

*Guest Editorial*

# The Bottom Line: The “Virtual Utility” Must be a Business

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## INTRODUCTION

The “virtual utility” will only succeed as a business, not as a philosophical concept derived from the latest managerial consulting fad, not as a feel-good delivery vehicle for green energy, and not as a trust-buster’s means of injecting competition into a formerly monopolistic market.

We have spent too much time acting as if the electricity market changed because regulators and legislators thought it should change, when the real cause was technology.<sup>1</sup> The virtual utility will not work just because regulators or legislators think it is a good idea. It has to meet the needs of customers, as the customers define those needs.

As with all virtual businesses, customers will not care how the firm puts together the product. The customer of the virtual utility will ask three questions:

- When I flick the switch will the lights go on?**
- Will I pay no more than before, and, preferably less than before?**
- Will I get something I want that I do not now get from my utility?**

The marketing effort of the virtual utility must answer those questions. Make no mistake about it. This is a marketing game. All the electrons sold or conserved look the same, no matter the vendor.

## DEFINITION

Let me define the virtual utility:<sup>2</sup> It is an organization that supplies a range of energy services, but does not necessarily own the assets

needed to supply those services. “Packager” might convey the concept better—if less elegantly—but that term implies a total coordination. I envisage some virtual utilities specializing in part of the package. In fact, the definition is elastic, and that is one of the beauties of the idea. Firms can specialize in what they do best. The organization might supply energy services.

Or, it might constitute the in-house energy management arm of a large energy consumer, which decides to take control of the entire process. Note that I said “energy.” Virtual utilities will furnish what best suits the customer’s needs. I will not specify how. Customers want results not explanations. Regulators want explanations and specifications. We’re beyond that.

## GOALS

In order to achieve its goal, to provide a competitive energy service in the most efficient fashion, the virtual utility must assemble its offerings from a wide variety of services and products available in the market on a non-discriminatory basis to all comers. The current suppliers of the components required by the virtual utility—primarily the existing utilities—must unbundle their offerings so that the virtual utility can assemble the best packages of components for its own customers.

That unbundling, incidentally, should improve the efficiency of the component suppliers. They will have to compete with each other to sell their products to knowledgeable, profit-maximizing customers rather than to captive customers. Presumably this competition will force the components suppliers to concentrate on what they do best, and shed noncompetitive lines of business.

Virtual utilities should force the electricity network to do what it and regulators seem so reluctant or unable to do: price all network services on a market basis.<sup>3</sup> They will not accept arbitrary pricing for any service. They will seek alternatives or fight in court until they get fair deals. They will gain from an optimal operating network, which market pricing should produce, because their customers will benefit. A smartly run virtual utility, with money to make, could do more for network optimality than a legion of utility engineers, paid-by-the-hour consultants, lawyers and regulators.

## CHOICES

Customer choice is the mantra of those who advocate the virtues of competitive markets. Delivering energy services is a complicated task, especially when all components are unbundled. I do not believe that every customer, though, has to make all the choices of services in order to bring about an efficient market. Instead, a number of informed consumers with sufficient buying power should accomplish the task.

Unbundling will enable the existing utility entities to offer a menu of services. It will permit the virtual utility to choose from that menu, and to tailor a set of those services to the needs of individual customers, or to create generic packages of services for specific groups of customers. When I say services, I do not necessarily mean something physically defined, but I include financial services, with risk management the most prominent.

I do not pretend to know what products and services will evolve in a free market. Remember that a plethora of new telecommunications services flowered only after the demise of the Bell System, one of the most effective and public-service-oriented monopolies that the modern world has produced. Their experts belittled digital switching, said that packet switching (the basis of the Internet) would not work, and claimed that hardly anyone would use cellular phones.<sup>4</sup> People who view customers in terms of terminals or meters have no idea what customers want.

## SOCIAL AND ENVIRONMENTAL

The advent of competition has provoked a peculiar reaction in environmental circles. For roughly fifteen years, through government-imposed mandates on the electric utilities, environmentalists have encouraged energy conservation and environmentally friendly energy production. Ideally, those attempts should have jump-started the environmental energy business, providing it with critical mass, in the same sense that less developed countries protected indigenous industry until it reached the critical mass that allowed it to become competitive.

Unfortunately, many of those protected industries grew bigger but remained inefficient without the tonic of competition. Perhaps the environmental energy industry resembles those protected businesses in some

ways. People in the environmental energy business satisfied themselves competing for environmental set-asides, not competing for the real business. Their only customer, in effect, was the government, which instituted the set-asides and mandated utility purchases from the green energy.

Can the government continue to set aside a piece of the market for designated players once customers can choose what they want? California, in characteristic fashion, has attempted to keep the government in the picture. Arizona has proposed a minimal solar set aside. Everyone talks the green line, but how will they force customers, operating in a free market, to take what they do not want?

