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February 1, 2023

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RE: Horse Heaven Wind Farm LLC - EFSEC Docket No. EF-210011

Dear Manager Bumpus:

As Counsel for the Environment (CfE), I appreciate this opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Horse Heaven Wind Farm. The CfE has an independent statutory created role to represent the public interest in protecting the quality of the environment. RCW 80.50.080. The siting of energy facilities in Washington State requires the Energy Facility Site Evaluation Council (EFSEC) to “recognize the pressing need for increased energy facilities.” RCW 80.50.010. The Council must also ensure that the operation of such facilities “produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.” *Id.* CfE submits this comment to help ensure that the Final Environmental Impact Statement (FEIS) will protect the public’s broad interest in preserving the environment and produce minimal adverse effects.

As the DEIS accurately concludes, the Horse Heaven Wind Farm (Project) will have a unique and significant impact on the vegetation, wildlife, habitat and cultural resources of the Horse Heaven Hills. The DEIS identifies “loss of priority habitat, wildlife mortality, and creation of barriers to movement and habitat fragmentation” as potential impacts of the Project.¹ Generally, the DEIS comprehensively analyzes the Project’s adverse impacts to this unique habitat and species, addresses mitigation measures, and unavoidable impacts. RCW 43.21C.031, *Adams v. Thurston County*, 70 Wn.App. 471, 855 P.2d 284 (1993). CfE appreciates that EFSEC has identified mitigation measures, in addition to those proposed by the Applicant, to reduce impacts on vegetation, wildlife, and habitat. The DEIS proposes project-specific impacts on priority species such as the ferruginous hawks, including, but not limited to the exclusion of turbines within core habitat, curtailing turbine operation when ferruginous hawks are present, and avoiding siting project components within two miles of ferruginous hawks nests.² CfE further appreciates that the DEIS recommends measures to avoid sensitive features and habitat specific

¹ See EFSEC, Horse Heaven Wind Energy Farm Draft Environmental Impact Assessment (DEIS), (Dec., 2022), Executive Summary (ES) at 12.

² See *id.* at 12-13.

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management plans, develop wildlife and habitat specific management plans, and conduct additional preconstruction and post operation monitoring by a Technical Advisory Committee to review and provide input to pre-construction surveys, post-operation monitoring, and implementation of mitigation measures.³

CfE recommends that the FEIS include a statement of need for the Project and how the Project would relate to Washington's broader statewide energy mandates. The FEIS should also more accurately quantify and represent the estimated total bird and bat mortality resulting from the life of the Project, consider the Project's cumulative impacts on bats, and recommend the applicant consider additional mitigation measures to reduce bat mortality. The FEIS should provide a clear rationale for siting the East Solar Field in priority habitats, consider alternatives to avoid direct habitat loss and fragmentation, and recommend removing additional barriers to wildlife movement. Additionally, the FEIS should consider and analyze alternatives to the action and no-action alternative presented and fully consider the environmental impacts of the proposed alternatives on greenhouse gas emissions as part of Washington's broader statewide energy mandates. Finally, CfE wants to ensure that EFSEC continues to engage with affected tribes to avoid and mitigate impacts to cultural resources.

1. The FEIS Should Include A Statement of Need for the Project

The DEIS includes a purpose for the Project, but does not include a statement of need. The DEIS should briefly describe the Project's objectives, specifying the purpose and need to which the proposal is responding. WAC 197-11-440(4). It seems clear that the Project is responding to the "pressing need for increased energy facilities" to meet Washington's statewide Clean Energy Transformation Act, RCW 19.405 (2019), and Climate Commitment Act, RCW 70a.65 (2021) goals. RCW 80.50.010. But the DEIS is silent on the need, and how it would relate to Washington's broader statewide energy mandates. The FEIS would benefit from a clear description of the Project need and how the Project would meet that need.

