Scoping Summary Report

For Programmatic Environmental Impact Statement on Utility-Scale Solar Energy Facilities in Washington State

For the

Shorelands and Environmental Assistance Program

Washington State Department of Ecology

Olympia, Washington

March 2024

DEPARTMENT OF ECOLOGY
State of Washington

Contact Information

Shorelands and Environmental Assistance Program

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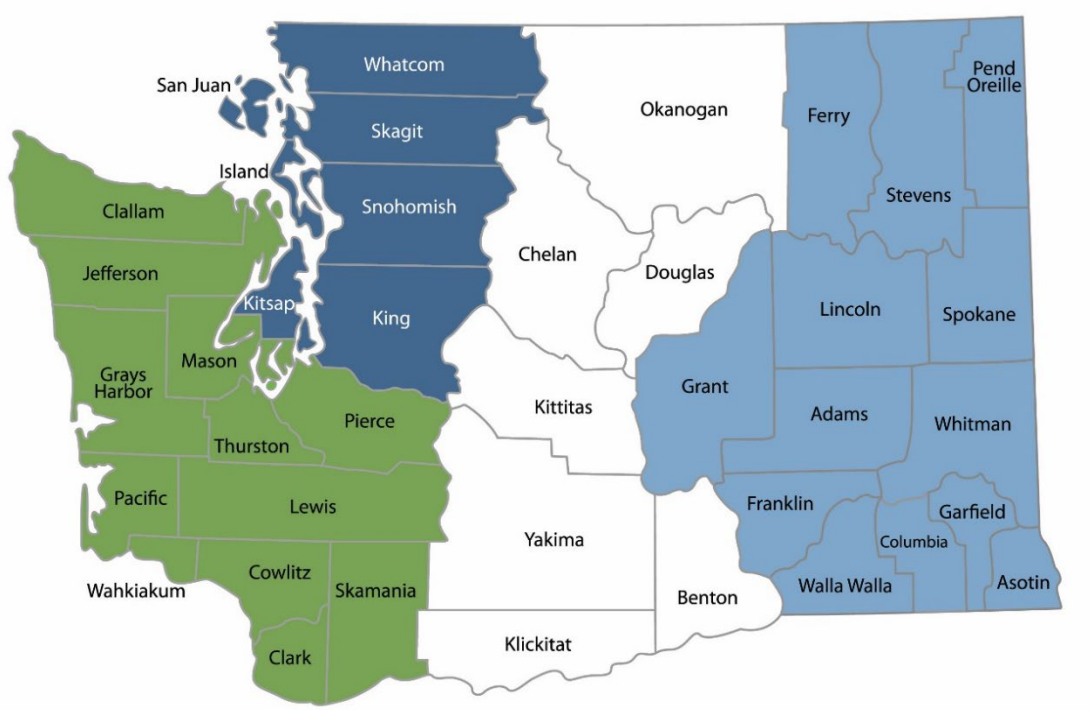
[1] www.ecology.wa.gov/contact

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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Table of Contents

Acronyms and Abbreviations List

BESS	battery energy storage system
BLM	Bureau of Land Management
DNR	Washington State Department of Natural Resources
DS	Determination of Significance
Ecology	Washington Department of Ecology
EIS	environmental impact statement
GHI	Global Horizontal Irradiance
kV	kilovolt
$kWh/m^2/day$	kilowatt hours per square meter per day
MW	megawatt
PEIS	programmatic environmental impact statement
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
UGA	urban growth area
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife

Crosswalk with Scoping Summary Report for Utility-Scale Solar Energy

Two scoping summary report documents are being released at the same time, one for utility-scale solar energy facilities and one for utility-scale onshore wind energy facilities. This crosswalk identifies the areas with substantial differences between the documents.

Section	Utility-Scale Solar Energy Scoping Summary Report (this document)	Utility-Scale Onshore Wind Energy Scoping Summary Report
1 Introduction	No substantial differences	No substantial differences
2 Programmatic EIS Scoping Decisions	• Different geographic scope of study and assumptions • Different alternatives	• Different geographic scope of study and assumptions • Different alternatives
3 Scoping Process	No differences	No differences
4 Summary of Scoping Comments	No differences (comments provided on either the solar or onshore wind scoping process were also considered for the other scoping process)	No differences (comments provided on either the solar or onshore wind scoping process were also considered for the other scoping process)
5 Next Steps	No substantial differences	No substantial differences
6 References	• Different cited references	• Different cited references

1 Introduction

1.1 Scoping process and purpose

The Washington State Legislature directed the Washington Department of Ecology (Ecology) to prepare nonproject environmental reviews of utility-scale onshore wind energy facilities, utility-scale solar energy facilities, and green electrolytic and renewable hydrogen facilities in Washington by June 30, 2025 (Washington State Legislature 2023).[2] The review is being done under the State Environmental Policy Act (SEPA).

