

October 28, 2024

Diane Butorac
SEPA Responsible Official
Clean Energy Coordination Section
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Re: Puget Sound Energy, Inc.’s Comments on the Draft Programmatic Environmental Impact Statements for Utility Scale Solar and Onshore Wind Energy Facilities.

Dear Ms. Butorac,

Puget Sound Energy, Inc. (“PSE”) appreciates this opportunity to comment on the Washington Department of Ecology’s (“Ecology”) Draft Programmatic Environmental Impact Statements (“PEISs”) for Utility Scale Solar Energy Facilities and Onshore Wind Energy Facilities in Washington State.¹

PSE is Washington’s oldest and largest public utility and currently provides electricity to approximately 1.2 million customers across ten counties in Washington. PSE began developing renewable electric generation projects over twenty years ago and currently operates 772 megawatts (MW) of wind generation in three Washington counties. We are also in the process of developing the Appaloosa Solar Facility—a 142 MW solar facility in Garfield County. Since our early days in renewable development, the pressure to bring clean energy generation to the grid has increased dramatically. With the passage of the Clean Energy Transformation Act (“CETA”) in 2019, the Legislature gave PSE and other electric utilities a mandate to transition our existing diversified mix of energy generation resources—including natural gas, wind, solar, hydropower, and coal—to cleaner, carbon free resources. The scale of the change required to comply with CETA and advance PSE’s own Beyond Net Zero goals is daunting. To meet our 2030 compliance targets,

¹ In this letter, we refer to the Draft PEIS for Utility Scale Solar Energy Facilities as the “Solar PEIS” and to the Draft PEIS for Onshore Wind Energy Facilities as the “Wind PEIS.”

PSE projects a need for more than 6,700 MW nameplate of new, carbon-free generation resources. This represents an approximate doubling of our current generation capacity in the next 5-6 years. By 2045, PSE expects the need for new, carbon-free resources to total more than 15,000 MW of nameplate capacity.

Because of this appropriately aggressive climate mandate, PSE appreciated the Legislature's adoption of ESSHB 1216 (2023 Wash. Sess. Laws ch. 230, hereinafter, "HB 1216"), now codified in relevant part at Chapter 43.21C RCW, which seeks to expedite environmental review for clean energy projects on a timeframe in line with CETA's deadlines and the state's targets for GHG reduction goals. The most promising aspect of HB 1216 is the legislature's directive to produce these PEISs. If Ecology achieves the important statutory objective of the PEISs, these PEISs will identify the potential impacts associated with utility scale solar and wind projects and mitigation that can be effective in addressing those impacts. This would, in turn, significantly improve the efficiency of SEPA review at the project level, promote clean energy facility siting, and help fight climate change and achieve the state's greenhouse gas emission limits.

Because we share the Legislature's goals, we are very appreciative of Ecology's diligent work to accomplish the statutory objective set forth in HB 1216, and Chapters 43.21C and 43.394 RCW. We acknowledge that Ecology is attempting to discharge its obligations at a pace to meet the legislatively declared "goal" of completion by June 30, 2025. While that schedule is appropriate given the timeframe for CETA compliance, we appreciate that the level of effort required is significant in a compressed period of time.

We also acknowledge and appreciate parts of the PEISs that are helpful towards fulfilling the legislature's directive. For example, the PEISs attempt to fully resolve some impact issues at the programmatic level leaving only site-specific impacts for the project-level review.

However, many aspects of the PEISs fall short of—and, in some instances, actually work against—the Legislature's goal of streamlining project-level SEPA review for wind and solar projects. For example, and as explained in further detail below, in too many instances the PEISs defer much of the analysis to subsequent project-level review. While there are many pages of analysis and review, the documents often concludes simply with lists of potential impacts and lists of potential mitigation. The documents regularly stop short of taking firm positions on whether those are significant impacts or what of the identified measures would be adequate to mitigate those impacts. This approach fails to implement the vision set forth in HB 1216 Sections 302 and 303, which direct Ecology to identify mitigation measures that, if adopted, would bring a proposed project's impacts to a less than significant level. We acknowledge that the PEISs are programmatic, but strongly request that they include more concrete conclusions related to impacts and more direction as to mitigation that would sufficient to bring any significant adverse impacts to a less than significant level. If Ecology does not fulfill this legislative mandate, the PEISs will fall short of

the legislative directive to minimize the burden of subsequent project-level review. These sections are a missed opportunity to achieve the legislature's stated intent.

Additionally, in several instances the PEISs identify issues regarding impacts to specific elements of the environment that will be required to be addressed in project-level review that exceed the scope of typical SEPA review, which works against long established impact analysis protocols and the legislature's goal of efficiency in clean energy siting. Similarly, the PEISs specify environmental studies needed to resolve certain impact issues that exceed the level of the inquiry and analysis typically required for many solar or wind facilities. In other words, these PEISs actually may commit lead agencies to a more complicated SEPA process at the time of project review than occurs under the status quo, where many of these kinds of facilities are issued mitigated determinations of nonsignificance.²

Moreover, the PEISs give agencies with jurisdiction license to define subjective thresholds for significance on certain elements of the environment thereby giving renewable energy opponents new, subjective tools to declare impacts to be significant and create unnecessary obstacles during project review.

As noted below, we believe additional work can resolve many of these initial concerns and still achieve the promise of the statutory objective. However, that work will require more time and additional opportunities for public input on more refined SEPA documents. Specifically, the process would benefit from additional opportunities for comment on Ecology's revisions. For these reasons, PSE respectfully requests that Ecology provide more time to address initial stakeholder input and more opportunities to comment on subsequent drafts. All parties would benefit from Ecology considering this initial round of comments and developing a second, updated *draft* document for comment, review and revision *prior to* any finalization of the PEISs. While the legislature declared a goal for completion, it is only a goal, not a deadline. Those responsible for meeting CETA requirements are relying on these PEISs to help expedite permitting and environmental review of solar and wind projects. Taking the time now to get them right is time well spent. This issue would be cured if Ecology commits to revisions and another round of public comment before finalization.

