
1.1

WAC 463-60-015 General—Description of Applicant.

The applicant shall provide an appropriate description of the applicant's organization and affiliations for this proposal.

[Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, recodified as § 463-60-015, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-015, filed 10/8/81. Formerly WAC 463-42-170.]

SECTION 1.1 DESCRIPTION OF APPLICANT (WAC 463-60-015)

1.1.1 APPLICANT

This application for a Site Certification Agreement is made for the construction and operation of the Whistling Ridge Energy Project. The Applicant is Whistling Ridge Energy LLC.

This application for a Site Certification Agreement was professionally prepared by URS Corporation under the direction of S.D.S Co., LLC and SDS Lumber Company. These parties believe that the application is substantially complete and meets the requirements established in Chapter 80.50 Revised Code of Washington (RCW) and Title 463 Washington Administrative Code (WAC).

1.1.2 WHISTLING RIDGE ENERGY LLC

Whistling Ridge Energy LLC was incorporated in the state of Washington in February 2009. Whistling Ridge Energy LLC is a special purpose corporation formed to develop, permit, finance, construct, own and operate the Whistling Ridge Energy Project. Whistling Ridge Energy LLC is a Washington corporation formed under Title 23B of the RCW. It is wholly-owned by S.D.S Co., LLC.

Whistling Ridge Energy LLC would own and operate the Whistling Ridge Energy Project and would manage all of the affairs of the project, including activities related to obtaining permits and other approvals required for development of the project. It is anticipated that one or more additional equity participants may join with Whistling Ridge Energy LLC in connection with obtaining permanent financing for the project.

Whistling Ridge Energy LLC has elected to be treated for federal income tax purposes as an S-Corporation. It has no employees. Pursuant to an agreement between Whistling Ridge Energy LLC and S.D.S Co., LLC, staffing is provided by S.D.S Co., LLC, who hires third party consultants and contracts for other goods and services as necessary. Whistling Ridge Energy LLC may reimburse S.D.S Co., LLC for services rendered.

1.1.3 SDS LUMBER COMPANY AND S.D.S CO., LLC

SDS Lumber Company and S.D.S Co., LLC are privately-held corporations, incorporated in the state of Washington. SDS Lumber Company has owned and operated a wood products manufacturing facility in Bingen, Washington continuously since 1946. SDS Lumber Company's operations include lumber and plywood manufacturing, log handling and transportation, marine transportation and construction, log chipping for the pulp and paper industry, biomass energy generation, and other land development and land use ventures in the Skamania and Klickitat County area. SDS Lumber Company is an affiliated entity of S.D.S Co., LLC. S.D.S Co., LLC owns forest lands in the states of Oregon and Washington. Some of these lands would be utilized for the Whistling Ridge Energy Project in Skamania County.

1.1.4 BROUGHTON LUMBER COMPANY

Broughton Lumber Company is a privately-held corporation incorporated in the state of Washington. Broughton Lumber Company operated a sawmill in Skamania County from the early 1930s until 1988. Broughton Lumber Company currently manages its forest lands to produce logs for sale to various parties. Broughton Lumber owns forest lands in the state of Washington. Some of these lands would be utilized for the Whistling Ridge Energy Project in Skamania County.

1.2

WAC 463-60-025 General—Designation of Agent.

The applicant shall designate an agent to receive communications on behalf of the applicant.

[Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, recodified as § 463-60-025, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-025, filed 10/8/81. Formerly WAC 463-42-090.]

SECTION 1.2 DESIGNATION OF AGENT (WAC 463-60-025)

All official communications concerning this Application during the application review process should be directed to Mr. Jason Spadaro, President, Whistling Ridge Energy LLC. He is the designated agent for the project and may be contacted as cited below:

Mr. Jason S. Spadaro
President, Whistling Ridge Energy LLC
P.O. Box 266
Bingen, WA 98605
(509) 493-6103 (phone)
(541) 490-5013 (cell)
(509) 493-2535 (fax)
jasons@sdslumber.com

Mr. Allen Barkley will serve as a secondary contact. Mr. Barkley's contact information is as follows:

Mr. Allen Barkley
Wind Power Associates
PO Box 1267
931 Pine St.
Goldendale, WA 98620
541 993 1707 (phone)
509 773 5187 (fax)
abark@gorge.net

1.3

WAC 463-60-075 General—Assurances.

