

# Wind assessments found lacking

BY ANNE ADAMS • STAFF WRITER

WASHINGTON, D.C. — Researchers and biologists have insisted for years that thousands of wind turbines in the U.S., and the thousands more planned for construction, could do serious damage to wildlife, especially in Appalachia. They have cried for more environmental reviews that take into account the cumulative impact these 400-foot turbines could have if thousands are erected in this region.

This month, the federal government published an eight-month study that agrees with that conclusion. Its study found that, well, there needs to be more study.

And apparently, both the wind energy industry and its critics agree.

The Government Accountability Office, an investigative arm of Congress, looked at how commercial wind energy has developed nationwide, in a move prompted by two West Virginia congressmen — Nick Rahall II and Alan B. Mollohan.

GAO concentrated on wind plants' effect on migratory birds and bats, and what the government's responsible for doing about it. There's no doubt thousands of birds and bats have been killed by wind turbines, it found, but those kills vary widely by region.

GAO reviewed what studies and experts have reported so far, and the roles and responsibilities of government agencies in regulating wind plants. It sampled six states with commercial wind facilities, and concluded the U.S. Fish and Wildlife Service should provide state and local agencies with information on impacts and the resources to help make decisions about where wind power should be approved.

In northern California, Pennsylvania and West Virginia, GAO found, the industrial plants have

killed large numbers of raptors and bats. In other parts of the country, the kills were comparatively lower, "although most facilities have killed at least some birds," it states. However, it cautions, many facilities have not been studied, and therefore, scientists "cannot draw definitive conclusions about the threat," especially since much is still unknown about bird flyways and species population levels.

As it stands, state and local governments carry the responsibility for regulating wind plants. Though many have ordinances which require environmental reviews, "regulatory agency officials do not always have experience or expertise to address ... impacts from wind power," it says.

The federal government plays a minimal role in approving wind developments, usually only when federal land is involved.

USFWS is charged with wildlife protection under three major federal laws — the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Endangered Species Act — all of which generally "forbid harm" to various species. Though significant kills have occurred at wind plants, the federal government has not prosecuted any cases against wind power companies under these wildlife laws, "preferring instead to encourage companies to take mitigation steps to avoid future harm," the report states.

Though wind developers are not specifically required to take steps to avoid damage under these federal laws, the USFWS can hold them liable for harm if kills occur. In some cases, GAO found, developers voluntarily consulted with USFWS or another agency before construction.

In the congressmen's report introduction they said, "We are making a recommendation to USFWS to reach out to state and local regulatory agencies with information on the potential wild-

life impacts ... and the resources available to help make decisions about the siting."

The report quotes one expert who said the number of bats currently being killed is "alarming" in the eastern U.S. "He explained that bats live longer and have lower reproductive rates than birds and therefore, bat populations may be more vulnerable to impacts. In addition, there are proposals for hundreds of new wind turbines along the Appalachian Mountains."

GAO cites a recent report from Bat Conservation International, which estimated if all ridge-top turbines are approved and the mortality rates continue at their current rate, turbines "might kill tens of thousands of bats in a single season."

Though none of the bats killed are endangered species, the USFWS has initiated a study with the U.S. Geological Survey to study bat migration and develop tools to identify the best locations for turbines and communication towers.

The report also notes some developments have lower levels of mortality, but there are also indirect impacts to wildlife. "For example," it states, "construction of wind power facilities may fragment habitat and disrupt feeding or breeding behaviors. According to the USFWS, the loss of habitat quantity and quality is the primary cause of declines in most assessed bird populations and many other wildlife species."

GAO concluded it does not appear that wind power is responsible for a significant number of deaths compared to other threats to avian species. "While we do not know a lot about the relative impacts of bat mortality from wind power relative to other sources, significant bat mortality from wind power has occurred in Appalachia," it states. Furthermore, "much work remains before scientists have a clear understanding

of the true impacts to wildlife from wind power."

Scientists are particularly concerned about the cumulative impacts on populations if the industry expands as expected, a point made by Virginia agency officials in a meeting with Highland New Wind Development recently. "Such concerns may be well-founded," GAO concludes, "because significant development is proposed in areas that contain large numbers of species or are believed to be migratory flyways."

Concerns are compounded by the fact that regulating wind power varies from location to location, GAO says, and some state and local regulatory agencies generally had little experience or expertise in addressing these impacts. Moreover, it said, "It appears that when new wind power facilities are permitted, no one is considering the impacts of wind power on a regional or 'ecosystem' scale — a scale that often spans governmental jurisdictions."

American Wind Energy Association executive director Randall Swisher said while his organization was pleased the GAO found wind turbines didn't kill as many birds as other kinds of threats, bats were another story.

"The report also shows that we need to learn more about wind-bat interactions, an issue about which the industry remains concerned even if further research eventually shows that the impact on bat populations is not significant," Swisher said in a written statement. "The industry believes that bats and wind turbines can and must coexist, and is working with stakeholder groups and experts to understand the issue and try to find ways to avoid or at least reduce collisions.

