

3.13 PUBLIC SERVICES AND UTILITIES/RECREATION

This section presents an analysis of existing public services and utilities in Kittitas County including Kittitas, Ellensburg, and Vantage (the communities closest to the Project site) and potential impacts associated with construction and operation of the Wild Horse Wind Power Project ('Project'). The evaluation includes fire protection, police, medical services, schools, communications, sewer, solid waste, and water supply services. In addition, recreational facilities within approximately 25 miles from the center of the Project, and in some cases, recreational facilities that are beyond the 25 mile radius were included in this section.

Potential impacts to roads are fully described in Section 3.15, 'Transportation'. Operations and Maintenance (O&M) impacts, activities, and schedules are fully described in Section 2.2.7, 'Operations and Maintenance'.

3.13.1 Existing Conditions

3.13.1.1 Fire Protection

There are two fire districts to the southwest and southeast of the Project area, Fire District No. 2 (Rural Ellensburg) and Fire District No. 4 (Vantage). The proposed wind turbines will be located outside of any existing fire district, as this area is almost totally uninhabited (see Exhibit 21, 'Project Area Fire Districts'). The City of Ellensburg also has its own fire department. The Applicant is in the process of determining which Fire District will be responsible for fire protection services for the Project and will submit this information to EFSEC prior to construction as part of the Fire Protection and Prevention Plan.

Fire districts are staffed primarily by volunteers. Fire District No. 2 currently has five full-time paid personnel and approximately 95 volunteers. Fire District No. 4 is staffed entirely by volunteers. Both Fire Districts Nos. 2 and 4 have emergency medical equipment and extraction equipment for auto accidents, as well as Basic Life Support (BLS) services. Most of the rural fire districts have minimal services (equipment and personnel) for search and rescue. All districts have bimonthly or monthly training meetings. All districts have mutual aid agreements with neighboring districts and with the City of Ellensburg's fire department.

Fires that occur most frequently in the area near the Project are wild land fires (grass, brush, and timber), vehicle fires, and structural fires. District fire departments also receive calls for boating (District No. 2 responds to fires on the Columbia River, near Vantage) and hunting accidents; emergency medical situations such as heart attacks; recreational mishaps; propane spills and fires, and assistance to the State Patrol for HAZMAT. Most fires are man-made or caused by arson, with only a few naturally occurring fires, i.e., lightning.

3.13.1.2 Police

The Kittitas County Sheriff's Department and the Washington State Patrol provide law enforcement services for the entire county, except for some cities that provide their own law enforcement—Cle Elum, Roslyn (covered by Cle Elum), Kittitas, and Ellensburg. All state highway routes (SR-97, SR-970, SR-10, SR-821, I-90, and I-82) are patrolled by the Washington State Patrol. The Project is north of Vantage Highway, between the towns of Kittitas and Vantage. The County Sheriff's Department serves the unincorporated areas of Kittitas County.

The law enforcement services provided by the County Sheriff's Departments include traffic control, drug enforcement, search and rescue, and civil calls. The Sheriff's office has implemented a traffic safety program and is in the final stages of developing a proposal for a criminal justice facility in the area. Other county services include a K9 unit, SWAT team, marine patrol, and search and rescue (pers. comm., Carolyn Hayes). The Washington State Patrol provides traffic enforcement on state highways and drug enforcement, Hazardous Materials Team (HAZMAT) oversight, and incident response. The Washington State Department of Ecology in Yakima (approximately 35 miles south of Ellensburg) also provides a HAZMAT response team.

Sheriff Gene Dana heads the Kittitas County Sheriff's Department. He has 25 deputies on patrol, three detectives, a criminal chief, and an undersheriff. All officers are state-certified, and many have additional training for drugs, search and rescue, traffic control, and accidents. The Sheriff's Department is state and federal accredited. No additional personnel, holding facilities, vehicles, equipment, or other needs are anticipated during construction or operation of the Project

3.13.1.3 Schools

The Project is located in School District 403 (Kittitas). District 403 includes Kittitas Elementary School (grades K-5) and Kittitas Secondary School (grades 6-12). Table 3.13.1-1 lists the total number of students at each school, as well as by grade. The existing capacity of the Elementary School is 225 students and the existing capacity of the Secondary School is 350 students.