This Scoping Summary Report focuses on utility-scale solar energy facilities. A separate Scoping Summary Report has been prepared for utility-scale onshore wind energy facilities. Solar and onshore wind environmental reviews are being developed at the same time; therefore, this report includes a crosswalk for comparison purposes in the previous section. The work for green electrolytic and renewable hydrogen facilities will be developed separately and is not discussed further in this document. Information on all three processes is available on Ecology's webpage for clean energy programmatic environmental impact statements (PEISs).[3]

Ecology is developing a PEIS to analyze potential impacts and mitigation at a broad level. The agency issued a Determination of Significance (DS) and opened an extended comment period on the scope of the Utility-Scale Solar Energy Facilities PEIS on September 27, 2023. The PEIS is being prepared under Chapter 43.21C.030 (2)(c) of Revised Code of Washington (RCW) per Chapter 197-11 Washington Administrative Code (WAC) procedures. The DS and Scoping Notice for the PEIS initiated Ecology's environmental review process.

A PEIS is a type of nonproject environmental review used for planning. A PEIS considers potential significant adverse environmental impacts at a broad level. It will analyze general types of facilities—but not individual projects—to identify probable significant adverse environmental impacts and possible mitigation measures.

Scoping helps determine the focus of the evaluation by seeking input from Tribes, agencies, members of the public, and stakeholders on the contents of the PEIS. For scoping, these parties are notified that a PEIS is being prepared and their comment and feedback are requested.

Ecology conducted an extended 30-day PEIS scoping period in accordance with SEPA requirements per Chapter 197-11-408 WAC. The comment period opened September 27, 2023, and ended on October 27, 2023. It also included two online public meetings held on October 5 and October 10, 2023. As part of Ecology's process, Tribes were provided an additional 30 days to comment.

[2] https://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.535
[3] https://ecology.wa.gov/regulations-permits/sepa/clean-energy/programmatic-eis

More information about the scoping process is provided in Section 3.1. Ecology invited Tribes, agencies, members of the public, and stakeholders to provide input on the scope of the PEIS related to the following:

- Types of solar energy facilities to be evaluated
- Assumptions to use to identify the geographic scope of study for the PEIS analysis
- Potential impacts to environmental resources
- Potential mitigation measures

This Scoping Summary Report provides a summary of the environmental review and scoping processes and the scoping comments received. The report also identifies the geographic scope, alternatives, and resources to be analyzed in the Draft PEIS (Section 2).

1.2 SEPA process

The SEPA process is intended to provide information to state and local agencies, project applicants, Tribes, and the public about probable significant adverse environmental impacts from proposed facilities. This information can assist in the development of project proposals and project-level environmental reviews to avoid, minimize, and mitigate potential impacts.

The SEPA environmental review process provides a way to identify and assess the possible environmental effects of different types of facilities. It evaluates alternatives, potential environmental impacts, and mitigation. The process helps decision-makers and the public understand how a proposed action could affect the natural and human environments. This environmental information, along with other documents, is used by agency decision-makers to decide whether to approve a proposal, approve it with conditions, or deny the proposal.

Ecology is the lead agency for this PEIS process, as directed by the Legislature in Chapter 43.21C.535 RCW, Clean energy projects—Nonproject environmental impact statements.[4]

1.3 Programmatic EIS process

The PEIS considers potential impacts from general types of solar energy facilities; it is not site-specific or for a specific project. It evaluates environmental impacts over a broad geographic and time horizon and the depth and detail of the impact analysis is fairly general, focusing on significant impacts in a qualitative manner. Mitigation is also identified at a high level.

The PEIS will not assess site-specific issues associated with any individual solar energy facility development. Location-specific factors vary considerably from site to site. These include factors such as the soil type, groundwater availability, water types, habitat, vegetation, the presence of threatened or endangered species, and the presence of Tribal and cultural resources. The

