

REVIEWS

Books

California's Restructured Electricity Market

Various authors, directed by Dr. Fereidoon Sioshansi
Menlo Energy Economics, July 2001
200 pages; \$2,500 in North America,
\$1,500 elsewhere

If you're a federal or state energy official considering deregulating your electricity sector, you'd do well to get hold of this report, subtitled "How did we get into this mess, and how do we get out?"

Reasonably well written and even amusing in places (if your sense of humor runs to the arcane), *California's Restructured Electricity Market* is a chronology of the events leading up to and culminating in the rolling blackouts and high prices of earlier this year. Drawing from a wide variety of data sources, it makes crystal-clear to potential system architects what they should avoid doing at all costs. This report, done in collaboration with Xenergy, Inc., is one in a series about competitive North American power markets, metering and billing, e-commerce, and competition in European markets.

There is no easy way to summarize what caused the California power crisis, which ended in May when the high prices finally "broke." However, many agree that the roots of the crisis can be found in the flawed AB 1890 legislation that brought competition to the sector. The report details two of the flaws.

First, it explains that the decision by two big California utilities, Pacific Gas & Electric Co. and Southern California Edison Co., to divest themselves of generation may actually have been based on a misunderstanding. Although

the investor-owned utilities read the California Public Utilities Commission's call to divest half their power plant capacity as a mandate, the report quotes officials close to the PUC as saying the IOUs were never given such a specific order. But the authors take the utilities to task for more than just misreading the PUC's intentions. They write: "What prompted [the utilities] to sell all their fossil-fueled generation, to sign no long-term contracts to buy their output, and not to hedge their inherent risks to fluctuations in spot market prices are less clear and more controversial."

On the issue of how the designers of AB 1890 decided to make the California PX the state's central electricity marketplace, the report's authors recount the debate between two university professors, Harvard's Bill Hogan and Stanford's Bob Wilson. Wilson, seeking simplicity, proposed an auction system and a zonal pricing scheme. Hogan, by contrast, pushed for a nodal pricing scheme that, the report noted, "needed a supercomputer to crunch out the numbers." Says the report, "The outcome? Stanford 1, Harvard 0."

Those who have followed the twists and turns of the California fiasco know that the flaws promulgated by AB 1890 could have been corrected had regulators and legislators had the political will and capital to do so. Their failure to anticipate and respond to the supply/demand imbalance, which effectively forced the state to get into the power business itself this January, is the real and unfortunate legacy of the crisis. If it does nothing more than teach other jurisdictions how not to deregulate, this report will have accomplished its mission.

—Reviewed by Jeffrey Ryser, a senior Platts correspondent in Houston who has covered developments in California since October 2000

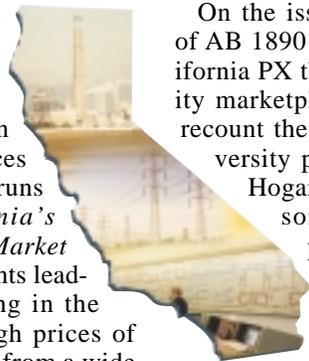
A Policy of Discontent: The Making of a National Energy Strategy

By Vito Stagliano
Pennwell Corp., July 2001
446 pages, \$39.95

If this account of the first Bush Administration's attempt to craft a national energy strategy proves anything, it is that the more things change, the more they stay the same.

A top U.S. Department of Energy (DOE) policymaker during the early 1990s, Stagliano chronicles with considerable insight the 18-month struggle by DOE to develop a comprehensive energy strategy and enact it into law over obstacles erected by the White House, other cabinet departments, and the U.S. Congress. While DOE largely failed to accomplish its task a decade ago, reading about the journey is worthwhile—not least because of the striking parallels between those efforts and those of the current Bush Administration.

For example, most of the energy-related issues and proposals that were controversial then remain controversial today. Then, the DOE team led by Energy Secretary Admiral James Watkins—after months of public hearings and industry input—came up with a plan that balanced increased but environmentally sensitive production with concerted conservation efforts. On the production side, Watkins proposed the opening up of Alaska's Arctic National Wildlife Reserve (ANWR) to oil and gas drilling. On the demand side, he pushed for raising Corporate Average Fuel Economy (CAFE) standards for vehicles. But Congress dropped the first proposal because it would have made the energy bill impossible to pass, and the White House killed the second to appease the powerful auto



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industry lobby. Sound familiar?

Surprisingly, global warming—another topic that still generates plenty of heat—was more thoroughly addressed by Bush I than by Bush II, which disputes the science. The White House and its three economic agencies—the Office of Management and Budget, the Council of Economic Advisors, and the Treasury Department—pushed to keep CAFE standards and higher gasoline, diesel, and oil import taxes out of the energy bill. But it was mum on climate change, tacitly endorsing DOE's conclusion that CO₂ emissions cause global warming and must therefore be controlled. In the end, only voluntary curbs of CO₂ emissions made it into the final bill.

However, it's the legislative process rather than its product that interests Stagliano. His passion is most evident in passages about DOE's ups and downs, and its determination to push for a balanced energy policy at a time when most Americans and the White House took energy for granted. The book also reveals how outside events—in particular, the Gulf War—can divert attention from an energy policy that seemed so important just months before.

On this topic, Stagliano's treatment of the War in Chapter 4, "Saddam Hussein Lends a Hand," is especially insightful—and could be prescient. When Operation Desert Storm caused a spike in oil prices, the public and Congress clamored for relief, opening up what would seem a clear path to approval of a comprehensive national plan. But the White House, wrapped up in the war, missed this window of opportunity. Should Bush II decide to extend the war on terrorism to Iraq, oil prices will likely spike again, creating another window.

