

THE CANYON COUNTRY WATCHDOG

By Doug Meyer & Jim Stiles
From Flagstaff to the Book Cliffs.
Facts & Opinions

Ethically Challenged The fight over solar power in the Desert Southwest

"Vanity, vanity, thy name is humanism." –Edward Abbey

These are extraordinary times, as we watch the widening split in (what's left of) the environmental community over the issue of "renewable" energy installations. The division separates those who accept and hold to the morality behind Abbey's statement and those who don't.

In a nutshell, because wind and solar power projects have to capture energy from a very diffuse source compared with burning coal or oil, they consume a lot of land, wildlife habitat, material resources, and, with the proposals for concentrating solar thermal power plants in the Southwest, a lot of water. In the desert.

But progressive "environmentalism" seems more interested in the dilemma from society's point of view: how are we going to generate the 4 million gigawatt-hours of electricity the US consumes every year without burning carbon? In answer, The Arizona League of Conservation Voters supports "aggressive implementation of renewable energy sources such as solar, wind, and clean biomass" and "encourages manufacturers of renewable resource to locate in-state, creating new jobs and sustainable economic growth."

Some environmentalists who campaigned for Barack Obama might be having second thoughts after hearing this from his Interior Secretary, Ken Salazar: "We are putting a bull's-eye on the development of solar energy on our public lands." Energy corporations needing government handouts for 30% or more of the cost of these multi-billion dollar projects, and who also can't afford to buy large tracts of BLM property for their money-making plans, are jumping for joy. (Private land projects are in the works as well.)

Concentrating solar-thermal power (CSP) plants are all the rage with progressives because, unlike wind turbines, they can theoretically generate megawatt numbers in the same ballpark as fossil fuel designs, though not quite round-the-clock. As usual, the devil's in the details.

Most of the plants that are being rushed through the permitting process this year qualify for government money use the "parabolic trough" design. Aligned on a north-south axis, these long troughs hold mirrors shaped to focus the sun's energy on a tube of oil running along its length. Each trough can rotate to track the sun daily, but only on one axis, dramatically reducing winter output. Also, to minimize the energy needed circulate the heated oil from the mirror field to the power plant and back, the entire acreage of the power plant needs to be laser-leveled. Typical plants are on the order of a few square miles.

But the biggest problem is water. Ask yourself why most power plants you can think of have easy access to surface water. The final step in CSP parabolic trough designs is dishearteningly familiar: the heated oil is used to boil water for steam that runs a turbine to make electricity. And the most efficient way to condense the steam before sending it back to the boiler is to evaporate some of it to the air.

For example, the \$2.1 billion, 340MW Mohave Sun plant proposed for the Red Lake area north of Kingman, AZ, would blow almost 3,000 acre-feet of water annually from the aquifer up into the hot, dry Arizona sky. This has residents concerned, to say the least. According to a story published at <http://speakoutarizona.net>, Northwest Arizona Watershed Council Vice Chairman Denise Bensusan was quoted as saying "We've got these projects coming into our community that claim to be green and they're using the green label and they are not green. We're just trading one resource for another and that's not a solution."

Even the progressives at <http://climateprogress.org>, who have labeled CSP as "the technology that will save humanity", admit that the currently proposed plants aren't a good idea. Posting on CSP's cooling design options, Michael Hogan, Power Programme Director for the European Climate Foundation wrote "In the desert areas where CSP will thrive, the consumption of large amounts of water by conventional wet cooling systems is clearly unsustainable. Dry cooling alternatives will be required, and CSP will have to

demonstrate its commercial viability despite the capital cost and performance penalties this will entail." And if that's not enough, dry cooling in the hot desert air would also cause "green" solar power plants to look more like traditional power plants. The least-bad efficiency option would use those familiar hyperbolic-shaped cooling towers that are about 500 ft tall by 400 ft across at the base (minus the plume of steam).

Are there any other CSP designs competing for government grants and construction this year? Yes. Are they better overall than parabolic trough? No. The big disadvantage of the other two ideas is the lack of molten salt heat storage which can give parabolic trough plants an extra six hours of power generation after the sun goes down. In contrast, the power tower/heliostat design focuses the sun directly on the boiler mounted high in a central tower using about 50,000 individually mounted tracking mirrors per 100MW and

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features an air-cooled design. But the power goes out soon after the sun goes down. And the Stirling Solar Engine can convert solar energy directly to rotary power, but requires 30,000 25-kilowatt dishes to generate 750MW, each with its own heliostat and rotary engine to be maintained. So far, prototype Stirling dishes cost \$225,000 each, so that plant would run a cool (pun intended) \$6.75 billion, again with no power after dark.



