A 10-Step Program to Successful Utility Deregulation For Building Owners and Managers

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With the passage of the Energy Policy Act of 1992, the process of deregulating the electric industry was begun. Because of this historic change toward a competitive arena, the utilities, their customers, and energy service providers have begun to reexamine their relationships.

How will building owners, each with varying degrees of sophistication, choose their suppliers of these services? Who will supply them? What will it cost? How will it impact the tenants/occupants? How will the successful players bring forward the right product to the marketplace to stay profitable? And how will more and better energy purchases, commissioning, O&M, and energy services improve the bottom line?

This article reviews the historic relationships between utilities, their customers, and energy service providers, and the tremendous possibilities for doing business in new and different ways. Of particular concern to building owners is who will be best able to supply these services in the future and if they will improve quality and reduce costs.

BACKGROUND

The passage of the Energy Policy Act (EPACT) of 1992 began the process of drastically changing the way that utilities, their customers, and the energy services sector deal (or not deal) with each other. Regulated monopolies are out and customer choice is in. The future will require knowledge, flexibility, and maybe even size to parlay this changing environment into profit and cost saving opportunities.

One of the provisions of EPACT mandates open access on the transmission system to "wholesale" customers. It also provides for open access to "exempt wholesale generators" to provide power in direct competition with the regulated utilities. This provision is fostering bilateral contracts (those directly between a generator and a customer) in the wholesale power market. The regulated utilities then continue to transport the power over the transmission grid and ultimately, through the distribution grid, directly to the customer.

What EPACT did not do was to allow for "retail" open access. Unless you are a wholesale customer, power can only be purchased from the regulated utility. However, EPACT made provisions for the states to investigate retail wheeling ("wheeling" and "open access" are other terms used to describe deregulation). Many states have held or are currently holding hearings. Several states either have or will soon have pilot programs for retail wheeling. The model being used is that the electric generation component (typically 60-70% of the total bill) will be deregulated and subject to full competition. The transmission and distribution systems will remain regulated and subject to Public Commission control.

ELECTRIC INDUSTRY DEREGULATION TIME LINE

Deregulation will affect large industrial users, then large commercial users, and eventually be applied to small commercial and residential users over the following time line:

1992	Passage of EPACT and the start of the debate.
1995 & 1996	The first pilot projects and the start of special deals. Examples are: The auto makers in Detroit; New Hampshire programs for direct purchase including industrial, commercial and residential; and large user pilots in Illinois and Massachusetts.
1997	Continuation of more pilots in many states and almost every state has deregulation on the legislative and regulatory commission agenda.
1998	Full deregulation in a few states for large users (i.e., California and Massachusetts). Many states have converged

upon 1/1/98 as the start of their deregulation efforts with more pilots and the first 5% roll-in of users, such as Pennsylvania, New York.

2000 Deregulation of electricity will be common for most industrial and commercial users and begin to penetrate the residential market.

