

## **The Energy Services Revolution: New Opportunities for Commercial & Industrial End-Users**

John Hoggard, Managing Director  
The Energy Planning Network (EPN)

### **Background**

An entire industry of energy service companies (ESCOs) emerged over the last decade in response to utility demand-side management (DSM) programs.<sup>1</sup> In the mid-90's, utility DSM spending topped \$3 billion. Many industry observers, however, believe that DSM has peaked and spending will decline resulting in a shake-out of the industry. Pressure from large industrial customers for increasing competition has caused many energy providers to cutback or eliminate rebates as a DSM tool and, at the same time, place a greater reliance on ESCOs.

For utilities, offering energy services is a way to combat the rapid pace of deregulation and increased competition. Power producers are looking for innovative ways to grow earnings and retain customers through diversification and differentiation. "Creative responses on the part of just about every power provider...are limited only by the creativity of their best marketing minds."<sup>2</sup>

The energy services revolution is empowering customers, who have historically been trapped in monopolized utility service territories, with choice and opportunities. According to a representative from a prominent national chain of restaurants....

*"Given the chance, I will switch my current utility providers at the drop of a hat. I just need an energy provider that cares about quality customer service combined with a fair price of energy."*

---

"Background" editor: Debra Steckel, Debra Steckel Consulting, Allentown, Pennsylvania.

<sup>1</sup>Demand-side management (DSM) programs are utility-sponsored programs that are intended to influence the amount and timing of customers' energy use.

<sup>2</sup>James R. Pierobon, "Innovative Electricity Marketing," Public Utilities Fortnightly, April 15, 1994, 12-14.

Table 2-1 highlights some of the creative efforts made by energy companies to diversify and combat the potential cherry-picking of their customers.

**Table 2-1**  
**Power Producers Embrace Diversification**

*American Electric Power*

AEP reorganized to pursue global energy investment and development projects involving power systems, engineering, design, consulting, and project management services. AEP recently won contracts to build electrical substations in Columbus and Cleveland.

*Atlantic Electric*

AE developed a district heating and cooling system to serve the casinos in Atlantic City. The project provides a new revenue stream to AE and eliminates potential competition from IPPs or municipalities.

*Baltimore Gas & Electric Company*

BG&E purchased Maryland Environmental Systems, Inc. (MESI). The combined efforts of MESI and the existing BG&E Home Products and Services subsidiary directly involves BG&E in selling, installing, and servicing home appliances.

*Boston Edison Co.*

BECO purchased Coneco, a small energy and water conservation group based in Boston.

*Central Hudson Gas & Electric Company*

Central Hudson Enterprises began operating in 1982 as an ESCO. It is now a wholly owned subsidiary of CHG&E with annual gross sales of \$12 to \$15 million. Its customers are primarily schools, hospitals, commercial buildings, and light industrial facilities on the East Coast.

*Detroit Edison Company*

Detroit Edison's subsidiary, EdVenture Capital Corp., invested \$10 million in Palo Alto, CA based Echelon Corp. Echelon provides LONWORKS, a family of hardware and software products.

### *Duke Power Company*

Duke Engineering & Services Inc., a subsidiary of Duke Power, provides commercial and industrial customers with a variety of energy-related services including audits, engineering design, utility rate negotiations and financing.

### *Hawaiian Electric Industries*

Hawaiian Electric Industries formed a subsidiary, Pacific Energy Conservation Services Inc., to act as a consultant to assist customers with becoming more energy efficient.

### *Hydro-Quebec*

Hydro-Quebec developed a process to recover aluminum waste from smelters and licenses the process to an aluminum recycler in Quebec. Further marketing efforts are underway in France, Japan, and South Africa.

### *Long Island Lighting Company*

LILCO patented a refrigerator defrost control that reportedly can reduce energy use by six to eight percent. LILCO plans to sell the unit to other utilities, contractors and appliance vendors.

### *Louisiana Gas & Electric*

LG&E set up a subsidiary, Enertech, to analyze energy needs of factories and office buildings, and advise their owners on how to upgrade the efficiency of existing heating, cooling and power systems. Enertech also offers "end-use pricing" where they will buy gas-, coal- and steam-powered plants operated by businesses for their own needs, maintaining them and selling the energy back to the previous owners.

### *New York State Electric & Gas*

Based in Burlington, Mass., Xenergy is an independently operated, wholly owned subsidiary of NGE Enterprises Inc., the unregulated subsidiary of NYSEG. As of July 9, 1996, XENERGY supplies 13 companies retail power under contracts awarded in New Hampshire's comprehensive direct access pilot program.