Table 3.13.1-1: Total Number of Students by School and Grade– Kittitas School District

Kittitas Elementary School (grades K-5)		Kittitas Secondary School (grades 6-12)	
Grade	# of Students	Grade	# of Students
K	40	6	53
1	30	7	51
2	47	8	49
3	37	9	37
4	41	10	48
5	45	11	44
		12	38
Total:	240	Total:	320

Source: Kittitas School District #403, 2003.

School bus routes use federal, state, and county roads near the Project area for student transportation. Further details on schools and their services are not provided as there will be no significant impact to local schools from the Project. Based upon the Applicant’s experience with building other wind projects and recent experience at other wind projects in the region, up to half the construction workforce is expected to be from the local area. Due to the relatively short length of the construction period for any individual trade, most construction workers from outside the area are expected to commute to the site from the Yakima or Seattle areas, and those that do not are expected to reside locally only on a temporary basis and not to relocate their families. No demands for additional teachers or other personnel are anticipated during the construction period. Of the total 14 to 18 workers anticipated during Project operations, up to half are expected to be from the local area, based on the Applicant’s experience with operating other wind projects and recent experience at other wind projects in the region. No enrollment impacts on schools are anticipated, therefore, no mitigation measures are being proposed. (See Section 2.2.6, ‘Project Construction Schedule and Workforce’ for more details.)

3.13.1.4 Parks or Other Recreational Facilities

Table 3.13.1-2 provides a list of recreational facilities and activities available within a 25-mile radius of the Project site or beyond; the radius is centered on the approximate middle point of the Project. Exhibit 22, ‘Recreational Areas Surrounding Project Site’ illustrates the area. This study area covers forests and wilderness areas, wildlife areas and refuges, boat launches, beaches and other water use sites, State parks, municipal parks, campsites, and museums. Ski areas are available beyond the 25-mile radius, at Snoqualmie Pass and Mission Ridge.

Washington State campgrounds are operated on a first-come, first-served basis, and state regulations limit overnight stays to 10 days. The U.S. Forest Service campgrounds

exceed their capacity almost every weekend during the summer, often turning people away (Lucy Schmidt, U.S. Forest Service). National forests have a 14-day limit on camping. After that, campers must leave the campground for at least 24 hours before returning.

Summer recreational activities include water sports, such as fly fishing, swimming, boating, river rafting, and water skiing; as well as camping, biking, hiking, horseback riding, hunting, picnicking, bird watching, rock hounding, softball, and other team sports. During the winter, recreational activities include cross-country skiing, inner tubing, snowshoeing, skiing, sledding, snowboarding, and snowmobiling. There are no fishing sites within the Project area.

Table 3.13.1-2: Parks, Recreational Facilities, and Activities within 25 Miles of the Wild Horse Wind Power Project Facility	
TOWNS	Distance in Miles
Kittitas	9.0
Vantage	10.0
Ellensburg	14.5
George	15.0
Cle Elum	17.0
Quincy	19.5
Wenatchee	23.5
STATE	
Colockum Wildlife Area	11.0
Quilomene (Schaake State) Wildlife Area	1.0
Whiskey Dick Wildlife Area	1.0
Ginkgo State Park	7.0
North Columbia Basin (Colockum) State Wildlife Area	8.0
Olmstead Place State Park	11.0
Crescent Bar Recreation Area	13.0
Squilchuck State Park	18.0
South Columbia Basin State Wildlife Area	20.0
Rock Island State Park	21.0
Priest Rapids State Wildlife Area	21.5
Wenatchee Confluence State Park	23.5
NATIONAL	
Yakima Firing Center	9.0
Wenatchee National Forest	12.0
U.S. Military Reservation Yakima Training Center	15.0
Columbia National Wildlife Refuge	18.5
Wenas Wildlife Recreation Area	20.0
OTHER	
Columbia River	7.4
Stan Coffin Lake	C

