Data Request Package	Item ID	ASC Section	Item	Question or Information request	Applicant Response (bold text indicates response conclusion and Applicant commitments, including commitments to provide supplemental materials)	Location of Change in ASC
Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 2	**Vegetation-7**	WAC: 463-60-332 Section 3.4.2	Potentially Hazardous Substances Storage and Protection of Vegetation and Wildlife	Identify all potentially hazardous substances that will be stored or used in the construction or operation of the Project, even in low quantities (lubricating oils and hydraulic fluid are the only ones mentioned in reference to "small quantities of a few hazardous materials may be used or stored" Section 2.10.1). Include required minimum spill kit contents for equipment on-site and the temporary fuel storage facilities.	**A detailed construction spill prevention plan will be developed by the Balance of Plant Contractor and submitted to EFSEC for review prior to construction. Measures to prevent and contain any accidental spills will be listed in the project-specific Spill Prevention, Control, and Countermeasures (SPCC) Plan. The following provides information regarding the potentially hazardous substances that may be stored or used in the construction or operation of the Project:** • Small quantity of potentially hazardous substances: • Synthetic Lubricating Oil • Glycol-water mix • Transformer Mineral Oil • Hydraulic fluid (if Turbine equipment requires it) • Other potentially hazardous substances: • Diesel fuel **The contents of the various spill kits that will be stored at permanent and temporary on-site project facilities varies; however, a typical spill kit will contain the following:** • 55-gallon disposable barrels (note that the exact volume of the barrels will be relative to the volume needed at the targeted site/location) • Oil Absorbent Pads, Pillows, and Socks (the exact number of each item per kit varies, but a typical kit will have approximately 100 pads, 4 pillows, and 4 socks) • Disposal Bags, • Goggles and Nitrile Gloves • Spill Kit Instructional HandbookOther potentially hazardous substances: • Diesel fuel	Section 2.10.1
Data Request 2	**Vegetation-10**	WAC: 463-60-332 Section 3.4.2.1 Table 3.4-14 Appendix K	Botany and habitat survey reports indicate 44 of 244 proposed turbine locations were surveyed.	Explain why only a small proportion of the areas of direct disturbance are field verified. Describe how baseline surveys inform Project layout. Describe how the Project's layout changed to avoid impacts to habitat and vegetation. Explain how Priority Habitats (other than wetlands and riparian areas), such as dwarf shrub and shrub-steppe habitat, influenced the layout.	All areas of potential direct disturbance have now been field verified. The vast majority of the Turbine locations are within active agricultural lands. Surveys in 2020 were conducted within the 44 Turbine locations believed to be sited in non-agricultural lands based on previous habitat mapping. Surveys in 2021 field-verified habitat types within the entire Micrositing Corridor and Solar Siting Areas. This included all Turbine locations not previously surveyed in 2020. The results of the 2021 surveys will be provided in the 2021 Botany and Habitat Survey Report that is currently being prepared. Baseline surveys informed the Project layout in a number of ways. First, Turbines were relocated be at least 0.25 miles from raptor nests based on guidance provided by WDFW and Larson et al. (2004) (see responses to EFSEC's Data Request 1 for more details). Turbines were not placed in topographic low points, drainages. or swales where shrub-steppe habitat is common. The Project layout was also revised in 2020 to minimize impacts to shrub-steppe habitat in the northeastern portion of the Project area following the baseline surveys conducted in 2020. Additional leases and portions of leases were terminated to reduce the Project footprint east of the Project site along the Columbia River. Updated Response: **With completion of the 2021 Botany and Habitat Survey Report (see Attachment "Vegetation-6"), the Project micrositing corridor and solar siting areas have now been fully field-verified.** **The Project layout has evolved over time to site Turbines at greater distance from the Columbia River.** In the early stages of siting, numerous steps were also taken to optimize the layout to maximize energy generation potential while minimizing impacts to resources, such as avoidance of the BLM lands to the northwest. Noise impacts, impacts to Department of Defense radar facilities, and impacts to habitat all were considered and resulted in modification of the Project layout to reduce or avoid impacts to these resources. In addition, the Project has been designed to accommodate availability of interested landowners and availability of transmission lines with capacity to transmit power. A proposed point of interconnection with the BPA grid at Red Mountain was abandoned primarily due to concerns associated with agricultural and viewshed interests. Early Project layouts went through multiple iterations as each of these separate factors was considered in conjunction with the others. **More specifically with regard to habitat and vegetation**, preliminary (desktop) habitat mapping was done to identify priority habitats, and to the extent possible, these were avoided in developing Turbine and solar layouts. As the final design is developed, further refinement will occur to continue to reduce impacts to all resources where possible, while still meeting the Project's purpose to generate clean renewable energy (see proponent purpose and need statement, transmitted to EFSEC on July 19, 2021). **In general, the majority of the Project is sited in cultivated lands**; 80 percent of the micrositing corridor, and 79 percent of the solar siting areas, are on developed or disturbed land (see attached updated Table 3.4-14 in Attachment "Vegetation-6"). Based on the preliminary layout as presented in the Project Application for Site Certification, within the micrositing corridor 85 percent of permanent disturbance would be on developed or disturbed land, while permanent disturbance to shrubland has been limited to 4 percent of the total disturbance area. The preliminary solar layout is also primarily sited on agricultural land to minimize disturbance to habitat and vegetation, with 84 percent of permanent and modified disturbance occurring on this type. **Because the majority of this area is already farmed where the topography is suitable, land that is suitable for solar development (generally flat) results in minimizing impacts to priority habitats.** However, in a few cases the highest value wind resource coincides with uncultivated land, and three wind turbines were retained on shrub-steppe land for this reason while other sites under consideration were dropped to reduce impacts. To the extent practicable, during final design, impacts to shrub-steppe land in the western portion of the Bofer Canyon solar siting area will be minimized because this is where the majority of solar impacts to rabbitbrush shrubland occur.	Section 2.22.2 Section 3.4.2.1 Appendix L
Data Request 2	**Heat Dissipation-1**	WAC: 463-60-175 Section 2.7	Heat Dissipation Mechanisms	Provide information on why heat dissipation systems, in regards to BESS, are not being used for this Project. Provide mechanisms or methods (and the alternatives) in the event, unlikely or not, that solar panels or turbines overheat.	Section 2.3.5 of the ASC describes that the battery storage design is for a modular self-contained unit. It will include, but not be limited to, the following elements (the details and complexity of these elements depend on the final system selected): • Battery storage equipment, including batteries and racks or containers, inverters, isolation transformers, and switchboards; • Balance of plant equipment, which may include medium-voltage and low-voltage electrical systems, fire suppression, heating, ventilation, and air-conditioning systems, building auxiliary electrical systems, and network/supervisory control and data acquisition systems • Cooling system, which may include a separate chiller plant located outside the battery racks with chillers, pumps, and heat exchangers. Turbines are also designed as self-contained units that are internationally certified to operate within a specified temperature range for the climate in the area constructed. Safety features warn operators when normal ranges are exceeded and will trip the unit when outside the design operating parameters. Solar panels are exposed to the elements and are also designed to operate in the climate of the area constructed. As this is a renewable energy facility and not a thermal generator, design concepts such as a massive cooling system/feature (heat sink) are unnecessary.	Section 2.3.5 Section 2.7
Data Request 2	**Earth-2**	WAC: 463-60-302 Section 3.1	Aggregate Fill	Indicate the source(s) of any soil or aggregate fill materials needed for any ground improvement, access road base, foundations, and engineered fill.	Aggregate material for access roads will conform with civil specifications created by the Applicant. The Applicant plans on using on-site excavated materials for backfill to the extent possible. American Rock Products, based in Prosser, is a local source of soil and aggregate fill materials that has capacity and has expressed interest in providing services to the Project. They are an example of a local company that has a gravel pit adjacent to the Project site. The specific source to be used during construction, either sourced from on-site quarry or from external sources, will be confirmed through a bid process by the Engineer-Procure-Construct (EPC) contractor and is not known at this time. The civil specifications for this is provided in Attachment "Earth-2" to this response.	Section 2.3.6
Data Request 2	**Energy and Natural Resources-2**	WAC: 463-60-342; 463-60-165 Sections 2.6.1.1 2.6.2 3.6.2	Construction and Operation Water Supply	Provide a discussion of water supply alternatives for construction and site operation and maintenance. Explain how the identified water trucking company can provide 220,000 gallons per day of water with two 4,000-gallon capacity water trucks during construction. If additional water trucking capacity is needed, provide a similar letter for each additional supplier.	The use of water at the site is described in Sections 2.6.1, 2.6.2, and 3.6.2 of the ASC. As noted in Energy and Natural Resources-1, as an alternative, the Project will apply to Ecology for overlapping water rights in cooperation with AgriNW to utilize their existing irrigation system infrastructure to obtain water. It is anticipated that three trucks can simultaneously fill from this system. As noted in Section 2.6.1.1 of the ASC, construction activities are conservatively estimated to generate an average water demand of 220,000 gallons per day. The daily water demand estimate assumes that, on an average construction day, 60 acres of the Project are in active construction, requiring 10 continuous hours of water. The Balance of Plant contractor will be responsible to obtain water sources and trucking services to meet the needs for construction prior to the commencement of construction activities. Appendix J of the ASC (i.e., statement of water supply capability) was only one example of a local firm providing water services and their capability at the time the document was created. Also see response to Energy and Natural Resources-1.	Section 2.6.2.1

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Data Request 2	**Energy and Natural Resources-1**	WAC: 463-60-342; 463-60-165 Sections 2.6.1.1 2.6.2 2.6.3 3.6.2	Water Use Authorization	Provide a letter from the City of Kennewick indicating that water is available in the amounts required and that the City is willing to supply it to the Project for both construction and operation in the required timeline. Provide a discussion of water supply alternatives for construction and O&M. Describe contingencies if source water from the District of Kennewick is curtailed during drought.	Construction water is planned to be sourced from the potential suppliers in close proximity to the construction activity. Municipalities are the likely source for the quantities anticipated. The City of Kennewick has a published policy and program for obtaining water from their fire hydrant system. The City has not denied service but has indicated that applications to obtain their hydrant meters should be filed as the need arises and refused to provide confirmation of supply. As an alternative to the City, the Project will apply to the Washington Department of Ecology (Ecology) for overlapping water rights in cooperation with AgriNW to utilize their existing irrigation system infrastructure to obtain water. It is anticipated that mitigation for this impact will be provided in accordance with Ecology guidelines from regional sources. This Application will be provided after filing with the Department of Ecology. The Project has no intention to source water from the Kennewick Irrigation District. In the event drought conditions occur, it will likely be affecting all potential water sources in near proximity to the site. Consequently, if alternative water suppliers cannot be found, this may affect the continuity of scheduled activities dependent on water. **Followup:** Water for construction activities is planned to be sourced from the potential suppliers in close proximity to its use. Local government utilities are the likely source for the quantities anticipated. As such, a permit was sought from the City of Kennewick recently, but the City indicated that their City code KMC 14.13.090 would allow use only on property located within either the City limits or the City's Urban Growth Boundary. As an alternative to the City of Kennewick, the Project may apply to Ecology for overlapping water rights in cooperation with a local private irrigator to utilize their existing irrigation system infrastructure to obtain water. It is anticipated that mitigation for this impact will be provided in accordance with Ecology guidelines from regional sources. This application will be provided after filing with Ecology.	Section 2.6.2.1 Section 3.3.1 Section 3.3.2.5
Data Request 2	**Heat Dissipation-2**	WAC: 463-60-175 Section 2.7	Heat Dissipation Mechanisms: Operating Machinery	Describe operating machinery and the potential heat produced provide information on what would occur if operating machinery overheated.	As noted in item Heat Dissipation-1, the major components are designed as self-contained units with all attendant systems necessary to maintain functionality for the range of operation intended. Operational parameters are monitored and safety features warn operators when normal ranges are exceeded and will trip the unit when outside the design operating parameters.	Section 2.7
Data Request 2	**Earth-1**	WAC: 463-60-302 Section 3.1	Topography	Provide topographic map (or equivalent) to show proposed changes to topography from construction.	The 2 foot contour data are available from surveys recently conducted for current existing topography on site. Proposed changes to topography will be part of the final construction package to be provided prior to Notice to Proceed with construction. This 2-foot topographic contour map will be provided to EFSEC under separate cover at a later date. Updated response: Attachment "Earth 1" provides a detailed topographic map of existing conditions in areas where project components may be sited, based on recent site-specific surveys. The site survey was conducted to generate 1-foot contours in the vicinity of the solar siting areas, with 2-foot contours across the remainder of the Project area. Some portions of the lease boundary have not yet been surveyed to this level of detail; the map book retains the USGS 20-foot contours in these areas. Detailed grading plans to reflect precise changes to the existing topography will not be available until Turbines are selected and the precise equipment and required output of the solar arrays have been determined, which will occur after the site certification agreement has been issued and after power purchasers have confirmed the desired mix of energy sources to meet their needs. Selection of locations for solar arrays, wind turbines, and supporting infrastructure generally is done in a manner to minimize the need for grading. However, some grading will be necessary in order to accommodate safe and effective placement of facilities. The following parameters will generally guide grading decisions during the final design process: Site slopes that would be tolerable for the solar panels would be up to 14% maximum in all directions. Any slopes greater than 14% should either be avoided or graded to accommodate PV array placement. The site is typically graded to promote positive drainage and prevent ponding in the PV array areas. Other Project areas are typically graded as described here: • Access roads and driveway entrances = maximum 10% slope • Construction staging areas = maximum 10% slope • BESS storage areas = preferable 2%- 5% slope • Substation = preferable 2%-3% slope • Slope grades away from buildings a minimum of 6 inches in 10 feet • WTG Areas are generally sloped at 2% away from the Turbine base/foundation.	Section 3.1.1.3
Data Request 2	**Earth-3**	WAC: 463-60-302 Section 3.1	Seismic Requirements	Confirm whether the applicable seismic Standard is 2018 IBC/ASCE 7-16 or the IBC 2015/ASCE 7-10 Standard as referenced in the application. Confirm compliance with Washington State Building Code for foundations and structures.	The Project will comply with Seismic Standard 2018 IBC/ASCE 7-16. Information related to compliance with the Washington State Building Code for foundations and structures will be provided to EFSEC under separate cover at a later date. Updated Response: The seismic standard will be IBC 2018/ASCE 7-16 as stated in the Washington State Building Code 2018. The Project will need to **comply with the 2018 Washington State Building Code; Section 1613 (Earthquake Loads) apply.**	Section 3.1.2
Data Request 2	**Aesthetics-1**	WAC: 463-60-362 Section 4.2.3 Appendix Q	WAC 463-60-362 (3) identifies that the applicant shall describe procedures to be utilized to restore or enhance the landscape disturbed during construction.	Provide details on site-specific BMPs or site-specific mitigations related to construction to restore or enhance the disturbed landscape.	Exposed and unworked soils shall be temporarily or permanently stabilized as soon as practicable by application of effective BMPs that protect the soil from the erosive forces of raindrops, flowing water, and wind. No soils should remain exposed and unworked for more than the time periods set forth in the SWPPP. This stabilization requirement applies to all soils on site, whether at final grade or not. Final stabilization techniques will be defined in the final project specific Storm Water Prevention Plan. Typical stabilization techniques include, but are not limited to, mulching, nets and blankets, plastic covering, temporary and permanent seeding, surface roughening, dust control, interceptor dike and swale. As noted in Section 4.2.3.3, construction disturbance would be limited to the extent practicable in accordance with BMPs and the Project's site certificate conditions. After construction is completed, disturbed areas, including temporary access roads not later used as Project access roads, would be restored as nearly as practicable to their original condition. In general, vegetated areas that are temporarily disturbed or removed during construction of the Project would be restored as reasonably possible to pre-disturbance conditions. Areas with significant soil compaction and disturbance from construction activities would be revegetated in accordance with the Revegetation and Noxious Weed Management Plan (Appendix N).	Section 3.1.3 Section 4.2.3.4
Data Request 2	**Air-2**	WAC: 463-60-312 Section 3.2.1.2	Background Meteorological Conditions	Provide quarterly and annual wind and atmospheric stability roses for the Project Area or the nearest representative monitoring station for at least one full year.	A summary of background meteorological conditions, including wind roses, will be provided to EFSEC under separate cover at a later date using data from the nearest representative monitoring station. Updated Response: **See the figures in Attachment "Air-2" which present annual and quarterly wind roses and atmospheric stability roses generated using Lakes WRPLOT.** Wind speed, wind direction, and stability parameter observations were taken from the Richland, Washington meteorological station (KRLD), which is the closest station to the project site. The annual wind and stability roses are based on one full year of data from 2020, while the quarterly wind and stability roses are based on 2020 data by seasonal quarters (Dec & January-February 2020, March-May 2020, June-August 2020, and September-November 2020).	Section 3.2.1.2
Data Request 2	**Air-1**	WAC: 463-60-312 Section 3.2.1.3	Background Air Quality	Provide background ambient air quality data for the Project Area or the nearest representative air monitoring station for the previous three (3) years.	A summary of background ambient concentration data from representative monitoring stations for the most recent 3-year period available will be provided to EFSEC under separate cover at a later date. Updated Response: **Background ambient air quality data from U.S. EPA's AirData Air Quality Monitors application is summarized in the table below for the three most recent years available.** Measured concentrations for each pollutant were obtained from the nearest available monitor site that included data for all three years in the 2018-2020 period (with the exception of PM10, for which concentrations were taken from the Kennewick – Metaline monitor site, which has data available for 2019 through 2021 to date). SO2 concentrations were taken from the Portland, Oregon monitor site because the nearest site (Wenatchee) did not provide data in the required units of the NAAQS standard. As shown, background ambient air quality complies with all NAAQS standards over the most recent available 3-year period, with the exception of PM10. The maximum second highest value recorded in 2020 is most likely attributable to an exceptional event related to the Pacific Northwest wildfires of 2020.	Section 3.2.1.3

