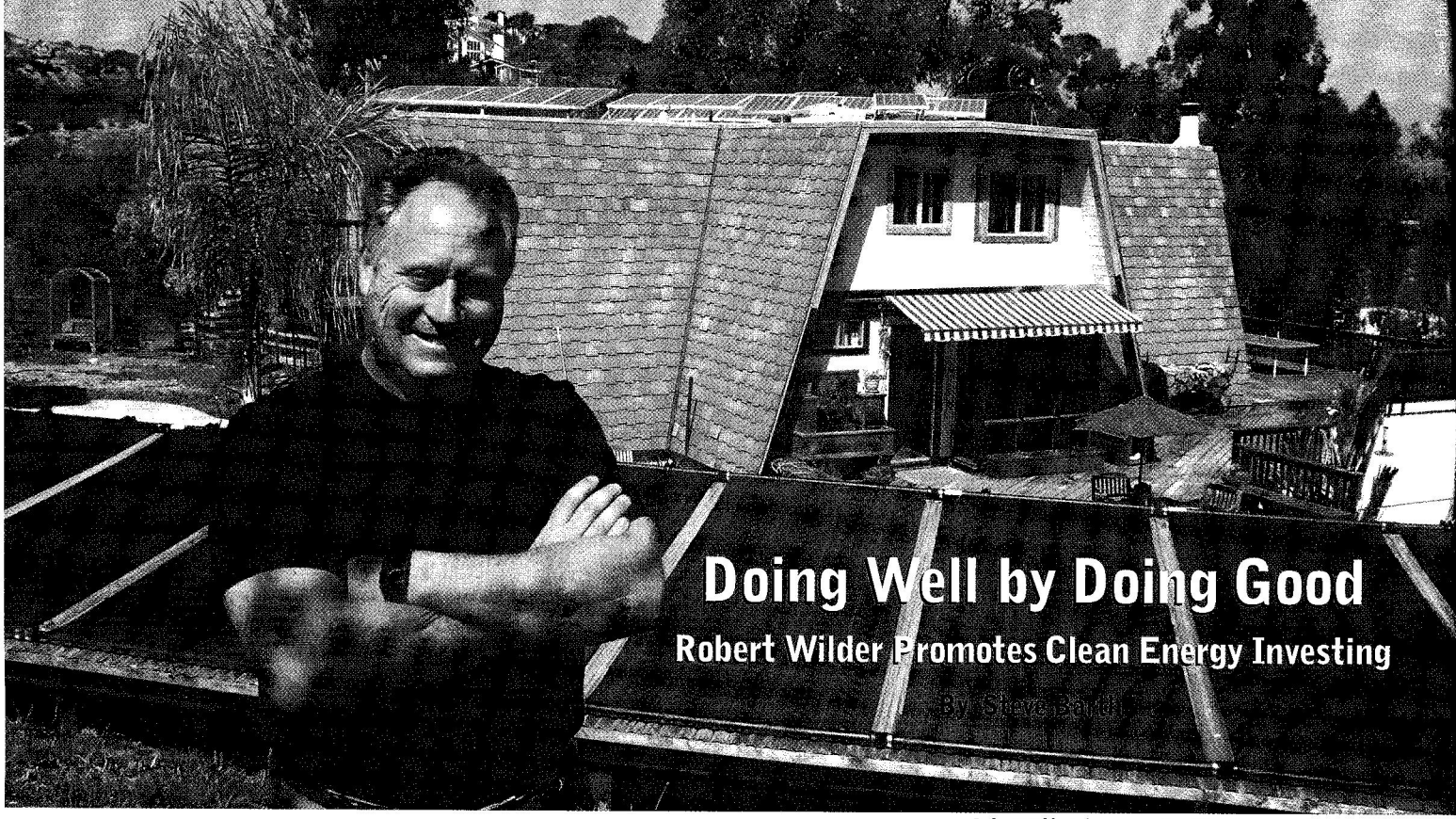

Doing Well by Doing Good

Robert Wilder Promotes Clean Energy Investing

By Steve Bardi

Robert Wilder's house near San Diego is powered by solar panels.

There's a lot of interest these days in doing well by doing good, especially when it comes to social and environmental entrepreneurialism. Robert Wilder '82, M.A. '88, Ph.D. '91, CEO of WilderShares, has launched a series of investment funds for cleaner energy innovations. During his years at UCSB, he wasn't what you'd call a hard-core student. The natural and social environment at UCSB were as important to him as the academic mentors who inspired him. But when he did hit on his billion-dollar idea, he used every bit of his Santa Barbara experience.

Raised in Baltimore, Wilder originally moved west to attend Occidental College in Eagle Rock. But after a weekend playing lacrosse at UCSB, he fell in love with the campus setting and transferred to Santa Barbara in 1980.