Evergreen Reservoir	C
Quincy Seeps Lakes Public Fishing Area	C
Burke Lake	C
Ellensburg Golf and Country Club, Racquet and Recreation Center, and Swimming Pool/Fitness Center	E**
Yakima River-Thrall Access	E
Fiorito Ponds	E
Matton Lake	E
ELLENSBURG CITY/COMMUNITY PARKS/CAMPGROUNDS	
Burlington Northern Square	E
Catherine Park	E
Irene Rinehart Riverfront Park	E
Kiwanis Park	E
Lions/Mountain View Park	E
McElroy park	E
Memorial Park	E
Paul Rogers Wildlife Habitat Park	E
KOA Campground (private)	E
Reed Park	E
Rotary Pavilion	E
Sagebrush Trail	E
South Main Entry Park	E
West Ellensburg Park	E
Whitney Park	E
Wippel Park	E
Skate Park	E
ELLENSBURG MUSEUMS	
Children's Activity Museum	E
Clymer Museum and Gallery	E
Kittitas County Museum	E
Olmstead Place State Park Heritage Center	E
Thorp Mill (located in Thorp)	E

Notes:

Includes areas of interest within a 25 mile radius of the Project site.

All distances measured from the closest property boundary line.

***E Located in Ellensburg or vicinity*

3.13.1.5 Medical Services

Kittitas Valley Community Hospital in Ellensburg serves the entire county. There are 50 licensed beds, but only 36 are set up to be used, and those beds are not used to capacity. The hospital has Level Four trauma service, with a limited number of specialists available. Patients with head injuries, severe burns, and/or trauma are transported to a

different facility, usually Harbor View Medical Center in Seattle. Less severe accident victims are sometimes transported to Yakima for hospitalization and treatment. There is a heliport on the roof of the hospital, and a helicopter is available for emergency response (Eric Jensen, Kittitas Valley Community Hospital administrator, personal communication). MedStar, a critical care transport service located in Moses Lake, Washington, also provides air ambulance support services to Kittitas County.

The City of Ellensburg fire department provides emergency medical services (EMS) for the entire county, directly billing for services that include treating injuries, falls, burns, fractures, lacerations, and heart attacks. The Ellensburg fire department has 1 chief, 3 captains, 6 EMS providers, 11 paramedics and 18 Emergency Medical Technicians (paid and reserves). Ambulances are located in Ellensburg, and the towns of Kittitas and Cle Elum. Also, Cascade Search and Rescue is located in Ellensburg. Emergency calls are dispatched through the Sheriff's office to the fire districts that provide search and rescue support.

In the event of a medical emergency at the Project site, the Personal Medical Injury emergency plan described in Section 4.6.3 will be enacted.

3.13.1.6 Communications

Telephone services near the Project are currently supplied by Ellensburg Telephone. Cellular phone service is available from a variety of providers. The closest cell towers are located approximately 3 miles south of the Project and are provided by Voice Stream Wireless and Nextel West Corporation. Cell phone coverage in the Project area itself is highly variable, depending on the terrain. Charter Communications offers high speed cable internet service to Kittitas. Ellensburg Telephone offers DSL and dial-up service to Kittitas.

Newspapers published and/or distributed in the area include the *Daily Record* (Ellensburg daily newspaper), and *Northern Kittitas County Tribune* (Cle Elum weekly newspaper).

