

Talking back to wind

Answering questions and claims put forth in
support of wind energy

Wind power:
It's clean, cheap and renewable, right?
Let's look at the facts.

Wind generated energy is an old technology, already proven.

Actually, that is partially true. It's an old technology, but NOT for producing electricity. Wind mills were used to pump water and grind grains. Electrical production was usually limited to individual farms and individuals outside the reach of the electrical grid.

The variable nature of wind made it impractical for electric power, except when used to charge a bank of batteries. Electricity was produced by hydro and steam turbines.

Wind is renewable.

In the sense that wind will always exist, yes. But wind is renewable only on nature's schedule and available only on nature's schedule, not ours.

Does a fuel that is available in varying amounts and randomly available for use make sense in an instant-on society, even if it will never run out?

Wind power is "green".

"Green", other than used to describe a visual perception of a specific wavelength of light, is pretty much meaningless.

Green is a marketing term—
like "new and improved" Anyone can describe their product as "green" by emphasizing whatever qualities their product possesses that might look environmentally friendly and responsible.

For example, recycled products are often considered “green” even though some recycling can take more energy than new production.

Trees are “green” yet burning wood for fuel is considered “green” also. Growing and destroying are simultaneously “green”.

Wind power reduces CO2 emissions.

Okay, we need actual figures for CO2 produced by mining, refining, manufacturing and installing turbines. We then need the same information for conventional power plants, including hydro and nuclear.

Don't forget to include any backup plants that may be needed to provide 24/7 electricity while using a variable energy source.

The cost of wind power is coming down.

Actual figures are hard to find, but most of the “reduced costs” appear to be due to subsidies and tax breaks, plus outsourcing manufacturing overseas where costs are less.

Increased subsidies and/or tax breaks are not cost reduction. It's cost redistribution. The energy costs don't come down, the payment source changes.

Why?

Say John, Paul, Mark and Fred go out to lunch. Each pays their own meal cost, except John who demands the others pay 60% of his meal cost because the food he chooses to eat is very expensive but it keeps lobstermen in business and is important to maintain.

So John pays \$20 and the others put in \$35 (\$15 each). Was John's meal lower in price?

The wind industry would have you believe it was.

If wind generated energy cost was borne entirely by consumers on their

power bills, there would be outrage. By hiding the costs, the outcry is avoided for now.

Wind power helps with adding power to the grid, even if not all the time.

Think about this for a moment. Wind can go from zero to twenty very quickly, dumping a large quantity of electricity onto the grid.

The utility companies have to cope with this, either by ramping down a conventional power plant, rerouting the electricity where it can be used (may require a very large grid), or shut down the turbines.

What wind does is provide surges of electricity. If your power company delivered surges of electricity to your home on a daily basis, you would be very upset. Surge protectors would burn out quickly and the cost of replacement would be borne by you.

Yet, as long as the cost of this “surge control” for wind plants is covered by small annual raises in electric costs (or may be not so small?) many consumers sing the praises of using a surge-generating electric source.

Wind can be made as affordable as fossil fuels.

Google abandoned that pursuit. Why are politicians and others still trying to sell the idea?

~~—Wind~~ Natural gas is the energy of the future.

T. Boone Pickens

When it's not your money—as with much of the wind industry and subsidies—it doesn't matter if it works or not. If it's your money, no matter how rich you may be, performance matters. The wind industry dies without other's money.

Wind power creates jobs.

This is nearly impossible to prove. Until 2010, there was no separate code for wind related occupations. Without such a code, any number thrown out is simply a guess or made-up.

Estimates vary widely—in Wyoming, 9 wind power plants employ about 50 people on a long term basis. Iowa (with the second highest number of turbines in the U.S.) employs 3,323 persons, including manufacturing plants. This represents approximately .21 percent of those employed in the state. Not a significant job source, it seems.

If wind uses “free” fuel, jobs only exist to manufacture and maintain turbines. Construction requires a large number of *short-term* employees.

To really create jobs, it would require manufacturing and installing tens of thousands of turbines so construction and manufacturing would be ongoing. How much of the land in the US would be covered with turbines to create these jobs? One shudders to think.

Fuel for wind is free.

Technically, coal and gas are free also, in the sense they are in the ground just waiting to be dug up and used. The cost is in removal of the fuel, preparation of, and transportation of the fuel.

Turbines are less damaging to the environment than oil and gas.

Turbines are 300 to 400 feet tall, require multiple acres of land (estimated at 60 acres by one wind advocate) turbine for proper spacing (often there is a zone of 300 feet or more around the turbine that is off limits to all), require roads between the turbines for maintenance and are very permanent.