2002 We will all be getting calls at home disturbing our dinner for the next best deal on power.

THE IMPACT OF RETAIL WHEELING

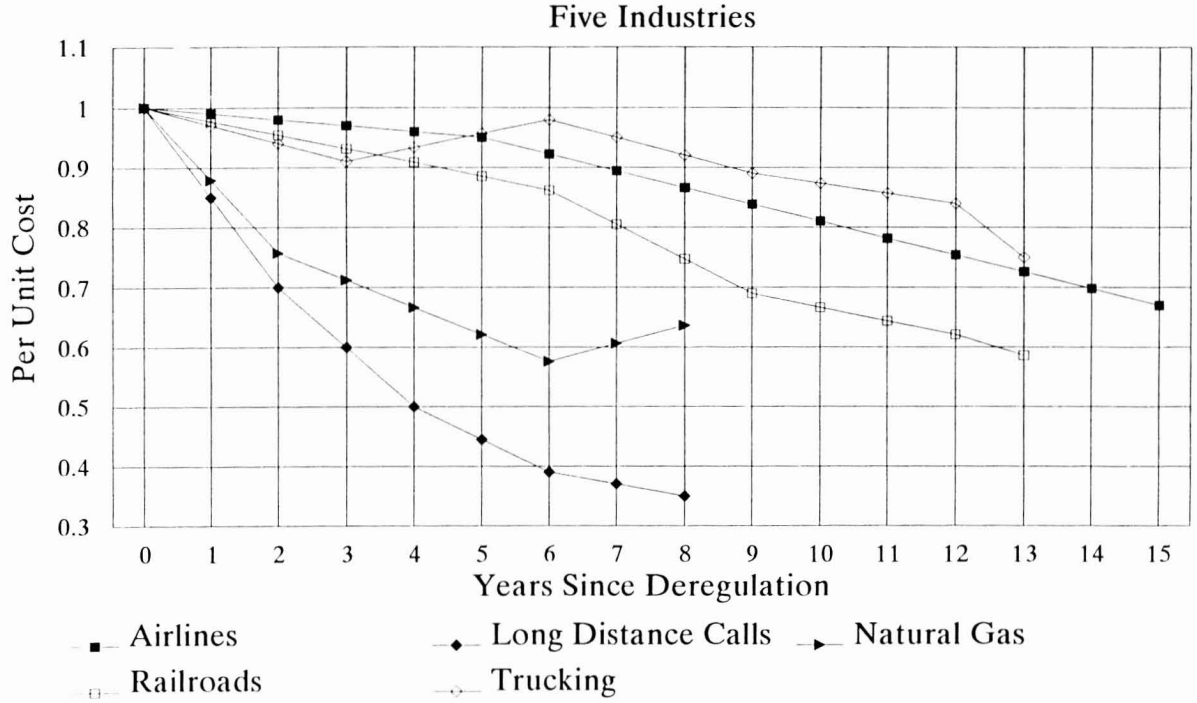
The Rouse Company has been making energy supply choices on both new building construction and existing building operations since the first building was built. This has included negotiations with utilities for primary service, business recovery rates, economic development rates, interruptible and other rates advantageous to ourselves and our tenants. We also have participated in the deregulated gas industry and have directly purchased natural gas from marketers and brokers on the open market.

With an annual utility bill of more than $85,000,000, The Rouse Company and its subsidiaries and affiliates, are customers of 45 electric utilities. The cost of electricity varies from 3.5 cents to more than 12 cents per kWh. The price for electricity is markedly different in neighboring regions, states, and even across adjacent property lines.

Many believe that electric deregulation will even out this difference and bring down the total average price through competition. Data from other industries support many of my colleagues as well as my own beliefs that deregulation will result in a reduction in electricity costs from a minimum of 10% to 20% or greater.

Figure 1, which was taken from a research project report by Mercer Management Consulting, Inc. Copyright Edison Electric Institute, details the cost experiences of five industries after deregulation. The reduction in cost for those industries has ranged from 35 to 65 percent. The first year reduction ranged from almost no change to a 15 percent reduction. Most utilities are already taking actions to reduce costs. Consolidations, layoffs, and mergers are occurring faster than I can keep up with them.

Figure 1. Impact of Deregulation



Data from Report #73–Mercer Management Consulting, Inc, Wash, DC. Copyright Edison Electric Inst.

All data is shown in constant 1980 dollars from various industry sources.

Data was reformatted by the author from graphs contained in the report.

As part of the transition to deregulation, many utilities are requesting and receiving rate freezes and reductions. One utility in the northeast has requested a 25% rate reduction for industrial customers and a 10% reduction in the large commercial sector.

All of this provides for interesting background and statistics. But what does it mean to those of us interested in providing and procuring utilities, commissioning, O&M (operations and maintenance), and the other energy services required to build and operate buildings effectively?

Just as almost every business enterprise has experienced changes in the way that they operate in the '90s, the electric utilities, their customers and the energy service sector must also transform. Only the well-prepared companies will be in a position to take advantage of the opportunities that will present themselves after deregulation. By January 1, 1998, building owners and managers need to be in a position to actively participate in the early opening states. The following questions will have to be answered by every company if they are to be prepared:

- Will you participate in the deregulated electric market?
- Is it better to do a national account style supply arrangement or divide the properties by region and/or by building type?
- How will electric deregulation affect our relationships with our tenants?
- Major chains may want to partake in purchasing power on their own.
- Should the analysis and operation of electric deregulation efforts be in-house or by consultants or a combination?
- What are the criteria to use to select the energy suppliers when the future is uncertain?

