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Solutions at the Speed of Business: A New NCS Initiative

Hunter Lovins introduces NCS' exciting web-based learning tool, designed to help small businesses implement climate protection measures.

Climate change may be the most serious problem ever to face humankind. Scientists say we need to reduce carbon emissions by at least 80 percent in the next 50 years. Big companies like DuPont, Wal-Mart and Motorola are starting to address the issue by voluntarily cutting their own emissions and pressuring their



The Solutions Tool will help small businesses

supply chains to cut emissions further Small businesses are largely absent from the solution side of the equation, however. This is a serious emission, as their contribution to the problem is huge.

In the United States, 23 million small companies produce half the non-farm gross national product and employ over half the workforce. The Energy Information Administration estimates that in 2005, small businesses accounted for 48 percent of electricity use. Assuming their carbon output reflects that percentage, small businesses create more than 3,590 million metric tons of carbon emissions per year.

To date, no one has figured a way to enable smaller companies to implement climate protection. Sending energy savings experts door-to-door, business-by-business, city-by-city, simply costs too much.

NCS introduces a tool to hurdle this barrier.

We have a tool that will reach small businesses, speaks their language and works at their speed.

Building on the successful Climate Protection Manual for Cities (www.climatemanual.org) NCS is producing Solutions at the Speed of Business (Solutions). Based on conversations with business people about the information they needed, the Climate Protection Manual for Small Business manual collects best practice examples from companies across the United States. This content is gathered, and will be released for free on our website, but it is also now being incorporated into a dynamic web-based learning tool that will enable busy people to access what they need, on their own time, at their own speed.

To produce the web-based tool, NCS has partnered with CogBooks (www.cogbooks.com) a professional web-based learning company. Business people are increasingly turning to the web for the information they need to run their companies; they purchase affordable training materials and use them to increase their profits. The average merchant or office-dweller doesn't have time to attend a seminar or read a manual. This group needs information delivered in the form that they are used to: web-based tutorials.

NCS is committed is to have 50,000 businesses signed up in three years—cutting carbon emissions by 1.2 million metric tons.

The Solutions tool will give owners and operators of small businesses a step-by-step program they can implement by themselves to cut their use of energy, cut their emissions of carbon and increase their profits.

The online suite of services will include:

- Tools to create a step-by-step action plan.
- Templates on how to communicate with employees, stakeholders and contractors about the plan and its value.
- Tools to track the business' progress.
- Local funding resources for climate protection.
- Background information on climate change and its impacts.

Solutions will include an online community for sharing ideas, successes and questions. Users will be able to access the experts at NCS for general Internet and phone support if they have technical or content questions.

The tool can enable us to track how much users achieve in reduction of energy and costs, and the extent to which they implement climate protection measures. The goal is to have the tool working in 50,000 businesses in three years. Reducing energy use by 20 percent in these businesses would save approximately 1.2 million metric tons of carbon.

Addressing the challenge of climate change is truly urgent. We used to think we had 10 years to reduce the emissions of carbon and to begin to level things out. Now scientists tell us we have perhaps two years—if that. We simply must get the information out about profitable climate solutions to every sector of society.

You can hear Hunter speak about *Solutions at the Speed of Business* in a six-minute piece on You Tube (http://www.youtube.com/watch?v=4oTj6jledNw). We are developing the tool in the absence of dedicated funding because we believe getting it out is urgent, but are continuing to seek support to underwrite the tool. If you wish to help us fund the creation of this tool, please contact us today.



Hunter Discusses Solutions at the Speed of Business on You Tube

The State of Green Business

Jeff Hohensee, Natural Capitalism's CEO, on light green versus authentic sustainability.

During 2008, green has become corporate America's favorite color. After Hunter's years of arguing that "green" enhances both environmental stewardship and profitability, she now has a growing chorus supplying the hard numbers to prove her thesis. Over the past year, reports from the Economist Intelligence Unit, Goldman



Jeff Hohensee NCS' C.E.O.

Sachs, Sustainable Asset Management and many others have shown that the companies that are leading the sustainability revolution have better financial performance, including higher stock value.

The Goldman Sachs Report found that companies that are leaders in environmental, social and good governance policies, have outperformed the MSCI world index of stocks by 25 percent since 2005; 72 percent of the companies on the list outperformed industry peers. To read the entire report, go to the Full Length Goldman Sachs Report.

What these studies show is that the "light green" measures favored by companies over the past decades are no longer sufficient. As NCS works to support sustainable business solutions, we have found that companies are following two distinctly different approaches. In our opinion, only one will deliver enduring value. The other may confer short-term gains, but will not underpin long-term competitive advantage.

Simply turning off computers will save around half a million dollars.

Many organizations are "doing sustainability," but not yet truly "becoming sustainable." They are cherry-picking some of the savings that can be achieved by reducing energy use, improving the reliability of their supply chains, and reducing the amount of materials they use. The results can be amazing—while working with one of our client companies, we noticed that they were leaving their computers on all of the time, letting them go into stand-by or sleep mode instead of powering them off. We helped them to change their IT policy so that employees power down their computers whenever the computers are not being used. Just implementing this one change will save around half a million dollars per year, with no investment. This simple efficiency practice will cut their costs and liabilities, and increase their shareholder value. Obviously, this is just good business practice and is a great step towards becoming sustainable, but it is only the first step.