"The wind energy industry welcomes scrutiny of, and comparison with, all of the impacts of all sources of power generation," said Swisher. "We have nothing

to hide. We hope that lawmakers and consumers concerned about impacts of energy use — as well they should be — will also call for detailed studies on the impacts of other operating or proposed power plants in the region.”

AWEA spokesperson Christine Real de Azua said her organization agrees wildlife impacts need to be studied, but calls for equally rigorous studies on other energy industries as well. “The scope of the GAO study was really very narrow,” she said, noting not much beyond the bird and bat findings were requested. “An even broader study is needed to have everything in context ... the birds are clearly having a hard time but more regulation is needed on other industries as well. Our industry is proud of its record. There is monitoring on various wind farms and more scrutiny is needed. A lot of other things need to be scrutinized as well.”

Real de Azua says the impacts of wind projects are minor compared to other energy sources. “Our impact is not zero, but it’s really microscopic by comparison,” she said.

Most wind plants are installed in areas that are more than already fragmented, she added. She points to Tennessee ridges already stripped and mined, large agricultural fields in the midwest and upstate New York, and large, dry ranches in Oklahoma and Texas, all of which would be not be further disrupted by a wind project.

In cases like the site for Highland New Wind Development’s project here on Allegheny Mountain, where there are pristine conditions and potentially negative impacts to endangered species, Real de Azua says, developers can work out a plan with USFWS to reconfigure the project and mitigate damage. She described a situation in the Pacific Northwest where a ground squirrel protected on the state level was identified. “They relocated the whole string of turbines and avoided disturbance of that particular habitat,” she said. “There are some pristine places in Appalachia, but many are already disturbed.” Some lo-

cations are better suited than others for wind projects, she added, but developers have additional factors to consider. “If you take a bird’s eye view of the midwest, though, it’s entirely compatible (with wind energy),” as are sections of Illinois, the Great Plains, and the heartlands of the U.S. “The Atlantic states are more modest (in wind potential).”

For various reasons, GAO says, the USFWS “generally spends a very small portion of their time assessing the impacts from wind power. Nonetheless, USFWS has taken some steps to reach out to the wind power industry by, among other things, issuing voluntary guidelines to encourage conservation and mitigation actions.”

The USFWS interim guidelines were prepared in May 2003, and urge a precautionary approach to siting wind facilities. It encourages the industry to follow the guidelines and conduct scientific research on wildlife impacts (see sidebar).

Ultimately, the GAO recommended the Secretary of the Interior direct USFWS to develop consistent communication for state and local wind power regulators. The communication should alert regulators to the potential wildlife impacts, and various resources available to help make decisions about permitting facilities.

Also notable was that GAO found no instance in which a state or local agency regulating wind power had incorporated or adopted the guidelines developed by USFWS in their own requirements for approving wind plants, but it found two cases where states had used the guidelines to inform their regulations or how they monitor wildlife impacts.

Wind industry critics generally applauded the GAO findings, especially because they lent a strong voice of authority to recommendations the group had been making for so long. Lisa Linowes, a spokesperson for the newly formed “National Wind Watch” group, called GAO’s report “very important.”

“For the first time, the govern-

ment has acknowledged that studies haven’t been enough,” she said this week. “We can’t assume there’s not an impact (from turbines), because there hasn’t been any study.”

The AWEA, she says, “grossly understates the impacts and overstates the benefits” of wind energy. “They say we’re misguided or misinformed, and we feel like the wind industry is misinforming.” Linowes points to how fast wind projects have been proliferating in the East, and how much the industry saturates the public domain with its own assessments and spin. “It’s been difficult to fight,” she says. “When we raise issues, and speak of impacts, we’re making statements contrary to other environmentalists, too. It’s awkward.”

The NWW group, currently applying for non-profit status, was formed this August after months of discussion among commercial wind industry critics, particularly those concerned about projects in their own hometowns. Linowes says NWW hopes to simply bring information to the public, and sustain a “watchdog” responsibility with a professional, factual approach.

NWW president David Roberson welcomed the GAO’s findings. “The lack of scientific data on the potential damaging impacts to wildlife and our sensitive land areas must be addressed, especially when one considers how much of this industrial development is subsidized by state and federal tax dollars,” he said in a written statement. Roberson said the AWEA chose to highlight only select sections of the investigative report that, taken out of context, diminished the findings. “National Wind Watch challenges the wind industry to do the right thing by openly acknowledging the potential risks of wind turbines on our ridge lines, shores and prairies.”

For more information, see the American Wind Energy Association web site: [www.awea.org](http://www.awea.org), or the National Wind Watch site: [www.windwatch.org](http://www.windwatch.org).

The full GAO report can be

found online at: [www.gao.gov/new.items/d05906.pdf](http://www.gao.gov/new.items/d05906.pdf).

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