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Data Request 2	**Air-13**	WAC: 463-60-312 Section 3.2.1	Climate Change	Quantify Project Greenhouse Gas (GHG) emissions during construction and operation. Compare GHG emissions to regional and statewide emissions and GHG reduction goals. Describe any proposed GHG mitigation measures.	Tables quantifying the estimated GHG emissions from construction, operation, and maintenance of the Project will be provided to EFSEC underseparate cover at a later date. This filing will also include: • A summary of Washington state's GHG emission inventory and GHG reduction targets • A summary of proposed GHG mitigation measures Updated Response: **Tables quantifying the estimated GHG emissions from construction, operation, and maintenance of the Project have been provided as part of the new supplemental response to Air-3 (see Attachment Air-3).** To compare project GHG emissions to statewide GHG emissions, the most recent inventory published by the State of Washington Department of Ecology (https://ecology.wa.gov/Air-Climate/Climate-change/Tracking-greenhouse-gases/Greenhouse-gas-reporting/Inventories) estimated statewide GHG emissions of 99.6 million metric tons in 2018. By comparison, the Project has estimated GHG emissions of 14,790 short tons (13,417 metric tons) in 2023; 16,654 short tons (15,108 metric tons) in 2023; and 134.9 short tons (122.3 metric tons) in calendar years 2025 and onward. The Project's maximum calendar year GHG emissions from construction in 2024 therefore represent about 0.015 percent of the statewide GHG emissions for 2018. Regarding GHG mitigation measures, the Project proposes to limit the idling of construction equipment and vehicles in accordance with accepted best management practices. It should be noted that the entire Project itself is expected to provide a large net reduction in statewide GHG emissions, since the construction and operation of renewable electric generation facilities like this project are one of the most significant components of the State of Washington's plan to achieve its GHG reduction targets (https://ecology.wa.gov/Air-Climate/Climate-change/Tracking-greenhouse-gases), which require a 45 percent reduction below 1990 levels by 2030, a 70 percent reduction below 1990 levels by 2040, and a 95 percent reduction below 1990 levels by 2050.	Section 3.2.2.1
Data Request 2	**Air-3**	WAC: 463-60-225 Section 3.2.2.1	Criteria Air Pollutant Emission Rates	For each distinct construction location (laydown area, turbine pads, solar cluster, switchyard, etc.), include an Excel spreadsheet with a list of all air pollution emitting equipment, equipment rating, expected duration of use, load factor, the applicable emission factor for each criterion air pollutant (NOx, SO2, PM10/2.5, CO, NMHC) and emission rate calculations in pounds/hour, pounds/day and tons/year. Include diesel generators, batch plant, and blasting emission rate estimates. Provide references for all emission factors and other assumptions used in all calculations. Indicate which sources of emissions will be operating concurrently and provide a summary of maximum emission rates for each averaging period (e.g., hour, day. year) for each distinct construction location. Provide requested Excel file including all calculations in an unprotected format allowing all fields to be displayed.	Original Response: Tables quantifying the estimated air emissions from construction of the Project will be provided to EFSEC under separate cover at a later date. Note that it will not be feasible to provide a list of air emitting equipment for each construction location, but a list of air emitting equipment for each phase of construction and operation should be possible to be provided. Air emissions will be quantified on a calendar year basis, but it will not be feasible to estimate maximum concurrent emission rates for each distinct construction location, or for 1-hour or 24-hour averaging periods. WAC 463-60-225 does not explicitly require this level of detail to be provided regarding short-term emission rates, nor is it considered prudent by the Applicant for a non-emitting renewable energy facility. Emissions from mobile equipment used during construction, operation, and maintenance are also not subject to stationary source permitting. Information regarding batch plant and blasting operations is not available at this time. Refer to Air-4 and Air-11 responses. New Supplemental Response: **Emission tables quantifying the estimated air emissions from construction, operation, and maintenance of the project are provided in Attachment Air-3. WAC 463-60-225(1) specifies that EFSEC applications "shall describe and quantify all construction and operational air emissions subject to regulation by local, state or federal agencies." The provided emissions tables contain sufficient detail to satisfy the requirement of WAC 463-60-225(1).** Summary tables present the total emissions by overall project phase, as well as total emissions by calendar year during construction, operation, and maintenance of the project. Detailed tables for each project phase are also included that list the anticipated air emitting equipment for each phase, and include the assumed equipment ratings, load factors, and references for the emission factors and other assumptions used in the calculations. The emission factors used are also presented on separate tables. Construction schedules for each phase of the project, as well as the types and quantities of equipment used for each specific task during construction, operation, and maintenance of the Project.	Section 3.2.2.1
Data Request 2	**Air-3**	WAC: 463-60-225 Section 3.2.2.1	Criteria Air Pollutant Emission Rates	For each distinct construction location (laydown area, turbine pads, solar cluster, switchyard, etc.), include an Excel spreadsheet with a list of all air pollution emitting equipment, equipment rating, expected duration of use, load factor, the applicable emission factor for each criterion air pollutant (NOx, SO2, PM10/2.5, CO, NMHC) and emission rate calculations in pounds/hour, pounds/day and tons/year. Include diesel generators, batch plant, and blasting emission rate estimates. Provide references for all emission factors and other assumptions used in all calculations. Indicate which sources of emissions will be operating concurrently and provide a summary of maximum emission rates for each averaging period (e.g., hour, day. year) for each distinct construction location. Provide requested Excel file including all calculations in an unprotected format allowing all fields to be displayed.	New Supplemental Response: Emission tables quantifying the estimated air emissions from construction, operation, and maintenance of the project are provided in Attachment Air-3. WAC 463-60-225(1) specifies that EFSEC applications "shall describe and quantify all construction and operational air emissions subject to regulation by local, state or federal agencies." The provided emissions tables contain sufficient detail to satisfy the requirement of WAC 463-60-225(1). Summary tables present the total emissions by overall project phase, as well as total emissions by calendar year during construction, operation, and maintenance of the project. Detailed tables for each project phase are also included that list the anticipated air emitting equipment for each phase, and include the assumed equipment ratings, load factors, and references for the emission factors and other assumptions used in the calculations. The emission factors used are also presented on separate tables. Construction schedules for each phase of the project, as well as the types and quantities of equipment used for each specific task during construction, operation, and maintenance of the Project.Emission factors for nonroad mobile equipment to be used during construction of the Project were calculated using the current version of EPA's Motor Vehicle Emission Simulator (MOVES) emission factor modeling system. The current version of MOVES, known as MOVES3, is EPA's accepted model for creating mobile source emission inventories for both federal and state environmental assessments. MOVES runs were conducted using default input files for Benton County provided by the State of Washington Department of Ecology. Runs were conducted for two separate calendar years, 2023 and 2024, and were used to estimated emissions from the corresponding phase of construction occurring in each year. (2023 emission factors were used for Phase 1 construction emissions, and 2024 emission factors were used for both Phase 2a and Phase 2b construction emissions.) Emission for on-road mobile equipment to be used during construction, operation, and maintenance of the Project, including supply trucks, delivery vehicles, and worker commute vehicles, were also calculated using MOVES3 and the default input files for Benton County. Runs were conducted for calendar years 2023 and 2024 and applied to the corresponding phase of construction occurring in each calendar year. The 2024 emission factors were also used to estimate on-road vehicle emissions during operation and maintenance activities for calendar years 2025 onward. For nonroad equipment, MOVES3 produced emission factors for VOC, NOx, CO, PM10, PM2.5, SO2, CO2, and CH4 in units of grams per horsepower-hour. Emissions of N2O from nonroad equipment used a default emission factor of 0.26 g N2O/gallon fuel, based on Table B-8 of the EPA report, "Direct Emissions from Mobile Combustion Sources, U.S. EPA Center for Corporate Leadership – Greenhouse Gas Inventory Guidance," EPA430-K-16-004, January 2016. Emissions factors for HAP compounds from nonroad diesel equipment were based on the ERG report, "Documentation for Aircraft, Commercial Marine Vessel, Locomotive, and Other Nonroad Components of the National Emissions Inventory," Volume I - Methodology, October 7, 2003. Total emissions of greenhouse gases (in units of tons of CO2 equivalents, or CO2e) were calculated by applying the appropriate global warming potential factors (GWPs) from 40 CFR 98 to the estimated emissions of CO2, CH4, and N2O. The GWPs for these greenhouse gases are 1 for CO2, 25 for CH4, and 298 for N2O. For on-road vehicles, MOVES3 produced emission factors for VOC, NOx, CO, PM10, PM2.5, SO2, CO2, CH4, N2O, and CO2e in units of grams per vehicle mile traveled. Emission factors for HAP compounds from on-road vehicles were not available from the MOVES3 runs. HAP emissions from on-road vehicles used during construction, operation, and maintenance of the project are presumed to be de minimis based on the relatively small total emissions contributed to the project by on-road vehicles for other pollutants.	Section 3.2.2.1
Data Request 2	**Air-5**	WAC: 463-60-312 Section 3.2.2.1	Fugitive Dust Emmissions-Open Storage	Provide the number, size (pile height and diameter for piles), duration of open construction material stockpiles and open disturbed areas (acres), or other factors used to develop emission rate calculations. Quantify PM10 and PM2.5 emissions. Incorporate the control efficiency associated with the use of stockpile covers or other mitigation proposed to minimize or eliminate fugitive dust in the calculations. Provide a reference for control efficiency used in calculations.	A response to this comment will be provided to EFSEC under separate cover at a later date. Updated response: **Estimated PM10 and PM2.5 emissions for nonroad mobile equipment are quantified in Attachment Air-3.** The number, size, and duration of open construction material stockpiles, and related control efficiency information and calculations, will not be available until the project design has been finalized and the detailed construction schedule has been developed.	Section 3.2.2.1

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 2	**Air-9**	40 CFR Part 1039.101 WAC: 463-60-312 Sections 2.1.2 3.2.3	Emission Controls	Explain whether compliance with Tier 4 emission standards (40 CFR 1039.101) for non-road equipment (including, if applicable, use of diesel particulate filters) to minimize emissions is feasible during construction and operation.	The use of non-road equipment equipped with Tier 4-compliant engines may be feasible during construction and operation, but is subject to the availability of suitable Tier 4-compliant equipment. Tier-4 compliant equipment will be used to the extent such equipment is reasonably available.	Section 3.2.3
Data Request 2	**Air-10**	40 CFR Part 60, Subpart IIII WAC: 463-60-312 Sections 2.1.2 3.2.3	Emission Controls	Explain whether proposed diesel generators, used during construction, will be subject to federal New Source Performance Standards for diesel engines (40 CFR Part 60, Subpart IIII).	It is anticipated that any diesel generators used during construction will be portable nonroad engines (as defined under 40 CFR 1068.30), and will therefore be subject to nonroad emission standards, rather than the federal New Source Performance Standards under 40 CFR Part 60, Subpart IIII.	Section 3.2.3 Section 2.3.1
Data Request 1	**Hab-2**	Appendix L	Appendix I Wetlands and Other Waters Delineation Report study area includes only the turbines, solar siting areas, and micrositing corridor.This information request will inform the impact discussion.	Confirm wetlands present in the vicinity that may be impacted (downgradient water flow) by construction.	One wetland was identified during field surveys in the vicinity of but outside the Micrositing Corridor. This wetland is Class IV and thus according to the Benton County Critical Areas Ordinance (CAO; Benton County Code 09/20/18) the standard buffer width is 40 feet, which is still well outside the Micrositing Corridor. **Therefore, no wetlands are anticipated to be impacted either directly or as a result of downgradient water flow.** <u>Updated Response:</u> No change	Section 3.3.1.1
Data Request 2	**Surface Water and Wetlands-1**	WAC: 463-60-322; 463-60-333 Sections 3.3.1-3.3.3 3.5.1-3.5.3 Appendix I	Unsurveyed Area for Surface Water and Wetlands	Provide results of the 2021 spring and wetland survey within the portion of the solar siting area along Sellards Road that had not been previously surveyed for wetlands during the 2020 field program due to access restrictions.	The wetland and waters survey report provided with the ASC has been updated to address comments received from Ecology as well as surveys conducted in Spring 2021. The revised report (which includes the results of the 2021 spring and wetland survey within the portion of the solar siting area along Sellards Road that had not been previously surveyed for wetlands during the 2020 field program due to access restrictions) is found in Attachment "Wetland-1" to this response.	Section 3.3.1.1 Appendix I
Data Request 2	**Surface Water and Wetlands-4**	WAC: 463-60-322 Sections 3.3.1.1 3.3.2.1 3.3.3	Analysis of Effluent Distribution from Construction Water Discharge and Operation/Maintenance Water Discharge	Provide an analysis of effluent distribution from construction water discharge, including on-site concrete batch plant operations and dust control, on receiving environment to demonstrate the effectiveness of proposed mitigation measures. Provide an analysis of effluent distribution from operation and maintenance water discharge, such as from washing of solar panels, on receiving environment to demonstrate the effectiveness of proposed mitigation measures.	Effluent discharge from construction concrete operations, including on-site concrete batch plant operations, will be controlled as required in the Construction General Permit and Sand and Gravel General Permit to prevent contamination of stormwater runoff. Best management practices used (including but not limited to SWMMEW BMPs C151E, C154E, and C252E) will include preferential off-site disposal when possible, establishment and maintenance of concrete washout areas when off-site disposal is not possible, and monitoring of effluent pH. Specific to operation of an on-site concrete batch plant, any impoundments for process water will be lined and the impoundment capacity adequate to provide treatment and flow control. Because the overall project will meet the Construction General Permit's definition of "significant concrete work" (>1,000 cubic yards of concrete placed or poured), pH sampling will be completed as specified in the permit. If effluent exceeds the benchmark value, the high pH water will be either prevented from reaching surface waters or neutralized. Site BMPs will be designed and implemented to avoid comingling of water, and any stormwater that has comingled with concrete wastewater will be considered process wastewater and managed appropriately. Additional sampling and monitoring requirements are identified in the Sand and Gravel General Permit, and these requirements will be followed. The Site Management Plan will include all required elements, including the site map, Erosion and Sediment Control Plan (ESCP), Monitoring Plan, SWPPP, and Spill Control Plan. Washing of solar panels would be done with water only and no surfactants or other chemicals would be added. See response to Surface Water and Wetlands-5 for additional information on the quantity of water that would be used for panel washing. Because the panel wash water would not contain added chemicals, no treatment would be needed, no mitigation would be required, and there would be no impact on the receiving environment.	Section 3.3.2.2
Data Request 2	**Surface Water and Wetlands-5**	WAC: 463-60-322 Sections 2.6.1.1 2.6.1.2 3.3.1.2 3.3.2.2 3.3.3	Erosion and Sediment Control Mitigation for Surface Water Runoff during Operations and Maintenance	Provide details of erosion and sediment control mitigation measures as part of the ESCP related specifically to the surface water runoff generated during operation and maintenance activities, including those related to solar panel washing operations.	Panel washing is not expected to generate runoff from the site or cause erosion. Estimated water use across all three solar areas is 2,025,000 gallons per year (Section 2.6 of the ASC). Conservatively assuming that one-third of this amount would be used even at the smallest area (Sellards Road, 1,935 acres), an estimated 675,000 gallons of water may be used during panel washing at this site. If all of this water were to run off from panels and none of it evaporated, the depth of water on the ground would be 0.012 inch across this area. This amount of water would easily infiltrate into the ground around the panels and is not likely to run off to surface water bodies. Runoff also could occur due to rainfall on the site. Because the overall contours of the project site would not change significantly from current contours, stormwater runoff generally would follow current patterns during operations. Erosion and sediment control during operations and maintenance would consist of revegetating the area following construction to facilitate infiltration of stormwater that may run off of Project infrastructure. There would be ample space between the solar panel rows (generally at least twice the panel height in between rows, to minimize shading of panels when tilted) and infiltration could occur in this space as well as underneath the panels.	Section 3.3.2.2
Data Request 2	**Surface Water and Wetlands-6**	WAC: 463-60-322 Sections 3.3.1.3 3.3.2.3 3.3.3	Temporary Impacts within the 100-year floodplain	Provide details of the source and extent of the "temporary impacts" to the 0.8- acres within the 100-year floodplain and provide mitigation measures to avoid and/or reduce temporary impacts to this area.	The 0.8 acres of temporary impacts are related to the temporary disturbance footprint associated with the new 230-kilovolt (kV) transmission line for the solar intertie. This estimate is based on a standard disturbance width applied along all transmission line corridors but would be modified during final design to reduce impacts as much as possible. Construction will follow BMPs to be detailed in the ESCP/SWPP, including BMPs to reduce impacts and to minimize the potential for erosion, and the area will be revegetated following construction. As no permanent impacts would occur to this area, no permanent mitigation is proposed.	Section 3.3.2.3