Finally, what about scale? If enough billions could be found to finance all 50 or so solar plants now in the permitting process in California and Arizona, how much juice would that be? Not much. Using a generous capacity factor of 40%, (rated power produced during 40% of the hours in a year) all those plants together would provide only 3% of U.S. annual electrical consumption. Assuming industry doesn't need power in the wee hours, if we could build a 280MW, billion-dollar, three square-mile plant every week, we would consume 79 years and over 12,000 square miles of desert to de-carbonize U.S. electricity supply. And that does NOT include growth, or the additional electricity we'll need to convert vehicles away from gasoline engines. And for how long can China and Japan keep investing in this multi-generational transformation for us?

Progressives will try to ignore reality as usual, but one has to wonder how long they'll keep their wagon hitched to capitalism when the most sustainable ideas are clearly the ones that generate the least power and profits. Instead, what we've got is just another gold rush in the Wild-Wild West. Energy prospectors are hoping to strike it rich quick at the expense of a financially desperate nation and our public landscapes. Does the word boondoggle come to mind?

So, on this subject of massive solar power in the desert, let's turn back once more to the question of professional environmental ethics being converted into progressivism. In a recent High Country News interview, Carl Zichella, the Sierra Club's director of Western Renewable Programs, wrote the following:

"We will all be dead and gone when Western ecosystems unravel and large-scale extinctions happen. But we only get to experience these (ecosystems) because people who came before us understood we would need these places. I feel that a failure to act decisively on climate change will ... result in a greatly diminished world. ... Joshua Tree National Park without Joshua trees – a distinct possibility – is

anathema to me."

But in a different exchange, with environmentalists lamenting Ivanpah Valley's last Mojave Desert spring before being bulldozed for solar energy, Zichella seems to reinforce the science while undercutting his own rationale for trying to "save" the environment:

"...with scientists saying a one degree increase in temperature could lead to a 20 percent decline in species in the desert southwest, how many springs like this year's do you think the entire desert has left?"

This is essentially the progressive rationale being expressed by a ranking member of the Sierra Club. It goes something like this: ecosystems all over the planet will be transformed by the end of the century, so we should sacrifice large parts of it now for human energy needs in the hopes that human civilization can be saved. (The last part is problematic because the rate of change of those ecosystems may not allow human civilization to survive regardless of its energy choices.) I don't know where you'll find a better example of the death of environmentalism.

But that boring old 2007 IPCC report (which many now say has projections not capturing changes which are happening faster) has some sobering information that progressives and environmentalists would be wise to review. If all of humanity disappeared from the Earth today, temperatures would continue to rise an additional 0.6 degrees Celsius during this century due to the human carbon already in the atmosphere. And the U.S.

Secretary of Energy, Steven Chu, admits that human activities will push CO2 past 450 ppm and perhaps 550 ppm. Interpolating between those two figures means 2.0C above today or 2.6C above pre-industrial. And here's what THAT means according to the IPCC: "terrestrial biosphere saturates and begins turning into a net carbon source", "extinction of coral reef ecosystems", "major loss of Amazon rainforest", "42% of UK land area with bioclimate unlike any currently found there", etc.

So, short of some global pandemic that wipes out most of humanity and leaves it unable to burn the rest of the carbon in the ground, the global environmental disaster by the end of the century is unavoidable. Some progressives may foolishly think civilization can survive that, but honest environmentalists are pretty much stuck with "I told you so" and short-term strategies for environmental defense.

At least we can take comfort in the fact that "environmental" advocates for massive solar projects in the desert are so weak on the moral question. In effect, they're saying "We have to do SOMETHING, to fend off criticism from future generations." Maybe Edward Abbey would remind us that the problem starts with "We".

-Doug Meyer

ANOTHER GLOWING REPORT..

How to milk our NATIONAL PARKS—A DEVELOPER'S DREAM

And written by...THE MOAB CHAMBER OF COMMERCE? nope.

THE HOMEBUILDERS ASSOCIATION of UTAH? nope.

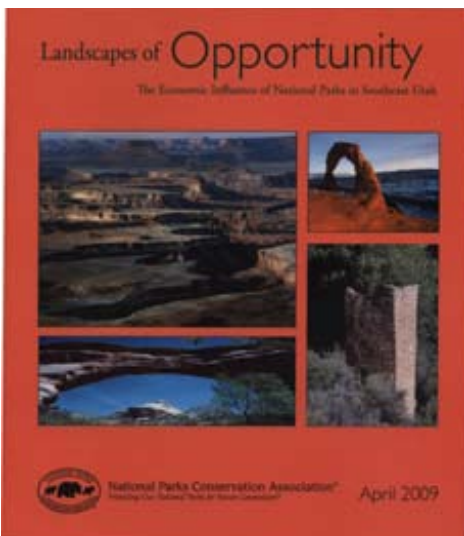
Presented by...

The NATIONAL PARKS & CONSERVATION Association

Last summer I was contacted by David Nimkin of the National Parks and Conservation Association's Utah office (NPCA). He and a team of interviewers were gathering data for a report on the economic situation in SE Utah, as it relates to the national parks. He said he was looking for a broad range of opinions and wondered if he or one of his associates could spend some time with me.

