



Department of Commerce

TUUSO Energy - Colombia Solar Project Land Use Analysis Report

Prepared for:

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Introduction

The Washington State Department of Commerce (Commerce) prepared this report at the request of the Washington State Energy Facility Site Evaluation Council (EFSEC). EFSEC requested Commerce's assistance to determine consistency between Tuusso Energy's Columbia Solar Project and Kittitas County's comprehensive plan and zoning regulations. Commerce has no regulatory or approval authority and provides this analysis as a neutral party to EFSEC's Expedited Siting process.

The scope of this report is to analyze the Columbia Solar Project sites' consistency with and compliance with Kittitas County's land use plans and zoning ordinances (see WAC 463-43-050). The scope does not include recommendations for Expedited Review approval or denial; nor does it recommend specific site mitigation measures.

Documents reviewed include the following:

- Tuusso's application for expedited review.
- Kittitas County Comprehensive Plan and Zoning Ordinance
- Legal briefs from both Tuusso and Kittitas County
- Iron Horse conditional use staff report and Board of Commissioners findings and conclusion

A site visit was conducted on January 24, 2018, which included EFSEC staff, a Tuusso representative and Tuusso environmental consultants.

Project Overview

The Columbia Solar Project consists of five individual sites located to the north, west and south of the City of Ellensburg, Washington. The sites range in size between approximately 35 and 54 acres on open, agricultural land. Appendix A includes zoning and land use maps for each site. Land Use, zoning and site characteristics for each of the sites are as follows:

1. Fumaria

Location: Approximately 3 miles north (and a bit west) of Ellensburg

Size: 35.24 Acres

Site characteristics: The site is remote with limited development within close proximity. There is no water available and is not currently being farmed and is largely covered with weeds. The project appears to be visible to one house lying to the east.

Land Use Designation: Rural Working (Rural Lands)

Zoning: Agriculture 20

2. Typha

Location: Approximately 2 miles west (and a bit north) of Ellensburg.

Size: 54.29 Acres

Site characteristics: The site is currently farmed with a golf course located directly east. The Yakima River and Interstate 90 lie to the east, providing a visual barrier to development north and east of the freeway. The project site is surrounding by agricultural land to the north, west and south and does not appear to be visible from off-site residences, nor from the freeway.

Land Use Designation: Commercial Agriculture (Agricultural Resource Lands)

Zoning: Commercial Agriculture

3. Urtica

Location: Approximately 1/2 mile southwest of Ellensburg.

Size: 51.94 Acres

Site characteristics: The site is currently farmed and is surrounded by open farmland, rural houses and a K-5 elementary school (Damman School). The historic school building located on the site in 1890.

Land Use Designation: Rural Working (Rural Lands)

Zoning: Agriculture 20

4. Camas

Location: Approximately 2 miles southeast of Ellensburg, adjacent to Interstate 82, just south of the I-90/I-82 interchange.

Size: 51.21 Acres

Site characteristics: The site lies adjacent to I-82 to the west, the freeway connecting Ellensburg and surrounding region to the Yakima region. Tjossem Road borders the north site boundary, which rises 8 to 12 feet as it approaches the I-82 overpass. A commercial dog kennels is located across Tjossem Road to the north with farmland directly west of I-82, to the east and south. A small ditch, creating two distinct portions of land, bisects the site. The site is currently farmed and includes a barn.

Land Use Designation: Commercial Agriculture (Agricultural Resource Lands)

Zoning: Commercial Agriculture

5. Penstemon

Location: Approximately 3 miles east and a bit south of Ellensburg, adjacent to Tjossem Road on the north boundary.

Size: 39.98 Acres

Site characteristics: The site is currently farmed and is surrounded by active farms, with houses to the north/north east. A channelized creek forms to east site boundary.