The application shall set forth insurance, bonding or other arrangements proposed in order to mitigate for damage or loss to the physical or human environment caused by project construction, operation, abandonment, termination, or when operations cease at the completion of a project's life. The application shall describe the applicant's commitment to the requirements of chapter 463-72 WAC, Site restoration and preservation.

[Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-075, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 87-05-017 (Order 87-1), § 463-42-075, filed 2/11/87. Statutory Authority: RCW 80.50.040(1) and chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-075, filed 10/8/81.]

SECTION 1.3 ASSURANCES (WAC 463-60-075)

1.3.1 INSURANCE

Whistling Ridge Energy LLC would establish and maintain, or cause to be established and maintained, several forms of insurance during the construction and operation of the Whistling Ridge Energy Project. Insurance would be maintained as required by law, customary business practice, and to satisfy third-party participants and lenders. The following coverages would be included:

- Commercial General Liability Insurance:

The construction contractor and subcontractors would be required to carry commercial general liability insurance, including products and completed operations in amounts sufficient to respond to liability and property damage risks arising during the construction and startup phase of the Whistling Ridge Energy Project.

Whistling Ridge Energy LLC would obtain and maintain in full force and effect, commercial general liability insurance against claims for liability and property damage arising out of the use and occupancy of the premises.

Whistling Ridge Energy LLC would purchase insurance policies to cover liabilities arising from environmental, casualty, and other major incidents. The insurance industry views facilities such as the Whistling Ridge Energy Project as low to moderate risk. Therefore, high coverage limits are available at reasonable costs.

- Automobile Insurance

The construction contractor and subcontractors would be required to carry automobile liability insurance covering all owned, leased, non-owned, and hired automobiles used during the construction and startup phase of the project.

Whistling Ridge Energy LLC would obtain and maintain in full force and effect automobile liability insurance covering owned, non-owned, and hired autos.

- Property Insurance

Whistling Ridge Energy LLC would obtain and maintain at all times during the term of construction and operation of the facility, physical damage insurance on the buildings and all improvements that are to be erected on the premises on an “all risk” basis, including coverage against damage or loss caused by earth movement and flood in an amount sufficient to cover any expected losses or damages.

The potential for damages can be defined. Damages would occur only if engineered safeguards would fail. In many cases, more than one simultaneous failure would be required to produce significant damages. Upon completion of project design,

insurance underwriters would evaluate the design and estimate maximum potential damages due to failure. In some cases design changes may be implemented to reduce the damages. Insurance would then be purchased to cover the maximum expected damages.

- **Worker's Compensation and Washington Stop Gap Liability**

Whistling Ridge Energy LLC would fully comply with the statutory requirements for worker's compensation as required with respect to any employees performing work on the subject property and premises. Whistling Ridge Energy LLC also would insure for their exposure with Employer's Liability insurance (Washington Stop Gap Liability).

Whistling Ridge Energy LLC would require of the construction contractor and subcontractors working on the project similar compliance with the statutory requirements for worker's compensation with respect to their employees performing work on the subject property and premises. Whistling Ridge Energy LLC also would require Employer's Liability insurance for exposure under Washington Stop Gap Liability.

1.3.2 ENVIRONMENTAL IMPAIRMENT

Whistling Ridge Energy LLC and its operator(s) would be responsible, as required by law, for acts of environmental impairment related to the ownership and operation of the Whistling Ridge Energy Project. Such losses may, in some circumstances, be covered by general liability insurance, which Whistling Ridge Energy LLC and the construction contractor would carry. In addition, Whistling Ridge Energy LLC and/or its contracted operator(s) would obtain environmental impairment liability insurance to the extent such coverage is available on a commercially viable basis. This insurance would cover the acts of Whistling Ridge Energy LLC and its operator(s) at the site, consistent with or in excess of then-prevailing industry standards for such insurance in the wind power generating industry. Commercial viability would be determined by reference to the norm of the industry.

1.3.3 SITE CLOSURE BOND

No set-aside from operating funds is anticipated for site abandonment, but Whistling Ridge Energy LLC would obtain a site closure bond in an amount to be determined by Washington State Energy Facility Site Evaluation Council (EFSEC) upon approval of an initial site restoration plan. To the extent site facilities are not otherwise removed, recycled, or salvaged, Whistling Ridge Energy LLC would maintain ongoing responsibility for site facilities and site integrity as the site owner.

1.4

WAC 463-60-085 General—Mitigation measures.

(1) Mitigation measures summary. The application shall summarize the impacts to each element of the natural or built environment and the means to be utilized to minimize or mitigate possible adverse impacts during construction, operation, and decommissioning of the proposal, all associated facilities, and any alternatives being brought forward.

