Energy Service Companies: New Trends in a Changing Industry

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With the utility industry becoming more market-driven, questions have begun to arise about the future of demand-side management programs for energy service companies (ESCOs), the relationship between utilities and ESCOs, and the likely future of ESCOs.

The present paper is primary research that employed personal interviews and a focus group methodology with a national sample of ESCO executives. The results of the study suggested that ESCOs see themselves growing profitably into the future. However, ESCOs also felt that many utilities would continue to enter the business via acquisition and *de novo* expansion. Several respondents felt that, in turn, ESCOs, could successfully compete with utilities for large premium commercial/industrial customers by offering power sourcing and brokering services.

INTRODUCTION

In recent years, the utility industry has witnessed the growth and emergence of the energy service company industry. To a considerable extent, this growth has actually been fostered by utilities through the use of demand-side management (DSM) bidding programs (Goldman & Busch, 1992). Through such programs, as well as by operating as independents, Energy Service Companies (ESCOs) are now playing a significant role in the provision of energy services. ESCOs routinely offer energy efficient design services, computer energy use modeling, energy efficient equipment acquisition and installation, performance contracting, shared savings programs, energy monitoring, facilities management, etc. It is against this backdrop, that other trends in the energy business are now beginning to emerge. First, the prospect of increasing levels of market competition have begun to influence the electric utility industry. Regulated utility companies may be confronting a future in which competitors can provide services in what utilities considered to be their exclusively franchised service territories. What impact will increasing levels of competition have on the utility industry? Perhaps more importantly, how will a more competitive utility industry impact ESCOs? What will be the future relationship between utilities and ESCOs? Will they be friends or foes?

One answer to this question is provided by Leblanc (1995). LeBlanc suggests that the future "super-competitor" for utilities may be companies who are able to provide both independent power marketing services and energy services, including energy efficiency programming. That is, the ESCOs of today may be laying the foundation for becoming the primary competitors of utilities tomorrow. Will today's ESCO become the "super-competitor" envisioned by LeBlanc? The second meaningful trend occurring in the utility industry is the dramatic slowing in the growth of demand side management programming. A recent study suggested that 56% of the 25 largest investor owned utilities planned cuts in their DSM budgets from 1993-1994 and beyond (Hadley & Hirst, 1995). The 25 utilities surveyed represented almost 66% of total DSM expenditures nationally. A growth rate for DSM of only 9% was forecast for 1994-95, this following several years of double-digit growth (Hadley & Hirst). Since a large segment of the ESCO business may rely on utility support through DSM programs the question arises: What effect will a declining emphasis on DSM have on ESCOs? Will ESCOs simply become independent service providers? Alternatively, will utilities move into the unregulated energy services business? These are among the questions that the present research was designed to address.

METHODOLOGY

A two-pronged qualitative methodology was employed for the study. Personal interviews were conducted with representatives of seven (7) ESCOs. The ESCOs were sampled purposively, with the objective being to acquire a sample of ESCOs that ranged in size and geographic location. Interviewees were typically senior executives of the ESCOs sampled and were interviewed by telephone.

The second methodology employed in the study was a focus group. Eleven (11) representatives from a national sample of ESCOs were sampled for the focus group. The group was held at a neutral site at an Arizona governmental office building. The author conducted the telephone interviews and moderated the focus group.

RESULTS

The results are summarized as a set of empirical observations derived from the personal interviews and the focus group.

The "firmographics" of the ESCO

"Firmographics" is a term often used among market researchers to refer to the "demographics" of organizations. In terms of the firmographics of ESCOs, ESCOs are diverse and come in all shapes and sizes. In terms of defining variables such as revenues, size, geographic location, etc., there appears to be no real "prototypical ESCO." ESCOs ranged in size from "one man bands" to ESCOs that were publicly traded and had several million dollars in annual sales.

Four main types of ESCOs, however, were distinguished based on a company's business orientation. The types identified were:

Vendor ESCOs. These were ESCOs that dealt directly with large customers and were not affiliated with utility DSM programs. Vendor ESCOS may be owned by utilities, but their business orientation is clearly directed to customers. Vendor ESCOs solicit business directly from customers and the largest have defined their markets in national and international terms. Several Vendor ESCOs are in the controls busines.

Utility ESCOs. These were ESCOs that bid to serve as the provider for utility-sponsored DSM programs. They are paid by the utilities to offer DSM services in the utility's service territories and to achieve guaranteed levels of MW and MWh savings for the utility.

Contractor ESCOs. These ESCOs work with companies who are constructing new buildings and the ESCO offers to install more energy efficient equipment than might be installed normally in the building. Examples include companies that are involved in commercial building architecture and design, commercial building metering, building control design, or computer modeling firms.

