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*Business Leaders: Thought and Action*

**New Energy Companies and E-Business**

*An Original Essay Written for CSAB*

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CEO Series Issue No. 40  
June 2000



Center for the Study of American Business  
Washington University in St. Louis

# New Energy Companies and E-Business

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## Introduction

Two guys rang a bell in the new millennium that was heard all around the U.S. marketplace. The ringing was their venture into the electric utility business. These two guys just happened to be billionaires Bill Gates and Warren Buffett. Buffett's \$1.25 billion purchase of MidAmerican Energy Holdings Company and Gates' 5.1 percent investment in Avista Corp. sent a loud wake-up call about the soon-to-be revolution of the U.S. energy services industry caused by e-commerce.

Yet it doesn't necessarily take a business pioneer or an investment tycoon to figure out the ideal match between energy delivery and e-commerce. The nature of the industry offers instantaneous demand, no need for inventory, enormous volatility, and infinite pricing alternatives, not to mention a universal product everyone uses with absolutely zero brand loyalty or product differentiation.

## E-Commerce

America is experiencing the longest economic expansion in its history. And one-third of our country's economic growth can be attributed to new information technologies. These technologies have produced an Internet-driven economy that has fueled innovative, cutting-edge businesses and unprecedented competition. According to the U.S. Department of Commerce, 17.8 million business transactions took place on the Internet in 1996. By 2001, this

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number is expected to increase to 520 million, including 40 million business-to-business transactions.

E-commerce has caused one of the most powerful paradigm shifts in business today. Every global industry has been touched by the immediate consumer power of e-commerce. The world's businesses now have a powerful mechanism for reducing costs and selling services and products into otherwise unreachable markets.

## Creating a New World Energy Order

In the energy services industry, e-business is revolutionizing traditional companies for the very simple reason that a seismic power shift from producer to consumer is occurring. And with that shift, competition is dealing a crushing blow to the heart of the industry's traditional business structure.

Now incumbent companies are forced to reinvent themselves as "new companies" and integrate e-business into every aspect of their organization

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from purchasing to customer service. In a traditionally fragmented industry, such companies are now establishing unprecedented partnerships with one another and other industries. And while all of this is going on, a whole new genre of niche-oriented companies is appearing on the scene. The end result? An industry whose distinct identification with its product will be overshadowed by the method in which it packages and delivers the product to its customers.

## Electric Market Deregulation and Its Link to E-Business

A new era of competition is on the horizon for the energy services industry. The electric industry's regulated monopoly will soon be transformed as new players are introduced and incumbent companies refashion themselves. Twenty-five states have already made the decision to re-

structure their electricity markets. Just like telecommunications and other industries before us, the looming deregulation of the \$218 billion electric industry is driving unprecedented change in the energy services industry. In today's business environment, it is hard to fathom that almost 20 years ago consumers were restricted to using one telecommunications provider for securing their services and products.

With deregulation, the monopoly structure of sole electrical providers offering bundled generation, transmission, and distribution will cease to exist. It is challenging for one to imagine a more dreamy business scenario: the ability to determine your product and control its price without ever facing any competition. Such a structure, restricted by laws and yielding monopoly returns, has built a complacent industry with few real incentives to strive for efficiency and reduction of costs.

### **Accelerating Competition: E-Business**

So how does e-business fit into the picture? Coupled with deregulation, e-business will further accelerate competition in the energy services industry. Consumers will be positioned to choose from a wide variety of high-quality energy services and products to meet their specific needs at the lowest price. While this new environment might be liberating for the customer, it will most likely be terrifying for those companies lacking both a quality customer relationship and a willingness to take risks.

### **The New Companies Are Actually the Old Players**

With the prominence of e-business, traditional energy services companies will be operating under new mandates. Once consumers have the freedom to choose their energy services provider, traditional companies will be forced to customize their offerings, build customer loyalty, establish low-cost and efficient operating assets, and provide services at ever lower prices. And with this new transformation, energy companies will be even more pressured by shareowners to establish unique value-creation opportunities.

Due to e-business and the competitive challenges from Internet-based competition, some could say energy companies are now transforming and repositioning themselves from traditional retail services companies to technology-based energy providers. Some energy service companies are now trading electricity on the Web, similar to brokerage firms trading equities.

Today, e-business is transforming the structure, organization, services, operation and direction of every U.S. energy services company, essentially creating “new” companies. What are some of the e-business facets creating these “new” companies?

