American Rivers
RIVERS CONNECT US®

August 9th, 2022

Sage Park
Central Region Office
Department of Ecology
1250 West Alder Street
Union Gap, WA 98903-0009

Submitted electronically to: https://admin.ecology.commentinput.com/?id=KNBCY

RE: Comments on the Washington Department of Ecology's Draft Environmental Impact Statement for the Goldendale Energy Storage Project

Dear Regional Director Park,

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement prepared by the Washington Department of Ecology under the Washington State Environmental Policy Act for the proposed Goldendale Energy Storage Project.

Introduction

On June 23rd, 2020, Rye Development on behalf of FFP Project 101, LLC filed a Final License Application (FLA) with the Federal Energy Regulatory Commission (FERC) for the Goldendale Pumped Storage Project (Project). The Washington State Department of Ecology (Ecology) initiated the Washington State Environmental Policy Act (SEPA) review process with a Determination of Significance issued on January 14, 2021. Ecology determined that "the proposed Goldendale Energy Storage Project is likely to have significant environmental impacts requiring full evaluation in an environmental impact statement (EIS)."[1] Ecology issued its Draft EIS for review and public feedback on June 6, 2022.

The proposed Project is a closed-loop pumped storage hydropower facility located on the Washington side of the Columbia River at River Mile 215.6 near John Day Dam. The Project would be located approximately 8 miles southeast of the City of Goldendale in Klickitat County, Washington. The Project facilities include 1) an upper reservoir consisting of a rockfill embankment dam approximately 175 feet high and 8,000 feet long, with a surface area of about 61 acres, and storage of 7,100 acre-feet (AF), 2) a lower reservoir consisting of an embankment approximately 205 feet high and 6,100 feet long, with a surface area of about 63 acres, and storage of 7,100 AF, 3) an underground water conveyance tunnel, powerhouse, and transformer cavern, and 4) a 500 kilovolt (kV) transmission line(s). The estimated energy generating capacity is 1,200 megawatts (MW).

[1] Washington Department of Ecology (January 14, 2021), Environmental Review: Scoping. Retrieved from https://ecology.wa.gov/Events/SWM/Goldendale-Energy/Goldendale-Energy

American Rivers (AR) offers the following comments in response to Ecology's Draft EIS for the Goldendale Energy Storage Project.

Interest of American Rivers

American Rivers (AR) is a 501(c)(3) nonprofit organization whose mission is to protect wild rivers, restore damaged rivers, and conserve water for people and nature. Headquartered in Washington, DC, AR has offices across the country and more than 300,000 members, supporters, and volunteers, including many of whom live in the Columbia River Basin states of Washington, Oregon, Idaho, and Montana. AR has been working in the Pacific Northwest for nearly 30 years, and we have a strong interest in protecting and restoring the Columbia River and its tributaries for the benefit of healthy fish and wildlife populations as well as human communities. Rye Development's application for a new project license directly affects the interests of AR and its participation in this process is in the public interest. AR has been engaged in the proposed Project since 2018.

AR appreciates the opportunity to provide these comments to Ecology for the purposes of drafting a comprehensive Final EIS which examines possible significant and adverse impacts resulting from the construction and operation of the Project.

Comments

AR recognizes the importance of energy storage and grid resilience in meeting our nation's clean energy goals. We also recognize the significant value of irreplaceable Tribal cultural resources within the proposed Project area, as well as several probable impacts to water resources and wildlife. The FLA, its accompanying additional information provided by Rye Development (Rye), Rye's record of communication with affected Tribal communities, and Ecology's Draft EIS indicate that the Project poses an uncertain benefit to grid resilience while presenting significantly detrimental impacts to environmental and cultural resources. AR holds concerns regarding Project impacts to water quality and quantity; management of the contaminated West Surface Impoundment and surrounding contaminated sites; its impacts on terrestrial and aquatic wildlife; and the economic and energy generating viability of the Project. Our most cardinal concern, however, is the Project's proven potential to have "significant and unavoidable adverse impacts to Traditional Cultural Properties (TCPs), archaeological sites, culturally important plants, and other Tribal resources" and the inability of mitigation to attenuate these impacts.[2] For this reason, American Rivers supports the No Action Alternative.

AR appreciates both the public input opportunity and the analyses conducted by Ecology thus far as part of the environmental analysis process. Our comments and concerns regarding the Project and the Draft EIS as they relate to AR's interests are detailed below.

I. Impacts to Tribal archaeological and cultural resources

[2] Washington Department of Ecology (June 6, 2022), State Environmental Policy Act Draft Environmental Impact Statement. Retrieved from: https://apps.ecology.wa.gov/publications/SummaryPages/2206006.html

AR reaffirms that the entities most qualified to address Tribal cultural resources are the sovereign Tribal Nations themselves. AR does not speak on behalf of Tribes and instead respects and reaffirms their concerns regarding the threat to their cultural resources and lifeways.

