



## 1. AVIAN MORTALITY: Altamont wind ops trimmed to cut raptor kills

Arthur O'Donnell, *Land Letter* editor

ALTAMONT PASS, Calif. -- Over the past month, scores of windmills along Altamont Pass Road have been taken out of commission, their blades dismantled and generator boxes removed. And even though there is a sufficient breeze on this unusually warm February afternoon to generate electricity for sale to utility customers, at least half of the still-operating turbines here at the Altamont wind farms are off line.

These operational changes come as a result of settlements between wind companies and environmental groups, seeking to minimize the large-scale killing of birds that has plagued Altamont's wind industry since its inception in the 1980s. In an agreement finalized in mid-January, wind companies agreed to reduce by half the number of red-tailed hawks, golden eagles, kestrels and burrowing owls being killed by collisions with turbines blades and power lines.

Those are not the only birds that have been harmed by wind operations here. According to surveys and extrapolations, 1,300 or more migratory birds meet their demise annually at Altamont Pass, while directly counted mortality for the four specified raptor species comes to about 345 birds each year.



A young red-tailed hawk navigates through poles, power lines and wind turbines at California's Altamont Pass. Photo by Arthur O'Donnell.

As wind power -- arguably the most mainstream of alternative energy resources developed over the past three decades -- advances domestically and internationally, the energy industry and environmental community keep a close eye on how the generators at Altamont are meeting the demands to protect these raptors. While the circumstances and extent of avian mortality at Altamont are unique, everywhere a new wind farm is proposed, local opponents raise questions about the potential effects on birds and bats.

That makes the Altamont experience a key consideration for the future of wind energy, and because the nation's largest wind companies -- among them, FPL Energy and AES/SeaWest -- have investments and operations at Altamont Pass, the success or failure of their mitigation efforts will play into how well their future proposals for development are received around the country.

The settlement, approved by the Alameda County Board of Supervisors on Jan. 11, stems from a lawsuit filed against the county in 2005 by the Golden Gate chapter of the Audubon Society along with four other local chapters and an environmental activist group called Californians for Renewable Energy (CARE). The groups challenged county decisions to extend permits for the wind operations in the face of continued bird mortality attributable to the turbines.

While none of the affected birds are on federal or state lists for endangered species, golden eagles are given special protections under other laws, and the groups argued that as many as 116 golden eagles are killed each year at the pass and that continued operations would be a

violation of the California Environmental Quality Act (CEQA).

Studies into the extent and possible mitigations of avian mortality go back to the early 1980s, but the 2005 lawsuit finally led to negotiations with the wind companies for definite measures to cut the figures by a specific number during a specified timeframe, said Elizabeth Murdock, executive director of Golden Gate Audubon.

"Half as many bird kills is still too many birds," Murdock told *Land Letter*. "But it seemed to us that reaching agreement on target reductions was worthwhile, given California's emphasis on renewable energy and the significant efforts to support clean technology. As long as Altamont is there, there will be bird kills, and we're not happy with 50 golden eagle getting killed each year."

## Specific targets

Still, half a loaf was considered better than none -- and the specified targets for mortality reductions under an adaptive management program seemed to make more sense than goals initially set by the county that had no real enforcement mechanisms behind them. The companies have until 2009 to achieve the 50 percent reduction in raptor mortality, or take even stricter approaches to doing so, she said.

Besides taking out as many as 300 turbines identified as posing an especially high risk for avian mortality, the owners of Altamont wind farms have agreed to continue a phased shutdown of their projects off during winter months, coinciding with bird migration patterns and a seasonal lull in demand for electricity. They will also be painting blades on nearly 450 windmills in bright colors to make them more visible to the birds, replacing many latticed tower -- where birds perch while hunting -- with solid poles, and continuing to modernize multiple arrays of smaller capacity turbines with fewer but larger units that are both more efficient power generators and less risky to raptors.

Bill Yeates, an attorney who represented the Audubon chapters in reaching settlement with the wind companies, said one of the most important terms of the agreement was to "double the number of high-risk turbines that have to be removed." These include windmills located at the ends of an array of towers, or in certain canyons, or those closely spaced together.

According to the deal, up to 155 of the highest risk turbines were to be removed within 30 days, and another 152 will be gone by Oct. 31, 2008.

How effective these strategies will be remains to be seen. A scientific review committee established by the county to monitor the progress toward meeting goals of the settlement has indicated that it may take three or more years of monitoring to be able to accurately gauge the success of these measures.



Turbines located at the end of an array of towers pose greater risk to hunting birds, so operators have been removing blades and generator boxes on hundreds of towers. Also, many older style, latticed towers -- where birds perch while hunting -- are being replaced by solid poles. Photo by Arthur O'Donnell.