"I imagine the administration wants to promote its academic aspects, wonderful faculty and top rankings." Says Wilder. " But I loved surfing, diving, hiking and riding my motorcycle, and Santa Barbara had it all. People were happy and healthy—nothing like where I had grown up. So aside from how it was academically, I was astounded at how beautiful it was."

His appreciation for the physical environment would turn out be a key to his career path during a quest that would take him through diverse disciplines as well as many different parts of the world. Yet, again and again, he returned to Santa Barbara.

A Muilti-Disciplinary Education

Wilder was already enthralled by natural environments. A childhood family camping trip that crossed the U.S. and Canadian Rockies caused him to fall in love with nature. At Santa Barbara, this love only deepened as he commuted on wooded bike paths and lived in waterfront dorms. "You can be a millionaire and not have a lifestyle and location like that," he says.

His devotion to the subject was catalyzed by the popular Environmental Studies 11 course taught by environmental historian Rod Nash (now professor emeritus). Wilder recalls, "He was very charismatic. You didn't just show up and take notes. You wanted to talk to him after every class and emulate his lifestyle." Among a number of professors then on the UCSB faculty, Nash became a lifelong friend.

Wilder majored in political science, although many of his courses and mentors were outside of the department, especially in science and engineering. He admits he was ambitious but somewhat aimless through his undergraduate years. He graduated in 1982 without a "laser focus" to his life, except for his interest in saving the environment.

At the time, that suggested his next step would be studying law. His passion for surfing and scuba diving led him to look for a seaside law school, so he ended up the University of San Diego Law School. Meanwhile, he worked a series of jobs: interning at law firms dealing in marine environmental law, clerking for a San Diego Superior Court judge, working at the Center for Public Interest Law, writing for the California Coastal Commission. These experiences told Wilder that he wasn't cut out to be a lawyer, a bureaucrat, or even an employee. So in 1985, he graduated from USD still needing to figure out what he wanted to do "if he grew up."

At 24, Wilder wasn't looking to labor in a specific silo, such as public policy or biology. "I had a nagging feeling that a lot of what needed to be done for the environment wasn't getting done and that I needed to come up with something original and entrepreneurial," he explains. "I needed to find a new road and see where

it led."

This brought Wilder back to U.C. Santa Barbara, where he created for himself a radically cross-disciplinary graduate program about preserving marine ecosystems and biodiversity that combined biology, chemistry, engineering, and technology with political science. As with his undergraduate major, he was again based in the Political Science Department, where Professor Biliana Cicin-Sain (now at the University of Delaware) was his main sponsor.

"The faculty supported my desire to get outside of the disciplinary handcuffs. They got it," he explains—even when the computer didn't understand his requests to take courses in other departments. A marine geology course from Earth Science Professor Tanya Atwater was one of the most useful classes he took, but he and Atwater had to submit a stack of paperwork in order for him to attend. While most grad students in his department were getting by on modest policy grants, Wilder won the kinds of large grants for studying the impact of offshore drilling offered to other disciplines from foundations such as the Scripps Institution of Oceanography. And when he began writing, Wilder made a point of submitting to inter-disciplinary journals such as *Nature* or cross-disciplinary titles in law, engineering, finance, or policy.

It's no coincidence that the graduate-level Bren School of Environmental Science and Managaement and undergraduate Environmental Studies programs are so successful at Santa Barbara, Wilder notes. "It flows from this integrative look that people at UCSB are more willing to take."

Wilder started thinking about ways to mix technology and policy to reduce the negative impacts of offshore drilling by reducing dependence on oil in the first place. "Everybody was looking at the effects and impacts of oil drilling. I wanted to address problems not just after the fact, but to avoid oil in the first place," he explains. "So I began to study upstream technologies, engineering, and patents based on zero-carbon solutions such as solar power, wind power, and energy efficiency that wouldn't burden the Santa Barbara Channel with this vexing issue."

While a graduate student, Wilder also served on the UCSB Alumni Association Board of Directors from 1990 to 1993. What's more, he met undergrad Diana Francis '86. The two were married by another mentor, Environmental Studies lecturer (now emeritus) Marc McGinnes.

Wilder's doctoral dissertation focused on the science-technology-policy path to prevent ocean pollution in the first place and eventually resulted in his book, *Listening to the Sea: the Politics of Improving Environmental Protection*, published by University of Pittsburgh Press in 1998.

After a year in Fiji as a Fulbright Fellow, Wilder made making the first of two tours as a National Academy of Sciences Young Investigator, studying biodiversity in Siberia in 1992 (he later helped design new environmental policies for Croatia in 1997). Then he and his wife moved east when he accepted a position at the University of Massachusetts as an assistant professor of environmental policy and technology on the Dartmouth campus. He was on the tenure track, but after a few years the cold winters became oppressive.