(2) Fair treatment. The application shall describe how the proposal's design and mitigation measures ensure that no group of people, including any racial, ethnic, or socioeconomic group, bear a disproportionate share of the environmental or socioeconomic impacts resulting from the construction and operation of the proposed facility.

[Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-085, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-085, filed 10/8/81.]

SECTION 1.4 MITIGATION MEASURES (WAC 463-60-085)

1.4.1 MITIGATION MEASURES

The following summarizes the mitigation measures in Part 3.0 – Natural Environment and Part 4.0 – Built Environment of this application.

1.4.1.1 Section 2.15, Protection from Natural Hazards

Earthquake Hazards

All structures on the site would be built in accordance with the seismic design provisions presented in the 2006 version of the International Building Code (IBC), and the American Society of Civil Engineers 07-05 standard. The site soil is best represented as Stiff Soil (Soil Site Class D). Based on the site location and site conditions described above, we recommend that the values listed in the following chart be used for seismic design of the project in accordance with Section 1613.5.3 of the 2006 IBC. The occupancy category of the proposed structure is assumed III as per Section 1613.5.6 of the 2006 IBC.

2006 IBC Seismic Design Values

Parameter	Value	2006 IBC/ASCE 7-05 Reference
Soil Profile Site Class	C	Table 1613.5.2
0.2 Second Spectral Acceleration S_s	0.60 g	Figure 1613.5 (1)
1.0 Second Spectral Acceleration S_l	0.20 g	Figure 1613.5 (2)
Peak Ground Acceleration ($0.4S_{Ds}$)	0.186 g	ASCE 7-05 equation 11.4-5
Site Coefficient F_a	1.16	Table 1613.5.3 (1)
Site Coefficient F_v	1.6	Table 1613.5.3 (2)
Seismic Design Category ^a	D	Tables 1613.5.6 (1) & (2)

a. Assumes Seismic Use Group III

A visual inspection would be conducted following abnormal seismic activity. These inspections would look for signs of incipient mass movement in those areas identified as potentially susceptible to such failures.

Slope Failure and Mass Wasting

No mitigation measures are required.

1.4.1.2 Section 3.1, Earth

Seismicity

No mitigation measures are proposed beyond adhering to local building codes and standard turbine and foundation design. The proposed facility would comply with the state building code provisions for seismic hazards applicable to the proposed location.

Soils

Site-specific geotechnical engineering evaluations would be conducted prior to design of the project to identify design methods to address the potential impacts presented above. Mitigation of soil impacts at the site would be incorporated into the final design of the foundations and roadways. A SWPPP would be developed prior to construction or modification of any roads or facilities. The SWPPP would be submitted for approval to EFSEC and followed throughout construction at the site.

Topography

No mitigation measures for topography are anticipated at this time.

Unique Physical Features

At this time, no mitigation measures are anticipated. Additional geotechnical investigations for tower foundation design would provide deeper (> 16 feet) subsurface data. If the additional data indicates potential for slope instability, mitigation would be accomplished through engineering or avoidance.

Erosion/Enlargement of Land Area (Accretion)

BMPs and other measures would be taken to mitigate the erosion hazard at the project site.

Erosion control measures for construction at the site are outlined in Sections 2.10.2 and 2.14.1. The sequences and methods of construction activities would be controlled to limit erosion and are summarized below:

- Construction activities would be controlled to help limit erosion. Clearing, excavation and grading would be limited to those areas of the project absolutely necessary for construction of the project. Areas outside the construction limits would be marked in the field and equipment would not be allowed to enter these areas or to disturb existing vegetation.
- The construction contractors would implement the EFSEC-approved Erosion and Sedimentation Control Plan during construction to minimize soil loss due to surface water flows.
- The EFSEC-approved Environmental Protection Control Plan would be implemented to provide adequate maintenance and inspection of the erosion and sediment control

system. The plan specifies that control structures would be inspected at a frequency sufficient to provide adequate environmental protection. Such inspections would increase in frequency during rainfall periods. In addition, supplies including sandbags and channel-lining materials would be stored on site for emergency use.

- Surface runoff would be diverted around and away from cut and fill slopes and conveyed in pipes or protected channels. If the runoff is from disturbed areas, it would be directed to a sediment trap prior to discharge.

