

**From:** [Maxwell, Adam](#)  
**To:** [EFSEC mi Comments](#)  
**Cc:** [Bayard, Trina](#); [Belak, Jon](#); [George, Garry](#)  
**Subject:** Audubon Washington Comments: Transmission PEIS Scoping  
**Date:** Thursday, July 25, 2024 7:37:00 PM  
**Attachments:** [Audubon WA comments Transmission PEIS FINAL.pdf](#)

---

External Email

Dear EFSEC Staff,

Please see Audubon Washington's attached comments for Transmission PEIS Scoping.

Thank you,

**Adam Maxwell**

Senior Manager, Policy

C: 802.999.2460

[Pronouns](#): no preference

**Audubon Washington**

5902 Lake Washington Blvd S

Seattle, WA 98118

<https://wa.audubon.org/>

July 25, 2024

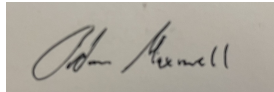
Energy Facility Site Evaluation Council  
1300 S. Evergreen Park SW  
PO Box 43172  
Olympia, WA 98504

**RE: Transmission PEIS Scoping Comments**

Dear Chair Drew, Sonia Bumpus, and EFSEC staff,

Thank you for the opportunity to comment on the Programmatic Environmental Impact Statement for electrical transmission in the state of Washington. Please find our comments below my signature. Should you have any questions, please don't hesitate to reach out.

Sincerely,



Adam Maxwell  
Senior Policy Manager

---

***PURPOSE OF COMMENTS***

Audubon Washington, a state office of National Audubon Society, is dedicated to the protection and conservation of birds and their habitats. As a key stakeholder in environmental conservation and clean energy advocacy, Audubon Washington has been a leader in helping National Audubon Society reach our Flight Plan goal of 100 GW of responsibly sited clean energy.<sup>1</sup>

We fully recognize the urgent need to transition to renewable energy sources to mitigate the impacts of climate change. However, it is crucial that this transition is implemented in a manner that minimizes adverse effects on bird populations and their habitats.

The purpose of these comments is to provide comprehensive feedback on the scope of the Programmatic Environmental Impact Statement (PEIS) for transmission infrastructure in Washington State. These comments aim to ensure that bird conservation measures are integrated into the planning, construction, and operation phases of transmission projects.

By doing so, we can achieve a balanced approach that supports clean energy development while safeguarding the biodiversity that is vital to our ecosystems.

Audubon supports the need for a dramatic expansion of our nation's transmission grid because it's essential for the growth of clean energy, which is essential to ensuring the continued viability of 389 species of North American birds.<sup>2</sup> The Princeton Net-Zero Project found that the nation's transmission grid capacity must grow by 150% by 2040.<sup>3</sup> This expansion is required on multiple fronts; the need for new rights-of-way (ROWs) is intuitively clear to non-experts; the gains that can be realized by upgrading existing ROWs, adding Grid Enhancing Technologies (GETs), controlling the grid more precisely using Dynamic Line Rating (DLR) and other methods, and linking the grid together to allow greater flexibility in normal operation as well as emergencies are of equal importance. We encourage EFSEC to approach this process with full consideration of all these tools, taking the approach of expanding the grid where needed with the goal of locking in Washington's sustainable clean energy future.

### *OVERVIEW OF AUDUBON WASHINGTON'S MISSION AND GOALS*

Audubon Washington is part of the National Audubon Society, a leading nonprofit organization dedicated to the conservation of birds and their habitats through science, advocacy, education, and on-the-ground conservation efforts. Our mission is to protect birds and the places they need, today and tomorrow, throughout the Americas using science, advocacy, education, and on-the-ground conservation.

Our goals are:

- To promote bird-friendly environments through habitat conservation and restoration.
- To advocate for policies that support the conservation of birds and their habitats.
- To engage and educate the public about the importance of bird conservation.
- To support sustainable development practices that balance the needs of wildlife and human communities.

