BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITING EVALUATION COUNCIL

In the Matter of the Application of: Scout Clean Energy, LLC, for Horse Heaven Wind Farm, LLC, Applicant.	DOCKET NO. EF-210011 REBUTTAL TESTIMONY OF TROY RAHMIG ON BEHALF OF SCOUT CLEAN ENERGY

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REBUTTAL TESTIMONY OF TROY RAHMIG

ON BEHALF OF

SCOUT CLEAN ENERGY

EXH-1033_R_REDACTED

JUNE 30, 2023

I. Introduction

Q. Please describe the purpose of this rebuttal testimony.

A. I am testifying in response to the pre-filed testimony of Leon Ganuelas.

Q. Are you able to answer questions under cross examination regarding your testimony?

A. Yes. As noted in my direct testimony, due to the overlapping nature of our testimony, the Applicant intends for my cross-examination to occur in a panel format with Erik Jansen.

II. Response to Pre-filed Direct Testimony of Leon Ganuelas

Q. Mr. Ganuelas asserts that the amount of anthropogenic disturbance of green energy development, specifically wind turbines and solar arrays, is becoming overwhelming in shrub-steppe habitat. Do you agree with that assertion for renewable energy projects in Washington?

A. No. Mr. Ganuelas cited three studies regarding how renewable energy facilities are displacing shrub-steppe habitat. The three studies reported information from Wyoming. Ganuelas omits any reference to local renewable energy projects, or even any in the Columbia Plateau Ecoregion. He also omits any specific examples of how renewable energy projects are becoming "overwhelming" to shrub-steppe habitat.

In Washington, shrub-steppe is considered a Priority Habitat by the Washington Department of Fish and Wildlife and the trend has been to site renewable energy projects to avoid Priority Habitats. This is due to the requirements to provide habitat mitigation for Priority Habitats. As a result, most renewable energy projects are sited on agricultural lands, which are not Priority Habitats. I am involved in several other renewable energy projects in Washington and for the most part efforts are taken to reduce impacts on shrub-steppe, so I do not believe it is an informed opinion or reasonable to say that shrub-steppe habitat is being overwhelmed by renewable energy development. I would say the primary anthropogenic use that has

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overwhelmed shrub-steppe habitat is Washington is the conversion of shrub-steppe to agricultural uses including viticulture. Over 80% of Washington's native shrub-steppe habitat has been lost due to conversion to agricultural purposes and urban/exurban development (Azarrad et al. 2011, Sleeter 2012, WDFW 2023).

Q. Mr. Ganuelas asserts that this project in particular will overwhelm the shrub-steppe habitat and pronghorn. Do you agree with this assertion?

A. As mentioned through-out the Updated ASC and supporting Appendices, the majority of the Project is not classified as shrub-steppe habitat. It primarily consists of dryland wheat agriculture.

In addition, the Horse Heaven Project follows the pattern described above of minimizing impacts on shrub-steppe as much as practical. The parts of the Project that Mr. Ganuelas asserts will have the largest impact on pronghorn are the fenced solar arrays. The fenced solar arrays are comprised of 6,646 acres, of which 5,606 acres (84%) is agricultural land, 719 acres (11%) of shrub-steppe (all of which is early successional rabbitbrush shrubland), and 321 acres (5%) of grassland (most of which is planted grassland).

Q. Mr. Ganuelas asserts that the project will result in reduced fecundity, adversely affecting pronghorn. Do you agree with this assertion?

A. Mr. Ganuelas notes in his testimony that there is little data on pronghorn interactions with renewable energy facilities, while also making the assertion that the loss of access to the fenced enclosures would result in reduced fecundity by pronghorn. Ganuelas does not provide any demographic data to support his assertion of reduced fecundity and, in fact, states at the end of his power point that more demographic data are needed for the species. [redacted]

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[redacted]

Q. Were you able to review the GPS collar data represented on PowerPoint slides, provided by Mr. Ganuelas?

A. Yes.

Q. [redacted]

A. [redacted]

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[redacted]

Q Mr. Ganuelas asserts that the Project encompasses Core Habitat Areas for pronghorn. Do you agree with this assertion?

A While Mr. Ganuelas makes that assertion, no definition of Core Habitat Areas is provided, nor is it defined in any of the bi-annual Pronghorn Antelope Abundance Survey summary reports including the 2019 and 2021 reports Ganuelas submitted into evidence (Appendix B) as part of his testimony (Oyster et al. 2015, Oyster et al. 2017, Fidorra et al. 2019, Fidorra and Peterson. 2021). So, the assertion that Core Habitat Areas are being impacted by the Project is subjective and should be interpreted as opinion. [redacted]

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Q. If you had access to the GPS collar data during the Project application process, would you have come to a different conclusion about how the Project may impact pronghorn that you did based on information available in the 2019 and 2021 WDFW summary reports?