### **Business-to-Business (B2B) Opportunities**

First, electronic business-to-business (B2B) transactions offer today’s companies an unprecedented mechanism for controlling costs. One cannot underestimate the importance of such transactions in transforming the future of how we do business. Centralized, neutral marketplaces are being created to aggregate buyers and sellers. Competing companies in just about every industry sector are suddenly coming together to form buying coalitions. Three key areas of B2B transactions are procurement, trading wholesale energy, and energy management.

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### **Procurement**

The utility industry is recognized as one of the most capital-intensive industries, with close to \$80 billion spent per year to maintain its infrastructure. According to a March 30, 2000 article in the *Wall Street Journal*, B2B procurement allows companies to cut costs through creating efficiencies in the bidding process and widening

the supplier network. In addition, these paperless forums create value-added features related to shipment and inventory planning for participants.

While many industries recognized the value of such business exchanges a few years ago, the highly fragmented energy services industry has been slow to follow suit. In late March, a first-ever powerhouse Web-based procurement exchange made up of 15 leading electric and natural gas companies was formed.

On the supplier side, savvy entrepreneurs, new ventures, and even mom-and-pop businesses are equally positioned to compete with companies that have maintained a virtual supplier monopoly in the industry for years.

### ***Wholesale Energy Marketers***

For years, the primary tools used by wholesale energy marketers have been the phone and fax. Energy services companies now have at their fingertips competitive energy exchange-trading systems to assist with managing the movement of traded power. For the utility industry, it's the difference between a typewriter and a personal computer, coupled with the awesome forces of the Web. Such a mechanism represents a significant change in the way business is done.

There are many wholesale energy marketers now on the scene. Through Enermetrix.com, commercial and industrial customers can communicate their energy needs to suppliers via the company's online forum. Another leading online energy trading company, Automated Power Exchanges (APX), reported that in 1999, it processed more than \$250 million B2B e-commerce exchanges for wholesale electricity trading. Today some traders are approaching that volume daily!

### ***Energy Management***

With deregulation and the freedom to choose providers, many U.S. businesses can now strategically position themselves by better understanding their energy consumption. New energy management companies offer un-

precedented services to monitor and analyze energy consumption and assist businesses with their energy purchasing decisions.

Some of the leading energy management companies include Silicon Energy, Cadence, and SRS. Through its software products, Silicon Energy has positioned itself as a leading contender in the enterprise energy management business. Cadence markets itself as the country's largest Web-based energy and facility cost-reduction company. It reports that it will influence \$3 billion dollars through the facilities of its 60,000 customers this year. Its customers tend to be national chains in a variety of industries. The company reports that it has experienced 15-fold growth in the past 12 months alone. It provides information via the Web on various facility expenses related to electricity, gas, water, HVAC, and solid waste. Another leading company that provides similar services is SRS, a subsidiary of Carolina Power & Light. That company reported a 100-percent growth in revenue last year.

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## **B2B Causing Industry Partnering**

Traditionally, the energy services industry has been highly fragmented. Yet today, companies that represent a variety of areas of the industry are transforming themselves through unprecedented collaboration and consolidation.

### ***Electric and Gas***

A predominant trend in energy industry partnering is between electric and gas companies. Recently, electric companies have been eyeing the natural gas industry for two reasons. First, electric companies need to supply systems with clean-burning natural gas, which some claim is

the fuel of the future for electric generation. Second, there is a real need to gain regional economies of scale. And last, it is an easy way to penetrate another electric service territory. Last year alone, 29 gas utility mergers and acquisitions were announced. A recent gas utility merger occurred this spring between DTE Energy, a Detroit electric utility, and MSN Energy, a Michigan natural gas company.

Interestingly enough, Forrester Research Inc. has projected that in 2004, 11 percent of the electricity market will be on the Internet and that penetration of the natural gas market could be at 25 percent.

### **Electric, Water, and Telecom**

Other industry partnering is occurring with electric, water, and telecom companies. Idaho Power Services, a

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marketing unit of its parent company IDACORP Inc., is joining the ranks of other utilities by now offering its customers Internet services.

### **B2B: Old Players Form Non-Traditional Alliances**

A variety of industries are now teaming up with major utilities and establishing mega-deals:

Financial investors have entered the energy services market. Seven leading banks and several major energy companies launched a venture to bring commodities trading on line. The venture plans to create substantial markets for natural gas and electric power.

Even the country's giant computer industry is getting a piece of the action. It was announced last fall that an alliance of major utility and computer companies will be offering digital voice, data, and television services to Nevada residents, businesses, schools, and government agencies.

