



STATE OF WASHINGTON

ENERGY FACILITY SITE EVALUATION COUNCIL

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Memorandum

To: Stephen Posner, EFSEC Manager, (360) 664-1903

From: Sonia E. Bumpus, EFSEC Siting and Compliance Manager, (360) 664-1363

Date: April 17, 2018

**RE: Environmental Review and Staff Recommendation for SEPA Determination
for Columbia Solar Project**

PROPOSAL: The Columbia Solar Project is an alternative energy proposal by TUUSSO Energy, LLC (TUUSO or Applicant). The proposed Columbia Solar Application for Site Certification (ASC) proposes to construct five new photovoltaic (PV) facilities at five site locations (named Camas, Fumaria, Penstemon, Typhya, and Urtica) in Kittitas County, Washington. Two generation tie lines will also be constructed to connect the Fumaria and Typha locations. Each new PV solar array will be capable of providing up to 5 megawatts (MW) of solar energy within the Puget Sound Energy (PSE) service area, for a total of 25 MW of electrical power generation.

The five solar arrays and two generation tie lines are to be constructed on 200 of approximately 232 leased acres, in close proximity to existing PSE electrical infrastructure. The locations selected by the Applicant were based on several criteria, including consistency with the Kittitas County zoning code and comprehensive plan, land use efficiencies, placement on previously disturbed farmland to avoid environmentally sensitive areas, and the minimization of new electrical infrastructure by locating close to existing distribution lines.

CASE NUMBER: EFSEC Application No. 2017-01

APPLICANT: TUUSSO Energy, LLC.
500 Yale Avenue North, Seattle, WA 98109
(206) 303-0198

LOCATION: Kittitas County, Washington. The Applicant has offices at:
Valley Land Company, LLC
1585 Tjossem Road, Ellensburg, WA 98926

OTHER PERMITS: Implementation of this proposal will require the following permits or approvals (as identified in Section 2.23 of the ASC). Under RCW 80.50, EFSEC has authority to issue state and local permits and approvals:

Permit or Requirement	Agency Code, Ordinance, Statute, Rule, Regulation, or Permit
Threatened or Endangered Species	U.S. Fish and Wildlife Service Endangered Species Act of 1973 (16 USC, Section 1531, et seq.) and implementing regulations. Designates and provides for protection of threatened and endangered plants and animals and their critical habitat.
Migratory Birds	U.S. Fish and Wildlife Service Migratory Bird Treaty Act (16 USC 703-711)
Bald Eagles	U.S. Fish and Wildlife Service Bald and Golden Eagle Protection Act (16 CFR 668-668c) Eagle permit regulations (50 CFR 22)
Waters of the United States	U.S. Army Corps of Engineers, Seattle District Clean Water Act of 1972 (Waters of the U.S. 1986/1988 regulatory definition in 40 CFR 230.3) Joint Aquatic Resource Permit Application (JARPA) for Section 404 fill in Waters of the U.S.
Electrical Construction Permit	Washington Department of Labor and Industries WAC 296-746A, Washington Department of Labor and Industries Safety Standards – Installing Electrical Wires and Equipment – Administration Rules.
Noise Control	Washington Department of Ecology RCW 70.107, Noise Control; WAC 173-58, Sound Level Measurement Procedures WAC 173-60, Maximum Environmental Noise Levels; WAC 463-62-030, Noise Standards
Water Quality Storm Water Discharge: Construction Activities	Washington Department of Ecology RCW 90.48, Water Pollution Control Act, establishes general stormwater permits for the Washington Department of Ecology National Pollutant Discharge Elimination System Permit Program WAC 173-201A, Washington Department of Ecology Water Quality Standards for Surface Waters of the State of Washington, which regulates water quality of surface waters Federal statute(s) and regulations implemented by the above state statute(s) and regulations include: Federal Clean Water Act, 42 USC 1251; 15 CFR 923-930 KCC 12.70