### *PanEnergy Corporation*

In July 1996, PanEnergy Corp. and Xenergy Inc. unveiled an innovative energy supply and service partnership "intended to contain World Color Press Inc.'s energy costs." Pan Energy & Xenergy will provide a complete range of energy services, including delivering gas and electricity,

improving energy efficiencies and managing the company's transition through the electric industry's restructuring at all of World Color's 40 facilities throughout the US.

*Public Service Company of Colorado*

PSC of CO established an ESCO subsidiary, eprime, to conduct energy consulting nationwide. The goal of eprime is to expand market share and provide value-added services within and outside their service territory.

*Public Service Electric & Gas Company*

In a joint effort with AT&T, PSE&G is installing interactive communication systems in NJ to provide meter reading, outage detection, meter-tampering detection and other services. PSE&G and AT&T will market this service to other utilities.

*Sonat Inc.*

Sonat Marketing Company, a subsidiary of Sonat Inc., is buying electricity in bulk from various generators and wholesaling it to high-volume industrial customers at a discount.

*Southern Company*

Southern Co.'s goal is to become "America's Best Diversified Utility" and they have no intention of limiting themselves to their traditional service territory.

*Virginia Power*

Virginia Power's ESCO, EVANTAGE, provides a variety of energy services to commercial and industrial customers.

**What is an ESCO?**

In the broad sense, the term ESCO can refer to a range of companies involved in the energy conservation or demand side management business. The National Association of Energy Service Companies (NAESCO) uses the term more narrowly:

"An ESCO is an energy service company engaged in performance contracting. All ESCO members of NAESCO are performance contractors."

(Source: NAESCO brochure)

NAESCO is a trade association of ESCOs with about 80 members. The members include equipment manufacturers, suppliers, distributors, utilities involved in DSM, law firms, financial institutions, accounting firms, offshore entities and some state energy offices.

In general, an ESCO is understood in industry management circles to be a provider of energy efficiency improvements for utility customers—usually industrial, commercial, or institutional. However, a number of ESCOs specialize in residential energy efficiency retrofits. The typical package of services includes:

- Analyzing the customer's needs;
- Auditing the customer's energy usage;
- Designing equipment modifications or replacement;
- Financing (offered or arranged) new equipment;
- Installing new equipment;
- Monitoring performance; and
- Maintaining the improvements over a period of time.

Many ESCOs are supplementing these standard services with additional offerings:

- Energy Accounting: systematically tracking, monitoring, consolidating and paying a customer's electric and gas bills;
- Energy Procurement: negotiating with local utilities and/or national energy suppliers for lower energy bills;
- Aggregating Loads: managing a "buyer group" of multiple large energy users.

Agreements between the ESCO and the client may sometimes exceed 10 years. The ESCO is often reimbursed for these services by retaining a portion of the customer's utility bill savings, usually through an arrangement known as "shared savings." The savings are guaranteed, meaning that these savings will sustain themselves over the life of a long-term contract. The ESCO bears the risk that the systems will perform as planned - thus these arrangements are called "performance contracts." The shared savings or performance contracting approach to project financing is the feature that distinguishes ESCOs from other types of contractors.

ESCOs are generally broken down into two categories: utility subsidiary ESCOs and independent ESCOs. Preparing for the future of an open and competitive electric industry, many utilities are scrambling to either acquire or create an ESCO subsidiary. With the backing of a utility, this type

of ESCO is able to offer customers advantageous project financing. The utility shareholders benefit from revenues earned by the ESCO and the customer benefits by getting new equipment with no up-front expenditures.

However, some EPN members (ie. C&I customers) are leery of working with any group related to the stereotypical, bureaucratic and "non-customer-focused" utility. EPN members often question whether a utility-owned ESCO can truly separate itself from the interests of its parent company.

Becoming less prominent because of acquisitions by utilities, independent ESCOs offer customers the option of outsourcing their energy concerns to a group of experts who are not financially controlled or operated by an energy supplier/producer.

For the most part, the business sectors that are primarily taking advantage of ESCO services are large commercial/industrial and government entities where capital improvements are significant and time-consuming. Schools, hospitals, commercial sites, industrial facilities and government-owned real estate all over the US have had energy retrofits with ESCO financing and assistance.

#### **Customer Attitudes Towards a Competitive Energy Market: A Case Study**

Since the unbundling of the natural gas industry, little has been written about the customers' opinion on suppliers and their experiences with purchasing energy/energy services in a competitive market. As an independent clearinghouse of energy information for facility managers nationwide, The Energy Planning Network recently conducted a survey in which more than 70 gas marketers were graded BY CUSTOMERS THEMSELVES on an academic scale of A+ to F.

A wide range of business sectors were surveyed, including: education and health care facilities; hotel chains; federal property managers; restaurants; retail chains; grocery chains; and multi-site office building managers. Facility managers responding to the survey represented specific organizations such as Marriott, Blockbuster, George Mason University, National Medical Care, McDonald's, United Artists Theatres, Boston Properties, and many more.