THE TEN-STEP PROGRAM TO SUCCESSFUL UTILITY DEREGULATION FOR BUILDING OWNERS AND MANAGERS

In order for the building sector to get ready for the new order and answer the questions raised above, I have developed this ten step program to ease the transition and take advantage of the new opportunities.

Step #1—Know Thyself

- When do you use the power?
- Summer vs. winter, night vs. day?
- What load can you control/change?
- What $$$ goal does your business have?
- What is your 24 hr. load profile?
- What are your engineering, monitoring and financial strengths in-house?

Step #2—Keep Informed

- Read, read, read—network, network, network
- Professional organizations
- Vendors, consultants, and contractors
- Subscribe to trade publications
- Attend seminars and conferences
- Internet resources—news groups, WWW, E-mail
- Investigate Buyer's Groups

Step #3—Talk to Your Utilities (all energy types)

- Customer relations are improving
- Discuss alternate contract terms or other energy services
- Find out are they "for" or "agin" deregulation
- Obtain improved service items (i.e., reliability)
- Tell them your position and what you want, now is not the time to be bashful
- It is possible to renegotiate existing contracts

Step #4—Talk to Your Future Utility(ies)

- See Step #3
- Find out who is actively pursuing your market
- Check the neighborhood, check the region, look nationally
- Develop your future relationships
- Develop ESCO, power marketing, financial, vendor and other partners for your energy services needs

Step #5—Explore Energy Services Now (Why Wait for Deregulation)

- "Standard" energy projects such as lighting, HVAC, etc.
- District cooling/heating
- Sell your central plant

- Square foot pricing
- Buy comfort, BTUs or GPMs not kWhs
- Outsource your Operations and Maintenance
- Other work on the customer side of the meter

Step #6—Understand the Risks

- Times will be more complicated in the future
- Length of a contract term in uncertain times
- Do you want immediate reductions now, larger reductions later or prices tied to some other index?
- Do you want a flat price for utilities?
- Losing control of your destiny-turning over some of the operational controls of your energy systems
- Some companies will not be around in a few years
- How much risk are you willing to take in order to achieve higher rewards?

Step #7—Solicit Proposals

- Meet with the bidders prior to the Request For Proposal (RFP)
- Prepare the RFP for the services you need
- Identify qualified players
- Make commissioning a requirement to achieve the results

Step #8—Evaluate Options

- Enlist the aid of internal resources and outside consultants
- Narrow the playing field and interview the finalists prior to awarding
- Prepare a financial analysis of the results over the life of the project—ROI and Net Present Value
- Remember that the least first cost may or may not be the best value
- Pick someone that has the financial and technical strengths for the long term
- Evaluate financial options such as leasing or shared

Step #9—Negotiate Contracts

- The longer the contract, the more important the escalation clauses due to compounding
- Since you may be losing some control, the contract document is your only protection

- Remember, the supplying of energy is not regulated like the supplying of kWhs are now
- The "Who Struck John" clauses are often the hardest
- Include monitoring and evaluation of results
- How do you get out of the contract and what does it cost?

Step #10—Sit Back and Reap the Rewards

- Monitor, measure, and compare
- Don't forget Operations & Maintenance for the long term
- Keep looking, there are more opportunities out there
- Get off your duff and go to Step #1 for the next round of reductions

