



# Time For FWS to Stop Wind Power Eagle-Kill Permits

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## Executive Summary

Nearly 15 years ago, the U.S. Fish and Wildlife Service (FWS) determined that the golden eagle population could not withstand an increase in human-caused mortality. However, a large queue of proposed wind projects sought FWS permits exempting them from harm they may cause eagles under the Bald and Golden Eagle Protection Act—permits that would inevitably increase the kill rate.

In response, the FWS created an offset program in which eagle deaths caused by wind turbines would purportedly be compensated for by reducing electrocution deaths from power poles. We now know this offset program has completely failed, as there has been no measurable reduction in electrocution deaths.

The likely cause of this failure is FWS’s use of a wildly inaccurate electrocution death rate. As a result, the number of power poles made “safe” is just a tiny fraction of what would be required to create a legitimate offset. While FWS currently requires about 278 poles to be “made safe” per wind-killed eagle, the correct number, according to the results presented in this report, may be closer to 67,000. It is no wonder the program has failed.

At a minimum, FWS should issue no new wind power eagle-kill permits until the glaring issues uncovered in this study are resolved. Accurate electrocution death rates must be determined. Given there are well over 100 million power poles in America, the offset numbers may prove so high that the program becomes infeasible. In that case, wind power development must stop. Existing facilities may need to be retired as well.

# 1. Why Electrocution Offsets Do Not Work

In 2016, FWS published detailed guidance and assessment of its electrocution offset program, known as the “compensatory mitigation” program. Under this program, wind facilities receiving eagle-kill permits are required to pay for retrofitting power poles to offset the eagles they kill.

At the time, FWS estimated the national electrocution death rate to be 500 eagles per year. Privately, the wind turbine kill rate is estimated to now exceed that figure. If the offset program were working, electrocution deaths should have dropped by at least that amount—yet a major 2022 study found that the electrocution death rate remains around 500 per year.

“Age-specific survival rates, causes of death, and allowable take of golden eagles in the western United States,” [\*Ecological Applications\*, January 2022](#).

The golden eagle death rate has not decreased after six years, so the offsets have clearly failed. The core problem is that FWS uses an outdated and vastly inflated death rate of 0.0036 deaths per pole, based on a limited 2010 study. With an estimated 185 million poles in the U.S., a national death rate of 500 golden eagles per year implies an actual rate of about 0.0000027 deaths per pole.

This data indicates that FWS's rate is 1,333 times too high. As a result, instead of requiring 370,000 poles to be retrofitted per wind-killed eagle (based on the national average), FWS only requires 278. Even adjusting for the likelihood that some poles are more dangerous than others (e.g., 5.5 times more lethal), the correct number would still be around 67,000.

It's also concerning that FWS has not released a new population estimate for golden eagles since 2016, despite the addition of 80,000 MW of wind power—about 30,000 new turbines—since then. FWS must track the population impact.

This issue aligns with President Trump's executive order mandating a review of federal wind permitting:

## **Sec. 2: Temporary Cessation and Immediate Review of Federal Wind Permitting Practices**

“The Secretary of the Interior and the heads of all other relevant agencies shall not issue new or renewed permits for onshore wind projects pending the completion of a comprehensive assessment and review of federal permitting practices. The assessment shall consider the environmental impact of onshore wind upon birds.”

No new eagle death offset permits should be issued under the Bald and Golden Eagle Protection Act until the compensatory mitigation program is proven feasible.

## 2. Wind Power is Buying Eagle-Kill Indulgences

Every wind facility with a FWS permit is allowed to kill eagles under the assumption that the harm will be offset. If the offset assumptions are false, the killing becomes illegal.

This form of “compensatory mitigation” functions like a legal loophole: wind facilities pay to retrofit power poles, allegedly preventing other eagle deaths elsewhere. While similar programs exist under the Clean Water Act (e.g., wetland offsets), the eagle mitigation scheme lacks transparency and verifiability.

Power poles can be retrofitted to prevent electrocutions, but there is no measurable way to confirm how many eagle deaths are being prevented. Worse, there are millions of such poles, and only a minuscule fraction are being addressed.

The program has been active since at least 2016. According to FWS’s own report:

“Currently, the only offsetting mitigation measure the Service has enough information to confidently apply... is retrofitting of power lines to reduce eagle electrocutions.”

*(Bald and Golden Eagles: Population Demographics and Estimation of Sustainable Take, 2016)*

Because golden eagles are managed with a zero net loss standard, every authorized kill must be offset. Yet the public has no access to kill data, and there’s no transparency about how FWS calculates mitigation costs or the effectiveness of the offsets. This appears to be a regulatory shell game.

## 3. Two New Studies Imply the Golden Eagle Cannot Survive More Wind Turbines

The Bald and Golden Eagle Protection Act prohibits FWS from approving more eagle kills than the population can sustain. Two recent studies suggest that current wind-related mortality is already at or beyond this legal threshold.

The primary area of concern is the western range of the golden eagle. This runs from Idaho, Montana, and Washington down to the Mexican border. Note that eagles often migrate north to spend summer in Canada, so northern states see a lot more than their local winter populations. Alaskan eagles sometimes winter in Mexico, so migration is a complex issue.

However, the entire US eagle population was only about 40,000 eagles in 2016, down from an estimated 80,000 in 1980, and they are found everywhere. Thus, the entire country might need care. Incredibly, there appear to be no more recent estimates of golden eagle populations.

The first study, from *Ecological Applications* (2022), estimates the allowable take at a mean of 2,227 deaths per year—while actual mortality is around 2,572.



