Appendix F: Decommissioning Plan

TUUSSO ENERGY, LLC
EFSEC SOLAR PROJECTS
FACILITY DECOMMISSIONING PLAN

1.0 INTRODUCTION

1.1 Background

TUUSSO Energy LLC (TUUSSO) will construct, own and operate five 5-megawatt ac (MWAC) solar photovoltaic (PV) power generation facilities and associated electrical interconnection facilities, each a Project and collectively referred to as the Projects. The project sites are located on privately owned land in Kittitas County, State of Washington.

This Facility Decommissioning Plan (Decommissioning Plan) is developed for the Projects for review and approval by The Energy Facility Site Evaluation Commission (EFSEC) and in compliance with the State Environmental Policy Act. The Decommissioning Plan will be implemented upon discontinuance of operations, abandonment of the Projects, or termination of any or all of the Site Certification Agreements (SCA).

The Decommissioning Plan shall include, but not be limited to, the following:

a. Removal of solar panel structures and all appurtenant above-ground equipment;
b. Removal of on-site overhead poles and above-ground electricity lines;
c. Removal of all on-site septic tanks;
d. Removal of permanent above-ground or below-ground transmission lines and/or poles located in the public right-of-way if determined not usable by Public Works and/or any other applicable public or private utility;
e. Restoration of any disturbed soil of the site to the pre-construction condition;
f. Restoration or reclamation of project roads to their pre-construction condition unless the then-existing owner of the site elects to retain the improved roads for access throughout the site;
g. Documentation of the pre-construction condition of the project site, including, but not limited to, a photographic record; and
h. Performance and financial assurance guarantees.

1.2 Decommission Plan Purpose

The purpose of this Decommissioning Plan is to clarify the process of conducting decommissioning activities for the permanent closure of the Projects or a portion of the Projects. The facilities are designed for an operating life of more than 30 years. This Decommissioning Plan describes the approach for removal and/or proper abandonment of facilities and equipment associated with the Projects and describes anticipated land restoration activities at the end of the SCAs. Elements of this process may be adjusted based on baseline conditions at the time of decommissioning, and any adjustment will have been determined to be in substantial compliance with EFSEC requirements.

2.0 PROJECT COMPONENTS

The Projects' components subject to decommissioning include the equipment summarized below. These components are discussed in detail in the Mitigated Determination of Non-Significance (MDNS) for the Projects. The decommissioning activities associated with these components are discussed in Section 3.0 of this Decommissioning Plan.

2.1 Site Construction Preparation

Construction facilities will be located at each of the Project sites. Facilities will include the construction entrance/exit, all-weather access roads, and parking and staging areas for vehicle and equipment storage and maintenance. Laydown areas will be used for pre-assembly of components and materials storage/staging. Each Project site will also include areas for construction worker parking. Temporary construction offices will be installed on-site using modular trailers.

All-weather access roads will be built for access to inverter pads on each Project site via new gates at the access points shown in the respective Site Plans.

Site access driveways and gates will remain in place for the operational phase of the Projects.

2.2 Well Water

No well water will be obtained or used for the Projects. Dust control water for construction, fire protection water, and water for panel washing and for watering vegetation on-site will be obtained from water trucks bringing in off-site water or through the landowners' existing water rights on the Project sites.

2.3 PV Equipment Installation

The PV equipment for the Projects will consist of approximately 100,000 PV panels mechanically fastened on steel support structures and driven by single axis trackers. The steel support structures will be supported on galvanized steel posts that will be driven into the ground. The tracker motors will be supported on cast-in-place foundations.

The construction methods for the preparation of the sites and the installation of the panels shall be consistent with all approved SCA conditions for the respective Project sites. Should a discrepancy exist between the SCA for the Project and the installation methods outlined below, the SCA shall govern.

Grading shall be limited mainly to the all-weather access roads, tanks, inverter pads, project switchyards, or other areas consistent with the approved exhibit map/grading plan. Work within the area where the solar panels are proposed shall be conducted with minimal disturbance, and the operator shall take all necessary precautions to not use vehicles or machineries for grading or alter the existing grade in these areas.

When vehicles or machinery are deemed necessary for solar field installation work, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be utilized for both dust suppression and to ensure that the vehicles or machineries are compatible with continued and future vegetation growth to the satisfaction of EFSEC. Any grading, disking, and scraping for access roads, walkways, required basins and/or berms shall be permanently stabilized with an earth-stabilizing product.

Contrary to conventional power plant design where the site has to be prepared to meet a set of pre-engineered contours, the construction approach will be to use existing contours where possible without significantly altering grades on the Project sites.

A Light-on-Land (LoL) philosophy will be used for the grading and installation of the Projects. Several features of the LoL philosophy are as follows:

a. Preservation of property - temporary fencing will be used to protect areas not to be disturbed.
b. Existing improvements, properties, utilities, facilities, trees, and plants that are not to be removed will be protected from injury or damage. Construction materials and equipment will not be placed within the drip line of trees if any are encountered. Damaged trees, if any, will be replaced.
c. Temporary staging areas will be utilized within the solar fields, and they will ultimately be built over with solar arrays. The areas will be seeded after construction is completed.
d. Limited all-weather access roads through the solar fields will be constructed by compacting existing soil with minimal fill utilized only when necessary.