I agreed and last July, I devoted the better part of a morning with two NPCA representatives (later I learned they had been contracted to do the interviews).

Naturally, I did not offer a SUWA/Chamber of Commerce-like 'thumbs up' glowing analysis of the "amenities economy." Instead I tried to present, as I have for a decade, a more balanced perspective. I talked about the dangers---economic, environmental, social and cultural---that a tourist-based/second home economy can bring to rural communities.



I questioned how environmentalists, truly concerned about global warming, and CONSERVATION (The word IS part of NPCA's title) could be promoting an industry that by its very definition, DEMANDS the massive consumption of natural resources to ensure its success. The never ending need for more tourists means the consumption of more oil; the construction of more tourist town homes, not even used full-time, requires more commodity consumption as well.

I explained how tourist economies drive up housing prices and out of the reach of individuals and families with modest incomes.

I suggested how fragile an amenities economy can be and how a downturn in the world economy could have dire consequences for a community that depended

on tourism as its lifeblood.

Mr. Nimkin thanked me for my input, promised he would read "The Greening of Wilderness, 2" in last summer's Zephyr and I never heard from him again.

But last month, my friend Scott Silver of Wild Wilderness (www.wildwilderness.org) sent me a PDF of the report. It is called: "Landscapes of Opportunity The Economic Influence of National Parks in Southeast Utah"

You can read it yourself by clicking right here:

http://www.npca.org/southwest/pdf/Utah_Parks_Economic_Report.pdf

It might as well have been written by the Chamber of Commerce. At the core of their report is this:

(This report) concludes that the value of Arches, Canyonlands, Natural Bridges, and Hovenweep to local communities goes well beyond the production of iconic images for tourism websites... this report identifies opportunities for leveraging proximity to the parks to create more economic success for area residents while maintaining the landscape that makes this region so attractive.

Imagine...NPCA, of all organizations, talking about "leveraging proximity" to the very parks they are committed to defend, in order to promote economies like the most recent tourist boomtown embarrassment called Moab, Utah.

The report downplays everything from the paucity of affordable housing to the predominance of low-paying tourist jobs. They actually write:

The peer analysis...suggests that concentrations of low-paying, seasonal tourism jobs are not necessarily the fate of San Juan and Grand counties, and that their proximity to national parks might be better leveraged for economic success.

They seem to be obsessed with "leveraging." The only concession the report offers when it comes to the risks of a tourist-dominated economy came in one very short paragraph:

San Juan County is more diverse than its national park peers as a whole, while Grand County is more specialized, having traded mining dependence for tourism dependence. A diverse economy tends to be stronger than a specialized economy.

Otherwise there is not one dissenting or alternative opinion to be found in the glossy, slickly produced report. My comments are nowhere to be found; nor are there any expressions of opposition to the rosy, ever-expanding rural tourist economy envisioned by NPCA. And it is written as if the recent world economic collapse never happened. It refers to the opportunities for retirees to settle in Moab, when most of them lost a good deal of their savings in the last eight months.

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In fact, I learned that NPCA tossed out ALL the interviews from last summer. According to Monticello's *San Juan Record* editor Bill Boyle, Nimkin called him in February to say he "was unable to use them," and got a short quote from Boyle for the NPCA report over the phone.

I thought the purpose of NPCA was to protect our national parks, not sell them. Once more, I'm not nearly as cynical as I should be.

ANOTHER SUWA BOARD MEMBER IN HOT WATER?

While searching for a story about SUWA board member and renowned environmentalist Hansjorg Wyss' love for golf courses in the desert (that story is on page 2), I stumbled upon an article by Miriam Hill and Sam Wood in the Philadelphia Inquirer:

A Swiss company with major operations in West Chester, Pa., illegally tested its bone cement on about 200 people, three of whom died, according to a 52-count indictment issued Tuesday by the U.S. Attorney in Philadelphia.

Synthes Inc., a producer of orthopedic products that employs about 1,400 in Pennsylvania, did not tell any of the patients that they were participating in experimental surgeries, the indictment said.

Federal prosecutors also accused Synthes executives of lying to the U.S. Food and Drug Administration about whether they had tested the product for uses that the agency had not approved.

"What they did here was pervert the FDA's process," U.S. Attorney Michael Levy said at a news conference Tuesday.

...a company executive identified in the indictment as "Person No. 7" decided not to conduct clinical trials. Instead, the person said the company should "get a few sites to perform 60-80 procedures and help them publish their clinical results," according to the indictment.

The report never explicitly identifies "Person No. 7," but says he was the chief executive officer and a large shareholder. A company spokesman identified Hansjorg Wyss as the CEO during those years."

In 2007, two of SUWA's board members, Bert Fingerhut and Mark Ristow pled guilty to one count of securities fraud and were forced to resign their board positions. They both did prison time.

As far as I know, despite Wyss's reputation as one of mainstream environmentalism's most prominent leaders and conspicuous benefactors, this story has not been reported west of the Allegheny Mountains....why?

-Jim Stiles