1.4.1.3 Section 3.2, Air

The following mitigation measures for construction-related air emissions and dust are proposed:

- All vehicles used during construction would comply with applicable Federal and state air quality regulations
- Operational measures would be implemented, such as limiting engine idling time and shutting down equipment when not in use
- Active dust suppression would be implemented on unpaved construction access roads, parking areas and staging areas, using water-based dust suppression materials in compliance with state and local regulations
- Traffic speeds on unpaved access roads would be kept to 25 mph to minimize dust generation
- Carpooling among construction workers would be encouraged to minimize construction-related traffic and associated emissions
- Disturbed areas would be replanted or graveled to reduce wind-blown dust
- Erosion control measures would be implemented to limit deposition of silt to roadways

No mitigation is proposed for project operations, as there would be no air or odor emissions.

1.4.1.4 Section 3.3, Water

Surface Water Resources (Movement/Quality/Quantity)

Permanent BMPs would be designed and incorporated into the final construction plans and specifications prepared by the site civil design engineer. These permanent BMPs would include erosion and sediment control through site landscaping, grass, and other vegetative cover. All final designs would conform to the applicable Stormwater Management Manual. Non-structural BMPs also would be incorporated into the operations manual including good housekeeping, preventative and corrective maintenance procedures, steps for spill prevention and response, employee training, and inspection and record-keeping procedures.

Runoff/Absorption

The required BMPs are expected to: minimize erosion, control sedimentation, prevent run-on of stormwater onto disturbed areas, and prevent runoff from disturbed areas. One measure may be treatment of stormwater exiting disturbed areas. Construction-phase erosion and sedimentation control BMPs, as described in Section 2.10, Surface Water Runoff, would be implemented to mitigate the expected impacts of soil disturbance. These may include chemical source control, silt fencing, stabilized construction entrances, street sweeping, straw bale check dams, and rock check dams. With implementation of BMPs, no negligible impacts on runoff or on adjacent surrounding properties are anticipated during construction activities. Construction BMPs are described in further detail in Section 2.10, Surface Water Runoff.

Permanent, operations-phase runoff control and water quality enhancement BMPs, also described in Section 2.10, Surface Water Runoff would be implemented to mitigate the expected impacts of increased runoff rate and pollution from vehicle traffic. These BMPs would include stabilized landscaped areas and vegetated ditches or swales, and would provide the necessary control of stormwater runoff.

Groundwater Resources

No impacts have been identified regarding the quantity of water infiltrating the site following construction. BMPs that are recommended for site development include stabilized landscaped areas and vegetated ditches or swales.

Storage of chemicals onsite is minimal; however, the site development plan would require an SPCC Plan that would protect groundwater (See Section 2.9, Spillage Prevention and Control). Therefore, mitigation for groundwater quality impacts is not necessary.

Public and Private Water Supplies

No impacts to public water supplies and no adverse impacts to private water supplies (water wells) are expected. Therefore, no mitigation measures are required.

1.4.1.5 Section 3.4, Habitat, Vegetation, Fish and Wildlife

Habitat and Vegetation

Mitigation for potential impacts resulting from the proposed project includes the following:

- The applicant has commissioned extensive studies by qualified biologists of rare plants and habitats at the project site to avoid impacts to sensitive populations. The results and recommendations of these studies have been incorporated into the proposed design, construction, and operation of the project. In the event that the final project layout includes areas that contain suitable habitat for rare plants which have not previously been surveyed, an additional rare plant survey would be conducted at the appropriate time of year.

- The turbine strings have avoided sensitive riparian areas.
- Locating wind turbines in an actively-managed commercial forest avoids impacts to higher quality habitats.
- To the extent possible, new road construction and associated habitat impacts have been minimized by improving and using existing roads instead of constructing new roads.
- Use of certified “weed free” straw bales during construction to avoid introduction of noxious weeds
- All temporarily disturbed areas would be reseeded with an appropriate mix of native plant species as soon as possible after construction is completed to accelerate the revegetation of these areas and to avoid the establishment and spread of noxious weed species.
- Implementation of a noxious weed control program, in coordination with the Skamania County Noxious Weed Control Board, to control the spread and prevent the introduction of noxious weed species.

Fish

Section 3.3, Water, lists the project BMPs that would be incorporated to protect water quality and quantity. Pursuant to an erosion control plan for the project and an NPDES permit, drainage improvements would be made as needed. All temporarily disturbed areas would be regraded and reseeded with an appropriate mix of native plant species to restore vegetation after the construction phase is completed.