Beyond our general request for additional time and process, PSE has the following more detailed comments. As a preliminary note, our comments only address our review of the PEISs and not the voluminous appendices. The thirty-day comment period for two 500+ page documents is insufficient to fully evaluate all the supporting technical information. Additional time, as requested above, would lead to more informed comments from stakeholders.

² PSE identified 18 utility-scale solar facilities that have been permitted or applied for in Washington. Only four of these proposals were determined to require an Environmental Impact Statement under SEPA.

We have grouped our comments with thematic issues that apply to both PEISs. In addition, we have attached a chart to this letter that includes our comments on specific sections of the PEISs.

Again, we greatly appreciate Ecology's work to-date on this potentially monumental task and recognize the pressure of the schedule imposed on Ecology.

A. The PEIS's decision not to provide clear direction on certain mitigation is a missed opportunity to achieve the Legislature's clearly stated intent.

The legislature directed these PEISs, in part, to identify mitigation that would be adequate to mitigate significant impacts identified in the programmatic review that would help streamline subsequent project-level SEPA review. Specifically, RCW 43.21C.538(3), as adopted in HB 1216, indicates that:

Clean energy project proposals following the recommendations developed in the nonproject environment review completed pursuant to RCW 43.21C.535 must be considered to have mitigated the probable significant adverse project-specific environmental impacts under this chapter for which recommendations were specifically developed unless the project-specific environmental review identifies project-level probable significant adverse environmental impacts not addressed in the nonproject environmental review.

RCW 43.21C.538. This is a cornerstone of the strategy to streamline environmental review of specific projects. The importance of this tool cannot be understated. If done correctly, then a lead agency or project proponent can simply choose from the menu of mitigation to conclude that the project adequately mitigates impacts without need for further review (except site-specific considerations, which will be limited to unique site- or project-specific issues).

Unfortunately, in several key areas, the PEISs miss the mark. For example, the sections specific to habitat and species purport to create standards for significance for impacts to those aspects of the environment,³ but lack clear information on the threshold for significance and appropriate methods for definitively mitigating those impacts. While a generalized list of mitigation is offered, there is no clear statement about which mitigation should be used and which combination will reduce impacts below the significance threshold. Instead, the PEIS states, "[d]etermining if mitigation options would reduce or eliminate impacts below significance would be dependent on the specific project or site." Solar PEIS at 91; Wind PEIS at 95. While the presence and extent of species and habitat will vary by site, the mitigation options to deploy when species and habitat are

³ For example, the PEISs suggest that impacts to habitat are determined to be significant when there would be "permanent degradation, loss, or conversion of suitable habitat that is critical to species viability or disrupt habitat continuity along migration routes." Solar PEIS at 86; Wind PEIS at 78.

present, including ratios for on-site and off-site habitat restoration can be better defined at the programmatic level. Without additional guidance, this analysis and section is largely unhelpful at achieving the statutory goal. Moreover, we know that defining both impact and clear mitigation for this element of the environment is possible. *See, e.g.*, Washington Department of Fish and Wildlife Wind Power Guidelines (2009) (defining habitat mitigation ratios to address project impacts).

Similarly, the mitigation related to wildfire addressed in the Environmental Health and Safety and Public Services and Utilities fall short. The PEISs note that there are potentially significant impacts from wildfires associated with construction and operation of solar and wind facilities. *See* Solar PEIS 100-101, 160; Wind PEIS at 100, 104. The sections list several mitigation measures such as undefined setbacks, vegetation control, water cisterns on site, and compliance with building and fire codes. However, the list of mitigation does not include necessary specificity for each such as the degree of setbacks. Moreover, the PEISs do not indicate that compliance with some combination of these mitigation measure is sufficient to prevent the need for future, project-specific review. Like the analysis for habitat, the PEIS simply says, “[d]etermining if mitigation options would reduce or eliminate impacts below significance would be dependent on the specific project and site and local regulations and plans.” *See e.g.*, Solar PEIS at 106, 116, 124, 163, et seq.; *see also e.g.*, Wind PEIS at 120, 129, 143, et seq.

The discussion in the PEISs of mitigation for impacts to recreational opportunities is yet another example. The PEISs suggest that any loss of recreation resources or crowding of alternative recreational opportunities, or through segmentation of recreational facilities would be a significant impact. Solar PEIS at 140; Wind PEIS at 143. The PEISs identify potential mitigation, including providing new opportunities for recreational activities, but they neither provide detail of what degree of those opportunities would be sufficient to mitigate nor provide information on what level of impact reaches a level of significance.

These examples are not exhaustive. Additional guidance throughout the documents of the kinds of mitigation that would be sufficient to mitigate impacts at a programmatic level would be more helpful. A project’s failure to provide the mitigation specified in the PEIS not mandate a conclusion that the project has significant adverse impacts. Rather, the failure to provide mitigation at levels identified in the PEIS could instead trigger additional project level review.

B. The No Action Alternative is a Lost Opportunity

The No Action Alternative in the PEISs is poorly formed such that the comparison between the various action alternatives and the no action alternative does not provide an accurate assessment of the impacts of development of solar and wind facilities.

An EIS is required to present “reasonable alternatives” that must include the “no action alternative.” WAC 197-11-440(5)(b)(ii). Moreover, the EIS must “present a comparison of the environmental impacts of the reasonable alternatives and include the no action alternatives.” WAC 197-11-440(5)(c)(vi). Therefore, the purpose of the no action alternative is to assess impacts to the environment of failing to pursue the proposal and the action. Accordingly, the no action is “typically defined as what would be most likely to happen if the proposal did not occur.” Wash. State Dep’t of Ecology, State Environmental Policy Act Handbook (2018) (SEPA Handbook).

In this case, the proposed action is development of solar and wind facilities at the programmatic level. *See* PEISs, Section 1.3). Accordingly, the no action alternative should be the lack of development (or lack of sufficient development) of solar and wind, respectively.