There is no cable television service in Vantage. Cable television services are provided by Charter Communications in Ellensburg and Kittitas, R&R in Roslyn, and TCI in Cle Elum. Broadcast television service in the Project area is available for Channels 25, 31, 39, 41, 51, 54, 63, and 69. All of these stations are UHF channels and are broadcast from transmitter antennas located south and east of Ellensburg. Reception quality varies greatly, based on local topography and distance from the transmitter antennas (see Exhibit 24, 'Telecommunications Obstruction Analysis'). Radio transmission reception quality also varies throughout Kittitas County.

3.13.1.7 Septic System

A description of existing community sewer systems within the county is not provided as no public utilities will be used for the Project. Sanitary wastes will be collected in

“portable toilets” during construction, and an onsite septic system is proposed for the operations and maintenance facility.

3.13.1.8 Water Supplies

Groundwater has not yet been exploited for beneficial use via drilled wells within the Project area according to a search of well logs for the Project area (Washington State Department of Ecology, 2003). The groundwater wells mapped in the area are at least 2 miles from the Project site boundary, and at least 1,000 feet lower in elevation. No well drilling is anticipated for construction or operation of the Project, as water will be purchased from an off-site vendor and trucked to the Project site.

3.13.1.9 Solid Waste

Solid waste disposal services in the area are provided by a construction and demolition (“C&D”) landfill and a transfer station in Ellensburg. The Kittitas County Solid Waste Department manages the Rye Grass landfill, located on Vantage Highway, about 2 miles south of the Project site. The Ellensburg transfer station is operated by Waste Management, and does not accept hazardous wastes. There are drop boxes for limited materials recycling at the transfer station, but mixed paper recycling is not offered. Garbage is transported from the transfer station in Ellensburg to the Greater Wenatchee Regional Landfill located in East Wenatchee. The Ryegrass construction and demolition debris landfill operated by Kittitas County accepts inert materials including asphalt, construction debris, fencing, roofing material, concrete, brick, etc., as noted in Exhibit 23, ‘List of Accepted Waste Materials’. All of these are licensed facilities.

3.13.1.10 Public Utilities

Puget Sound Energy (PSE) and Kittitas PUD No. 1 provide electric services within the county, except for the City of Ellensburg which has its own municipal electrical service. The Project will connect either to the Bonneville Power Administration or PSE high voltage transmission system. Currently, Kittitas PUD No. 1 has a single phase power line which runs parallel and adjacent to the north side of Vantage Highway. Power from this line is also fed up a branch line which feeds communications towers located on land owned by DNR in Section 34 at the east end of Whiskey Dick Mountain.

3.13.2 Impacts of Proposed Action

3.13.2.1 Fire Protection

Construction

Because of the number of workers and that the construction activities will be occurring in an area susceptible to wild land fires, there is increased potential for calls for emergency fire services. There is little or no potential for nacelles to catch on fire during construction, as they will not be operating yet. Given the fact that there are only three

residences within 2 miles of the Project site, fire risk to people and property is considered minimal. The Applicant has initiated discussions with Rural Ellensburg Fire District #2 for providing fire protection service under contract during the construction period.

Operations

Impacts from fire, either from a turbine or wild land fire in the Project area, could increase or be more difficult to control unless provisions are made for fire fighters to have easy access to the Project site. Mitigation measures including facilitating access to the Project will be made as described under Section 3.13.4 below to address these concerns.

Fires caused by lightning are rare in the area compared to man-made fires, and they usually occur on timbered ground. A lightning-caused fire at the turbines is highly unlikely because all turbines and towers will be built with engineered lightning protection systems, (see Section 2.2.4, 'Design Criteria for Protection from Natural Hazards'). Fires in modern turbine nacelles due to mechanical failures are also extremely rare. In the event of a nacelle fire, Project operations staff and fire personnel will not attempt to put it out, but only prevent the fire from spreading to any adjacent land. This will be achieved either by use of fire suppressant material or a small controlled burn around the base of the tower.