In the context of the PEIS for transmission infrastructure, Audubon Washington's comments are focused on ensuring that the development of transmission projects incorporates strategies to avoid, minimize, and mitigate impacts on bird populations. This includes identifying high-risk areas for bird collisions, preventing habitat degradation, engaging stakeholders, strengthening regulatory frameworks, and implementing effective monitoring and adaptive management practices.

By working collaboratively with other stakeholders, we aim to create a future where clean energy development and bird conservation go hand in hand, ensuring a sustainable and prosperous environment for both wildlife and people.

## Bird Collision Risks

### *IDENTIFICATION OF HIGH-RISK AREAS*

Several studies have suggested that bird mortality caused by collisions with transmission lines could impact species at the population level, posing a significant threat in particular for species that have fast flight speeds, heavy bodies relative to their wing size, and poor or restricted vision. Waterbirds and waterfowl are the species groups primarily at risk. The PEIS should prioritize the identification and mapping of concentration areas for these species to define high-risk areas for bird collisions

These recommendations mirror those of the FWS and the Avian Powerline Interaction Committee for Avian Protection Plans (APPs), which are typically a cooperative effort between the US Fish and Wildlife Service and an electrical utility. An integral part of these plans is the landscape-scale assessment of the entire network controlled by the utility and evaluation of the macro and micro landscape factors that contribute to both avian collision and electrocution mortality. *We suggest that the avian risk assessment component of the APP process must be duplicated for the Transmission PEIS if the goal is to allow projects to tier with an Environmental Assessment.* Specifically, for existing transmission line ROWs that need to be upgraded, focused risk assessments must be performed to understand how the increases in structure height and number of wire planes that come with upgrading these ROWs will elevate collision risk, the areas where this is most critical, and the best way to use the strategies that follow to avoid, minimize, and mitigate impacts. For new lines, more flexibility in siting might be possible, and this is optimal. Fundamentally, now that more is known about avian collision mortality and there is a range of strategies to address it, it is highly appropriate that it be considered fully as part of this state programmatic planning process.

Audubon's Birds and Transmission Report provides a high-level assessment of areas where bird collisions are most likely to occur. According to the report, approximately 33% of existing and planned transmission lines fall within high-priority areas for bird collisions. These areas are characterized by high bird activity, including migration corridors, breeding grounds, and key foraging sites.