Unfortunately, the No Action Alternative in the PEISs does not accurately reflect this approach. Instead, the PEISs define the no action alternative as follows: “Under the No Action Alternative, it is assumed the city, county, and state agencies would continue to conduct environmental review and permitting for utility scale solar [and wind] development under existing state and local laws on a facility-by-facility basis but without the use of this PEIS for reference.” Solar PEIS at 28; Wind PEIS at 29.

This formulation improperly conflates the environmental review document (the PEIS) with the action the PEIS analyzes (the development of utility scale solar and wind generation facilities), such that the no action is actually the absence of the PEIS. The no action should not be focused on the impacts of the lack of programmatic review—rather, it should be focused on the impacts of the lack of the action. This failure to define properly the no-action has real consequences. Ecology’s analysis of the impacts of the improperly defined no-action alternative leads to insufficient understanding of the impacts of the proposal, by comparison.

A comparison with a properly defined no action alternative creates an opportunity to highlight not just impacts of development of renewable resources, but also the benefits of the proposal, such as reduction in GHGs and non-energy benefits to overburdened communities, as discussed below. It also achieves the legislature’s intent of HB 1216 by highlighting how the proposal will “[f]ight climate change and achieve the state's greenhouse gas emission limits; improve air quality; grow family-wage clean energy jobs and innovative clean energy businesses that provide economic benefits across the state; and make available secure domestic sources of the clean energy products needed to transition off fossil fuels.” *See* HB 1216, § 1(1).

At a minimum, even if Ecology does not change the no action alternative, Ecology should at least consider identifying that the development of renewable resources will be slower in the absence of the PEISs. This would be consistent with the assumption that the PEISs work as anticipated in “[e]nabl[ing] more efficient and effective siting and permitting of clean energy projects[,]” and

“facilitat[ing] the rapid transition to clean energy that is required to avoid the worst impacts of climate change on Washington's people and places.” HB 1216, § 1(2).

C. The GHG Analyses are based on a fundamentally flawed framework that ignores the benefit of GHG reduction associated with operation of solar and wind resources.

The GHG analyses in the PEISs focus on GHGs associated with the construction and operation of the facilities in isolation and without comparison to the status quo. The Solar PEIS focuses—and calculates—GHGs from resource extraction and manufacture of PVs, construction of the facility, and vehicular traffic associated with the operation of the facility. Solar PEIS at 61. The Wind PEIS, likewise, focuses on GHG emissions from the “upstream, downstream, and operational and [sic] processes,” including “the raw material extraction and construction of facility components, along with the construction of the facility,” “vehicle exhaust emissions from maintenance activities,” “decommissioning and disposal of the turbines and other components.” *See* Wind PEIS at 61. Notably, while the GHG analyses nominally mention GHG reductions as compared to fossil fuel generation facilities,⁴ they do not attempt to calculate those reductions or credit those GHG reduction benefits against the GHG impacts from manufacture of component parts, construction of the facility, and vehicular traffic associated with their operation.

This significant error is related to the failure to clearly define the no-action alternative. The very purpose of solar and wind projects is to reduce the state’s GHG emissions. The analysis in the PEISs ignores those reductions and focuses solely on additive GHG emissions associated with the manufacture of the components of the facility and the facility’s construction. Solar PEIS at 61, Appx. C; Wind PEIS, Appx. C, 10–11, Table 4 at 15. That analysis of emissions without context and comparison to the true no action alternative and continued reliance on other forms of generation defies credulity and erodes credibility of the analysis. If these facilities did not provide GHG reduction benefits, the legislature would not have adopted CETA mandating the construction of facilities like this to reduce emissions associated with generation of electricity.

Demand for electricity in Washington is going up, particularly with the transition of significant portions of the transportation sector. It is possible to simultaneously recognize and calculate the lifecycle emissions associated with clean energy facilities, while still calculating the foreseeable GHG consequences of a no action or more GHG intensive generation alternative.

Compounding the problem, the PEIS seems to suggest that offsets for the GHGs associated with construction and operation are required for the GHG emissions. While the PEIS concludes that

⁴ For example, the Wind PEIS states: “[t]he operation of onshore wind energy facilities would reduce overall GHG emissions compared to a fossil fuel power plant that would otherwise be in operation to supply the same amount of electricity. Overall, GHG emissions would be reduced if onshore wind energy production replaces fossil fuel energy production over the next 20 years. Washington State law requires utilities to have net-zero GHG emissions by 2045.” Wind PEIS at 61.

there will be “less than significant impacts” related to GHGs that conclusion is premised on compliance with the law and with mitigation measures identified in the PEIS, which includes the potential for offsetting GHG emissions associated with the manufacture of components and construction of the facilities. It is absurd to require offsets without crediting for GHG reductions the facilities are designed to provide.

D. The PEISs appear to commit to studies and analysis that are not necessary for all solar and wind facilities, thereby hindering a streamlined project-level review.

The PEISs purport to impose an obligation to conduct, in all instances, additional study of various impacts at the project level. This is inconsistent with the legislative intent of the PEIS and commits lead agencies and applicants to a review that exceeds the level of the inquiry/analysis that is currently typically required for many solar or wind facilities.

Specifically, many of the conclusions in the PEISs that there will be “less than significant impacts” on elements of the environment are premised on compliance with mitigation measures identified in the PEIS. For some elements of the environment, the mitigation measures identify more robust detailed studies, which implies that of no significant impact can only be confirmed with additional studies identified in the PEIS.

In many instances, the level of inquiry and analysis is not warranted. For example, the conclusion that solar and wind facility development will not impact earth resources is qualified upon compliance with the mitigation measures that include completion of “detailed geotechnical engineering, soil, and hydrologic studies to characterize site conditions.” *See* Solar PEIS at 55; Wind PEIS at 55. It is not typical to require hydrologic studies for these kinds of facilities unless there are unique site-specific circumstances. A more refined assessment that identifies under what more limited circumstances such a review is needed to mitigate specific impacts would be more helpful.