Wildlife

The primary mitigation goal for the Whistling Ridge Energy facility is to avoid sensitive wildlife resources when siting turbines and access roads. Because of the relatively small footprint of wind energy facilities and the flexibility of the process, it is likely that avoidance can be achieved. Wind turbines would also be sited in areas already actively managed for timber harvest. New road construction would be minimized by improving and using existing roadways. All temporarily disturbed areas would be regraded and reseeded with an appropriate mix of native plant species to restore vegetation after the construction phase is over.

Mitigation for potential impacts resulting for the proposed project includes the following sequentially-performed actions:

- Rectify the impact by repairing, rehabilitating, or restoring the affected environment in consultation with relevant wildlife agencies.
- Conduct thorough analysis of sensitive natural resources to avoid impacts and increase avoidance during micrositing.

- Implement a two year minimum post-construction mortality study
- The Applicant plans to convene a Technical Advisory Committee to evaluate the mitigation and monitoring program and determine the need for further studies or mitigation measures. The Technical Advisory Committee would be composed of representatives from WDFW, USFWS, Skamania County, and the Applicant. The role of the Technical Advisory Committee would be to coordinate appropriate mitigation measures, monitor impacts to wildlife and habitat, and address issues that arise regarding wildlife impacts during construction and operation of the project. The post-construction monitoring plan would be developed in coordination with the Technical Advisory Committee.
- Implement project design features that would minimize project impacts, including:
 - Installing tubular steel turbine towers to eliminate perching opportunities provided by lattice towers
 - Burying electrical lines between turbines and from turbine strings to substation
 - Using the minimum amount of turbine lighting required by the FAA
 - Installing newer generation up-wind turbines

1.4.1.6 Section 3.5, Wetlands and Jurisdictional Waters

No impacts to wetlands are expected to occur and therefore no mitigation measures would be required.

1.4.1.7 Section 3.6, Energy and Natural Resources

No impacts to energy and natural resources are expected to occur and therefore no mitigation measures would be required.

1.4.1.8 Section 4.1, Environmental Health

Noise

Construction

Construction would generally occur only during daytime hours to reduce the potential for noise impacts from this activity. Construction noise is exempt from Washington noise limits during daytime hours. To ensure that construction noise emission assumptions relied upon herein are valid and acoustical design goals are met by the project during construction, the following mitigation measures are proposed:

- All noise-producing project equipment and vehicles using internal combustion engines would be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) would be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All mobile or fixed noise-producing equipment used on the project that is regulated for noise output by a local, state, or federal agency, would comply with such regulation while in the course of project activity.
- The use of noise-producing signals, including horns, whistles, electronic alarms, sirens, and bells, would be for safety warning purposes only. Unless required for such safety purposes, and as allowable by applicable regulations, no construction-related public address, loudspeaker, or music system would be audible at any adjacent noise-sensitive land use.
- The EPC Contractor would implement a noise complaint process and hotline number for the surrounding community. Whistling Ridge Energy LLC would have the responsibility and authority to receive and resolve noise complaints.

Operation

The noise modeling analysis indicated that the noise levels at the three closest residences (located 0.38, 0.48 and 0.8 mile away) would be 37 to 42 dBA for the 9 m/sec wind speed case, at and above which the wind turbine generators are expected to produce the most noise. With averaged measured existing sound levels reasonably representing ambient noise levels at these nearest noise-sensitive receivers, the cumulative increase over ambient for most operating cases would remain below applicable thresholds, and less than or equal to 5 dBA, and would result in no need for operation noise mitigation.

Risk of Fire or Explosion

The construction manager would be responsible for staying abreast of fire conditions in the project area by contacting WDNR and implementing any necessary fire precautions. A Fire Protection and Prevention Plan would be developed for EFSEC approval and implemented, in coordination with the Skamania County Fire Marshall and appropriate agencies. The following chart lists sources of potential fire and explosion along with measures to mitigate the risk of either occurring.