All operations personnel working on the turbines will work in pairs. In the unlikely event that an injury occurs while working in the nacelle, all staff will be trained in lowering injured colleagues from the nacelle. A rescue basket, specially designed for this purpose, will be kept at the operations and maintenance facility and will be available for use by local emergency medical services personnel. Training in its use will also be provided to local EMS personnel by the Applicant.

3.13.2.2 Police

Construction

Construction activities associated with the Project (commuting construction workers and the transportation of materials) will increase traffic volume on roadways surrounding the Project area. This increased volume will occur between the spring and fall seasons, depending on the construction schedule, but is not expected to significantly impact roadways (see Section 3.15, 'Traffic and Transportation'). It is possible that the number of accidents and calls for service along major roadways (Vantage Highway and I-90) could increase slightly for about six months, when most of the onsite work will be done. Enforcement activities may peak when employees peak, at about 160 construction workers during a period of approximately one to two months. Since the time period for construction is short, the existing police force should be able to provide adequate enforcement services. The Applicant will consult with the County regarding the impact on county law enforcement staffing. If additional staffing is required, the Applicant proposes to mitigate by prepaying a sufficient amount of taxes to provide adequate staffing levels during construction.

Out-of-area workers are not expected to move their families into the Project area as each craft will typically be completed within four months or less. They will either commute (from the Seattle or Yakima area, a one- to two-hour drive) or stay in temporary housing (RV parks, hotels, motels, or campgrounds) for the period of time needed to complete their tasks. Also, of the total work force, approximately 90 specialists will erect the turbine towers within about four months. These workers, required for this type of work, are expected to stay in temporary housing.

Assuming that most workers will not change their family residences, traffic violations are expected to be the largest concern for police enforcement. There should be minimal need to increase civil law enforcement, or for additional jail space. Traffic enforcement should be manageable with existing or temporary part-time Washington State Patrol and Sheriff's Department staff. Since the construction time period will be short, existing staff should be able to cover any additional law enforcement requirements.

Operations

Because the number of employees during operations will range from 14-18 workers, about half of whom are expected to be hired locally, there will be no significant impacts to law enforcement.

3.13.2.3 Schools

Construction

It is unlikely that construction workers will relocate their families to the study area during construction due to the expected short duration (maximum of three to four months) of employment for each craft. Therefore, no impacts are expected to local school districts.

Operations

There will be an insignificant impact on schools during operations because the number of employees who might have families moving to the area is small. Up to half of the 14 to 18 employees are expected to be hired locally.

3.13.2.4 Medical Services

Because the Kittitas Valley Community Hospital has capacity for additional patients and there are several ambulances available to service the Project area, there will be no significant impacts to medical services in the Project area during construction and operation. The Applicant will make arrangements with the Kittitas Valley Community Hospital for helicopter transportation service in the unlikely event that any operations personnel are seriously injured and require evacuation from a remote location within the Project area.

3.13.2.5 Parks or Other Recreational Facilities

Construction

Some workers may decide to stay at parks and campgrounds that allow overnight camping. These workers may displace existing recreational users. However, recreational demands are much higher on weekends, and workers more likely will use such facilities on weekdays.

In addition, it is possible that some construction workers will take advantage of the recreational opportunities within the county and throughout the region. This may include boat launches, parks, wildlife areas and refuges, and forest and wilderness areas, thereby increasing the number of users and again possibly displacing existing recreational users. Truck deliveries during construction will not significantly affect roads leading to Ginkgo State Park. See Section 3.15, 'Traffic and Transportation' for a detailed analysis of potential traffic impacts.

During construction, no public access to the Project site (including transmission feeder line corridors) will be allowed, in order to prevent any potential conflicts between recreational users and construction equipment and activities.

Operations

Some parks and recreational facilities currently exceed capacity during certain periods. However, there will be an insignificant impact on parks and recreation during operations because the number of employees who might have families moving to the area is small, and these families are unlikely to all be using the same recreational facility at the same time.