Similarly, the conclusion that solar and wind facilities will not impact water resources appears to be qualified upon compliance with the mitigation measures that include completion of “hydrologic study of the site” and identification of “site surface runoff and drainage patterns and groundwater levels and flow direction.” *See* Solar PEIS at 74; Wind PEIS at 75. It is not typical to require these studies for solar and wind facilities unless unique site-specific circumstances warrant that review. Accordingly, a more refined assessment that identifies the unique site-specific circumstances under which such a study would be required is more helpful. To require it of all proposed facilities simply increases the level of study beyond what is typical and expands project-level review, rather than streamlining it.

Additionally, the conclusion that solar facilities will not create significant visual impacts is qualified upon compliance with the mitigation measures that include completion of a “detailed visual resource analysis during siting to identify and map landscape characteristics, key observation points (KOPs), and key viewsheds, prominent scenic, Tribal, and cultural landmarks; and other visually sensitive areas near the facility location.” Solar at 132. While these are helpful tools, they are not always needed. Instead, Ecology should consider requiring them only when site specific conditions dictate it.

E. The analysis of impacts on resources relevant to Tribal rights, interests and resources misses the mark and works at cross purposes with the legislative intent.

In HB 1261, the legislature directed Ecology to consider impacts to “[c]ultural resources and elements of the environment relevant to tribal rights, interests, and resources including tribal cultural resources and fish and wildlife and their habitat” and to “consult with federally recognized Indian tribes and other agencies with expertise in identification and mitigation of probable, significant adverse environmental impacts.” RCW 43.21C.405(3)(a)(v). PSE shares the legislature’s goals to use the PEIS process to increase information exchanges with Washington tribes early and to make a basic engagement and mitigation road map for potential impacts, including to cultural resources. It is our sincere hope that this PEIS effort increases communication with tribes on renewable energy development and works to advance conversations around avoidance, minimization and mitigation for potential impacts that are specific to tribes while also providing more certainty regarding the permitting process.

We are concerned, however, that the PEISs should have better define an appropriate, more standardized process for SEPA tribal engagement, impact analysis, and mitigation. Specifically, this section of the PEISs defers all consideration to project level-review. The PEISs present mitigation as a list of additional analysis and discussion that could be taken to defined impacts against which all subsequent SEPA project review will be evaluated which in practice would work at cross-purpose with the legislative intent of the statute by not providing a road map for effective resolution of the impact issues.

As noted above, tribal consultation is critically important to SEPA review and tribes must have an appropriately robust role. However, the legislature intended for the PEISs to provide more specific guidance than what this chapter contains. If after additional work and consideration, Ecology cannot be more precise, we suggest that it would be better to reduce the discussion and expressly defer to consultation at the project-level.

F. Analysis of impacts on environmental justice and overburdened communities ignores non-energy benefits of solar and wind facilities.

The Legislature specifically directed Ecology to consider impacts to “environmental justice and overburdened communities,” RCW 43.21C.405(3)(a)(iv), with an eye towards completing impact analysis and identifying mitigation to streamline subsequent project review. Unfortunately, the analysis falls short of that goal.

As a preliminary matter, the sections in the PEISs focus exclusively on potential adverse impacts without any discussion of non-energy benefits to named communities from renewable energy projects. As acknowledged in the PEISs, renewable energy development results in certain temporary construction impacts and potentially longer term impacts (e.g., aesthetic impacts). Omitted from the PEISs, however is a discussion of the non-energy benefits to named communities from renewable development. These can include economic benefits (e.g., rent to local land owners, tax revenue to local municipalities, and jobs) and non-economic benefits (e.g., improved municipal services (due to improved tax base). Increased access to renewable energy cumulatively, can also support a reduction in burdens experienced by named communities (e.g., reduction in health impacts as transportation decarbonizes and reduction in power outages). The identification and tracking of benefits and burden reductions is required pursuant to CETA. *See* RCW 19.405.040(8). Omitting it from the PEISs removes important context and opportunities in this statewide conversation on renewable energy development in the state. This approach is also consistent with the treatment of other potential environmental impacts (e.g., with respect to aesthetic impacts, when considering different height turbine alternatives, review appropriately considers that taller turbines may be seen from farther away, but have the benefit of requiring bigger spacing between turbines which can help to reduce the potential for visual clutter). Examination and discussion of these benefits is essential to a thorough impact analysis because it provides context and balance to the potential adverse impacts from the facilities.

Moreover, the “significance” standard applied in both PEISs is insufficiently defined. In several instances, the findings indicate that impacts to other elements of the environment could be significant and disproportionate if “located near” Environmental Justice and Overburdened community populations. *See* Solar PEIS at 42–43 (impacts from conversion of agricultural lands, increased wildfire, visual impacts, changes to rural character are disproportionate if “located near” Environmental Justice and Overburdened Communities); *see also* Wind PEIS at 40. The proposed standard is both vague (no precise indication of what constitutes “near”) and inaccurate as it does not differentiate between impacts that would accrue differently to named communities than those to the general population. Where the significant impacts identified accrue to everyone, the question of whether there are impacts to overburdened communities should be one where the significant impacts effect the population in a greater way than the general population.

The analyses to determine whether an impact is disproportionate in this way must be added. The evaluation of impacts (for all subjects within this section) should be a two-step process similar to

the federal NEPA guidance.⁵ The first step involves a determination if an impact is significant (regardless of the presence of Environmental Justice or Overburdened Communities). If the conclusion is no significant impact, there cannot be a significant impact on Environmental Justice or Overburdened Communities. In the second step there needs to be analysis to determine if the significant impact to Environmental Justice or Overburdened Communities appreciably exceeds those that accrue to the general population.

The analysis also fails to specifically address “overburdened communities.” Impacts to Environmental Justice and Overburdened Communities should specifically address whether or not projects would contribute to the factors (negatively or positively) that qualify these communities as overburdened. Ecology should provide guidance on these evolving issues in the PEISs to ensure adequate and useful analyses are completed.