Fire and Explosion Risk Mitigation Plan

C / O ^a	Potential Fire or Explosion Source	Mitigation Measures
C & O	General Fire Protection	<ul style="list-style-type: none"> All on-site service vehicles fitted with fire extinguishers Fire station boxes with shovels, water tank sprayers, etc. installed at multiple locations on site along roadways during summer fire season Minimum of one water truck with sprayers must be present on each turbine string road with construction activities during fire season
C & O	Dry vegetation in contact with hot exhaust catalytic converters under vehicles	<ul style="list-style-type: none"> No gas powered vehicles allowed outside of graveled areas Mainly diesel vehicles (i.e. w/o catalytic converters) used on site Use of high clearance vehicles on site if used off-road
C & O	Smoking	<ul style="list-style-type: none"> Restricted to designated areas (outdoor gravel covered areas)
C & O	Explosives used during blasting for excavation work	<ul style="list-style-type: none"> Only state licensed explosive specialist contractors are allowed to perform this work – explosives require special detonation equipment with safety lockouts Clear vegetation from the general footprint area surrounding the excavation zone to be blasted Standby water spray trucks and fire suppression equipment to be present during blasting activities
C & O	Electrical Fires	<ul style="list-style-type: none"> Use of generally high clearance vehicles on site No gas powered vehicles allowed outside of graveled areas All major construction equipment used is to be diesel powered (i.e. w/o catalytic converters)
C & O	Lightning	<ul style="list-style-type: none"> Specially engineered lightning protection and grounding systems used at wind turbines and at substation Footprint areas around turbines and substation are graveled with no vegetation
C	Portable Generators – hot exhaust	<ul style="list-style-type: none"> Generators not allowed to operate on open grass areas All portable generators to be fitted with spark arrestors on exhaust system
C	Torches or field welding on-site	<ul style="list-style-type: none"> Immediate surrounding area would be wetted with water sprayer Fire suppression equipment to be present at location of welder/torch activity
C & O	Electrical Arcing	<ul style="list-style-type: none"> Electrical designs and construction specifications meet or exceed requirements of the National Electric Code and National Fire Protection Agency

a. Indicated risk during construction (C) and/or operations (O)

Lightning-induced fires are rare in the project area and both the wind turbine generators and the substation are equipped with specially engineered lightning protection systems. With the types of modern wind turbines proposed for the project, however, turbine malfunctions leading to fires in the nacelle are extremely rare. The turbine control system detects overheating in turbine machinery, and internal fires would be detected by these sensors, causing the machine to shut down immediately and send an alarm signal to the central SCADA system, which would notify operators of the alarm by cell phone or pager.

The potential fire risks are similar in nature but lower for project decommissioning. Fire prevention measures during decommissioning would be similar to those for project construction.

1.4.1.9 Section 4.2, Land and Shoreline Use

Land Use

No impacts to land use are anticipated, and no mitigation measures are required.

Light and Glare

Mitigation measures for light and glare would be as follows:

- Most construction would occur during daylight hours, minimizing construction lighting at during hours of darkness
- Turbines and blades would be painted with a non-reflective gray finish to blend in with the background, and to eliminate the need for white daytime aviation warning lights
- To prevent glare, non-reflective earth-tone/light paint colors would be used on exterior surfaces of buildings or other facilities
- The facility lights outside the Operations and Maintenance area and the substation sites would be hooded and directed downward to minimize backscatter and illumination of off-site areas
- Lights would be the minimum wattage required for safety
- Sensors and switches would be used to keep lights turned off when lighting is not required

Aesthetics

Because the turbines are most frequently seen against the sky, particularly in close-range views where visual concerns are the greatest, a non-reflective flat neutral gray or light color is recommended to minimize aesthetic impacts.

Recreation

Impacts to recreation users during the construction phase would primarily result from dust and noise from construction equipment. While the project would not affect any trails or pathways in the Scenic Area, there may be some distant views of wind turbines from trails during operations. Because they are high on the ridge, no mitigation measures are proposed other than painting the turbines a flat gray.

Historic and Cultural Preservation

Because no cultural resources (archaeological sites or historic properties) were identified in the project area, no mitigation actions are required. If cultural resources are inadvertently discovered during project construction and operations, assessment of the find would be

necessary. If such cultural resources are found to be significant, mitigation measures would need to be devised and implemented.

Agricultural Crops/Animals

There would be no impacts to agricultural crops and animals, therefore mitigation measures are not proposed.