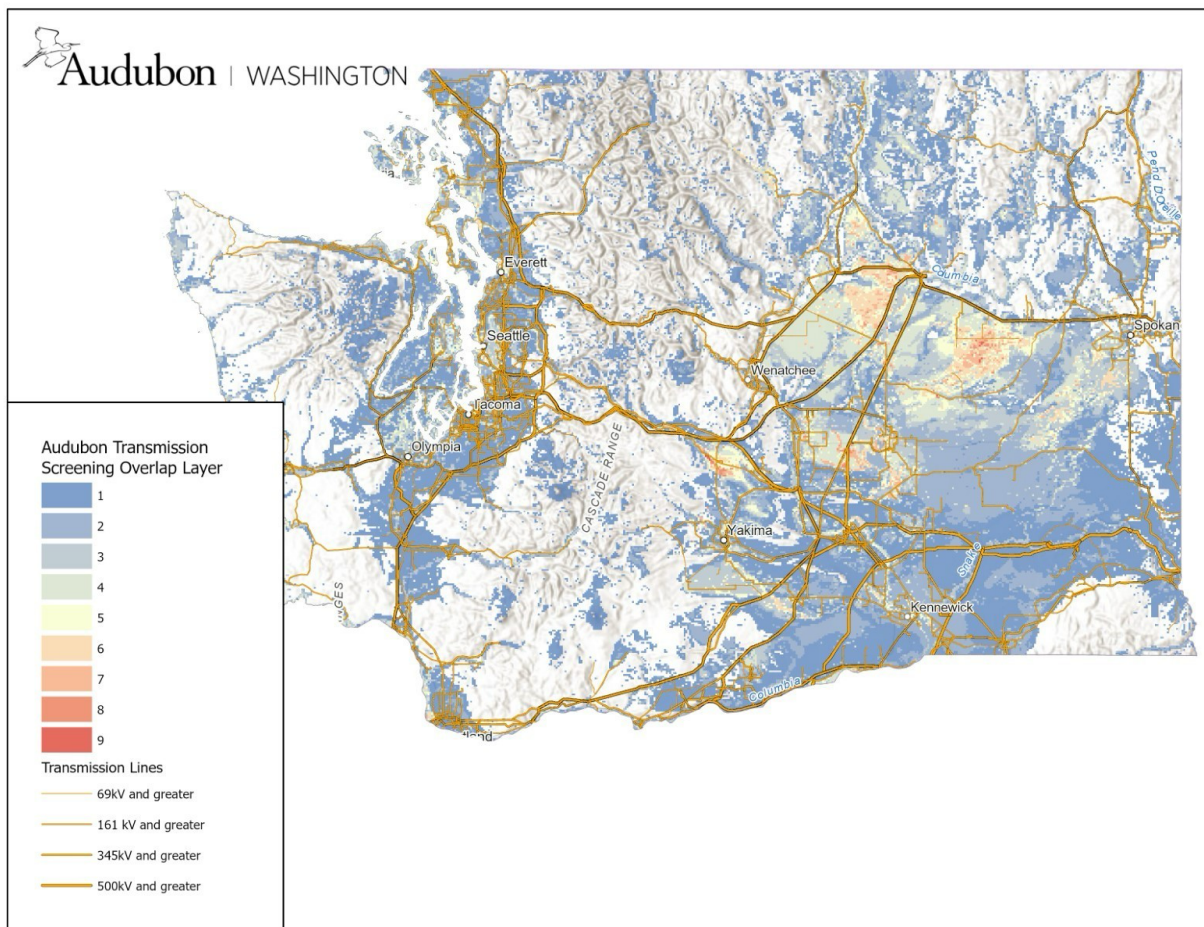
National Audubon Society's Clean Energy Initiative recently developed a combined data layer that approximates the relative potential of avian transmission collision using layers relevant for Washington, specifically

1. Current predicted wintering and breeding ranges of 15 bird species affected directly or indirectly by transmission lines (30 layers). These layers, derived from eBird data, were developed for the National Audubon Society Survival by Degrees report.<sup>4</sup>
2. Audubon Important Bird Areas that were designated to protect species groups identified as particularly vulnerable to collision in the Audubon Birds and Transmission report

3. The top 10% from the Audubon Full Annual Cycle Prioritization layer,<sup>5</sup> which represents habitat important to a targeted set of priority migratory bird species chosen as representative for their particular ecosystems and intended to represent the highest quality habitat for migratory birds.

The purpose of this layer, shown in Map 1, is to delineate areas where construction or modification of new overhead transmission should consider avian impacts as further described below. We suggest this data development and strategy for mitigation is necessary for other resources beyond birds, for example cultural resources.

**Recommendation:** The PEIS should incorporate a detailed analysis of high-risk areas using the latest available data on bird distributions and transmission line locations and the methodology and process developed for APPs. This analysis should be conducted in collaboration with conservation organizations and wildlife agencies to ensure accuracy and comprehensiveness. High level screening layers like the one shown and attached to these comments are useful to identify where programmatic effort is needed.



## *MITIGATION STRATEGIES*

To effectively reduce the risk of bird collisions, the PEIS must outline and mandate the implementation of both proactive and reactive mitigation strategies. These strategies should be based on the best available science and proven effectiveness in minimizing bird collisions with transmission infrastructure.