Land Use Designation: Commercial Agriculture (Agricultural Resource Lands)

Zoning: Commercial Agriculture

Land Use Analysis

Washington State's Growth Management Act (GMA) establishes statewide goals for growth and development and includes specific requirements that counties must address in their comprehensive plans. The Kittitas County Comprehensive Plan adopts goals, policies and objectives specific to local conditions, while consistent with the GMA, hearings board decisions and court cases. The comprehensive plan provides policy guidance for zoning and other development regulations, which are the rules for how land is used and developed. Two GMA goals that are most pertinent to this analysis include:

1. Preservation of rural character, and
2. Designate and assure the conservation of agricultural resource lands of long-term commercial significance.

Rural Element

The GMA requires counties to adopt a Rural Element, which establishes goals and policies for rural development and preservation of rural character. The concept of rural character varies from one region to the next, even within the same county. The GMA refers to the patterns of land use and development in the rural element of comprehensive plans:

- *In which open space, the natural landscape, and vegetation predominate over the built environment;*
- *That foster traditional rural lifestyles, rural-based economies, and opportunities to both live and work in rural areas;*
- *That provide visual landscapes that are traditionally found in rural areas and communities;*
- *That are compatible with the use of the land by wildlife and for fish and wildlife habitat;*
- *That reduce the inappropriate conversion of undeveloped land into sprawling, low-density development;*
- *That generally do not require the extension of urban governmental services; and*
- *That are consistent with the protection of natural surface water flows and groundwater and surface water recharge and discharge areas. (RCW 36.70A.030(15)).*

Rural Character is defined in the Kittitas County comprehensive plan as:

Predominate visual landscape of open spaces, mountains, forests, and farms and the activities which preserve such features. It balances environmental, forest, and farm protection with a variety of rural development and recreational opportunities. Many sizes and shapes of properties can be found in the Rural Lands providing a wide variety of land use from its diverse topography, small to large acreage properties, assorted economic activities and opportunities, small rural residential development, and recreational activities... (Page 8-4, Kittitas County Comprehensive Plan).

The following goals, policies and objectives (GPO), provide context to preserving and enhancing rural character:

GPO 8.12 Incentive-based land use strategies will be examined and adopted to encourage land uses which are compatible to the rural environment.

GPO 8.15 Uses common in rural areas of Kittitas County enhancing rural character, such as agriculture uses in Lower Kittitas and rural residential uses and recreation uses in Upper Kittitas shall be protected from activities which encumber them.

GPO 8.16 Give preference to land uses in Rural designated areas that are related to agriculture, rural residential development, tourism, outdoor recreation, and other open space activities.

GPO 8.17 Land use development within the Rural area that is not compatible with Kittitas County rural character or agricultural activities as defined in RCW 90.58.065(2)(a) will not be allowed.

GPO 8.19 Develop buffer standards and regulations that will be used between incompatible rural uses.

GPO 8.21 Kittitas County will provide criteria within its zoning code to determine what uses will be permitted within rural zone classifications in order to preserve rural character.

*GPO 8.21B Functional separation and setbacks found necessary for the protection of water resources, rural character and/or visual compatibility with surrounding rural areas shall be required where development is proposed. The first sentence of this policy shall not apply to agricultural activities as defined in RCW 90.58.065(2)(a). When required by the county shoreline master program or critical area regulations, buffers shall be provided. (Page 8-6, **Kittitas County Comprehensive Plan**).*

Rural Working Designation

Kittitas County's plan designates the Fumaria and Urtica sites as "Rural Working". The Rural Working designation emphasizes farming and ranching as historic and fundamental components of the rural landscape and character. Rural Working lands also support "some commercial and industrial uses compatible with rural environment and supporting agriculture and/or forest activities" (Page 8-8, **Kittitas County Comprehensive Plan**). Agriculture activities in Rural Working lands are generally less in scope than Agricultural Resource lands.

Goals, policies and objectives specific to the Rural Working focus largely on agricultural preservation and limiting conflict between working farms and residential development. The GPOs do not specifically address energy facilities. The following GPOs discuss commercial/industrial development in the Rural Working designation:

GPO 8.44 Growth and development in Rural lands will be planned to minimize impacts upon adjacent natural resource lands.

GPO 8.44A Commercial/Industrial development in rural areas shall be compatible to the rural environment, and must be developed as determined necessary to not significantly impact surface and groundwater.

