

Saving the Environment from Environmentalism

By Paul Lorenzini, September 14, 2105, *Atomic Insights*

<http://atomicinsights.com/saving-the-environment-from-environmentalism-2/>

When Jonathan Franzen wrote a provocative piece in The New Yorker earlier this year, “Climate Capture”, Chris Clarke, an influential environmental blogger in California, described it as having “walked up to a hornet’s nest and hit it with a baseball bat.”[1] Franzen had asked the question no one has wanted to face: “Has climate change made it harder for people to care about the environment?” After identifying what he called a few “wincses” Clarke concluded, “Finally. Finally, someone prominent is saying this.” By “this” Clark was referring to **the growing concern that today’s environmental policies are causing unanticipated impacts that are being ignored in the name of a supposed higher good – reducing carbon emissions**. As one speaks to grassroots environmentalists across the country, there is a growing sense that perhaps we are getting it wrong, perhaps we are living with an inherited environmental dogma that reflects old thinking and flawed premises.

Most would agree on the major goals of environmentalism: first, reduce carbon emissions, and second, minimize our environmental footprint as we pursue growing human needs. **Current thinking on how to achieve these goals is informed by two basic premises: first, environmental solutions must “harmonize with nature”, hence the emphasis on so-called “green” renewable resources; and second, nuclear power must be opposed at all costs. Fossil fuels are to be displaced over the long term, but they take a back seat to nuclear power, like way back. There is now good reason to believe those premises are fundamentally flawed.**

During the past decade, a number of leading environmentalists have already challenged the historical opposition to nuclear power, five of them being featured in a 2013 documentary by Robert Stone called “Pandora’s Promise”. Their issue was carbon and the belief we won’t achieve the kinds of reductions we need without nuclear power. We can get a sense of that challenge from The International Energy Agency, a Paris-based affiliation of 29 countries founded in 1973 to coordinated global energy policies. They have developed what they call a 450 scenario, aimed at keeping atmospheric concentrations of CO₂ below 450 ppm, a level viewed by many as a tipping point for climate change.

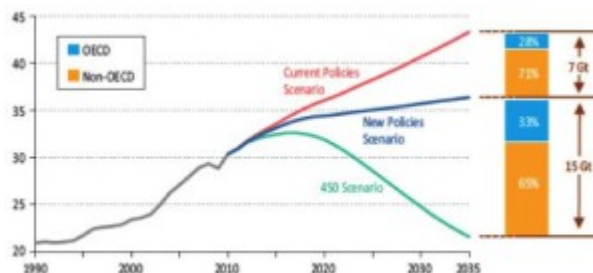


Figure 1. Carbon emissions for the 450 scenario, World Energy Outlook 2011

Their startling conclusion, is just how radically current policies need to be changed. We must both cut coal and hold natural gas emissions constant at present levels. Current policies are harsh on coal but they encourage gas. **The reality is that nuclear power must be part of the mix if we are to achieve these reductions.**

In late 2014 an “Open Letter to Environmentalists”, signed by fifty-six environmental and conservation scientists from throughout the world argued the exclusive commitment to renewable resources is threatening biodiversity. They too agreed “the full gamut of electricity generation resources – including nuclear power – must be deployed if we are to have any chance of mitigating severe climate change.” But it wasn’t just carbon that disturbed them.

Based upon a study by two Australian scientists at The Environmental Institute and School of Earth and Environmental Sciences, they concluded the exclusive reliance on renewable resources is doing damage to habitat. “As conservation scientists concerned with global depletion of biodiversity,” they wrote, “proponents of (non-nuclear alternatives) typically do not admit to the difficulties of large scale use of these technologies.” In effect, the ideological impulse to “harmonize with nature” is propelling us toward resources that are unduly threatening biodiversity. Here too nuclear power, a resource they described as “by far the most compact and energy dense of sources,” needs to be part of the mix.

For many grass-roots environmentalists, it is the biodiversity issue that rankles most. Yet the emotional, financial and political investment in the current dogma is so strong there is a collective beat down for anyone who tries to raise it. Witness the reaction to Franzen’s article. The opening salvo came from Mark Jannot, writing for the Audubon Society. Franzen had opened with an inference that, facing the global threat of climate change, we were trivializing a few thousand bird deaths in the present, with an oblique reference to the Audubon Society. It was one of Clark’s “wincing”. After understandably defending the Audubon Society, Jannot charges that Franzen’s analysis is “half-baked”, “intellectually dishonest” and “based on intellectual sleight of hand,” eventually claiming the underlying concern – that climate change has raised some difficult questions — is not supported by a “shred of evidence.” Standing by with pom poms, Joanna Rothkopf, writing at Salon.com, elegantly cheered him on: “Audubon doesn’t take that kind of shit-talking from anyone”. The Guardian weighing in as well, calls Franzen’s charges “absurd”, charging that “Franzen’s claim about a conflict between conservation and climate activism” is a form a lunacy – “psychologically-driven, a product of his private prejudices, irritations and resentments.”

