REWI

Renewable Energy Wildlife Institute

Strategic Plan

Approved September 2023

Greetings

The planet cannot afford to treat climate change and species extinction as two separate crises – these issues are intrinsically linked, and REWI recognizes that we must work to solve both in tandem. REWI remains committed to utilizing sound science, independent research, and collaboration to push forward our understanding of and solutions to renewable energy, wildlife, and related natural resources challenges and opportunities so that both can coexist and thrive.

> ***"We're in a climate crisis and we're in a biodiversity crisis – we can't work on solving one without the other. That is what REWI is here to do."***
>
> – Aimee Delach (Defenders of Wildlife), REWI Board of Directors Vice Chair

Now in our 15th year, REWI is ready to meet the demands associated with the energy transition and a worldwide commitment to achieve net zero emissions. We are building on significant momentum gained over the last few years: in 2022, REWI added solar energy to our portfolio and has been hard at work building out this new program. We convened the first-ever Solar Power and Wildlife/Natural Resources Symposium, with a second scheduled for November 2023. We also published the first REWI National Solar Wildlife Research Plan and Solar Energy Interactions with Wildlife and Their Habitats: A Summary of Research Results and Priority Questions.

REWI's Wind Program continues to serve as a leader in producing credible solutions and creating opportunities for collaboration to resolve wildlife and onshore wind energy issues. REWI has published five scientific articles in peer-reviewed journals on wind energy and wildlife in recent years, updated the Guide to Wind Energy & Wildlife, and demonstrated the viability of two alternative options for offsetting eagle take. We also completed studies evaluating bat and eagle minimization technologies and held the 14th Wind Wildlife Research Meeting.

To enable the application of results and catalyze dialogue across a broad stakeholder community, REWI continues to conduct extensive outreach, engagement, and communications activities to distribute research results and solutions to an ever-expanding stakeholder community in the U.S. and North America.

> ***"REWI provides a focused forum where we can think through the most important scientific questions around renewable energy and wildlife and identify the information needed to overcome significant hurdles."***
>
> – Christi Calabrese (EDP Renewables), REWI Board of Directors Chair

This Strategic Plan lays out REWI's mission and guiding principles, as well as the goals and priorities we will pursue over the next three to five years to accomplish our mission.

REWI is positioned to lead on solutions for renewable energy and wildlife. We are excited to see what the next few years hold for our work, this community, and our incredible Partners and Friends.

Abby Arnold

Abby Arnold, REWI Executive Director

1. Introduction

The U.S. and the world are at an inflection point: a rapidly warming climate is causing unprecedented impacts to human and natural systems on which we depend, including more intense and widespread droughts, increasing fire frequency and intensity, and atmospheric river rain events. Concurrently, the earth is experiencing a sixth mass extinction event driven largely by habitat loss and climate change.[i,ii] Here in the U.S., we are in the midst of a historic energy transition; demand for electricity from renewable energy is growing dramatically.[iii,iv,v] See text box for more details.

Sixth Mass Extinction

The 2019 Global Assessment Report on Biodiversity and Ecosystem Services, published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and representing analysis of "more than 15,000 scientific publications...as well as a substantive body of indigenous and local knowledge" makes it clear:

> ***"Human actions threaten more species with global extinction now than ever before. An average of around 25 per cent of species in assessed animal and plant groups are threatened, suggesting that around 1 million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss. Without such action, there will be a further acceleration in the global rate of species extinction, which is already at least tens to hundreds of times higher than it has averaged over the past 10 million years."*** [ii]

Unprecedented Clean Energy Deployment

The passage of the Inflation Reduction Act and Infrastructure Investment and Jobs Act are projected to lead to dramatic increases in build-out of renewables from 2023-2030, with annual solar photovoltaic (PV) additions projected to more than double and annual onshore wind additions projected to nearly triple.[ii] Several other studies, including the Princeton Net Zero America study, conclude that increases of the same order, if not of a greater magnitude, are needed to meet U.S. carbon reduction goals.[iii]

Further, in 2022, the National Renewable Energy Laboratory (NREL) completed a comprehensive study, *Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035*, which assessed the level of additional wind and solar energy build-out needed between now and 2050 to meet U.S. carbon emission reduction goals under various U.S. Department of Energy scenarios. The range of estimates demonstrates the contribution of wind and solar-generated electricity to carbon reduction goals if they are deployed at least five to seven times faster over the next five-year period than in the past.[iv]