1. **Line Marking Devices:** Install line marking devices on conductors and shield wires to increase the visibility of transmission lines to birds. These devices have been shown to reduce collision risk by up to 90%.
2. **Ultraviolet (UV) and LED Lighting:** Utilize UV and LED lighting; make transmission lines more visible to birds during low visibility conditions in the highest risk areas using line markers illuminated by UV light and automated collision detection systems to verify efficacy, where appropriate, in the highest collision risk areas to.
3. **Horizontal Line Configurations:** Design new transmission lines with horizontal configurations to minimize the vertical space that birds must navigate, thereby reducing collision risks.
4. **Burying Cables:** Where feasible, bury transmission cables underground in areas with high bird collision risks. This is particularly effective in migratory corridors and other critical habitats.
5. **Retrofitting Existing Lines:** Retrofit existing transmission lines with bird-friendly designs, such as removing or replacing shield wires with less hazardous alternatives like lightning arresters.
6. **Strategic Route Planning:** Avoid placing new transmission lines in high-use bird areas. When avoidance is not possible, align new lines with existing rights-of-way to minimize habitat fragmentation and additional collision risks.

**Recommendation:** The PEIS should require the adoption of these mitigation strategies for all new and upgraded transmission projects. Additionally, it should establish guidelines for monitoring and evaluating the effectiveness of these measures, with a mechanism for adaptive management to address any identified deficiencies.

## *CASE STUDIES AND BEST PRACTICES*

The PEIS should reference successful case studies and best practices from other regions and projects where bird-friendly transmission infrastructure has been implemented. For example, the SunZia transmission project, which incorporated extensive bird-friendly measures in its planning and construction phases, serves as a model for mitigating bird collision risks while achieving clean energy goals.

**Recommendation:** Incorporate case studies and best practices into the PEIS to provide a framework for implementing effective bird conservation measures. This will help ensure that transmission projects are designed and operated in a manner that significantly reduces the risk of bird collisions.

By proactively addressing bird collision risks through comprehensive planning, targeted mitigation strategies, and continuous monitoring, the PEIS can help protect bird populations while facilitating the development of a robust and sustainable transmission infrastructure in Washington State.

### *AVOIDANCE OF SENSITIVE HABITATS*

Transmission infrastructure projects can lead to habitat degradation and disturbance, which negatively impacts bird populations and other wildlife. The PEIS must prioritize the avoidance of sensitive habitats, especially those that are critical for breeding, foraging, and migration. Evaluating these impacts is inherently more local than evaluating the relatively rare potential for avian collision as birds commute or migrate across transmission line ROWs. Audubon recommends evaluating the risk of avian collision based on concentrations of collision vulnerable species, as compiled in the layer described above, out to a distance of 10 km from the line. This distance is based on a USGS study of Sandhill Crane movements that made this recommendation as the upper limit to be considered.<sup>6</sup> Direct impacts on habitat of both collision vulnerable and other Audubon priority or state listed species, protected areas, and other resources should be evaluated using a buffer slightly larger than the ROW itself to encompass the distance out to which new access roads and other notable habitat disturbance should be evaluated.

**Identification of Sensitive Habitats:** Use the latest spatial data and environmental impact assessments to identify areas that are ecologically sensitive. This includes wetlands, grasslands, forests, and other key habitats that support diverse bird populations.

**Recommendation:** The PEIS should incorporate a thorough environmental review process to identify sensitive habitats early in the planning stages. Transmission routes should be designed to avoid these areas wherever possible. When avoidance is not feasible, alternative routes should be considered to minimize the impact on critical habitats.

### *HABITAT MANAGEMENT PRACTICES*

Where transmission lines must intersect with sensitive habitats, it is essential to implement habitat management practices that mitigate the impacts of construction and maintenance activities. Effective habitat management can help maintain and even improve the ecological value of areas impacted by transmission infrastructure.