Finally, the section does not adequately explain whether the impacts can be mitigated and how. Additional analysis and explanation is needed to make this chapter useful for project-level review.

G. The Solar PEIS relies too much on consistency with Washington State University Least Conflict Solar Siting Study maps

Although the Legislature directed Ecology to “consider the findings of the Washington State University least-conflict solar siting process,” RCW 43.21C.405, Ecology appears to encourage compliance with the maps associated with that study for purposes of mitigating impacts. *See, e.g.*, Solar PEIS at 88 (biological resources), 122 (Land use).

As a preliminary matter, it is not clear whether a potential project site must be identified on the map as an area appropriate for siting in order for the project to be considered to have adequately mitigated for impacts, which is an approach that PSE strongly opposes. As noted above, those sections of the PEIS suggest that a determination that impacts are less than significant depends on “implementation of actions that could avoid and reduce impacts.” *See* Solar PEIS at 87. Accordingly, if mitigation includes “consideration” of the study’s maps to avoid areas where the maps discourage development, it is not clear whether a facility proposed in those locations has satisfied the mitigation.

More generally, the over-reliance on that study is problematic. PSE appreciates efforts, including the Least Conflict Solar Siting Study maps, which seek to direct development to areas that avoid impacts of greatest concern. Such mapping, however is at too high a resolution (i.e., mapping polygons) to be used in site-specific decision-making. It also incorporates considerations and

⁵ *See* Council on Environmental Quality, *Environmental Justice—Guidance Under the National Environmental Policy Act* (Dec. 10, 1997), available at: https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf (last updated on Dec. 26, 2023).

value assessments that more appropriately belong to local decision makers, including SEPA and permitting leads. PSE supports pointing to this resource as a tool, but strongly requests that determinations as to development suitability be made based on site-specific data. If site-specific data shows unacceptable impacts to ecological, cultural resource or land use, those impacts should be evaluated and addressed by the permitting entity.

H. Additional comments are attached in a chart.

We have attached a chart in which we have made comments to specific parts of the PEISs. As noted above, this is based on the level of review of extensive documents that could be completed in a short comment period. It does not include comments on the appendices to the PEISs.

PSE appreciates the opportunity to comment on these potentially valuable tools in expediting the state's conversion to renewable sources of electricity. We appreciate Ecology's hard work on the PEISs and encourage more in the coming months to ensure that the documents are as valuable as the Legislature intended.

Sincerely,



Brian Carrico
Major Facility Siting Manager
Puget Sound Energy, Inc.

Cc:

Lorna Luebbe, General Counsel/VP Sustainability
Sara Leverette, Asst. General Counsel/Dir. Environmental Services
Maggie Douglas, Government Relations Manager

Attachment A

Section Reference		Comment
Solar	Wind	
General	General	Site characterization in Section 2.5 and throughout the PEISs is discussed in the context of overall construction activities. Acknowledgement should be made that site characterization can occur prior to project activities and may be completed prior to SEPA review.
General	General	For many environmental elements a general statement is made that a larger project will result in greater impacts. This analysis does not properly consider site specific conditions. While the geographic extent of impacts is one consideration it is not the only determinate. Proper qualification should be made to this generalization.
General	General	The analysis of impacts during construction and operations needs proper differentiation throughout to avoid counting impacts twice. As an example, Land Use (e.g., Wind/Solar PEIS at 4.10.3.1), includes conversion discussions in both construction and operations.
	2.2.1	This section should be updated to reflect technology changes that could result in larger and even taller. Even if the analysis is not completed recognition should be added regarding this fact as well as identifying what environmental elements could be changed by increased turbine sizes.
	2.2.1.3	To be more complete and accurate, this section should clarify that the mechanical brakes on the drivetrains of wind turbines are used in conjunction with blade pitch to prevent the rotor from turning.
	2.2.1.4 Wind turbine measurement and orientation equipment	Wind turbines do not typically have anemometers installed at different heights as this section suggests. Wind speed measurements at varying heights is commonly done on meteorological towers. On wind turbines, wind speed measurement is performed only near hub height.
2.2.1.5 Transformers	2.2.3.1 Transformers	The caption for Figure 2-5 (Wind PEIS) and 2-4 (Solar PEIS) includes a note with a sentence that says: "Higher voltage means more electricity is flowing." Please strike this sentence because it is inaccurate and unnecessary. A system with a greater operating voltage allows more electrical energy to flow per unit of electrical current than a system with less operating voltage. A greater operating voltage does not necessarily mean that more energy is flowing.
2.2.3 Buildings for operations and maintenance	2.2.4 Buildings for operations and maintenance	The first paragraph in this section has a sentence that says that "Lighting would be needed for security and occasional work and maintenance." Work and maintenance at wind facilities is ongoing, and is not considered occasional.
	2.5.3 Operations and maintenance	This section states that "onshore energy facilities would not typically have staff on site on a daily basis..." In PSE's experience operating three onshore wind farms, staff are on site performing maintenance every workday. Please update accordingly.
	2.5.3 Operations and maintenance	The number of people needed to operate and maintain utility scale onshore wind facilities often exceeds 20 people in PSE's experience. Please update this section accordingly.
	3.1 Assumptions for determining	The geographic scope of the study should be limited to areas with an average wind speed of 13 mile per hours consistent with the US