Some amount of tourism to the Project site is expected once the wind turbines are in operation. It is difficult to estimate the number of visitors the Project will receive. The Stateline Wind Energy Center near Walla Walla has attracted thousands of visitors since it was built in 2001, while other projects are visited far less frequently. However, given the Wild Horse Project site's remote location, it is not anticipated that large numbers of tourists will visit the Project, particularly given that one or two other large wind projects will likely be built in more accessible areas of Kittitas County closer to population centers.

The Applicant proposes to construct a visitor information kiosk and parking area off of Vantage Highway, just west of the main Project access road, as indicated in Exhibit 1b, 'Project Site Layout'. This kiosk will be equipped with interpretive information explaining the Project, as well as educational material regarding wind energy in general. Organized tours of the site will be facilitated from the onsite operations and maintenance facility. No public access will be allowed to any Project facilities which could pose a potential threat to the safety of visitors (e.g. substations.) Tourists visiting the site will contribute to the economy of the community by their purchase of local services (e.g., gas, food, and lodging).

During operations, access to the Project site will be controlled but permitted to the extent that it does not cause conflicts with the safe and efficient operation of the Project.

Controlled hunting will be allowed during Project operations, as described in Section 3.6.2.3, 'Potential Wildlife Impacts - Big Game'. The potential impacts to habitat and wildlife of Project operations is also discussed in Section 3.6, 'Wildlife' and potential impacts to recreation are also discussed in Section 3.11, 'Visual Resources/ Light and Glare'.

The transmission feeder line corridors will be located on easements across privately owned land. No changes in land use along these corridors are anticipated during Project operations. Access to these areas will continue to be at the discretion of the landowner.

Termination, Abandonment or Cessation of Operation

Public access in the event of Project termination, abandonment, or cessation of operation will be determined by the respective public and private landowners at the appropriate time. In the event of such termination, abandonment, or cessation of operation, Project facilities will be removed in accordance with the Project decommissioning plan as agreed.

3.13.2.6 Communications

There will be no impacts to telephone, newspapers, or cable and satellite television services in the Project area during construction or operations. The Applicant commissioned a detailed analysis of the potential for turbines to obstruct telecommunications facilities, such as line-of-sight microwave communications paths, in the Project area (Exhibit 24-A, 'Microwave and Fresnel Zone Obstruction Analysis'). Locations of all proposed turbines and other infrastructure have been chosen so as to avoid any impacts on existing communications paths in the Project area. As described in Exhibit 24-A, the proposed turbines will not obstruct or interfere with any existing microwave telecommunications facilities, including those used by cellular telephone providers.

Wind turbines do not interfere with cellular telephone reception. In fact, in some European countries, including Germany, cell phone antennas are located on wind turbine towers. In the US, wind project operations personnel regularly use both cell phones and walkie-talkies to communicate with each other within and around large wind farms. There are no reported incidents of wind turbines interfering with cell phone reception. Therefore, there will be no obstruction to cell phone service or the ability of cell phone users to contact emergency service providers in the area.

The Applicant commissioned a detailed analysis of the potential for the Project to interfere with off-air television reception in the surrounding area. The results of this analysis are presented in Exhibit 24-B, 'Off-Air TV Reception Analysis'. The conclusion of this analysis is that the Project will result in minimal to no degradation of television reception and that the number of potentially affected residences is extremely small.

3.13.2.7 Public Water Supplies and Domestic Wells

Domestic Wells

There will be no impacts to local wells near the Project site during construction and operations. The groundwater wells mapped in the area are at least 2 miles from the Project site boundary, and at least 1,000 feet lower in elevation. A more detailed discussion of potential impacts of the Project to local groundwater is presented in Section 3.3.2, 'Impacts of the Proposed Action - Groundwater'.