The challenge is whether the community's focus on the adverse impacts of solar and wind development underestimates the importance of this development in reducing the impacts of climate change on wildlife and their habitat. This tension addressed by an IPBES/Intergovernmental Panel on Climate Change (IPCC) workshop, "Limiting global warming to ensure a habitable climate and protective biodiversity are mutually supporting goals, and their achievement is essential for sustainably and equitably providing benefits to people," is at the center of the Renewable Energy Wildlife Institute's work.[vi] Recognizing this tension, in 2014 REWI published *Thinking Globally and Siting Locally – Renewable Energy and Biodiversity in a Rapidly Warming World*.[vii] The paper was ahead of its time, but the U.S. now appears ready to address what the authors called for – understanding that a well-planned energy transition is necessary to achieve biodiversity goals.

REWI continues to demonstrate our supporter's commitment to build responsible renewable energy and highlights the importance of collaboration among renewable energy developers and operators, environmental and conservation advocates, community groups, and governmental representatives to accelerate the responsible deployment of utility-scale wind and solar energy to mitigate climate change and protect wildlife and ecosystems.

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2. Guiding Principles

Mission:

Through science and collaboration, accelerate responsible deployment of renewable energy to mitigate climate change and protect wildlife and ecosystems.

REWI's mission highlights our key areas of focus:

- **Science and Collaboration:** REWI focuses on both to accomplish our mission, as described through this Strategic Plan
- **Renewable Energy:** REWI currently focuses on utility-scale solar and wind energy
- **Deployment:** including the siting, development, and operations of wind and solar energy
- **Wildlife:** including species and their habitat, and population level protection
- **Ecosystems:** An ecosystem is defined as a dynamic system of biotic communities and their abiotic environment "interacting as a functional unit" (United Nations Convention on Biological Diversity); read more in REWI's National Solar Wildlife Research Plan[vii]

Gopher

REWI's Value Add:

REWI: synthesizer, convenor, investigator, and educator

REWI provides an internationally recognized forum for problem-solving to inform the siting and operating of renewables at the national, state, and local level. REWI's work provides the critical information that decision-makers need to achieve the mutually dependent goals of conserving wildlife and ecosystems and deploying renewables to contribute to the reduction of climate warming emissions and achieve net zero carbon goals by 2050.

Building on a strong partnership of renewable energy and conservation leaders, REWI works collaboratively with the renewable energy industry, conservation and science organizations, and wildlife management and other public agencies to define priorities and expand scientific research to ensure that both renewable energy and wildlife thrive. This collaboration utilizes the best science in support of problem-solving and the application of results.

Core Values:

- **Integrity:** independent and rigorous science and an emphasis on the importance of transparency, respect, trust, and good faith
- **Collaboration:** inclusion of diverse stakeholder perspectives, recognizing we go farther when we go together
- **Thought Leadership:** intellectual creativity that charts a path forward to achieve our mission

Priorities: Transitioning from Reactive to Proactive

REWI is re-positioning our programmatic strategy. We will continue to grow our capacity to identify gaps and connect them with scientific research and applied solutions. To optimally promote the science, resources, and solutions we bring to the table, we are building our outreach and engagement and strategic communications capacity to effectively reach and resonate with stakeholder audiences to ensure decision-makers benefit from the scientific knowledge, collaborative processes, and resources REWI delivers.

3. Goals

Goal 1: Science

Provide scientifically backed solutions to maximize benefits and minimize adverse impacts to wildlife and ecosystems from renewable energy development.

General

- Serve as a trusted center of information on the state of the science on renewable energy and their interaction with wildlife and ecosystems.
- Evaluate the direct and indirect adverse and beneficial impacts of renewable energy on biodiversity.
- Develop and implement mitigation alternatives for siting and operations that reduce adverse impacts to sensitive species while enhancing conservation.
- Estimate the beneficial effects of renewable energy deployment on the potential reduction in adverse impacts to biodiversity from a rapidly changing climate.
- Collaborate internationally to achieve synergies and efficiencies in expanding the mitigation of renewable energy on wildlife as deployment increases.

Wind Energy

- Accelerate the adoption of avoidance and minimization strategies to reduce bat and bird collision risk.
- Partner in longer-term research leading to siting strategies that reduce risk to species that are sensitive to habitat loss and disturbance.

Solar Energy

- Organize solar-natural resource research by viewing PV solar facilities as ecosystems interacting within the project footprint and the larger landscape.
- Develop science-based solutions to optimize project siting and operations to reduce risks and enhance benefits to wildlife and their habitats, and ecosystem function.