IN-HOUSE VS. OUTSOURCING ENERGY SERVICES

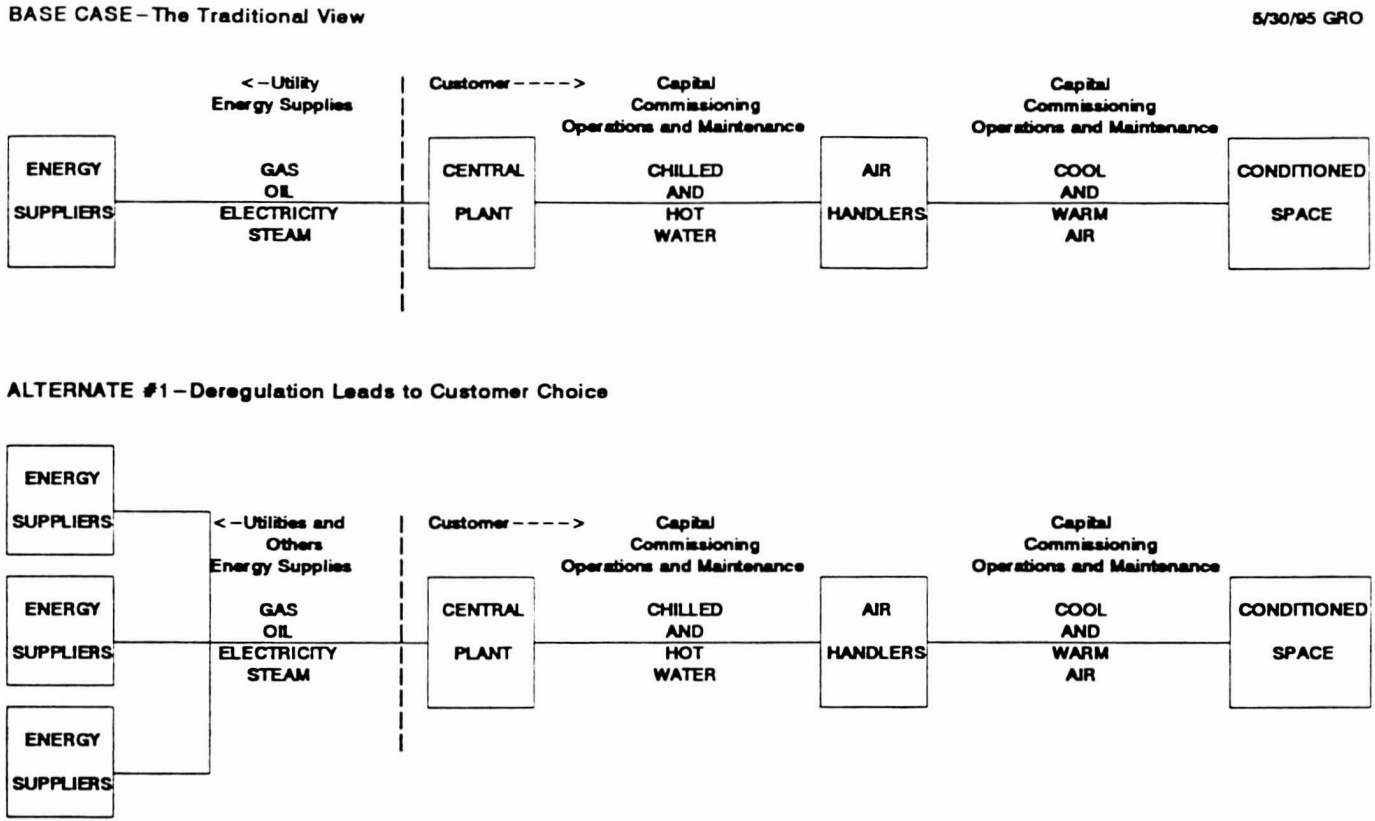
The building sector has always used a combination of in-house and outsourced energy services. Many large managers and owners have a talented and capable staff to analyze energy costs, develop capital programs, and operate and maintain the in-place energy systems. Others (particularly the smaller players who cannot justify an in-house staff) have outsourced these functions to a team of consultants, contractors, and utilities. These relationships have evolved recently due to downsizing and returning to the core businesses. In the new era of deregulation, the complexion of how energy services are delivered will evolve further.

Customers and energy services companies are already getting into the utility business of generating and delivering power. Utilities are also getting into the act by going beyond the meter and supplying chilled/hot water, conditioned air, and comfort. In doing so, many utilities are setting up unregulated subsidiaries to provide commissioning, O&M, and many other energy services to customers located within their territory, and nationwide as well. Figure 2 illustrates the various models that exist now and in the future for customers, utilities, and energy services companies.