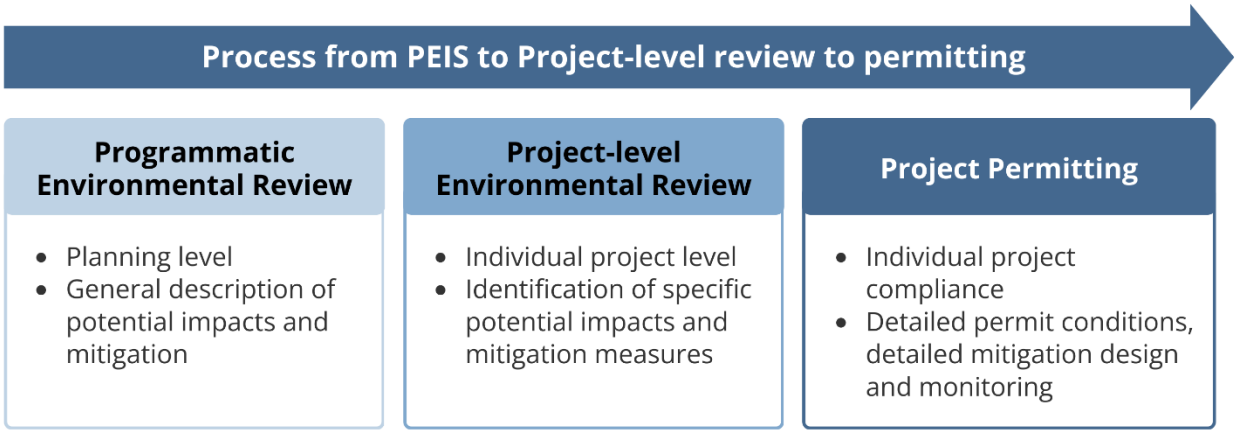
[4] https://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.535

effects of location-specific and project-specific factors cannot be fully anticipated or addressed in a programmatic analysis. Each utility-scale solar energy proposal will have its own SEPA environmental review, and, during that process, site-specific information and project-specific effects will be evaluated.

The PEIS will identify probable significant adverse environmental impacts and relevant mitigation applicable to utility-scale solar energy development in general. Site-specific issues would be addressed during individual project reviews as part of the SEPA process. The impact assessment and mitigation in a PEIS is more qualitative than a project-specific environmental impact statement (EIS). The PEIS analysis can be used by projects in their environmental reviews, but site-specific data must also be considered.

SEPA analyses for proposed specific solar energy proposals would tier to the Utility-Scale Solar Energy Facilities PEIS. Tiering means a broad nonproject evaluation is later used to support the evaluation of a specific project. Tiering can result in a more effective environmental analysis process for subsequent solar energy development proposals.

A PEIS does not approve or deny a proposed project. Federal, state, and local agencies may use the information in the PEIS, along with other publicly available information and site-specific details, to inform project-level environmental reviews and permitting.



Chapter 43.21C.538 RCW, Clean energy projects—Nonproject environmental impact statements—Lead agency use,[5] requires SEPA lead agencies to consider the Utility-Scale Solar Energy Facilities PEIS for solar projects. Local, state, and federal agencies may use PEISs that have previously been prepared in order to support their evaluation of proposed actions, alternatives, environmental impacts, or mitigation for a proposed project. Each agency would be responsible for determining which elements of the PEIS analysis are applicable to their

[5] https://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.538

evaluation of a proposed project and revising or supplementing the analysis to address project-specific elements and circumstances that were not evaluated under the PEIS.

The Scoping Document for the PEIS on Utility-Scale Solar Energy Facilities in Washington State includes more detail on how the PEISs may be used (Ecology 2023).

1.4 How PEISs are used

Local, state, and federal agencies may use PEISs that have previously been prepared in order to help evaluate proposed actions, alternatives, environmental impacts, or mitigation for a proposed project. Each agency will ensure the PEIS analysis is valid when applied to the current proposal, knowledge, and technology. If it is not valid, the analysis must be reanalyzed in the project-level environmental review or permit.

1.4.1 PEIS informs project-level SEPA reviews

When an applicant submits a project proposal, a project-level SEPA environmental review is done by the appropriate lead agency as required by the SEPA Rules. For clean energy facility proposals, Chapter 43.21C.538 RCW requires a SEPA lead agency to consider a PEIS prepared pursuant to Chapter 43.21C.535 RCW in order to identify and mitigate project-level probable significant adverse environmental impacts.

The law states that clean energy facility proposals that follow the recommendations to avoid and reduce impacts in the PEIS must be considered to have mitigated the probable significant adverse project-specific environmental impacts for which recommendations were specifically developed.

A project-level review must address any probable significant adverse environmental impacts associated with the proposal that were not analyzed in the PEIS. The review must identify any mitigation measures specific to the facility for probable significant adverse environmental impacts.

1.4.2 PEIS informs permitting decisions

No final permit decisions can be made until a project-level SEPA environmental review is finished. The PEIS, project-level environmental review, and other documents and studies are used by agency decision-makers to decide whether to approve a proposal, approve it with conditions, or deny the proposal.

Permits ensure that projects comply with all applicable environmental standards to protect land, air, water, wildlife, and people. The required permits for a project depend on its location and the construction and operations involved. A facility may need local, state, and federal permits and each permit has its own regulatory authority and regulatory agency. Information about specific permits can be found in the Regulatory Handbook.[6]

[6] https://apps.oria.wa.gov/permithandbook/

2 Programmatic EIS Scoping Decisions

2.1 PEIS Resource Analysis

Ecology has determined the PEIS will analyze probable significant adverse impacts to the following resource areas. The analysis will consider direct, indirect, and cumulative impacts to these resources.