Engineering ESCOs. These ESCOs perform design and engineering services for clients and rarely offer performance contracting or shared savings programs to customers. These companies may also work with other ESCOs, particularly on metering and measurement projects

Most ESCOs included in the sample had been in business for well over ten years, though most had "gotten their starts" in other energy areas. Several ESCOs, prior to providing a full range of services (e.g., equipment acquisition, performance contracting, etc.) were providing other energy services. Interestingly, in many instances, today's full-service ESCOs, were at one time, firms that provided a single energy service such as computer modelling, co-generation, or independent power production. In another case, a now prominent ESCO was a mobile vendor of lighting equipment, selling equipment "curbside" to small businesses. Most of the firms interviewed, now offer a full array of ESCO services, including design services, audit services, equipment acquisition and installation, performance contracting, shared savings programs, and energy monitoring programs.

Doing Business as an ESCO

ESCOs reported facing several business challenges in their industry. First, ESCOs, by necessity, tend to be restricted to large commercial/industrial customers or large multfamily projects—such as public housing authorities. This has occurred for two reasons. First, sales cycles in the ESCO industry are extremely long. It was not unusual to hear of sales cycles as long as 18 months for certain customers. Because of these lengthy sales cycles, transactions, in the words of one respondent, "have to be worthwhile." Interestingly, it was also felt that "you had to be in front of the decision-maker." That is, most ESCOs took two paths (simultaneously) to business development. One path was oriented towards gaining the support of the technical decision-maker, while the second path was oriented towards gaining the support of the financial decision-maker.

Virtually all of the ESCOs interviewed targeted customers with utility bills of \$5,000 per month or more. It was more common for ESCOs to be pursuing customers with bills of \$50,000-\$100,000 monthly. Clearly small companies and/ or residential clients are not being served by ESCOs, nor are they likely to be in the future.

The second reason that ESCOs concentrate on large commercial/industrial customers as opposed to smaller customers is that the transaction costs in the ESCO business are extremely high. Much feasibility work often precedes the awarding of contracts and such an investment of time and capital requires a significant payoff for the ESCO.

Respondents pointed out that a consequence of the long sales cycle and the high transaction costs in the industry was a "credibility problem." When an ESCO did gain a sale, respondents said that in some cases the industry may have become "opportunistic." As a result, companies may purposively "sell-in" measures or equipment that may be marginally energy efficient. What results from this is that the ESCO then has difficulty demonstrating the performance of the product. Respondents noted that this practice occurred only among a few "bad apples," but the effects of these practices did contribute to a credibility problem in the industry.

Three other causes of the credibility problem identified were: 1) when a product did not perform for the customer as was promised, and 2) when energy savings for retrofits could not be reliably measured and 3) sometimes there was a lack of human resources to insure that a particular contract was executed properly. That is, some ESCOs reported that the long closing cycles in the industry often created "log-jams" in successfully implemting programs from the stand point of human resources.

Going back to the first casue, often an ESCO will recommend a product and it simply does not perform to expectations. Unfortunately ESCOs are the recipients of considerable blame when this happens even though the firm may have truly believed in the projected energy efficiency of certain measures. Because ESCOs have the greatest level of customer contact, they are the firms that customers associate with a performance failure.

The second contributor to the credibility problem is the difficulty that arises from efforts of measure energy efficiency savings. As respondents repeatedly pointed out, businesses are rarely "static" and other factors may raise energy consumption levels which might then "mask" real savings. For instance, respondents pointed out that many audits find broken equipment. Once such equipment is brought back on-line, it can dramatically increase consumption levels.

The Effects of Reduced DSM Programming on ESCOs

The ESCOs felt that lower power prices (perhaps those that might emerge from increased market competition) would lead (and is leading) to the reduction of DSM. According to one respondent, lower utility prices hurt DSM in that "deals do not pencil as well." Deals that might look attractive at \$.09 per kWh do not look attractive at \$.05 per kWh. Second, lower utility prices will lead to lower revenues and lower margins for utilities and, as a result, less money might be invested in DSM. Many respondents were not convinced that utilities had ever really been committed to DSM. Several believed that utilities had simply "thrown money at DSM programs" to satisfy regulators. Some ESCO executives were unconvinced that utility managers really wanted to shed load.

Even though virtually all of the ESCOs in the sample had at one time or another worked in conjunction with utility DSM programs, respondents felt that cutbacks or reductions in demand side management programs would primarily hurt utility ESCOs. These companies would have to adjust by becoming more independent. Some of this is occurring already in the industry, as utility ESCOs attempt to expand their businesses to geographic areas other than those where they had utility contracts. Part of the reason for some utility program cutbacks, according to ESCO respondents in the study, was that utilities now feel that they have a better understanding of the ESCO business. Also to be hurt by DSM program cutbacks will be very small ESCOs which specialize in one particular facet of DSM. For instance, lighting firms, (or as one respondent referred to them, ''reflector jockeys'') could be hard hit by utility DSM cut-backs.

In contrast, most of the larger ESCOs, particularly the larger vendor ESCOS, had little use for utility DSM programs. Most stated that the programs had been ineffective or that the utilities had been victimized by free-ridership in the programs. Most of the large ESCOs stated that most "meaningful" retrofits were cost-effective without rebates and that the programs made economic sense without the rebates. Typically, rebates amounted to no more than 5–6% of a project, a very small amount.