1. **Native Vegetation Planting:** Encourage the planting of native, low-growing vegetation within transmission rights-of-way (ROWs). Native plants can provide food, nesting sites, and cover for birds, enhancing habitat quality.
2. **Invasive Species Control:** Implement measures to control invasive species within ROWs. This includes regular monitoring and removal of invasive plants and animals that can degrade habitat quality and outcompete native species.

3. **Restoration of Disturbed Areas:** After construction activities are completed, restore disturbed areas to their natural state. This involves soil stabilization, re-vegetation with native species, and erosion control to prevent habitat degradation.
4. **Buffer Zones:** Establish buffer zones around sensitive habitats to protect them from the impacts of construction and maintenance activities. Buffer zones can help reduce noise, light, and other disturbances that can negatively affect bird populations.
5. **Timing Restrictions:** Implement seasonal timing restrictions on construction activities to avoid critical periods for birds, such as breeding and migration seasons. This can help minimize disturbances during times when birds are most vulnerable.

**Recommendation:** The PEIS should include detailed guidelines for habitat management practices to be implemented during and after the construction of transmission infrastructure. These guidelines should be developed in consultation with wildlife experts and conservation organizations to ensure they are effective in protecting bird habitats.

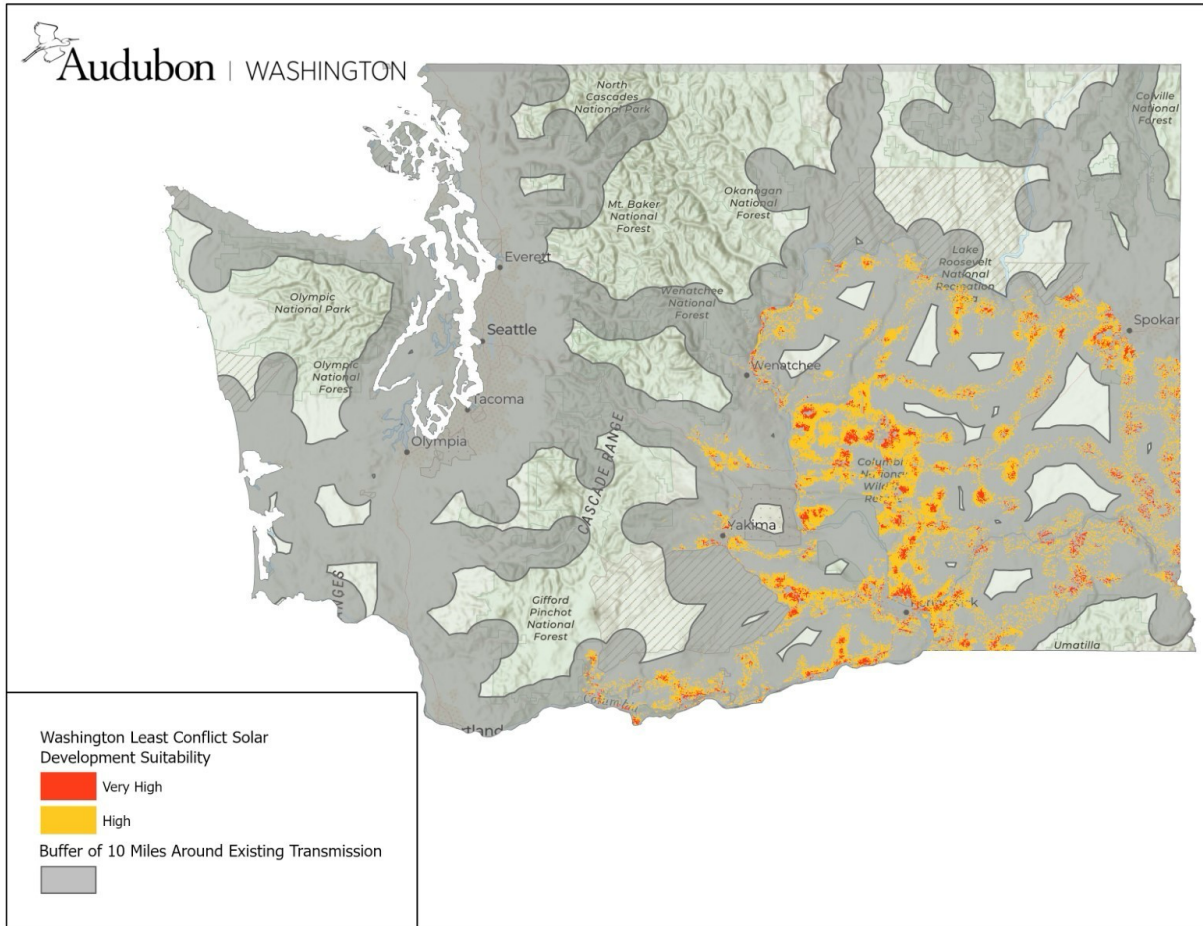
#### *STRATEGIC USE OF EXISTING RIGHTS-OF-WAY*