2. The FEIS Should Accurately Quantify and Represent the Estimated Total Bird and Bat Mortality Resulting from the Life of the Project

The DEIS does not create a complete or accurate estimate of bird and bat mortality resulting from the Project. First, the bird mortality rates presented in the DEIS need to be reconciled and more accurately quantified. The DEIS states that the Project may result "in a bird fatality rate similar to that of the nearby Nine Canyon Wind Energy Project" of 2.6 bird fatalities per megawatt (MW) per year.⁴ It also cites the Horse Heaven wind farm application which states that 22 bird fatalities were reported from the Nine Canyon Wind Project over a 16-year reporting period.⁵ However, the Nine Canyon Wind Project is a 95.9 MW project.⁶ Therefore, based on the

³See *id.* at 23

⁴DEIS at 4-156.

⁵*Id.*

⁶Energy Northwest, *Nine Canyon Wind Project* (2023), <https://www.energy-northwest.com/energyprojects/nine-canyon/Pages/default.aspx>.

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estimate of a 2.6 bird fatality rate per megawatt the resulting project's annual fatality rate would appear to be 249 birds per year—significantly higher than the DEIS estimates.⁷ The FEIS should address these discrepancies and more accurately quantify the annual bird fatality rate. Second, when the annual estimate is clarified the FEIS should more clearly represent the total bird mortality impact of the Project. While estimating bird mortality as a rate based on a nameplate generating potential is standard industry practice,⁸ it does not create a complete picture of the estimated bird mortality resulting from the life of the Project. Assuming estimated bird fatalities from the Project are 249 birds per year that could result in estimated fatalities in the range of 8,715 birds for the life of the Project up to 35 years and beyond.⁹ This estimate is sufficiently greater than the estimate of 2.6 birds per megawatt per year portrayed in the DEIS and should be clarified in the FEIS.

The DEIS should also clarify and reconcile estimates relating to bat mortality rates. Accurate estimates of bat mortalities are particularly critical for the hoary and silver-haired bat as both are classified as species of greatest conservation need under the Washington State Wildlife Action Plan.¹⁰ Accurately estimating fatalities resulting from the Project's impacts on hoary bats is also important because they are predicted to experience severe declines in the next 50 years due to wind energy.¹¹ Similar to the projected mortality rate for birds, the DEIS cites one source of Nine Canyon Wind Project data which estimates 2.47 fatalities for hoary and silver-haired bats per MW per year.¹² The DEIS then cites a different study at the Nine Canyon Wind Project which documents 27 bat fatalities of the silver-haired bat and hoary bat and estimated fatalities of 3.21 bats per turbine per year.¹³ Recognizing that the population sizes of hoary and silver-haired bats is poorly understood,¹⁴ it is still critical to reconcile this data and to the extent possible accurately estimate the Project's impact on bat fatalities. Finally, similar to birds, the

⁷ See *Id.* According to Energy Northwest 2023 the Nine Canyon Wild Project is a 95.9 MW project. Assuming this is correct, the annual fatality rate would be 2.6 birds/MW/yr × 95.9MW = 249 birds/yr.

⁸ USFWS (U.S. Fish and Wildlife Service), *Land-Based Wind Energy Guidelines* (2012), <https://www.fws.gov/sites/default/files/documents/land-based-wind-energy-guidelines.pdf>, at 37-38.

⁹ DEIS at 2-20. "The Project is anticipated to have an operating life of up to 35 years, which may be extended by repowering." Assuming a 35 year life of the project= 249 x 35 = 8,715 bird fatalities

¹⁰ See WDFW, *Washington's State Wildlife Action Plan: 2015 Update* (2015), <https://wdfw.wa.gov/sites/default/files/publications/01742/wdfw01742.pdf>; see also Scout Clean Energy, *Application for Site Certification Horse Heaven Wind Energy Farm* (Feb, 8, 2021) at Appendix K.

¹¹ See generally Bat Conservation International, *Hoary Bat* (2023) <https://www.batcon.org/bat/lasiurus-cinereus/> (last accessed January 29, 2023); N.A. Friedenber, et al., *Assessing fatality minimization for hoary bats amid continued wind energy development*, (2021), <https://www.sciencedirect.com/science/article/pii/S0006320716310485> (Friedenber); See also W. F., E. F Frick, et al. *Fatalities at wind turbines may threaten population viability of a migratory bat*, (May 2017), <https://www.sciencedirect.com/science/article/pii/S0006320716310485>.

¹² DEIS at 4-157.

¹³ DEIS at 5-185.