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 1	**Hab-11**	Appendix K Section 3.4.1.3	Wildlife Baseline data	Conduct surveys to provide additional information on the occurrence of Special Status Wildlife within the Site and buffer area, specifically small mammals, herptiles, and bird species not adequately addressed through the aerial and point count survey method. Include data on presence, distribution, and habitat availability within the project lease boundary and buffer area.	Original Response: **The ASC describes the presence, distribution, and habitat availability within the Project Lease Boundary for special status wildlife based on a review of desktop resources (e.g., PHS data), the results of habitat surveys, and field observations during other field surveys conducted from 2017 through 2020 (e.g., see Section 3.4.1 and Tables 3.4-3 and 3.4-4 in the ASC).** The Applicant coordinated with WDFW regarding survey methods and results and Project permitting in 2017, 2020, and 2021 (and with USFWS in 2017 and 2020). The Applicant has not conducted species-specific surveys for special status species (e.g., small mammals, herptiles) within the Project Lease Boundary because surveys are not required on private land and were not recommended by WDFW during agency coordination for the Project. **Additional context for the potential for special-status wildlife is provided in Attachment 1**, which provides modeled predicted habitat based on Gap Analyis Program (GAP) data for the following special-status small mammals, herptiles, and bird species with the potential to occur in the vicinity of the Project: American white pelican (Pelecanus erythrorhynchos); black-tailed jackrabbit (Lepus californicus); burrowing owl (Athene cunicularia; also see response to Hab-14 below); ferruginous hawk (Buteo regalis); great blue heron (Ardea Herodias); ring-necked pheasant (Phasianus colchicus); striped whipsnake (Masticophis taeniatus; also see response to Hab-13 below); Townsend's big-eared bat (Coryhorhinus townsendii); Townsend's ground squirrel (Urocitellus townsendii townsendii; also see response to Hab-12 below); tundra swan (Cygnus columbianus); white-tailed jackrabbit (Lepus townsendii); loggerhead shrike (Lanius ludovicianus; also see response to Hab-14 below); sagebrush sparrow (Artemisiospiza nevadensis), and sage thrasher (Oreoscoptes montanus). Because Vaux's swift (Chaetura vauxi) had no predicted habitat in the area, no map is provided. Modeled predictions of suitable species habitat should be combined with the site-specific habitat surveys conducted for the Project, and other desktop resources discussed in the ASC, to assess the potential for each species to occur at the Project because the models are intended for use at the landscape scale rather than as precise predictions of species occurrence/absence at local scales. For example, GAP models predicted habitat for striped whipsnake within the Project Lease Boundary (Attachment 2); however, according to WDFW (as described in the ASC), only two populations of this species are verified still existing, neither of which are located in the vicinity of the Project Lease Boundary, and the habitat of the still existing populations includes basalt outcrops and relatively undisturbed shrubland with grasses and a low cover of invasive cheatgrass, which is absent from the Project Lease Boundary. Similarly, GAP models limited predicted habitat for Townsend's ground squirrel within the Project Lease Boundary, primarily at the northern and southern edges of the Project Lease Boundary; however, the ASC conservatively describes that approximately 1,554 acres of suitable habitat (consisting of shrubland and grassland) would be impacted during construction, and proposes compensatory mitigation to offset these impacts. Additional discussion of the potential for special-status mammals, herptiles, and bird species to occur within the Project Lease Boundary is provided on pp. 3-103 through 3-127 and 3-134 through 3-140 of the ASC. Updated Response: No change.	Section 3.4.1.1 Appendix K
Data Request 1	**Hab-5**	Section 3.4.1.1	The number of threatened and endangered species with potential to occur at or around the site is limited to vascular plants.	Identify all threatened and endangered species with potential to occur at or around the site including non-vascular plants. This applies to past surveys as well as the 2021 habitat survey.	Original Response: **The Applicant conducted a supplemental review in June 2021 and identified only one threratened or endangered non-vascular species that has the potential to occur at the Project: woven spore lichen (*Texosporium sancti-jacobi*; DNR 2021a, DNR 2021b, WNHP 2019).** This species is typically found in semi-arid shrub-steppe or grassland communities, usually influenced by moisture from a river or lake (Root & McCune 2012). It is generally found in communities that are considered late-successional because they have been free of disturbance for more than 20 years (McCune and Rosentreter 1992; Riefner and Rosentreter 2004). The species is generally considered to occur on flat ground or slightly north-facing slopes that are free from weeds; however, a study published in 2018 found some occurrences of this species in the Horsen Heaven Hills area (outside the Project Lease Boundary) on south-facing microsites on north-facing slopes (Stone et al. 2018). DNR (Washington Department of Natural Resources). 2021a. Field Guide to the Rare Plants of Washinton. Online Guide. Available at: https://www.dnr.wa.gov/NHPfieldguide. Accessed June 2021. McCune, B., and R. Rosentreter. 1992. Texosporium sancti-jacobi, a rare western North American lichen. The Bryologist 95: 329-333. Riefner, R. E. Jr., and R. Rosentreter. 2004. The distribution and ecology of Texosporium in southern California. Madroño 51: 326-330. Root, H., and B. McCune. 2012. Surveying for biotic crust lichens of shrub steppe habitats in the Columbia Basin. North American Fungi 7(7): 1-21. Stone, D., A. Hardman, and K. Beck. 2018. Going for the Gold: A Search for Texosporium sancti-jacobi in Washington. Report submitted to Spokane District Bureau of Land Management (BLM). December 2018. WNHP (Washington Natural Heritage Program). 2019. 2019 Washington Lichen Species of Special Concern and Review Lists. December 17, 2019. Draft updated 2021 version provided by Walter Fertig (State botanist, WNHP) to Tetra Tech via email June 21, 2021. Updated Response: A habitat suitability assessment for woven spore lichen within Project micrositing corridors was provided as part of the 2021 habitat survey report transmitted to EFSEC on September 10, 2021.	Section 3.4.1.1 Appendix K
Data Request 2	**Wildlife-20**	WAC: 463-60-332	Prey Base and Food Webs	Provide further information on the prey base for all animals, such as Townsend's ground squirrel (an important food source for listed Ferruginous hawk), the micrositing of the Project may impact.	Please see our response to Hab-11 in EFSEC's Data Request #1 where small mammals are discussed. Small mammals (kangaroo rat, gopher, squirrel) are common through the Horse Heaven Hills and broadly distributed except in areas that are actively tilled and managed for dryland wheat and other agriculture. Additional context for the potential for special-status wildlife was provided in EFSEC's Data Request #1, which provided modeled predicted habitat based on GAP data for the following special-status small mammals, with the potential to occur in the vicinity of the Project: black-tailed jackrabbit (Lepus californicus); Townsend's ground squirrel (Urocitellus townsendii townsendii; and white-tailed jackrabbit (Lepus townsendii). Modeled predicted habitat does not constitute species occurrence. Please reference data limitation of GAP habitat when making inferences of species habitat and occurrence. The vast majority of Project infrastructure is not located within modeled Townsends ground squirrel areas. Please see Attachment "Wildlife-20" to this response.	Section 3.4.1.1 Appendix K
Data Request 2	**Vegetation-3**	WAC: 463-60-332 Section 3.4.1.1 Appendix A	Two (2) state-listed endangered, 11 state listed threatened, and 15 state sensitive vascular plants are known or have the potential to occur in Benton County per the Tetra Tech Botany and Habitat Survey Report (2020). However, Attachment A only lists one (1) state listed endangered species.	Confirm which is correct for state-listed endangered (1 or 2 species).	The Washington Natural Heritage Program (WNHP) lists of special-status plant species known or with a potential to occur in each county are updated periodically. Based on the most recent county list (updated January 14, 2021 and available at: https://www.dnr.wa.gov/NHPdata) one state endangered, 11 state threatened, and 15 state sensitive vascular plant species are known or have the potential to occur in Benton County. In addition, the state threatened woven-spore lichen is also known to occur in Benton County. The 2021 Botany and Habitat Survey Report, and associated Attachment A, will reflect the latest WNHP special status species list for Benton County.	Section 3.4.1.1 Appendix K
Data Request 1	**Hab-20**	Section 3.4 Appendix K	Wildlife Baseline data	What is the presence and habitat use of non-aerial species including small mammals, herptiles, and invertebrates?	Original Response: **See responses to Hab-11 through Hab-15.** Updated Response: No change.	Section 3.4.1.1 Section 3.4.1.3 Appendix K
Data Request 1	**Hab-17**	Section 3.4.3	The habitat mapping is a combination of 2020 habitat classification field work, 2018 habitat mapping, and aerial imagery/government data sources.	Update the habitat mapping based on the results of additional surveys conducted in 2021. Include the ground truthing level of effort.	Original Response: **Surveys were conducted in June 2021 within unsurveyed areas within the Micrositing Corridor and Solar Siting Area and updated mapping will be provided as requested once it is processed and has undergone QA/QC review. The ground-truthing level of effort will be described in the survey report.** Updated Response: The 2021 habitat survey report was provided on September 10, 2021.	Section 3.4.1.1 Section 3.4.2.1 Appendix K