One of the most effective ways to minimize habitat degradation is to utilize existing rights-of-way for new transmission projects. This approach can reduce the need for additional land clearing and habitat fragmentation.

Buffering existing transmission lines from the HFLD federal transmission line dataset<sup>7</sup> by 10 miles, the distance out to which solar developers are willing to build generation tie-lies (gen-ties) to connect to the grid based on our extensive outreach, almost all of the areas found to be highly suitable for solar development in the Columbia Basin Least Conflict Solar Siting Study<sup>8</sup> are within the 10 mile buffer (Map 2). This indicates that the energy development needed in eastern Washington could be supported by upgrading existing ROWs in the diverse ways previously discussed. When existing roads are included the entire Columbia Basin study area is well covered. Other than gen-ties for individual projects that would presumably be covered by that project's Environmental Assessment, no additional lines are likely needed for consideration in the PEIS. The priority is clear; upgrade existing ROWs.

**Recommendation:** Creating new transmission ROWs beyond gen-ties is not necessary for solar in Washington; prioritize upgrading low voltage ROWs, and in the exceptional cases when existing ROWs cannot be used, prioritize the use of existing ROWs, such as those along highways and railways, for new transmission lines. This strategy minimizes the overall footprint of transmission projects and helps preserve intact habitats.





Map 2: High and very high suitability solar sites are all within 10 miles of existing ROWs

### *CASE STUDIES AND BEST PRACTICES*

The PEIS should reference successful examples of habitat management and restoration associated with transmission projects. Case studies from other regions can provide valuable insights into effective strategies for minimizing habitat degradation and disturbance.

**Recommendation:** Include case studies in the PEIS that highlight best practices in habitat management and restoration. These examples can serve as a guide for developing and implementing habitat-friendly transmission projects.

By adopting these measures, the PEIS can ensure that the development of transmission infrastructure in Washington State is conducted in a manner that minimizes habitat degradation and disturbance. This approach will help protect the integrity of bird habitats and support the conservation of biodiversity while advancing clean energy goals.

# Comprehensive Planning and Stakeholder Engagement

## *INTEGRATED PLANNING APPROACH*

Effective transmission infrastructure development requires a comprehensive planning approach that integrates environmental considerations with engineering and economic factors. This integrated approach ensures that bird conservation measures are considered from the earliest stages of project development through to implementation and operation.

**Multi-Disciplinary Planning:** The PEIS should advocate for a multi-disciplinary planning process that includes ecologists, engineers, economists, and other relevant experts. This approach will facilitate the identification and mitigation of potential environmental impacts, including those affecting bird populations.

**Data-Driven Decision Making:** Utilize the best available science and data to inform planning decisions. This includes leveraging spatial data on bird distributions, migration routes, and habitats to identify areas of high conservation value and potential impact.

**Recommendation:** The PEIS should mandate the incorporation of a multi-disciplinary, data-driven planning process for all transmission projects. This process should prioritize the identification and avoidance of high-risk areas for birds and other wildlife.