Permit or Requirement	Agency Code, Ordinance, Statute, Rule, Regulation, or Permit
Shorelines of the State	Washington Department of Ecology WAC 173-18, Shoreline Management Act, Streams and Rivers Constituting Shorelines of the State (Note EFSEC energy facility exemption from Shoreline Act permitting requirements, RCW 90.58.140[9]). WAC 173-22, Adoption of Designations of Shorelands and Wetlands Associated with Shorelines of the State Joint Aquatic Resources Permit Application (JARPA) and shoreline conditional use permit (CUP) for fill in wetlands associated with Shorelines of the State
Fish and Wildlife	Washington Department of Fish and Wildlife WAC 220-610, defines State species status and protections WAC 232-12, Washington Department of Fish and Wildlife Permanent Regulations, provides information on classification of wildlife species, including "Priority Habitats and Species" RCW 77, Hydraulic Code for in-water work
State Environmental Policy Act (SEPA)	RCW 43.21C, Washington Environmental Policy Act WAC 197-11, Washington Department of Ecology SEPA Rules, which establishes uniform requirements for compliance with SEPA KCC 15.04
Archaeology and Historic Preservation	Washington State Department of Archaeology and Historic Preservation RCW 27.53, Archaeological Sites and Resources
Comprehensive Plan	Kittitas County Comprehensive Plan, 2000-2020
Zoning Ordinance, including Critical Areas Ordinance	KCC 17, including 17A
Access Permit	KCC 12.05
Grading Permit (if necessary)	KCC 14.05

Notes: CFR = Code of Federal Regulations; KCC = Kittitas County Code; RCW = Revised Code of Washington; USC = United States Code; WAC = Washington Administrative Code

A. ENVIRONMENTAL RECORD and EXHIBITS

The environmental review consisted of analysis based on the following documents included in the environmental record.

- Environmental Checklist received October 16, 2017 and updated January 26, 2018
- Application for Site Certification (ASC) received October 24, 2017 and updated January 26, 2018, EFSEC Application No. 2017-01
- Letter from TUUSSO to EFSEC regarding cultural resources, received December 4, 2017
- Public Comments submitted to EFSEC February 27, 2018-March 13, 2018

The environmental review also consisted of input or recommendations from State agencies, tribes, and the County via several forms of communication, as listed below.

Commenter	Acronym within this document	Date of Comment	Form of Comment
Confederated Tribes and Bands of the Yakama Nation	Yakama Nation	September 7, 2017	letter
Confederated Tribes of the Colville Reservation	Colville Tribe	October 27, 2017	letter
Washington State Department of Archaeology and Historic Preservation	DAHP	-November 22, 2017 -December 12, 2017 -January 9, 2018 -March 13, 2018	-letter -letter -phone call -email
Washington Department of Fish and Wildlife	WDFW	-December 5, 2017 -January 4, 2018 -February 8, 2018 -February 9, 2018 -February 13, 2018	-letter -phone call -email -email -email
Washington Department of Ecology	Ecology	-December 7, 2017 -December 19, 2017 -January 16, 2018 -February 12, 2018 -February 14, 2018 -February 22, 2018	-phone call -phone call -email -letter -email -phone call
United States Fish and Wildlife Service	USFWS	-December 21, 2017 -February 23, 2018	-letter -email
Washington State Department of Commerce	DOC	February 1, 2018	draft report
Washington State Department of Agriculture	WSDA	February 13, 2018	email
Washington State Department of Health	DOH	February 21, 2018	email

B. STAFF REVIEW OF THE ENVIRONMENTAL CHECKLIST

EFSEC, TUUSSO, the Applicant's environmental consultant (SWCA), and Department of Commerce staff visited the site on January 24, 2018.

The following sections correspond with related categories of the environmental checklist submitted for the Proposal, and clarify, amend, or add to that document.