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 2	**Vegetation-6**	WAC: 463-60-332 Section 3.4.2	Plant species at risk (vascular and nonvascular) in the remaining unsurveyed areas.	Discuss the impacts of the Project on populations of vascular and non-vascular plant species at risk, including: the number of individuals or populations that will be impacted by the Project; the number of known populations adjacent to the Project boundary; the type of habitats where plant species at risk may occur; and the potential for plant species to occur in similar habitats within the Project.	This data request was responded to in the previous round of requests (i.e., in version 1 of the initial data request). As stated earlier: Known populations of special-status plants within 5 miles of the Project Lease Boundary are discussed in the Botany and Habitat Survey Report (Tetra Tech 2020). Attachment A in the Botany and Habitat Survey Report (Tetra Tech 2020) provides a description of habitat characteristics for special-status species with potential to occur at the Project, and describes the potential for the species to occur based on the proximity of known occurrences to the Project and the presence of suitable habitat at the Project. No individuals or populations of special-status vascular plants will be impacted by the Project; complete surveys were conducted for special-status vascular plants species within the Project Micrositing Corridor and Solar Siting Areas and none were found in the area.Woven-spore lichen is the only listed non-vascular species with potential to occur at the Project. The locations of previously identified woven-spore lichen in the vicinity of the Project are described in Tetra Tech's 2020 Botany and Habitat Survey Report (Appendix K to the ASC). In lieu of non-vascular species surveys, as discussed on a June 17, 2021 call with EFSEC/Golder, the Applicant is conducting a habitat suitability assessment for this species to quantify potentially suitable habitat at the Project (see habitat description in response to Hab-5 in DR #1). The results of this habitat suitability assessment will be provided along with the 2021 Botany and Habitat Survey Report. Updated Response: **The 2021 Botany and Habitat Survey Report for Horse Heaven Wind Farm is provided as Attachment "Vegetation-6". Updated habitat impact calculations and maps are also provided.** The 2020 and 2021 survey reports provide detail on special-status plant species with the potential to occur in the vicinity of the site along with habitat types within which they may occur. In addition, although field surveys were focused on special status vascular plants, a habitat suitability assessment for wove-spore lichen was conducted to identify potential suitable habitat within the Project lease boundary for this species (see Attachment C to the 2021 botanical survey report). Based on this assessment, approximately 18.9 acres within the Wind Energy Micrositing Corridor and Solar Siting Areas may provide suitable habitat for this non-vascular species. The attached updated Table 3.4-1 in **Attachment "Vegetation-6"** provides acreages of each habitat subtype identified within the micrositing corridor and solar siting areas, and Table 3.4-14 provides estimated temporary, modified, and permanent impacts to each habitat type. **As described in the 2020 botanical survey report (provided with the ASC) and the 2021 survey report (see Attachment "Vegetation-6"), no special-status vascular plant species were observed within the study area, and very little suitable habitat for special status plant species was observed.**	Section 3.4.1.1 Section 3.4.2.1 Appendix K
Data Request 3	**Wildlife-24**	WAC: 463-60-332 Section: 3.4.2.3	Avian	When an avian species is flying within the RSH), and there is a five deep turbine array that must be traversed, does that change the exposure rate, and is that included in the calculation? Is it intuitive that a bird flying through a wind turbine project arrayed as a single ridge top turbine row would have less exposure than a bird flying through an array that is five or six turbines deep?	**Calculation of the exposure index does not consider the geometry of the facility (i.e., the 'layout' or how Turbines are organized on the landscape).** The interaction described in the hypothetical scenario would be dependent on species-specific avoidance behavior, inter or intra species-specific behaviors, foraging behavior, weather, among many other factors (Barrios and Rodrigues 2004, USFWS 2013, among others). Spacing between Turbines along a string is approximately 0.25 miles from the tower base and the perpendicular distance between strings are much greater (approximately 0.5 – 1 miles), which would allow corrective flight and avoidance behavior. **As discussed in the BBCS (Appendix M of the Application), the exposure calculation is not a rate nor a likelihood; instead, it is a unitless index that does not account for other possible collision risk factors.** Calculation of the exposure index (R) is calculated using the following formula, R = A × Pf × Pt where A equals the mean relative use for species i averaged across all surveys, Pf equals the proportion of all observations of species i where activity was recorded as flying (an index to the approximate percentage of time species i spends flying during the daylight period), and Pt equals the proportion of all initial flight height observations of species i within the likely rotor-swept height (RSH) for proposed Turbines at the Project. In-flight avoidance behavior and habituation are key aspects in a collision risk scenario that are that not calculated in the exposure risk index. Bird avoidance rates are typically high (>98%; Luzenski et al. 2016, Bowgen and Cook 2018) and habituation to structures occur over time which reduces the potential for bird collisions (Watson et al. 2018).	Section 3.4.1.3
Data Request 1	**Hab-12**	Appendix K Section 3.4.1.3	Wildlife Baseline data	Conduct colony surveys for Townsend's ground squirrel to cover the full Lease Area. Alternatively, share with EFSEC before the last survey window why colony surveys and habitat surveys for Townsend's ground squirrel, which were conducted in 2018 within a portion of the Project, were not extended over the full Lease Area. Provide clarification on methods applied and discuss in the context of the wider project area.	Original Response: See response to Hab-11 above. **A habitat assessment site visit was conducted in 2018 for Townsend's ground squirrel at the location of the proposed substation only because this was requested by Bonneville Power Administration in relation to their interconnection agreement and associated National Environmental Policy Act (NEPA) review.The ASC quantifies impacts to Townsend's ground squirrels based on PHS data as well as habitat data collected during habitat field surveys.** As stated in the ASC, if impacts to suitable habitat cannot be avoided during final design or fully mitigated through the Washington Department of Fish and Wildlife (WDFW) compensatory mitigation process, the Applicant will consult with WDFW regarding the need for Townsend's ground squirrel surveys prior to construction. Although not a substitute for site-specific habitat survey results, an additional perspective on suitable habitat for Townsend's ground squirrel is provided in the attached modeled predicted habitat based on GAP data. GAP modeling predicts limited, patchy suitable habitat within the Project Lease Boundary, with the majority of larger areas of potentially suitable habitat more likely to occur to the north and south of the Project. See also p. 3-104 of the ASC. Updated Response: No change.	Section 3.4.1.3 Appendix K
Data Request 1	**Hab-13**	Section 3.4.1.3	Wildlife Baseline data	Conduct surveys and map habitat suitability for Special Status herptiles. Alternatively, share with EFSEC before the last survey window why no species-specific studies were conducted for special status reptiles.	Original Response: See response to Hab-11 above. **The ASC identifies potential habitats for special status herptiles (sagebrush lizard and striped whipsnake) based on PHS data as well as habitat data collected during habitat field surveys.** Additional context regarding the potential for these species to occur within the Project Lease Boundary is provided in the attached modeled GAP predicted habitat map for striped whipsnake (Attachment 1), as well as the ASC discussions on p. 3-135. Updated Response: No change.	Section 3.4.1.3 Appendix K
Data Request 1	**Hab-14**	Section 3.4.1.3	Wildlife Baseline data	Conduct surveys and map habitat for Special status species. Alternatively,share with EFSEC before the last survey window why no species-specific studies were conducted for burrowing owls, or loggerhead shrike, which have potential or have been recorded within the Project area.	Original Response: See response to Hab-11 above. **The ASC identifies potential habitats for burrowing owls and loggerhead shrike based on PHS data as well as habitat data collected during habitat field surveys.** Additional context is provided in the attached modeled GAP predicted habitat map for burrowing owls and loggerhead shrike (Attachment 1), as well as the ASC discussions on p. 3-104 to 3-106. Updated Response: No change.	Section 3.4.1.3 Appendix K
Data Request 1	**Hab-15**	Section 3.4.1.3	Wildlife Baseline data	Provide information on the presence of jackrabbit and jackrabbit habitat. Alternatively, share with EFSEC before the last survey window why species specific studies for jackrabbit were not conducted.	Original Response: See response to Hab-11 above. **The ASC identifies potential habitats for jackrabbits based on PHS data, personal communication with WDFW (see Chatfield and Brown 2018a,b) as well as habitat data collected during habitat field surveys (see Section 3.4.2.3 of the ASC).** Additional context is provided in the attached modeled GAP predicted habitat maps for black-tailed jackrabbit and white-tailed jackrabbit (Attachment 1), as well as the ASC impact discussion on p. 3-134. Updated Response: No change.	Section 3.4.1.3 Appendix K

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 1	**Hab-16**	Section 3.4.1.2. Section 3.4.1.3	Buffer Background: The project footprint in the 2017 and 2017-2018 studies is smaller than the proposed footprint in the Application and does not include the western edge of the footprint. The aerial surveys for raptors buffered the 2017 footprint by 2 miles for most raptors, and buffered 10 miles for eagles in 2018. As such, these survey areas covered most of the project footprint.	Conduct aerial raptor surveys on the western edge of the proposed project footprint. Explain how information was collected beyond the project footprint described in the application (i.e. 2 miles for raptors, and 10 miles for eagles).	Original Response: **Aerial raptor nest surveys have been conducted on the western edge of the Project.** See the Raptor Nest Survey Area Figure included as **Attachment 2** to this response, which displays the various Raptor Nest Survey Areas in relation to currently proposed Project infrastructure, summarized based on data presented in the Project's Bird and Bat Conservation Strategy. The area added to the western portion of the Project since surveys were conducted is primarily solar infrastructure (not turbines). WDFW typically requests, at a minimum, one raptor nest survey during the breeding season be conducted within 1 miles of ground disturbance associated with wind projects, and within 0.5 miles of ground disturbance associated with solar projects. Additionally, the U.S. Fish and Wildlife Service (USFWS) recently revised its eagle survey recommendations for wind projects, reducing the 10-mile nest survey buffer to a 2-mile nest survey buffer. Because of the potential occurrence for sensitive species in the area, the Applicant increased the survey area to 2 miles from proposed turbines during each survey year (proposed turbine locations shifted over the three years during which surveys were conducted). **Therefore, the surveys conducted to date meet or exceed agency recommendations for both wind and solar facilities**. **Information was collected beyond the Project footprint in the same manner it is was collected within areas proposed to be impacted by the Project, as described in Section 3.4.1.3 of the ASC, Section 5.2.3 of the Bird and Bat Conservation Strategy (Appendix M to the ASC), as well as in the individual survey reports (Appendix K to the ASC).** Updated Response: No change.	Section 3.4.1.3 Appendix K
Data Request 3	**Wildlife-27**	WAC: 463-60-332 Sections 3.4.2 and 3.4.3 Appendix M	Pronghorn	Provide information on pronghorn antelope presence and use of the Project area, Project-related impacts, and mitigation.	**Pronghorn populations in the adjacent Yakima Reservation may overwinter in the Horse Heaven Hills and are increasing (Fidorra et al. 2019).** Current minimum population estimates are approximately 250 animals (M. Ritter, WDFW, pers. comm). Reintroduction efforts continue with tribal entities. Telemetry data show some pronghorn use of the western portion of the Project Lease Boundary (M. Ritter, WDFW, pers. comm). **Effects on pronghorn would include avoidance of construction activities, removal of grassland and shrubland habitat that provide cover and forage (see Table 3.4-14 in Section 3.4.2.1 of the ASC), and reduction in habitat connectivity due to fenced solar arrays that would exclude pronghorn from the solar array areas, and potentially cause individuals to find alternative travel routes (also see our response to "Wildlife-1" in Request Package #2)** **No specific mitigation measures are proposed for pronghorn; however, general biological mitigation measures that would address all wildlife species (including pronghorn) are addressed in our response to Data Request "Wildlife-7" though "Wildlife-11" in Request Package #2.**	Section 3.4.2 Appendix K
Data Request 3	**Wildlife-28**	WAC: 463-60-332 Section 3.4.2.1 Appendix M	Wildlife Corridors	Provide information on terrestrial wildlife corridors (east/west as well as north/south) within the Project area and how the Project will maintain connectivity. Advise how the Project would potentially impact the connectivity along the ridgeline.	**See Figure 1 of Attachment "Wildlife-20" in the EFSEC Data Request #2 for a map of terrestrial wildlife linkages and connectivity.** The corridors and connectivity referenced in the question are data modeled by the Arid Lands Initiative (2014). ALI discusses wildlife connectivity and corridors in terms of Priority Core Areas and Habitat Linkage Areas (ALI 2014). **Connectivity along the east/west ridgeline to the north of the Project and the north/south corridor to the west of Interstate 82 have been avoided or minimized by designing the Project to avoid impacts to higher priority Habitat Linkage Areas. Along the northern ridgeline, Turbines and associated roads have been set-back and do not overlap with priority core areas or high/very high Linkage Areas (Data Request #2, Attachment Wildlife-20, Figure 1).** Of the 244 proposed Turbines, a small number (11 Turbines or 4 % of all Turbines) are found within the north/south high linkage area. The remaining Turbines are located outside high and very high Linkage Areas, as defined by ALI. Along the north/south corridor, approximately 11 Turbines (4%) located within a Linkage Area will remain unfenced and open to wildlife movement. Spacing between Turbines along a string will be approximately 0.25 miles from the tower base and the perpendicular distance between strings will be much greater (approximately 0.5 – 1 mile), which would maintain open areas of habitat (agriculture, grassland, and shrub-steppe), facilitate wildlife movement, and maintain habitat connectivity. A small portion of the eastern solar array overlaps with, but does not substantially encroach, into a Linkage Area and thus would not impede species movement or habitat connectivity within the Linkage Area. **The two solar arrays located on the west side of the Project area do not overlap with a Priority Core Area or High Linkage Area. Wind turbines and associated infrastructure (with the exception of O&M buildings/substations) will remain unfenced, resulting in reduced habitat fragmentation and facilitate open movement of terrestrial wildlife species.** By designing the Project in a manner that avoids or minimizes disturbances in modeled corridor areas, terrestrial wildlife corridors within the Horse Heaven Hills will be maintained.	Section 3.4.2 Appendix K
Data Request 1	**Hab-8**	Section 3.4.2	Shrub-steppe and dwarf shrub-steppe habitat. Background: This information request will inform the shrubsteppe and dwarf shrubsteppe impact discussion in a broader context of the surrounding area (i.e., in areas adjacent to the Project site, do other shrubsteppe ecosystems occur or does the loss constitute some of the last remaining areas around the Project).	Verify the shrubsteppe ecosystems in the field. Add any areas that were not included in the earlier habitat surveys.	Original Response: **Surveys in 2021 (as well as 2020) included verification of shrub-steppe ecosystems in the field.** Intact shrub-steppe occurs on the Horse Heaven Hills ridgeline, located primarily north of the Project (as mapped in the WDFW Priority Habtiats and Species [PHS] database), and several areas of shrub-steppe were mapped within the Project Lease Boundary but have been avoided by Project impacts (see Figure 3.4-4 of the ASC). Thus, the limited impacts to shrub-steppe habitat from the Project do not constitute impacts to some of the last remaining shrub-steppe in the Project vicinity. Updated Response: The 2021 surveys covered all areas that were not field verified during 2020 surveys. Updated field observations and updated habitat impact calculations were provided to EFSEC as part of the response to Data Request #2 on September 10, 2021.	Section 3.4.2.1 Appendix K
Data Request 1	**Hab-9**	Section 3.4.2	Plant species at risk (vascular and non-vascular) in the remaining unsurveyed areas. Background: This information request will inform the impact discussion of at risk plant species within the plant population.	Complete surveys for plant species at risk (vascular and non-vascular) in the remaining unsurveyed areas.	Original Response: See response above to Hab-3, Hab-5, and Hab-6. Tetra Tech reviewed the Washington Natural Heritage Program (WNHP) list of rare plants prior to conducting surveys. In Washington, plants are tracked and ranked by the WNHP; although WNHP is not a regulatory agency, the program's list and rankings help inform conservation decisions relating to rare plants. As described in Tetra Tech's 2020 Botany and Habitat Survey Report (in Appendix K to the ASC), special status plant species targeted during the surveys included federally and state listed endangered, threatened, and candidate vascular plant species and sensitive vascular plant species as defined by WNHP. Following the June 17, 2021 call with EFSEC/Golder, EFSEC clarified that the request to identify "plant species at risk" was meant to include plant species designated threatened, endangered, or special status. Following this discussion, **the Applicant reviewed the WNHP lists of threatened and endangered mosses and lichens and determined only one threatened non-vascular species (woven-spore lichen) has potential to occur at the Project. The Applicant is conducting a habitat suitability assessment for this species in lieu of non-vascular species surveys.** Updated Response: The 2021 habitat survey report was provided on September 10, 2021.	Section 3.4.2.1 Appendix K
Data Request 1	**Hab-21**	Section 3.4.1.2 Section 3.4.1.3	Wildlife Baseline data	What is the potential for the project site to support bat hibernacula or potential for hibernacula to be disturbed during construction and operation?	Original Response: **The Project has a low likelihood of supporting bat hibernacula and thus disturbance to bat hibernacula is not expected during construction or operation.** No bat hibernacula were identified in PHS data requests within 3 miles of Four Mile and Badger Canyon, which includes large portions of the current Project Lease Boundary. Caves, lava tubes, mines, old buildings, and bridges are absent from the Project Lease Boundary, and a query of the PHS database did not return any results for cliffs, caves, talus, or bat concentration areas in the Project vicinity. Additionally, during discussions with WDFW and USFWS since 2017, specifically with respect to bird and bat survey protocols and species presence, bat hibernacula were not identified as a biological resource of concern. The large majority of bat species identified during multi-year acoustic monitoring stations located throughout the Project were migratory tree- and leaf-roosting bats, which do not aggregate in hibernacula and are absent from the Project during winter. Please see technical bat acoustic monitoring reports (Appendix K to the ASC) for more information. Updated Response: No change.	Section 3.4.2.3