The great news is that we also can report a growing number of corporate leaders taking a much more comprehensive approach to sustainability. They are looking beyond efficiency and embracing sustainability as a core driver in how they operate their business, not just a short-term tactic. They are redesigning their products and processes using approaches like biomimicry. This is not only saving them money, but is also preparing their businesses to be the first to the future in their respective industries.

Laptop Computer

NCS has worked with PortionPac Chemical Corporation since 2005. The company was looking for a way to integrate sustainability across its entire operations. The Helix model, developed by NCS (www.natcapsolutions.org), helped PortionPac to do a comprehensive review of their business and develop more sustainable practices across different functions of the company. This has prepared their company to thrive in this time of increased costs of natural resources and higher standards for health and safety.

Keeping Clean and Being Green

NCS asked Marvin Klein, President of PortionPac, to describe how his work has driven PortionPac to its place as an industry leader in sustainability. Below, Marvin provides some ideas for smart cleaning that could apply to the largest industrial plant or your very own home.



Portion Pac Bottles

- 1. Remember you are cleaning for your health. PortionPac founder, Syd Weisberg, believed that the cleaning industry has done almost as much for public health as the medical profession. You need a product that works.
- 2. Eliminate redundant products. Chances are you have two or three times as many cleaning products as you need. If you want to protect the environment and your pocket book, this is an easy step. Four or five cleaning products are all anyone really needs for regular cleaning.
- 3. Get ammonia and bleach out of the building. They can cause serious accidents and are damaging to the environment.
- 4. Concentration is critical, but measure correctly. In these challenging times of \$140 per barrel of oil, it is more important than ever to avoid manufacturing, shipping, or buying cleaning products that are 90 percent water and thus use more energy to deliver. Buy high concentrates, providing you are able to mix them correctly. For example, the new concentrated laundry detergents (a good step forward) may have incorrect or confusing cap markings. Over or under dilution causes problems such as skin irritation or poor performance.
- 5. Have a simple method of measuring detergents. Many commercial and industrial products, such as ours, use portion control packaging. Don't guess or just pour.
- 6. If possible, buy products certified by Green Seal™. Many companies have come out with their own certification process and offer "very official looking environmental seals" that may be as worthless as an electrical appliance without a UL (Underwriters Laboratories, Inc.) Seal. There are a few other sincere processes, but if you have Green Seal, you have the best.
- 7. Don't be fooled by the "natural" ingredient story. Many products use naturally derived products, such as citrus cleaners containing d-limonene that are dangerous for aquatic fish and plants. "Natural" does not guarantee that a product is safe for you or better for the environment.
- 8. Liquid formulations are easier to dilute and more efficient than powders for daily cleaning of glass, food contact surfaces, fixtures, floors, etc.

- "Measure twice and cut once" is good advice for a cleaner as well as a carpenter. If you don't do the job right, you have to do it over, wasting water and energy, and increasing disposal labor costs.
- 10. Learn to recognize "Greenwash." It is sad to see beautiful ads, labels and commercials filled with green forests and blue water promoting products that have been polluting the planet for decades.

Make your buying decisions based on what is healthy for you and the environment. It is not easy, but the rewards are worth the effort.



Portion Pac

Marvin Klein

NCS also worked with a company in the food vending industry that was struggling to find a better use for waste that could not be reused or recycled.

We helped them ask how nature would solve the problem. These conversations led the company to implement a composting program turning previously land-filled materials into reuseable fertilizer, eliminating most of their waste, and putting nutrients back into the earth. The company and others like it recognize that their brand depends on having sustainability as a core aspect of everything they do. Such companies are finding that this level of commitment makes them the sort of place that the best talent will wish to work for, that it gives them a way to distinguish their offering, and that it underpins their competitive advantage.

Presidio Corner

Toby Russell, Hunter's teaching assistant at Presidio School of Management, reflects on the popular program that teaches sustainability to business school students.

The odds of becoming disheartened are increasing at an alarming rate. The housing market is in turmoil, oil prices are rising, U.S. debt more resembles a developing country than a vibrant world leader and the value of the dollar approaches historical lows against the euro. Economic woes, coupled with such environmental concerns as climate change and water shortages, are often enough to push me to the edge of depression. Fortunately I've found a "Prozac" with no negative side effects.

For the last few months, I have served as a teaching assistant to Hunter at the Presidio School of Management in San Francisco. Being one of the first business schools to integrate sustainability into its syllabus, it attracts great and optimistic minds. The field of sustainability has never been so diverse and popular, and the school reflects that. The number of students enrolling at Presidio has doubled in the last two years, and the faculty and curriculum have



2008 Presidio Graduates

become more dynamic as a result. Students are provided with the tools they need to tackle the issues our planet and economy are facing.

