State, but light-handed enough to allow each State to enact legislation that is relevant to its citizens.

There is a mindset evident in the utility business brought about by years of a com-

petition-free environment. These positions will not change without some direction from the top. Improvement will accrue to the consumer from a top-down approach, in this case because Federal Legislation will generate debate, challenge accepted industry norms and drive change, innovation and competition. It will produce an industry tension that will benefit both the supplier and the customer." *David E Whitehead, Vice President-Sales, Sanderson Computers Inc., Auckland, New Zealand, gentrack@sandersonusa.com, Davidw@sanderson.co.nz*

"A federal mandate will become more important, not less important, as states deregulate. Federal legislation needs to level future playing fields between consumers (all ratepayers) and foreign-owned, transnational-owned, investor-owned, co-op-owned, municipally owned and privately owned 'public utility systems.' Commercial and industrial ratepayers increasingly need a regulator with coast-to-coast enforcement capacity as borderless regulated and unregulated activities occur." *Henry Heier, Co-Chairman, Small Business Alliance, Chattanooga, TN, hheier@gs.verio.net*

"An opportunity for the federal government to regulate is never a moot point. In a vacuum, steam will occupy whatever space and shape is available, and so it goes with federal regulation. In an uncontrolled environment, regulations will expand to fill the void. It is likely that large players in the market will probably be warm to the idea of controls as long as they tend to make the marketplace efficient for the large player.

Rules that can enhance stability and keep the riff-raff out are desirable.

So yes, if there is room for more regulation in a deregulated marketplace, then by all means stand by for the federal government to weigh in. If you don't believe it, just ask the airlines what happened after deregulation. And as a contrast, look at regulations in the financial markets. Look at regulations that are designed to give favor to small companies that facilitate trades in the NASDAQ marketplace. These are small companies that compete with market-makers (see *Wired*, July 1999, "Daytrading Places") under specially designed regulations that prohibit aggressive competitive practices that could make it impossible for any business to exist in such a niche. The next question should be something like: "Should deregulation rules be

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made by a body modeled after the House of Representatives, the Senate, the Congress or something else?" *Haral S. Logaras, Nuclear Oversight, Unicom/ComEd, Zion, IL, Haral.S.Logaras@ucm.com*

"To insure a fair and equitable transition into competition, many times it takes the government to ensure that most issues are addressed and everyone is playing with a workable set of guidelines. In the same sense, there is also a time when the government need to step aside and let the States and other players take over and improve upon the rules." *Timothy Kiersz, Senior Staff Consultant, Reliant Energy HL&P, Houston, timothy-kiersz@reliantenergy.com*

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### Public Forum

*The Energy Central Deregulation Public Forum allows industry professionals to speak out on specific issues related to electric power deregulation. We print selected replies in this section and publish all replies through the Deregulation Section of the Energy Central Web site - [www.energycentral.com](http://www.energycentral.com)*

#### Current Question:

**With four states enacting deregulation legislation just in the last quarter, is a Federal legislative mandate moot?**

“Even with the recent spike in activity, less than 50% of states have yet enacted any legislation. Per recent EEI numbers, only 23 states have adopted and begun implementation of retail competition. Many of the remaining states are looking at it, but there are

at least a few who probably won't do anything until sufficient pressure is applied. Some states believe that deregulation will actually increase their electric rates - which is debatable but could be true under certain sets of circumstances.

The Federal Government often uses the threat of federal legislation to pressure states into action. The federal legislative effort is not moot in the eyes of the Federal Government until all or most states respond. More importantly, there may be additional stipulations or requirements from a federal perspective (i.e., interstate vs. intrastate issues) that might not be covered by individual state actions.” *Consensus response from the Professional Staff at Sargent & Lundy Consulting Group, compiled by Kurt Neubauer, Senior Consultant, [kurt.h.neubauer@slchicago.infonet.com](mailto:kurt.h.neubauer@slchicago.infonet.com)*

“No. State-driven deregulation would continue without a federal mandate, but that does not mean the federal legislation is rendered moot. The federal mandate establishes

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#### New Question:

**What guidelines do you suggest should be followed in cases where a municipality chooses to become its own electric provider, not renewing its electric contract with the investor-owned utility?**

*E-mail your opinion to:*

*[dereg-survey@energycentral.com](mailto:dereg-survey@energycentral.com)  
by August 25, 1999.*

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