One of the book's few shortcomings is its failure to clearly outline exactly what energy policies were eventually implemented. Stagliano ably puts forth DOE's energy recommendations. He also discusses in detail actions by Congress. But the reader must work far too hard to figure out what remained on the original DOE recommendations after the House and Senate finished reconciling the bill. A simple chart could have solved this problem.

Overall, though, Stagliano's book should be considered a well-written history of the process and the issues

that faced policymakers a decade ago. It is a valuable resource for those studying and developing U.S. energy policy today.

—Reviewed by Cathy Landry, senior oil correspondent, *Platts Washington*

The New Rules: A Guide to Electric Market Regulation

By Steven Ferrey

Pennwell Corp., February 2001

370 pages; \$84.95 from Amazon.com,

or \$64.95 from PennWell Online

A clear trend toward re-regulation is beginning to manifest itself in national electricity sectors worldwide following the wave of deregulation and liberalization that characterized the 1990s. The central thesis of this book is that deregulation hasn't put an end to government rules for playing the electric power game. As the author rightly points out, there are still plenty of rules; they're just new ones. Given that reality, there's certainly a need for an authoritative and comprehensive source covering current regulatory trends and legal precedents established to date worldwide. However, for several reasons, this book fails to fill that need.

One reason is that it focuses solely on U.S. electric power markets. The author seems well qualified to analyze this important region; he is a corporate lawyer who has worked on complex regulatory cases for several major U.S. utilities. What's more, because Ferrey also has experience in Great Britain and other countries that have deregulated their electricity markets, his perspective on the American industry should be more informed than that of someone who has worked solely in the States.

The book begins with a basic introduction to generation, transmission, and distribution technologies. The next five chapters provide a chronology of state deregulation efforts and discuss how federal edicts—such as the Public Utility Regulatory Policies Act (Purpa), the Energy Policy Act (EPAct), and Federal Energy Regulatory Commission Order 889—effectively supplanted the old, cost-plus paradigm in stages. The final eight chapters cover the impact of the introduction of this

new regulatory framework and the development of legal precedents up to the end of 1999. A glossary of technical terms and appendix on the history of the U.S. electricity industry serve as useful references.

In the introduction, the author states that the purpose of the book is to help managers, financiers, consultants, and other industry professionals—rather than lawyers—understand the new and evolving legal and regulatory context of the industry environment. However, the book seems more suitable for service as an introductory text for graduate students in law or regulation. The tone and style of the writing are more reminiscent of detailed lecture notes than a serious academic work or professional handbook. That each chapter begins with a set of summary bullet points perhaps reflects the origins of the text in a slide presentation.

Another shortcoming of the book: It is unlikely that anyone working in the industry will find the first half of any use at all. Several well written, technical electrical engineering textbooks on the operating characteristics of generating plant and transmission and distribution systems are available. Furthermore, the historical evolution of the industry's new legal and regulatory environment has been well documented elsewhere and analyzed more rigorously. Finally, the Federal Energy Regulatory Commission and Energy Information Administration Web sites contain good pages summarizing electric power technologies and major federal regulatory orders and legislative instruments.

Although the second half of the book covers major topics of significant interest to industry professionals, they are covered in a rather shallow and cursory way. For example, although the main focus of the second half is the impact of federal level regulation, there are only two short chapters on the role that state legislatures and public utility commissions have had in shaping and interpreting the new regulatory framework.

The New Rules fails to meet the needs of its stated constituency because it does not treat the subject matter in sufficient depth. Students may find the book a useful summary introduction as support to a lecture course, but bet-

ter, more up-to-date material is available, free, on the Web.

—Reviewed by John Bower (*jbower@london.edu*), Senior Research Officer at the Oxford Institute for Energy Studies, specializing in European electricity and gas.

The New Power Markets: Corporate Strategies for Risk and Reward

Editor: Rob Jameson
Risk Books
200 pages, \$230

This book presents a collection of writings by a wide range of authors familiar with the legal and financial aspects of power markets around the world. Its objective is to analyze how electric power’s risk/reward ratio has changed with market deregulation and liberalization, and how to deal with the results going forward.

Beginning with three papers on managing risk and reward at the corporate level, the book’s aim is to establish a

link between new market risks, strategic considerations, and—ultimately—shareholder value. The next section, on optimizing generation assets, is particularly strong on the use of real options and modeling techniques for valuing and optimizing the dispatch of power plants. Its consideration of whether and how to dispatch plant naturally leads to the next section’s consideration of fuel procurement strategies. Included here is a very interesting paper on coal price modeling.

Somewhat incongruously, the final section leaps to a discussion of how to manage social, environmental, and legal obligations. This section does, however, attempt to draw readers’ attention to the commercial risks that lay in construction and long-term fuel supply contracts. It is therefore somewhat surprising that given the range of risks covered, the issue of counterparty credit risk is not addressed at all. As the introduction to the book notes, because electricity markets are so volatile, and because credit risk on derivative contracts is merely the other side of the market risk management coin, the two are inseparable in devel-

oping a risk management strategy.

The other major weaknesses of *The New Power Markets* are that some of the papers have little to do with the stated theme of the section, and the themes have less to do with risk management strategy than with practice. For example, a discussion of weather derivatives sits uneasily in the section on generation assets, and a paper on pan-European power supply infrastructure has nothing to do with fuel procurement. However, each of the papers represents an interesting viewpoint on a major risk issue faced by managers in emerging power markets.

The compendium form of the tome makes it suitable for the reference section of an academic or corporate library. And given its high price, most people may be better off borrowing it and selectively reading the papers of interest to them, rather than buying it—unless they can claim it on their expense account.

—Reviewed by John Bower (*jbower@london.edu*), Senior Research Officer at the Oxford Institute for Energy Studies, specializing in European electricity and gas.

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