A. I would have come to the same conclusions. While Mr. Ganuelas asserts that there is not enough information to make assessments about how the Project might affect the species, he also readily made conclusions about how he thought the Project would impact pronghorn. When our team was preparing the application for site certification we had to make determinations with the best available information, which is what we did. Had the Yakama Nation shared their GPS collar data during the application process I would have made the same determinations about how the Project may or may not impact the species as I did based on the summary reports provided by WDFW. The small size of the reintroduced pronghorn herd (minimum of 250 animals in 2021), the frequency of use in the Project area relative to use on the Yakama Indian Reservation, and the fact that the Project has minimized impacts on native habitats such as shrub-steppe and grasslands, which pronghorn prefer would lead me to conclude that the Project will have minimal impacts on the species. The fenced solar areas primarily in question have limited habitat value for pronghorn and though the GPS data show that they have occasionally used those areas, likely for foraging, those areas are clearly not routinely selected by the species and the agricultural land uses throughout most of the Project area are at best low-quality habitat for pronghorn.

Q. Mr. Ganuelas asserts that the project will compromise ecological connectivity in Benton County. Based on the data you reviewed while preparing the Application for Site Certification and the additional data provided by Mr. Ganuelas in his testimony, do you think that is the case?

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A. The fenced solar arrays will certainly make over 6,600 acres of land inaccessible to pronghorn and other large mammals (e.g., mule deer) for the life of the Project. But based on the existing condition and land uses in the Project area that will not compromise ecological connectivity.

As stated previously, 84% of the proposed fenced solar arrays are in agricultural uses, which Mr. Ganuelas agrees are lower quality habitat for pronghorn, though they will occasionally use agricultural fields for forage. It should also be noted that much of the land use patterns that Mr. Ganuelas mentions in his testimony, which pronghorn routinely avoid, including agricultural fields, areas of high road density, and other anthropogenic developments were already part of the landscape when the Yakama Nation decided to introduce pronghorn into the ecosystem.

Mr. Ganuelas notes that the species requires wide open spaces, and while wide open spaces may be present on the Yakama Indian Reservation, where the pronghorn reintroductions occurred, east of the Yakama Indian Reservation. This is not the case in the Project area. This is a highly altered landscape bordered by major highways on the north and east and dense irrigated agriculture on the south. Regardless of whether this Project is built, this area will never be high quality habitat for pronghorn. Parenthetically it should be noted, pronghorn reintroduction attempts have failed three times before, absent any form of renewable energy facility, with no individuals surviving past 1980. Individuals succumbed to disease, predation, and winter mortality.

Prior to the latest reintroduction effort in 2011, Tsukamoto (2006) provided a suitability assessment for possible reintroduction for the establishment of self-sustaining populations into the Columbia Plateau of eastern Washington. The study used a multivariate analysis incorporating biological, physical, and political parameters to model potential areas where pronghorn could be reintroduced and be

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sustained. Of the 3,854 square miles of study area evaluated in eight broad potential regions in eastern Washington, the Horse Heaven Hills were not considered or even mentioned, likely due to the degraded and fragmented natural habitat that consists primarily of monocrop agriculture (Tsukamoto 2006).

Renewable energy is a relatively new addition to this already highly altered landscape, so to suggest that this Project will suddenly make the area inhospitable for pronghorn is not substantiated. Nor would additional mitigation be warranted for a species recently introduced to the landscape and with uncertainty about success.

Q. Did the project consider alternative fencing concepts that would allow animals, such as pronghorn, to move through the solar arrays, and if so, why were they not adopted?

A. Yes, wildlife friendly fencing will be used around the solar arrays as much as practical. Wide gauge fencing, instead of chain link fencing, will be used and the fence will be raised an average of four inches off the ground to keep the solar arrays permeable to small mammals and reptiles. But the Project does still have to comply with fencing standards outlined in the 2017 National Electrical Code (NEC), Article 691, which require the solar power plant to be secure by fencing and under the control of the owner. So, the fencing proposed is a compromise between keeping the solar arrays as permeable as possible while still keeping the power plant secure, as required by federal law. This fencing design will still exclude larger species such as pronghorn and mule deer. A design that would allow those species to pass through the solar arrays would put the Project out of compliance with federal energy facility fencing regulations and also make the site more susceptible to theft and vandalism.

Q. Mr. Ganuelas recommends researching alternatives to fence enclosures, including:

a. provide angles in the fence enclosure to reduce footprint.

b. subset solar arrays into smaller enclosures to further reduce footprint.

c. provide corridors between the subset enclosures at <50m, in theory allowing

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migration through the enclosures and possible stopovers.