¹⁴ Friedenber, *Assessing fatality minimization for hoary bats amid continued wind energy development*, *supra* n 11.

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FEIS should rely on the most up to date data to estimate bat mortality resulting from the life of the Project to provide a more complete picture of Project impacts.

3. The FEIS Should Recommend the Applicant Consider Additional Mitigation Measures to Reduce Bat Mortality

Silver-haired bats and hoary bats represent the majority of bat mortality at wind farms in Washington. Bat surveys at the Project suggest temporal and spatial features important to potentially mitigate impacts to silver-haired and hoary bats.¹⁵ First, bat use of the area is not consistent across the landscape and some turbines are likely to be located in areas of greater bat activity. Therefore, bat mortality could be higher at specific turbines or areas of the Project. Second, bat use of the Project area peaks in the Spring and Fall likely associated with migration. The applicant has reported little or no suitable roost or shelter sites in the Project area. CfE appreciates that EFSEC is recommending that upon completion of a “two year bird and bat post-construction fatality monitoring program, the Applicant would review the results with EFSEC and WDFW and determine whether additional monitoring and mitigating measures are necessary.”¹⁶ But the DEIS does not recommend mitigation measures that would be triggered in the event of high rates of bat fatality. CfE recommends the FEIS consider adopting additional mitigation measures, including, but not limited to adaptive management plans and curtailment of the turbines associated with high mortality rates potentially during Spring and Fall migration periods.¹⁷

4. The FEIS Should Fully Assess the Project’s Cumulative Impacts on Bats

The DEIS considers and discusses the cumulative impacts of the Project with the existing and reasonably foreseeable developments.¹⁸ As part of this cumulative impacts analysis, the DEIS assesses the cumulative impacts of the Project on wildlife, including, but not limited to impacts on the pronghorn antelope, ferruginous hawk, birds, and bats. The DEIS concludes that mortality of these “species associated with the Project is expected to occur cumulatively with the mortality associated with other regionally occurring projects, particularly other wind power projects such as the Nine Canyon and Stateline Wind Projects.”¹⁹ But migratory species such as birds and bats that are exposed to mortality risks from the Project are drawn from metapopulations that likely

¹⁵ HHWF (Horse Heaven Wind Farm, LLC). *Horse Heaven Wind Farm, Washington Energy Facility Site Evaluation Council, Application for Site Certification* (2020) Appendix M: Bird and Bat Conservation Strategy. December.

¹⁶ DEIS 4-193.

¹⁷ See generally J., L., Rydell, *Bat mortality at wind turbines in northwestern Europe*. *Acta Chiropterologica* (2010), <https://doi.org/10.3161/150811010X537846>; See also American Wind Wildlife Institute, *Bats and Wind Energy: Impacts, Mitigation, and Tradeoffs*. American Wind Wildlife Institute White Paper (2018), www.awwi.org/resources/bat-white-paper/; see also American Wind Wildlife Institute, *Wind Turbine Interactions with Wildlife and Their Habitats: A Summary of Research Results and Priority Questions*. (2019) www.awwi.org, <https://rewi.org/wp-content/uploads/2019/05/Wind-Wildlife-Impacts-Summary-2019.pdf>.

¹⁸ DEIS at 5-7-8.

¹⁹ DEIS at 5-14.

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reflect the distribution of species occupying a larger geographic region. Consequently, it is unknown whether the birds and bats impacted by the Project site are from a population whose breeding location is proximate and confined to a limited geography, or possibly a more random selection of the metapopulation representing a broader geographic distribution.

We know that population size is a critical data gap to determining the population viability of most bat species, especially tree bats like hoary and silver-haired bats.²⁰ The FEIS should reassess the cumulative impacts of the Project by evaluating the impacts to migratory species on a larger geographic scale, particularly silver-haired and hoary bats.²¹ This analysis should take into account issues with the viability of bat populations and their lack of resilience due to low reproduction rates.