1.4.1.10 Section 4.3, Transportation

Construction Traffic Control

The following mitigation measures are proposed to reduce impacts from project construction on roadway traffic in the region:

- A Transportation Management Plan (TMP) would be prepared in consultation with both WSDOT and Skamania County and submitted to EFSEC for approval that would direct and obligate the contractor to implement procedures to minimize traffic impacts
- The TMP would include requirements for coordination of project-related construction traffic and WSDOT planned construction projects
- The TMP would include requirements for coordination of project-related construction traffic and Skamania County, City of Bingen, and City of White Salmon summer recreational traffic
- Whistling Ridge Energy LLC and its contractors would be required to comply with State and County permitting requirements for over-size and over-weight vehicles
- Whistling Ridge Energy LLC would be required to notify land owners in the project vicinity prior to construction of transportation routes that would be used for construction equipment and labor
- Approved State and/or County advanced warning construction signs would be placed prior to and during construction
- Certified flaggers would be used when necessary to direct traffic when over-size and over-weight trucks either enter or exit public roads, to minimize risk of accidents
- Pilot cars would be used both in front of and behind all trucks transporting over-size or over-weight loads on all public roadways
- Traffic flow would not be restricted for more than 20 minutes during the construction phase

Access Roadway Construction

All sections of the access roadway system that would require improvements or new construction would be designed and built according to WSDOT and Washington State access management standards.

Hazardous Materials Transport

Transport of hazardous materials would be conducted in a manner that would protect both human health and the environment and would be in accordance with applicable Federal and WSDOT requirements.

Roadway Maintenance

- Pre- and post-haul construction visual assessments of roadway surface conditions would be conducted identifying weak or deteriorated areas along the haul route that may require mitigation
- Should mitigation be required, a mitigation design program would be developed to repair all pavement sections to pre-construction conditions or better
- Whistling Ridge Energy LLC would be responsible for maintaining turbine string access roads, access ways, and other roads built to construct and operate the proposed project
- All snow removal would be performed in a safe manner that would not degrade roadway conditions

1.4.1.11 Section 4.4, Socioeconomic Impact

Socioeconomic impacts are expected to be beneficial in the form of additional jobs, increased sales, and increased tax revenues. Temporary increases in population due to worker relocation during construction are likely to be less than significant in view of the availability of housing, transient accommodations, and other public services in the region. Specific mitigation measures to lessen the impacts of the construction phase on public service providers in the Whistling Ridge Energy Project vicinity include:

- Construction activities would be coordinated with local police and fire departments, as well as emergency medical service providers, to ensure access to all locations in the project site vicinity in the case of an emergency.
- To help mitigate loss of access and other traffic-related impacts, adequate traffic control and signage, indicating closures and alternate routes, would be provided where needed.

- Construction vehicle trips in and out of the immediate construction zone would be coordinated and scheduled away from peak travel periods as much as possible, to minimize general traffic disruption.
- Noise and dust problems generated by construction would be mitigated through the use of properly muffled construction equipment, and by the use of approved dust control methods.

For related discussions of impacts and mitigation, see Section 3.2 Air, Section 4.1 Environmental Health, and Section 4.3 Transportation.

1.4.2 FAIR TREATMENT

No social or environmental justice impacts are anticipated to result from the construction and operation of the Whistling Ridge Energy Project. There will be no land use displacements or relocations as a result of project, nor will the developed area for the project extend beyond the private forestry land owned by S.D.S. Co., LLC and Broughton Lumber Companies. The construction and operation of the project is not predicted to result in potential disproportionately high and adverse effects to minority or low income populations.

The project would not displace any minority or low-income populations. The project would be constructed on private land not occupied by residents or businesses owned by anyone other than the Applicant. As discussed in Section 4.4.1.1, the area near the project does not have a substantially higher minority or low-income population when compared to larger reference populations. Section 4.1, Environmental Health, states that infrasound (noise) potential impacts are considered to be either non-existent or less than significant during operation. Permanent visual changes due to project operation would be low to moderate. Therefore, this analysis finds that high and disproportionate impacts upon minority and low-income populations would not occur.

The demographics of the project study area have been identified and a public involvement effort undertaken to reach all of the surrounding residents, including minority and low-income populations.

The overall population and minority population data for year 2008 for Skamania County are shown in Table 1.4-1, followed by Table 1.4-2 showing population living under the poverty level.

The race and ethnicity composition of the project area is estimated by analyzing the three census block groups that most closely match an area defined by a three-mile radius around the project site. When combined, the population in these three census blocks is approximately 12 percent minority. The second most common race and ethnicity category for residents in this area is (1) Hispanic/Latino, and (2) Some Other Race or Two or More Races.

The population living within three miles of the project site has a lower minority percentage than the two nearest cities (White Salmon and Hood River), Klickitat County, Hood River County, Washington State, and Oregon State. The population within three miles of the project site has a

higher minority percentage (12 percent) compared to the same measure for Skamania County as a whole (11 percent). Although minority residents do exist near the project site, the area near the project does not have a substantially higher minority population when compared to larger reference populations.