This sort of stridency misses the point, though it highlights the hair-trigger sensitivity of the issue. No one is questioning the authenticity of the Audubon Society or anyone else who has devoted themselves to environmental causes, their genuine concern for the environment, or for birds or for habitat – I don’t, and I certainly did not read Franzen that way.

But they are only trying to engage a reasoned dialogue about a growing angst among grassroots environmentalists over impacts they are seeing and the reluctance of major environmental groups to take them seriously, all in the name of “saving the planet”?

Environmentalists versus environmentalism - Laura Jackson, raised on a wooded 300-acre farm in southwestern Pennsylvania, gained a respect and appreciation for nature at a very early age. She eventually served as a high school teacher in environmental science for 38 years, joined the Audubon Society in the 1970's, the Sierra Club a little later, and other environmentally focused groups such as the Nature Conservancy....

Her curriculum included an emphasis on renewable energy, the importance of wind and solar and “how great they are”, as she puts it now in a moment of reflection. Today she has become a skeptic. Her earlier teachings on wind and solar, she says, were “basically just superficial reading that I had done and not gone into much depth.” She was doing what every good environmentalist was supposed to do, what every major national environmental group had insisted we must do to assure sustainable, environmentally friendly sources of energy for the future while combating climate change. She was, she thought, embracing a “clean” and “green” future.

All of that began to change when she learned in 2005 that major wind projects were being planned for a local mountain range “about 20 miles north of where I live – not in my backyard but in the county where I live. Eventually she mobilized local opposition, including local chapters of the Audubon Society and the Sierra Club and was able to limit the damage, blocking some of the worst of them. The National Audubon Society and the National Sierra Club are both strong supporters of industrial wind development.

While the rhetoric claims this growth is being carefully managed to protect wildlife and habitat, the facts on the ground say otherwise. In Maryland, where wind projects were planned for major bird corridors along the Appalachian Mountains, legislation was passed in 2007 exempting wind projects under 70 MW from environmental reviews, hoping to nullify “a vocal minority of anti-wind extremists” and giving developers an environmental free pass. A few years later, Governor O'Malley overrode legislation blocking a project to build 24 windmills across Chesapeake Bay.

Farther to the north in Vermont wind turbines may ultimately be installed on as many as 200 miles of mountain ridgetops.

When the windmill plan was produced in 2011, Vermont had the lowest CO2 emissions from electricity generation in the 50 states, relying primarily on hydro power from Canada and electricity from Vermont Yankee, a 620 MW nuclear plant. Therein lies the answer.

Facing a flawed wholesale market, a **hostile political climate**, and with the help of political leaders, the owners of Vermont Yankee made a decision in 2013 to close the plant, even though its operating license had been extended through 2032. While the ostensible reason was economics, writing of the decision at the time Amy Goodman stated, “it was years of protests and state legislative action that forced its closure.”[Yet while the political leadership cheered, the regional administrator of the wholesale electric market, ISO-New England, was not so sanguine: “The retirement of this large nuclear station will result in less fuel diversity and greater dependence on natural gas.”

High-minded rhetoric aside, Vermont’s energy ambitions are driven by the need to fill the hole left by the closure of Vermont Yankee, even if it means a massive development of wind generation along mountain ridgetops and greater dependence on natural gas to provide electricity when intermittent wind is not operating...

National promoters know of these concerns but are so far giving them little more than lip service. The DOE’s recent “Wind Vision” study concludes “Environmental challenges including land use (and) wildlife concerns can be effectively managed with appropriate planning, technology, and communication among stakeholders,” even though it admits we don’t really understand what they are: “Impacts of wind development to wildlife species other than bats and birds are not well understood” recommending that be evaluated as a topic outside the scope of the Wind Vision report.

Steve Wright, an aquatic biologist, took aerial photos of construction required for the Kingdom Community Wind Project on Lowell Mountain:



Figure 2. Kingdom Community Wind Project on Lowell Mountain, Vermont

The Kingdom Community project consists of 21 wind generators, each with a potential capacity of 3 MW, standing 460 feet tall and occupying 3.5 miles of ridgeline on Lowell Mountain. While the total nameplate capacity is 63 MW, ISO-New England, the operator of the transmission system covering the six New England states, only credits the project with 12 MW of reliable electricity in their forecasts due to the intermittency of wind.[18] The math is pretty simple: at 12 MW for 3.5 miles, it would take roughly 180 miles of comparable projects to replace the 615 MW of capacity the system lost when Vermont Yankee closed.

