

WHY WIND & SOLAR ENERGY ARE DOOMED TO FAILURE

BY JOHN HINDERAKER IN ENERGY POLICY

Wind & solar energy are both essentially obsolete technologies. There is a reason why only the very rich or the very adventurous sail across oceans: the wind is unreliable & at best, produces relatively little energy. Nevertheless, Liberals [USA] have concocted fantasies whereby all of our electricity, or perhaps our entire economy, will be powered by those fickle sources.

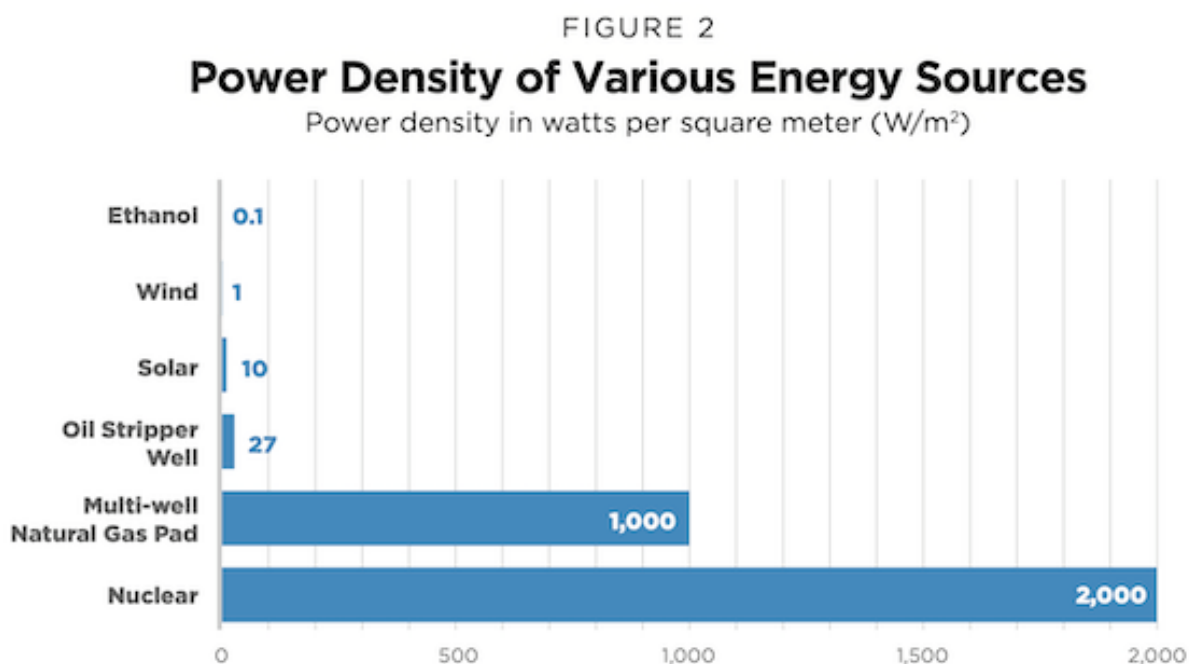
There are a number of reasons why this will never happen, but a paper published last week by [Center of the American Experiment](#) argues that land use constraints are the most basic reason why wind & solar are inexorably destined to fail. The paper, titled [Not In Our Backyard](#), is authored by internationally recognized energy expert Robert Bryce, producer of the terrific documentary [Juice: How Electricity Explains The World](#) & the book [A Question of Power: Electricity & the Wealth of Nations](#)

Robert’s paper acknowledges that there are multiple reasons why wind & solar energy will never meet America’s energy needs, but focuses on the particular problem of land use:

Of course, other factors, including the incurable intermittency of renewables as well as the massive amounts of materials, including steel, concrete, copper & rare earth elements, will limit the deployment of wind & solar. But the biggest barrier is the land-use problem. The ferocity & extent of rural land-use conflicts are showing that any attempt to convert the domestic economy to run solely on renewables is destined to fail.

Why is land use such a problem for wind & solar, but not for coal, nuclear or natural gas?

Because wind & solar are pathetically low-intensity energy sources, as reflected in this chart from Bryce’s paper:



SOURCES: ENERGY, LEIDEN UNIVERSITY, BUREAU OF ECONOMIC GEOLOGY, UNIVERSITY OF TEXAS; MILLER AND KEITH, AUTHOR CALCULATIONS

Because wind & solar produce **so little energy per square mile**, an enormous amount of land would have to be devoted to panels & turbines if we seriously tried to get all of the USA's present electricity needs from those **weak** sources:

*Miller & Keith determined that “meeting present-day U.S. electricity consumption, for example, would require 12 percent of the continental U.S. land area for wind.” A bit of math reveals what that 12 percent figure means. The land area of the continental U.S. is about 2.9 million square miles, or 7.6 million square kilometers. Twelve percent of that area would be about 350,000 square miles or 912,000 square kilometers. Therefore, merely meeting America's **current** electricity needs with wind energy would require a territory **more than two times the size of California**.*

Suffice to say that this just isn't going to happen.

