

Strategizing in the Deregulating Energy Markets: Two Steps Forward, One Step Back, and Where Next?

While the buoyant mood during the heyday of electricity deregulation may have been excessive, the currently prevailing negative mood appears to be equally excessive. It's easy to overlook the fact that strategic opportunities remain to be exploited in electricity retailing by astute organizations and that the appropriate use of information technology remains an essential strategic enhancer.

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I. Introduction

The euphoria associated with the expected bonanza from a national competitive market for electric power and energy-related services has clearly stalled, even though it wasn't that long ago that the outlook in the deregulating electricity industry was relatively upbeat.¹ Only a few years ago, almost half of the nation's state legislators had committed to competitive power generation

and promised retail customers a free choice of electricity suppliers. But events in the closely watched California power market made that optimism evaporate: the extreme price spikes, rolling blackouts imposed on customers across the state, defaults of the state's prime utilities, and subsequent accusations of price manipulation among national power traders.² Also, as the dot.com-driven stock market bubble burst, the seemingly

boundless opportunities in Internet-based sales and telecom services suddenly appeared to have sharply constrained limits. Enron's spectacular financial collapse further questioned the viability of expansive power generation projects, ambitious energy trading operations, and power retailing activities in general. As a consequence, some states that already had committed to electricity deregulation took a second look at the proposed rule changes, while other states postponed their advance toward deregulation. Gloomy market scenarios pervaded corporate boardrooms across the electric utility industry and moved executives toward more conservative, even conventional, strategic dispositions. While energy asset sales have often been driven by immediate financial pressure, the strategic scaling-back primarily reflects the generally negative market outlook.

The writing was arguably on the wall some time before the adverse market events captured the headlines. In truth, it might have been an illusion to expect a transparent national electricity market to emerge in a process left largely to the uncoordinated initiatives of state legislators and energy regulators. For example, the rules in the California market turned out to be quite different from the rules in, say, Pennsylvania and Texas.³ In addition to the complicating disparities in regional rule sets, a lack of federal coordination meant that access to electricity

retailing only was available in a short, albeit growing, list of pioneering states. This deregulation process has created an uneven playing field among electric utilities across the nation, and the electric retailing market has become highly fragmented as a consequence. This outcome is not merely caused by limitations in interstate power transmission capacities,⁴ but is bounded in the disparate strategic opportunities

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available to utilities headquartered in different states. It is within this skewed market structure many expansive energy utilities have learned the hard way that asset acquisitions can be costly, that marketing expenses constitute real cash flows, and that retail customers must receive true value propositions to switch their power provider. The diverse market conditions throughout the nation provided some utilities with new opportunities in deregulated states while their core business was shielded by regulation in the home state, but less fortunate utilities had to face increased

competition in their traditional home markets without enjoying the corresponding opportunities to expand in other states. Such a competitive structure is unusual, at least for publicly quoted companies operating in a national industry, and one that clearly exposed industry executives and investors to a highly complex market environment.⁵ The resulting fragmentation of the national market for electricity retailing has made it more problematic to mass-market energy-related products and service offerings that otherwise might provide significant scale economies. This situation is not likely to change for a while.

In view of an exceedingly complicated industry structure⁶ and a punctured market vision, many utility executives have adopted back-to-basics strategies anchored in the traditional virtues of reliable distribution services and a renewed focus on conventional power generation capabilities. Just as the earlier market euphoria paved the way for a "grand vision" as the mainstream strategy among electric utilities a few years ago, the recent market developments have imposed a negative sentiment across the entire industry, blinding it to the strategic opportunities that inevitably exist in deregulating markets. This change of sentiment is the product of cyclical market conditions and conceivably constitutes a temporary phenomenon. A return to the old humdrum ways does not appear to be the appropriate

response to the challenges of an increasingly competitive market structure, and the reversing strategies often seem to be a direct and opposite reaction to the prior excesses. Therefore, it is symptomatic that many industry observers now turn to some of the European industry pioneers for innovative ideas in energy retailing.⁷ While inspiration is a good thing, electric utilities in the U.S. continue to have a tremendous capacity for market innovation that clearly could lead the way as deregulation in the power industry evolves. Rather than backtracking, industry executives should use the lessons of their recent market experiences to engage in more proactive strategic thinking. At least, this is what we suggest should be the case. Thus, we hope to analyze those previous market developments while outlining some perspectives on appropriate strategic approaches for the future.