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 2	**Wildlife-1**	WAC: 463-60-332 Section 3.4.2.1 Appendix M	Wildlife	Provide information on regional wildlife population trends, including adjacent to the project. Provide an analysis of potential effects to special status wildlife, including anticipated potential changes in populations, changes in behavior patterns, and changes in habitat use. Quantitative analysis of effects is preferred, where feasible.	**Populations of regional wildlife populations are likely to fluctuate annually, independent of the Project. Populations are typically affected by larger-scale processes such as climate change, which influences a myriad of factors for wildlife (Yang et al. 2021). The on-going drought in eastern Washington will continue to effect trophic interactions within the ecosystem, modifying prey base, vegetation, water resources – all which affect wildlife populations.** Pronghorn populations in the adjacent Yakima Reservation may overwinter in the Horse Heaven Hills and are increasing (Fidorra et al. 2019). Current minimum population estimates are approximately 250 animals (M. Ritter, WDFW, pers. comm). Reintroduction efforts continue with tribal entities. The Project is located in the Columbia Plateau Mule Deer Management Zone within Game Management Unit 373 (WDFW 2016). The Project and surrounding Horse Heaven Hills is considered part of the mule deer "limited range" which is defined as habitat which are occasionally inhabited and/or contain small populations of scattered mule deer (WAFWA 2004). Mule deer are present throughout most of the Columbia Plateau Mule Deer Management Zone (MDMZ) at varying densities depending upon locality and habitat quality, with the exception of the largest irrigated parcels within the Columbia Basin Irrigation Project in the center of the MDMZ (WDFW 2016). The robust and stable populations in the region are reflected in the fact that more mule deer are harvested in the Columbia Plateau MDMZ than in any other MDMZ and harvest has remained stable since 2001 (WDFW 2016). Population estimates for non-game wildlife species are typically unavailable or outdated because they are non-revenue-producing species that do not receive prioritized government funding (WDFW 2016). However, WDFW provides periodic status reviews for special status species or species of special concern. (https://wdfw.wa.gov/sites/default/files/2021-03/wdfwspeciesstatusandrecoveryplanlist.pdf). Please see the Bird and Bat Conservation Strategy (BBCS) for a summary of bird species of special concern that were observed at the Project. **Bird response to Turbines is species-specific and behavioral changes such as displacement (relative density or abundance estimates in proximity to turbines) involve a number of factors such as species habitat requirements, available habitat on the landscape and pre-existing disturbances. Gillespie (2013) found mixed effects of grassland bird displacement in Iowa.** Shaffer and Buhl (2016) found displacement and attraction to Turbines over a five-year period in the Dakotas, and similar species-specific displacement patterns were observed in patterns were observed in Wisconsin (Garvin et al. 2011). The most abundant small bird species documented during 2017-2019 avian use surveys was horned lark, which is a widely distributed species with a stable population in Washington over the past two decades (Sauer et al. 2019).	Section 3.4.2.3
Data Request 2	**Wildlife-15**	WAC: 463-60-332 Section 3.4.2 Appendix M	Wildlife	Provide further quantitative analysis of the potential effects from indirect habitat loss (i.e., disturbance, fragmentation) or avoidance on wildlife populations, including land-based species. An example could be quantifying habitat adjacent to the Project predicted to be affected by noise and night lighting thereby resulting in indirect habitat loss/alteration (i.e., Zone of Influence).	See response to Wildlife-1.	Section 3.4.2.3
Data Request 2	**Wildlife-2**	WAC: 463-60-332 Section 3.4.2 Appendix M	Wildlife	Provide details regarding the anticipated risk of aerial turbine collisions based on season, day/night, and weather. Identify specific mitigation measures that could be implemented to reduce collision risk during peak risk periods (i.e., inclement weather).	**Seasonally, the highest risk of collision is typically when species are most abundant and flying at a height within the rotor swept area (RSA). Seasonally, risk is higher during the spring and fall for birds that migrate through the area to nesting areas located north (spring) or over wintering areas (fall).** Nest species, such as resident raptor like American kestrel and red-tailed hawk, are likely a great risk of collision with turbines during the spring and summer as they establish territories, provision nests, and young fledge from the nest navigating a new, novel landscape. Post construction fatality monitoring studies at wind projects throughout North America have recorded higher fatalities in late summer and fall, when migratory tree and leaf roosting bats pass through the region (Goldenberg et al. 2021). Weather patterns may play a role in bat fatalities as well; a review of 21 post-construction monitoring studies found the relationships between bat fatalities and weather patterns resulted in more bats were killed on nights with low wind speed (<6 m/sec) and that fatalities increased immediately before and after passage of storm fronts (Arnett et al. 2008). Conversely, high wind speeds may increase the collision risk for raptors, as they tend to soar and kite into the wind, thus increasing their exposure to collision when flying within the rotor swept area (Hoover and Morrison 2005). Avian collision fatality data from studies conducted at 30 wind farms across North America were examined to estimate how many night migrants collide with Turbines and towers, and how aviation obstruction lighting relates to collision fatalities. Fatality rates, adjusted for scavenging and searcher efficiency, of night migrants at Turbines 54 to 125 meters in height ranged from <1 bird/Turbine/year to ~7 birds/Turbine/year with higher rates recorded in eastern North America and lowest rates in the west. Multi-bird fatality events (defined as >3 birds killed in 1 night at 1 Turbine) were rare, recorded at <0.02% (n = 4) of ~25,000 Turbine searches. Lighting and weather conditions may have been causative factors in the four documented multi-bird fatality events, but flashing red lights (L-864, recommended by the Federal Aviation Administration [FAA]) were not involved, which is the most common obstruction lighting used at wind farms. A Wilcoxon signed-rank analysis of unadjusted fatality rates revealed no significant differences between fatality rates at Turbines with FAA lights as opposed to Turbines without lighting at the same wind farm (Kerlinger et al. 2010). **Minimization measures that will be implemented during the construction and decommissioning of the Project are included in the BBCS (see Section 7). Pertaining to inclement weather when collision risk may increase, minimization measures include down lighting of all lights to reduce attraction of nocturnal migratory birds and FAA mandated obstruction lighting on turbines which have been shown to reduce collision risk compared to white non-flashing lighting commonly found on communication towers (Kerlinger et al. 2010).**	Section 3.4.2.3
Data Request 2	**Wildlife-1**	WAC: 463-60-332 Section 3.4.2.1 Appendix M	Wildlife	Provide information on regional wildlife population trends, including adjacent to the project. Provide an analysis of potential effects to special status wildlife, including anticipated potential changes in populations, changes in behavior patterns, and changes in habitat use. Quantitative analysis of effects is preferred, where feasible.	Updated Response: This information has been updated from the original Data Response 2 package to provide additional detail related to the recent state listing of ferruginous hawk as a state endangered species. **Regional wildlife populations are likely to fluctuate annually, independent of the Project. Populations are typically affected by larger-scale processes such as climate change, which influences a myriad of factors for wildlife (Yang et al. 2021). The on-going drought in eastern Washington will continue to affect trophic interactions within the ecosystem, modifying prey base, vegetation, water resources – all which affect wildlife populations. In response to the recent up listing of ferruginous hawk by the Washington Fish and Wildlife Commission to endangered status, additional Project-specific information for the hawk is provided in Attachment Wildlife-1.** Pronghorn populations in the adjacent Yakama Reservation may overwinter in the Horse Heaven Hills and are increasing (Fidorra et al. 2019). Current minimum population estimates are approximately 250 animals (M. Ritter, WDFW, pers. comm). Reintroduction efforts continue with tribal entities. The Project is located in the Columbia Plateau Mule Deer Management Zone within Game Management Unit 373 (WDFW 2016). The Project and surrounding Horse Heaven Hills is considered part of the mule deer "limited range" which is defined as habitat which are occasionally inhabited and/or contain small populations of scattered mule deer (WAFWA 2004). Mule deer are present throughout most of the Columbia Plateau Mule Deer Management Zone (MDMZ) at varying densities depending upon locality and habitat quality, with the exception of the largest irrigated parcels within the Columbia Basin Irrigation Project in the center of the MDMZ (WDFW 2016). The robust and stable populations in the region are reflected in the fact that more mule deer are harvested in the Columbia Plateau MDMZ than in any other MDMZ and harvest has remained stable since 2001 (WDFW 2016). Population estimates for non-game wildlife species are typically unavailable or outdated because they are non-revenue-producing species that do not receive prioritized government funding (WDFW 2016). However, WDFW provides periodic status reviews for special status species or species of special concern. (https://wdfw.wa.gov/sites/default/files/2021-03/wdfwspeciesstatusandrecoveryplanlist.pdf). Please see the Bird and Bat Conservation Strategy (BBCS) for a summary of bird species of special concern that were observed at the Project. **Bird response to Turbines is species-specific and behavioral changes such as displacement (relative density or abundance estimates in proximity to turbines) involve a number of factors such as species habitat requirements, available habitat on the landscape and pre-existing disturbances.** Gillespie (2013) found mixed effects of grassland bird displacement in Iowa. Shaffer and Buhl (2016) found displacement and attraction to Turbines over a five-year period in the Dakotas, and similar species-specific displacement patterns were observed in patterns were observed in Wisconsin (Garvin et al. 2011). The most abundant small bird species documented during 2017-2019 avian use surveys was horned lark, which is a widely distributed species with a stable population in Washington over the past two decades (Sauer et al. 2019).	Section 3.4.2.3 Appendix K

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Data Request 2	**Wildlife-2**	WAC: 463-60-332 Section 3.4.2 Appendix M	Wildlife	Provide details regarding the anticipated risk of aerial turbine collisions based on season, day/night, and weather. Identify specific mitigation measures that could be implemented to reduce collision risk during peak risk periods (i.e., inclement weather).	Updated Response: This information has been updated from the original Data Response 2 package to provide additional detail and clarifications. **Seasonally, the highest risk of collision is typically when species are most abundant and flying at a height within the rotor swept area (RSA). Two raptor species with higher abundance during pre-construction surveys included American kestrel and red-tailed hawk which are likely at greater risk of collision with Turbines during the spring and summer as they establish territories, provision nests, and young fledge from the nest navigating a new, novel landscape. Seasonally, risk is higher during the spring and fall for birds that migrate through the area to nesting areas located north (spring) or over wintering areas (fall).** Post construction fatality monitoring studies at wind projects throughout North America have recorded higher fatalities in late summer and fall, when migratory tree and leaf roosting bats pass through the region (Goldenberg et al. 2021). Weather patterns may play a role in bat fatalities as well; a review of 21 post-construction monitoring studies found the relationships between bat fatalities and weather patterns resulted in more bats were killed on nights with low wind speed (<6 m/sec) and that fatalities increased immediately before and after passage of storm fronts (Arnett et al. 2008). Conversely, high wind speeds may increase the collision risk for raptors, as they tend to soar and kite into the wind, thus increasing their exposure to collision when flying within the rotor swept area (Hoover and Morrison 2005). Avian collision fatality data from studies conducted at 30 wind farms across North America were examined to estimate how many night migrants collide with Turbines and towers, and how aviation obstruction lighting relates to collision fatalities. Fatality rates, adjusted for scavenging and searcher efficiency, of night migrants at Turbines 54 to 125 meters in height ranged from <1 bird/Turbine/year to ~7 birds/Turbine/year with higher rates recorded in eastern North America and lowest rates in the west. Multi-bird fatality events (defined as >3 birds killed in 1 night at 1 Turbine) were rare, recorded at <0.02% (n = 4) of ~25,000 Turbine searches. Lighting and weather conditions may have been causative factors in the four documented multi-bird fatality events, but flashing red lights (L-864, recommended by the Federal Aviation Administration [FAA]) were not involved, which is the most common obstruction lighting used at wind farms. A Wilcoxon signed-rank analysis of unadjusted fatality rates revealed no significant differences between fatality rates at Turbines with FAA lights as opposed to Turbines without lighting at the same wind farm (Kerlinger et al. 2010). **Minimization measures that will be implemented during the construction and decommissioning of the Project are included in the BBCS (see Attachment M to the ASC). Pertaining to inclement weather when collision risk may increase, minimization measures include down lighting of all lights to reduce attraction of nocturnal migratory birds and FAA mandated obstruction lighting on turbines which have been shown to reduce collision risk compared to white non-flashing lighting commonly found on communication towers (Kerlinger et al. 2010).**	Section 3.4.3
Data Request 1	**Hab-10**	Section 3.4.3	The habitat mapping is a combination of 2020 habitat classification field work, 2018 habitat mapping, and aerial imagery/government data sources.	Update the habitat mapping based on results of additional surveys in the proposed mitigation sections.	Original Response: **Surveys were conducted in June 2021 within unsurveyed areas within the Micrositing Corridor and Solar Siting Areas and updated mapping will be provided as requested once it is processed and has undergone QA/QC review.** Updated Response: The 2021 habitat survey report was provided on September 10, 2021.	Section 3.4.3 Appendix K
Data Request 3	**Wildlife-26**	WAC: 463-60-332 Section: 3.4.3	Avian	The status of the Ferruginous hawk in Washington may change, requiring additional buffers and mitigation. Explain how the Project can apply appropriate mitigation and setback for Ferruginous hawk if it is listed as Endangered.	A set-back of 0.25-mi from occupied ferruginous hawk nests are accounted for in the Turbine layout, per WDFW recommendation and Larsen et al. (2004). **An administrative change in the listing status of ferruginous hawk would not change the best management practices already incorporated into Turbine layout and operational procedures.**	Section 3.4.3 Appendix K
Data Request 2	**Energy and Natural Resources-4**	WAC: 463-60-342 Sections 3.6.2 3.6.3	Efficiency of Use of Energy and Natural Resources	Describe the efficiency of consumption of energy and natural resources and measures proposed to improve the efficiency of use.	The Project will generate energy from renewable resources (wind and sun). Consumption of energy during operations will be minimal and will be limited to power used at the collection substations and operations and maintenance buildings. During construction, energy and natural resources would be consumed as described in Section 3.6.2. The exact quantity of materials consumed during construction would be determined by the final design but would be controlled and managed to the extent possible by the construction contractor. Vehicles would be powered off when not needed. Water would be used as necessary to construct Turbine foundations and minimize dust, but its use would be managed carefully to avoid purchasing and hauling water unnecessarily. Only the materials and equipment necessary to construct the Project would be ordered and installed. Most construction materials would enter the Project area via one of the construction laydown yards. Some materials, particularly Turbine components and solar components, would be delivered directly to the location at which they would be used. Rock and gravel may be sourced from on-site borrow pits or from local commercial sources in quantities needed for immediate use during the construction period as determined by the construction contractor. Overall, the Project would have a large positive net energy balance, and once constructed, would require limited inputs of energy and natural resources while generating up to 1,150 MW of energy for beneficial use.	Section 3.6.2
Data Request 2	**Energy and Natural Resources-5**	WAC: 463-60-342 Sections 3.6.2 and 3.6.3	Conservation and Renewable Resources	Describe conservation measures which would or could be used during construction and operation of the facility.	During Project construction, the measures described under Energy and Natural Resources-4 would be implemented to conserve resources. The Project is designed to use renewable resources (wind and sun) to generate energy and would minimize use of non renewable resources once operational, allowing other energy-generating facilities such as coal- and natural gas-fired power plants to be retired. During Project operation, roads will be cost-effectively maintained for all weather access to the assets. Only the materials and equipment necessary would be utilized and applied.	Section 3.6.2
Data Request 5	**Noise-4**	4.1.1 Noise	Construction noise levels. Noise sensitive receptors (NSRs).	Attachment Noise-4 from Data Request No. 3, dated July 22, stated that "For the purposes of the construction noise analysis for those NSRs located within the Project lease boundary it was assumed that equipment would be positioned at the closest wind turbine generator (WTG) relative to each NSR". What distance was assumed for construction features other than wind turbines (e.g. solar panels)? Why were only wind turbine generator locations considered?	The construction of the Project may cause short-term, but unavoidable, noise impacts that could be loud enough at times to temporarily interfere with speech communication outdoors and indoors with windows open. Noise levels resulting from the construction activities are challenging to quantify accurately because noise levels would vary significantly depending on several factors such as the type and age of equipment, specific equipment manufacturer and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers. **Construction activities and resulting noise levels associated with wind turbine generator (Turbine) construction were presented in Attachment Noise-4 from the response to Data Request No. 3, submitted to EFSEC on August 18, 2021, to present "worst-case" anticipated construction noise impacts at NSRs located within the Project Lease Boundary and NSRs located within 1 mile of the Project Lease Boundary. Construction noise impacts associated with construction of other Project features (i.e., substations, solar facilities, BESS facilities) are expected to be less than construction noise impacts associated with Turbine construction.** In addition, as stated in Attachment Noise-4 from Data Request No. 3, WAC 173-60-050 clearly states the following: "3) The following shall be exempt from the provisions of WAC 173-60-040, except insofar as such provisions relate to the reception of noise within Class A EDNAs between the hours of 10:00 p.m. and 7:00 a.m." "(a) Sounds originating from temporary construction sites as a result of construction activity." Project construction of both Turbines and other features will not occur between 10:00 p.m. and 7:00 a.m.; therefore, compliance with the WAC noise limits is not required.	Section 4.1.1.2
Data Request 3	**Noise-4**	WAC: 463-60-352 Section 4.1.1.2	Construction Noise Impacts	Quantify construction noise levels at noise sensitive receptors (NSRs). NSRs are identified in Figure 4.1.1-1 from the Application for Site Certification (February 2021) and meet land use standards outlined in WAC 173-60-30 for Class A lands. Confirm that NSRs would be considered Class A lands.	**Attachment "Noise-4" contains our response to this data request.**	Section 4.1.1.2
Data Request 3	**Noise-5**	WAC: 463-60-352 WAC: 463-62-030 Section 4.1.1.2	Noise Impacts Energy facilities shall meet the noise standards established in chapter 70.107 RCW, the Noise Control Act of 1974; and state rules adopted to implement those requirements in chapter 173-60 WAC, Maximum environmental noise levels.	Include noise levels at the boundary in the modeling assessment as boundary locations and compare to WAC limits.	In addition to the sound contour figures shown in Figures 4.1.1-2 through 4.1.1-5 of the ASC, discrete receiver points were positioned along the Project property boundary to evaluate compliance with the applicable WAC limits. **The results of the Project property boundary compliance review are as follows:** **• For the Option 1 Project layout configuration using the GE3.03 Turbine model, received sound levels at the Project property boundary ranged from 25 dBA to 62 dBA; however, all locations with received sound levels greater than 50 dBA are classified as Class C land, where the applicable daytime and nighttime sound limit is 70 dBA.** **• For the Option 1 Project layout configuration using the GE2.82 Turbine model, received sound levels at the Project property boundary ranged from 29 dBA to 63 dBA; however, all locations with received sound levels greater than 50 dBA are classified as Class C land, where the applicable daytime and nighttime sound limit is 70 dBA.** **• For the Option 2 Project layout configuration using the GE5.5 Turbine model, received sound levels at the Project property boundary ranged from 24 dBA to 54 dBA; however, all locations with received sound levels greater than 50 dBA are classified as Class C land, where the applicable daytime and nighttime sound limit is 70 dBA.** **• For the Option 2 Project layout configuration using the SG6.0 Turbine model, received sound levels at the Project property boundary ranged from 21 dBA to 54 dBA; however, all locations with received sound levels greater than 50 dBA are classified as Class C land, where the applicable daytime and nighttime sound limit is 70 dBA.**	Section 4.1.1.2