For one thing, no one places wind farms in Washington, D.C. or midtown Manhattan. Nor are wind projects slated for Long Island, Marin County, or near any valuable suburban developments.

It is rural America that bears the burden of many square miles of wind & solar installations.

And it is a burden: apart from the obvious aesthetic issues, Bryce's paper reviews substantial medical evidence that the noise produced by wind turbines adversely affects human health. And, of course, wind turbines are fatal to wildlife. As a result of such concerns, **rural communities across America—hundreds of them—have risen up to oppose wind turbine developments**. These efforts have largely been successful.

Germany undertook to mandate wind energy, but its mandates have **fallen flat** because of public opposition to specific wind projects. The same thing is happening in the U.S.

Robert's paper includes a [database](#) of communities that have moved to reject or restrict wind projects. American Experiment will continue to maintain this database & make it available to towns, townships & counties that are threatened by wind developments. Public opposition promises to bring the Green New Deal to a screeching halt.

When “green” advocates tabulate the costs of wind & solar energy, they generally don't include the thousands of miles of transmission lines that are required to bring electricity from the rural areas that are stuck with “green” development to the urban areas where the electricity is used. **But such transmission lines represent a huge economic & environmental issue:**

Connecting lots of wind & solar to the grid also requires appropriating land for transmission projects. According to the National Renewable Energy Laboratory, converting the domestic electric grid to run on renewables will require roughly doubling the amount of high-voltage transmission capacity in the U.S. At present, the U.S. has about 240,000 miles of high-voltage transmission. Therefore, renewables conversion means adding enough high-voltage transmission lines to circle the Earth about 10 times.

No problem! says Alexandria Ocasio-Cortez. But any attempt to construct 240,000 **more** miles of high-voltage wires will, like the wind turbines themselves, encounter local opposition that likely will make such an effort impossible.

Please do read Robert's report in its entirety.

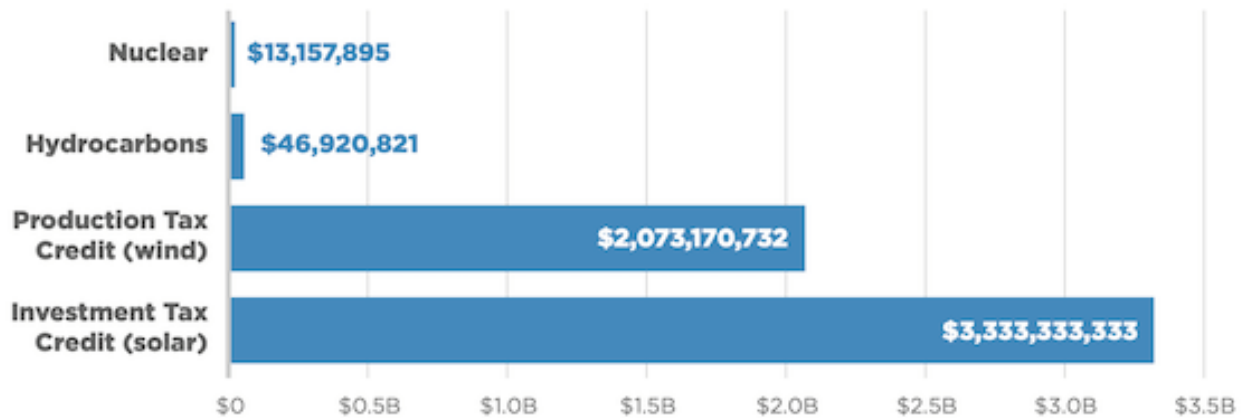
Together with research being done by experts like [Isaac Orr](#), it sounds a death knell for “green” energy, which is **intermittent, unreliable, low-intensity at best, outrageously expensive & dependent on vast natural resources that may not exist**, or at a minimum would require the greatest explosion of mining, manufacturing & transportation in world history.

So why does the “green dream” persist?

In part, because it is **inflicted on children from elementary school on. But mostly because there is a great deal of money in it.**

This chart below shows the volume of U.S. tax incentives per unit of energy produced for various energy sources:

FIGURE 5
**U.S. Energy-Related Tax Incentives,
Per Unit of Energy Produced, 2018**
Dollars per EJ



SOURCES: CONGRESSIONAL RESEARCH SERVICE, BP, AUTHOR CALCULATIONS

“Green” energy holds political sway, which has made a relative handful of people (largely non-Americans & lobbyists) **immensely wealthy**, while impoverishing utility rate payers & taxpayers—that is to say, the rest of us.

This insanity will continue until voters wise up, or—more likely, I am afraid—until the laws of physics, along with land use & raw materials constraints, make it blindingly obvious that the “green dream” is just that. A nightmare.

By that time, an astonishing amount of wealth will have been destroyed.