II. General Market Experiences

The deregulated electricity markets broke the requirement for vertical integration across the energy value chain. Electric utilities in the deregulated states no longer needed to engage in all parts of the value chain, e.g., power generators did not have to distribute the electricity, nor did retailers need to produce and distribute the electricity themselves. Rather, in the deregulating

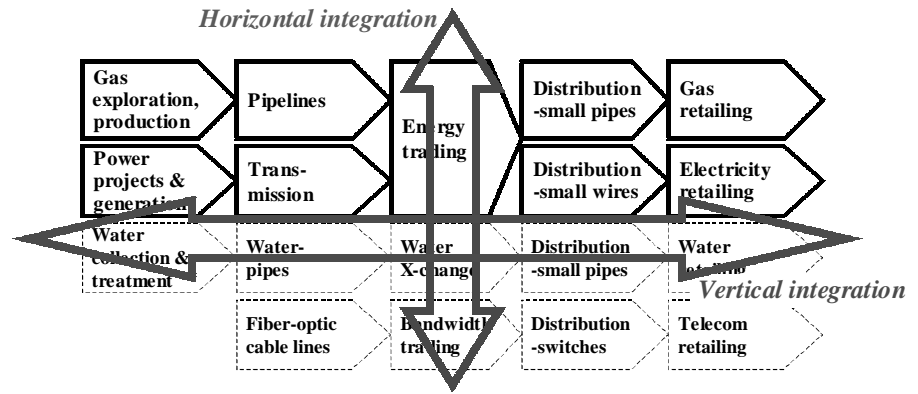
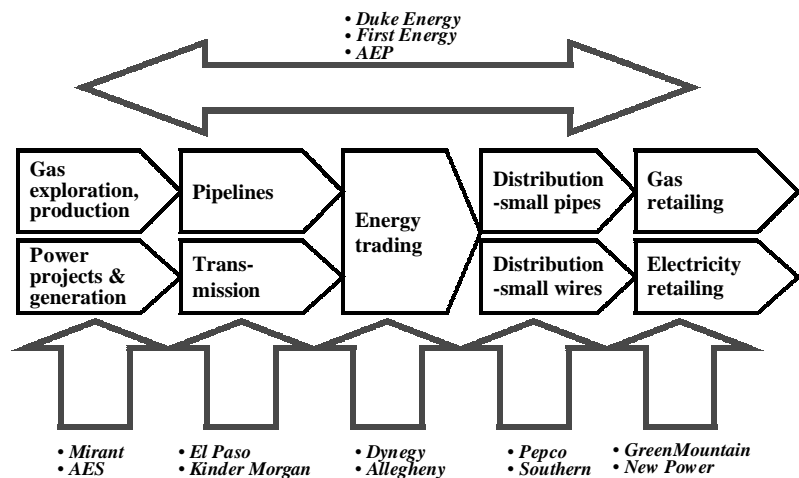


Figure 1: Convergence of Business Activities Across Network Industries

markets electricity executives saw a new potential to converge business activities across different network industry platforms comprising electric power, natural gas, water treatment, telecommunication, etc. (Figure 1).