5. The FEIS Should Adequately Analyze Alternatives to the Action and No-Action Alternative

The DEIS is required to include a detailed discussion of alternatives to the proposed action. RCW 43.21C.030(c)(iii). *King County v. Cent. Puget Sound Bd.*, 138 Wn.2d 161 (1999). That includes “actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.” WAC 197-11-440(5)(b). If the action is for “a private project on a specific site,” the agency only is required to consider a no-action alternative and onsite alternatives (i.e., building the project with mitigation measures). See *Weyerhaeuser v. Pierce County*, 124 Wn.2d 26, 38 (1994); WAC 197-11-440(5)(d). Here, the DEIS only considers the applicant’s proposal with recommended mitigation measures, and a no-action alternative, but fails to consider any onsite alternatives to the Applicant’s proposal. The DEIS explains that “several alternatives were considered for analysis, but were eliminated from detailed evaluation in the DEIS because they would not generate the designed nameplate capacity required by the Applicant.”²² However, the DEIS fails to provide any analysis of the alternatives that were eliminated and why they could not feasibly attain or approximate the proposal’s nameplate generating capacity. The FEIS should address this deficiency by considering a less environmentally impactful alternative that includes alternative project layouts such as those proposed by the Washington State Department of Fish and Wildlife (WDFW).²³ This should include consideration of an alternative that does not site the East Solar Field located in a highly concentrated priority habitat to avoid direct habitat loss and fragmentation.

²⁰ Friedenber, *Assessing fatality minimization for hoary bats amid continued wind energy development*, *supra* n. 11, at 10-11.

²¹ *Id.*

²² ES-6.

²³ WDFW, Agency Comment #0004 (April 1, 2021), https://www.efsec.wa.gov/sites/default/files/210011/00024/A0004_WDFW_Rvw3.pdf.

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6. The FEIS Should Provide a Clear Rationale for Siting the East Solar Field in Priority Habitats, and Consider Alternatives to Avoid Direct Habitat Loss and Fragmentation

Most of the Project's impacts to priority habitats are within the micrositing corridor and East Solar field. These impacts manifest themselves through direct habitat loss and fragmentation. The DEIS concludes that impacts to priority habitat include the permanent disturbance of 72.5 acres of Eastside (Interior) grassland and temporary disturbance of 16.2 acres; permanent disturbance of 1.1 acres of dwarf shrub-steppe and temporary disturbance of 8.9 acres; permanent disturbance of 1.4 acres of sagebrush shrub-steppe and temporary disturbance of 31.4 acres; and permanent disturbance of 717.2 acres of rabbitbrush shrubland and temporary disturbance of 152.3 acres.²⁴

CfE appreciates that EFSEC has proposed additional mitigation measures to priority habitat in these regions, including an as-built report and calculation of offsets based on final temporary, permanent, and modified habitat impacts.²⁵ But the DEIS does not address why the East Solar Field has to be located in this highly concentrated priority habitat area in the first place. Additionally, the DEIS suggests that the "applicant has also proposed three different solar facility locations, though all three may not be constructed."²⁶ Considering this, the FEIS should provide a rationale for the location of the East Solar Field, and consider an alternative such as the one recommended by WDFW that avoids development in the East Solar field and focuses solar development only on agriculture and grasslands in the Southern edge of the lease area and to the Southwest.²⁷ The FEIS should only recommend constructing the East Solar Field after a complete evaluation of alternatives and whether impacts can be avoided.

Finally, CfE appreciates that the DEIS recommends the use of non-barbed wire fencing for Pronghorn antelope. However, in addition to non-barbed wire fencing the FEIS should recommend minimizing fencing whenever possible and raising wire fencing for Pronghorn antelope to pass under strands when fencing is proposed within migration routes.²⁸

7. The FEIS Should Recommend an Option to Avoid Townsend's Ground Squirrel Colony Relocation and Analyze the Likelihood that a Squirrel Colony Cannot be Successfully Relocated

The Project could also impact two of the known Townsend's ground squirrel colonies in the Lease Boundary. The applicant reports that of the two known ground squirrel colonies that occur in the Project, one of them would be directly disturbed.²⁹ Because species-specific studies were

²⁴ DEIS at ES-13 at 4.4.2.

²⁵ *Id.*

²⁶ DEIS at 4-147.

²⁷ WDFW, Agency Comment, *supra* n 23.

²⁸ DEIS at 4-202

²⁹ DEIS at 4-186.