Annette Smith and Steve Wright have become pariahs for many environmentalists who see them as blocking efforts to combat climate change. Says Steve Wright, “we’ve been ostracized. I’ve been a member of the conservation community in Vermont for 50 years and now I’m characterized as having sold out on climate change....”

California was the first state to push large wind projects and by 1995 boasted they were producing one-third of the world’s wind generated electricity. The boasting ignored the notorious Altamont wind farm that has become the poster child for bird mortality. While many of the worst offenders were removed in 2010, as Audubon member Ted Williams writes, “the roughly 4000 turbines that remain are still raptor and passerine Cuisinarts,” with raptor deaths estimated at 2000 a year.

Today California is committed to achieving 33% its electricity from renewable resources by 2020.[22] This has led them to the southwestern deserts, encroaching on areas that some have called “one of the last great frontiers in America”, a fragile land “where impacts last hundreds of years if not millennia,” and where “only a tiny fraction has been surveyed for species.”...[23] Now the Sierra Club is on the side of the developers....

Writing for the Los Angeles Times, Julie Cart observes that while big environmental organizations “acknowledge that development can have irreversible effects on ecosystems, they are reluctant to stand in the way of renewable energy projects they regard as a vital response to climate change... The effect has been to create a “green halo” by giving these projects the imprimatur of major environmental groups.

Meanwhile, groups like Basin and Desert Range Watch press on, notwithstanding halo effects. One of their targets has been the Ivanpah Solar Plant which began commercial operations in December, 2013. Ivanpah is a 370 MW solar project covering 3500 acres in the Mojave desert. The plant functions by focusing the sun’s energy from roughly 170,000 garage-door size heliostats onto three towers that stand 459 feet tall, each maintained at about 900 degrees Fahrenheit. When in operation, they are visible at a distance glowing white hot, creating a solar flux between the mirrors and the towers. One problem: the flux attracts birds, then incinerates them. A U.S. Fish and Wildlife study found the carcasses of 71 different bird species in and around three large solar projects in the region.

They describe Ivanpah as a “mega-trap”, characterized by “attracting insects which in turn attract insect-eating birds, which are incapacitated by solar flux injury, thus attracting predators and creating an entire food chain vulnerable to injury and death.” According to one report released by the California Energy Commission, somewhere between 2,500 and 5,700 bird fatalities occurred during the first year of operation, the most likely number being around 3,500. ...

When local Sierra Club members wanted to sue to block the project, they were vetoed by the national board of directors. The Sierra Club leadership followed up by cautioning locals to fall in line, sending out a 42-page directive scolding locals for warning against irreparable damage to desert ecologies because it would work against their larger goals of expanding wind and solar...

Many of the opponents of large solar in the desert have banded together to form “Solar Done Right”, urging solar can be fine if pursued on rooftops or already developed property.[36] They insist we would generate significant solar if we just concentrated where it makes environmental sense...

The problem is a reluctance to place any limit on solar and wind expansion. In the end it means developers, operating under a “green halo”, are simply running roughshod over local towns and communities. ...

Ultimately two issues should concern us: carbon emissions and the ecological footprint. A renewables-only approach works against both. [And carbon footprint]

Carbon and intermittency - Wind and solar require back-up by way of natural gas/coal. While the IEA's 450 scenario requires no growth in natural gas, virtually every scenario supported by climate change activists increases gas generation, with most projecting it will double over the period through 2040.

In California, while the rhetoric says renewables, from 2001 to 2010, 87% of all new generation was natural gas.... A recent build out was needed to fill the hole caused by the closure of the San Onofre nuclear plants.
[This is Stupid! – contact tundracub@mchsi.com]

At Ivanpah natural gas boilers are used to warm up fluids in the morning and keep them at optimum temperatures during the day. After their first year of operation, plant management realized they needed to burn more gas than originally expected and have asked to run their gas boilers an average of five hours a day. This would mean releasing about 92,200 tons of CO2 per year....
Protecting habitat - Habitat is disproportionately impacted by wind and solar because they require more generating facilities to be built and more landscape to be impacted to produce the same amount of electricity. From an environmental standpoint it is a devastatingly bad “twofer” that compounds itself.

First, because capacity factors are lower, more generation needs to be built. The National Renewable Energy Laboratory study published in 2012 concluded that achieving a target of 80% renewable energy by 2050 would require anywhere from 350 GW to 550 GW of generation over and above the baseline scenario. [39] There was a time when the concern of environmentalists was minimizing the need for new generation: now excess generation has become part of the plan.

The second half of the “twofer” is that these resources require much more land area per unit of electricity generated, land that is often in ecologically sensitive areas. Wind generation, for example, requires roughly five hundred times more land area than a comparable nuclear installation, while the multiplier for solar is a factor of one hundred.