1. EARTH

- a. WSDA reviewed the application and checklist, and expressed concern over the impact of compaction during construction and the ability to restore the land to agricultural use after decommissioning of the facility (February 13, 2018). In further review of this information, EFSEC staff and their consultant have determined that the proposed soil treatment indicated within the ASC would be sufficient to mitigate for compaction that would occur during construction or decommissioning and during the life of the facility and recommend no further mitigation.
- b. Concerns arose during the public comment period that installing solar panels would remove the benefits of soil carbon sequestration that the agriculture practices on three of the sites currently provide. EFSEC staff and their consultant reviewed the referenced Ecology report to better understand the study and context as it could apply to the proposed facility. The referenced study was specific to soil carbon sequestration by irrigated cropland under pasture and conservation tillage in comparison to sagebrush, rather than to alternative facilities. The proposed sites, except Fumaria, would be vegetated with native plants as guided by WDFW, which provide their own carbon sequestration effects. Additionally, the solar facility would offset carbon emitted by fossil fuel-generated electricity. EFSEC staff has determined

that these offsets would sufficiently address the soil carbon sequestration lost from the agriculture and grazing on those sites. No mitigation measures recommended.

2. AIR

The checklist description is adequate. No mitigation measures recommended.

3. WATER

- a. A construction stormwater permit would be required as part of a site certification approval. Applicable stormwater permitting should address relevant concerns regarding surrounding water quality, however, the applicant would need to demonstrate no impact to flow paths in surrounding floodplains (mitigation measure 1).
- b. A small amount of fill (less than 1000 square feet) in wetlands is proposed. Applicant has committed to coordinate with Ecology to determine whether mitigation would be required, and EFSEC has required plans from the Applicant regarding analysis of potential impacts and proposed mitigation (mitigation measure 4, 5).
- c. Fish bearing streams are present at all five sites. The applicant proposes buffers consistent with the 20-year old county critical area ordinance (CAO). WDFW (December 5, 2017) recommends buffers consistent with the current draft county CAO which provides for 100-foot buffers on fish-bearing streams (mitigation measure 2). Additionally, WDFW recommends these buffers should be vegetated with riparian plants as mitigation for some of the habitat impacts that cannot be avoided or minimized by the proposal (mitigation measure 3).
- d. WSDA reviewed the application and checklist, and expressed concern over maintaining water rights for irrigation through the life of the facility and ensuring rights would still be retained by the land owners for use after decommissioning of the facility (February 13, 2018). Per discussion with the Ecology Water Rights division, mitigation is recommended to donate the water rights to a trust, consistent with Revised Code of Washington (RCW) 90.14.140(2)(h) and RCW 90.42.080, to ensure that current rights would be retained by land owners for the life of the facility (mitigation measure 6).
- e. Information was obtained during the public comment process indicating that the mechanism for continued availability of water rights at each site would not allow for mitigation measure 6 to be implemented as written. The method of preserving water rights suggested by Ecology is not applicable for these sites because the land owners do not maintain water rights for the proposed properties. The local water companies own the water rights, and the land owners purchase shares. In order to ensure that there is water available at the proposed facility life to restore the sites to existing conditions, EFSEC has modified mitigation measure 6 to indicate that the applicant will ensure the land owners intend to maintain their shares with the water companies such that those shares would be available at the end of the project and the land could be returned to its current state, should the land owners choose.

4. PLANTS

The checklist description is adequate. No mitigation measures recommended.

5. ANIMALS

- a. WDFW reviewed the application and checklist and recommended (December 5, 2017; February 12, 2018) that mitigation be added to survey raptor nests and, if any are found, to coordinate with WDFW to minimize disturbance during nesting season. Surveys are already a commitment by the applicant and therefore already part of the proposal, and would be required if the proposal is approved. Associated activity

buffers around active nests would need to be coordinated with EFSEC and WDFW, and as needed USFWS (mitigation measure 7).