Another academic year recently ended and a new group of MBA students graduated. Some will work in small and medium business, some in large corporations, some in governments or in NGOs. Others will start their own unique businesses. All will take sustainability to the next level and make this world a better place.

For example, one recent graduate, Sid Mitchell, is redesigning fish farming by making the whole process sustainable. In place of the traditional approach of raising fish near to the shore in low currents, he will raise them further off shore in submersible pens. This not only gives the fish greater access to their natural food source, but it also decreases the chance of disease that spreads easily in traditional fish farms. The submersible pens are not affected by storms.

Other student capstone projects include creating complementary currencies, designing an innercity vertical farm, destroying stockpiled ozone depleting gasses, creating community development projects in Africa and converting abandoned warehouses into green office buildings.

Sitting in on Hunter's classes and helping the students build their career plans is enough to give me new hope even in my most dispirited moments.

NCS Tackles Travel

Research Associate Steve Mannhard reports on efforts to decrease our footprint.

As a leading sustainability consultant and educator, it is vital that NCS practice what it preaches. We are a small organization, but we travel the globe. Not surprisingly, the largest environmental impact



Rachel, Steve and Nick enjoying the ride to work

from our operations is from transportation. Hunter and Jeff alone traveled over 135,000 miles giving speeches, leading workshops and helping companies and communities implement more sustainable practices in 2007. Combined with commuting, travel creates over 80 percent of NCS' total CO_2 emissions.

NCS is committed to tackling this problem. The electricity in the office (and many of our staff's homes) is generated by wind or solar. NCS is a member of the Chicago Climate Exchange and offsets all of our GHG emissions. But the best answer is to reduce our carbon footprint. We recently avoided emitting over 3,000 pounds of CO_2 emissions by substituting two videoconferences in place of business trips. NCS also is addressing staff commuting. Employees and interns are riding bikes, carpooling, telecommuting and even running to work.

On 20 May 2008, NCS had an official bike-to-work day, during which NCS employees and interns rode their bikes together from Boulder into our beautiful Eldorado Springs office. As our pack of rolling environmentalists on a mission swarmed the bike paths of Boulder, we saved \sim 70 pounds of CO₂.

Making the Best of Your Stimulus Check

Your \$600 can go a lot further than you might think.

As stimulus checks arrive across the United States, environmentalists in Colorado have created a great way to invest them in energy efficiency. Called "Double-Duty," the initiative allows individuals to donate part or all of their stimulus check to organizations in Colorado that are carrying out projects to cut one



A Wind Farm

organizations in Colorado that are carrying out projects to cut energy consumption.

NCS' project Solutions at the Speed of Business (see above) was chosen as one of the recipient projects. Check out www.double-duty.org for more information. Those of you who live outside Colorado can, of course, send a check directly to NCS.

Going Down the Road With Hunter Lovins

When last I wrote you in November, I had just returned from London, bringing with me Qais Akbar, a young Afghan entrepreneur Natural Capitalism was hosting. For two years Nancy Johnston, who handles all of my logistics, Stephen Landrigan, a colleague in Afghanistan and Dr. Bernard Amadei and Robyn Sandekian of the University of Colorado worked to get Qais a U.S. visa so that he could come study with us and at the University of Colorado.



Qais Akbar

Qais is a fourth-generation carpet merchant. He had been extremely helpful to me the various times when I was in Afghanistan, translating and looking after me on trips into the Central Highlands, and around Kabul. I had told him that if he ever wished to study in the U.S., I would bring him over.

Qais is working to transform the carpet industry in Afghanistan into a sustainable, fair-trade operation. At the moment, it is anything but. Carpets are woven by children, washed and treated with very nasty chemicals, and the resulting products sold as commodities that compete badly with Chinese factory-made carpets. This approach risks losing the brand quality of Afghan carpets, once among the world's finest, and is delivering very little development value for Afghans.

Little did I know how xenophobic our foreign policy has become. Despite this, the tireless efforts of our team and the great folks at the University finally got Qais a visa. Stephen put Qais on a plane in Dubai heading for London, where I met him, flew with him to the U.S. and walked him through immigration snarl in Chicago.

It is no mean feat getting a young Afghan male into the U.S., but after missing our flight out of Chicago, we finally got all the paperwork in order, and got Qais officially admitted to the U.S. The ever-resourceful Nancy got us new bookings and I brought Qais home to Colorado.

Qais lived with us until late February. During his stay, we got him together with waste water treatment experts, green chemists and people who were selling carpets retail around the country so that he could better understand the available high-end markets. I showed Qais the

California redwoods, Presidio, an ocean, sushi, the Colorado high country and every thing we could think of about life in America. We even held a carpet sale at NCS supporter, Dan Friedlander's, house in Boulder, at which Qais and I spoke about the work we are doing in Afghanistan. Anyone who missed out can go to Qais' website, www.kabulcarpets.com and order fine Afghan carpets, a purchase that will help fund the rebuilding of Afghanistan.