*While participating facility managers gave high ratings in terms of reliability, the majority felt that their suppliers were lacking when it came to understanding their business and appreciating them as a customer.*

Participants were given a list of 64 gas marketers and asked (1) which, if any, had approached their company and (2) whether or not a contract was signed. Space was provided to write in any firms not listed and respondents were

asked not to rate any company of which they were unsure. In total, 71% of the respondents noted that they had been approached by at least one marketer.

In the "report card" portion of the survey, gas marketers and brokers were graded in 12 areas including:

- ✓ Understanding client needs;
- ✓ Competence of work force;
- ✓ Problem resolution;
- ✓ Price;
- ✓ Timeliness of response to customer needs; and
- ✓ Reliability.

While participating facility managers gave high ratings in terms of reliability, the majority felt that their suppliers were lacking when it came to understanding their business and appreciating them as a customer. Other findings include:

- While cost is considered the top energy-related issue among the respondents, they felt they were only receiving "good" pricing, as opposed to "very good" or "exceptional".
- Facility managers say they have an inadequate understanding of the competitive energy services industry and the purchasing options available to them.
- Their limited experiences with purchasing deregulated energy/energy services leads them to be concerned about electricity deregulation and its impact on their business.

In addition to identifying shared experiences with gas marketers, facility managers were asked to identify the top two energy-related issues facing their company. The majority of respondents cited cost as the most pressing issue, followed by electricity deregulation, reliability, energy efficiency and reducing consumption.

The results of the survey will be used by the Network to facilitate communication and education among facility managers and their suppliers. The EPN plans to utilize these findings as a benchmark for additional research on behalf of commercial and industrial customers nationwide.

## **Options for End-Users**

Corporations with high energy expenses are faced with the undeniable reality that an energy cost-control program generates significant savings. This presents the ultimate challenge of deciding what course of action to take:

**Do Nothing?**

**Hire a Full-Time Energy Manager?**

**Outsource Energy Management?**

Doing nothing should not be an option in the quickly evolving era of energy industry competition. Implementing the simplest of cost-control strategies is unquestionably justifiable.

Hiring a full-time energy manager is the most ideal scenario, but not always feasible. Organizations such as Wal-Mart, Friendly's Restaurants, A&P Supermarkets, Nestle USA and Proctor & Gamble can easily justify the costs of maintaining an energy manager on staff. However, smaller energy-users often have a hard time economically rationalizing the position.

An attractive option for many organizations is to outsource the energy management function. Current leaders seeking assistance from outside energy services contractors include Sprint, Staples, Au Bon Pain and Rite-Aid.

### **Tips on Outsourcing Energy Services**

Before outsourcing, a company must assign an individual with the task of being the energy project manager. This person is typically a manager in facilities, engineering, real estate or operations. While continuing to perform his or her existing duties, the energy project manager will also be responsible for selecting and supervising the energy services contractor.

The two basic options for outsourcing involve either contracting an individual energy manager or hiring an energy service company (ESCO). The attractiveness of using a contracted energy manager is in having an individual expert solely dedicated to the company's concerns. On the other hand, an ESCO typically provides comprehensive "full-service" energy management support, ranging from financing assistance to energy procurement. In some cases, a contractor may be hired to examine, evaluate and retain ESCO services.

Whether a company hires an individual or ESCO to manage energy concerns, there are two simple rules to be followed when selecting an energy advisor:



### Find an Advisor with Proven Qualifications

The contractor must have proven experience with energy accounting, utility rate structures, financing alternatives, energy efficient technologies & controls, utility rate negotiations, facility energy auditing and building performance analysis.

The market is flooded with companies and individuals claiming that they can save "x" % of a facility's annual energy bill. Companies must look past the glossy brochures and catchy sales pitches....what have they actually done and for whom have they worked?

### Understand the Advisor's Motivations

The individual or energy services provider must be 100% on the customer's side of the table. Are they tied to any one specific energy broker or marketer? Do they have any ulterior motive in having your company select one service provider over another? If they are a utility-owned ESCO, is there a porous "China Wall" between the parent company and ESCO? If "yes" is the answer to any of these questions, then this advisor could possibly make recommendations that are not entirely in the company's best interests.

### **Conclusion**

The changing energy services industry presents significant cost-control opportunities for end-users. However, the transition period from a monopoly to a deregulated market will be chaotic and confusing.

For end-users, knowing who to turn to is the first step in taking advantage of the energy services revolution. For energy and energy services providers, bridging the gap between what suppliers perceive as key customer needs and what large energy users actually want will be the key in producing mutually successful ventures.