Utility "Reregulation": The ESCO Fit

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No one can think energy, and more particularly energy efficiency, these days without wondering what the impact of utility deregulation and competition will be on his or her operation. Suddenly, owners must get smart about buying power and making choices. The complexities inherent in this new era make what was learned through the deregulation of the telephone and natural gas industries look like rehearsals for the command performance.

Before we look at the ESCO fit in all this, one undergirding principle needs to be kept in mind. The popular nomenclature has been "utility deregulation." The more appropriate term is **reregulation**. Anyone who has seen the Federal Energy Regulatory Commission's Order 888, will have difficulty believing we are on the eve of deregulation. The term deregulation will continue to be used, but keep in mind that a bevy of orders, regulations and new federal intrusions are apt to come with the utility restructuring.

We have also been warned by Mr. Ashley Brown, former Ohio utility commissioner, that competition and deregulation are not synonymous. As Mr. Brown has observed, the airlines have been deregulated for many years, but in Atlanta today the choice of airlines is Delta ... Delta ... or Delta. Competition at Hartsfield Airport comes close to a choice among 747s, 727s or maybe an L1011.

For years the facility owner has flipped the switch and the electric

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power was there. Little thought was given to the whole process. Purchase options were severely limited, as owners were captive customers of the monopoly utility that served the territory. Customer protection was offered to some extent by state utility commissions and the Federal Energy Regulatory Commission.

Owners now have no choice but to become educated consumers. The first option will be whether to designate, and develop, in-house expertise to follow the day-to-day changes in the utility market place and their implications. Or, to gather a general knowledge of what is needed and outsource this "watch dog" function.

"Reliability" and "power quality" will become new words in most electric consumers' lexicon. *Reliability* has been pretty much taken for granted; and, for most, *power quality* has been an unrecognized factor. It may be a rude awakening but we are apt to soon learn what Mr. N.K.P. Salve, India's Minister of Power, meant when he said, "No power is costlier than *no power*."

Consulting engineers, especially energy engineers, will need to develop their own supply expertise and/or develop strategic alliances with a firm that can provide this resource. Utility deregulation offers engineering firms a new burden or a great opportunity. Or both.

For ESCOs, the whole scenario becomes a crucial part of doing business. There is no question that changes in the new utility market place will have a significant impact on the way ESCOs do business.

The market segments an ESCO strives to serve will change. In the near term, large industrial customers will have little interest in the relatively small action on the demand side of the meter when rate/price negotiations on the supply side can make a big difference in the utility bill.

And what will happen should the price of electricity drop well below a previously contracted floor price and stay there? Could owners find themselves paying more to save energy than to burn it? Customer apprehension, real or perceived, could put a pall on the ESCO market place. At least until the utility restructuring sorts itself out.

The part, however, that will make presidents and CEOs of ESCOs lose sleep will be the dancing payback numbers that could vary by the hour. How will guarantees work? How will ESCOs cushion the risk? Will energy diminish in the performance contracting field while water performance contracting and other services grow? Those responsible for developing the operating blueprints of tomorrow will need superb

sources of information, great computer programs ... and big erasers. Conversely, the new utility industry could offer ESCOs some exciting new opportunities and tremendous growth potential.

DUSTING OFF THE CRYSTAL BALL

The best fortune teller would have trouble wading through the mire of political, legal, regulatory and industry prognostications to accurately foretell how the utility scenario will ultimately play out. The most appropriate approach seems to be to take wording from the adage: She who lives by the crystal ball must learn to eat broken glass.

With a big supply of digestive relief on hand and mindful of the hazards, an assessment of a few short term and long term implications still seem to be warranted.

Stranded Benefits

Much has been said, and will be said, about stranded costs or stranded investments. The other side of that coin (particularly for those who wonder how energy efficiency will fare under utility restructuring) is this: stranded *benefits* are of equal concern.

In the monopolistic environment, utilities were directed (and sometimes offered) to provide special customer benefits. The utility services have been so pervasive that many government agencies have forgotten that they are often dealing with private companies. As utilities shed their quasi-government role and focus on competition, only those services that induce customer retention are apt to survive in utility hands per se. Unregulated subsidiaries of utilities, including utility affiliated ESCOs, will pick up some of the slack.

For analysis procedures, the stranded benefits are apt to sort themselves into three areas:

1. Economically viable services, such as cost-effective energy efficient measures. These services are apt to be found in utility-affiliated ESCOs, or ESCOs with established relationships with a utility.

2. Services that are not self-funding, such as more costly renewable measures. These measures may earn their way by being amortized over a longer time period. Some, which are deemed to carry social good, may receive subsidies.

