

Conservation Priorities for Renewable Energy and Transmission in Arizona:

Incorporating Wildlife and Community
Considerations into Project Siting and Design

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Audubon Southwest, the regional office of the National Audubon Society in Arizona and New Mexico, supports the thoughtful expansion of renewable energy and transmission infrastructure. We believe we must balance renewable energy growth with the protection of wildlife habitat and the environment. These priorities are intended to facilitate renewable energy and transmission siting and development while protecting wildlife and communities.


Renewable Energy and Transmission Development Coordination Priorities

- Coordinate early in the planning process with state and federal wildlife agencies, Tribal nations, and impacted communities.
- Respect Tribal sovereignty and encourage Tribal community benefit agreements (when and where appropriate, and requested by the Tribes) that support Tribes and Tribal wildlife resources impacted by new renewable energy and/or transmission development.
- Encourage community benefit agreements and proactive planning identifying community needs that may then support local communities and local wildlife resources impacted by new renewable energy and/or transmission development.
- Focus on a net-positive biodiversity approach to conservation.
- Utilize early consultation and coordination with the Arizona Department of Transportation and Arizona Game and Fish Department during project siting to address roadway and traffic-related wildlife impacts from both project construction and long-term operations during project design.

Renewable Energy and Transmission Development Siting and Design Priorities

- Site renewable power generation projects in existing right-of ways, near existing substations, and along roads to decrease wildlife habitat fragmentation.
- Give siting preference to projects that use Grid Enhancing Technologies (GETs) and/or increase the capacity of existing transmission lines.
- Use existing infrastructure and previously disturbed sites to the maximum extent practical to prevent fragmentation, degradation, or irreparable harm of important fish and wildlife habitat, natural resources, and communities.
- Follow the mitigation hierarchy of avoid first, minimize second, and provide compensatory mitigation as a last step (use existing research and data from wildlife management agencies and input from Tribal nations and communities when determining siting locations for energy and transmission development).
- Minimize the overall size of the impacted habitat.

- Avoid rare, unique, and sensitive high-value conservation value lands identified by federal, Tribal, state, and local agencies.
- Use of the U.S. Fish & Wildlife Service's [Land-Based Wind Energy Guidelines](#) and state renewable energy siting guidelines and Best Management Practices would help to avoid, minimize, and mitigate effectively for impacts on birds, bats and other impacted species.
- Apply dual-use principles where possible when siting and designing facilities, including incorporation of agrivoltaics, pollinator habitat, and ecosystem benefits to wildlife.
- Address short- and long-term surface and groundwater needs of the project during project siting and design. Identify where the water is coming from and how the impacts to surface and groundwater use will be mitigated.
- Consider landscape-scale and localized wildlife movement corridors, habitat connectivity, and facility permeability during project siting and design.
- Conduct pre-construction baseline assessments of proposed development sites at different times of the year to get a full picture of what wildlife species are using the area and what the impacts of the proposed development will be.
- Conduct post-construction monitoring and adaptive management to identify and address any impacts of concern to wildlife raised by federal, state, Tribal, and local agencies.
- Develop an Adaptive Management Plan that includes responses such as curtailment, detection and avoidance technologies (e.g., Identiflight), and operational changes if unexpected significant impacts occur.
- Leave native habitats and plants intact in particularly sensitive areas and areas known to be difficult to reclaim. Develop a Vegetation Management Plan when and where appropriate. This should include minimizing opportunities for invasive species.
- Minimize onsite human activity when vulnerable wildlife or nearby species have been found to be impacted by human presence.
- Consider structural or screening cover (e.g., vegetation) to mask potential visual disturbances.
- Consider the level and proximity of human disturbance (e.g. traffic and noise) to minimize impact to nearby wildlife.
- Consider rounded or angled fence corners and smooth fencing surfaces to encourage animal movement around the perimeter of projects or into designed corridors.
- Minimize impacts of lighting on sensitive species, including bats.
- Leave dry washes/ephemeral streams unfenced and as undisturbed as possible through projects to allow for movement of species utilizing these wildlife corridors. Provide a buffer to the fenced areas of the adjacent energy facility (do not fence up to a wash).

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- Incorporate a Bird Bat Conservation Strategy or Avian Protection Plan that outlines monitoring and minimization measures for these groups of species.
 - Use the Avian Power Line Interaction Committee (APLIC) [guidelines](#) for generation-tie power lines.
 - Site generating projects close to transmission interconnection to avoid long distribution lines to the grid (generation-tie lines) and roads.
 - Build underground generation-tie lines and collection lines when feasible.
 - Site transmission in existing transportation corridors whenever possible to avoid additional habitat fragmentation.
 - Utilize construction methods (i.e. helicopter installation) that minimize need for road construction, vehicle traffic, or other human disturbance.

Developed in partnership with conservation groups across Arizona.

References and Additional Resources

General Local Siting Guidelines and Recommendations

- Arizona Game and Fish Department, BLM Solar Draft Programmatic Environmental Impact Statement comments, 2024, [[LINK](#)]
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- National Conference of State Legislatures, Electric Transmission Planning: A Primer for State Legislatures, 2023 [[LINK](#)]
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- Washington State Legislature, Washington H.B. 1216 / S.B. 5380, 2023/2024 [[LINK](#)]
- Washington State Legislature, Washington S.B. 5165, 2023 [[LINK](#)]

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Wildlife and Habitat

- Association of Fish & Wildlife Agencies, Communication Framework for Solar Energy Project Proponents and State Fish and Wildlife Agencies [\[LINK\]](#)
- National Audubon Society, Birds and Transmission: Building the Grids Birds Need, 2023 [\[LINK\]](#)
- National Wildlife Federation, A Clean Energy Transmission Policy Platform for Thriving Communities and Wildlife, 2023 [\[LINK\]](#)
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- Pew Charitable Trust, Addressing Energy Development and Habitat Connectivity, 2023 [\[LINK\]](#)
- Renewable Energy Wildlife Institute, Training: Wind Energy & Wildlife, 2024 [\[LINK\]](#) and additional information [\[LINK\]](#)
- Sawyer, H. and J. Holst, Big Game Guidelines for Utility-Scale Photovoltaic Solar Development, Theodore Roosevelt Conservation Partnership, 2024 [\[LINK\]](#)
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Transmission line. Photo: MilanMKM/ Canva.com

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Turbines at sunset. Photo: Tromp Willem van Urk/ Canva.com

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Solar panels field at sunset. Photo: Pixelci/ Canva.com