GPO 8.44B All runoff from impermeable surfaces of industrial/commercial development must meet local and State storm water standards and requirements.

GPO 8.44C New commercial/industrial development shall be required to meet standards or any measures found needed to protect existing surface and groundwater users from impairment and contamination.

Analysis

The Rural Working designation is clearly focused on preserving working farms and ranches while limiting conflicts and impact from non-agricultural development. Policies do recognize that non-agricultural uses may be permitted as long as impacts can be minimized. This can be accomplished by restricting certain non-agricultural uses to areas adjacent to freeways, other similar non-agricultural uses and by adopting development regulations requiring special setbacks, building height limits, vegetation screens and fencing. For rural lands, the critical questions regarding land use consistency are:

- Does the proposed project change the visual character of the area such that it is not consistent with rural visual character?
- Will the operation of the facility create any operational interference with agricultural production on any surrounding resource lands?
- Will the project manage any stormwater runoff in a manner that maintains natural drainage without contamination of the surface and groundwater?

RESOURCE LANDS

The GMA requires counties to designate agricultural, forest and mineral resource lands, which are lands that have long term commercial significance (RCW 36.70A.170). Counties are further required to adopt regulations to ensure the conservation of resource lands (RCW 36.70A.060). The GMA requirements protects resource lands from two primary threats: **conversion** of resource lands to uses that remove the land from agricultural production; and development that creates **operational interference** with agricultural operations on surrounding property.

Kittitas County adopts goals, policies and objectives in the Rural Lands chapter to assure that resource land policies are consistent with the GMA.

Most of the resource land goals, policies and objectives concern the protection and conservation of resource lands and do not specifically address commercial or industrial land uses. The following GPO addresses incompatible development:

GPO8.123 Where proposed development is determined incompatible with natural resource activities, all mitigation measures to make the development compatible with the activities shall be completed at expense of the developer.

Commercial Agriculture Designation

Three of the project sites, Typhus, Camas and Pentsemon, are designated Commercial Agriculture. This designation intends to conserve designated agricultural land for long-term commercial viability. The County applied the following guidelines in designating commercial agriculture land (see WAC 365-190):

- *Lands not characterized by urban growth;*
- *Lands capable of being used for agricultural production based primarily on physical and geographic characteristics;*
- *Lands having long-term significance for agriculture which takes into account, among other things, the proximity to urban growth areas, public facilities and services, intensity of nearby uses and other things which might contribute to potential revision of use based upon marketing factors.*

The comprehensive plan includes the following designation criteria and considerations:

- *Land Grade Consideration. Agricultural Lands of Long-Term Commercial Significance shall be prime and unique farmland soils as mapped by the United States Department of Agriculture Natural Resources Conservation Service and considered capable of agricultural use according to land capability criteria in Agriculture Handbook No. 210 or successor guide adopted by the federal agency.*
- *Other consideration. In determining whether land should be designated as Agricultural Land of Long-Term Commercial Significance, the County may also consider the needs and nature of the agricultural industry.*
- *Designation. Upon a determination that a tract qualifies as Agricultural Lands of Long-Term Commercial Significance (referred to as Commercial Agricultural Lands in the Kittitas County Code) under the definitions and considerations noted above, such lands shall be so mapped in the Comprehensive Land Use Plan map of Kittitas County and shall be zoned Commercial Agricultural lands under Kittitas County zoning code, section KCC 17.31. The County's Commercial Agricultural zoning code, KCC 17.31, shall control uses, maintenance and enhancement of the agricultural industry and conserve productive agricultural lands consistent with the needs and best practices of the industry. Lands presently mapped as "commercial agriculture" shall retain that designation unless a*

*specific de-designation request is filed by the owner for a review under the guidelines of this Ordinance (Page 8-30, **Kittitas County Comprehensive Plan**).*

Preservation of agricultural lands is one of 14 GMA goals and a high priority for Kittitas County. Resource lands goals, policies and objectives in the County's Comprehensive plan provide little guidance for the siting and development of commercial and industrial uses, or utilities.