Public Water Supplies

Construction:

Water for construction will be purchased by the construction contractor from a source with a valid water right and trucked to the Project site in tanker trucks. Water use for Construction is estimated to be approximately 11 million gallons, as described in Section 3.3.2.3, 'Water Use During Construction'. The source for this water has not yet been definitively identified, however, the City of Kittitas has expressed interest in providing water for construction of the Project. Refer to Exhibit 13, 'Letter of Interest from City of Kittitas for Project Water Supply'.

Operation:

Water use for Project operations is expected to be minimal, and is limited to domestic uses (supplying the lunchroom and bathroom in the operations and maintenance facility and incidental maintenance uses.) Operations phase water use is expected to be substantially less than 1,000 gallons per day. This water will be purchased from a local vendor and trucked to the Project site and stored in an on-site water storage tank at the operations and maintenance facility. The Project does not anticipate using substantial quantities of water from public systems and thus no impacts are expected.

3.13.2.8 Sewage/Solid Waste

Construction

There will be no significant impacts to community sewer systems. The Project will not be connected to a sewer system during construction or operations. Sanitary wastes will be collected in portable toilets during construction. Therefore, no discussion of local sewage treatment facilities is necessary.

During construction, the primary wastes generated will be solid construction debris such as scrap metal, cable, wire, wood pallets, plastic packaging materials and cardboard. The total volume of construction wastes is expected to be approximately 30 drop boxes weighing about three tons each on average, for a total of less than one hundred (100) tons. By comparison, this is considerably less solid waste than is generated by a single large apartment building over the course of a year.

The waste will be accumulated on site in dumpsters and/or drop boxes until hauled away, either to the Ellensburg transfer station or the Ryegrass landfill, by either the Applicant, site contractor or a local solid waste collection service provider, such as Waste Management. Much of the construction waste will be recyclable. Specific recycling

program details will be developed by the construction contractor. Please refer to Exhibit 23, 'Accepted Waste Materials', for a list of materials that are accepted at the Ryegrass landfill. The only materials expected to be produced by the construction of the Project that are not accepted at the Ryegrass landfill are cardboard and food-related wastes. There will be no significant impacts to solid waste disposal sites or services.

Operations:

For operations, an on-site septic system will be installed, in accordance with County and State regulations. Collection of solid wastes at the operations and maintenance facility during operations either will be contracted or employees of the Project will haul the solid wastes to the local licensed transfer station and/or landfill. Solid waste generation during operations will be minimal (on the order of one dumpster per week) and thus there will be no impact to local solid waste facilities.

3.13.2.9 Public Utilities

Local Electrical Service Provider

Kittitas PUD No. 1 provides local electrical service to the areas and very few residences near the Project. It is not anticipated that the Project will draw power from Kittitas PUD No. 1 for purposes of construction or operations. During construction, power will be provided by portable generators and trailer mounted generator/light stand fixtures. During operations, the Project will run on station power taken directly from the on-site step-up substation(s). The Project will generate power output approximately 80% of the time and will consume a small amount of electricity during periods of low wind. The Project is estimated to consume less than 1% of Project energy generation. There will be no impact to adjacent or other nearby electrical service facilities.

Feeder Lines and Interconnection to the Grid

Power from the turbines will be collected through an extensive underground and overhead collection system and fed to the BPA and/or PSE step-up substations on the Project site as illustrated on the Site Layout in Exhibit 1. From the step up substations, power will be fed through high voltage feeder lines which run to the utility systems as described more fully in Section 2.2.3 'Project Facilities'. Both BPA and PSE have performed system impact studies for the Project which indicate that their transmission systems have adequate available transmission capacity to accept power from the Project at the proposed points of interconnection (POI) without significant changes to their operations or the requirement of additional dedicated staffing. A full description of the types of facilities to be constructed to allow for interconnection is contained in Section 2.2.3 'Project Facilities'.

