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BOOKS

Power Hungry: Strategic Investing in Telecommunications, Utilities, and Other Essential Services

By Roger S. Conrad John Wiley & Sons, 2002, \$39.95

The first thing that hits you about this book is that a real writer-and an industry insider-wrote it. In this age of "pumped-out" professional and business books, that's refreshing. You can tell that the knowledge and the words came from the same brain. And it's not some thinly veiled attempt by a company CEO or executive, or social or environmental advocate, to push his or her biased "vision" for the energy industry. For the most part, Power Hungry avoids taking sides on some of the contentious issues facing the industry. For example, of the California crisis, the author writes, "This is a story where everyone is a villain and a victim at the same time."

Power Hungry doesn't push one technology over another, and in the process contribute to irrational exuberance, such as what has befallen fuel cells. Nor does it champion one paradigm over another. It isn't, for instance, a call to arms to promote distributed generation as the "next big thing" in the electricity business.

Rather, it starts with some no-nonsense facts to support long-term investments in energy, telecom, and water. "What lies at the root of the problem is 20 years of underinvestment in America's energy, communications, and water infrastructure," posits Conrad towards the end of the book. Referring to deregulation, Conrad notes in an early chapter that, "Opening markets doesn't automatically cut rates or improve service. It simply ensures money will flow where it's needed most. It flows most easily through big powerful companies to meet the needs of heavy users of services." The book provides a rare, forthright admission about why and how industries are deregulated.

Between these bookends, Conrad offers sound investment strategies, some relevant history, and technology briefs. He even builds objective-based model portfolios in one of the appendices. Another appendix provides a useful table of mergers over the last decade. His five rules for investing success seem obvious and trite (buy for the long haul, diversify, etc.), but under each, he explains how they apply specifically to energy, telecom, and water.

A few caveats

You may not agree with everything Conrad says. For example, he parrots the line that EnronOnline was the largest e-commerce site in the world and "arguably" the most profitable. Any on-line business can look big by transferring off-line revenue to the online balance sheet or through clever use of arcane mark-to-market accounting techniques.

Conrad would also benefit from an injection of healthy journalistic skepticism. He shows a graph with natural gas providing 50% of America's electricity in 2010, up from 10% in 1998. You have to be almost crazy to believe this.

Another gripe concerns the subtitle. If the book is really about three infrastructure businesses, why is its title focused on power? That's likely a marketing ploy. Further, each chapter has an "industry profile," an interview with an industry leader or change-agent. These seem to be so much filler, or ways of artificially breaking up the text. When a book is well-written from the get-go, such "text blocks" are annoying. Worse, they come across similarly to ads between stories in a magazine.

Despite those reservations, the diversity of the people profiled is commendable: Tyson Slocum, a senior researcher at Public Citizen; Jonathan Gottlieb, a highly regarded energy industry lawyer; Richard Osborne,

> chief risk officer of Duke Energy; and Dennis Bakke, CEO of AES.

But overall, the complaints are minor. You'll like the way this book reads. Individual investors will be richly rewarded with a dispassionate look at the changes sweeping through the energy sector. And seasoned Wall Street ana-

lysts might study this book thoroughly in the hopes of repairing their tarnished image as objective purveyors of investment advice.

-Reviewed by Jason Makansi, president, Pearl Street, Inc., a technology deployment services firm based in St. Louis (www.pearlstreetinc.com).

Climate Change: Science, Strategies & Solutions

Eileen Claussen (Ed.), Pew Center on Global Climate Change Brill Pages, 2001, 399 pages, \$49 paperback (\$110 hardcover)

Climate change is one of the most challenging and controversial subjects facing the world's policy-makers and corporations today. While many leading scientists agree that our climate is being influenced by human activity, there is uncertainty and disagreement over the likely intensity, speed, and long-term effects of such change.

Before 2001, it seemed the governments of the world, especially those of the industrialized countries, were

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in agreement that human activity has been altering the global climate and could be dealt with through changing the nature of our interaction with our environment. There was even some agreement, however vague, on how to go about tackling the problem.

But that all changed when President George W. Bush ripped up his copy of the Kyoto Protocol, arguing that the evidence showing that human activity was unequivocally to blame for climate change was inconclusive, and that major polluters like India and China should also shoulder some of the economic burden of cutting greenhouse gas emissions.

