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.

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 software 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.

What Andreessen created was a defining moment that changed the way companies and consumers around the world do business.

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.

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-

CONTENTS

NationScan ........................................... 1
RegionScan ........................................... 2
Conference Alert .................................. 2
Movement Along the Front ...................... 4
FedWatch ........................................... 5
WorldScan .......................................... 5
Baird Corner ....................................... 6
R&D Corner ........................................ 8
Q&A .................................................. 12
Public Forum ...................................... 16

Copyright © 1999 CyberTech, Inc. All rights reserved. Reproduction, redistribution or input into an information retrieval system is expressly prohibited without prior written authorization from CyberTech, Inc.
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 Westbrook, Massachusetts, and Britain’s National Grid Group plc of Coventry.

Middle Atlantic. The New Jersey Board of Public Utilities (BPU) okay's 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 Perez, state Ratepayer Advocate, and other critics for being pro-inertia and not sufficiently pro-consumer 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-state utilities 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 marketers 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.
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 one company decides on the city and begins an exhaustive 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.

– 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 customers 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 be adjustments rather than overhauls.

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.

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 competitors...
Upcoming Activities

State

Arizona Corporation Commission (602-542-4251)
8/30. Hearing, Distributed Generation & Interconnections Workgroup.

Delaware Public Service Commission (302-739-4247)
8/23-8/24. Commission meetings to address electric restructuring docket’s, Dover.

Idaho Public Utilities Commission (208-334-0330)
8/31. Public hearings on proposed merger of PacifiCorp and ScottishPower.

Oklahoma Corporation Commission

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

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-
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, Wl.
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 mined 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 fell 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.

Nevea 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, 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, said that Victoria would have to 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 operation 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, Oftel for telecommunications and Ofwat for water - into a single entity with the working name of Ofutil.
The Baird Corner

Do you have a Corner contribution?
Let us know!

ELECTRIC STOCK PRICE MOVERS AND SHAKERS

<table>
<thead>
<tr>
<th>Top Gainers</th>
<th>Under Performers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Two Weeks</strong></td>
<td><strong>Two Weeks</strong></td>
</tr>
<tr>
<td>Company</td>
<td>Ticker</td>
</tr>
<tr>
<td>Madison G&amp;E</td>
<td>MDSN</td>
</tr>
<tr>
<td>Florida Progress</td>
<td>FPC</td>
</tr>
<tr>
<td>PacifiCorp</td>
<td>PPW</td>
</tr>
<tr>
<td>Dominion Resources</td>
<td>D</td>
</tr>
<tr>
<td>Public Service Enterprise</td>
<td>PEG</td>
</tr>
<tr>
<td>Consolidated Edison</td>
<td>ED</td>
</tr>
<tr>
<td>Energy East (NYSEG)</td>
<td>NEG</td>
</tr>
<tr>
<td>Central &amp; South West</td>
<td>CSR</td>
</tr>
</tbody>
</table>

**30-Day**

| 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 |
| Illinois | 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 | Connectiv (DEW/AE) | 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 | Energy | 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 |
| CLIPO | CER    | 0.6 | 1.1 | 5.3 | 5.2 | 32.4 | Unicom | UCM    | -2.4 | 8.5 | -3.5 | -0.6 | 9.5 |

**90-Day**

| 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 |
| Illinois | ILN    | -2.3 | 6.6 | 21.8 | 28.5 | 27.2 | MidAmerican Energy | MEC    | -13.2 | -13.7 | -9.3 | -12.4 | 8.5 |
| 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 | PNIM  | -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 |

**Indexes**

| 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 |

INDEXED PRICES 8/15/97 = 100 8/12/97 to 8/13/99

**NEW STANDARD & POORS 500 INDSPX**

INDEXED PRICES 2/12/99 = 100 2/12/99 to 8/13/99

**NEW STANDARD & POORS 500 INDSPX**

ADDITIONAL INFORMATION ON COMPANIES MENTIONED HEREIN IS AVAILABLE UPON REQUEST

Copyright © 1999 CyberTech, Inc. All rights reserved. Reproduction, redistribution or input into an information retrieval system is expressly prohibited without prior written authorization from CyberTech, Inc.
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 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.”