Electric utilities operating in deregulated markets saw a potential to exploit market, customer, and process similarities across comparable network industries and create scope economies by concentrating business activities across horizontal

business stacks located at the same stage of the energy value chain, such as production, transport, trading, distribution, and retailing. It was not uncommon to promote the bundling of different value-added services spanning energy, telecom, installation, repair, maintenance, and the like.⁸ The move towards deregulation in pioneering states did lead to the emergence of specific archetypical electric utilities and energy companies with different corporate focal areas (Figure 2). Some



The companies are included for illustrative purposes only based on a subjective assessment of their current business activities.

Figure 2: Corporate Strategies Based on Vertical and Horizontal Integration

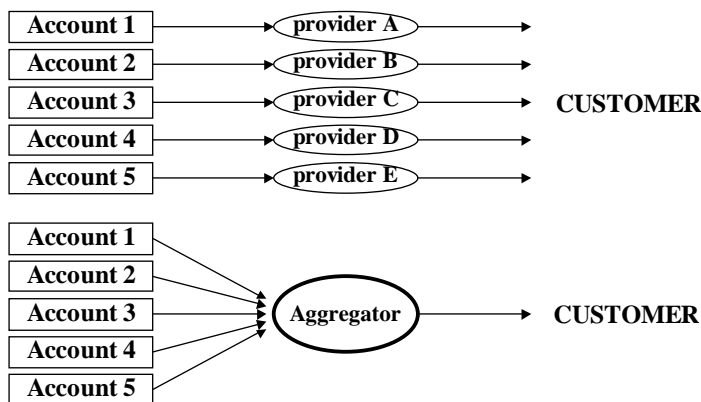
companies retained business activities across the energy value chain, among them Duke Energy, First Energy, and AEP, while others nurtured a focus as independent power producers, such as AES, and Mirant (divested from Southern Energy). Yet other companies developed a higher degree of specialization around business activities at other stages of the value chain, such as transport (El Paso and Kinder Morgan), trading (Dynergy and Allegheny), distribution (Pepco and Southern), and retailing (Green Mountain and New Power). In the process, the convergence between the electricity and natural gas markets became quite apparent, while the integration of the more disparate markets for water management and telecommunication proved more dubious.

It became fashionable to champion the appealing idea that retail customers could be served more efficiently by independent service aggregators (Figure 3).

The aggregator's major role would be to offer competitive network services and consolidate the periodic service charges into a single bill to the customer. So, rather than being served by numerous service providers operating in each of the network industries, the aggregator would bundle all the basic household and business services together and provide the customers with a consolidated offering from a single source. Several of these aggregators used an Internet-based sales platform,⁹ while others attempted to outsource and extend branded franchises with national market recognition.¹⁰ But few of these initiatives have succeeded and survived in their initial forms. A number of energy service companies evolved from aggressive acquisitions of small regional service companies brought into a corporate entity with centralized management systems and support functions and a national market reach.¹¹ However, these

roll-up strategies have been difficult to execute successfully. Several utilities attempted to develop different integrated energy service offerings to the retailing market by following a comparable acquisition route, but these attempts have also been fraught with problems. For a number of utilities the integrative service strategies seem to have worked reasonably well, although time will tell, but in these cases the initiatives have followed less aggressive paths often incorporating strategic alliances with other companies possessing special expertise. In other words, it seems like the basic opportunities for integrated service offerings can work under certain circumstances and that the issue of success is as much a question of the way management executes the strategies.

These experiences in the deregulating electricity markets touch upon fundamental corporate strategy issues that are well documented in other industries. For example, who benefits from trades in corporate assets, the acquirers or the sellers? To what extent should corporate strategy focus business activities around core competencies, and when does it pay off to expand into new areas? How should a corporation pursue strategic adaptation and business expansion toward non-core markets? The apparent rush by some energy companies to acquire power generation capacity made available in public auctions



Whereas the consolidation principle provides a logical case for operating efficiencies, customers have generally not been sufficiently convinced about the associated advantages.