Solar farm construction allows for complete removal once the project is no longer viable. Soils would not be disturbed and the property can return to agricultural production. This meets the intent to preserve agricultural lands of long-term significance.

The concern for Kittitas County are the cumulative impacts of solar installations on productive agricultural land. Considerations include the market demand for alternative energy and the proximity to existing power infrastructure. If the demand for solar energy were persistent and growing, these lands would not be available for agricultural use for a long period. This would effectively remove lands from agricultural production and would be conversion, unless farming can coexist with solar energy production on the site.

For agricultural resource lands, the critical questions regarding land use consistency are:

- Does the proposed project remove agricultural resource lands from agricultural production?
- Can the project be designed in a way that retains the ability to use the land for agricultural production?
- Will the operation of the facility create any operational interference with agricultural production on any surrounding resource lands?

Utilities Element

The Utilities Element includes the following GPOs specific solar farms:

GPO 6.36 Develop a study area encompassing the entire county to establish criteria and design standards for the siting of solar farms (Page 6-5, *Kittitas County Comprehensive Plan*).

Kittitas County is currently developing updates to its zoning code specific to solar farms.

Zoning Analysis

Zoning Codes regulate the use of land by classifying uses within specific zones as either permitted, not permitted or as a conditional use. Conditional uses require a public hearing where a specific project is either approved with specific conditions, or denied. Conditions of approval include mitigation measures to lessen the impact of the proposed use on surrounding development. Conditional uses permits are applied to specific properties for specific uses and cannot be transferred to other sites.

Zoning codes include conditional uses because some uses may be desirable at a specific location and compatible with surrounding land uses. That same use may not be compatible with surrounding uses at other sites. The hearing process allows the public to voice support or opposition to the proposal, and testimony may result in conditions that mitigate impacts to surrounding properties.

Conditions of approval reflect the compatibility of the proposed use with surrounding development, site characteristics, proximity to adjacent development and public services. Example conditions may include, but are not limited to, hours of operation, increased setbacks, landscaping, increased buffers from streams and wetlands, height limitations, fencing and building materials.

In Kittitas County, a Hearing Examiner conducts the Conditional Use public hearing, then forwards a recommendation for approval with conditions, or denial, to the Board of Commissioners. The Commissioners then conduct a “closed record” hearing, with authority to make the final decision. A closed record hearing means that the Board may only consider information presented to the Hearing Examiner. The Board’s decision is appealable to Superior Court.

EFSEC must consider whether the Tuusso project, which would require five separate conditional use permits, can be compliant with local zoning if the zoning code requires a public hearing before a Hearing Examiner and a final decision by the Board of Commissioners. The Conditional Use hearing process does not guarantee a positive outcome for the applicant.

Major Alternative Energy Facilities

Title 17, Zoning, of the *Kittitas County Code* (KCC) regulates land use within the County. The code includes “solar farms” in the definition of “Major alternative energy facility”, along with hydroelectric plants and wind farms. The code also includes “Minor alternative energy facilities, but those facilities must use the energy produced on-site. Therefore, the KCC classifies the Columbia Solar projects as major alternative energy facilities.

Section 17.61.020 specifies that major alternative energy facilities *may* be authorized as a conditional use permit in the Agricultural-20 and Commercial Agriculture zones. Therefore, all

five of the Columbia Solar sites would be eligible to apply for a conditional use permit (notwithstanding the current moratorium on solar farms, discussed later in this report).

Section 17.60A.15 lists review criteria that the Board must consider when reviewing Conditional Use proposals, including:

1. *The proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.*
2. *The proposed use at the proposed location will not be unreasonably detrimental to the economic welfare of the county and that it will not create excessive public cost for facilities and services by finding that*
 - A. *The proposed use will be adequately serviced by existing facilities such as highways, roads, police and fire protection, irrigation and drainage structures, refuse disposal, water and sewers, and schools; or*
 - B. *The applicant shall provide such facilities; or*
 - C. *The proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment.*
3. *The proposed use complies with relevant development standards and criteria for approval set forth in this title or other applicable provisions of Kittitas County Code.*
4. *The proposed use will mitigate material impacts of the development, whether environmental or otherwise.*
5. *The proposed use will ensure compatibility with existing neighboring land uses.*
6. *The proposed use is consistent with the intent and character of the zoning district in which it is located.*
7. *For conditional uses outside of Urban Growth Areas, the proposed use:*
 - A. *Is consistent with the intent, goals, policies, and objectives of the Kittitas County Comprehensive Plan, including the policies of Chapter 8, Rural and Resource Lands;*
 - B. *Preserves "rural character" as defined in the Growth Management Act (RCW [36.70A.030\(15\)](#));*
 - C. *Requires only rural government services; and*
 - D. *Does not compromise the long term viability of designated resource lands. ([Ord. 2013-012](#), 2013; [Ord. 2013-001](#), 2013; [Ord. 2012-009](#), 2012; Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988; Res. 83-10, 1983)*

Section 17.60A.020 lists conditions that may be imposed, included, but not limited to:

1. *Increasing the required lot size, setback or yard dimensions;*
2. *Limiting the height of buildings or structures;*
3. *Controlling the number and location of vehicular access points (subject to approval by the reviewing authority with jurisdiction to issue approach or access permits);*
4. *Requiring the dedication of additional rights-of-way for future public street improvements;*
5. *Requiring the designation of public use easements;*
6. *Increasing or decreasing the number of required off-street parking and/or loading spaces as well as designating the location, screening, drainage, surfacing or other improvement of a parking area;*
7. *Limiting the number, size, height, shape, location and lighting of signs;*
8. *Requiring or limiting view-obscuring fencing, landscaping or other facilities to protect adjacent or nearby properties;*
9. *Designating sites for and/or the size of open space or recreational areas;*
10. *Requiring site reclamation upon discontinuance of use and/or expiration or revocation of the project permit;*
11. *Limiting hours and size of operation;*
12. *Controlling the siting of the use and/or structures on the property;*
13. *Requiring mitigation measures to effectively reduce the potential for land use conflicts with agricultural and resource lands, such as: landscape buffers, special setbacks, screening, and/or site design using physical features such as rock outcrops, ravines, and roads.*
14. *Demonstrating that the requirements of [Chapter 13.35, Kittitas County Code](#), Adequate Water Supply Determination, can be met. ([Ord. 2014-005](#), 2014; [Ord. 2013-012](#), 2013; [Ord. 2012-009](#), 2012; Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988)*

Solar Farms in Kittitas County

Kittitas County has conditionally approved two solar farms (see P. 7, *Kittitas County's Brief on Land Use Consistency*). The two projects include the Teanaway Solar Preserve, a 477-acre project on a 982-acre parcel, and the Osprey Solar Farm, a 13-acre project on a 112-acre parcel. Neither project has been constructed to date.

The County's most recent solar farm proposal, Iron Horse, was recommended for approval by the Hearing Examiner, but was denied by the Board of Commissioners. The Board's decision was appealed to Kittitas County Superior Court and the Court affirmed the decision. The Iron Horse project was proposed on open, irrigated farmland near the City of Kittitas. The Board found that the project was not consistent with rural character, and the Court agreed. The relevant findings from the court including the following statements:

Preserving rural character is one of the conditions that must be met, and the burden of showing that it does so at the specific site rests with the applicant proponent of the solar farm.

There is nothing inconsistent about a finding that major alternative energy facilities may but also may not preserve rural character as it applies to a specific project in a specific place, even in the same zoning. One component of rural character refers to "patterns of land use and development established by county in the rural element of its comprehensive plan: (a) in which open space, the natural landscape, and vegetation predominate over the built environment." There could be an almost infinite number of configurations of project and siting that could yield vastly different results from each other.

It is not an erroneous interpretation of the law, specifically rural character, to consider whether a massive industrial project of this nature, encompassing 47.5 acres, eight feet high with large mechanized racks to follow the sun, set in the middle of treeless productive farm fields preserves rural character, interferes with visual compatibility of the surrounding area, or contains a built environment which predominates over the natural landscape...