- Earth resources
- Air quality and greenhouse gases
- Water resources
- Biological resources (species and habitats)
- Energy and natural resources
- Environmental health and safety
- Environmental justice and overburdened communities
- Tribal rights, interests, and resources
- Noise and vibration
- Land use, including agricultural and ranching uses and military installations and operations
- Visual quality
- Recreation
- Historic and cultural resources
- Transportation
- Public services and utilities

The programmatic analysis will consider potential environmental effects over a broad geographic and time horizon. The PEIS will focus on probable significant adverse impacts, with some information provided on non-significant adverse impacts. Impacts will be evaluated from construction, operation, and decommissioning of different types of facilities.

2.2 Geographic scope of study

Chapter 43.21C.535 RCW states that "The scope of a nonproject environmental review shall be limited to the probable, significant adverse environmental impacts in geographic areas that are suitable for the applicable clean energy type." Based on this direction, the Scoping Document (Ecology 2023) proposed assumptions for determining the geographic scope of study for the PEIS. Comments received during scoping, discussions with industry, and research into siting factors were used to refine the geographic scope of study. The recommended geographic study areas are broader than where facilities are being built now. This is because new technologies will allow development of solar facilities in areas not considered before.

Figure 1 shows the geographic scope of study for this PEIS, where existing conditions and potential environmental impacts will be analyzed. Areas included in the geographic scope of

study for solar are based on the characteristics and associated assumptions and considerations listed below.

- Areas with Global Horizontal Irradiance (GHI) of 3.5 kilowatt hours per square meter per day (kWh/m^2/day) or greater
    - Based on energy availability data from the U.S. Department of Energy National Renewable Energy Laboratory (Sengupta et al. 2018)
    - GHI of 3.5 kWh/m^2/day is lower than assumptions in similar studies in other areas of the United States, because improved technology is assumed to continue to allow facilities to use lower solar energy levels for utility-scale projects. Discussions with industry confirmed that a lower GHI is applicable in Washington.
    - Areas with GHI of 4 kWh/m^2/day or greater and 4.3 kWh/m^2/day or greater are also shown in Figure 1 to provide additional context for consideration of solar energy availability.
- Areas with 15% slope or less
    - Research and discussion with industry confirmed that newer technologies allow for utility-scale development on these slopes.
- Areas within 25 miles of a 230 kilovolt (kV) or greater capacity transmission line
    - Facilities are already using transmission lines of this size; therefore, the assumption is that facilities would tie into transmission lines of this capacity or greater. The analysis will not evaluate or consider if transmission lines have the ability to accommodate new utility-scale clean energy facilities. There may be improvements to existing transmission corridors that could result in increased capacity along current 230 kV lines in the future.
    - An adjustment was made to the geographic scope of study to include an area of Eastern Washington where there are existing utility-scale solar facilities. This area has sufficient solar energy availability and other potentially favorable characteristics for utility-scale developments. Therefore, an exception to the 25-mile distance was made.

The following areas were excluded from the geographic scope of study:

- Tribal reservation and trust lands
- Military installations
- U.S. Department of Energy Hanford Site
    - The U.S. Department of Energy has identified a small area of land at the Hanford Site as available for lease to develop utility-scale carbon pollution-free electricity projects. This area is included in the geographic scope of study, but the rest of the Hanford Site is excluded.
- National parks, wilderness areas, wildlife refuges and sanctuaries, and state parks

- Areas zoned as urban or residential, inside city limits, and unincorporated urban growth areas (UGAs)[7]

A PEIS does not approve, authorize, limit, or exclude projects on a site-specific basis. Projects could be built on private, city, county, state, or federal lands with agreement from the landowner or manager.

For projects on Tribal reservation lands, each federally recognized Tribe would determine use of their lands. Tribal reservation lands are not included in the proposed geographic scope of study. Ecology will consult with each Tribe with reservation lands, and if a Tribe chooses to include their lands, they will be added to the geographic scope of study for the Draft PEIS.

For projects on state or federal lands, the agency responsible would make land use decisions. State and federal areas potentially applicable for solar energy facilities are included in the geographic scope of study for the Draft PEIS. The Bureau of Land Management (BLM) is developing a NEPA PEIS for Utility-Scale Solar Energy Development on their managed lands to evaluate amendments to their associated Resource Management Plans (BLM 2024). BLM-managed lands are included in the geographic scope of study for this PEIS and will be updated based on any future agency decisions. The Washington State Department of Natural Resources (DNR) has pre-screened some state-managed lands for the potential for clean energy leasing. This information will be included in the Draft PEIS.