3. "Welfare" services, such as low income energy assistance programs, will probably require more direct government intervention to persevere.

The ESCO Fit

The ESCO of tomorrow, and most likely today, will need at least some built-in expertise in power marketing and/or a strong alliance with power marketers and independent power producers (IPPs). The ESCO, which cannot reach across the meter and serve its customer's supply concerns, will be at a disadvantage in the market place.

Many owners will be happy to dump the whole supply/demand energy question on someone else; energy purchasing economies and use efficiencies are not central to most managers' missions. The appeal of ENRON's early foray into chauffage (selling conditioned space for 10 years at a set price per square foot) was an instant marketing success. Unfortunately, the appeal was apparently greater than the company's ability to deliver at this early stage in the chauffage evolution, but this leader in the industry is still expected to stay on the cutting edge of combined supply/demand offerings.

ENRON's vision marks the anticipated larger role ESCOs can, and will, play in providing all its customers' energy needs. Ultimately, we will have a seamless market of energy efficiency and supply. The supply and demand distinctions in a competitive market will be less important as time goes on.

The market demand for chauffage offerings, which will effectively remove the supply meter from customer's conscientiousness, will move the industry in this direction. As utilities negotiate supply prices, they will realize that their own people, wearing the ESCO hats down the hall, or in the next building, are negotiating guaranteed efficiency savings. Soon a combined effort will emerge. Unfortunately, the first contracts are apt to be cumbersome attempts to combine the separate legal conditions of supply and demand contracts. Early on market increased share, however, is apt to go to the ESCO, which is customer sensitive enough to provide simpler contracts. The basic contract, from the owner's perspective, need only establish operating parameters; i.e., temperature, humidity, air changes, light level, etc., and establish ways to deal with major anticipated and unanticipated variables. A reopen clause to negotiate the impact of unanticipated events will become even more commonplace. ESCOs will have a greater challenge to manage the risks and deliver the

results, but how this will be done is not central to the owner's concerns. Nor, is it part of the contract language customers want to sign.

If emerging utility-affiliated ESCOs can move out from under their parent company's traditional monopolistic mind-set and develop a strong marketing and financing approach, they will be in a preferred position to develop chauffage. The "in-house" supply expertise already resides in the parent company.

For a short time, utilities—and to some degree their ESCOs—will continue to enjoy the quasi-government image they have held. As long as the federal government continues to regard utilities, even private ones, as quasi-government, the utility-affiliated ESCOs will continue to have some advantage. When the federal government no longer allows the utilities to pre-qualify ESCOs for its agencies, the playing field will even out. But the "level playing field" may not be so easy to achieve, particularly if utility-affiliated ESCOs wisely use this respite to cement their market position.

For the non-utility affiliated ESCOs and engineering firms, wanting to assure a strong position in this changing world, the learning curve will be steep and demanding. The trick will be for ESCO management to realize what they don't know, find reliable sources of information or strategic alliances, and integrate these new data and affiliations into their operations for effective application.

"Wanna-be-ESCOs" may find a more secure, and profitable, approach in serving the ESCO industry rather than becoming part of it. Two niches already exist that could prove very lucrative in serving performance contractors. They are:

a) *Investment grade audits (IGAs).* Engineering firms can build on their existing auditing expertise by refining the traditional audit and incorporating the risk assessment component. (See the discussion on IGAs in Chapter 9, "ESCO Risks and Management Strategies.") Energy engineers, who can offer a quality IGA with predictive consistency, are in great demand now and the need is increasing.

b) *Measurement and Verification (M&V).* Owners are increasingly aware that the savings they are paying for should be verified, preferably by an impartial third party. Thanks to the leadership of the U.S. Department of Energy, a widely accepted protocol exists. (See Chapter 4 for more information on M&V and access to the DOE material.)

ANTICIPATING THE NEED; FINDING THE SOURCES

Both engineering firms and ESCOs, who wish to serve customers effectively, need to realize the struggle in the market place began long before the first legal and legislative actions took place. Whether we point to California as the first deregulated state because of its legislative effort or Massachusetts' attorney general's plan which claimed to have beaten California to the punch by a whole three hours (favored by the time difference) on the stroke of 12:00 on January 1, 1998, many customer retention maneuvers were already history.

