

Outlawing the wind

THERE is a plus side to soaring energy costs – a sort of silver lining to an otherwise bad news year. The Earth Policy Institute reports that wind-generated electricity in many US markets is now cheaper than natural gas generated electricity. If one of the objectives of the Iraq War was, as BBC investigative journalist Greg Palast argues, to disrupt the flow of oil – he calls it “blood for no oil” – and drive up both energy prices and energy industry profits, then this sudden market embrace of alternative energy threatens to derail that evil plan.

With the emergence of now cheaper alternatives to fossil fuels, it seems that the free market may temper runaway energy prices while maybe saving us from environmental mayhem. Of course, a sane society would have done this on its own a generation ago, so don't count me among the free market idol worshippers.

And don't write the obituary for runaway oil profits quite yet either. This is the Bush era and nothing is free – not even the free market. So it shouldn't come as any surprise that big government has stepped in to throw a wrench into the gears of the wind energy industry. That sabotage came in the form of a little-noticed rider inserted by Virginia Republican Senator John Warner into the 2006 National Defense Authorization Act.

Warner's rider requires that the Department of Defense conduct studies to ascertain the impact of new wind generation facilities on military radar. Wind power projects must get Pentagon approval – a bureaucratic step that has so far halted construction on as many as 15 major wind energy facilities in the Midwest. In March, according to a report issued by the renewable energy industry news service, Renewableenergyaccess.com, the Department of Defense in conjunction with the Department of Homeland Security issued an interim policy to “contest any establishment of windmill farms within radar line of the

OUTLAWING THE WIND / 2

National Air Defense and Homeland Security radars.”

The billion-dollar question, of course, is, how disruptive are windmills to radar activity? The answer is simple. Windmills may mimic the radar image of an airplane. These large airplanes, however, won't be moving anywhere. So radar operators will see stationary aircraft, much like buildings, which is essentially what the windmills are: large, building-like objects that, unlike planes, don't move.

The European wind industry, which is years ahead of us in most areas, already solved this problem by programming the locations of windmills into radar computers. It's a cheap software fix. And it can help prevent military radar operators from mistaking the wind farms that they see on their screens every day, from, say, a squadron of stationary bombers not approaching.

The other problem is that windmills, like buildings, mountains and even heavy clouds, create "shadows" where radar won't detect anything. According to studies conducted by the British Wind Energy Association, these shadows could encompass "a few hundred meters" of airspace behind a turbine, somewhat diminishing radar power beyond that. Technically, I suppose, a terrorist could lurk in a helicopter in this space – but I don't know why they would want to. Beyond a few hundred feet, problems can easily be solved by increasing radar power. This usually isn't necessary, however, since much of the airspace in the country is covered by multiple radar installations that send signals from different directions, negating shadows.

So the obvious question looms. What really is the problem here? The US is currently generating more than 4,200 megawatts of electricity with wind turbines operating in 26 states – and so far no military radar operators have mistook them for a foreign air force. Renewableenergyaccess reports that earlier this month, Gary Seifert, program manager for the Idaho National Laboratory, speaking at the annual conference of the American Wind Energy Association, made this chilling statement: "We have several thousand wind power megawatts in the ground within radar view. They're working okay together. Does that mean they'd be put in today if we had today's rules? Probably not."

The problem seems more political than technical. Republican presidents and legislators connected to the oil industry have been thwarting the development of alternative energy ever since Ronald Reagan ordered Jimmy Carter's solar panels removed from the White House roof in 1981. The latest attack comes from Senator John Warner, mentioned above, who, to date, has received more than \$221,000 in campaign contributions from the oil and gas industry, along with another \$785,000 from military contractors involved in our recent energy wars. Yes, our nation is under attack. But we don't need a radar to see where it's coming from.