**Table 1.4-1
Race and Sex Composition in the Project Vicinity, 2008**

Jurisdiction	Population 2008	Sex (%)		Race (%)									
		M	F	Hispanic					Non Hispanic				
				W	B	AIAN	API	SOR	W	B	AIAN	API	SOR
City of White Salmon	2,205	48	52	4	0	0	0	13	79	0	1	1	2
City of Hood River	6,865	47	53	8	0	0	0	15	73	0	1	1	2
Skamania Co.	10,700	51	49	4	0	0	0	0	90	0	2	0	2
Klickitat Co.	20,100	50	50	9	0	0	0	0	83	0	3	1	2
Hood River Co.	21,625	49	51	15	0	3	0	7	69	0	1	2	2
Washington St.	6,587,600	50	50	8	0	0	0	0	76	3	1	7	3
Oregon State	3,791,075	50	50	5	0	1	0	4	81	2	1	4	3

Source: Claritas (2009).

For the purpose of this analysis, minority includes those residents identified as Black or African American, American Indian or Alaskan Native, Asian Pacific Islander, Some Other Race, Two or More Races, or Hispanic/Latino.

Percentages may not total 100 percent due to decimal places not expressed in this table.

AIAN = American Indian or Alaskan Native

API = Asian Pacific Islander

B = Black

CBG = Census Block Group

CT = Census Tract

SOR = Some Other Race or Two or More Races

W = White

Poverty status in 2000 is available for all areas studied. More current poverty statistics (for the period 2005 to 2007 as an annual average) are only available for the areas with relatively larger populations (Klickitat County, Hood River County, Washington, and Oregon). Table 1.4-2 shows 2000 poverty statistics for all areas (for comparison purposes), and also shows more current poverty statistics where available. Poverty estimates for 2008 were not available.

In 2000, 17 percent of the populations of the cities of White Salmon and Hood River were living below the poverty level. This same measure was 13 percent for Skamania County, 17 percent for Klickitat County, and 14 percent for Hood River County the same year. The cities and counties near the project site had relatively more residents living below the poverty level compared to Washington as a whole, and Oregon as a whole in 2000.

Approximately nine percent of the population living within approximately three miles of the project site lived below the poverty level in 2000, indicating fewer people living in poverty compared to the cities and counties near the project site. The geographic areas for which more recent (2005–2007 annual average) poverty statistics are available have all increased in percentage of persons living below the poverty level, as shown in Table 1.4-2.

**Table 1.4-2
Population Living Below the Poverty Level**

Jurisdiction ^a	Population For Whom Poverty Status is Determined ^b	Number of Persons Living Below Poverty Level	Percentage of Persons Living Below Poverty Level
Combined Census Block Groups Within Approx. 3 Miles of Project Site (2000)	3,191	299	9
Individual Census Tract 9503 Block Group 2 (2000)	1,467	193	13
Individual Census Tract 9503 Block Group 3 (2000)	685	69	10
Individual Census Tract 9504 Block Group 2 (2000)	1,039	37	4
City of White Salmon (2000)	2,144	357	17
City of Hood River (2000)	5,801	1,004	17
Skamania County (2000)	9,763	1,281	13
Klickitat County (2000/annual 2005-2007)	18,983/19,540	3,236/3,779	17/19
Hood River County (2000/annual 2005-2007)	19,986/21,061	2,845/3,044	14/14
Washington State (2000/annual 2005-2007)	5,765,201/ 6,237,571	612,370/ 737,254	11/12
Oregon State (2000/annual 2005-2007)	3,347,667/ 3,611,297	388,740/ 488,896	12/14

Source: US Census (2008a and 2008b).

- a. Estimates of this type of data for the areas with smaller populations (census block groups, cities, and Skamania County) were not available for more recent years from the US Census or from Claritas.
- b. Poverty status was determined by dividing the population living below poverty by the population for whom poverty status is determined, which excludes those living in institutional housing.

Operation of the project would result in a positive economic impact to Skamania County and the state due to increased tax revenues, employment, and local expenditures. Operation of the project would require 8 to 9 full-time employees. These new jobs will increase the opportunities for all Skamania County residents, including minority and low-income populations.

1.5

WAC 463-60-095 General—Sources of information.

The applicant shall disclose sources of all information and data and shall identify all preapplication studies bearing on the site and other sources of information.

[Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, recodified as § 463-60-095, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-095, filed 10/8/81. Formerly WAC 463-42-120.]

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