3.13.2.10 Fiscal Impacts

As described in the preceding sections, impacts of the Project in terms of additional demands on public services are expected to be minimal. The Project will result in a substantial increase in the local property tax base and additional revenues to local jurisdictions through both direct and indirect effects of increased employment and

spending as well as increased property and sales taxes. A more detailed discussion of these impacts is provided in Section 3.12.2, 'Population, Housing, and Economics - Impacts of Proposed Action'. The net fiscal impact of the Project is expected to be strongly positive, thus no additional mitigation measures are proposed.

3.13.2.11 Comparison of Impacts of Proposed Scenarios

Potential impacts to public services, schools, utilities and recreation are expected to be equivalent for all scenarios under consideration. The number of construction and operations employees for all scenarios is expected to be the same. Avoidance of communication pathways have been taken into account in all three scenario designs.

3.13.3 Impacts of No Action Alternative

Under the No Action Alternative, the Project would not be constructed or operated, and the environmental impacts described in this section would not occur. The No Action Alternative assumes that future development would comply with existing zoning requirements for the Project area, which is zoned Commercial Agriculture and Forest and Range. According to the County's zoning code, the Commercial Agriculture zone is dominated by farming, ranching, and rural lifestyles, and permitted uses include residential, green houses and agricultural practices. Permitted uses in the Forest and Range zone include logging, mining, quarrying, and agricultural practices, as well as residential uses (Kittitas County 1991). However, if the proposed Project is not constructed, it is likely that the region's need for power would be addressed by user-end energy efficiency and conservation measures, by existing power generation sources, or by the development of new renewable and non-renewable generation sources. Baseload demand would likely be filled through expansion of existing, or development of new, thermal generation such as gas-fired combustion turbine technology. Such development could occur at conducive locations throughout the state of Washington.

A baseload natural gas-fired combustion turbine would have to generate 67 average MW of energy to replace an equivalent amount of power generated by the Project (204 MW at 33% net capacity). (An average MW or "aMW" is the average amount of energy supplied over a specified period of time, in contrast to "MW," which indicates the maximum or peak output [capacity] that can be supplied for a short period.) See Section 2.3, 'Alternatives'.

3.13.4 Mitigation Measures

Potential impacts to public services and utilities will be mitigated by the tax revenues generated by the Project. Fiscal impacts of the Project are addressed in Section 3.12, 'Population, Housing and Economics.' No further mitigation is necessary or proposed.

3.13.4.1 Construction

Because construction activities at the Project are not expected to result in significant impacts to medical services, schools, public utilities, communications, water supplies, sewage/solid waste disposal, or stormwater systems, no mitigation measures will be necessary for those services or utilities.

The following mitigation measures will be implemented to reduce impacts to public services resulting from construction and operations of the Project:

- The Applicant will provide all police, fire, and emergency medical personnel with emergency response details for the Project including detailed maps of the Project site access roads, Applicant contact information, procedures for rescue operations to the nacelles, and location of the rescue basket.

Potential impacts to fire services will be mitigated by the following:

- The Applicant has initiated discussions with local fire district(s) regarding a contract for fire protection services during construction and ongoing fire protection services during operations;
- Provisions for special training of fire district personnel for fires related to wind turbines;
- Training for EMS personnel in the use of a rescue basket that will be kept at the operations and maintenance facility for the purpose of removing injured employees from the WTGs;
- Providing detailed maps to fire districts that show all access roads to the Project;
- Providing keys to a master lock system to fire districts that will enable emergency personnel to unlock gates that would otherwise limit access to the Project;
- Use of spark arresters on all power equipment (e.g., cutting torches and cutting tools), when necessary due to extreme fire danger conditions;
- Informing workers at the Project of emergency contact phone numbers and training them in emergency response procedures;
- Carrying fire extinguishers in all maintenance vehicles.

3.13.4.2 Operations

During operation of the Project, impacts to local services and utilities are expected to be insignificant. However, emergency preparedness planning will be implemented as mentioned above, to reduce potential impacts in the event of an emergency. No additional mitigation will be required.

3.13.5 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated for public services, utilities, or recreation.