Figure 3: Consolidating All Basic Services through a Single Aggregator

clearly overestimated the value of these real assets.¹² The acquisitive expansion into mechanical services for heating, ventilation, and air conditioning (HVAC) pursued by some utilities seemed to suffer from similar problems. The idea underlying this approach was to leapfrog the market by acquiring a large number of regional owner-managed contractors and quickly establish business operations with the needed skills base and geographic coverage. Other utilities acquired water management businesses and developed in-house telecommunications capabilities in all-out strategies to widen the service scope for existing and new customers and aimed to establish a dominant competitive position through market proliferation. With hindsight, the aggressive all-out attempts to expand the scope of corporate business activities have failed.

The competencies used to manage distribution network assets in electricity, natural gas, water, and telecommunications are quite similar, so it should be possible to extend the scope of these capabilities across a wider range of network assets. On the other hand, operational practices and service processes in these network industries are quite different, and therefore the integration of customer services across different business areas has been extremely difficult to implement. As a consequence, it has been complicated and costly to coordinate the disparate service offerings in

energy, water, and telecom. In addition to the fundamental process coordination issues, it also proved excessively difficult to manage the diverse corporate cultures of small entrepreneurial mom-and-pop HVAC contracting firms within the centralized structure of conventional utilities. Hence, the acquisitive strategy in the contracting business has been extremely hard to implement successfully. In

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contrast, other utilities pursued a more cautious route by partnering with market experts in telecommunications, mechanical contracting, and financial services and engaged in sequential step-wise expansion as new skills were learned from new initiatives, joint ventures, etc. These approaches seem to be quite successful.

When analyzing the market for energy-related services many attempts to introduce new individual and packaged offerings have emerged but these initiatives are typically product-driven rather than customer-centered. The innovation process

has often been driven by service managers' urge to promote particular products or service gadgets. Although this type of innovation clearly can be useful it does not respond effectively to the true requirements of different customer groups and as a consequence there appears to be a lack of conviction that the products are really needed, i.e., offerings often seem artificial without a basis in real customer needs. Integrated service packages can be construed to accommodate essential customer needs in different life cycle stages, living style situations, business environments, etc. They might even be tailored to individualized customer profiles. However, the energy-related service offerings typically comprise stand-alone modules including efficiency renovation, appliance repair service, and supporting financing solutions with little differentiation. Whereas these services make sense, they are generally not adapted to satisfy identified needs of important customer segments.

III. What Should Be Done?

Success in the deregulating energy market relies on strategic approaches that remain true to the underlying needs of the customers and provide real value propositions to them. This basic aspect has been lacking in many previous initiatives in the energy services market. Several fallacies

have been embraced by energy executives and consultants alike during the height of the market euphoria that tended to enforce a product focus as opposed to a customer-centered perspective. It was considered imperative to be first to introduce new service offerings to achieve the so-called first-mover advantages. Furthermore, it was accepted convention that the business models of the most dominant firms would win out regardless of the nature and applicability of the offerings. This has clearly proven a truth with modifications. Whereas positive economies might apply to public networks, such as transportation systems, telecommunications standards, and computer operating systems, it is not obvious that this is the case in energy services. It is not crucial for a successful energy service provider to introduce new products before its peers or to acquire related services businesses quickly to establish a dominant market position. Past experiences show that overcommitment in invested assets have failed to produce sustainable gains while imposing severe problems in the operational integration of business activities. Then what really matters is the relevance of the value proposition that underpins the service offerings introduced by the energy service providers.

Successful strategic positioning in a changing energy market avoids premature commitments in capital-intensive corporate

assets and considers alliances and flexible-sourcing alternatives in areas outside the core-business.¹³ Staged or step-wise resource commitments in new product and service initiatives that allow gradual internal development of new capabilities are generally preferable to all-out acquisitive approaches. It is important to



show prudence in ongoing resource-committing decisions and avoid overinvesting in business ventures that are not fully understood and mastered. In many cases it is better to build alliances with specialist organizations when entering new business areas outside existing core competencies in order to gradually acquire the needed skills base.