One of Qais' carpets

As Qais settled into my ranch, I scrambled east to speeches in Michigan, then on to New York City to speak at the United Nations. This was an effort by my Dr. friend Tariq Banuri to reframe the climate debate away from arguments about imposing top down timetables, mandates and targets for emission reductions. He believes that that the only answer that will work is find ways to enable the poorest people to meet their needs for energy services in ways that won't destroy the climate. International and American efforts to create carbon regulation have stalled, so Tariq's approach might solve the problem faster and more predictably. It is a bit of a bold proposition because the U.N. is, after all, the association of the world's governments, but at the same time, it has stated a commitment to sustainable development and to meeting the millennium development goals, so it seemed worth a try. Tariq had called this meeting in preparation to the U.N.'s Climate Change Conference in Bali a few weeks later, when the world's governments were coming together yet again to try to restructure the climate protection regime.

For several days, our group presented work we're doing in developing countries using renewable energy, and particularly energy efficiency to meet basic human needs and provide access to energy services better than the fossil-based technologies. This is cheaper and leverages the creation of real jobs and businesses on the ground in developing countries. Dr William Moomaw from the Fletcher School of Law and Diplomacy gave a brilliant presentation on work he is doing in Indian villages making biofuels from jatropha seeds, and implementing solar and other technologies. I spoke about the work Selco (Solar Electric Light Company) and

other are doing in India, selling solar lighting services to the poorest people, using micro-financing. The payback rate is less than people had been paying previously for batteries and kerosene. Families are getting a net financial benefit and light, and when the loan is repaid, have solar light for free. Selco's market approach creates jobs in the villages and leverages the creation of Indian jobs making photovoltaics.



SELCO

Similarly, SEKEM is an Egyptian company that employs some of the poorest people of the desert growing organic vegetables, botanical feedstocks for cosmetics, and cotton for clothing. Badging their products as fair trade and organic, they sell them at high prices in Europe. The proceeds provide housing, health care, and education for the workers and their families.

SEKEM is even creating a four-year university. It is the only company to have ever won the Right Livelihood Award that I received in 1983.

These and similar examples from around the planet show that sustainable technologies can better increase human well-being and leverage genuine economic development. The transition to these technologies will break the stalemate in which China and India say they won't give up their coal plants until the United States does, giving the Bush administration the rationale to do nothing.



SEKEM

The fact that we are stupid enough to continue relying on coal does not mean that the rest of the world must.

I described the business case for climate protection showing that smart companies here are cutting their green house gas emissions and making more money. See the paper the Economic Case for Climate Protection (http://www.climateactionproject.com/chapters/Section_1.pdf). As always, of course, the least-cost option is efficiency. California has recently reinstated a provision whereby the utility commission gives the utilities a share of the savings realized when the utilities invest in improving the efficiency of their customers' buildings and facilities. The utility can then pay higher shareholder returns and the customers get as immediate cut in their energy bill. It also came as news to many that coal is no longer the least-cost option—wind is, and several public utility commissions cited this in 2007 when 79 U.S. coal plants were cancelled.

Such programs should be implemented in developing countries. Instead, the World Bank is financing the so-called Ultra-Mega coal plant in India, and China continues to build a coal plant every couple of days.

We spent the time in a windowless room in the basement of the U.N. headquarters, a building I detest. It's one of the more inefficient buildings imaginable: incandescent light bulbs all over the place, huge single glazed plate-glass windows facing the East River that aren't even caulked. The wind comes whistling through. Its occupants strut around as if they are the salvation of the planet. I tell them, "No, you're not, you're the problem!"

Even in such surroundings, we set forth what I thought was a very convincing business case for implementing more sustainable energy options for Tariq to carry to Bali a few weeks hence.

At the end of the meeting a Pakistani diplomat walked in and reacted to our reports by saying, "We're just going to burn coal. We need it to fuel our development, and you can't tell us not to." I said, "Have you not been listening? We've spent two days explaining that if you want to meet the legitimate development needs of your people, you will do it better by investing in efficiency and renewables. It will give you more development, faster and cheaper. Did you not listen to what Bill Moomaw has been doing in India? Or the work I have been doing in Afghanistan?"

He looked around the room and said, "I don't trust you." He looked at me and said, "Hunter, I don't trust you."

Well that tore it—you tell a Colorado cowgirl that you don't trust her and you had better be ready for a fight. I looked at the guy and

UN Headquarters, New York

said, "Mister—either we're all in this together and the nations of the world all work to together to cut our carbon emissions. Or there are going to be winners and losers. And frankly, you are going to be a loser. Me, I live in Colorado, I'm rich. Global warming, bring it on—we'll have ocean-front property. You, Pakistan, won't have water because the glaciers in the Himalayas are disappearing. You're not going to have agriculture because the monsoons are shifting. Your country is going to dry up and blow away and frankly I flat don't give a damn."

Yeah, I was just a mite annoyed.

I guess you don't say that sort of thing in the UN. The ol' boy looked shocked. About that time, my Crackberry rang, and one of my students who lives in New York, asked if I wanted a drink. "Boy howdy!" So, I put that inefficient edifice on the East River behind me, and gave up all pretense of being a diplomat.