Drill rigs are smaller than turbines (under 200 feet in most cases) and are replaced by a pump jack or gas line after oil/gas is found. A pump jack is very small (under 25 feet) and very quiet, unlike wind turbines.

A pump jack can be located in a back yard or even next to a school, as was

done in California (with a “cover” over it). Industrial turbines cannot go in a back yard. Set backs are required for safety, sound issues, etc.

Fossil fuels are bad so we need to use wind power.

This is not true. Even if we concede that fossil fuel is bad, wind is not the solution. Until wind can deliver power 24/7 without a huge land footprint it will not be a solution.

“Any” solution is not better than no solution if it’s the wrong solution. Wind is a wrong solution.

Noise from turbines is no more than traffic noise or a clothes dryer.

English wind turbines, as well as some in the US, are shut down in high wind due to excessive noise.

Turbine owners may be paid for this shutdown time when no energy is produced.

Some locations have been cited for noise level violations, in spite of promises from the wind industry that the turbines were not loud.

Wind is subsidized less than other fuels.

Using absolute numbers, yes, but per unit, no.

Family A
2 members
\$30,000 income

Family B
6 members
\$40,000 income

Does Family B have the highest income? Yes
Is this Family B receiving a better deal and income than Family A? The wind industry would say yes.

Lottery winners:
4 people buy one winning ticket and get \$50,000
100 people buy one winning ticket and get \$100,000

The 100 people are the big winners if you treat winnings like the wind industry treats subsidies.

Free fuel means price stability.

This would only be true if free fuel converted itself to electricity, which it does not.

As in: Wind (some magic happens) Electricity

People have to be paid to babysit the turbines and repair them. Manufacturing costs for repair parts and new turbines can increase as can maintenance costs in general. Lease costs can go up.

That is not stable pricing.

Wind energy eliminates the need for mining.

For fuel, yes. The statement is blatantly false, however. Mining of iron ore, copper, aluminum, and rare earth metals is needed. Limestone quarries are required for cement production. With thousands of turbines requiring repair and replacement, mining will remain as long as there are turbines.

Turbines preserve land.

It would take nearly 500,000 2MW turbines to produce as much energy as (and thus replace) coal fired plants. This would require 28,000 square miles of land.

(If we increase to 3.6 MW turbines, the estimates are about half of stated values. This would require replacing thousands of 2 mw turbines already out there.)

Turbines take only a 20 foot circle for the base. However, many have a 300 foot "safety" zone that cannot be used due to possible mechanical failure of the turbine and blade icing.

Plus, the land lost to roads between each turbine. On mountain tops, forest is cleared for turbines to go in.

Ranchers, farmers and other landowners can make money from hosting turbines and still farm or ranch.

Yes, landowners can make money hosting turbines. Money can also be made “hosting” toxic waste storage, landfills, racetracks, etc.

The recipient of turbine lease money is happy, but one has to suspect that if this person’s neighbor decided to “host” a landfill operation to enhance their income, the wind turbine host would object. Anything is okay when you’re the one receiving the cash.

Would you rather have a wind farm or a subdivision?

(Asked by a western rancher defending his taking money—over \$100,000 per year— for “hosting” wind turbines.)

Answer:

A subdivision.

Subdivisions represent true economic growth, not subsidized energy folly.

And houses are easier to remove if abandoned than 400 foot steel towers with 20 foot concrete bases.

Wind plants still allow hunting.

Some do, on BLM land or with landowner permission. There may be restrictions requiring you stay 1000 feet away from the turbines (due to icing) and you cannot take vehicles off the roads. In California, no hunting is allowed on wind facilities for the safety of the technicians.

Turbines kill only a small number of birds.

One estimate is approximately 100,000 birds per year are killed by turbines. Most numbers out there are “estimates”.

Cats kill birds, but not eagles, condors or whooping cranes. Windows are rarely hit by raptors. Only cars hit raptors with any regularity. Wind turbines kill anything that comes in blade range, large or small.

In Virginia, October 2011, nearly 500 birds were apparently killed by lights used to illuminate an electrical substation. Blades are not the only danger.

Bats are killed by pressure changes around the turbines.

Fossil Fuels:

Fines: North Dakota \$12,000 for 12 birds that died in oil waste pits

Encana \$200,000 for 60 bird deaths

Exxon \$60,000 for 85 bird deaths

Wind plants are not fined for bird deaths.

If fines are levied only against oil and gas but not against wind plants, then the fines are NOT for bird deaths. The fines are punishment for using fossil fuels.

Since the concern for birds is non-existent in oil and gas (rather the intent is to destroy/punish the fossil fuel industry), it is not surprising that the same holds when discussing wind.

Different views on wind energy

Political

“We need to develop all of our energy resources”

Scientific

“We need to develop effective energy sources”

Which philosophy do you want determining your energy future?

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