[7] Under the Growth Management Act, counties identify UGAs where "urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature" (Chapter 36.70A.110 RCW) in consultation with cities in the county. UGAs include both unincorporated areas and areas within existing city boundaries and are intended to accommodate the projected population growth of cities and counties over the subsequent 20-year period.

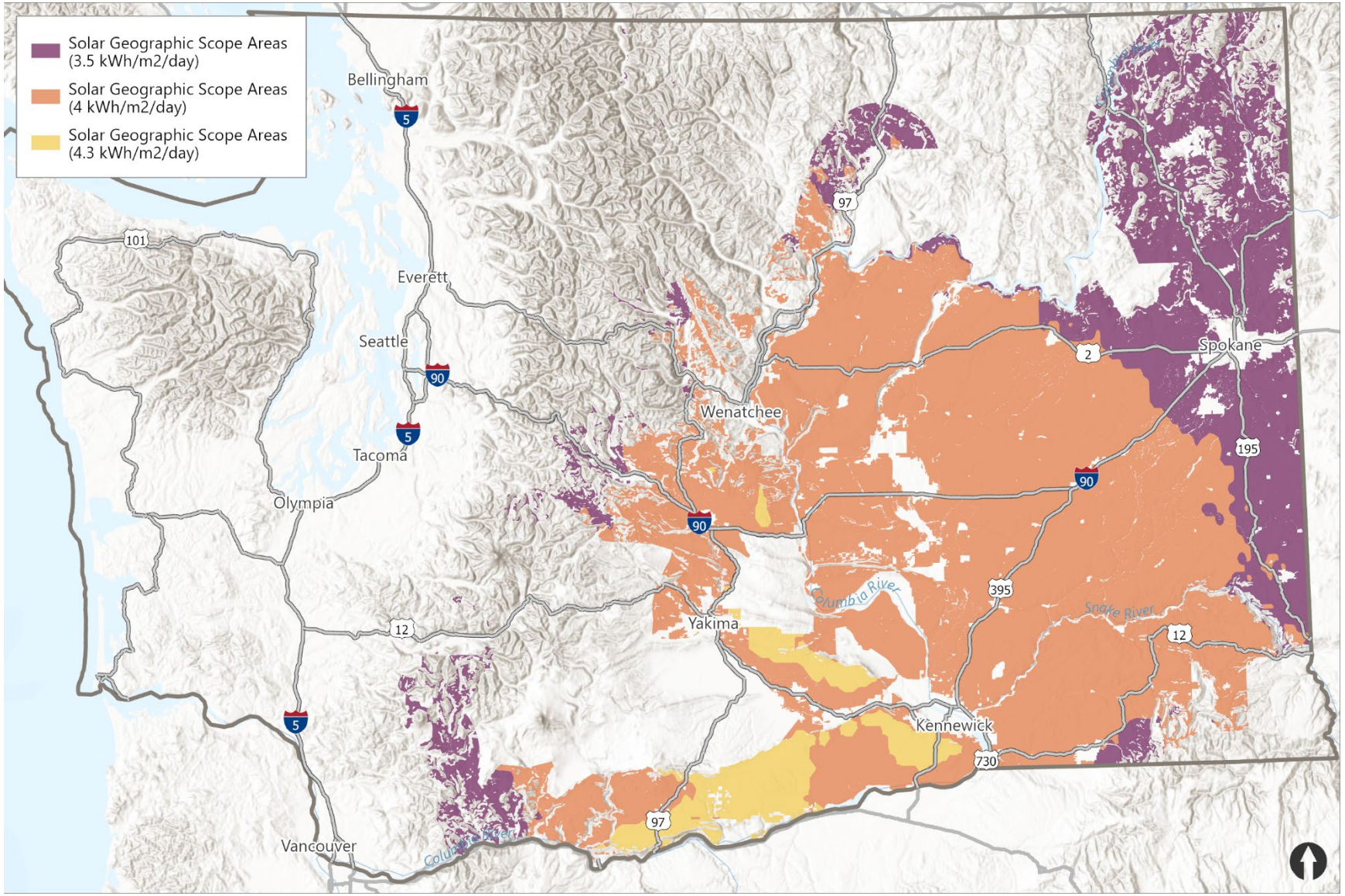


Figure 1. Solar Energy Facilities PEIS – geographic scope of study

Note: The geographic scope of study includes all areas with solar energy levels depicted. This figure illustrates the preliminary geographic scope of study based on initial mapping data; areas will be further refined for the Draft PEIS.