The Superior Court's decision has not been appealed and, therefore, establishes legal parameters in which solar farms must be evaluated in Kittitas County. Key takeaways include the following:

1. Each site must be evaluated independently from other sites.
2. Solar farms may, or may not, preserve rural character.
3. The built environment cannot predominate over the natural environment.
4. Projects may potentially be designed in ways that preserve rural character

Moratorium

After making its decision on the Iron Horse project, the Board of Commissioners adopted a moratorium for new solar farms, which was recently extended to July 10, 2018. The County is developing new rules, which would include the appropriate location for new solar farms. Therefore, the County cannot currently accept Condition Use applications for solar farms. The question of whether this project is consistent with applicable zoning regulations when those

regulations include a moratorium on that type of project is not within the scope of the analysis requested of Commerce.

Other Non-Agriculture Uses

Kittitas County Code includes zoning use tables, which lists specific uses as either permitted (P), permitted with administrative approval (PA), permitted with an administrative conditional use (AC), or a conditional use (CU) (see Appendix B, Chapter 17.15, Allowed Uses).

Following are non-agricultural uses allowed in the Commercial Agriculture zone:

- *Religious Institutions (CU)*
- *Schools (CU)*
- *Shooting Range (CU)*
- *Vehicle Equipment Service and Repair (P, limited to farm implements)*
- *Airport (P, when used supporting agricultural activities)*
- *Refuse Disposal/recycle (CU)*
- *Mining and excavation (CU)*
- *Public Facilities (PA)*
- *Utilities (P/ACU/CU, depending on the type of Utility)*

Following are non-agricultural uses allowed in the Agriculture 20 zone:

- *Religious Institutions (CU)*
- *Schools (P)*
- *Interpretive Center (AC)*
- *Veterinary Hospital (CU)*
- *Shooting Range (CU)*
- *Vehicle Equipment Service and Repair (P, limited to farm implements)*
- *Airport (CU)*
- *Forest Product Processing (CU)*
- *Refuse Disposal, Recycle (CU)*
- *Campground (CU, with specific criteria)*
- *Golf Course (CU)*
- *Parks and playgrounds (P)*
- *Mining and excavation (CU)*
- *Public facilities (PA)*
- *Utilities (P/ACU/CU, depending on the type of Utility)*

Chapter 17.61 defines "Utility" as:

"Utility" or "utilities" means the supply, treatment and distribution, as appropriate, of gas, gas meter stations, municipal domestic and irrigation water, sewage, storm water, electricity, telephone, fiber-optic and cable television. Such utilities consist of both the service activity along with the physical facilities necessary for the utilities to be supplied,

except for associated facilities and special utilities as defined herein. Electric vehicle infrastructure, as provided for in [Chapter 17.66](#), is not a "utility" or "utilities".

Chapter 17.62 defines "Public Facility" as:

"Public facility" means the capital improvements and systems of transportation, law enforcement, fire protection, and recreational facilities (i.e., parks and playgrounds). Public facilities may be sited in any zoning, classification, subject to the review and approval requirements of this chapter.

Conclusion

This report does not recommend a position on the project's consistency with Kittitas County's comprehensive plan and zoning regulations. Rather, it highlights policy issues for EFSEC's consideration in determining consistency. In making its consistency determination, EFSEC should consider information gathered during the land use hearing process and SEPA evaluation.

Key issues include the legal effect of the moratorium on solar projects, the Superior Court's *Iron Horse* decision regarding rural character and whether a consistency determination can be made given the local public hearing process required for a conditional use.

If EFSEC moves forward with expedited review, a critical task is to determine appropriate conditions/mitigation to ensure compatibility with rural character and agricultural lands. Issues to consider include:

- Proximity to adjacent uses, especially residential development
- Viewsheds
- Fencing and vegetative buffering
- Setbacks from public roads. (Does a 10' fence adjacent to a public road inhibit rural character/scenic vistas?)
- Does the site coverage overwhelm the rural environment?
- Is the site visible from public areas?
- Potential cumulative impacts to agricultural lands resulting from solar installations