Data Request Package	Item ID	ASC Section	Item	Question or Information request	Applicant Response (bold text indicates response conclusion and Applicant commitments, including commitments to provide supplemental materials)	Location of Change in ASC
Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 3	**Noise-6**	WAC: 463-60-352 Section 4.1.1.2	Noise Impacts	Include discussion on conditions, such as baseline and operational noise levels, when wind conditions indicate turbines will be operating.	The response to this comment is provided in Attachment "Noise-6".	Section 4.1.1.2
Data Request 3	**Noise-7**	WAC: 463-60-352 Section 4.1.1.2	Noise Impacts	Address blasting noise as a type of noise and quantify and discuss its impact level. Address Low Frequency Noise (LFN) generated by the wind turbine blades.	Wind Turbine tower foundations will normally be installed using drilled shafts or piers; however, if hard rock is encountered within the planned drilling depth, blasting may be required to loosen or fracture the rock in order to reach the required depth to install the structure foundations. Locations where blasting may be required will be identified during the final geotechnical engineering study. **Blasting is a short duration event as compared to rock removal methods such as using track rig drills, rock breakers, jack hammers, rotary percussion drills, core barrels, and/or rotary rock drills. Blasting creates a sudden and intense airborne noise potential as well as local ground vibration.** Modern blasting techniques include electronically controlled ignition of multiple small explosive charges in an area of rock. The detonations are timed so that the energy from individual detonations destructively interferes with each other, which is called wave canceling. **Impulse (instantaneous) noise from blasts could reach up to 140 dBA at the blast location, attenuating to approximately 90 dBA at a distance of 500 feet from the blast.** **There has been a lot of research done in the field of wind Turbine low frequency noise in the United States as well as overseas (MDEP 2012; NHMRC 2010)**. Studies have shown that low frequency sound from wind turbines is below the threshold of human perception at standard setback distances. There has been no clearly demonstrated link between negative health effects on individuals when low frequency noise levels are present at an inaudible level. Health effects are associated with very high levels of low frequency noise that have occurred, for instance, with workers in jet engine testing facilities. These levels of concern are 20 or 30 times higher than the low frequency sound emitted by wind Turbines.	Section 4.1.1.2
Data Request 3	**Noise-8**	WAC: 463-60-352 Section 4.1.1.2	Noise Source Data	Clarify exactly what equipment/sources the following statement from Page 4-16 of the application applies to: "Sound source level details cannot be disclosed because that information is considered proprietary to the Turbine manufacturers."	Note that the statement on page 4-16 of the application that reads "Sound source level details cannot be disclosed because that information is considered proprietary to the Turbine manufacturers" should be revised to say "transformer manufacturers". **That statement is referencing Table 4.1.1-8 of the application, which presents information pertaining to the onsite substation transformers.** However, please note that for both the wind Turbine and the substation transformer, the sound specifications cannot be disclosed because they are considered proprietary by the applicable manufacturers.	Section 4.1.1.2
Data Request 2	**Aesthetics-3**	WAC: 463-60-362 Section 4.2.3 Appendix Q	Simulations of the Project features are needed to support an understanding and analysis the visual character and potential visual impact of the project on viewpoints representing local residential communities or rural residential areas within a foreground viewing = distance,	Provide photographic simulations (similar to those provided in Appendix Q of the ASC) of Project features from the same locations established in response to Aesthetics-2 data request. Include modelling of turbine layout options, solar array facilities and transmission line options within these simulations.	Photographic simulations will be provided to EFSEC under separate cover at a later date. Updated response: **The requested photographic simulations are provided in the attached Aesthetics Technical Memorandum for the Horse Heaven Wind Project (see attachment Aesthetics-2).**	Section 4.2.3 Appendix Q
Data Request 2	**Land and Shoreline Use-1**	WAC: 463-60-362 Sections 4.2.1 4.2.4	Section 1.10.1 indicates that mitigation measures proposed for land-use plans and zoning ordinances are described in detail within Section 4.2.1 of the Application for Site Certification (ASC), including sitespecific BMPs to minimize potential impacts to noise, traffic, and the visual surroundings, as described in the respective resource sections of this ASC. Details are not provided on site-specific BMPs within Section 4.2.1. Section 1.10.1 also indicates mitigation measures proposed for recreation are described in detail within Section 4.2.4 of the ASC, including site-specific BMPs to minimize potential impacts to noise, traffic, and the visual surroundings, as described in the respective resource sections of the ASC. While it is acknowledged that these measures would minimize impacts to recreational users, details are not provided on site-specific BMPs within Section 4.2.4.3.	Provide details on site-specific BMPs to minimize potential impacts to noise, traffic, and the visual surroundings or provide references to the respective resource sections of this ASC where these are identified. Provide details regarding the recreational paragliding that occurs in the vicinity of the Project area.	The mitigation measures for noise, traffic, and visual surroundings are described in their respective ASC resource sections as follows: 4.1.1.3 (Noise mitigation), 4.3.3 (Transportation mitigation), and 4.2.3.4 (Aesthetics mitigation). There are no state parks in the vicinity of the Project area where paragliding is permitted pursuant to WAC 352-32-130 (Washington State Parks 2021). While the DNR lands noted in Table 4.2.4-1 of the ASC (i.e., Johnson Butte, Jump Off Joe Butte, and Goose Hill Butte) are open for public access, they are not considered designated recreation sites nor have public facilities. Any paragliding that may occur from these locations is informal and not tracked by a state agency with information available to the public. Information provided by a local paragliding pilot (see below) did not indicate that flights occur from DNR lands. Paragliding is known to occur from Chandler Butte BLM-managed land at Horse Heaven Hills. Chandler Butte is located approximately 2.5/2.8 miles away from the closest potential Turbine, 2.1 miles from the closest potential solar array, and 4.2 miles from the closest potential transmission line for the Project. The BLM Horse Heaven Hills recreation area is identified by BLM public data as "an undeveloped watchable wildlife and watchable wildflowers area. Popular with locals, it is primarily used for hiking, nature viewing, photography, and mountain biking" (BLM 2021). According to correspondence with BLM's Spokane Office (Smith 2021), BLM is aware that hang gliders and paragliders launch from Chandler Butte on BLM lands, and it is an allowed use with no permit required so long as it is "casual use." Certain triggers would require pre-application for a BLM Special Recreation Permit, as related to specified commercial, competitive, and/or organized use (Smith 2021). At this time, BLM does not have accurate knowledge of how much such casual use occurs annually, nor the actual trajectories utilized (i.e., flight paths of gliders; Smith 2021). As an unofficial estimate, BLM approximated that current annual recreation visitation at Horse Heaven Hills, not specific to paragliding, is roughly 7,300 visits per fiscal year (Smith 2021).	Section 4.2.4.1

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 2	**Land and Shoreline Use-1**	WAC: 463-60-362 Sections 4.2.1 4.2.4	Section 1.10.1 indicates that mitigation measures proposed for land-use plans and zoning ordinances are described in detail within Section 4.2.1 of the Application for Site Certification (ASC), including sitespecific BMPs to minimize potential impacts to noise, traffic, and the visual surroundings, as described in the respective resource sections of this ASC. Details are not provided on site-specific BMPs within Section 4.2.1. Section 1.10.1 also indicates mitigation measures proposed for recreation are described in detail within Section 4.2.4 of the ASC, including site-specific BMPs to minimize potential impacts to noise, traffic, and the visual surroundings, as described in the respective resource sections of the ASC. While it is acknowledged that these measures would minimize impacts to recreational users, details are not provided on site-specific BMPs within Section 4.2.4.3.	Provide details on site-specific BMPs to minimize potential impacts to noise, traffic, and the visual surroundings or provide references to the respective resource sections of this ASC where these are identified. Provide details regarding the recreational paragliding that occurs in the vicinity of the Project area.	The BLM Spokane Office suggested speaking with local Tri-Cities parasailing pilots. One pilot, Manuel Seubert, provided additional detail information via phone conversation and email (Seubert 2021). Mr. Seubert indicated that the ridgeline along which Chandler Butte is located is known locally as Kiona Ridge. The Chandler Butte point itself is not used as a launch site due to an existing communications tower and associated fencing. Rather, there are at least four commonly used launch spots for hang gliding, paragliding, and cross-country parasailing along Kiona Ridge following McBee Road starting to the west of the McBee trailhead (off of McBee Road, identified as "TH" on the enclosed BLM Horse Heaven Hills map). Launching sites stop before reaching an existing 500-kV BPA transmission line (Ashe-Slatt No.1) located approximately 0.4-mile east/southeast from the top of Chandler Butte, which poses a safety hazard. From Kiona Ridge, gliders typically launch to the south, flying with the wind direction. Landing sites also occur to the south, but gliders can also follow wind direction after launching to the south and land north of Kiona Ridge. Depending on wind and weather conditions, cross-country gliders can fly all the way to the Columbia River and across into Oregon. Mr. Seubert estimates that roughly 100 individual people may launch from Kiona Ridge in a year, with individuals flying multiple times, for several hundred flights each year. Kiona Ridge is known as one of the few locations where gliders can launch year-round, with few seasonal interruptions due to weather. Gliders include local recreationists, as well as visitors from around the state and country. A subset of flights from Kiona Ridge are logged voluntarily by pilots using a global flight database, which shows over 300 flights since 2010 with a wide variety of flight paths and landing locations (Paragliding Forum 2021). The siting of the proposed Project would add additional risk to flying from Kiona Ridge, but would not preclude all gliding activities. Based on input from Mr. Seubert, the main risks include: a) losing safe landing space in the event of an in-flight emergency and a pilot needs to land quickly while avoiding turbines, b) collision with a Turbine if a pilot loses the ability to steer mid-flight, and c) wind turbulence from operating Turbines. Extra precautions would have to be taken by pilots to maintain a high enough altitude to avoid Turbines (i.e., cross-country parasailers can reach 5,000 to 6,000 feet in altitude, above the height of Turbines), or otherwise alter their flight path to maintain a safe distance from Turbines. Mr. Seubert has flown frequently from Kiona Ridge, and indicated the siting of the wind farm would make him rethink future activity, and would generally discourage launching from Kiona Ridge. Based on the information provided by Mr. Seubert (Seubert 2021), and a review of example flight paths (Paragliding Forum 2021), it is anticipated that implementation of the Project would impact existing recreational paragliding activity (and other types of gliding) from Kiona Ridge. While some flights may continue to occur safely, pilots would need precise information regarding Turbine locations and plan ahead to carefully prepare a safe route. The closest proposed Turbine location to Kiona Ridge is approximately 1 mile to the south. Flight paths that stay close to Kiona Ridge and cross back to the northside of the ridge may not be as affected. The Applicant has received additional comments about the potential for the Project to affect use of radio control gliders use of the ridgelines just west of McBee Grade Road and North of Beightol Road (comments from the "Mid Columbia Soarers"). It is anticipated that affect to these unmanned radio control gliders would be similar to what is discussed above for manned paragliders. As noted in prior correspondence, the Project has received FAA Determinations of No-Hazard from the FAA for all Turbine locations filed.	Section 4.2.4.1
Data Request 3	**Recreation-1**	WAC: 463-12-145 Section 4.2.4	Ice Age Flood – National Geologic Trail (IAF-NGT)	Comments were received concerning impacts to the IAF-NGT and hiking trails within the vicinity of the Project. Provide data related to the features of the IAF-NGT and hiking trails and their proximity to the Project. Provide potential impacts to the IAF-NGT and hiking trails within the vicinity of the Project.	This analysis will be provided to EFSEC under separate cover at a later date. Updated Response: The Project would not directly impact access to or change the characteristics of the IAF-NGT routes or associated features, as no IAF-NGT features or routes are present within the Project Lease Boundary. The geologic characteristics for which these routes and features were established would remain unchanged by the construction and operations of the Project. The Project would be visible to varying degrees from portions of the IAF-NGT routes and features, but the visibility of the Project from these routes/features would be similar to the visibility of other existing built infrastructure, including residential/commercial development, roadways, electrical lines, and the existing Nine Canyon wind facility. Users accessing IAF-NGT features via I-82 or the other primary or secondary routes in the Project vicinity would not be impacted beyond the transportation impacts discussed in Section 4.3 of the ASC. **As a result, access to the IAF-NGT routes and features is not expected to be significantly affected by the Project'sconstruction and operation. Project related impacts to other hiking trails in the vicinity of the Project Lease Boundary would be similar to those described in Section 4.2.4 of the ASC, and include temporary construction traffic and varying degrees of visual effects.** Additional details and information related to the IAF-NGT is provided in Attachment "Recreation-1".	Section 4.2.4.2
Data Request 2	**Cultural/Historic-2**	WAC: 463-60-362 Section 4.2.5	Archaeological Baseline Data	Provide the results of the spring 2021 archaeological field survey (i.e., the remainder of the micrositing corridor and the solar siting areas amounting to 57% of the total baseline survey area).	This survey report has been completed, and tribes that requested a copy (Yakama Nation, CTUIR) and are currently reviewing the draft report. The report will be provided to EFSEC once comments have been received from the tribal review and the document has been revised accordingly.	Section 4.2.5 Appendix R
Data Request 2	**Transportation-1**	WAC: 463-60-372 Section 4.3.1.4	Location of existing Waterborne, Rail and Air Traffic	Provide map(s) and/or descriptions of local ports, airports, and railways mentioned in this section. Provide details on the distance of locations relative to the proposed Project Area. Determine if major roads used to access waterborne, rail, and air traffic transportation services use the same major roads as the proposed Project site.	The Port of Kennewick (which is located 14.6 miles driven distance to the approximate center of Project area [ACPA]), Port of Benton (17.4 miles driven distance to the ACPA), and the Port of Pasco (16.3 miles driven distance to the ACPA) on the Columbia River serve the area by water. The largest airport to serve the area is the Tri-Cities Airport, located 15.7 miles driven distance to the ACPA. Smaller airports that serve the area are Vista Field (8.4 miles driven distance to the ACPA), Port of Benton Airport (15.0 miles driven distance to the ACPA), and Richland Airport (14.7 miles driven distance to the ACPA). Burlington-Northern Santa Fe (BNSF) (which is located 20.4 miles driven distance to the ACPA), Union Pacific Railroad (35.7 miles driven distance to the ACPA), Tri City and Olympia Railroad Company (16.8 miles driven distance to the ACPA) provide rail service to the area. Amtrak provides passenger service to the area. The ACPA that was used to measure these istances is 47229 Locust Grove Rd, Kennewick, WA 99338. The roads that serve these major ports/services are primarily the major highways and freeways in the region, none of which would be adversely affected by the Project.	Section 4.3.1.4
Data Request 6	**Transportation-5**	4.3 Transportation.	Conditional Assessment	The conditional highway and county road characteristic assessment provided in the ASC Table 4.3.2 is a qualitative judgement utilizing available 2018 aerial imagery and is not a detailed characterization of quality based on in-person inspection of pavement or quantitative metrics such as asphalt/gravel depth, age, or design life. Provide a reference identifying the use of aerial imagery appropriate for this level of analysis. Has the Applicant considered the improvements (e.g. roundabouts) authorized by Benton County in their Six Year Transportation Improvement Plan?	The assessment presented in ASC Table 4.3.2 is consistent with similar assessments at this stage of Project development. It represents best available information in anticipation of a more detailed assessment that will be required prior to construction as part of an anticipated Oversized Load Permit from Benton County that will be required for transportation of oversized or overweight loads on County Roads. Tetra Tech has reviewed the current Benton County Six Year Transportation Improvement Plan and found that the only road improvement that does fall within the Project boundary is the improvement (asphalt paving) of County Well Road on the west side of the Project. If the final Project construction schedule coincides with the final timing of the County's paving operation, the Applicant will coordinate its construction and transportation activities with Benton County Public Works to avoid conflicts between the two actions. Benton County's roundabout construction activities are not planned for any transporter routes proposed for the Project. **Therefore, the County's planned road improvements and schedule do not conflict with anticipated road improvements or road use for the proposed Project.**	Section 4.3.1.8