Section Reference		Comment
Solar	Wind	
	geographic scope of study	Energy Information Administration (“EIA”) which recommends the following: Good places for wind turbines are where the annual average wind speed is at least 9 miles per hour (mph)—or 4 meters per second (m/s)—for small wind turbines and 13 mph (5.8 m/s) for utility-scale turbines. Favorable sites include the tops of smooth, rounded hills; open plains and water; and mountain gaps that funnel and intensify wind. Wind speeds generally increase with increasing elevation above the earth’s surface. https://www.eia.gov/energyexplained/wind/where-wind-power-is-harnessed.php
3.1 Assumptions for determining geographic scope of study	3.1 Assumptions for determining geographic scope of study	In both PEISs, Ecology limited its geographic scope of study to areas within 25 miles of existing transmission lines of 230 kV or greater. Yet, in asserting these, Ecology acknowledges that a whole area of land currently developed with significant solar energy infrastructure is excluded based on these assumptions. This indicates that other areas that are well-suited for solar energy are likewise excluded.
4.1.2 How impacts were analyzed	4.1.2 How impacts were analyzed	This section includes a reference to the health and wellbeing of tribal members. This appears to be beyond the scope of WAC 197-11-440(6)(e) and WAC 197-11-444. PSE sees a meaningful place for addressing these issues, but asks for better clarification and examples as to how this applies to a SEPA analysis.
4.1.1 Affected environment	4.1.1 Affected environment	The affected environment section does not properly consider tribal access to lands across the geographic scope of the study. While resources important to Tribes may potentially be present across the geographic scope of the study area this does not mean Tribes or tribal members currently have access to lands where these resources are located. For example, private landowners may not allow access to lands (for safety or other reasons), and if a project occurs in this situation, it would not have the same impacts to tribal access to those resources as for lands where access is available.
4.1.3.2 Actions to avoid and reduce impacts	4.1.3.2 Actions to avoid and reduce impacts	Remove the mitigation requirement to contact tribes before land is acquired. This is inconsistent with how acquisition happens and compromises the process. Requiring a Tribal monitor on archaeological survey crews should be changed from a requirement to a recommendation that affected tribes be invited to provide a monitor. Tribes may not always have a desire or resources to provide this service and thus should be left up to the individual tribe. The Siting and Design Considerations could include potential mitigation by opening of or allowing access to currently closed lands to tribal members.
4.2.1 Environmental justice and overburdened communities -	4.2.1 Environmental justice and overburdened communities -	Many census tracts in rural areas of the state cover very large geographies and may not be indicative of the actual populations that may be proximate to and potentially see impacts from a project. The analysis of impacts needs to include this consideration.

Section Reference		Comment
Solar	Wind	
Affected environment	Affected environment	
4.2.2 Environmental justice and overburdened communities - How impacts were analyzed	4.2.2 Environmental justice and overburdened communities - How impacts were analyzed	<p>The methodology for determining Environmental Justice impacts is inadequate and fails to provide an analysis to determine whether impacts are disproportionate and leads to conclusions that are too broad to be helpful. The analysis merely notes whether these populations are present in the census tract and assumes because of this that impacts would be significant. An impact would only occur if it is disproportionately high and adverse (see NEPA guidance). An effort to determine whether an impact is disproportionate must be added.</p> <p>The analysis also fails to specifically address “overburdened communities”. Impacts to overburdened communities should specifically address whether or not projects would contribute to the factors (negatively or positively) that qualify these communities as overburdened. Including this in the document would provide guidance for projects in this evolving topic.</p>
4.2.3.1 Environmental justice and overburdened communities - Findings or all solar facility types evaluated in the PEIS - Impacts	4.2.3.1 Environmental justice and overburdened communities - Findings for utility-scale onshore wind facilities - Impacts	<p>The analyses of impacts to Land Use should not include dust, noise, traffic and visual changes. That should be addressed under those resources as they are not general land use items.</p> <p>The analyses of impacts lacks any discussion of how conversion of natural resources lands of long-term commercial significance would be a significant impact. The conclusion is reached without any discussion of scale or intensity and does not discuss how this relates to Environmental Justice or Overburdened Communities and merely states it would be disproportionate if located near these populations. See WAC 197-11-794 for a discussion of significance.</p> <p>The evaluation of impacts (for all subjects within this section) should be a two-step process similar to the federal NEPA guidance (see https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf). The first steps involves a determination if an impact is significant (regardless of the presence of Environmental Justice or Overburdened Communities). If the conclusion is not significant, there cannot be a significant impact on Environmental Justice or Overburdened Communities. In the second step there needs to be analysis to determine if the significant impact to Environmental Justice or Overburdened Communities appreciably exceeds those that accrue to the general population.</p>
4.3.3.2 Earth - Actions to avoid and reduce impacts	4.3.3.2 Earth - Actions to avoid and reduce impacts	<p>Specific detail should be given to which geologic hazard areas require avoidance and which can be addressed through compliance with standards that are protective of the hazard. For example, seismic hazards are located across broad swaths of the geographic scope, and it may not be possible to avoid them.</p> <p>The prioritization of sites with suitable topography could result in development of sites with less suitable wind or solar resources. A more appropriate consideration would be to design project facilities to locate on suitable topography within an overall site. An overall site could contain significant topographical features, but these could be avoided by appropriate design of the project facilities.</p>

Section Reference		Comment
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4.5.3.1 Water Resources – Affected environment - Impacts	4.5.3.1 Water Resources – Affected environment - Impacts	The discussion of water resource impacts includes many statements that use the term “would” in describing impacts. For example: “In-water construction.... would temporarily elevate stream turbidity levels from sediment disturbance and temporary water management....” Appropriate BMPS and construction methods can be employed to manage these impacts and an appropriate qualifier is to classify these as impact that “could” occur.
4.5.3.2 Water Resources – How impacts were analyzed - Actions to avoid or reduce impacts	4.5.3.2 Water Resources – How impacts were analyzed - Actions to avoid or reduce impacts	<p>Critical Areas is a broad term used to describe different water resources as well as non-water resources. The avoidance measure for critical areas should be refined to be more specific about which resources should be avoided. For example, wind and solar farms would not have to avoid critical aquifer recharge areas. Moreover, the sentence should more clearly state that the projects should “avoid, to the greatest degree possible. Where avoidance is not possible, projects should mitigate any impacts consistent with applicable critical areas regulations.” Without clarification, the language could be misconstrued as overly restrictive, beyond what is required under critical areas codes, compliance with which should be deemed adequate to mitigate impacts.</p> <p>The avoidance measure for contaminated soils and impaired receiving waters is not necessary. Appropriate controls can be put in place to avoid impacts associated with these features. Suggest changing this to “Structures sited in areas of known soil or groundwater contamination, or in direct proximity to impaired receiving waters should employ appropriate controls to minimize potential impacts.”</p> <p>Floodplains are addressed twice in the list. The first reference (Avoid siting facility infrastructure in floodplains) should be removed in favor of the more detailed second entry which properly addresses design considerations that can be employed to minimize potential impacts.</p>
4.5.3.2 Water Resources – How impacts were analyzed - Actions to avoid or reduce impacts	4.5.3.2 Water Resources – How impacts were analyzed - Actions to avoid or reduce impacts	The condition that BESSs should be sited “away from” surface waters is vague and should be clarified.
4.6.3.1 Biological Resources – Findings for utility-scale solar facilities - Impacts	4.6.3.1 Biological Resources – Findings for utility-scale onshore wind facilities - Impacts	<p>Impacts are stated as increasing based on the project size. This correlation is not always true. A larger project area could be sited in areas that has low habitat values while a small project could be sited in areas of high habitat values. Appropriate consideration should be included in the analysis of impacts and a qualifier added to the conclusions.</p> <p>The impact discussion does not differentiate from short term and temporary impacts such as disturbance from construction activities versus the long-term impacts of habitat modification. For example, construction activities can disturb wildlife during those activities.</p>

