TYN Reply Testimony Mark Nuetzmann EXH_4012_R Docket No. EF-210011 PREFILED REPLY TESTIMONY OF MARK **NUETZMANN**

BEFORE THE STATE OF WASHINGTON

ENERGY FACILITY SITE EVALUATION COUNCIL

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PREFILED DIRECT TESTIMONY OF MARK NUETZMANN

Q Please state the purpose of your reply testimony.

In the Matter of the Application of:

Scout Clean Energy, LLC, for

Applicant

Horse Heaven Wind Farm, LLC,

- A I am providing this testimony as a reply to Erik Jansen and Don McIvor's response/rebuttal testimony.
- Q Do you believe that your direct testimony filed June 12, 2023 and your reply testimony below are informed by best available science?
- A My testimony in this case is informed by the Horse Heaven Wind and Solar Project's ("Project") application, mitigation plan, the Project's draft environmental impact statement, scientific literature and data.
- Q What do you consider to be reliable scientific information?

- A Information that is gathered using accepted standards from experts in a particular field and whose methods and results can stand up to scrutiny.
- Q Do you know what literature Mr. Jansen is referring to when he references a "body of independent study and research" for the Project on page 3 of his rebuttal testimony?
- I do not know of any independent research regarding the Project so I think that is referencing the applicant's consultant's research that was done for Scout Clean Energy. I can't argue that their work is invalid or incomplete; they have access to more data and resources than we do. But I would not consider it independent. I do believe, however, that the methods that have been utilized to collect the biological data that is in the Application and the DEIS are valid and based on a solid foundation of research. There likely is some sort of internal review process at Western EcoSystems Technology, Inc., but I do not know if their work on the Project has been independently peer reviewed. Some of their novel research that has been conducted potentially could be a good candidate for a peer reviewed journal article, like the population viability analysis for the ferruginous hawk.
- Mr. Jansen also discusses field surveys conducted in the Project area, stating that "[f]erruginous hawk had the lowest avian use compared to other congeneric *Buteo* species that migrate through or nest in the Horse Heaven Hills" Erik Jansen Rebuttal Testimony, pg.3 Would you like to respond to that statement?
- A Yes, I do not disagree with that statement. However, as I have testified, the impact to the loss of a single individual of the species to the Washington breeding population would have

a greater deleterious effect due to their smaller population size, than other *Buteos* that were observed and even Golden Eagles. This state listed endangered species is so rare that even losing 1-5 individuals would have a much bigger impact on the species than the more common *Buteos* that were observed during avian use surveys.

- Q Mr. Jansen criticizes your reliance upon a 1998 article by Leary et al. Would you like to respond to that criticism or clarify any part of your direct testimony?
- A I did not state or imply that the Project area does or ever did contain irrigated crops. I merely stated that there is potential of the availability of prey for the ferruginous hawk in irrigated cropland directly south of the Project (most likely along edges) as was shown in Leary et al. Hanford Site study. As the irrigated lands in question are not within the Project lease area, prey studies were not conducted and therefore no information is available as to their usage.
- Q Mr. Jansen spends a considerable portion of his rebuttal testimony discussing the size of the Project as well as other projects within the Pacific Northwest. Would you like to respond?
- A The discussion comes when talking about the number of turbines versus acreage versus big projects that are rolled out in phases. Mr. Jansen appears to be saying that the Project isn't any different than other Wind Resource Area projects when viewed as a whole but that isn't testimony one way or the other about whether the Project's impacts can be truly mitigated. I would also like to clarify that I never advocated for breaking projects into

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smaller sub-projects, or piece-meal review of environmental impacts, which his testimony on page 8 implies. I agree with him to the extent that he is advocating for environmental impact review of all renewable energy development within the same geographic area.

- On page 9 of his testimony, Mr. Jansen criticizes your analysis, and familiarity with the relevant science regarding impacts to habitat in the Project area. Would you like to respond to that criticism or clarify any part of your direct testimony?
 - With regard to habitat fragmentation, I believe that Mr. Jansen, Washington Department of Fish & Wildlife biologists, and I are in agreement that habitat within the Project Area is already fragmented. My point in the direct testimony was that habitat fragmentation will impact different species in different ways depending on their habitat needs, such as species that use large swaths of habitat versus species that use smaller swaths. The ferruginous hawk's home range varies greatly, with availability of resources playing a major role. An individual utilizing fragmented habitat would likely require a larger home range than an individual utilizing intact habitat based on the assumed greater prey availability. Relatedly, two shrub-steppe obligate species, for example the Sage Thrasher and Sagebrush Sparrow, could respond differently to a patch of fragmented habitat. Sage Thrashers will nest in fragments of shrub-steppe set within agricultural areas¹ whereas Sage Sparrows appear to be more area-sensitive. A study found that isolated stands of sagebrush smaller than 320 acres were not occupied by Sage Sparrows in eastern Washington.²

¹ Vander Haegen, W. M., M. A. Schroeder, and R. M. DeGraaf. 2002. Predation on real and artificial nests in shrub-steppe landscapes fragmented by agriculture. Condor 104:496-506.

² Paige, C. and S.A. Ritter. 1999. Birds in a sagebrush sea: managing sagebrush habitats for bird communities. Partners in Flight Western Working Group, Boise, ID.