As various people asked me to go to Bali, I answered, "no." I'd spent all fall on the road and wanted to be nowhere but home.

It the end, my little indiscretion might have accomplished something. In the last hours of the Bali meeting, when it was clear that nothing else was going to emerge from the meeting, the developing nations and the western nations agreed to a joint funding mechanism to help developing nations implement clean, non-fossil development.

Several people subsequently told me that I was referenced.

We'll see if anything comes of it. I give any credit to the people like Tariq who can stomach the endless tedium of such meetings. The real transition will come from the people working in villages, entrepreneurs bringing renewable energy to countries like Pakistan, Afghanistan, countries of Africa and the policy people in businesses and communities around the world that are working to cut their carbon footprints. I don't hold out much hope for the big



View from Taxi Cab

international meetings. But, it *would* please me no end if those days spent in that windowless basement came to some good.

The Holidays went to finishing the editing on Natural Capitalism's manual to help small businesses profitably cut their energy use and thus their carbon emissions. This web-based learning platform, *Solutions at the Speed of Business* (see lead article) is the most exciting tool that I have ever found, and one that will enable all small companies to become part of the solution.

Of course, like the recipe for rabbit stew: first catch the rabbit; the first step in building the tool is to get the material finalized. So I spent a truly delightful December at home in Colorado writing up the excellent work that Brianna Buntje, our Director of Research, and her team of interns and researchers had beavered away at all fall, and watching the news reports emanating out of Bali.

With January, Jeff Hohensee and I were back on the road, first out to California to help Sun Micosystems roll out what they called the "Un-conference," and launch the website called Open Eco, www.Openeco.com, a web-based center for the sustainability conversation. I wish it well—there is certainly a need for more voices and much greater participation.

A fun event, the Unconference attempted to incite a conversation with the participants around sustainability issues and not merely parade a group of talking heads across the stage. The morning began with Ted Nordhouse and Michael Shellenger who wrote the paper, "Death of Environmentalism," and the book *Breakthrough*, debating me on energy policy. I actually agreed with much of what the boys had to say: how the environmental movement has done much better at pointing out what is not working than implementing solutions that will deliver real value in better ways. But Ted made the mistake of claiming that the only solution is nuclear, so we lived up to Sun's invitation to have a fun fight in front of all the folk, much to audience's amusement. I promised to send lots of people various papers showing why nuclear is not carbon neutral, and is anything but the least-cost option. They also document why the wide array of real solutions, starting with energy efficiency, will meet our needs better and cheaper. Any of you fighting nuclear power's return from a well-deserved grave, check out the work of Nuclear Information and Resource Service, (www.nirs.org).

In January, Presidio welcomed an incoming class of about 65 bright-eyed business students. It really is fun to see our enterprise mature from a struggling little start-up of 18 students to a student body of 230 with over 50 new MBA candidates entering each semester. The quality of students goes up each semester and along with the skills they bring to implement their new ideas.

Back in Colorado, Jeff and I met with Tom Plant, a friend who is now running the Governor's Energy Office. We briefed his staff on *Solutions at the Speed of Business*, our web-based learning tool for small businesses. They expressed keen interest in that and subsequently

asked our help in bringing our Cities Climate Protection Manual to Colorado cities.

Next came a day trip to Munich, Germany, to address a group of European industrial leaders at the Volvo Design Conference. I literally landed in Munich at dawn, rushed to the conference, grabbed a few bites of sausage, gave the presentation, did a filming and jumped back on an airplane to Washington D.C., en route to Orlando, Florida. Despite the insanity of spending all of

VOLVO Sporte Design at Ispo

Volvo Design Forum

six hours on German soil, it was very cool, driving to the venue, to crest a rise on Munich's outskirts and see a gi-normous wind machine, slowing spinning in the morning sun generating clean electricity. The Europeans, especially the Germans, are serious about the transition to renewable energy. The renewables sector there is now providing more new jobs for what would be otherwise out-of-work men and women than any other German industry.

But, why do a day trip? Months before the Volvo folk called up, I had promised Eban Goodstein of Focus the Nation that I would join him in Florida on 30 January to do a live webcast to help kick-off of the national day of teach-ins on climate change on college campuses all across the country. The goal was to get college students on over a thousand campuses to demand that the nation implement climate protection. In the end, over 1,700 campuses and over one million students participated. That part went very well.

The webcast . . . well . . . our team has a bit to learn about technology. Our delivery was just fine. We settled into a PBS studio in central Florida and turned out what we thought was a fabulous show, webcast live to thousands of viewers. Dr. Steven Schneider, Stanford's world renowned climate scientist, appeared via tape, Van Jones, the leading proponent of green collar

jobs and founder of Green For All, joined us via satellite, Eban Goodstein, various National Wildlife Federation folk and I all talked about the challenge of climate change and the answers. We really nailed it. The cameras shut off and we high-fived each other.

'Til one of the techs said, "It didn't work. It didn't go out."