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not conducted, there is a potential for additional colonies to be present.³⁰ The DEIS notes that while the Townsend's ground squirrel population and population trends specific to Washington State are unknown, some studies estimate that the population may have declined more than 70 percent, with only ten percent of natural habitat remaining within the historic range.³¹ The DEIS requires that the applicant consider how to avoid habitat loss in Townsend's ground squirrel habitat concentration areas and known colonies, develop a plan with a "rationale for why colonies cannot be avoided," and provide "additional mitigation measures, such as colony relocation and reconstruction of habitat features."³² The FEIS should recommend an alternative to entirely avoid ground squirrel colony relocation and address the likelihood that a squirrel colony cannot be successfully relocated.

8. The FEIS Should Recommend Removing Additional Barriers to Wildlife Movement and Include Bottom Less Culverts where Grade Crossing is Necessary

The movement corridor between the Rattlesnake Hills area to the north of the Habitat Concentration Area in Oregon allows for the movement of wildlife. Loss of this important corridor function could contribute to barriers to movement and resulting isolation of wildlife populations. Disturbance from the project footprint in the area associated with the East Solar Field would occur primarily on the east side of the wildlife movement corridor.³³ But the wind towers and facility access roads that cross the north-south movement corridor in the east-west direction could potentially cause more significant fragmentation than the East Solar Field. Access roads up to sixteen feet in width could particularly constitute barriers to movement for smaller species.³⁴ The DEIS recommends an adaptive management approach in which the applicant would review road based mortalities annually and propose "additional mitigation for areas" including "control, signage, temporary road closures, or wildlife passageways."³⁵ In addition to this mitigation measure, the FEIS should consider adding bottomless culverts to any road development or upgrading in movement corridors where a grade crossing is necessary.³⁶ These culverts could be moderate in size so as to facilitate the crossing of smaller wildlife.

³⁰ DEIS at 4-186.

³¹ DEIS at ES-32; 4-185.

³² DEIS at 4-202.

³³ DEIS at 3-97, Figure 3.6-2.

³⁴ DEIS at 4-164.

³⁵ DEIS at 4-193—194.

³⁶ See generally L.B. Stewart, et al. *Wildlife Crossing Design Influences Effectiveness for Small and Large Mammals in Banff National Park* (2020) *Case Studies in the Environment* 4 (1): 1231752, <https://doi.org/10.1525/cse.2020.1231752>; T.M. McGuire, *Innovative Strategies to Reduce the Costs of Effective Wildlife Overpasses* (2021) U.S. Department of Agriculture, Forest Service Pacific Southwest Research Station, Albany, CA. General Technical Report PSW-GTR-267, https://www.fs.usda.gov/psw/publications/documents/psw_gtr267/psw_gtr267.pdf.

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9. The DEIS Should Consider the Environmental Impacts of the Proposed Alternatives on greenhouse gas emissions

The DEIS includes a specific discussion of direct and indirect impacts to each alternative. However, the DEIS fails to show how each alternative would reduce or not reduce the State's greenhouse gas emissions as part of our broader statewide energy mandates. Projects such as Horse Heaven are "critical to advancing the state's objectives in providing affordable electricity, promoting renewable energy, strengthening the state's economy, and reducing greenhouse gas emissions." RCW 80.50.010. But the DEIS notably lacks any analysis of the emission reductions estimated to result from the Project or how the Project would fit into meeting the State's energy goals outlined in the Clean Energy Transformation Act, and the Climate Commitment Act. Similarly, there is no estimate of the impact on meeting our statewide energy goals if the Project was not developed.

The no-action alternative would certainly have adverse environmental impacts if it would result in additional emissions that would contribute towards climate change. Therefore, the FEIS should include an assessment of how the Project would reduce the State's greenhouse gas emissions and help to meet the State's energy mandates. Similarly, the DEIS should include an analysis of the environmental impacts if the Project is not developed, including potential emissions. EFSEC should estimate this impact to provide guidance to the public and decision-makers on the tradeoffs involved if the Project is not developed.

Finally, this Project could have significant impacts on historic and cultural resources. CfE recommends the EFSEC continue to engage with the tribes to develop additional measures to avoid and mitigate impacts to important cultural resources.

Thank you for your consideration of this comment.

Sincerely,



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