Instead of aiming for dubious first-mover advantages and positive economies from market dominance, the real challenge is to develop durable value propositions that appeal to the energy customers. However, the electricity market appears to be short on insights about the basic needs

of the major customer groups. It is only by appreciating what different customer segments want from their energy service provider and by reacting to the customers' basic decision parameters that an energy company can develop relevant energy service packages. A deeper understanding of the triggers that motivate customers to modify their energy service configuration can make it possible to introduce more appealing product and service offerings. By developing a sufficiently agile processing platform, the energy service provider is able to adapt the customer offerings to meet the changing needs associated with evolving customer situations. It is critically important to introduce integrated product and service offerings within a flexible operational structure that leaves the service provider with strategic responsiveness in the face of dynamic changes in customer needs.

The wise use of information technology is essential to establish flexible and efficient operational processes—no secret here—and the Internet continues to represent an important customer interface that can be part of a longer-term solution. The technologies are available, but their appropriate use, based on development of proper value propositions and sustainable business models, has not been fully realized or confirmed. Many energy leaders find themselves hard-pressed to justify technology investments in this area. It is

relatively easy to install and activate technological enhancements, but to use them effectively, they must be grounded in business activities that make strategic and economic sense. Prior use of Internet technologies among energy distributors and retailers has been rather uniform and predictable. Virtually all the electric utilities have attempted to introduce Internet-based applications, primarily to achieve gains from process automation, and only secondarily as a means to enhance essential customer value. Obviously, by replacing paper-based billing and payment systems with electronic options, the energy supplier can save significant amounts of money from reduced postage, paper expenses, and back-office rationalizations. However, we suggest that more strategically important benefits can be achieved as well. The use of information technology and Internet-based interfaces could be used to support more customer-relevant value propositions. Information technology can be aimed to enhance services that are of direct relevance to important customer segments (see Figure 4 for a general example). It can also be used to establish more efficient service-delivery processes in the organization. In most electric utilities the current set of Internet-based technologies are used to offer basic information-exchange services like opening and closing of accounts, electronic billing and payment options, historical account usage, online service

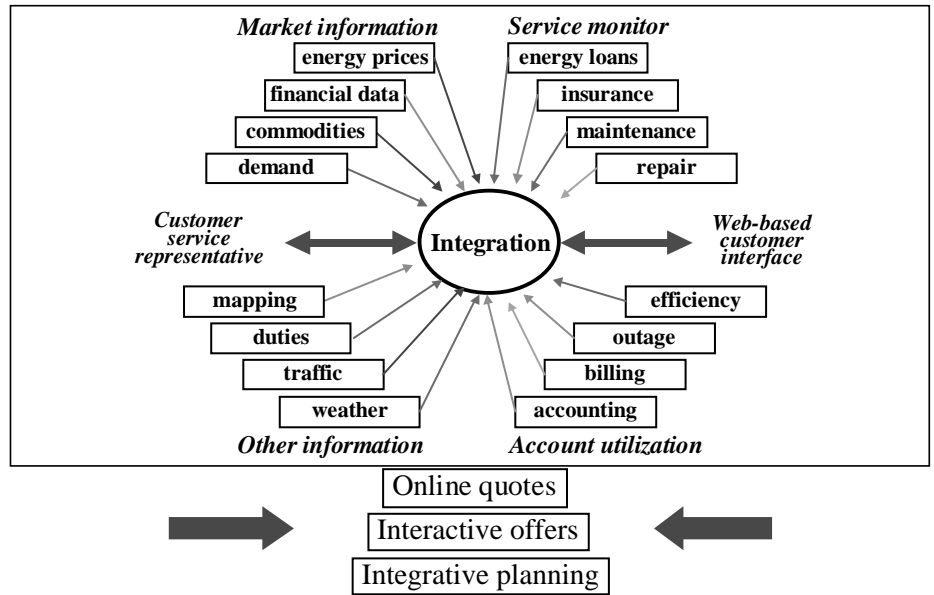


Figure 4: An Example of an Integrated Customer Service Support Platform

requests, and energy audits. A quick tour of Web sites commonly refer to these types of customer interfaces as “customer center,” “customer central,” “customer service,” “customer care,” “my account,” etc. However, these Internet-based services hardly constitute strategic differentiators. They represent a general industry norm that has evolved primarily around operational cost savings or the

general idea of services consolidation.