## *IMPORTANCE OF COMMUNITY INVOLVEMENT*

Community involvement is crucial for the success of transmission infrastructure projects. Engaging local communities, conservation organizations, and other stakeholders early and throughout the project lifecycle ensures that their concerns and insights are addressed, leading to more sustainable and publicly accepted outcomes.

**Early and Continuous Engagement:** Engage stakeholders early in the planning process and maintain continuous communication throughout the project. This includes public consultations, workshops, and information sessions to gather input and provide updates on project progress and mitigation measures.

**Transparent Decision Making:** Ensure transparency in the decision-making process by openly sharing data, plans, and progress with stakeholders. This builds trust and facilitates constructive dialogue between project developers and the community.

**Recommendation:** The PEIS should establish guidelines for stakeholder engagement that emphasize early and continuous involvement of local communities, conservation organizations, and other relevant parties. These guidelines should promote transparency and inclusiveness in the planning and decision-making processes.

### *COLLABORATIVE PLANNING EFFORTS*

Collaborative planning efforts between project developers, conservation organizations, wildlife agencies, and other stakeholders are essential for integrating bird conservation measures into transmission projects. By working together, stakeholders can develop innovative solutions that balance the needs of clean energy development and wildlife conservation.

**Partnerships and Collaborations:** Foster partnerships between project developers and conservation organizations to leverage expertise and resources. Collaborative efforts can lead to the development and implementation of bird-friendly practices and technologies.

**Adaptive Management:** Implement an adaptive management approach that allows for ongoing assessment and adjustment of conservation measures based on monitoring results and stakeholder feedback. This ensures that mitigation strategies remain effective over time.

**Recommendation:** The PEIS should encourage and facilitate collaborative planning efforts between all relevant stakeholders. This includes establishing formal partnerships and promoting adaptive management practices to ensure the long-term success of bird conservation measures.

## Monitoring and Adaptive Management

### *ESTABLISHING A MONITORING PROGRAM*

Effective conservation of bird populations in the context of transmission infrastructure development requires continuous monitoring to assess the impact of transmission lines and the effectiveness of mitigation measures. A robust monitoring program provides the data necessary to make informed decisions and adapt strategies as needed.

**Baseline Data Collection:** Prior to the construction of transmission projects, conduct comprehensive baseline surveys to gather data on bird populations, habitat use, and seasonal movements. This information is critical for understanding pre-construction conditions and assessing the impact of transmission lines over time.

**Continuous Monitoring:** Implement continuous monitoring programs that track bird collisions, habitat changes, and overall bird population health throughout the construction and operational phases of transmission projects. Utilize technologies such as radar, GPS tracking, and field surveys to collect accurate and up-to-date data.

**Recommendation:** The PEIS should require the establishment of a comprehensive monitoring program for all transmission projects. This program should include baseline

data collection and continuous monitoring throughout the project lifecycle, using the best available technologies and methodologies.

### *ADAPTIVE MANAGEMENT FRAMEWORK*

An adaptive management framework allows for the dynamic adjustment of conservation strategies based on monitoring results and new scientific insights. This approach ensures that mitigation measures remain effective and responsive to changing conditions.

**Feedback Loop:** Develop a feedback loop that incorporates monitoring data into the decision-making process. Regularly review and analyze monitoring results to identify trends, assess the effectiveness of mitigation measures, and determine if adjustments are needed.

**Stakeholder Involvement:** Engage stakeholders, including conservation organizations, wildlife agencies, and local communities, in the adaptive management process. Their input and insights can help refine strategies and ensure that they are effective and socially acceptable.

**Recommendation:** The PEIS should outline an adaptive management framework that includes a clear feedback loop for integrating monitoring data into management decisions. This framework should emphasize stakeholder involvement and the flexibility to adjust strategies as needed to achieve conservation goals.

