

Matthew Simmons, Energy Investment Banker, Joins RFF Board

With gas prices still lingering at about \$2.50 per gallon and home heating costs expected to soar this winter, politicians are running out of quick fixes and urging citizens to conserve. Energy industry investment banker Matthew R. Simmons says long-term solutions will be much harder to find. He warns that the era of “peak oil” is over: world oil output is starting to decline, regardless of Saudi Arabia’s claims to the contrary.

Simmons, who recently joined the RFF Board of Directors, is the chairman of Simmons and Company International, a Houston-based investment bank serving the oil industry for more than 30 years. In his new book, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy* (John Wiley & Sons, 2005), he asserts that the lack of easily verifiable, publicly available data about the strength of the Saudi oil reserves has allowed for wildly inflated projections and helped to distort the true picture of where the world stands in terms of proven energy resources.

Various energy crises have been in play in recent months, such as the debate over whether to open the Arctic National Wildlife Refuge for drilling, but for Simmons, real solutions will only come when we take energy issues out of the partisan arena. “Today’s problems arise from 50 years of en-

ergy mistakes—covering 10 administrations and 25 congresses. We all share in our current energy data hole.”

According to Simmons, RFF can play an important role in helping to create better frameworks to analyze the energy intensity of new energy sources, such as Canadian shale oil, as well as the practical time it will take to introduce many “pet energy solutions, like raising the CAFE standards.”

(This fall, Simmons gave a presentation as part of RFF’s Energy 2050 series on his work; see related story on page 14.)

Different definitions of scarcity

Many economists, both at RFF and elsewhere, have long questioned the concept of whether resource scarcity and exhaustion is useful or relevant to energy policy. For their part, they stress the corrective capacity of markets and point to the historic record of technological progress. But Simmons is quick to disabuse policymakers of such assertions.

“It never ceases to amaze me how often and how passionately I hear these views stated,” Simmons said. “I know what oilfield technology did

and how long it took to invent and commercialize. It has been hyped as replacing the need to drill and steadily reducing the cost to drill and complete wells.”

For Simmons, it’s a matter of basic arithmetic. By significantly reducing the number of appraisal wells drilled and rarely coring them, it was easy for Saudi Arabia to grossly overstate proven reserves, he said. The cost to drill and complete wells has doubled and the last major oilfields were founded 20 to 40 years ago.

The price of oil could double or increase four-fold, but this would not generate more supply, Simmons said, nor would it address a chronic rig shortage, a lack of refineries, or an inventory of feasible, new projects.

Moving beyond our carbon-intensive status quo

Real, lasting change will only come when we recognize that we are, in effect, on war-time footing, Simmons said, calling for the energy equivalent of the U.S. Marshall Plan, which led to the reconstruction of Europe following World War II.

“We first need to reform global energy data and begin an era in which



MATTHEW SIMMONS

all reliable oil and gas suppliers provide mandatory, field-by-field quarterly production reports and data on the number of producing well bores that create their supply,” Simmons said. Conclusions from the data could form the basis for a global framework for significantly reducing gas and oil energy intensity.

Simmons is a graduate of Harvard Business School and served as an energy policy adviser to the 2000 Bush-Cheney campaign. ■

RFF Board Elects Michael Bean, Environmental Lawyer

At the beginning of his career 30 years ago, Michael Bean encountered the pioneering research of John V. Krutilla, one of RFF's founders. "I was impressed with his work in integrating wildlife into economic valuation systems and how that could advance conservation goals."

That seed bore fruit. Bean, recently named to the RFF Board of Directors, has become a leader in designing economic incentive programs to complement regulatory tools for wildlife conservation. Today, as a senior attorney at Environmental Defense—a national environmental group known for its tough litigation—he promotes collaborative alternatives to courtroom confrontations.

Economic incentives aimed at private landowners, he believes, can encourage them to engage in active management for the benefit of endangered species. He considers the Endangered Species Act largely successful in ensuring that the activities of federal agencies don't cause further harm but less effective in its impact on privately held lands. "The task at the moment," he says, "is to design carrots and enlist private landowners as partners."

One such carrot is the Safe Harbor Agreement, which Bean helped develop with the U.S. Fish and Wildlife Service. It protects landowners from future regulatory restrictions in ex-

change for voluntary management for listed species. The program was initiated to manage habitat for the red-cockaded woodpecker while allowing private and commercial use of resources.