Were these options considered and would they serve the purpose stated by Mr. Ganuelas?

A. The Project looked at options to reduce the footprint of the solar installations and has made a commitment to further reduce the east solar array and move it off of Priority Habitats, including shrub-steppe and grassland habitats that could be used by pronghorn. The Project also considered breaking the solar arrays into smaller fenced arrays and retaining wildlife movement corridors between the arrays. While this seems like the most wildlife friendly approach, it also causes the total extent of the solar array to spread out across more of the landscape than it does if it is one unit. With corridors of <50m, as proposed by Mr. Ganuelas, it is not guaranteed that pronghorn would use them. Corridors are not just dependent on width, they are also dependent on length, and there is a relationship between length and width such that the longer the corridor the wider it needs to be in order for wildlife to use it. Further, the solar arrays are sited primarily on agricultural land. If the single unit arrays are broken into smaller arrays that are then spread further across the landscape to accommodate wildlife movement, some arrays will almost certainly end up removing Priority Habitats, which would be counter to the intent. For these reasons the single unit fenced arrays, for this Project, are thought to be the least impactful to wildlife connectivity.

Q. Mr. Ganuelas asserts that the habitat mitigation plan for the Project does not mention pronghorn. Is that correct?

A. That is correct. HMPs typically focus on Priority Species and Habitats and species of "local importance." When we consulted with WDFW, they did not identify pronghorn as fitting into either the Priority Species nor the species of "local importance" categories. WDFW did recommend discussing pronghorn with the

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Yakama Nation, but neither WDFW nor EFSEC made any comments on the lack of specific discussion of pronghorn in the HMP.

However, the habitat mitigation plan discusses landscape connectivity, impacts on connectivity from the Project, and includes mitigation siting criteria aimed at locating habitat mitigation in a location that will support wildlife movement in the region. To make determinations about how a Project might impact species movement or habitat connectivity that might change how species use the landscape, we have to rely on existing data. It is standard practice to use statewide wildlife movement modeling data generated by the Washington Wildlife Habitat Connectivity Working Group and the Arid Lands Initiative to assess if/how a Project will impact species movement. That is what we did in this case. Notably these statewide wildlife movement models do not include pronghorn. We did not incorporate the GPS collar data that the Yakama Nation presented in pre-filed direct testimony, because it was not made available. But as noted earlier, even if that data had been obtained, based on what is available in pre-filed direct testimony, it would not have change determinations of whether the Project would have impacts on pronghorn.

Q. When did you become aware that pronghorn should be considered as part of the species and habitat assessment process?

A. EFESC requested information about pronghorn and the potential for the Project to impact the species in a data request during their preparation of the draft environmental impact statement. Then, during a meeting with EFSEC (and consultants) and WDFW on November 6, 2021, WDFW mentioned that pronghorn are not managed by the state and recommended that EFSEC reach out to the Yakama Nation to get more information.

Q. Are you aware if that outreach occurred?

A. Not to my knowledge.

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Q. Did your team request more information from the Yakama Nation regarding pronghorn?

A. Out of respect for the government-to-government relationship between the Yakama Nation and the State of Washington, those communications were left to EFSEC. Following the discussion of pronghorn at the November 6, 2021, meeting, WDFW provided the 2019 and 2021 summary reports on the pronghorn reintroduction surveys. The reports are also available on the WDFW website. The Scout technical team then prepared a technical memorandum that summarized information regarding pronghorn and renewable energy facilities (Cambier and Jansen 2021) and was provided in response to a data request from EFSEC. This memorandum incorporated information from the 2015, 2017, 2019 and 2021 surveys conducted by WDFW and the Yakama Nation and also included information from studies completed in other parts of the pronghorn's range. Similar to the studies referenced by Mr. Ganuelas, those studies were all from outside of Washington. That pronghorn memorandum was included in Appendix K of the Updated ASC. In addition, after reviewing the pre-filed direct testimony, we submitted an informal data request with the Yakama Nation's counsel for "The Global Positioning System" collar data (Geographic Information System shapefile or geodatabase format of waypoints and tracks) for Pronghorn Antelope (Antilocapra Americana), referenced in Appendix A of Leon Ganuelas's Pre-filed Direct Testimony, EXH-4009_Confidential."

Q. Do you know if EFSEC utilized the information provided in the determinations they made in their draft environmental impact statement regarding pronghorn.

A. My team was not part of the EFSEC SEPA process aside from providing information requested through formal data requests.

Q. Does your testimony rely on any literature to support your conclusions?

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A. Yes. Please see below. All literature mentioned or cited below is in the ASC or supporting materials that are on the record.

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