### *REPORTING AND TRANSPARENCY*

Transparency in reporting is essential for building trust with stakeholders and ensuring accountability in the implementation of bird conservation measures. Regular reporting of monitoring results and adaptive management actions helps maintain public confidence and facilitates collaborative efforts.

**Regular Reporting:** Produce regular reports on the findings of the monitoring program and the actions taken under the adaptive management framework. These reports should be made available to the public and all relevant stakeholders.

**Open Data Access:** Promote open access to monitoring data and reports, allowing researchers, conservationists, and the public to review and utilize the information. This transparency fosters a collaborative approach to bird conservation and supports ongoing research and innovation.

**Recommendation:** The PEIS should mandate regular reporting of monitoring results and adaptive management actions, with an emphasis on transparency and open data access. These reports should be made publicly available and disseminated to all relevant stakeholders.

## *CASE STUDIES AND BEST PRACTICES*

Incorporating case studies and best practices from other regions and projects can provide valuable insights into effective monitoring and adaptive management strategies. Learning from successful examples can help refine and improve conservation efforts.

**Benchmarking Success:** Identify and analyze case studies of successful monitoring and adaptive management programs in similar transmission projects. Highlight the strategies and practices that have proven effective in mitigating impacts on bird populations.

**Continuous Improvement:** Use insights from case studies to continuously improve monitoring and adaptive management practices. This iterative approach ensures that conservation strategies evolve based on the latest knowledge and experience.

**Recommendation:** The PEIS should include references to case studies and best practices in monitoring and adaptive management. This will provide a framework for implementing effective strategies and continuously improving bird conservation efforts.

By establishing a robust monitoring program, implementing an adaptive management framework, promoting transparency, and learning from best practices, the PEIS can ensure that transmission infrastructure development in Washington State effectively protects bird populations and their habitats. This approach supports both conservation and clean energy goals, ensuring a sustainable and balanced future.

## **Conclusion**

The transition to a clean energy future is essential for mitigating the impacts of climate change and ensuring a sustainable environment for both people and wildlife. However, it is crucial that this transition is carried out in a manner that minimizes adverse effects on bird populations and their habitats. Audubon Washington is committed to supporting the development of transmission infrastructure that balances the need for clean energy with the imperative of bird conservation.

## *SUMMARY OF KEY RECOMMENDATIONS*

### **1. Bird Collision Risks**

- Identify and map high-risk areas for bird collisions with transmission lines.
- Implement proactive and reactive mitigation strategies, including line marking devices, UV and LED lighting, and horizontal line configurations.

### **2. Habitat Degradation and Disturbance**

- Prioritize the avoidance of sensitive habitats in transmission planning.

- Implement habitat management practices, such as planting native vegetation, controlling invasive species, and restoring disturbed areas.
- Utilize existing rights-of-way to minimize habitat fragmentation and degradation.

### **3. Comprehensive Planning and Stakeholder Engagement**

- Adopt a multi-disciplinary, data-driven planning process that integrates environmental, engineering, and economic considerations.
- Engage stakeholders early and continuously, ensuring transparency and inclusiveness in decision-making.
- Foster collaborative planning efforts and support robust policy and regulatory frameworks for bird conservation.

### **4. Monitoring and Adaptive Management**

- Establish a comprehensive monitoring program that includes baseline data collection and continuous monitoring throughout the project lifecycle.
- Implement an adaptive management framework that incorporates monitoring data into decision-making and allows for dynamic adjustments.
- Promote transparency through regular reporting and open access to monitoring data.

The PEIS for transmission infrastructure in Washington State presents a critical opportunity to ensure that bird conservation is fully integrated into the development of clean energy projects. By adopting the recommendations outlined in these comments, the PEIS can help create a balanced approach that supports both environmental sustainability and energy security.

Thank you for considering these comments. Audubon Washington looks forward to continuing to work with all stakeholders to achieve these important conservation and clean energy goals.