## **Business-to-Consumer (B2C) Opportunities**

In the energy services area, business-to-consumer (B2C) opportunities lie with adding value to the customer experience. Such services include Web-based billing systems that offer customers check-free payments, proactive review and correction of billing issues, comparisons on energy usage and billing, the ability to update existing information, and the elimination of paper bills.

New companies that are capturing the B2C opportunities include Utility.com, Essential.com, and OnlineChoice.com.

The world's first Internet utility company, Utility.com, offers services to residents and small businesses in several deregulated states. According to the company, it is the lowest-cost provider in each of its markets.

Essential.com offers a B2C online forum for purchasing stand-alone or bundled packages of gas and electricity, telecom, cable and satellite television, and other products and services. OnlineChoice.com is another growing Internet-based service that provides group buying over the Web. Its services include electricity, natural gas, phone, security, and gasoline. Customers are shown the most competitive bids from suppliers and are then positioned to accept bids. With all three companies, customers can choose how they want to receive and pay bills. Priceline.com will probably not be far behind.

## **Global Players**

Selective market deregulation and robust competition within the European Union countries are now forcing many foreign utility companies to look beyond their borders and across the Atlantic to create shareowner value. Other global companies are looking to the U.S. marketplace because of its economic stability. These new players will only create a new level of competition for the incumbent companies. In most cases, these foreign companies will be significantly larger than their American counterparts and fully positioned to reap the benefits of the industry's new business structure.

Three U.K. energy companies have recently tested the U.S. utility waters. In 1998, Scottish Power of Glasgow, Scotland bought PacifiCorp of Portland, Oregon for \$7.9 billion. The deal marked the first time a British electric company had bid for a U.S.-based investor-owned utility. And in March, National Grid Group completed its \$3.2 billion acquisition of New England Electric System. This acquisition will increase National Grid Group's operating earnings about 30 percent. London-based PowerGen met a long-term goal of entering the U.S. market with its purchase of LG&E Energy, a Louisville, Kentucky-based energy company. Its new American holding allows PowerGen to refashion itself as a bundled energy provider.

Last year we saw two huge deals by one of Germany's largest energy services companies to expand its presence in the U.S. energy marketplace. German conglomerate RAG

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International Mining GmbH purchased Cyprus Amax Coal Corp. for \$1.1 billion. Such a purchase immediately positioned RAG to be a significant player in the U.S. industry.

According to Cyprus, its U.S. properties produced 68 million tons of coal and revenues of over \$800 million in 1998. And just a week earlier, STEAG AG, a unit of RAG and recognized as one of Germany's largest independent power producers, formed a partnership with Avista Corp. Together, these partners will build and purchase electric generation assets throughout North America.

And last April the *Wall Street Journal* reported that a Spanish power company, Iberdrola S.A., was contemplating an \$11 billion bid on Florida's largest utility, Florida Power & Light.

## **New Technology Companies**

A new generation of energy technology companies specializing in fuels cells, microturbines, flywheels, and solar

power are now on the scene. These companies tend not to compete with the traditional utilities but rather satisfy new market demands. Such examples include Ballard Power Systems and Plug Power. Ballard Power Systems, a pioneer developer of zero emission proton exchange membrane (PEM) fuel cells is now positioning itself to satisfy the needs of the automotive and portable power markets. Plug Power is focusing on marketing commercial quantities of residential fuel cells and has attracted a unit of General Electric, General Electric MicroGen. The company's refrigerator-sized fuel cell system runs on natural gas or propane and provides outage-free, clean electricity.

The solar business is once again on the scene and it's not wearing 1970s garb. Today's new technology has made significant improvements in solar products. Today, four leading companies control about 60 percent of the solar market: BP Solarex, Kyocera, Siemens, and Sharp.

Traditional energy companies also understand the benefits of new technology. Alliant Energy is offering visionary products and investing millions of dollars in new technology as a means to differentiate itself from its competitors. Through its subsidiary, Alliant Energy Resources Inc., it serves as a distributor for Capstone's MicroTurbine (TM) power generation systems and solutions. This technology is appealing because it produces reliable, clean, high-quality electric power that can stand alone or be connected to the utility grid.

## Conclusion

In the 21st century, the energy services sector will be revitalized and forever altered by e-business, deregulation, and new technology. Restructuring, consolidation, and new market entrants are already a fact of life. Global energy companies will continue to enter the U.S. marketplace. Traditional energy services companies will be forced to seek new ways to solidify their customer relations. The product and service offerings for consumers and businesses will be endless. Companies that take advantage of e-business opportunities will be positioned to offer higher quality services at significantly lower costs. Those that do not will soon be fond memories. ❧

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