Q Do you believe the Project will cause the extirpation of the breeding population of ferruginous hawk in Washington?

No and I am sure that I did not say that in my direct testimony so it is unclear why the question is phrased this way in Mr. Jansen's testimony. If Washington's breeding population of ferruginous hawks becomes extirpated, the largest contributor would be from the past loss of habitat due to conversion of shrub-steppe habitat to agriculture. I agree with Mr. McIvor's statement on page 7 of his testimony that "[m]any of the threats to ferruginous hawk are extrinsic to the proposed project..." However, there are many threats that are present in the Project's current design, including but not limited to direct strikes from turbines, lost potential to use habitat within the Project area, and the location of the Project in relation to historic nests which will reduce the probability of individuals reoccupying those nests. Mr. Jansen also accurately lists other stressors on the ferruginous hawk population more generally. Based on best available science, I would say that the Project would "contribute to" rather than "directly cause" the decline of the species.

- Q On page 12, Mr. Jansen criticizes your assumption of a static baseline population growth.

 Would you like to respond or clarify?
- A I realize that the demographic vital rates do not remain static and that modeled population growth rates are determined by the inputs of the modeler. As Mr. Jansen stated, the PVA indeed did not model immigration and emigration and perhaps incorporating those demographic factors could improve the trajectory for the species in Washington. I would

welcome additional modelling efforts that examined those demographics on the species' population trajectory.

- Q Mr. Jansen's response to your testimony characterizes your positions as "disparaging" toward artificial nesting platforms on page 13. Would you like to respond?
- A I disagree that I disparaged the use of artificial nesting platforms; I agree with Mr. Jansen and Mr. McIvor that they can be an effective tool depending on where they are placed. My point is that the hawks are not suffering from a lack of available nesting substrate. I agree with Mr. McIvor that it might be possible to use Mr. Jansen's modeling effort to identify areas of high quality habitat that lack suitable nest substrates, but that work has not yet been done.
- Q On page 14, Mr. Jansen cites to new language in Data Request 7 to refute your assertion that the proposed conservation easement does not meet the mitigation plan criteria. Would you like to reply?
- A Yes, they re-worded the mitigation criteria to fit the proposed conservation easement. They lowered the standard to fit the conservation easement instead of finding a conservation easement that meets the original standard.
- Q Can you please clarify your recommendation that EFSEC should require the Applicant to "shut off" or "deactivate" select wind turbines during the ferruginous hawk's breeding and rearing seasons.

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Yes. While I did not use the precise term, I was referring to what is more commonly known as "curtailment." My testimony on this topic should be considered alongside both Mr. Jansen's and Mr. McIvor's statements regarding curtailment. I cannot speak to the accuracy of Mr. Jansen's uncited testimony regarding the use of curtailment in Washington but even if this type of curtailment isn't standard practice in Washington, that does not mean that it's not being done elsewhere or that it is not an option for this Project. Curtailment of turbines during bat fall migration season is considered a Best Management Practice by the American Wind Energy Association.³ While acknowledging that the technology is new, it has been demonstrated in Wyoming that eagle fatalities can be reduced by automated curtailment of wind turbines.⁴ I agree with Mr. Jansen that site-specific-data should inform site-specific management actions. In this case the Project is being sited directly within the nesting territory of an endangered species.

- Q Would you like to clarify your concerns regarding the current parameters for the work of the Project's Technical Advisory Committee ("TAC")?
- A Yes. I am not challenging the legal authority of the TAC. On page 14 of my testimony I clearly state that final Project design should not be determined by the TAC, which should instead be responsible for adaptive management post-construction. Mr. Jansen says something similar in his statement that ". . . the multi-stakeholder TAC membership

³ https://rewi.org/guide/chapters/04-minimizing-collision-risk-to-wildlife-during-operations/minimization-curtailment/#:~:text=Curtailment%20is%20the%20feathering%20of,at%20reducing%20bat%20collision%20fatalities

⁴ McClure, C. J. W., Rolek, B. W., Dunn, L., McCabe, J. D., Martinson, L., & Katzner, T. E. (2022). Confirmation that eagle fatalities can be reduced by automated curtailment of wind turbines. Ecological Solutions and Evidence, 3, e12173. https://doi.org/10.1002/2688-8319.12173

functions as a post-construction advisory committee that reviews Project materials and recommends certain conditions to EFSEC through the adaptive management process. I agree that that's what the TAC team is supposed to do, however that is not how the amended application reads.

- Q So your concern is that there are certain duties being delegated to the TAC that are not post-construction adaptive management?
- A Correct.

I declare under penalty of perjury that the above testimony is true and correct to the best of my knowledge.

Mark Nuetzmann

Date

7/14/2023

CERTIFICATE OF SERVICE

I, Jessica Houston, certify that on July 14, 2023 I electronically filed the foregoing document with the Energy Facility Site Evaluation Council ("EFSEC") at Adjudication@efsec.wa.gov.

I further certify that on July 14, 2023 I served the same upon all parties of record and identified EFSEC staff in this proceeding by electronic mail as follows:

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Dated this 14th day of July, 2023.

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