On the other hand, wise customers were already active in establishing their bargaining positions. One of the end user visionaries was, and is, Lindsay Audin, who began gathering key facility data and researching options early. He urged his colleagues to collect and manage load information, to experiment with time sensitive tariffs, to analyze and redesign (at least on paper) present loads, to consider aggregate purchasing with other end users and to issue RFPs for market-based power.[1]

Those who listened to Audin did not sign long term contracts and are now in a position to work the new competitive market to their advantage. The Audin advice to his end-user colleagues can equally serve engineers and ESCOs, who wish to be in a position to serve their customers more effectively. Engineers and ESCOs routinely get some of the recommended information, such as demand profiles for load shedding analysis. The ability to assess rate options, changes in operating schedules, and the impact on energy-using equipment are part of any investment grade audit. This information can now be seen as preparation for comparative shopping and negotiating strategies.

Three of the tariff-sensitive options, listed below are generally available now. The fourth will soon be more common. They give owners, and those who wish to serve them, a glimpse of what the market offers:

- time-of-day (TOD) or time-of-use (TOU) rates—charges vary seasonally and with the time of use; typically peak use is penalized and off-peak provides incentives to shift loads;

- interruptible electric service, which gives the utility the flexibility to reduce power supply beyond a defined level and/or for a defined period in exchange for lower rates;

- curtailable rates, sometimes referred to as energy manager rates, allow the utility to reduce loads upon advance notice for which the utility offers incentives—and penalties for non-compliance; and

- real time pricing (RTP), which is relatively new, typically offers price by the hour with 24-hour advance notice.

The New World of RTP

Owners, consultants and ESCOs will have to learn to manage RTP if they are to take full advantage of it. RTP can, and will, save money. Conversely, it will become equally apparent that a premium is assigned to set prices. The first question then is: How much price volatility can the business handle? Once the range of acceptable volatility is established, then maneuvering to gain RTP advantages will work.

The second aspect of working with RTP reflects the management of demand concerns we have all worked with for years, but now it is not just seasonal or TOD/TOU. The question turns on: How much price elasticity can a business have? Can loads be shed at the same time the utility has its late afternoon demand spikes? Department stores, for example, are apt to think of their constant lighting and air-conditioning needs and assert they have no elasticity. A careful study of customer traffic, however, is apt to show a major drop during the dinner hour. If air temperatures in the summer were allowed to rise a couple of degrees during the dinner hour, there would be negligible impact on the comfort level and the store would be in a very strong position to negotiate a better contract.

Presumed rigidity in energy demand may be replaced with considerable elasticity if all conditions are examined with an open mind.

Understanding how various utilities respond to load variations now will lay some groundwork for more sophisticated purchasing agreements when the time comes. In the same vein, load profiles (average demand divided by peak demand) and load management can enhance a customer's attractiveness to the utility.

ESCOs, or their power marketers, who understand this new market, will be able to take advantage of tariff structures, particularly poorly designed tariffs, by working the wholesale market through buy-backs and selling procedures. But these "new opportunities" are not for the faint of heart and require good and constant research.

Utility restructuring in the United States and around the world is on fast forward. Sources of information to keep abreast of the times are

discussed in the "Parchment to Internet" chapter and a few select references which have been cited.

The hazards of writing about the volatile era of deregulation reregulation are profound. The utility perspective of all of this adds another layer of complexity and a unique perspective. The authors are indebted to representatives of Edison Electric Institute (EEI) for providing their insights of the changing energy market place.

ABOUT THE AUTHORS

Shirley Hansen is increasingly active in the international ESCO world, having now worked in 22 countries in the past six years. But she finds time to keep tabs on ESCO activities in the U.S. and is particularly intrigued by the "rereg" scene and its impact on ESCOs. Shirley is Executive Vice President of Kiona International while she keeps her ties to Hansen Associates as CEO. Both firms specialize in all facets of performance contracting.

Jeannie C. Weisman, President, Hansen Associates Inc., has experience and background that match well with the expanding role of performance based contracting, not only as a valuable tool in the achievement of energy efficiency, but as a way to accomplish efficiencies in many other activities.

Following her work with the Georgia Energy Office, Jeannie was asked to become a part of the Alliance for Employee Growth and Development, a joint venture of AT&T. While working in the area of corporate training she discovered that the concept of performance based contracting has wide application beyond its use in energy efficiency. While she served as Director of National Programs for the Alliance, she introduced the principals of performance contracting to the field of vendored services for training, administration and delivery.

Jeannie was a "pioneer" of performance contracting. As Manager of the Institutional Conservation Program for the Governor's Office of Energy Resources for the State of Georgia, she became an early advocate for the use of performance contracting as a route to energy efficiency in state and local facilities. Recognizing the advantages of leveraging limited public resources through the innovative process she became nationally recognized for her work in Georgia. Speaking and writing about the programs she managed helped to establish performance contracting as a

valuable tool available to institutions in need of energy efficiency help but short of budget.

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