To reap the true efficiency potential from information technology and Internet-based customer interfaces, the operational platform of the future should integrate all relevant—i.e., structurally and functionally related—information sources including generation, trading, transmission, and distribution details that together condition the

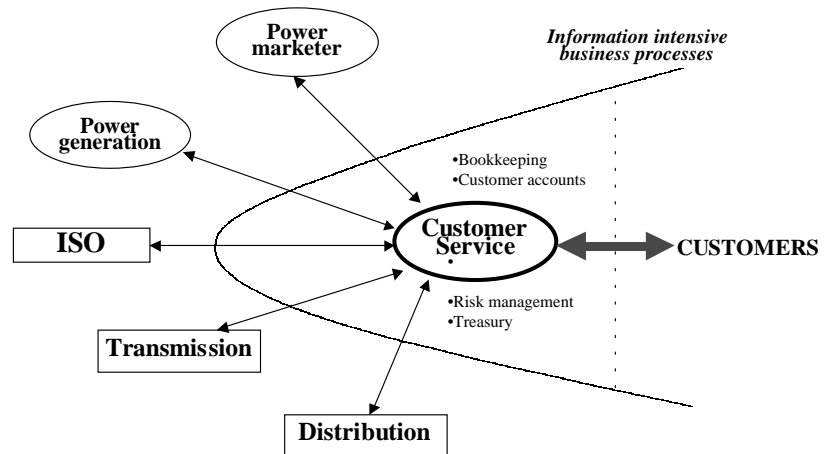


Figure 5: Integrating the Customer Service Function Is Information-Intensive

energy service to the customer (Figure 5). These key information sources can be linked in the internal information systems, e.g., procurement, accounting, risk management, etc., to enable tailored service offerings to major customer segments within a flexible and efficient energy servicing platform. Very few, if indeed any, electric utilities or energy companies have reached this stage of business process or technological maturity. But it is precisely this level of process integration and technological maturity that constitutes the necessary condition for achieving a competitive market position in deregulating energy markets.

Integrated information systems make up the backbone of agile and flexible service infrastructures. Operationally, they provide strategic and functional linkages between the energy service provider and its internal and external partners who deliver the important related market skills and expertise, e.g., comprising links to mechanical contractors, equipment manufacturers, financial institutions, telecommunication partners, etc. On the marketing side, a fully integrated customer handling system can provide the basis for new data mining¹⁴ opportunities that may allow the provider to identify important behavioral shifts among key constituents in the customer base and possibly tailor new integrated offerings to fulfill needs reflected in changing consumption patterns.

The primary issue is not information technology, but

rather the business vision, strategy, and process. Information technology is the secondary concern and constitutes a vehicle to support the effectiveness of a well-crafted strategy. Technology can turn the terms and relationships required by the underlying business process into integrated information processing systems, so the process dynamics can be simultaneously controlled and exploited. This means that multi-dimensional database systems must be developed to facilitate command and control. It also means that multi-organizational information linkages—i.e., secure and reliable data transmission networks—must be established, to make the associated databases useful. It further implies that the entire effort boils down to simple customer-oriented messages that can be easily understood and

appreciated by the major customer groups.