What?! We were stunned. Apparently, despite Eban's best efforts to get assurances from the outfit that offered to host the event that they had sufficient bandwidth to do a webcast with thousands of sites logging in, they didn't. The whole thing crashed within minutes of starting. As it turns out, it was a good thing—someone had managed to scroll nasty racist subtitles across the screen. Most places never saw that—the hundreds of college campuses set up to watch the webcast real-time live just thought *their* equipment was bad. It wasn't—it was our fault.



Focus the Nation

But not all was lost. The studio taped what we did, and you can watch it now by logging onto the Focus the Nation website (http://focusthenation.org/2percentsolution.php) download the "Two Percent Solution" and see why I rushed back from Germany.

After grabbing my third night of too few hours sleep, I keynoted the University of Central Florida's morning Focus the Nation event before winging back to Colorado just in time to give a talk as part of CU's Focus the Nation activities on the connection between the genocide in Darfur and climate. The droughts in the Darfur area, caused by climate change, are a major reason for the conflict. That we are allowing genocide to go on before our eyes is bad enough, but similar conflicts could become commonplace throughout Africa and the rest of the world if we don't get a handle on global warming.

After a February trip to Houston to keynote the conference of quality control professionals, I jetted to a meeting with *Newsweek* in San Francisco. Each year prior to Earth Day, the magazine gathers a group of experts to help it prepare its environmental issue. I laid out for the group the business case for sustainability (described in Jeff's article, above) and did an interview in which Presidio was profiled, which described me as "the green business icon."



March meant Kansas City, Missouri—a trip to meet with local government officials, business leaders and a film crew and to give a public speech on the Drivers of Change facing business today. The Kansas City region has set itself the laudable goal of being the greenest in the country. More power to them. While I was there, the courageous Governor Sebelius upheld the public utility commission in canceling a couple of coal plants out in the west, noting that coal is no longer the cheapest option, and that its carbon footprint makes it unacceptable.

Jeff joined me for a run down to St. Petersburg, Florida, to help to the members of the Association of Corporate Philanthropy enable their companies to go beyond mere compliance with environmental and social regulations. We obviously had a few suggestions.

Next morning, the front page of the St. Petersburg's paper reported that the cost of the two nuclear units the utility outside of Tampa is still trying to build had risen to \$17 billion, with no

end in sight. The utility had initially promised they would cost \$1 billion each, then the price tag rose to \$4 billion apiece—a figure the nuclear industry continues to quote. Clearly that's now wrong. Indeed, recent numbers indicate that nuclear units will probably cost more like \$12 billion each. At that point even solar photovoltaics are competitive.

After Florida, it was back to San Francisco to teach at Presidio, speak to the business students at University of California, Davis, then fly to Canada to address the Green at Work Conference in Thunder Bay, Ontario. Coast to coast, from the deep south to a First Nations' Community in the Northland: the issues are the same whether you are a Canadian, American, or live in the middle of the ocean. Coal is on its way out, nuclear is unaffordable, and drives nuclear weapons proliferation Isn't it time we quit subsidizing all the wrong technologies? Why don't we just do the right thing first?

At the end of March, I flew to Hawaii to the Henk Rogers' "Blue Planet Summit." Billed as a coming together of experts on energy policy, the purpose was to put forth solutions to the energy and climate challenges facing the world. A great group of people convened: young Bobby Kennedy; Denis Hayes, who runs the Bullet Foundation; former head of the CIA, Jim Woolsey; Will Semmes, number two in the California Government managing their buildings and assets; Andy Revkin from the New York Times;

Frank Senso Introducing Hunter at Blue Planet Summit

Frank Sesno, correspondent with CNN; Hawaiian activists, Jeff Mikulina of the Sierra Club and Henry Curtis of Life of the Land; solar entrepreneurs; native American leaders; native Hawaiian leaders; and a great group of participants. (www.blueplanetsummit.org)

We spent three days conversing and filming material that Blue Planet will put into documentaries. The Fred Friendly seminars, a famous PBS policy series, filmed a very interesting segment with a group of us: the climate expert, Steve Schneider; Bobby Kennedy; Andy Revkin; an executive from General Electric; Jim Woolsey; Mina Morita, an Hawaiian legislator; a mayor of a small town in Indiana; the editor of an energy magazine and me. We waited onstage as Frank Sesno walked on, turned to camera and said, "I am the President of the United States, and this is my cabinet. We have just gotten word from the CIA that there is a 50/50 chance that the price of gasoline is going to \$12 a gallon before the end of the year. What should we do?"

This was the first that we, sitting there being filmed, had heard anything of this challenge. No time to prepare, no notes—they wouldn't even let me have my computer on the table. Happily, some of us have actually put some thought into the question of solving the oil crisis (You can read my Yes Magazine article on the topic on our website. Jim Woolsey jumped right in saying that now was the time to do what we should have done long ago, and that we can get off oil. Jim drives a plug-in hybrid that he fuels from his roof-top solar system. He and I described how if you want to cut oil you implement better transportation policies, and talked about the options from far greater efficiency and plug-in hybrids, to efficiency standards, a war-time push for decent public transport and better land use planning.