The Wilders made a risky decision. In 1996 they decided to move back to Santa Barbara, even if there were no open positions in Santa Barbara. "I just showed up at the door. I didn't even have to explain," he remembers. "Jim Kennett put out welcome mat at the Marine Sciences Institute, graciously giving me office space to work in." Rob ended up researching or lecturing in the environmental studies, political science, and marine science programs. Meanwhile Diana found staff positions in Environmental Studies and Global & International Studies programs.

It was his work as a researcher at UCSB between 1996 and 1999 in particular that led Wilder to start thinking about investing in companies specializing in clean energy solutions. At first he did it with his own retirement savings, identifying individual companies with promising technologies and the potential for profit over the long-term. As much as he and his wife enjoyed being back in and at Santa Barbara, Wilder was also feeling increasingly restless about the limits of academic practice to affect the problems he was studying.

"I was thinking, how do you apply this?" he explains. "One of the greatest strengths of a university is that it is apart from the real world, but that's one of its drawbacks, too. The university wasn't a good launching pad for my models."

Wilder left Santa Barbara again. He worked for an environmental non-profit in Maui from 1999-2001 and then the family moved back to San Diego where Wilder coordinated a national community-based coastal restoration program for The Nature Conservancy. He was also was a UC San Diego associate research political scientist and a distinguished lecturer and visiting scholar at the UC Santa Cruz.

His home near San Diego became a one-acre demonstration of the potential of solar solutions to provide electricity, hot water, and even transportation by charging his electric vehicles.

Applying What He Learned

During these years, Wilder began working with Joshua Landess, a mathematical economist, long-time analyst for clean energy issues, and contributing editor at an online magazine about electric and hybrid vehicles. Wilder was convinced they should create a new website based on a pure index to track the market performance of the clean energy sector. This is similar to the way the S&P 500 tracks the stock market performance of a selected set of large corporations as a benchmark of overall economic performance.

To Wilder, this seemed an ideal way to apply the ideas about advancing clean energy advantages, based on the academic theories he had begun thinking about at Santa Barbara. Wilder and Landess selected the companies and devised the way in which the aggregated value would be calculated.

Wilder and Landess defined the index as focusing on businesses "that stand to benefit substantially from a societal transition toward use of cleaner energy and conservation [and] relevance to preventing pollution in the first place." They chose stocks and weighted their role in the index based on their potential significance as innovative environmental applications that would make

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both ecological and economic sense such as solar power, wind power and energy efficiency.

The index is broken down into six main categories: renewable energy supplies (manufacturers and retailers of things like turbines for wind power, solar cells, biofuel crops, etc.); energy storage (for example, advanced batteries or flywheels); cleaner fuels (primarily hydrogen); energy conversion (fuel cells); greener utilities; and power delivery and conservation systems (including superconductors).

Diana Wilder, in the family's garage on Maui, designed a website (www.wildershares.com) that would publicize the index and track its performance. The WilderHill Clean Energy Index launched in 1999 and the website was soon receiving 100,000 hits per month. Almost immediately, Wilder was receiving inquiries about investing in the group of companies the index was tracking. The idea of a fund-type "basket" of stocks seemed a good idea for the clean energy industry because the individual companies themselves were too volatile for most investors—their fortunes rose and fell dramatically with every report about world events and technology advances.

Unfortunately, the idea was repeatedly rejected by mutual fund companies. Much to Wilder's surprise, however, several years later he was contacted by an emerging asset management firm, PowerShares Capital Management, that was enthusiastic about underwriting and launching an exchange-traded fund based on the WilderHill Index. EFTs are a little bit different from mutual funds because they trade like regular stocks—often rapidly—as investors speculate on the popularity of a sector based on company and world news. The PowerShares WilderHill Clean Energy Portfolio—the first for clean, renewable energy—launched in 2005 on Wall Street, with the initial $10 million in shares selling out on the first day. In only two years the fund passed $800 million in capitalization and Wilder expects it may reach a billion dollars this year.

Though volatile, the Clean Energy Index tracks a collection of companies that are mostly in start-up mode and have only long-term expectations of both profitability and environmental impact. WilderHill created a second index—and then a fund—based on companies mitigating global climate change by progressively reducing carbon and other pollution from current uses of fossil fuels such as coal, oil and gas. The PowerShares WilderHill Progressive Energy Portfolio launched in 2006

A third Global Fund for clean and renewable energy primarily outside the USA is now in the works, based on the WilderHill New Energy Global Innovation Index introduced in 2006.

Although a number of investment funds based on similar indexes having also been launching on Wall St., Wilder says, "I'm particularly happy that in each case, we were the first."

In addition to his own prolific writing on the subject, the popularity of the indexes has made Wilder a sought-after expert and commentator on clean energy, with a constant stream of quotes and profiles appearing in mainstream and specialized media (such as a March 23 profile in *USA Today*).

Steve Barth '82 is an award-winning writer and international business consultant.