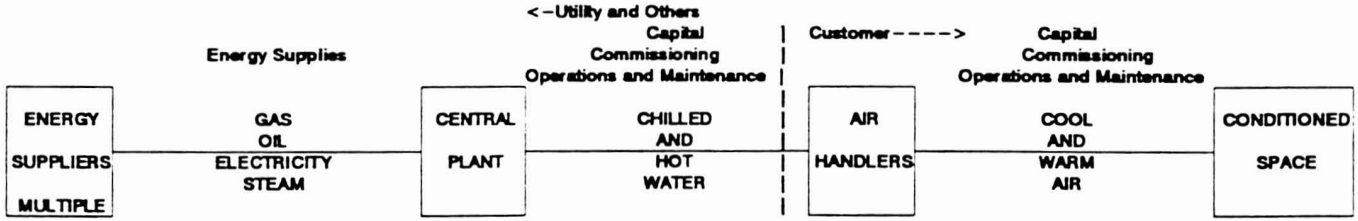
CONCLUSION

Deregulation of the electric utility industry is here. Competition, customer choice, and generally lower costs for kWhs and end uses of energy

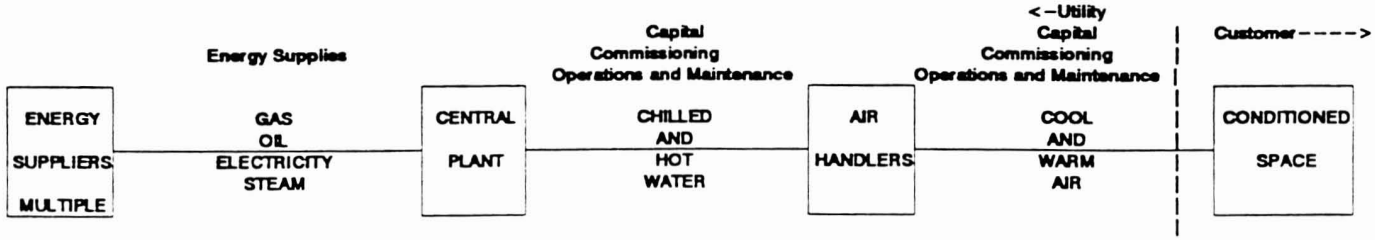
Figure 2. Utilities' and Their Customers' Changing Views of Energy Services



ALTERNATE #2 – Chilled and Hot Water Supplied by the Utility or Others



ALTERNATE #3 – Conditioned Air Supplied by the Utility or Others



ALTERNATE #4 – Comfort as the Final Product by the Utility or Others – Square Foot Pricing

will prevail. The electric industry, their customers, and the energy services sector will have to reexamine their methods of operating their businesses. Utilities, customers, and energy service companies will try to get into each other's area of business. Energy efficiency projects will multiply tremendously and the emphasis will move from providing kWhs to providing comfort.

Only the building owners and managers that are ready for the new era of electric deregulation will achieve improved comfort and reliability at a lower cost. The "Ten-Step Program to Electric Deregulation for Building Owners and Managers" provides a step-by-step methodology for embracing, conquering, and taking advantage of the new era.

ABOUT THE AUTHOR

George R. Owens, P.E., CEM, is Director of Engineering for the Rouse Company, which owns more than 75 shopping centers and 120 office buildings throughout the United States and Canada. These total 57,000,000 square feet. He is responsible for managing and reducing an energy budget of $85 million annually.

His activities include utility rate analysis, energy management systems evaluation and installation, operations, computer programs, energy accounting, energy studies and audits, lighting design, and a $10 million annual capital improvement program. He is responsible for the company's Utility Deregulation and Energy Services Plan.

George is a registered professional engineer in five states, a Certified Energy Manager, recipient of energy awards, publisher and presenter of energy articles and book chapters. He is an instructor with Virginia Tech and North Carolina Universities' Energy Programs. He is a member of several professional organizations (AEE, ASHRAE, IEEE, NETA) where he has held committee and officer positions. He is a recipient of the Association of Energy Engineers' "International Energy Manager of the Year."