2.4 Operations and Maintenance Building

The Projects will not have Operations and Maintenance (O&M) Buildings.

2.5 Substation

The Projects will each include onsite switchgear and protection, and will be connected to existing utility distribution lines.

2.6 Internal Power Collection System

The PV modules will convert sunlight into direct current (DC) electricity. The PV-generated DC power will be collected from each of the multiple rows of PV modules, from which it will be connected to multiple combiner boxes and ultimately to skids each containing multiple inverters and a distribution voltage transformer. The inverters will convert the DC power to alternating current (AC) power which will then flow to the transformer that will increase the AC power voltage to 12.47 kilovolt (kV). Multiple transformers from multiple skids will be connected in parallel to on-site switchgear and protection equipment. The power will then be delivered to the above-ground Puget Sound Energy (PSE) existing distribution lines either on-site or via a generation tie-line.

2.7 Roads

Access to the Project sites will be from public right of ways and private access roads. Access permits will be required when connecting to a County owned right of way. Construction of those access points will be in compliance with State and/or County requirements.

2.8 Vegetation During Operations

Perimeter vegetation will be planted per the Site Plan and watered as required. Vegetation under the solar panels will be managed as per the SCAs and other safety and operational requirements.

3.0 PROJECT DECOMMISSIONING AND RECYCLING

The activities involved in the facility closure will depend on the expected future use of each of the Project sites. At the time of decommissioning, in addition to this Decommissioning Plan, a detailed Removal Work Plan and Schedule and a Site Restoration Plan, as described in Section 3.10 Site

Restoration below, shall be filed with EFSEC as a Discretionary Site Plan Review, for review and approval by the EFSEC. The Removal Work Plan and Schedule will describe the proposed equipment that will be removed and an associated schedule for such removal based on expected future uses of the Project site. The currently envisaged plan involves completion of the decommissioning, excluding establishment of revegetation, in a six-month period.

In general, decommissioning will attempt to maximize the recycling of all facility components. Specific opportunities for recycling (e.g. PV solar panels) are discussed below in the context of various site components. The individual Project components to be decommissioned will be recycled to the maximum extent practical.

The key Project components affected by decommissioning activities are discussed below. The general decommissioning approach will be the same whether a portion, one, or all of the Projects are decommissioned.

3.1 Decommissioning Preparation

The first step in the decommissioning process will be to assess existing site conditions and prepare the Project site for demolition, including preparation and submittal of the above referenced Removal Work Plan and Schedule for the components and provisions described below.

Site decommissioning, excluding revegetation, can take six months. Establishment of revegetation on the Project sites will be the responsibility of the landowner for their agricultural or other approved land uses. The current land use of each of the Project sites is agricultural, with all locations historically producing hay or serving as pasture.

Demolition debris will be placed in temporary onsite storage areas for no more than 120 days per location with no more than one 120-day extension per location if determined necessary by EFSEC, pending final transportation and disposal/recycling according to the procedures listed below. The location of the temporary onsite storage areas will be included on a site plan with the Removal Work Plan and Schedule and Site Restoration Plan review submittal.

3.2 Well Water

There will be no wells used for the Projects. At decommissioning, no well activity is anticipated.

3.3 PV Equipment Removal and Recycling

At the start of decommissioning, the Projects will be de-energized and disconnected from the distribution grid. During decommissioning, project components that are no longer needed will be removed from the site and recycled. The de-energized crystalline Silicon PV panels will be unmounted from the torque tubes by sliding the panels off the mounting saddles once the rivet connectors are drilled out. The panels will then be collected into rear-loading garbage trucks and transported to a landfill facility or to a recycling center.

The torque tubes and any additional panel mounting hardware and rack supports will be removed in their entirety from the site using cranes, dump trucks, and flat-bed and rear-loader garbage trucks. Tracker motors and any tracker control equipment will be dismantled and recycled as per state e-waste recycling requirements. The support piers/posts will be removed by CAT excavators with attachments

and recycled. Cranes will be utilized to remove any inverters and transformers, including the inverter skids and any foundations.

The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the on-site equipment being used. The majority will be processed for transportation to an offsite recycling center. All steel, copper, and aluminum will be recycled to the maximum extent possible.

3.4 O&M Building Area

There will be no O&M Buildings on the Project sites, and therefore there will be no O&M Building decommissioning activity.

3.5 Substation

The Projects will be connected to existing substations located off-site, therefore no decommissioning activities will be required. All onsite switchgear and protection equipment will be de-energized, dismantled and removed from the Project sites using flat-bed and rear-loader garbage trucks.

3.6 Water Tanks

Any on-site water tanks for fire protection will be drained, detached and loaded onto flat-bed trucks by cranes during the decommissioning process. The water tanks will be salvaged for scrap metals.