Goal 2: Collaboration

Strengthen collaboration among the stakeholder communities (conservation science community, public agencies, and industry) in the U.S. and internationally to address rapid renewable energy deployment and potential wildlife and ecosystem conflicts.

Engagement

- Convene stakeholders to share, learn, form relationships, and collaborate on renewable-wildlife (and related topics) decision-making at the national, state, and local level.
- Provide a safe place for the wildlife conservation community and industry to raise issues, and where possible, resolve wildlife and related ecosystem conflicts; provide information to inform decision-making.
- Provide educational opportunities to increase diversity in renewable-wildlife stakeholders (including increasing diversity and inclusion in the labor pool, among topic specialists, and of those seated at the table).

Golden eagle

Goal 3: Outreach and Communications

Expand outreach, engagement, and communications exponentially so key stakeholders at national, regional, state, and local levels have information, including context for rapid build-out, with a focus on the science needed to inform siting and permitting decisions, guidelines, and best management practices (BMPs) for construction, operation, and decommissioning projects.

Outreach

- Provide forums for education and dialogue on the state of the science solutions, and key questions and issues that promote application, inform policy making, improve communication, and provide opportunities for cross-sector relationship-building, understanding, and collaboration.
- Host and attend conferences, meetings, and webinars, develop white papers, update online resources, and support data and information sharing platforms to share the state of science, research questions, and results.
- Explore how REWI can provide the state of science and integrate into policy and decision-making processes as experts (not as advocates).

Communications

- Strengthen REWI's profile; raise awareness of REWI's mission, solutions, and results.
- Build a leading brand; clarify and spotlight REWI's value proposition.
- Position REWI's thought leadership, organizationally and for individual experts.
- Build trust and credibility around REWI's scientific research, expertise, voices, and process.
- Raise awareness about scientific facts; provide information to debunk myths and misinformation.
- Increase audience reach, engagement, and traction; reinforce existing and cultivate new relationships.

Goal 4: REWI Team

Further organization-wide priorities to facilitate efficient and effective progress toward achieving our mission and goals.

- Maintain and support a talented, diverse, and nimble team with an inclusive and supportive culture.
- Advance diversity, equity, and inclusion priorities through strategic partnerships and programs to increase representation in renewables and conservation.
- Advance organizational tools, processes, and resources.
- Diversify and grow our funding base to provide organizational stability and resources to achieve our mission.

Arbuckle wind farm

[i] Kolbert, E. 2014. *The sixth extinction: an unnatural history*. New York: Henry Holt and Company.

[ii] IPBES. 2019. "Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services." S. Díaz, J. Settele, E.S. Brondízio, H.T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K.A. Brauman, S.H.M. Butchart, et al (eds.). IPBES secretariat, Bonn, Germany. https://doi.org/10.5281/zenodo.3553579.

[iii] Jenkins, J.D., E.N. Mayfield, J. Farbes, G. Schivley, N. Patankar, and R. Jones. 2023. "Climate Progress and the 117th Congress: The Impacts of the Inflation Reduction Act and the Infrastructure Investment and Jobs Act." REPEAT Project, Princeton, NJ. https://doi.org/10.5281/zenodo.8148188.

[iv] Larson, E., C. Greig, J. Jenkins, E. Mayfield, A. Pascale, C. Zhang, J. Drossman, R. Williams, S. Pacala, R. Socolow, et al. 2021. "Net-Zero America: Potential Pathways, Infrastructure, and Impacts, Final report." Princeton University, Princeton, NJ. https://netzeroamerica.princeton.edu/the-report.

[v] Denholm, P., P. Brown, W. Cole, et al. 2022. "Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035." Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A40-81644. https://www.nrel.gov/docs/fy22osti/81644.pdf.

[vi] Pörtner, H.O., R.J. Scholes, J. Agard, E. Archer, A. Arneth, X. Bai, D. Barnes, M. Burrows, L. Chan, W.L. Cheung, et al. 2021. "IPBES-IPCC co-sponsored workshop report on biodiversity and climate change." IPBES and IPCC. https://doi.org/10.5281/zenodo.5101133.

[vii] Allison, T.D., T.L. Root, P.C. Frumhoff. 2014. "Thinking Globally and Siting Locally – Renewable Energy and Biodiversity in a Rapidly Warming World." *Climatic Change* 126, 1–6. https://doi.org/10.1007/s10584-014-1127-y.

[viii] Renewable Energy Wildlife Institute (REWI). 2023. National Solar Wildlife Research Plan 2023-2025. Washington, DC. https://rewi.org/resources/national-solar-wildlife-research-plan-2023-2025.

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