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Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 6	**Transportation-6**	4.3 Transportation	Construction Schedule vs. Traffic	The transportation impact analysis relies heavily on the construction schedule provided in Table 2.15-1 of the ASC, including the phasing of specific elements of the Project. The example of the phased approach recognizes the construction of the two BESS (not three as proposed in ASC Table 2.1-1) and the construction of four substations (not five as proposed in ASC Table 2.1-1). Would the removal of the phased approach and the construction of additional elements increase the estimated traffic counts significantly? For example, 374 worker vehicles are expected during the peak period for Phase I and either 344 worker vehicles for Phase 2a or 330 worker vehicles for Phase 2b. If completed in one phase, could counts be expected to increase higher than anticipated and increase the volume of traffic, further decreasing the LOS for other routes identified in Table 4.3-7 (possibly below the required standard)?	Should the Project be constructed in one phase instead of two phases, **Project components would be constructed substantially as described in the ASC, but construction of certain elements of Phase I may overlap with construction of certain elements of Phase II.** A detailed schedule for this approach has not been developed but generally, construction of WTGs would happen in sequence (e.g. from east to west) and would not result in a significant increase in estimated delivery truck traffic at a given time or on any individual transportation route. In terms of transportation routes, there is some overlap between roads used to access Phase I and roads used to access Phase II areas, but many of the project access roads are different between the two phases. Phase I is primarily being constructed east of Interstate 82 (with some portions immediately west of Interstate 82) while Phase II is entirely west of Interstate 82. The one access road common to both phases is Locust Grove Road with relatively less use of this road during Phase I. In addition, the peak period for worker vehicles is not expected to overlap between the two phases even if they are conducted as one overall "construction phase". For example, the foundation civil work and WTG construction for both phases would be conducted sequentially and not overlap. Some increase in daily worker trips may be expected during certain periods if the schedule is consolidated and construction of the two phases overlaps, but workers would be accessing different portions of the site and traffic to individual areas would not be significantly different from the phased approach. For Phase I the primary access roads off I-82 would be S.R. 397 with only minimal use of Locust Grove Road. For Phase II, the primary access roads to access the site would be Locust Grove Road (from the east) and S.R. 221 (from the west). **In summary, any construction traffic volume increases from combining the two phases are expected to be minimal and unlikely to affect the LOS levels calculated for the phased approach.**	Section 4.3.2.1 Section 4.3.2.2
Data Request 2	**Transportation-3**	WAC: 463-60-372 Section 4.3.3	Mitigation Measures: Distinguish Existing Road Improvements	Describe how the applicant will restrict the general public from accessing roads used for the construction and operation of the proposed Project.	The Project will utilize appropriate signage where needed to direct the public from entering restricted areas. During construction, temporary barriers and traffic control measures will be utilized where applicable.	Section 4.3.3
Data Request 2	**Stormwater-1**	WAC: 463-60-537 Section 5.2 Appendix T	Stormwater Discharge Permit	Provide a discussion on the applicability of the National Pollutant Discharge Elimination System (NPDES) permit coverage post-construction for stormwater discharges to surface water.	The standard Construction General Permit in Washington stays in effect until all site conditions including stabilization and removal of BMPs have been met. Once the required conditions have been met, a request for a Notice of Termination would be submitted to Ecology. If Ecology concurs that the conditions have been met, then permit coverage ends one month later.	Section 5.2
Data Request 2	**Surface Water and Wetlands-8**	WAC: 463-60-540	Thirty-three non-wetland water features were discovered within the Project Area, 31 ephemeral streams and two intermittent streams. It is unclear in the application if stream crossings will be required or how the applicant anticipates traversing the stream features. Ecology typically requires a Jurisdictional Determination (JD) from the U.S. Army Corps of Engineers (Corps) verifying the waters are non-federally jurisdictional prior to beginning the permitting process.	Describe each anticipated stream crossing and how the Project expects to traverse streams. Confirm whether Corps has issued a Jurisdictional Determination (JD) for the Project.	The updated wetland delineation report, incorporating 2021 surveys, will be submitted to the U.S. Army Corps of Engineers for a jurisdictional determination. Details regarding the engineering of the stream crossing design will be provided to EFSEC under separate cover at a later date. Updated Response: The general strategy for the stream crossings is as follows. Detailed design of each stream crossing will be determined during the design phase. Solar Area Layouts: Solar array placements are limited to a maximum slope of 14% and steep canyon areas (where streams run) should be avoided. In most cases, collector lines would run overhead at these canyon areas or be routed around them. In cases where buried collector lines do need to cross a stream, wetland, or drainage ditch/swale, this is typically accomplished by boring beneath the stream bed. If access roads are required to cross a stream bed, then a suitably sized culvert should be installed to permit through flow. A hydrologic and hydraulic (H&H) analysis is required to be performed to analyze the stream flow and properly size any installed culvert(s), water crossing, or bridge structures, if required. Where possible, the access roads may be routed around stream beds. Wind Turbine Generator (WTG) Layouts: For the WTG layouts, it is primarily collection lines that will cross the identified streams. If the stream crossing is in a steep canyon then the collection line is typically strung overhead, and in other areas the collection line is typically bored under the existing stream or drainage bed. Where collector and transmission lines cross Sheep Canyon and Webber Canyon, we can confirm that the lines would run overhead, and disturbance of stream features and adjacent steeply sloped habitat would be avoided. Most access roads are placed at saddles between the high points, but where streams must be crossed then a suitably sized culvert would be designed and installed to permit through flow. An H&H analysis is required to be performed to analyze the stream flow and properly size any installed culvert(s), water crossings, or bridge structures, if required. Where possible, the access roads may be routed around stream beds. Locating WTG foundations on stream beds should be avoided due to stability design constraints resulting from buoyancy, for example. **Furthermore, general strategy for collection systems crossing streams or wetlands based on configuration (direct buried or overhead) are as follows:** Direct Buried: Conductors shall be installed below grade. Direct buried conductors shall be rated for direct burial and installed a minimum of 36" below grade in a clean fill material free of stones larger than 3/8" diameter within 12" of conductors. All other backfill will be free of stones larger than 6". A 3-inch-wide metal foil detectable marker tape shall be placed 12" below grade continuously over the conductors. A bare copper equipment grounding conductor sized per the plans shall be routed with the feeder. Overhead: Output collection circuits shall transition to overhead wiring from the switchgear to the solar substation, with some underground before entering the substation. Overhead wiring and poles shall be routed so as to minimize shading on the solar arrays. Wood or steel poles can be used in the design for the overhead collector circuits. **The updated wetland delineation report, incorporating 2021 surveys, was submitted to USACE for a jurisdictional determination on August 27, 2021.**	Section 5.3
Data Request 1	**Hab-2**	3.3.1.1 Appendix I	The Badger Canyon Site Characterization Study (West, 2018) indicated 7.59 acres of riverine habitat (riparian) and 0.49 acres of wetland habitat (emergent wetland in the SE of the project area). West recommended these areas be field confirmed as part of the application field studies. In addition, the Four Mile Site Characterization Report indicates there are 279.43 acres of riparian habitat (which may be outside the proposed footprint of the application due to footprint change). Background: Portions of the solar siting area along Sellards Road not previously surveyed for wetlands were identified for survey in 2021.	Confirm whether there are any wetlands or riparian areas located in the portions of the Project Site not yet surveyed.	Original Response: See response to Hab-1. **Surveys were conducted in 2021 within the previously unsurveyed portions of the Micrositing Corridor (i.e., along Sellards Road) and the results of these surveys will be provided to EFSEC.** **Followup:** 2021 Wetland survey results are provided in the updated Appendix I.	Appendix I

Data Request Package	Item ID	ASC Section	Item	Question or Information request	Applicant Response (bold text indicates response conclusion and Applicant commitments, including commitments to provide supplemental materials)	Location of Change in ASC
Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 1	**Hab-3**	Section 3.4 Appendix K	Unsurveyed areas and ground-truthing of habitats.	Conduct additional special status plant surveys within the unsurveyed areas and provide updated data. Provide updated mapping for the ground-truthing of the turbine footprints, associated corridors, and the solar panel facility footprints.	Original Response: **Surveys were conducted in June 2021 within unsurveyed areas within the Micrositing Corridor and Solar Siting Area and updated mapping will be provided as requested** once it is processed and has undergone quality assurance/quality control (QA/QC) review. Updated Response: The 2021 habitat survey report was provided on September 10, 2021.	Appendix K
Data Request 1	**Hab-4**	Section 3.4 Appendix K	Native plants.	Provide relative cover, density, distribution, and health and vigor information for native plants. This applies to past surveys as well as the 2021 habitat survey.	Original Response: **See Section 3.4.1.1 of the ASC, which describes native and non-native plants present within each habitat subtype, including general cover and density. See Figure 3.4-1 for the distribution of each habitat type and subtype within the Project Lease Boundary, Micrositing Corridor, and Solar Siting Areas**. Project classifications also generally follow Johnson & O'Neil (2001) and the 2009 Wind Power Guidelines, which define ecological function, typical plant density, etc., for each habitat subtype.**The Applicant is developing a table more explicitly listing the general percent cover of dominant shrubs, grasses, and forbs**, but is also awaiting additional details and/or examples from EFSEC/Golder Associates (Golder) on the type of information being requested per call with EFSEC and Golder on June 17, 2021. **The table will be provided along with the 2021 habitat survey report.** Updated Response: The percent relative cover, density, distribution, and health and vigor information for 2021 surveys was provided within the 2021 habitat survey report transmitted to EFSEC on September 10, 2021.	Appendix K
Data Request 1	**Hab-6**	Section 3.4.1.1 Section 3.4.1.3 Appendix K	The 2018 site characterization report by West, Inc. in Appendix K indicates woven-spore lichen (*Texosporium sancti-jacobi*) as occurring within 5 miles of the Project.	Conduct surveys for non-vascular special status plants, which do not appear to be included in the 2020 Tetra Tech surveys. Include the woven-spore lichen in Section 3.4.1.1. (Currently Section 3.4.1.1 is restricted to discussions on vascular plants).	Original Response:: Woven-spore lichen is the only listed non-vascular species with potential to occur at the Project. The locations of previously identified woven-spore lichen in the vicinity of the Project are described in Tetra Tech's 2020 Botany and Habitat Survey Report (Appendix K to the ASC). **In lieu of non-vascular species surveys, as discussed on a June 17, 2021 call with EFSEC/Golder, the Applicant is conducting a habitat suitability assessment for this species to quantify potentially suitable habitat at the Project** (see habitat description in response to Hab-5). **The results of this habitat suitability assessment will be provided along with the 2021 habitat survey report.** The Applicant has provided a draft mitigation plan as part of the ASC that addresses impacts to shrub-steppe, and thus may mitigate impacts to woven-spore lichen, if the species is present, by conserving similar habitats to those impacted by the Project. Updated Response: A habitat suitability assessment for woven spore lichen within Project micrositing corridors was provided as part of the 2021 habitat survey report transmitted to EFSEC on September 10, 2021.	Appendix K
Data Request 1	**Hab-7**	Section 3.4.1.1	Invasive species and revegetation. Background: This information request will inform discussion on revegetation efforts, including noxious weed and non-native invasive species.	Collect field data on non-native invasive species.	Original Response: **See Section 3.4.1.1 of the ASC, which describes native and non-native plants present within each habitat subtype. See Figure 3.4-1 for the locations of each habitat type and subtype within the Project Lease Boundary, Micrositing Corridor, and Solar Siting Areas**. Noxious weeds documented during field surveys are also presented in Table 3.4-2, Tetra Tech's 2020 Botany and Habitat Survey Report (e.g., see Figure 3) and further described in the Revegetation and Noxious Weed Management Plan (Appendix N to the ASC). **The Applicant is developing a table more explicitly listing the general percent cover of dominant shrubs, grasses, and forbs,** but is also awaiting additional details and/or examples from EFSEC/Golder on the type of information being requested.**The table will be provided along with the 2021 habitat survey report.** Updated Response: Field data on noxious weeds was provided within the 2021 habitat survey report transmitted to EFSEC on September 10, 2021.	Appendix K
Data Request 5	**Vegetation-10**	3.4 Habitat, Vegetation, Fish, & Wildlife	2021 Botany and Habitat Survey Report.	What is the confidence in the accuracy of the vantage-point habitat notes/surveys for the approximately 604-acrea (including approximately 595 acres of agricultural land, 6 acres non-native grassland, and 3 acres shrub-steppe) area not yet field verified and will surveys be completed prior to construction?	**The majority of this 604-acre area was visible from public roads. Between roadside viewing and desktop review of aerial imagery dated April 2021, we determined that approximately 595 acres of this 604-acre area consists of agricultural land.** The other 9 acres consists of non-native grassland and shrub-steppe habitat; however, **if project-related disturbances will occur in these areas based on the final design, preconstruction surveys will be conducted to verify habitat and final habitat impact calculations.** **Followup:**The 2022 Habitat Survey report is included in Appendix K.	Appendix K
Data Request 2	**Wildlife-18**	WAC: 463-60-332 Section 3.4	Wildlife	Provide further information based on surveys or habitat modeling of the occurrence and distribution of species and or groups of species (i.e., guilds) that could occur in the Project Area.	Please refer to Hab-11 response in EFSEC's Data Request #1 where additional context for the potential for special-status wildlife is provided in Attachment 1 to that response. In that response we provided modeled predicted habitat based on Gap Analysis Program (GAP) data for the following special-status small mammals, herptiles, and bird species with the potential to occur in the vicinity of the Project: American white pelican (*Pelecanus erythrorhynchos*); black-tailed jackrabbit (*Lepus californicus*); burrowing owl (*Athene cunicularia* ; also see response to Hab- 14 in EFSEC's Data Request #1); ferruginous hawk (*Buteo regalis*); great blue heron (*Ardea herodias*); ring-necked pheasant (*Phasianus colchicus*); striped whipsnake (*Masticophis taeniatus* ; also see response to Hab-13 in EFSEC's Data Request #1); Townsend's big-eared bat (*Coryhorhinus townsendii*); Townsend's ground squirrel (*Urocitellus townsendii townsendii* ; also see response to Hab-12 below); tundra swan (*Cygnus columbianus*); white-tailed jackrabbit (*Lepus townsendii*); loggerhead shrike (*Lanius ludovicianus* ; also see response to Hab-14 below); sagebrush sparrow (*Artemisiospiza nevadensis*), and sage thrasher (*Oreoscoptes montanus*). Because Vaux's swift (*Chaetura vauxi*) had no predicted habitat in the area, no map is provided.	Appendix K
Data Request 2	**Wildlife-11**	WAC: 463-60-332 Section 1.10.1 Appendix N Appendix L	Habitat	Provide a schedule for implementation and details on the selected approach for habitat mitigation provided in Appendix L.	The Habitat Mitigation Plan is currently in discussion with EFSEC and WDFW and this information will be provided as those discussions move forward.	Appendix L
Data Request 2	**Wildlife-17**	WAC: 463-60-332 Section 1.10.1 Appendix L	Wildlife	Provide details on how all mitigation measures provided in guidance documents, cited in Appendix L, will be applied to the Project or rationale for why some measures are not applicable nor feasible.	The Habitat Mitigation Plan is currently in discussion with EFSEC and WDFW and this information will be provided as those discussions move forward. Also see our response for Wildlife-21.	Appendix L
Data Request 2	**Wildlife-7**	WAC: 463-60-332 Appendix L	Wildlife	Demonstrate how each option or combination of options used will achieve equivalent or greater habitat quality, value, and function for those habitats being impacted, as well as for habitat being enhanced, created or protected through mitigation actions.	**The Habitat Mitigation Plan is currently in discussion with EFSEC and WDFW and this information will be provided as those discussions move forward. Also see our response to Wildlife-21.**	Appendix L
Data Request 2	**Wildlife-8**	WAC: 463-60-332 Section 3.4.2.1	Wildlife	Provide a method to qualify the anticipated effectiveness of the proposed mitigation measures. Use examples from other projects or citations, where available.	The Habitat Mitigation Plan is currently in discussion with EFSEC and WDFW and this information will be provided as those discussions move forward. Also see our response to Wildlife-21.	Appendix L
Data Request 3	**Noise-1**	WAC: 463-60-352 Appendix O Addendum	Noise Baseline Measurement Methodology Appendix states a 3.5-inch windscreen was used, but Table 2-1 states a 7-inch screen was used.	Confirm which windscreen was used and what speed it mitigates self-generated wind noise.	**The Larson Davis WS001 3.5-inch windscreen was used in the Horse Heaven Wind Project baseline sound survey.** This type of windscreen mitigated self-generated noise from wind for **wind speeds ranging from 0 m/s to greater than 30 m/s.**	Appendix O