Another promising incentive that Bean championed is "conservation banking," which provides opportunities for landowners to earn credits for investing in conservation activities on their own land, then realize financial gain by selling their credits to other landowners who need to compensate for the environmental impacts of development. Under a Fish and Wildlife Service program, ranches, farms, and timberland can now function as conservation banks if the land is managed as habitat for listed and at-risk species. The idea is to turn endangered species into assets for landowners, rather than liabilities, says Bean.

At Environmental Defense, Bean is chair of the wildlife program and co-director of the Center for Conserva-



MICHAEL BEAN

tion Incentives, which designs and implements model projects employing incentive-based strategies. The center also seeks to make federal and state incentive policies more effective in both protecting ecosystems and rewarding landowners, and build

public awareness and support for incentive-based stewardship programs on private land.

Bean is the lead author of *The Evolution of National Wildlife Law* (Praeger, 1997), a comprehensive analysis of federal wildlife conservation law, now in its third edition. He earned his law degree from Yale and was an editor of the school's law journal. Before joining Environmental Defense, he worked for a corporate law firm.

Bean says he is "flattered" to have been invited to join the RFF board. He calls the organization "consummately professional and innovative, with a staff of highest quality." ■

RFF Scholar Fills Darius Gaskins Chair

This October, Karen L. Palmer was named Darius Gaskins Senior Fellow. In this capacity, she will continue more than 15 years of research at RFF on electricity and the environment.

Darius Gaskins, currently a partner at Norbridge, Inc., was inspired by his long association with RFF to endow the chair. An RFF Board member from 1990 to 2002, Gaskins first be-

came familiar with what he calls RFF's "creative intellectual capital" as a Department of the Interior official in the



KAREN L. PALMER

early 1970s. At the time, he says, "it was accepted wisdom among the resource economists that RFF was the font of seminal work" on commodity and natural resource issues. Gaskins created the chair to provide continuity for such work. ■

Spotlight on New Scholars

This September, RFF welcomed four new staff members, whose interests range from uncertainty analysis to sustainable community development. *Resources* talked with each of them about their backgrounds and goals.

Joseph Aldy joined RFF as a fellow in its Energy and Natural Resources Division, on the heels of completing his Ph.D. in economics from Harvard University.

Growing up on his family's farm in Lexington, Kentucky, Aldy developed a strong interest in environmental issues early on. He studied deforestation and climate change in high school and later earned a B.A. in water resources and a Masters of Environmental Management at Duke University.

"Entering this field was very natural for me," says Aldy. "It combines what I learned from a childhood spent outdoors with the intellectual reward of studying challenging and urgent environmental issues."

With the goal of contributing to environmental policymaking, Aldy began his career as a Presidential Management Intern at the USDA Economic Research Service in 1996. From 1997 to 2000, he served on the staff to the President's Council of Economic Advisers, where he focused on a wide array of issues, including climate change policy, air quality regulations,

petroleum markets, electricity restructuring, hazardous waste policy, environmental issues in China, and sustainable development.

At RFF, Aldy will examine questions about climate change policy, mortality risk valuation, energy subsidies to low-income households, and energy policy. In particular, Aldy is studying the relationship between economic development and greenhouse gas emissions, which can inform his work on the design of international climate change policy architectures. His work on mortality risk valuation assesses how individuals value mortality risk reductions over their life cycle.

Aldy will also continue research on the effects of heating subsidies to low-income households on mortality among the elderly, a topic he addressed in the lead essay of his Ph.D. dissertation. "In light of the expected high natural gas and heating oil prices this winter," Aldy notes, "heating subsidies can help the elderly and those in poor health mitigate their exposure to cold weather and reduce their cold-weather mortality risk."

Roger Cooke is the first appointee to RFF's new Chauncey Starr Chair in Risk Analysis. He is recognized as one of the world's leading authorities on mathematical modeling of risk and uncertainty, and his research has widely influenced risk assessment methodology, particularly in the areas of expert judgment and uncertainty analysis.

As the Starr Senior Fellow, Cooke will examine structured expert judgment methodologies and uncertainty analysis, as well as the implementation of uncertainty analysis in policy-related decisionmaking.