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		<p>However, after project completion that impact is eliminated. Wind farms also result in a relatively small footprint across a large project area. The experience at our wind facilities is that wildlife use can be heavy and that facilities can actually preserve large land areas from other more intensive development. This should be recognized in the evaluation and assessment of significance for project impacts.</p> <p>The discussion of the applicability of Forest Practices Act rules should not be included in the impact discussion unless its relationship to impacts on terrestrial habitats is specifically addressed.</p> <p>The conclusion surrounding activities that could have less than significant impacts is not clear. It includes a state that “some” activities could be less than significant but does not identify what impacts are less than significant. This is not helpful for future project reviews.</p> <p>The conclusion on impacts to habitat are determined to be significant when there would be “permanent degradation, loss, or conversion of suitable habitat that is critical to species viability or disrupt habitat continuity along migration routes...” This does not include any consideration of the size or severity of the impact – just the mere presence of it. At a minimum the language needs to change “would” (indicating that the impact will occur at any level) to “could” to allow proper consideration of the size, severity and likelihood of an impact occurring consistent with WAC requirements. Leaving as is would trigger any project to require an EIS as significant impacts would occur if ANY suitable habitat was impacted.</p> <p>The term suitable habitat is too vague to be meaningful, is not a term that is typically used and is not discussed in the Affected environment discussion. This term could mean habitat for any and all species (which essentially encompasses all of the study area to some degree) or something that covers less area. The FEIS should reconsider this term and consider impacts appropriately.</p>
4.6.3.2 Biological Resources – Actions to avoid and reduce impacts	4.6.3.2 Biological Resources – Actions to avoid and reduce impacts	<p>The term “possible” (<i>able to be done; within the power or capacity of someone or something</i>) should not be used in the avoidance of priority habitat and shrubsteppe habitat. See Solar PEIS at 88; Win PEIS at 90. A more appropriate term to use is “practicable” (<i>capable of being put into practice or of being done or accomplished: feasible</i>). This should be considered across all environmental elements as well. This potential impact would instead benefit from reasonable, standardized compensatory mitigation where it cannot be avoided. Additionally, would benefit from assessment of the degree to which operation (as compared to construction) actually affects shrubsteppe- and priority-habitat functions.</p> <p>The measure requiring screening of sites through mapping resources is unclear on whether it is merely to identify resources or to eliminate areas from siting of wind and solar facilities. Screening</p>

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		<p>is appropriate to determine which resources should be evaluated but it should not be used to determine final site suitability.</p> <p>Following APLIC design guidance for overhead transmission lines could be considered as a design mitigation for avian impacts.</p> <p>PSE has successfully used the 2009 WDFW mitigation guidelines but we have significant concerns regarding the recently released draft update. The FEIS should consider any impacts associated with following the guidelines.</p>
4.8.3.1 Environmental health and safety – findings for utility-scale solar facilities - Impacts	4.8.3.1 Environmental health and safety – findings for utility-scale wind facilities - Impacts	<p>The Wildfire Risk during construction discussion does not properly address wildfire risks. Risks during construction would likely be similar to already occurring activities within the project area (agriculture or forestry) but would likely be less risk due to the permitting and monitoring efforts that go on for this construction as compared to other activities. In addition, the conclusion of a significant adverse impact is not supported by the analysis or specifics of wind or solar facility construction. The conclusion should be not significant unless further analysis is completed that supports a significance determination.</p> <p>A better analysis of wildfire risk during construction and operations should be developed. All wildland fires in Washington have an investigation to determine cause. An analysis of this information could identify fires with ignition sources resulting from the construction or operation of wind or solar farms to determine frequency and severity of impacts. The current analysis does not support a significance determination. Consideration should also be given on project features that can reduce fire risk such as project access roads acting as fire breaks and access routes for fire response activities, and how the presence of maintenance and operation personnel can assist in identifying fires and providing initial response.</p>
4.8.3.2 Environmental health and safety – findings for utility-scale solar facilities - Actions to avoid and reduce impacts	4.8.3.2 Environmental health and safety – findings for utility-scale wind facilities - Actions to avoid and reduce impacts	<p>Siting and design consideration for fire breaks should be broader and not directed just to perimeter fencing and buildings. For example, turbine or panel access roads could act as fire breaks.</p>
4.8.4.1 - Environmental health and safety – findings for utility-scale solar facilities - Findings for facilities with	4.8.4.1 Environmental health and safety – findings for utility-scale solar facilities - Findings for facilities with	<p>There is no discussion in the impacts section that addresses emergency responder risk associated with hazardous air emissions. While it is generally understood that lithium-ion batteries can create hazardous pollutants during a fire there is no discussion of response methods and specific hazards to responders associated with it.</p>