We described what can actually be brought online fast enough to solve the posed problem. I asked folks to recollect that when we went into WWII, in 90 days Detroit went from making cars to making tanks and airplanes. We can do that again—we know how to make cars that get 100 miles to gallon. We can ride-share, using the web-based systems that allow people to link up

car trips with others going the same place. There are car-sharing companies that enable people to reserve a local car on the web, use a smart card to open the car, track your miles and time, and away you go.

We set out a whole litany of solutions: communities designed so that you already are where you want to be—work at home programs; "fee-bates"—when you register a car you either pay a fee or get a rebate depending upon the car's efficiency. We ranged through fast-term measures, mid-term measures, longer-term measures—we could put an package into play that would enable the country to get off oil in about two years.



Oil Rig in the Red Sea

Bobby Kennedy was brilliant—he jumped in with facts and figures: the U.S. is now borrowing a billion dollars a day to finance our oil addiction, which worsens not only our economy, but also our security and our climate. Steve Schneider talked about the climate implications of burning fossil oil and why we must get off oil anyway.

Andy Revkin summed it up best, "Mr. President, call the country to undertake an energy quest." He then laid out a brilliant plan describing what such an energy quest ought to contain. See Andy's blogs at: http://dotearth.blogs.nytimes.com.

Sesno turned to the camera and said: "These are difficult challenges and there are no easy answers. We'll talk more about this. We'll talk next week."

"Wait," I tried to say, "There *are* easy answers—we've just laid them out! We don't need to talk, and certainly not next week. If this is a crisis, let's implement what we know how to do that will solve this problem, save us money and create a better world . . . "

But it was over. They'd cut. The Fred Friendly folk came bouncing up; saying what a great show it was going to be.

I was steamed. "Who scripted the ending?" I demanded. When they said that they did, I unloaded. "You've just undercut any good that this whole hour's worth of filming might have had. You're about to tell the country they're facing hard times and that doing anything about it

will be hard. That won't inspire anyone to want to change until there're absolutely forced to. End the show with Andy's call for a Quest. Give people some reason to act now so that this sceario does not have to come to be . . . Otherwise, we've all blown a lot of jet fuel getting there, only to tell the country that there aren't any answers."

I dunno. Times like this, I'm not sure whether anything we do going down the road is worthwhile—we all burned a hell of a lot of carbon (even if all of mine is offset) to fly a long way to be expensive stage props.



Robert Kenedy Jr., Hunter and Dennis Hayes at Blue Planet Summit

If they had asked the assembled experts to drill down and present a coherent plan: How do you get the islands off oil? How do you restructure the Hawaii tourist industry to be sustainable? How do you get the world off oil? How do you de-carbonize the planet? Any number of nice

juicy challenges they could have given us. . . We'd hinted at solutions in sound bites, but only that. We need to spend such opportunities laying out the details, signing up the people who will take the next steps. Otherwise, it's all just talk. It's just theatre.

But film people live by sound bites—everything we did was quick. When I figured out that game, I found ways to amuse myself. One guy was unduly fond of nuclear, believing it to be the only way to get off oil which would take away the Arab's big foreign policy stick—he must really love the Administration's current plans to subsidize the Saudis getting nuclear power, from which they can build a bomb.

We locked horns on a panel in which young people posed us questions. A very bright young Navajo woman asked: What energy solutions are there for Hawaii? This guy jumped in and started touting nuclear. Having learned the sound bite war, I jumped right back, saying, "Whoa, there. Nuclear is not the answer. It has the highest cost and cannot solve the problem here on the islands, which is liquid fuels." He snapped back, "You just don't like nuclear power." I smiled and retorted that I loved nuclear—remotely sited, 93 million miles away was just right.



Nuclear Power Plant

The audience predictably burst out cheering, and the guy didn't say anything for the rest of the session, which pleased me fine. But the young Navajo wasn't finished. She fixed on him, saying, "My people know nuclear. Uranium was mined on our reservation and my people were poisoned. Their animals were sickened, our land ravaged. The workers brought the dust home on their clothes and our children were poisoned. We know, nuclear," she said, "Thank you, we don't want any more of it."

In a sound-bite world, that was sure a good'un. Still I wish that the format had allowed a real conversation on what would make sense for Hawaii, for the U.S., for the world. There are answers, but they won't be found in sound bites.

There were other rewards. Michelle, (NCS' accountant) who came with me, had never been to the islands before. She got to swim with turtles and watch whales spout. And join me as I went with a marvelous traditional leader, Papalii Tusi to a haiao—an Hawaiian shrine. Papalii spoke a blessing for me, and for this work that we are doing. As he spoke, it suddenly came to matter a lot. The last time I was in the islands, various folk from the electric utility took a dim view of the work I was doing killing power plants. When some of the activists suggested that it might be just a bit healthier if I didn't come to the Islands for a while, I'd not been to Hawaii in a decade. It felt good to be welcomed back.