Prior to joining RFF, Cooke was professor of applied decision theory at the Department of Mathematics at

Delft University of Technology in The Netherlands, where he served for more than 25 years. While there, he launched a risk and environmental modeling master's program.

He has also served as a consultant to the Japanese government on disposal of abandoned World War II chemical weapons in China and the Swedish Nuclear Inspectorate on piping reliability in nuclear power plants, among others.

Cooke earned his Ph.D. from Yale University, where he studied philosophy and mathematics. His recent research has encompassed health risks from oil fires in Kuwait following the first Gulf War, chemical weapons disposal, nuclear risk, nitrogen oxide emissions, and microbiological risk.

The Starr Chair was created for a senior scholar whose work significantly advances the way society understands and manages a variety of risks to human health and the environment. "The establishment of a chair in risk analysis at RFF represents a significant milestone for me," says benefactor Chauncey Starr, a pioneer in the field. "RFF is one of the few institutions capable of having a lasting influence on government policymakers about the importance of risk analysis."

Shalini Vajjhala joined RFF as a fellow in the Risk, Resource, and Environmental Management division, where she studies development and environmental projects with a public participation component, such as siting electric power lines. Because her interests lie at the interface between large-scale technical projects and grassroots decisionmaking, her research brings together the fields of development planning, risk communication, spatial analysis, natural resource management, and judgment and decisionmaking.



From left: Joseph Aldy, Roger Cooke, Shalini Vajjhala, and Robert J. Weiner.

As a doctoral student at Carnegie Mellon, Vajjhala worked on a series of projects in which she combined hand-drawn community maps with state-of-the-art geographic information systems (GIS) tools to study how personalized maps can facilitate risk-related decisionmaking and communication. She plans to extend this research in her new position at RFF.

She first developed the project in response to the difficult task of communicating risks and incorporating local knowledge into large development-induced resettlement projects. “How do you communicate with diverse groups of people who will be resettled to areas they’ve never seen before?” Vajjhala asks. “The planning for these projects and the risks people face are inherently based on spatial information, so I thought, ‘Why not maps?’”

Her work has taken her all over the globe, from India, where she studied resettlement issues, to Pittsburgh, where she aided community-planning efforts in low-income neighborhoods, to Lesotho, where she mapped mobility and access patterns of isolated villagers.

“We asked villagers to develop maps of how they moved about and what obstacles they encountered to accessing basic services,” Vajjhala says. In combination with a national GIS system, the hand-drawn maps allowed

local planners to make informed choices about where to build transportation infrastructures and to assess their social impacts.

Vajjhala holds a Ph.D. in Engineering and Public Policy. Prior to joining RFF, she taught design courses in Pittsburgh and worked as an architect and community organizer focused on sustainable community development.

RFF also welcomes **Robert J. Weiner** as the 2005–2006 Gilbert F. White Fellow. In this capacity, Weiner will focus on understanding why oil prices are so high and so volatile, examining the role of speculators and speculation in oil trading.

“The trade press, popular press, and many organizations, OPEC included, are blaming speculators for high oil prices, but this stance is based largely anecdotal evidence, convenience, and ideology—not careful analysis,” Weiner says. “I was attracted to RFF by its pioneering research on the behavior of oil markets and oil prices during crises.”

Such work is once again on the front-burner of policy issues: while economic research finds that markets work well on average, policymakers focus more on market functioning during crises.

Weiner comes to RFF from George Washington University, where he is professor of international business

and international affairs at the School of Business and Public Management. He concurrently serves as Membre Associé, GREEN (Groupe de Recherche en Économie de l’Énergie et des Ressources Naturelles), Département d’économique, Université Laval, Québec.

Weiner has also taught at Harvard University, Brandeis University, Johns Hopkins University School of Advanced International Studies, and the Royal Complutense University (Spain). He has taught courses on finance, international business, industrial organization, and environmental and natural-resource economics. From 2001 to 2005, he was chairman of the Department of International Business at George Washington University.

Weiner received his Bachelor’s degree in Applied Mathematics and Master’s and Doctoral degrees in Business Economics, all from Harvard University. He has authored or coauthored four books and numerous articles on contracting, risk management, and the oil and gas industry. His research interests and projects have focused on a wide range of issues, including oil and gas trading, derivative markets and privatization, and the behavior of state-owned enterprises in the world petroleum market. ■