The primary point is to estimate the allowable take (death rate from human action) under the law and compare that to the present death rate. Their allowable take estimate is a range with a mean of 2,227 deaths per year, while their estimate of real-world take is actually greater at 2,572 annual deaths.

These are very rough numbers; however, it looks like we are already at or beyond the allowable take. Adding additional eagle-killing wind turbines could put the golden eagle on the illegal road to extinction. Clearly caution is called for.

The second study, [\*Biological Conservation\* \(2025\)](#), warns that:

“Anthropogenic mortality is the primary cause of death in adult golden eagles... current growth of the wind energy industry could have conservation implications.”

Together, these findings suggest we may already be exceeding the legal limit. Until this is resolved, FWS must stop issuing new wind permits.

## 4. The Fish and Wildlife Service Must Conduct a Rigorous Assessment of the Allowable Take for Golden Eagles

While the two studies above are valuable, they are not definitive. It is the legal responsibility of FWS—not third-party researchers—to determine the allowable take of golden eagles under the Bald and Golden Eagle Protection Act.

This assessment must also account for the pending queue of over 230,000 MW in new wind energy applications. Much of this will occur in the golden eagle’s western range, although the birds are found nationwide.

Given that the last Programmatic Environmental Impact Statement was issued in 2016, a new NEPA review is clearly warranted. The findings and data must be made public.

## 5. The Fish and Wildlife Service is Hiding the Eagle Death Data

Imagine an industry that kills thousands a year, and the number is steadily growing. The government is tracking it closely while keeping the data secret to protect producers. Outrageous, right? That’s exactly the case with wind power killing eagles.

Every turbine-killed eagle found at an industrial wind site is quickly reported to the federal Fish and Wildlife Service (FWS). Every year, each site also submits an annual kill report to FWS. None of this data is publicly available.

The FWS eagle-kill data is a big government secret designed to protect the wind industry from public outrage. This has to stop.

The public has a right to know about eagle kills. If made available, this data would support research on ways to reduce the killing. For example, it's been suggested that painting the blades black would help the eagles avoid them. In fact, there are numerous technologies that could be used to avoid eagle-kills if comprehensive kill data is made public.

Where and if this kill data exists isn't up for debate. It exists; they just aren't sharing it. Compiled in the FWS database called the Injury and Mortality Reporting System (IMR), you can enter your kill data but can't review the data of others, or any comprehensive summary for that matter.

Important wind facility groups might include kill figures pertaining to a given technology or in a specific county or congressional district. There are lots of analyses that might be important, but only FWS can see all this data. It is a tightly kept government secret.

Another approach should be to ask for specific kill data, but that does not work either. For example, the Wyoming-based Albany County Conservancy (ACC) sent FWS a Freedom of Information Act (FOIA) request for some very specific kill data from four wind projects.

When the response finally came, FWS said ACC could only see 256 pages, or 22% of the 1,156 pages that corresponded to their query. The other 910 pages remained redacted. The available pages did not even begin to answer their questions. The wind-kill data is simply on a "need-to-know" basis, and you and I apparently don't need to know!

In addition, every wind site has a permit to kill up to a specified number of eagles a year before preventive action must be taken. None of this data is publicly available either. There's not even a public map or list of permitted facilities to be found, much less current permits available for analysis.

In sum, there is no way to see how many kills are being allowed or observed on a local or regional basis, or to analyze these kill allowances for impact.

## 6. Most of the Eagle Killing Goes Undetected

FWS permits only require a 35% detection rate of actual eagle deaths; here's the standard permit language: *"(1) Fatality Searches. (a) You must achieve an average annual site-wide probability of detection (accounting for spatial and temporal coverage, as well as potential scavenging or detection bias) of at least 35% for every Five-Year period during the permit tenure."*

This means the real number of kills is likely three times higher than reported. If a facility reports 3 kills, the true number may be closer to 9. This must be factored into any legal or scientific analysis.



## 7. The Rail Tie Project Protest

CFACT Collegian Maggie Immen, an Albany County local, eloquently captured public concern in her recent op-ed on the Rail Tie Wind Project in Wyoming.

*She writes: "Wind turbines are a documented threat to bird populations, particularly raptors like golden and bald eagles. Estimates suggest that wind farms kill at least 150,000 birds annually in the U.S. alone. Wyoming, a crucial migratory corridor, is especially vulnerable."*

*The Rail Tie Wind Project, planned for Albany County, would place turbines dangerously close to golden eagle habitats. Wildlife biologist Mike Lockhart, a Laramie resident, warns that official bird fatality counts are likely underestimated since scavengers quickly remove carcasses before they can be recorded.*

*Adding to these concerns, federal regulations permit a set number of eagle deaths per wind project through incidental take permits. However, experts argue that these limits rely on flawed data that underestimate real mortality rates. Since eagles reproduce slowly, even a small number of fatalities can have devastating effects on their population. Yet regulatory agencies continue approving projects like Rail Tie without adequately addressing these risks."*

You can read her [full statement here](#).

## 8. Lift the Veil on Wind Power Killing Eagles

The current permitting system allows cumulative eagle deaths to rise endlessly with no cap. This is unacceptable.

Regulators should establish a strict annual cap on total eagle kills. New permits should only be issued if current kills remain below the cap. Enforcement should be rigorous; projects that exceed their limits must be shut down until the next compliance period.

The Biden administration's adoption of a "general permit" system, which eliminated project-specific reviews and dropped third-party monitoring requirements, must be reversed.

Transparency is also critical. The public deserves access to real-time eagle-kill data and pending permit requests. Only then can we make informed decisions about wind energy and wildlife conservation.

If we are given good eagle-kill information, we can make informed decisions about capping and reducing these deaths. **Bottom line: lift the veil on how wind power is killing eagles.**