After a delicious traditional meal, Papalii gave me another blessing: the Polynesian staff of the orator, to be used to call the four winds to carry my voice where it needs to go. Papalii said that he hopes to convene the heads of state of the Pacific Islands to talk with me about climate change and better approaches to sustainable economic development. Perhaps my path will turn west to the Islands again.

After a day at home, I headed to Sacramento to keynote the Green California Summit, to speak at a community meeting organized by one of my students in Palo Alto. Then it was up to Presidio again to teach. Gwendolyn Hallsmith our co-author on the LASER (Local Action for

Sustainable Economic Renewal) manual for community economic development (www.global-laser.org) spoke to our classes. She shared her years of experience implementing community sustainability from the townships of South Africa to post-communist Serbia to, serving now as the Planning Director for the state capital of Vermont.

May gave me a bit of time at home, to write six articles and prepare for a summer on the road. Being home, I could attend the release of the Boulder County Energy Plan that I've helped work on for the last two years. It is a good plan and will help Boulder get serious about cutting energy use and carbon emissions.

As part of Natural Capitalism's effort to do more virtual work, I gave a webinar for Net Impact, the association of MBAs working to enhance sustainability, and was filmed for a PBS documentary, standing in Jeff Hohensee's backyard with a high mountain lake, with the snowfields of Rocky Mountain National Park gleaming beyond in the morning sun.

But sitting still was short lived. The usual mid-monthly trip to California took me west to teach, to speak in a film that will help teach people at Wal-Mart just what sustainability is, and to lecture to Executive MBA students at the University of California, Berkeley. I also spoke to the Financial Women Association of San Francisco luncheon, and the San Francisco Green Business Conference.

After wrapping up the semester at Presidio with a great student party, I poured myself on a plane to Oklahoma to serve as Scholar in Residence for the University of Oklahoma's Scholar Leadership Enrichment Program. It was fun to take the material that I teach to MBAs and offer it to bright under-grads. I only whimpered a little changing planes in Denver, to watch my beloved Rocky Mountains slip behind the wing as I jetted off again,

Three trips to New York followed, meeting with health products, IT, chemicals, hedge funds and other executives, companies Natural Capitalism Solutions is helping to refine their thinking about sustainability.

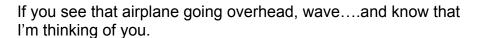
Then back to California to help graduate the best crop of Presidio MBAs yet. Meetings with entrepreneurs creating the technologies of the next wave of innovation, before jetting off to New Orleans to work with the city and others reconstructing the region on the value of doing it right the first time, building sustainability into everything that they do.

As I write, it is the Solstice. Summer is full in the Colorado air: time for riding the high country, for rodeos, for hauling hay and working with our new crop of interns at Natural Capitalism. Tomorrow I will take my good little mare barrel racing one last time before climbing on an airplane bound for New York to give the inaugural Buckminster Fuller Award to my dear friend Dr. John Todd. Natural Capitalism Board member Janine Benyus and I both sat on the jury that awarded the prize. I can't think of a more deserving candidate.

"Colorado Moment" by Norm Clasen

At about the same time I found that I seem to have been nominated into the Environmental Hall of Fame. And my colleagues at the Business Leaders Forum at the University of Cambridge wrote to say that they have selected me as one of the World's Top 50 Thought Leaders in Sustainability. When I am in London in July I'll do a filming for that.

But first I'm bound next week to Upstate New York for a climate leaders summit. Then I launch into a truly manic summer travel schedule: launching the inaugural Presidio Executive Certificate program in July, rock festivals, keynoting the World Renewable Energy Congress in Scotland, helping green the London Olympics, and even a quick run to Australia.





Airplane

Take Action Calendar – Come join us at:

4-6 July	Rothbury Festival	Double JJ Ranch, MI
9 July	Dartmouth University ILEAD series	Hanover, NH
10-12 July	Presidio Certificate Program	San Francisco, CA
19-24 July	World Renewable Energy Congress	Glasgow, Scotland
8 August	Utility Executive Leadership Institute	Santa Fe, NM
14 August	Society for Ecological Restoration, California Chapter	Santa Rosa, CA
21-24 August	Presidio School of Management Residency	San Francisco, CA
4 September	Responsible Industry for a Sound Environment	Washington, D.C.
9 September	RMEL annual conference	Vail, CO
9-10 September	InnoFuture 2008	Melbourne, Australia
11-13 September	Presidio Certificate Program	San Francisco, CA
12 September	American Associates of Landscaping Architects	Breckenridge, CO
18-21 September	Presidio School of Management Residency	San Francisco, CA
25-26 September	West Coast Green	San Jose, CA

Take Action Video

Required viewing to stay informed on climate.

Seven You Tube Videos by Prof. John Holdren titled "Global Climate Disruption: What Do We Know, What Should We Do?" Filmed at Harvard University's John F. Kennedy School of Government, November 2007.

John P. Holdren is Professor of Environmental Policy at the Kennedy School of Government and in the Department of Earth and Planetary Sciences at Harvard University. He is the director of the Woods Hole Research Center and board chairman of the American Association for the Advancement of Science.



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