To me, the answer is not to tell people what is good for them. That tactic dooms the environmental business to continue in its present marginal role. I believe that the discipline of the market will force environmental energy firms to produce economic products, and it will push more of those firms into the hands of deep-pockets enterprises that can fund the R&D required. In addition, I expect to see the emergence of virtual utilities that specialize in environmental products. They will find the green consumers that will pay for green power. Why hasn't the local utility found this market? Would you buy green power from the local utility?

Some utility managers have asked who will serve the less affluent when the competitive market arrives? They imply, with that question, that they serve that market for charitable reasons. And, in truth, they may not make profits in poor neighborhoods.

But that does not mean that the utilities do the job better than others could. Perhaps those markets should be put up for bidding, with the winners being the firms that can serve the market for the lowest subsidy. Efficient virtual utilities, possibly working with local interests, might do the job better.

## INTERNATIONAL

Utilities and independent generating companies have invested billions of dollars in international projects. Those companies still think in terms of physical assets.<sup>5</sup> They risk large sums in immovable plant. Virtual utilities could move into the same markets without making huge, up front capital investments, and with the ability to move out rapidly if the

market does not pan out.

I would venture that many less developed countries exhibit these characteristics: inability to pay high prices for energy, enormously wasteful energy use, and a need for methods that solve energy problems in a manner appropriate to the locality. The big, westernized energy companies, operating with the aid and protection of the international banking community, cannot deal with small-scale or unorthodox solutions. Virtual utilities might find better ways.

## CONCLUSION

A massive meteorite smashed into Chicxulub, in the Yucatan, and triggered the mass extinctions at the end of the Cretaceous age. Could we liken the energy industry today, facing the end of monopoly and the onset of competition, to that time so many years ago? Who survived that cataclysmic explosion, the massive dinosaurs or the agile, little, furry mammals? The thought for the day.

To conclude, though, I believe that the virtual utility will not only make money for its shareholders but also produce societal benefits. At the same time, in order to succeed, the virtual utility will require access to capital and a cadre of good managers. Good intentions and vision are not enough. In other words, the virtual utility will succeed only if it is run as a real business.

## Notes

1. Leonard S. Hyman, *America's Electric Utilities: Past, Present and Future* (Vienna, VA: Public Utilities Reports, 1997).
2. Shimon Awerbuch and Alistair Preston, eds, *The Virtual Utility* (Boston: Kluwer, 1997).
3. Marija Ilic and Leonard Hyman, "Getting It Right the First Time: The Value of Transmission and High Technologies," *Electricity Journal*, November 1996.
4. Leonard S. Hyman, Edward Di Napoli and Richard C. Toole, *The New Telecommunications Industry* (Vienna, VA: Public Utilities Reports, 1997).
5. Leonard S. Hyman, ed., *The Privatization of Public Utilities* (Vienna, VA: Public Utilities Reports, 1995).

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## ABOUT THE AUTHOR

**Leonard S. Hyman, CFA**, is a senior industry advisor to Smith Barney. Previously he was managing director of Fulcrum International Ltd., as well as an independent consultant specializing in the economics and finances of energy and telecommunications utilities.

From 1978 to 1994, as head of the Utility Research Group and first vice president at Merrill Lynch, he supervised and maintained equity research on foreign and domestic energy and telecommunication utilities. He was a member of privatization teams for offerings of British, Spanish, Mexican, Argentine and Brazilian utilities and consultant for other restructuring studies. Prior to joining Merrill Lynch, he was a partner at a New York Stock Exchange member firm and an officer at Chase Manhattan Bank.

Mr. Hyman has written and spoken on utility finance and deregulation, presenting papers on three continents. He has testified before Congress, served on four advisory panels for the U.S. Congress Office of Technology Assessment, and on one for the National Science Foundation. He was a member of task forces on electric utility efficiency for Pennsylvania and on fusion and other energy sources for NASA. He is on advisory boards for the Electric Power Research Institute and EXNET, and on the editorial board of *Forum for Applied Research and Public Policy*.

Author of *America's Electric Utilities: Past, Present and Future*, co-author of *The New Telecommunications Industry: Evolution and Organization* and editor of *The Privatization of Public Utilities*, he has contributed to other books and to professional journals.

For more than a decade, Mr. Hyman was cited by *Institutional Investor* as one of the leading research analysts in his field. He is a Chartered Financial Analyst (CFA). He holds a BA from New York University, where he was elected to Phi Beta Kappa, and a MA in economics from Cornell University, where he majored in Industrial Organization and minored in Latin American Studies. He speaks Spanish and Portuguese.