Data Request Package	Item ID	ASC Section	Item	Question or Information request	Applicant Response (bold text indicates response conclusion and Applicant commitments, including commitments to provide supplemental materials)	Location of Change in ASC
Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 3	**Noise-2**	WAC: 463-60-352 Appendix O Addendum	Noise Baseline Measurement Methodology Measurements were not collected in the entire Project Area (northwest and north of the Project). These areas include the communities south of East Badger Road to the north of the Project and near the community of Kiona of Benton City to the northwest of the Project.	Provide baseline analysis, similar to the analysis provided for other areas in Appendix O, for existing conditions northwest and north of the Project Area.	While measurements may have not been collected specifically in the communities south of East Badger Road to the north of the Project and near the community of Kiona of Benton City to the northwest of the Project, **ambient sound measurements collected at other locations are considered representative of sound levels in those communities**. Ambient sound levels collected at ML-1 are considered representatives of the communities south of East Badger Road and near the community of Kiona of Benton City. Additionally, Project-related operational sound levels are expected to be low in these communities as shown in Figures 4.1.1-2 through 4.1.1-5 of the EFSEC ASC. The following provides more information regarding this. The five noise monitoring locations mentioned in this comment were selected by first reviewing the locations of the Turbines in comparison to the receptor locations and land use status (participating versus non-participating). A screening-level noise model was then developed to generate sound contours to identify areas expected to experience elevated noise impacts. In addition to using those results, other factors such as land use, participant status, distance to Turbines, and geographical distribution were considered in selecting the ambient sound monitoring locations. Property access, which was coordinated by Horse Heaven Wind Farm, LLC, was also a factor as it was necessary to obtain access to safely site the long-term monitors. As can be seen in Figure 1-1 of Appendix O (Horse Heaven Wind Project Baseline Sound Survey Report), the five monitoring locations are spread throughout the Project area, with ML-1 and ML-4 positioned to reflect moderately denser areas of residential use, and ML-2, ML-3, and ML-5 reflecting sound levels representing more scattered residential areas. By selecting locations with geographic and residential proximity differences, an accurate characterization of existing sound levels throughout the Project area could be obtained. **Based on the justification provided above, the Project does not intend to conduct additional baseline analysis.**	Appendix O
Data Request 5	**Noise-2**	4.1.1 Noise	Baseline noise levels.	Baseline analysis for more populated areas will need to be addressed in the DEIS, be that measured baseline or assumed/calculated baseline levels. Provide baseline noise levels and indicate if these were measured or calculated. Supplemental Data Request received November 15, 2021: 1) Collect baseline measurements in the field associated with three (3) polygons (A1, A2, & A3). There are 3 suggested monitoring locations within each polygon that may be useful field locations based on road access and proximity to populated areas. 2) Collect the baseline measurements as similar as reasonably possible in equipment, duration, and setup used for the original baseline study.	**A comprehensive ambient sound survey documenting existing conditions for those noise sensitive receptors (NSRs) located closest to and expected to be most impacted by the Project was completed and submitted as part of the Horse Heaven Wind Project EFSEC application. In addition, Monitoring Location 4 was situated at a residence along Finley Road in Kennewick, Washington, and therefore, the ambient sound levels collected at Monitoring Location 4 could be used to estimate baseline conditions for the more populated areas in Kennewick and Finley.** Scout is currently assessing the feasibility of obtaining landowner authorizations to conduct the additional requested baseline measurements and will provide a supplemental response to the November 15 request separately. The other area that could be defined as "more populated" near the Project is Benton City. In the absence of ambient measurement data, baseline sound levels for Benton City were estimated using a method published by the Federal Highway Administration (FHWA) in its Transit Noise and Vibration Impact Assessment (FHWA 2006). That document presents the general assessment of existing noise exposure based on the population density per square mile and proximity to area sound sources such as roadways and rail lines. According to the U.S. Census Bureau, Benton City has a population density of 1,464.40 persons per square mile. In addition, Interstate 82 (I-82) runs north of the Project in proximity to Benton City. Table 1 below provides the estimated baseline sound levels for Benton City based on population density and distance to I-82. As presented in the EFSEC application, the Project successfully demonstrated compliance with Washington Administrative Code (WAC) 173-60 at all NSRs including the areas that are more populated. These populated areas would generally be considered Class A Environmental Designation for Noise Abatement (EDNA) because they are places where people live and sleep. Therefore, the applicable nighttime limit prescribed under WAC 173-60-040 would be 50 A-weighted decibels (dBA) since the Project is considered a Class C sound source. **Table 1. Estimated Baseline Sound Levels for Benton City NSRs** Average Sound Level (dBA) / L_{eq} (Day): 50 / L_{eq} (Evening): 45 / L_{eq} (Night): 40 / L_{dn}: 50 **The limits given in Washington's noise regulations are not prescribed relative to existing ambient sound conditions but are prescribed as absolute numerical decibel levels, which only apply to the Project sound contribution at NSRs. The limits are independent of the existing acoustic environment; therefore, an ambient sound survey is not requisite to determine conformance. Because modeled sound levels resulting from Project operation in these more populated areas would be 40 dBA or lower, the Project would comply with WAC 173-60-040.** Additionally, even though irrelevant to establishing compliance, the incremental increase resulting from adding the modeled Project sound levels to the estimated nighttime ambient level of 40 dBA would be 3 dBA. **Followup:** Supplemental ambient sound surveys were conducted in February 2022. The report was provided to EFSEC on 4/1/2022.	Appendix O
Data Request 2	**Aesthetics-2**	WAC: 463-60-362 Section 4.2.3 Appendix Q	The selection of representative viewpoints for field survey, simulations, and analysis are predominately middle-ground viewing distance zone (0.5 to 5 miles) and do not represent foreground (less than 0.5 miles) viewing opportunities. Few of the viewpoints represent local communities or residential areas in the Tri-Cities area. It is acknowledged in the ASC that there are 13 non-participating landowners within a foreground viewing distance that would be exposed to relatively near views of the Project. It's illustrated in the ASC that there is potential visibility of the Project from nearby communities and residential areas (Figures 4.2.3-1 to 4.2.3-6). Comments received as part of the public scoping process identified a lack of representative viewpoints in nearby residential subdivisions or foreground areas.	Provide panoramic photos (similar to those provided in Appendix Q of the ASC) of the existing condition of the Project area from a representative viewing location in the following residential communities: • Benton City • Badger • Kennewick (Canyon Lakes area) • Highland These viewing locations should provide relatively unobstructed views towards the Project area and represent public viewing opportunities within these communities. Provide panoramic photos of the existing condition of the Project area from the following representative rural residential viewing location within a foreground viewing distance zone (0 to 0.5 miles): • Along County Well Rd (near the County Well Road Solar Array location) – view towards solar array and turbines • Near Sellards Rd and Travis Rd – view towards transmission line and turbines	Proposed photo locations have been provided to EFSEC for review corresponding to the identified locations. With EFSEC's concurrence on the proposed locations, these photos will be provided to EFSEC under separate cover at a later date. See **Attachment "Aesthetics-2"** for existing panoramic photos representing locations listed below. These photos were taken in 2020 and will be used to generate simulations to be provided in a later response. The following locations are shown in the attached panoramic photos: Benton City – see Photo 17a Badger – see Photo 21b Kennewick (Canyon Lakes Area) – see Photos 7b-1 and 7b-2 As discussed during our call with EFSEC on September 7, 2021, initial photos taken at the remaining locations were too hazy to provide good visibility of the Project area due to smoke conditions from area wildfires. **Photos from Highland, along County Well Rd, and near Sellards Rd, will be provided as soon as conditions allow clear viewing of the Project area.** Updated response: **The requested panoramic photos are provided in the attached Aesthetics Technical Memorandum for the Horse Heaven Wind Project (see attachment Aesthetics-2).**	Appendix Q
Data Request 2	**Cultural/Historic-3**	WAC: 463-60-362 Section 4.2.5	Isolate Testing Results	Provide results from the shovel probe testing required. Archaeological resource - isolate # 45BN2092.	This survey report has been completed, and tribes that requested a copy (Yakama Nation, CTUIR) and are currently reviewing the draft report. The report will be provided to EFSEC once comments have been received from the tribal review and the document has been revised accordingly.	Appendix R

Data Request Package	Item ID	ASC Section	Item	Question or Information request	Applicant Response (bold text indicates response conclusion and Applicant commitments, including commitments to provide supplemental materials)	Location of Change in ASC
Data Request 2	**Cultural/Historic-4**	WAC: 463-60-362 Section 4.2.5	Evidence of Appropriate Consultation The Yakama Nation has contacted EFSEC to oppose the manner in which consultation has been conducted for the Project and request that tribal consultation take place on a governmentto-government basis rather than with HRA (Yakama Nation letter dated March 2, 2021). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources has also contacted the EFSEC to request direct consultation with the State Department/EFSEC (CTUIR letter dated April 9, 2021). This request is supported by the DAHP (letter dated March 9, 2021).	Provide evidence, if any, of ongoing coordination (with the Yakama Nation and other interested Tribes).	Ongoing coordination with the Tribes is included in Table 1.12-1. Communications with Applicable Agencies and Tribes. See response to Cultural/Historic-1."	Section 1.12
Data Request 2	**Cultural/Historic-5**	WAC: 463-60-362 Section 4.2.5	Response to State Historic Preservation Office (SHPO) Comments A grain elevator (# 722995) was recorded by the Consultant (HRA) during the baseline field survey. HRA determined that the resource was not eligible for individual listing. However, comments from the SHPO (DAHP letter to EFSEC, dated March 9, 2021) request a reconsideration conclusion.	Provide the Consultant's response to the SHPO request, dated March 9, 2021, regarding the grain elevator (#722995).	This survey report has been completed, and tribes that requested a copy (Yakama Nation, CTUIR) and are currently reviewing the draft report. The report will be provided to EFSEC once comments have been received from the tribal review and the document revised accordingly.	Appendix R

Location of Change in ASC	Nature of Change
Table of Contents, Acronyms and Abbreviations	Updates to reflect changes made elsewhere in the document
Section 1.2	Updated description of applicant and its organization and affiliations
Section 1.5	Update information on application submittal and revision
Section 1.10	Update mitigation measures summary to reflect changes made elsewhere in the document
Section 1.11	Update sources of information to reflect changes made elsewhere in the document
Section 1.12	Update public engagement information to reflect activities since the time of the original application
Section 1.16	Remove information related to the request for expedited processing, which was withdrawn subsequent to the original application
Section 2.1.3	Clarify that zoning ordinance information provided in the ASC was accurate as of the time of initial ASC submittal
Section 2.3	Update information on interconnect capacity based on changes to BPA business practice
Section 2.3	Correct miscellaneous typographical errors
Section 2.3.10	Added text to clarify table contents regarding transmission line options
Section 2.10.2	Clarify that lead-acid batteries in the O&M facilities would be used as a backup source of station service (not the main source)
Section 2.15.1	Update schedule information to reflect current status of permit application review
Section 2.20	Remove information related to planned studies that have been completed since the time of initial application
Section 2.22	Incorporate information regarding site selection based on verbal questions from EFSEC and WDFW during the review process
Section 2.23, Table 2.23-1	Add information on FCC Antenna Structure to list of permits and authorizations; clarify that identified county permits would be obtained if necessary in coordination with EFSEC
Section 2.23.1	Update information on status of FAA permits and authorizations
Section 2.23.2	Update information on status of Washington DNR right-of-way and easement authorizations
Section 2.23.2	Update information on SEPA checklist relative to ongoing SEPA review by EFSEC
Section 2.23.2	Update summary of findings relative to 2021 cultural surveys within the Project area
Section 2.23.3	Add information related to Council Order No. 883 and update to reflect the review was current as of the time of initial application
Section 3.3.2.4	Correct citation
Section 3.4.1	Update discussion to match 2021 habitat surveys and reporting
Section 3.4.1.3	Update status of gray wolf listing to reflect 2021 actions by USFWS
Section 3.4.1.3	Update research related to ferruginous hawk per correspondence and discussion with EFSEC and WDFW and results of 2022 nest surveys
Section 3.4.2	Update to reflect the results of 2021 surveys in lieu of discussion of planned 2021 surveys
Section 3.4.3	Clarify avoidance and minimization measures taken during the project development process, per discussions with EFSEC and WDFW
Section 3.4.3	Remove discussion of surveys that were planned for 2021, that have since been conducted
Section 4.1	Update to refer to ambient sound data that were collected subsequent to submittal of the original ASC
Section 4.1.1.1	Clarify agreements and approach to evaluating sound impacts for participating landowners

Miscellaneous text edits not associated with an EFSEC data request, Horse Heaven Wind Farm

Location of Change in ASC	Nature of Change
Section 4.1.1.2 and Appendix O	Add information on new residences that have been constructed north of the Project lease boundary since the time of initial application
Section 4.2.3	Clarify nomenclature and description of solar arrays and transmission line options
Section 4.2.3.2	Clarify conditions that could alter visibility of Project infrastructure
Section 4.2.3.2	Add information on intensity and frequency on shadow flicker (from memo in Attachment G)
Section 4.2.3.2	Add clarification on number of turbines that may require nighttime lighting based on current FAA guidance
Section 4.2.3.2	Add information regarding participating and non-participating residences with foreground views of Project turbines and solar arrays
Section 4.4.2.1	Update schedule based on current status of application review
Appendix I	Amended Wetland Delineation Report to incorporate May 2021 site visit results and 2021 surveys
Appendix K	Ferruginous Hawk survey report to include 2022 nest survey results
Appendix U	Updated list of stakeholders and meeting/outreach dates subsequent to initial ASC submittal