2.3 Alternatives (types of facilities)

The scoping document proposed several alternatives. Based on comments received during scoping, discussions with industry, and additional research, we modified the initially proposed alternatives to those discussed in this section. The average size of recently proposed solar facilities in Washington is about 100 megawatts (MW); however, there are also smaller and larger facilities. Ranges in the revised alternatives address facilities of varying sizes.

Chapter 43.21C.535 RCW requires us to consider battery energy storage systems (BESSs). Facilities with joint uses for battery storage and agriculture could be of any size.

SEPA requires a no action alternative. Under the No Action Alternative, city, county, and state agencies would continue to conduct environmental review and permitting for utility-scale solar facilities under existing state and local laws on a project-by-project basis.

2.3.1 Alternative 1: Small to medium utility-scale facilities of 20 MW to 600 MW

This alternative considers solar energy facilities capable of generating between 20 and 600 MW of energy. Sites would range from 200 to 6,000 acres for purposes of the impact analysis.

2.3.2 Alternative 2: Large utility-scale facilities of 601 MW to 1,200 MW

This alternative considers solar energy facilities capable of generating between 601 and 1,200 MW of energy. Sites would range from 6,010 to 12,000 acres for purposes of the impact analysis.

2.3.3 Alternative 3: Solar facilities with battery energy storage systems

This alternative considers solar energy facilities and an associated BESS. This alternative would consider the same systems as in Alternatives 1 and 2, with one or two BESSs, each capable of storing up to 500 MW of energy.

2.3.4 Alternative 4: Solar facilities that include agricultural uses (agrivoltaic)

Under this alternative, solar panels would be raised or modified to allow for crop production, livestock grazing, rangeland, and pollinator habitat on the site. This is called agrivoltaics and is the use of land for both agriculture or grazing and solar photovoltaic energy generation. It is also sometimes referred to as agrisolar or dual use solar. The U.S. Department of Energy

includes crop production, livestock grazing, and pollinator habitat in its definition for agrivoltaics.[8]

2.3.5 Alternative 5: No Action Alternative

The PEIS is a planning document, so under the No Action Alternative, the city, county, and state agencies would continue to conduct environmental review and permitting for utility-scale solar energy development under existing state and local laws on a project-by-project basis.

[8] https://www.energy.gov/eere/solar/large-scale-solar-siting

3 Scoping Process

3.1 Overview

Ecology conducted a PEIS scoping period from September 27, 2023, to October 27, 2023. During the scoping period, Ecology held two online public scoping meetings on October 5 and October 10, 2023, for the public to provide verbal comments. A separate Tribal scoping meeting was held on October 17, 2023, and Tribes were provided an additional 30 days to submit comments. A variety of scoping materials were available for public review throughout the entire length of the scoping period on Ecology's PEIS website.[9] The website provided information for the scoping period and how to comment, including a link to an online comment form.

Tribes, agencies, members of the public, and stakeholders were invited to participate in the scoping process and provide comments, as described in the following sections.

3.2 Ways to provide comments

During the scoping period, Ecology provided multiple ways to submit scoping comments, including the following:

- Using the online comment form that was available, for which a link was provided on the Ecology project website[10]
- Sending a comment by mail to:
  Clean Energy Coordination
  Department of Ecology
  PO Box 47600
  Olympia, WA 98504-7600
- Making a verbal comment during the online public scoping meetings

3.3 Scoping notifications

Ecology conducted the following public notice and outreach activities to notify Tribes, agencies, members of the public, and stakeholders of the scoping period and announce upcoming public scoping meeting dates. Ecology provided Spanish translators for the scoping meetings. A variety of outreach and notification methods were used to communicate information about scoping, including the following:

- Published legal notices
  - The DS and Request for Comments on the Scope of Utility-Scale Solar Energy and Utility-Scale Onshore Wind Energy Programmatic Environmental Impact

[9] https://ecology.wa.gov/regulations-permits/sepa/clean-energy/programmatic-eis
[10] https://sea.ecology.commentinput.com?id=aNKFVR4u6

Statements, including a description of the action, how to submit comments, and scoping meeting announcements, was issued on September 27, 2023.
    - Ecology's SEPA Register published the DS and Scoping Notice on September 27, 2023.
    - Legal notices were published in the following newspapers:
        - *Columbia Basin Herald*
        - *The Seattle Times*
        - *The Spokesman-Review* in Spokane
        - *TriCity Herald*
        - *Tú Decides*
- Public and media notifications
    - Information was sent to Ecology's clean energy email distribution list and SEPA email distribution list.
    - Ecology distributed a news release on September 27, 2023.
    - Social media notifications were shared on Ecology's Twitter account on September 27, 2023.
    - Information was published on Ecology's Public Input and Events Listing website.[11]
- Website
    - Ecology developed and published a PEIS website.[12]
- Tribal notifications
    - Notifications were sent to Tribal Chairs, Natural and Cultural Resources Directors, and Executive Directors of Tribal Organizations to notify them of scoping. A Tribal scoping meeting was held on October 17, 2023.
- Agency notifications
    - State agencies were notified by email, listserv, and SEPA Register notices.