- b. Consulted with WDFW regarding migration corridors for terrestrial species (January 4, 2018). WDFW indicates no concerns for large mammal migratory corridors. Small mammals and invertebrates would still have access to the proposal sites. WDFW recommended a minimum fence height of eight feet, with a single strand of barbed wire at the top, rather than razor wire (mitigation measure 9). Most water bodies and wetlands would be outside fenced areas.
- c. A documented great blue heron breeding area is 224 feet east of the site. WDFW (December 5, 2017; February 12, 2018) has requested a survey for nesting and a seasonal avoidance buffer for nesting sites (mitigation measure 7) of herons. While the applicant has committed to surveying, EFSEC staff has added specificity for a seasonal buffer for nesting herons.
- d. The applicant has proposed to develop an Avian Protection Plan (APP). The USFWS (December 21, 2017) provided some input (guidelines for new electrical poles and protecting avian species, and options for avoiding avian attraction to attempt to land on solar panels) for the Applicant to include in the APP. The applicant has indicated they do not expect their solar panels to attract avian species. The mitigation measure will be used to ensure the design and/or setting of the solar panels avoids attracting avian species; and for adaptive management should a problem with the panels and avian species arise once they are installed (mitigation measure 8).

6. ENERGY AND NATURAL RESOURCES

The checklist description is adequate. No mitigation measures recommended.

7. ENVIRONMENTAL HEALTH

Noise – No mitigation measures recommended.

- a. The numbers in 7.b for Penstemon are for operational noise levels, not ambient noise levels, which is the correct noise level.
- b. Review by EFSEC noise contractor determined the noise analysis in appendix N of the ASC is appropriate.
- c. Lday (dBA) operational noise levels at the boundaries of all sites except Camas are well below 60 dBA which is the strictest noise limit for residential receiving properties in Washington Administrative Code 173-060-040. The applicant has committed to monitoring at the Camas site.

8. LAND AND SHORELINE USE

- a. The project is identified as a permissible conditional use under local zoning and planning laws.
- b. Concerns were expressed during the public comment period that a solar facility would conflict with the neighbor's ability to perform aerial spraying on their land. EFSEC staff have determined that there is no conflict with adjacent land uses, as the applicant is able to schedule site maintenance as needed (e.g., cleaning panels after spraying) and neighbor's ability to aerial spray is not limited. No mitigation measures recommended.

9. HOUSING

The checklist description is adequate. No mitigation measures recommended.

10. AESTHETICS

Vegetative buffers are proposed along portions of the border at each project site to interrupt the line of sight from nearby key observation points (KOP) at or near the same elevations as the project sites, and to reduce contrast from glint and glare for those same KOPs. No mitigation measures recommended.

11. LIGHT AND GLARE

The checklist information is adequate; no mitigation measures recommended. Also see notes under 10 above.

12. RECREATION

There are no known informal recreational uses (such as hunting or fishing) at these agricultural sites. No mitigation measures recommended.

13. HISTORIC AND CULTURAL PRESERVATION

EFSEC consulted with DAHP for impacts to cultural resources (November 22, 2017; December 12, 2017). DAHP expressed desire for further coordination and review of final construction and micro-siting plans prior to construction to ensure no cultural or archeological resources are impacted (mitigation measure 10).

During the public comment period, DAHP indicated permits that would be required for 4 of the 5 sites prior to construction. Mitigation measure 10 has been updated to add this requirement and stipulate that the necessary permits would be obtained prior to construction.

14. TRANSPORTATION

During review of the MDNS, Washington Department of Transportation (WDOT) expressed concern about access of the Camas site from I-82 or that work might occur in the WDOT right-of-way. EFSEC reviewed the application materials and determined that no access is planned from I-82, nor is any work slated to occur in the WDOT right-of-way. No mitigation measures recommended.

15. PUBLIC SERVICES

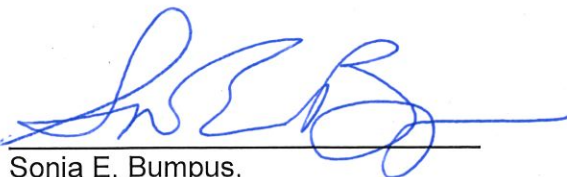
The checklist information is adequate. No mitigation measures recommended.

16. UTILITIES

The checklist information is adequate. No mitigation measures recommended.

Nothing in this Environmental Checklist review or associated MDNS shall preclude further review or conditioning of future development proposals for the subject property.

I have reviewed and considered the reference Proposal, the Environmental Checklist, agency comments, and other available material. I hereby recommend a MDNS.



Sonia E. Bumpus,
EFSEC Siting and Compliance Manager

4/17/2018

Date