Ken Malloy, Center for the Advancement of Energy Markets

“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.”

John Anderson, ELCON

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

John Anderson, ELCON

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.”
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**

![Graph showing the percentage change in government energy R&D budgets for selected IEA countries between 1980 and 1995.](image)

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 issued 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 Figure 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.
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 profit margins 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.

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 (GHO) from developed nations by 2010. Many scientists have instead argued that emissions reductions of 70% or more are really necessary to stabilize the at-
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.

**Acknowledgements:** The authors thank S. DeCanio, S. Devotta, J. Holdren, R. May, A. Rosenfeld, and V. Ruttan for comments and advice. This research was supported by the Summit Foundation and the Class of 1934 Preceptorship at Princeton University, both awarded to D.M.K. At the University of California, Berkeley, DMK gratefully acknowledges support from the Energy Foundation.

---

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

Not the Spoiler Role

As the state Public Utility Commission implements the law passed by the legislature, the company is again assuming the role of advisor. Rather than playing the spoiler with myopic demands, TXU is offering a point of view from an experienced player and from a company that wants above all to have a system that works.

TXU’s strategy for the future is very different from that of the past. And while that’s 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 process. 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 Andreessen placed his stake in the ground for the Internet. Today, customers, shareholders, competitors and scholars all note the tremendous benefits that have come since then.

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.

---

**Have you seen the Deregulation Watch Quarterly Report?**

It’s a new desktop sourcebook of electric power restructuring in each state and the nation as a whole from Energy Central.

The Quarterly Report is a one-two punch of concise information: a summary of each state plus maps, charts, tables, articles and data from some of the leading sources in the industry.

This publication needs to be on every desk in your company.

For more information call (800)459-2233 or send an e-mail to sales@energycentral.com.

2nd Quarter ’99 is now available! (And it’s jammed with information!)

---

Copyright © 1999 CyberTech, Inc. All rights reserved. Reproduction, redistribution or input into an information retrieval system is expressly prohibited without prior written authorization from CyberTech, Inc.
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: 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 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.

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.

In terms of services over and above the 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 telephone 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.

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: 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?

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

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.
“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

Copyright © 1999 CyberTech, Inc. All rights reserved. Reproduction, redistribution or input into an information retrieval system is expressly prohibited without prior written authorization from CyberTech, Inc.
Public Forum... continued from page 12

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 McCutigue, wjmcctigue@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 competition-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

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

Continued on page 14

Sign up today for Energy Central’s FREE daily Electric Power News Service -- delivered directly to your e-mail address.

Send an e-mail message to newstrial@energycentral.com and begin receiving the news service that keeps over 40,000 electric power professionals in the know every day!

Deregulation Watch is published biweekly by Energy Central, a division of CyberTech, Inc. 2755 South Locust Street, Suite 100 Denver, CO 80222 www.energycentral.com. ISSN 1523-2735
An annual subscription (23 issues) is US$297. Please direct subscription requests to: Kathleen Thaxton, kthaxton@energycentral.com 1-800-459-2233
Please direct editorial questions and comments to: Paulette Whitcomb, pwhitcomb@energycentral.com 1-303-782-5510
Deregulation Watch Key Staff:
Steve Drazga, publisher
Paulette Whitcomb, editor-in-chief
Rodney Olson, financial editor
Amy Farrell, research editor
Dan Wilson, researcher
Rosanna Jenkins, administrative

© 1999 Energy Central – All rights reserved
Editorial content does not necessarily represent the opinion of the publisher nor does an advertisement imply endorsement. Reproduction in any manner in whole or in part is prohibited without the publisher’s prior knowledge and written consent.
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

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

“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

Continued on page 15

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 by August 25, 1999. Don’t forget to tell us whether or not we may print your name and affiliation.

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

Marking the fifth phase of our ongoing research on competitive energy markets, XENERGY’s Retail Energy Markets ’99 project continues to be the leading source of regulatory and market intelligence in the industry. Since 1975, we have helped utilities and energy service companies succeed in the energy marketplace.