3.4 Public meetings

Two public scoping meetings were held during the scoping period: one on October 5, 2023, and one on October 10, 2023. The October 5 meeting began at 9:00 a.m. and the October 10 meeting began at 1:00 p.m. All scoping meetings were held virtually. Each meeting included a presentation and an opportunity to provide verbal comment. Scoping meeting materials, including the scoping documents and a scoping handout, were available to the public on the Ecology PEIS website throughout the scoping period.

[11] https://ecology.wa.gov/footer-pages/public-input-events
[12] https://ecology.wa.gov/regulations-permits/sepa/clean-energy/programmatic-eis

4 Summary of Scoping Comments

4.1 Summary

A total of 29 comment submissions were received. All comments were considered for both the solar and onshore wind PEISs. Comments were received via online forms, mail, and through verbal comments during the public scoping period. A variety of groups provided comments as follows:

- Agencies (comments received from five agencies)
  - Benton County Community Development Department
  - Governor's Office for Regulatory Innovation and Assistance
  - Washington Department of Fish and Wildlife (WDFW)
  - Washington State Office of the Attorney General
  - Whatcom County Public Utility District
- Tribes (comments received from one Tribe)
  - Quinault Indian Nation
- Citizens (comments received from nine individuals)
- Businesses (comments received from two businesses)
  - Puget Sound Energy
  - Triple Oak
- Organizations (comments received from eight organizations)
  - American Farmland Trust
  - Audubon Washington
  - Climate Solutions
  - Conservation Northwest
  - Friends of Grays Harbor
  - Lower Columbia Basin Audubon Society
  - Renewable Northwest
  - The Nature Conservancy

Sections 4.2 through 4.8 summarize the key themes of the substantive comments received during the scoping period and are not meant to provide a comprehensive or detailed listing of all comments.

4.2 Alternatives

Comments were received on alternatives to provide programmatic- versus project-level assumptions and revise the description of the No Action Alternative.

Commenters recommended evaluating other clean energy projects of different sizes and types, including geothermal projects, utility-scale batteries, a range of wattages, a co-located BESS, or projects combined with agricultural land uses.

Other commenters suggested ensuring the PEIS considers alternatives that set scenarios for Washington State to achieve its climate goals.

4.3 Information sources

Commenters recommended follow-up research on technical aspects of the alternatives, as well as the specifics of the generation equipment and support facilities to be installed for operation. Commenters also advised using the findings of federal PEISs as reference.

4.4 Environmental process/procedures

Commenters requested a description of how the PEISs will be useful to future projects and how the PEISs will support the Clean Energy Siting Council in their assessment of clean energy preferred zones. These comments included confirming potential lead agencies for project-level SEPA environmental review. Commenters also suggested obtaining third party technical support for the development, building, and operation of solar and wind facilities.

4.5 Clean energy siting and permitting

Commenters recommended including guidance in the PEIS on methodologies or databases that projects could use to assess impacts, as well as considering requirements of specific counties and other local agencies. Comments included making sure the siting process uses maps prepared with quantitative data; that solar and wind facilities do not convert or fragment wildlife habitats, replace agricultural lands, or disturb cultural resources and traditional sites; and that the list of required permits is comprehensive.

Other comments were received requesting that solar companies be required to do periodic overall reviews of potential environmental impacts of current and future technologies. Comments included making sure the terminology used is clearly defined and consistent.

4.6 Geographic scope

Comments received on the geographic scope included considerations on financial viability, seasonality, and topography in determining the study area. Commenters recommended using Washington State University's least-conflict solar siting study. Other commenters requested using general criteria for preferred locations such as wind speed, exclusion zones, already disturbed sites, currently designated industrial zones, and distance from major highways, other transmission lines (including definitions of major transmission lines), and existing substations.

4.7 Mitigation

Comments received on the mitigation section suggested to first avoid impacts, minimize impacts if they cannot be avoided, and then provide compensatory mitigation, and expand mitigation due to potential anticipated environmental impacts. Comments included establishing criteria to define significant adverse impacts and clear guidance for assessment and mitigation. Similarly, commenters recommended using Washington State University and WDFW existing resources to identify locations of conflicts to help avoid and minimize environmental impacts.

Commenters requested that projects complete preconstruction ecological surveys and prepare a decommissioning plan as part of a new project proposal. Commenters recommended identifying benefits and preparing mitigation plans for impacts on rural communities, vegetation, soils, farmlands, and priority habitats. Other comments recommended including a list of best management practices for low-impact solar and wind projects in different landscapes.

