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T. Boone Pickens' cloak of green



A bizarre mixture of hucksterism and advocacy, deception

By Dr. Tim Ball

US Supreme Court Justice Louis Brandeis said, "We can have democracy in this country or we can have great wealth concentrated in the hands of a few, but we can't have both."

Slim Pickens was a cowboy and actor, but a slim picking is not the adjectival phrase for T. Boone Pickens and his wealth. One of his books is titled, "*The First Billion is the Hardest: Reflections on the Life of Comebacks and America's Energy Future*." He is busily making the second and likely the third billion much easier. His plan uses the combination of wind power with energy sufficiency and independence for the US.

Initially, his advertisements put wind power front and center. In doing so, he put on the cloak of green, a phrase I co-opted from Elaine Dewar's wonderful book of the same name. I've used the phrase to describe what many politicians feel forced to do. They understand the real science of climate change, but dare not appear opposed to protecting the environment.

Pickens uses wind power as his cloak of green to buy credibility and time to make natural gas the primary power for vehicles and develop nuclear and coal sources. He throws in other alternative energies as a lining to the cloak. I've advocated natural gas for vehicles and nuclear and coal for electricity for many years. Oil will serve the petrochemical industry and produce aviation fuels. Reduced demand for oil means that even current reserves will last for a very long time.

So what concerns me about Pickens' proposals? Initially it was the wind power proposal, which clearly demonstrates his lack of understanding of the severe limitations of that energy. More recently, it is the advertisement of a natural gas company spokesperson talking about his "good friend" Mr. Pickens. I am not opposed to capitalism or profit; however, I am opposed to achieving the latter with deception. Mr. Pickens' folksy manner and financial success are used to convince people wind power can provide 20% of US energy. He appears on television programs selling his proposal to a public and political leaders desperate for solutions.

Pickens' facade of being knowledgeable with a clear solution is quickly dispelled with a few facts about wind power. Like all alternate energies it is not a panacea. He needs to spend his money on accurate cost benefit analyses of all alternate energies. He should urge government to do the same thing before he takes a penny of the massive government subsidies that are seriously distorting analysis of alternative energies.

What are the problems with wind power?

Demand for electricity varies from hour to hour, but there is a basic demand all the time. Slow fire up time means conventional power stations can't respond to fluctuating demands so must maintain a steady base load. Wind power is only produced when the wind blows in a relatively narrow range, therefore the availability to the electrical grid surges. Conventional power stations cannot respond to the surges and must produce to meet the demand whether the wind blows or not.

It is difficult to determine when wind speed is going to be strong enough to drive the turbine. It also takes considerable wind to start the turbine turning; so many are kept rotating by drawing power from the grid. A rapid wind speed increase causes a power surge and potential widespread damage to the grid.

Conventional power stations maintain a level known as spinning standby to meet fluctuating demand. Most systems have other power stations operating on spinning standby to deal with a supply failure. Wind farms increase the risk of supply failures, which increases significantly with the percentage of power they contribute. Many countries limit the percentage of power from wind usually to about 12 to 14%.

Wind turbulence restricts the number of turbines to 5 to 8 turbines per square mile. 1700 600 KW turbines over 200 square miles are required to equal the output of a 1000 MW power station. The 600 KW output is with wind speeds between 30 and 40 mph. This reduces to 124 KW at 15 mph, which is below the average wind speed for the US. A wind speed of 15 mph would need 8,500 turbines covering 1000 square miles to produce the power of a 1000 MW conventional station.¹

Most wind turbines are only safely operated at low wind speed where they are inefficient. It is estimated an average wind speed of 14 mph is required to produce energy competitive with conventional sources. Average wind speed for the continental US is 10 mph. There are regions down the center of the country where the average is higher and where Pickens wants to place most of his turbines.

Birds and wind turbines are a lethal combination. European estimates claim losses up to 35 million birds a year. It's reported that a wind farm at Altamont Pass, California kills thousands of birds a year, including an average of 1,000 raptors. Understandably, wind farm companies challenge the numbers and downplay the dangers. It's a conflict for environmentalists who want wind power but don't want to kill birds. However, there is no doubt they kill birds. Pickens' main region for best wind speed potential coincides with the major flyway of migrating birds. Here are diagrams of the Mississippi and Central Flyways illustrating the problem. It is a natural route for the birds, which my research shows fly 88% of the time with a tail wind. They migrate north with the southerly winds in spring and south with northerly winds in Fall.²

Other environmental problems include noise pollution downwind and subsonic noise reportedly causing health problems in humans and other animals. Many consider them unsightly and even ardent environmentalist Robert Kennedy opposed tower construction near Cape Cod for that reason.

There are concerns about the tracts of land needed for extensive transmission lines over great distances, but there is a more important issue. Many potential power sites such as hydroelectric or tidal exist but they are unusable because they are remote. Line loss puts an economic limit to the distance you can transmit electricity. Loss is higher for alternating current (AC) than direct current (DC), so in some cases they produce AC, convert to DC for transmission and reconvert to AC for the grid. This is only possible with low production costs.

The need to maintain more conventional power plants for spinning standby coupled with the high construction, maintenance and operating costs of wind farms mean they do not save money or reduce conventional sources of pollution.

Richard Courtney has summarized wind power as follows; "Wind farms are expensive, polluting, environmentally damaging bird swatters that produce negligible useful electricity but threaten electricity cuts."³

Even crude analysis of the costs of wind power shows it is an expensive and essentially useless alternative, incapable of producing 20% of US energy as Pickens claims. Rudimentary research reveals this information, which Pickens either ignored or did not do. Regardless, it must put his credibility and/or his real objective in question.

Others confirm the concerns about the Pickens plan beyond the wind power issues. Epstein and Ridenour title their paper "The Pickens Plan: Questions Unanswered." Amy Ridenour, President of the National Center for Public Policy Research, says, "On the surface, Texas billionaire T. Boone Pickens appears to be a man with all the energy answers" then asks, "But would the Pickens plan really work? What would it cost taxpayers? Do parts of it raise Constitutional questions? And would private parties-including Mr. Pickens himself - benefit

financially?” As Ridenour notes, “The fine print must be examined. In this case, the fine print reveals the Pickens Plan requires billions in government subsidies and the widespread use of government eminent domain powers. It also would further enrich Mr. Pickens.”⁴

Making money is fine and I generally agree with his proposals for natural gas, nuclear power and the need for US energy independence. What I object to is deception, especially using wind power as a cloak of green. Apparently Pickens doesn’t know or want to acknowledge the serious limitations of wind power. Finally, he wraps his cloak of green in the national flag. As Samuel Johnson said, “Patriotism is the last refuge of a scoundrel.”

Pickens has committed \$58 million to sell his plan, which is a bizarre mixture of hucksterism and advocacy that will enormously benefit Mr. Pickens. Haven’t we had enough of this kind of deception from Enron through the current financial crisis and many points in between? Pickens and the public should heed Milton Friedman’s observation, “There is only one social responsibility of business – to use its resources and engage in activities designed to increase its profits without deception or fraud.”



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