Section Reference		Comment
Solar	Wind	
co-located BESS - Impacts	co-located BESS – Impacts	
4.8.4.2 Environmental health and safety – findings for utility-scale solar facilities - Findings for facilities with co-located BESS – Actions to avoid and reduce impacts	4.8.4.2 Environmental health and safety – findings for utility-scale solar facilities - Findings for facilities with co-located BESS – Actions to avoid and reduce impacts	Measures for addressing BESS impacts need to properly consider battery technologies. All technologies do not present the same risks or impacts, and this should be addressed in each measure. BESS facilities are viewed as having potentially significant impacts. Solar PEIS at 104; Wind PEIS at 108. The analyses acknowledge standards (fire code, building code, etc.). However, it largely ignores these standards for fire and hazards that are intended to address the relevant issues. Compliance with these measures should be sufficient to mitigate the impacts.
4.9.2 Noise and vibration – How impacts were analyzed	4.9.2 Noise and vibration – How impacts were analyzed	<p>Although the specificity with which noise standards are described are useful, the noise analysis relies on FTA methods, which are specific to transit projects and may not be appropriate to wind or solar projects. The FTA guidance is also not followed for the analysis. For example, FTA uses a combination of background noise and increased noise levels to determine an impact versus the 5 dba increase used in the document. Areas that have lower background noise can accommodate greater increases in noise before impacts become significant. Areas with high background noise can accommodate less. The analysis used here is opposite. The analysis also fails to consider established state policy as SEPA is supposed to do. Specifically, the state has exempted daytime construction noise from its limitations on noise. This is clear direction from the state that this impact is not significant – otherwise it would be regulated.</p> <p>Furthermore, the standards are based on judgments of whether a “receptor” located a certain distance from the noise generating source “would be affected” by noise associated with the facility. The PEIS seems to assume, without explanation, that “affected” is the same as “significant adverse impact.” See e.g., Wind PEIS 111 (finding potentially significant adverse impacts where receptors are located in certain areas and in “quiet rural setting[s].” Wind PEIS at 111.</p>
4.9.3.1 Noise and Vibration - Findings for utility-scale solar facilities - Impacts	4.9.3.1 Noise and Vibration - Findings for utility-scale wind facilities - Impacts	Construction noise is noted as a significant adverse impact. As noted above this conclusion is not supported by state policy. In addition, there is no consideration for duration, terrain, frequency, etc. in making this determination. Rather it is a blanket distance. If construction noise is retained as a significant impact after consideration of other comments, it must be better qualified based on specific site characteristics and changed from an impact that “would” occur to one that “could” occur.

Section Reference		Comment
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		<p>The analysis of impacts also notes that larger facilities could have noise impacts that are greater than smaller facilities and also uses different noise standards for the conclusions. It is not clear the reasons for both differences. While larger facilities would either be larger geographically or include larger turbines it does not mean greater noise impacts. The turbines could be further apart, could have specific noise characteristics that are lower, may not of sensitive receptors proximate to the project, and other factors that could influence the distance of noise contours and impact levels. This needs to be further analyzed and considered in the conclusion of impacts.</p> <p>Similar to construction noise, noise impacts from substations needs to be considered in light of state policy that specifically exempts them from noise standards.</p>
4.10.3.1 Land use - Findings for utility-scale solar facilities - Impacts	4.10.3.1 Land use - Findings for utility-scale wind facilities - Impacts	<p>The analysis of impacts to land use includes considerations of dust, noise, traffic and visual changes. These impacts are more properly considered under those specific environmental elements and not in land use.</p> <p>The conclusion of significant impacts associated with conversion of natural resources lands of long-term commercial significance is not supported by the analysis. It does not properly consider context and intensity. As written, if a project converts any amount it is automatically considered to be a significant impact. This section needs additional analysis or a different conclusion reached. It should properly consider the factors such as relationship to existing land use plans and whether renewable energy facilities are an allowed use within natural resource lands and whether they are or are not compatible with other rural and natural resource based land uses. At a minimum the impact should be changed from one that "would" occur to one that "could" occur based on the specific circumstances of the project.</p>
4.10.3.2 Land use - Findings for utility-scale solar facilities – Actions to avoid and reduce impacts	4.10.3.2 Land use - Findings for utility-scale wind facilities – Actions to avoid and reduce impacts	Measures to address aviation impacts are not appropriately included in land use. It is more properly addressed in transportation. There are other examples of non-land use issues being addressed in this section as well.
4.11.1 – Aesthetics/ visual quality – Affected environment	4.11.1 Aesthetics/ visual quality – Affected environment	Rural character is not appropriately addressed as a visual resource. Visual resources are only one aspect of rural character. Rural character should be only addressed in one environmental element.
4.11.2 Aesthetics/ visual quality – How impacts were analyzed	4.11.2 Aesthetics/ visual quality – How impacts were analyzed	The presence of workers and vehicles for maintenance activities is not appropriately considered a visual impact. Proper characterization of visual impacts must include consideration of existing landscape features. Existing built features must be included.

Section Reference		Comment
Solar	Wind	
4.12.3.1 Recreation - Impacts	4.12.3.1 Recreation - Impacts	Impacts to recreation resources are determined to be significant when there would be “loss of recreation resources or crowding of alternative recreational opportunities...” This does not include any consideration of the size or severity of the impact – just the mere presence of it. At a minimum the language needs to change “would” (indicating that the impact will occur at any level) to “could” to allow proper consideration of the size, severity and likelihood of an impact occurring consistent with WAC requirements. Leaving as is would trigger any project to require an EIS as significant impacts would occur if any recreational resources were impacted
4.15.3.1 Public services and utilities – Findings for utility-scale solar facilities - Impacts	4.15.3.1 Public services and utilities – Findings for utility-scale wind facilities - Impacts	Findings for fire response are noted as significant adverse impacts. There is no analysis that describes the impacts and how they would reach a level of significance. The conclusion should eliminate the significant impact unless additional analysis supports a significance determination. The analysis should include data from the lengthy history of wind farm and solar facility construction and operations within Washington and across similar landscapes worldwide.