3.7 Internal Power Collection System

The combiner boxes that convey DC power generated from the solar arrays will be dismantled. The inverters that convert DC power to AC power and transformers that increase the AC power voltage to 12.47 kV will also be dismantled and removed by cranes and flat-bed trucks. Any insulating and cooling mineral oil and fluids from the transformers will be drained, removed from the site, and recycled or disposed of at an appropriately licensed disposal facility. The underground 12.47 kV cables and conduits that form the AC and DC collection systems will be removed and recycled as well as any above ground DC electrical wiring. If any cable or conduit is left in place, the depth will be a minimum of 4 feet below grade to allow for future farming activities.

3.8 Transmission Line

Generation tie lines that have been installed on existing poles will be removed and recycled.

3.9 Roads

Onsite access roads will remain in place to accomplish decommissioning at the end of the facility's life. At the time of decommissioning, if the landowner determines that some of these roads will be beneficial for future use of the site, such roads may remain after decommissioning. On site roads will be compacted dirt roads or gravel roads. Roads that will not be re-used will be restored to preconstruction conditions. For any asphalt access driveways that will be removed, asphalt material will be broken up and removed to an appropriate disposal site. The landowners may choose to maintain the access driveways for their farming purposes.

3.10 Site Restoration

Once removal of Project equipment is complete, the sites will be restored to preconstruction conditions. The landowners will be responsible for the re-vegetation with the crop of their choice.

The restoration will be enhanced by the operational landscape re-vegetation and restoration plan outlined in Section 2.9 earlier. Fugitive dust control on remaining vacant land shall be met by preservation of the vegetation planted on site during the operation phase.

Photo documentation of the pre-construction vegetative conditions on the site is provided in Attachment 1. At the time of decommissioning, the site will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. The decommissioning will leave the existing vegetation on site and allow the landowner to determine the re-vegetation of the area for their farming purposes. The landowners will also determine any fertilizers to apply that are applicable to the specific crop they choose to plant.

3.10.1 Restoration Plan

All decommissioning shall occur in a manner where appropriate dust suppression can be achieved. Based on the site conditions, a biologist will develop a restoration plan acceptable to EFSEC at the time of decommissioning. Because of the limited disturbance to soils and site contours by the construction of the Projects, it is expected that restoration will largely involve reseeding by the landowner. De-compaction if required may involve disking or similar methods by the landowners. The Projects' land contours will be maintained very similar to pre-construction conditions, as the panels will be constructed on the existing contours when possible.

3.10.2 Monitoring

During the first growing season following site restoration, the Projects' biologist will coordinate with EFSEC on site-specific monitoring of the re-vegetated area, with landowner approval and consent. If the landowner consents, the biologist may monitor the re-vegetation for a period of three years for data collection on the restoration efforts. The monitoring will not interfere with the landowner's farming operations.

3.10.3 Criteria for Restoration Success

Success criteria for site restoration will be established prior to commencement of decommissioning activities, based on the documented pre-construction conditions, experience gained with re-vegetation during operation and the condition of the site at the time of decommissioning. The restoration success criteria will be established in the Restoration Plan submitted with the Removal Work Plan and Schedule to EFSEC in consultation with the designated biologist.

3.10.4 Report and Schedule

Acceptable levels of re-vegetation success and the schedule for achieving them could vary based on various factors such as soil, rainfall conditions and farming operations. The re-vegetation success and scheduling of success monitoring efforts will be determined to the satisfaction of EFSEC and the designated biologist, with the cooperation of the landowners. The annual reports submitted to EFSEC of

the Project sites will include copies of completed site review forms and a summary of monitoring data and results, and identification of site locations successfully re-vegetated by the landowners.
Once restoration of the Project sites is determined to be complete, a final report of restoration activities and results will be submitted to EFSEC in consultation with the designated biologist, for review and approval.

3.11 Fences

Once the sites have been fully restored according to section 3.10 above, the chain link fences and gates surrounding the Project sites can be removed and recycled.

4.0 FUTURE LAND USE

The activities involved in the facility closures will depend on the expected future use of the Project sites. Certain facility equipment may be utilized for future uses. Therefore, the extent of site closure activities will be determined at the time of the closure. Future uses of the lands occupied by the Projects will be contingent on current land use plans and regulations applicable to the Project sites at the time such future use is proposed to be established.

5.0 PROJECT DECOMMISSIONING COSTS AND BONDING

TUUSSO shall provide performance financial assurance in a form and an amount sufficient to ensure the decommissioning of the Project sites. TUUSSO will provide a report to EFSEC staff every five years after approval of the Application for Site Certification, confirming that the performance and financial assurance guarantees are sufficient to ensure performance and implementation of the Decommissioning Plan. The report shall provide a decommissioning pro-forma budgetary analysis summarizing the residual value of the salvageable property, excluding residual value of the real property (land value). The pro-forma shall include, at a minimum, the expected revenue from all salvageable property excluding land value, the then-current cost of decommissioning the sites, and the then-current value of any performance and financial guarantees.