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## Birds are the fall guys of green power But wind farms may preserve crucial habitat

by Peter Asmus

After much trial and error, a modern wind power industry was spawned in the 1980s in places such as Altamont Pass, a godforsaken stretch of bald hills whose only previous claim to fame was a lethal Rolling Stones concert in 1969.

During the past decade and a half, wind power emerged as the fastest growing electricity source in the world — although solar power has recently eclipsed wind power in this regard. Total worldwide capacity now stands at more than 40,000 megawatts, enough green power to supply 40 million U.S. homes. The total U.S. capacity is expected to grow to almost 9,000 megawatts by year's end.

As we celebrate Earth Day this weekend, wind power has become symbolic of environmental progress in the 21st century. Socially responsible mutual funds regularly sport images of wind turbines in their brochures.

But wind power is not without its critics. Long-standing concerns over fatalities of protected species of birds, including the golden eagle at Altamont Pass, have prompted lawsuits by environmentalists that threaten to shut down one of the nation's oldest wind projects.

Recently, an Alameda County Superior Court judge ruled that a lawsuit brought by the Center for Biological Diversity could proceed. It charges that wind turbines at Altamont Pass violate several federal laws, including the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The U.S. Fish and Wildlife Service also weighed in, insisting that mitigations be implemented sooner rather than later.

The bird mortality problem in the Altamont Pass was first identified by the California Energy Commission in 1992. The most recent figures compiled by this state agency estimate that 1,766 to 4,721 wild birds are killed at the pass every year, the vast majority being raptors, including the golden eagle.

To put things in perspective, as many as a billion birds a year die in the United States after colliding with man-made structures. Domestic cats devour hundreds of millions of birds. Pesticides add tens of millions of dead birds to the annual U.S. avian mortality total.

By comparison, the number of birds killed by the U.S. wind industry exceeds 40,000 a year, yet this alarming figure still represents less than 1 percent of total human-related avian deaths. Airports, glass buildings, cell

phone towers and your own car are responsible for the other 99 percent of fatalities.

Two wind projects in West Virginia and Pennsylvania have reported alarming levels of bat fatalities, the latest blemish on wind power's green image. But when it comes to birds, the Altamont landscape of treeless hills can be a major bummer.

Mitigation proposals range from taking out the 7 to 16 percent of the 5,400 wind towers that have been deemed bird killers to a complete shutdown of the 583-megawatt operation, which is plenty of electricity to light up Sacramento. The wind industry proposed a seasonal shutdown in winter, when wind fuel is generally scarce. But these private businesses would still like the opportunity to make a buck when substantial wind fuel becomes available during windy storms. They argue that too drastic a shutdown schedule will run them out of business.

The Altamont Pass is unique. Never again will such a large wind farm be built in a region with one of the largest nesting populations of golden eagles in the world. Still, the wind industry has to be given credit for hiring the best scientists in the land to try to figure out how to reduce both bird and bat collisions.

If we need to take out a few machines and reduce operations during the slow months, so be it. But let's not forget that coal mines and oil tankers also kill birds, yet those industries get away with murder because they clearly wear black instead of green.

Of course, the irony of ironies is that wind farms of the Altamont Pass may be preserving critical bird habitat by precluding suburban development.

In the end, we all have a stake in a more sustainable energy future. The Altamont Pass played a critical role in pushing wind technology forward. But it is time to work out solutions that preserve both birds and this source of green electricity, if for nothing else but public perceptions.

Most wind farms, including the Altamont Pass, have yet to report clear and compelling evidence that current levels of mortality attributed to wind turbines threaten the survival of endangered birds, including the golden eagle.

How green does green power have to be?

In the perfect world, there would be free energy. We would all look like Greek gods while we harvested our organic greens, telecommuting from our solar-powered villas on the hill, driving our hydrogen-powered vehicles.

In the reality of 2005, green power sources such as wind and solar photovoltaics (which requires minute amounts of some highly toxic chemicals during the manufacturing process) are important advances in the war against ecological catastrophe.

Wind power is not the only solution to our energy supply challenges. But it needs to play a major role if we are serious about global climate change, a creeping menace for the birds and people.