

High tech help for eagles



As part of research conducted by Auburn University, trainers and a veterinarian are trying to develop radar and visual systems to help stop birds from striking wind turbines. The work being done with U.S. Department of Energy's National Renewable Energy Lab (NREL). Photo: Dennis Schroeder and John de la Rosa/NREL

By Louise Red Corn

Any wind project west of Fairfax will be at least a few years in the making, but the company that has locked up 60,000 acres with easement leases says it is keenly aware of the raptor population in the area and is considering employing advanced technology to avoid killing eagles and other birds.

Michael Neves, the head of development for Amshore U.S. Wind, said that the company has many hurdles to go before it can begin to build: It

has to obtain several permits, and it currently involved in testing to see if a project would even be feasible. For that, the company needs the 70 easements it filed recently in order to have access to the land. It also needs access to perform avian and environmental impact studies, Neves said.

The company's approach to birds and bats, however, is likely to be the first of its kind in Oklahoma and perhaps in the central region of the country. It is investigating using a

stereo camera system that uses software to track any flying object that approaches turbines. Algorithms can determine what the object is, prompt the cameras to zoom in on and track it, and, if it comes close to a turbine, cause the turbine to be shut down, Neves said.

One company working on the technology is RES Americas, a large renewable energy company that partnered with Boulder Imaging to create IndentiFlight, which it



A bald eagle flies through the Osage Wind project north of Fairfax last year.

can detect moving objects like eagles from 1,000 meters out and make "correct, real-time classification of the raptor's features, proximity, and velocity" to stop the turbines at least 30 seconds before the raptor gets too close to turbine blades. A pilot project testing the system began last year.

"The testing is very impressive," Neves said. "It's very expensive, that technology, but it might be workable and we could monitor more accurately and protect eagles."

In South Texas, where Amshore has a wind project on the Gulf of Mexico, Neves said the company uses a different system to avoid killing migratory birds: Radar.

"There, birds come in in big groups - different than eagles," Neves said. "They're in big groups that come in almost like storms. The radar signals when they get close, and the wind farm shuts down."

Right now, Neves said, the stereo camera system to track eagles is being tested in Wyoming, home to golden eagles. Golden eagles are rarer than bald eagles,

and their population is shrinking. One concern, Neves said: Golden eagles have different hunting patterns than balds, but if the system can be tweaked, it could be used in Oklahoma, where bald eagles are more common and are revered by Native Americans and many others.

Last year, the Osage Nation Congress passed a law prohibiting the "taking" of eagles "within its jurisdiction" and instated a \$5,000 fine against anyone who killed, disturbed, injured or other harmed eagles.

Whether Amshore's project in Osage County ever becomes a reality, however, remains to be seen. Not only does the company have to go through much permitting scrutiny, it is also likely to face opposition from some people in Osage County, where the last wind company to seek a conditional use permit from the Board of Adjustment was turned down after fierce public opposition. Most of that opposition was for environmental and siting reasons, and some was based on the fact

that wind companies garner huge tax benefits on the shoulders of regular taxpayers. That project, Mustang Run, was to be mainly on Drummond land that has never been plowed or otherwise fragmented, and constitutes a large portion of the last remaining tallgrass prairie in the United States.

An Ottawa County judge, sitting by special assignment, overturned the Board of Adjustment's permit denial for Mustang Run, and the case has gone to the Oklahoma Supreme Court, which has not issued any decision. The basis of the appeals is twofold: The Board of Adjustment alleges that the judge usurped its authority by reversing its denial of the permit. In a parallel case, the Osage Nation and Minerals Council claims that the Board of Adjustment itself has no authority under state law to issue conditional use permits.

The Osage Nation has been very unfriendly to wind projects, which have also drawn criticism from the Nature Conservancy, which owns the Tallgrass Prairie Preserve in Osage County, the American Bird

Conservancy, the Audubon Society and many ranchers - generally those neighboring wind projects, some of whom have rejected wind company overtures because they find them environmentally and economically untenable.

In Kay County, Amshore is already building a wind project in partnership with Duke Energy of North Carolina, but in Osage County it has yet to sign a power purchase agreement with any utility, Neves said: "It's a chicken and egg situation. We need to complete planning and development before we can sell the power, but you need to sell the power before construction."

Meantime, Neves said Amshore officials have been meeting informally with county commissioners, the Corporation Commission, the Woodland School Board and landowners. When the project becomes closer to reality, he said Amshore will hold public meetings and, of course, be compelled to undergo public hearings for permitting.

"We certainly hope its viable and will come together," he said. "We definitely understand that there are some strong opinions out there. The most we can ask it that we have the opportunity to sit down and address concerns."

"These are very large pieces of equipment. They obviously change the skyline."

Highport Times-July 7, 2016

In the District of Osage County
State of Oklahoma

IN RE THE GUARDIANSHIP OF
R B S

Case No PG-16-33

**PETITION FOR GUARDIANSHIP AND PETITION FOR
TEMPORARY EMERGENCY GUARDIANSHIP**

NOTICE TO RODNEY SMART, whereabouts unknown.

You are hereby informed that Amanda Sue Stroud and Jessica Grace Alexander of Pawhuska, Oklahoma, are seeking guardianship and temporary emergency guardianship of R B S, child of Rodney Smart and Tara Slone, and that any objections to said guardianship will be heard at on July 19, 2016 at 1:30 p.m. in the chambers of District Court Judge M. John Kane, Osage County Courthouse, 800 Grandview Avenue, Pawhuska, Osage County, Oklahoma.

Amanda Sue Stroud and Jessica Grace Alexander
Petitioners