It is in this context that Eileen Claussen, the former U.S. Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, pulled together a wealth of information on climate change in an attempt to explain the science, politics, and economics behind the debate, and ultimately suggest solutions to the problem.

The book's two dozen authors including Claussen—have no doubt that climate change is occurring, that humans are playing a major role, and that the effects of climate change will be profound. And the evidence presented by the book is convincing, without being judgmental.

Yet the authors do not claim to know what path future climate change will take, nor how fast the change will take place. Instead, in the Science & Impacts chapter, the authors present computer models with best- to worst-case scenarios which are well illustrated by graphs, maps, and case studies.

After assessing in detail the possible rates and courses of change, the book then looks at the effects of climate change on the environment, particularly the effects on U.S. agriculture, coastal areas, and water resources.

The authors go on to look at what has been done so far to mitigate the effects of human activity on our environment, looking in detail at the different leads taken by European Union governments and Japan. The book also studies the situation in five developing countries: Argentina, Brazil, China, India, and Korea—countries that the Bush Administration insists should be included in efforts to cut emissions. The chapter looking at U.S. climate

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policy and the cultural and political obstacles to tackling climate change is particularly enlightening for non-Americans perplexed by U.S. resistance to the Kyoto agreement. The book largely avoids condemning or praising the steps taken, or not taken, by governments to reduce the impact of economic and population growth on the environment. But the authors do conclude that human activity is indirectly warming up the planet, and that it will continue to do so, even if fairly drastic steps are taken to the contrary.

It is difficult to find fault with such a comprehensive look at climate change, although it does perhaps concentrate too heavily on the U.S. Nevertheless, the book is highly recommended for anyone interested in what climate change holds in store for our planet, what we are doing to limit it, what could still be done, and what might happen if we fail to control it. It is an invaluable reference on the issue, and only those who steadfastly refuse to accept that human activity has an effect on our climate should avoid the book. Even then, the evidence presented could prove convincing.

—Reviewed by Dan Fineren, Platts editor (European Power), London

A Solar Manifesto (second edition)

By Hermann Scheer James & James (Science Publishers) Ltd., 2001, 258 pages, \$40

The unprecedented environmental and social dangers that confront humanity call for a political revolution without precedent. The dangers arise almost entirely from development of energy systems based on fossil and nuclear fuels, aided by a deplorable lack of perspective and the atrophy of political action. So claims Hermann Scheer, who argues that sustainable development requires the paradigms of political and economic strategies to be altered so that energy systems can move to 100% solar power.

Scheer, a member of the German Parliament and co-initiator of the revolutionary German renewable energy feedin tariffs law, argues that the solar energy mix is more diverse than that of conventional energies. Within the category of solar energy he includes passive solar, photovoltaic systems, wind, small hydro, tidal and wave power, geothermal energy, renewable biomass, and solar hydrogen.

The author posits that at the heart of the dangers confronting humanity is a central contradiction between the undeniable evidence of environmental destruction and the refusal of politicians and industrialists to embrace solar energy-the only complete solution available, in his view. Scheer identifies many reasons for the failure to resolve this contradiction: the misguided attempt to shape nature; a Faustian faith in nuclear generation; lack of progressive thinking; bureaucratization of political institutions that operate within tightly compartmentalized areas of responsibility; and the selfinterests of those who control conventional energy systems.

Scheer shows how one remedy for the central contradiction calls for economic calculations that take comprehensive account of energy systems. Building on the insights of environmental economics, Scheer advocates that the environmental and social costs of a system must be incorporated into energy cost calculations, and the tax system radically restructured.

Solar does have its economic problems. There is no automated assembly line for the production of solar cells, and no broad-based solar research is being carried out. However, Scheer expects that costs should fall to 6¢/kWh if sufficient silicon material can be produced for solar cell manufacture. The problem of silicon supply is dealt with summarily. Scheer argues that since sufficient silicon is produced for computer chips, political will is all that is required to secure sufficient material for solar needs. Here, the difficulty is that while this is a sound campaigning argument for a manifesto, it would be useful to see more about how this important challenge can be met.

There is a wealth of detail in Scheer's writing. His call for energy concerns to be integrated into decision-making in all sectors at all levels is optimistic and bold. While the arguments deserve to serve to influence the political and industrial future, the author may alienate some with his often colorful remarks about incumbent institutions. —*Reviewed by Neville Horley, Platts editor (Power), London.*