4.8 Objectives/purpose and need

Comments received on the objectives and purpose and need included supporting siting and permitting of clean energy projects to meet Washington State's greenhouse gas emission limits and clean energy goals.

4.9 Scope of analysis

Comments received on the scope of analysis included evaluating impacts on human health, socioeconomics, and the built environment as well as evaluating impacts that occur due to extreme weather. Comments also included recommendations to evaluate impacts from sites that are not reclaimed after they are no longer operational. Commenters recommended including a method for assessing avoided greenhouse emissions from clean energy projects and requested that the PEIS evaluate a program that would reach Washington State's greenhouse gas emission goals.

4.10 Cumulative effects

Commenters requested an evaluation of both localized and statewide cumulative impacts on agriculture, sensitive habitats, species population viability, landscape connectivity, streams and floodplain connectivity, and cultural resources. Commenters stated that the cumulative effect analysis should be based on realistic assumptions for build-out technologies and project design for large-scale deployment of solar and wind energy.

4.11 Elements of the environment

4.11.1 Earth resources

Comments received on the earth resources section included recommendations to evaluate impacts to unstable slopes and from geohazards associated with the Cascadia Subduction Zone, landslide risks from access roads and forest clearing, and soil contamination that could occur from machinery and equipment.

4.11.2 Water resources

Comments received on the water resources section included recommendations to evaluate impacts to hydrology from loss of mature forest and climate change predictions, as well as impacts on water rights. Commenters requested that impacts due to solar array effects on wetlands and wetland buffers be considered. Commenters recommended dry washing solar panels to reduce water usage.

4.11.3 Biological resources (species and habitats)

Comments received on the biological resources section included recommendations to evaluate impacts on terrestrial species and habitats, Washington priority species, ground-nesting birds, wildlife migration patterns, forestland, grass prairies, and shrub-steppe habitats. Commenters requested that WDFW's new solar siting guidelines, the Migratory Bird Treaty Act, and input from environmental groups (e.g., Native Plant Society, the Nature Conservancy, Audubon, and Washington Wildlife Habitat Connectivity Working Group) be considered. Commenters also recommended that monitoring and adaptive management should be required during construction, operation, and decommissioning, and biophilic design should be considered for solar facilities to allow wildlife use.

4.11.4 Environmental health and safety

Comments received on the environmental health and safety section included requests to address concerns about the use of heavy metals and fuels during manufacture and construction. Commenters also requested that measures to reduce the increased risk of wildfire be considered.

4.11.5 Tribal rights, interests, and resources

Commenters emphasized the need for a robust Tribal engagement process that allows for adequately preventing and addressing impacts on Tribal resources. These comments included an analysis of impacts on traditional plants and hunting and treaty resources. Commenters also recommended that impacts on environmental justice and overburdened communities should be evaluated in more detail in a separate section or appendix of the PEIS.

4.11.6 Land use

Comments received on the land use resource section included recommendations to review agricultural uses and evaluate impacts on agricultural lands. Commenters requested that

impacts on farmland and rangeland resulting from soil disturbance during construction and decommission be considered. Commenters recommended referencing the Growth Management Act planning goal to maintain and enhance natural resource-based industries and to encourage conservation of natural resource lands.

4.11.7 Visual quality

Comments on the visual quality resource section included requests to consider neighboring homeowners as sensitive viewers.

4.11.8 Recreation

Comments on the recreation resource section included requests to evaluate impacts on national parks, state parks, wilderness, and scenic areas and how such impacts can be avoided.

4.11.9 Transportation

Comments on the transportation resource section included requests to evaluate impacts from new road development associated with construction and operation, including roads to install and maintain power lines.

5 Next Steps

The agency has started to develop the Utility-Scale Solar Energy Draft PEIS. There will be a public comment period for the Draft PEIS, planned for release in summer 2024. Once a Draft PEIS is published, Tribes, agencies, members of the public, and stakeholders will be invited to review and comment on the document and participate in public hearings. Ecology plans broad outreach when the Draft PEIS is available for public review. The Ecology PEIS website[13] will be maintained and updated throughout the environmental review process. Interested parties can receive updates by email, by signing up here.[14]

After public comments are received on the Draft PEIS, they will be considered to determine if additional analysis is needed. The Final PEIS will be issued by the legislatively mandated date of June 30, 2025.

It is important to note that future proposed solar energy projects will need individual environmental review under SEPA using project- and site-specific information.

[13] https://ecology.wa.gov/regulations-permits/sepa/clean-energy/programmatic-eis
[14] https://public.govdelivery.com/accounts/WAECY/subscriber/new?topic_id=WAECY_296

6 References

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