The Effects of Deregulation in the Utility Industry on ESCOs

The respondents believed that deregulation would lead to consolidation in the utility industry. They felt that larger utilities would result through merger and acquisition. As noted in the above section, they also felt that deregulation would lead to reduced electricity prices which could hurt the energy services industry in the short term.

A second perceived effect of deregulation was that it would lead utilities into other energy related businesses, such as the energy services industry. That is, it was felt that another effect of deregulation would be that utilities would face increasing competition for their very largest customers. In the view of the energy service company industry, ESCOs have already made significant inroads into forming relationships with these customers (especially through long-term performance contracting which guarantees an on-going relationship). Consequently, we have begun to see acquisitions and launches of ESCOs by utilities.¹

The relationship between ESCOs and utilities

With acquisitions, mergers, and partnerships occurring between utilities and ESCOs, it might be concluded that a positive relationship exists between the industries. In contrast, our research results suggest that an "uneasiness" has come to characterize the relationship between the industries. To some extent, this uneasiness has also translated into an adversarial relationship between utilities and ESCOs. Initially, utilities felt that ESCOs could assist them in customer retention-particularly with their largest and most important customers. The utilities, feeling that they had little expertise in energy service marketing, turned to the customer-focussed ESCOs to assist them in customer relations. Now, however, many utilities are worried that ESCOs may be in a position to steal clients. As one ESCO executive remarked, "When they (the utilities) realize what they have done-paying us to steal their customers-they will be mortified!"

There may be some validity to this notion. Many ESCOs report that they perceive a "double-breasted" strategy to be a viable strategy for their industry in the future. With such a strategy, the ESCO not only provides energy efficiency services; but also provides a supply source of energy to the customer. Assuming that deregulation occurs; this could be a very powerful strategy. Since ESCOs have formed performance contracting relationships with customers; it seems a logical next step that the ESCO would offer to provide power to the customer-perhaps using previously contracted wholesale sources. Many ESCOS indicated in the interviews and focus group that power brokering and power supply provision were future business opportunities for their companies. The fear of competition, as well as the perception that ESCOs represent a source of new revenue, may be equally responsible for utilities' sudden interest in ESCOs.

Interestingly, the perceived fear of competition was not all one-sided. ESCOs also feared the possibility of competing against utilities in the ESCO business. Most felt that having to compete against a regulated, monopolistic based enterprise represented unfair competition. These executives also cited access to billing records and power usage patterns and the fact that utilities had developed a high degree of "trust" with cutomers as being factors that would make utilities formidable competitors. ESCO executives were also fearful of the enormous capital strength of utilities.

New Products and Services

Representatives were asked about new products and services that ESCOs might be introducing in the future. In addition to power brokering, several mentioned power monitoring, power quality services, and energy services management, including negotiation services for customers. Other new product/service areas being pursued were public sector programs devoted to enabling federal, state and local government entities to engage in performance contracting and, finally, several firms were pursuing energy education services for consumers.

CONCLUSIONS

The results of the study have some significant implications for utilities, ESCOs, and regulatory bodies, alike. Perhaps the most important implication of the research results is that the ESCO business appears to be sufficiently strong and robust enough to independently provide energy efficiency services to large commercial/industrial customers. That is, with the exception of **Utility ESCOS**, it is not clear that all ESCOs desire or require subsidization from utilities in the form of large scale DSM programs. This, in turn, suggests that utility DSM programs might be better targeted to customer segments that are unlikely to be served by the ESCO industry (e.g., residential, small commercial/industrial).

Paradoxically, it appears that an ESCO's financial performance is enhanced under conditions of high utility rates. Therefore, many ESCOs were wary of the effects of competition in the utility industry—believing that dramatically lower rates might result in fewer opportunities to provide costeffective energy efficiency to their large customers. On the other hand, ESCO executives also saw opportunity in deregulation as independent power marketers and as power brokers.

The ESCOs believed that a period of consolidation would begin to characterize both the utility and ESCO businesses. ESCO executives believed that much of the consolidation in the ESCO business would occur via the acquisition efforts of utilities. These acquisitions will occur for three reasons: 1) utilities feel more confident that they possess the marketing skills and expertise offered by ESCOs, 2) utilities are becoming increasingly wary of outside service providers in their service territories, particularly if these outside providers can at some point market power, and 3) the profit potential of an unregulated energy services business is attractive. Hence, we are likely to see greater numbers of ESCO acquisitions and *de novo* ESCO formations on the part of utilities. Clearly, exciting times are ahead for both industries as the fundamentals of the energy business begin to change.

ENDNOTE

1. Prominent acquisitions include XENERGY by New York Gas and electric; A & C Enercon by Heartland, Inc.--a subsidiary of Wisconsin Power and Light; and Energy Performance Services which was purchased by PECO Energy. In addition, several utilities have established *de novo* ESCOS including Southern California's Envest-SCE, Public Service electric and Gas' Entertech, and Potomac Electric's Pepco Services.

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