IV. Where to Go from Here

Successful strategizing in an age of deregulating energy markets must be built on real value-enhancing products and services to the key customer groups. This requires an ability to modify current self-conceptions and internal business processes so they respond to the needs for the new market offerings. Energy service providers can only expect to excel in a competitive market environment by introducing flexible product and service offerings that provide genuine value-added benefits to the customers. Furthermore, these market offerings must be able to adapt to the dynamic changes in customer



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needs. The service packages must be delivered within an agile operational framework to ensure that the strategic initiatives are executed effectively. The implementation of unique business models with value propositions that appeal to the major customer segments and build on a sustainable operational profit dynamic is the key to successful long-term strategic solutions.

The current market sentiment might be bearish, but strategic opportunities remain for the astute electric utilities and energy service providers, especially those with the courage and ambition to seek out these opportunities in the new world of deregulating energy markets. When the market is depressed, entrenchment constitutes the normal behavior of the majority, and simple survival becomes the most common strategic pursuit. However, economic crisis also provides market participants with new strategic opportunities that it might be difficult to pursue under normal circumstances.

Our point is simply this: The current market and technology situation could be the ideal time to experiment with new strategic initiatives, because customers are more accessible, innovative ideas are met with less competitive zeal and fewer competitive responses, and energy-related assets are cheaper than ever before. ■

Endnotes:

1. See, for example, Kenneth W. Costello, *Reflections on the U.S. Electric*

Industry Deregulation Experience, ELEC. J., July 2000.

2. Edison International and PG&E were caught in a liquidity squeeze as they had to pay for the higher power prices but were prevented from passing the cost on to their customers. CMS Energy, Dynegy, Reliant, BP, and other power companies faced federal investigations on round-trip energy trades performed to inflate reported trading volumes and trading practices serving to create artificial power



shortages and higher energy prices in California.

3. This is in contrast to the electricity deregulation process in the European Union, which is driven by a central energy directive committing national governments to implement compatible laws and rules by the end of 2003 to create a transparent Union-wide power market.

4. The Federal Energy Regulatory Commission is actively trying to improve the connectivity between the regional energy markets by establishing independent system operators (ISOs) to oversee interregional power transmission.

5. This development has been especially abrupt because the utility sector historically has been considered very stable.

6. It is sometimes argued that the existing deregulated market environment is more complex than before deregulation due to the disparate rule

sets enforced by different state energy regulators. See, e.g., Costello, *supra* note 1.

7. Scottish Power and Centrica come to mind among preeminent retailers in the energy industry.

8. See, for example, Kelly Eakin and Ahmad Faruqui, *Bundling Value-Added and Commodity Services in Retail Electricity Markets*, ELEC. J., Dec. 2000.

9. These entities included names like [Utility.com](#), developed by idealab! the creator of numerous Internet-based companies, [Energy.com](#), and [Essential.com](#).

10. KN Energy's (now part of Kinder Morgan) enable was a typical example of such efforts with an initial plan to outsource the aggregating capabilities under the franchise name to other utilities throughout the U.S.

11. These corporate entities included Comfort Systems USA, American Residential Services, and NorthWestern's Blue Dot subsidiary, etc.

12. This phenomenon has been well documented in the market for corporate acquisitions. In the relatively new market for generation assets a variety of valuation models were developed on the basis of options theory. See, for example, Gary Gitelman, *Use of Real in Asset Valuation*, ELEC. J., Nov. 2002, for a discussion of uses in the energy industry. However, it is often overlooked that theoretical option prices are profit-neutral, i.e., the price reflects the present value of future optimal use under expected market conditions. Therefore, any excess return from assets acquired at their theoretical option values requires that the holders are able to use the underlying option structures optimally and beat market expectations as they are exercised. This has obviously not been the case for power assets in recent time, and can rarely, if ever, be expected to prevail.

13. See, for example, Torben J. Andersen, *Strategizing in the New Competitive Energy Market*, ELEC. J., Aug./Sept. 1999.

14. Data mining does not have to be a controversial market issue. It can be provided to the customers as a service offer and implemented on the basis of specific customer request and consent.