



# Intermittent

## One word you seldom hear used with renewables

Analysis by  
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I often hear that wind power doesn't get a fair shake in *RM*. The argument goes: "Tell both sides."

Okay. Let's balance the discussion. By adding just one word, *intermittently*.

Next time you read a news story that states, "Wind farms in Montana are capable of replacing all the hydropower dams on the Missouri River," simply add the word, *intermittently*. Wind blows enough to generate power, on average about 35 percent of the capacity of the generator.

Ever hear that wind is free?

True. Solar energy is free, too. But wind power is not free, and neither is solar-generated electricity.

Electricity from wind and solar power is expensive in large economy-of-scale wind farms, requiring huge areas of acreage for turbines and solar panels, most of which are thousands of miles away

from urban areas where the wind power will be consumed, creating a demand for extensive — and expensive and controversial — power transmission lines.

If wind and solar power were free and if they were a lucrative financial investment on their own, like, say, diamonds, they would not require subsidies.

*The Wall Street Journal* reported on an analysis of taxpayer subsidies, tax breaks and loan guarantees to renewables developers and published it in the May 12, 2008, issue. The study was done by the US Energy Information Administration, an independent federal agency. Their conclusion?

For every megawatt hour of electricity produced, the EIA calculated, solar energy is subsidized \$24.34 and wind \$23.37. Compare that to a conventional coal plant, which gets 44 cents. Natural gas gets 25 cents. Hydro power receives 67 cents and nuclear power gets \$1.59.

Now get out your calculator. Wind power is subsidized by your federal government 53 times the amount for coal and 35 times the amount for hydroelectric power. Even with those huge incentives, wind power generates less than 2 percent of America's power. *Intermittently*.

And, not to put too fine a point on it, but those government subsidies are coming out of your pocket. Before you consume the first 40 watts of electricity to light your compact fluorescent energy-efficient bulb in your never-ending quest to be energy efficient, you're already paying for wind that you will likely never use.

This is the point at which those who believe in disaster scenarios will stop reading this analysis and scribble angry mail reminding me about saving the planet for our great-great-great-grandchildren is worth any cost. My super great-granddaughter, Xenon, president of the United States in the year

3024 thanks you in advance for your concern.

Meanwhile, allow me to make a simple point. Namely, we can find ways to spend our money on power generating facilities to achieve reduced carbon emissions and not have to deal with the I-word, *intermittently*.

In the first place, although it is expensive, clean-coal technology could give us reliable baseload power, that is, non-intermittent. America is coal-rich, much of it here in Montana. At about the same cost as intermittent wind.

In the second place, we can upgrade existing dams. Hydroelectric power is green, cheap and renewable.

Third, if America spent as much on building nuclear generators of electricity, reliable generators that produce electricity without creating carbon dioxide, the money would be much better spent.

What's more, we wouldn't need nuclear generators in Montana. And we'd never have to deal with the I-word.