Already, some of the wind companies, including FPL Energy and its partners, have petitioned the scientific review committee to consider turbine removals made prior to the settlement as credits against the new requirements. Steve Stengel, spokesman for FPL told *Land Letter*, "In 2004, we shut down or relocated 97 turbines. We've also shut down a few additional turbines [this year] but have asked the SRC to consider the work we did in 2004. Ultimately, they will make a determination of whether that will count."

It is difficult to say what the financial effects of the operational limitations will be. Altamont, the first large wind power area developed in the United States, is a mature operation, with little room for expansion beyond modernization of existing turbine sites. And the industry has grown so much in recent years -- about 25 percent per year for the past two years, according to the American Wind Energy Association -- that Altamont capacity is a minor portion of the total portfolio of the biggest companies.

For example, FPL and partners have 158 megawatts of installed capacity at Altamont, out of a total wind portfolio of 49 projects with 4,016 MW of capacity -- about one-third of FPL's 13,343 MW of non-utility generation assets that last year realized \$3.6 billion in revenues. Even that is a small part of the total holdings of the parent FPL Group, a \$15.7-billion-per-year utility holding company with 34,324 MW of generation.

Similarly, the AES/SeaWest Altamont operations are just 43 MW out of AES' worldwide 44,000 MW of generation capacity.

Financial records for these companies do not break out any meaningful figures for the contribution that Altamont projects may make to their bottom lines.

## A rift among environmental activists

The settlement did not sit well with some other environmental organizations, including San Francisco's Center for

Biological Diversity, which had tried unsuccessfully to sue the wind companies under California fair business practices codes -- essentially arguing that the firms were making false promises of providing environmentally preferred energy.

That suit was dismissed late last year, leaving CBD to argue against the proposed settlement before the county supervisors on the grounds that the agreement "eliminates most of the most meaningful avian mortality mitigation measures," according to a letter of protest sent to the county on Jan. 10. "The settlement agreement is fatally flawed and a giant step backwards for birds at Altamont Pass," the letter continued, and the centerpiece of the deal for a 50 percent reduction "in actuality will require the companies to reduce mortality by no more than 17 percent and possibly not at all."

CBD's claims derive from the agreement's specification of only four species when as many 4,000 birds of a dozen different types have been documented as threatened by wind operations. Also, the group protested the elimination of mandatory seasonal shutdowns of operations that have been in effect since 2005. The existing permit structure had increased the length of required shutdowns, but the deal settled for a shortened period during which half of the turbines are shut for two months in November-December, and the other half shut off in January-February.



While four species of raptors are targeted for mortality reductions at Altamont Pass, hundreds of other birds also face risks from collisions with turbine blades and power lines. Photo by Arthur O'Donnell.

In addition, wrote CBD Bay Area wildlands coordinator Jeff Miller, as many as 900 turbines out of some 5,000 at Altamont Pass will be exempted from the seasonal shutdowns or removal requirements if they participate in the blade-painting program. "Studies of blade painting have shown little if any promise of reducing avian mortality. Even at best, no one believes it can ever amount to more than a marginal reduction in mortality," CBD argued.

Also, the deal removed mandatory repowering of older, more dangerous towers, leaving open the possibility that all existing units will remain until 2018, Miller said.

Golden Gate Audubon's Murdock lamented the rift with CBD, which until the shift in litigation strategies had been a "critical partner" in the Altamont effort. She said that CBD's criticisms of

the settlement were largely a response to a short time frame for reviewing the public documents before the county board considered them. "I'm not sure they fully understood the significance of what it tries to achieve," she said.

## A plan for the future

Another important element of the agreement is that the wind companies and environmental groups, in conjunction with Alameda County, the California Department of Fish and Game and the U.S. Fish and Wildlife Service will prepare a Natural Community Conservation Plan (NCCP) for the Altamont region covering future management efforts for species affected by the wind operations.

The NCCP process falls under the Federal Endangered Species Act, and while none of the birds covered by it are listed under ESA, the process will serve as a model for this agreement. Alameda County will serve as the local sponsor of the plan, and will coordinate efforts with the state Fish and Game Department and FWS. Wind companies will agree to fund the county's expenses, while the wildlife agencies will try to identify sources of state and federal funding.

A draft of the NCCP now under consideration appears to provide broad goals for agreement and cooperation. Golden Gate Audubon's Murdock said the final NCCP "will be much more specific in how birds will be protected, and conservation and recovery efforts."

The goal will be sustainability of bird populations and putting teeth into the settlement agreement. "The NCCP is not just a take permit," she said.

Murdock expects it will take about 18 months to complete the process and that a draft NCCP will be available for public review and comment within a year.

[Click here](#) to read a copy of the draft NCCP guidelines document.