RENEWABLE ENERGY WILDLIFE | RESEARCH FUND

Applied Solutions to Renewable Energy & Wildlife Challenges

Why Join the Fund?

Produce innovative solutions that reduce environmental impacts and siting and operating costs.

The Renewable Energy Wildlife Research Fund (REWRF, the Fund) is an industry-led initiative that pools resources to develop science-based solutions to wind and solar wildlife and related natural resources challenges, enabling companies to optimize renewable energy production while achieving increased wildlife conservation.

Minimize project risk and maximize conservation through innovative research

- Leverage Fund members' expertise, data, technology, and financial resources
- Develop solutions that simultaneously reduce impacts to wildlife and power production loss

Drive credible, science-backed results that can inform policy

- Pursue results that address knowledge gaps and inform regulatory and business decision-making
- Better understand potential adverse impacts and benefits of renewable energy to wildlife and other natural resources

Demonstrate to stakeholders a commitment to environmental excellence

- Leverage Fund participation to reduce reputational risk
- Show your company's commitment to addressing biodiversity and wildlife challenges to policymakers and regulators

"The Fund is one of the best ways that the industry can execute research that helps clarify our understanding of renewable energy interactions with wildlife."

Kristen Goland
Director of Development, Permitting & Environmental, Avangrid Renewables

Enhance relationships with industry collaborators & leverage pooled industry data

- Join Fund participants in collaborating with other industry leaders and suppliers on cutting-edge research
- Securely share and analyze confidential data and information through the Renewable Energy Wildlife Institute (REWI)
- Reduce overall investment in research projects by individual companies

Direct industry priorities and maximize outcomes

- Join as a Partner and become part of the Advisory Council to set Fund priorities
- Join as a Friend to contribute fundraising and receive first-access to project results
- Leverage your research investment and gain advanced access to all project results

View the full Fund project portfolio:

Renewable Energy Wildlife Research Fund
Priorities & Initiatives

Solar Research Priorities	Initiatives
Understanding potential adverse and beneficial impacts of solar development on soil health and structure	Investigate **impacts to soil health** from solar PV installation and **agrivoltaic practices** on agricultural land Bolster understanding of ecosystem benefits provided by solar PV development
Understanding potential impacts of solar facilities on wildlife habitat use, ecological interactions, and habitat fragmentation	Examine **wildlife interactions** with a landscape altered by solar development Review **biodiversity outcomes** at PV sites across multiple regions
Wind Research Priorities	**Initiatives**
High eagle permitting, mitigation, and monitoring costs	**Reduce mitigation and monitoring costs by improving accuracy of eagle fatality estimates** through analysis of regional variation in persistence of game bird versus raptor carcasses used in carcass persistence trials **Improve permit compliance and reduce post-construction monitoring costs** by developing a methodology that incorporates incidental carcass detections by wind facility operational staff into the overall estimated probability of detection
Loss of energy production and revenue due to overly conservative turbine curtailment for eagles	**Minimize curtailment orders and maximize energy production** by creating project- and turbine-specific models that incorporate eagle flight behavior recorded by the IdentiFlight camera-based detection system so shutdown occurs only when necessary
Higher cost of siting and mitigation for prairie grouse due to lack of data and conservative buffer requirements	**Reduce siting and mitigation costs for prairie grouse impact minimization** through telemetry- and lek count- based studies investigating the potential long-term effects of wind facilities on the lesser prairie chicken
Potential new regulatory barriers for taller turbines due to uncertainty of impacts to wildlife	**Reduce regulatory uncertainty about impacts of taller turbines on wildlife** by analyzing the effect of turbine size on bird and bat fatality rates using data contributed to **AWWIC**, the **most comprehensive database** of post-construction fatality data for land-based wind energy in the U.S.
Loss of energy production and revenue due to blanket curtailment for bats based only on wind speed	**Explore additional options to minimize curtailment and maximize energy production** by evaluating use of thermal-camera-based technology to pinpoint when and under what conditions bat fatalities occur **Minimize curtailment and maximize energy production** by developing and testing an innovative smart curtailment technology that integrates bat acoustic data with wind speed to curtail turbines only during periods of known risk
Gaps in understanding of risk factors for bat fatalities at wind turbines	**Gain a better understanding of factors leading to bat fatalities** including bat activity profiles, diet analysis, influence of weather fronts on bat fatality risk, and sex-based differences in fatality risk

2024 Research Fund Partners & Friends

The Research Fund supports priority research projects that expand the understanding of the challenges and the potential solutions for solar/wind-wildlife interactions.

https://rewi.org/renewable-energy-wildlife-research-fund/projects/

2024 Fund Executive Committee

Jodie Eldridge, NextEra Energy, Interim Chair
Adam Cernea-Clark, Pattern Energy, Interim Vice Chair




* The secretariat for the Fund, the Renewable Energy Wildlife Institute (REWI) is an independent 501(c)3 organization that was started by industry and conservation science partners with equal representation on the Board. REWI offers highly qualified scientific staff and advisors and has earned the brand for independent, credible results.