Solar Power vs. Conservation: Trees Win Big

by William Menke

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Deferring to the many of us who expressed opposition, Lamont-Doherty Earth Observatory has withdrawn its proposal to clear-cut its woods and build a solar panel farm in their place. This was a case where the goals of conservation and green energy conflicted. After some debate, the preservation of the ecological habitat of the Hudson Palisades was recognized as more important than the generation of CO2 emission-free electrical power. Such tensions among the environmentally-conscious are on the rise, driven by the complex environmental problems of a world experiencing the enormous and still-growing impact of human beings. Few such problems have ideal solutions; solving one often exacerbates another.

We Observatory scientists are a curious breed of environmentalist. Almost none of us are activists. We don't attend rallies, write OpEd pieces, appear in TV nature shows or fund-raise for eco-organizations. Yet we understand the technical aspects of environmental issues better than 99.9% of humanity and believe that many pose very serious risks for society and world. This dichotomy may lead some of us to experience a sense of guilt and the desire to do something - *anything* - that contributes to a solution.

Almost all of us at the Observatory are thoroughly convinced that global warming is occurring. The CO2 that our society emits through burning coal and petroleum is causing climate change today that will grow in magnitude over the coming decades. Where we disagree is in our assessment of the severity of the problem. I know one climate scientist here who is convinced that we are already past the point of no return and that temperatures will increase to a point where the Earth can no longer support life. However, most of us (including me) have the less extreme view that global warming, while survivable, will cause significant degradation of the biosphere and hardships to us human beings, and especially to the poorest people who lack the resources to adapt. Most of us (including me) believe that remediation – meaning first reducing and then eliminating CO2 emissions - must begin

immediately. This is a world view that makes solar farms, however destructive to the local environment, seductively attractive!

One of the challenges of reducing CO2 emissions is that ours is an energy-hungry society where success often correlates with the amount of energy expended, not saved. The Observatory's laboratories, computers and research ship – all among the very best in the world - consume more than the average amount of power and emit more than the average amount of CO2. Yet we function is a society where competition is very intense and where the reward for reducing emissions is very, very small. Over the last decade, we at the Observatory have spent fifty million dollars on new buildings and yet felt that we could not afford to put solar panels on their roofs or over their parking lots. While this calculus was shortsighted it was not incorrect; it brings out the problem that any single individual or institution has in bucking societal pressures. One of the attractions of the now-defunct proposal was that an energy company was offering to foot the bill.

While we should not be razing woods for solar panel arrays, solar technology definitely has tremendous potential to reduce CO2 emissions. However, we will succeed in reducing emissions only when we make doing so a priority. And that means using solar panels to *offset* power generated by burning fossil fuels, not merely to supplement it.

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