Ecology found in its environmental analysis that the Project "would result in significant and unavoidable adverse impacts related to Tribal and cultural resources," and that there is no mitigation proposed by or supported by the Confederated Bands and Tribes of the Yakama Nation (Yakama Nation), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWS), and/or the Nez Perce Tribe that would reduce the level of impacts to less than significant. [3]

The Draft EIS finds a dense concentration of archeological sites within the study area and asserts that "79% of the study area is within high risk or very high-risk areas for the possibility of encountering archaeological sites."[4] The Washington State Department of Archaeology and Historic Preservation estimated that 100% of 15 sites could be disturbed.[5] It is also important to note that the potential exists for previously unrecorded sites to be discovered during Project construction.[6]

The Draft EIS states, "Activities that could impact Tribal and cultural resources include ground disturbance, restrictions to access, degradation of visual quality, noise, and interruption of the landscape and habitat." It continues,

> The Tribes' spiritual practices could be interrupted by construction impacts to land areas and cultural or sacred sites. In addition, access to traditional gathering areas for medicinal and traditional plants and foods would also be restricted during construction and permanently lost in the reservoir areas. The loss of Tribal connections and educational opportunities that result from restricted access to Tribal resources would disrupt and degrade Tribal members' health and mental well-being.[7]

These impacts are severe, and AR stands with the Tribes in their assertion that mitigation is or may not be possible. AR only supports the No Action Alternative for the Project for these reasons.

Throughout the Draft EIS, Ecology fails to adequately acknowledge impacts to Tribes and sequesters Tribal impacts to one section of the document. AR requests that the significant and unavoidable adverse impacts to the natural resources that are also culturally important to Tribes be reflected throughout the Final EIS, particularly in the following sections:

- Under the 'Aesthetics/Visual Quality' section, the Draft EIS states that there would be no significant or unavoidable impacts to aesthetics/visual quality. Ecology also writes, "there would be impacts to Tribes from the view changes…"[8] This is a significant and unavoidable impact with no proposed mitigation. Therefore, AR disagrees with Ecology that there are "no significant adverse impacts" to aesthetics/visual quality.
- The 'Terrestrial Species and Habitats' section indicates a finding of "no significant and unavoidable adverse impacts related to terrestrial species and habitats, with inclusion of

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[3] Ecology (June 6, 2022), Draft EIS. p.157
[4] Ecology (June 6, 2022), Draft EIS. p. 158
[5] Ecology (June 6, 2022), Draft EIS. p. 161
[6] Ecology (June 6, 2022), Draft EIS. p. 161
[7] Ecology (June 6, 2022), Draft EIS. p. 161
[8] Ecology (June 6, 2022), Draft EIS. p. 144

mitigation to reduce significant impacts." However, Ecology acknowledges that, "If wildlife species that are used by Tribes for cultural or spiritual practices are reduced due to construction, this would be an indirect significant adverse impact to the Tribes."[9] Therefore, AR holds that there are, in fact, potential significant and unavoidable impacts to terrestrial species.

- Ecology finds that there would be "no significant and unavoidable adverse impacts to land use."[10] Given Ecology's definition of "land use" and the Project's probability of adversely impacting cultural resources, including the Tribes' ability to utilize TCPs and gather culturally important plants, AR holds that there would certainly be significant and unavoidable adverse impacts to land use.
- Perhaps most importantly, under the 'Environmental Justice' section, Ecology states that there is no disproportionate impact on communities of color or low-income populations and that "mitigation is not required to reduce any disproportionate impacts to communities of color and low-income populations." Ecology defines Environmental Justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies."[11] It is difficult for AR to imagine a community of color that has historically been more disproportionately impacted by hydropower and energy development in this region than Indigenous peoples. AR asserts that while there may be no permanent residents in the study area, the area is critical to the maintenance of Tribal lifeways and impacts to Tribal communities are indisputably issues of environmental justice.

Ecology must include impacts to Tribal communities in its analysis of aesthetics/visual quality, terrestrial species and habitats, land use, and environmental justice and corresponding cumulative impact sections in its Final EIS.

II. Impacts to water quality and aquatic resources

The Project's probable impact to water quality and quantity in and around the Columbia River remains a concern. The Draft EIS states, "Construction would permanently impact 0.09 acre of wetlands and streams and 1.34 acres of stream buffer, as well as temporarily impact 0.06 acre of wetlands and streams and 0.89 acre of stream buffer."[12] In the northern portion of the study area, "Stream S7, Stream S8, Stream 1 all provide intermittent or ephemeral drainage to Swale Creek" and the permanent loss of these streams "could reduce the volume of surface flows to Swale Creek."[13] According to a 2009 Riparian Vegetation Assessment of Little Klickitat River and Swale Creek (WRIA 30), "the lower reach of Swale Creek (within Swale Canyon) is on Washington State's list of impaired water bodies (303(d)) as Category 5 for water temperature."[14] Reducing instream flow in a semi-arid

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[9] Ecology (June 6, 2022), Draft EIS. p. 162
[10] Ecology (June 6, 2022), Draft EIS. p. 179
[11] Ecology (June 6, 2022), Draft EIS. p. 205
[12] Ecology (June 6, 2022), Draft EIS. p. 60.
[13] Ecology (June 6, 2022), Draft EIS. p. 69
[14] Germiat, S. (2009, June 30). *Riparian Vegetation Assessment: Little Klickitat River and Swale Creek* . Retrieved from: https://www.klickitatcounty.org/DocumentCenter/View/165/Riparian-Vegetation-Assessment---Little-Klickitat-River-and-Swale-Creek---June-2009-PDF

basin like the Swale Creek watershed, which receives minimal rainfall and incurs high summer air temperatures, can have long-lasting negative impacts on water temperature. This, in turn, poses a great risk to salmonids at all life stages. The Draft EIS verifies the presence of anadromous salmonids in and significance of the watershed: "Swale Creek has the potential to provide viable habitat for salmon, steelhead, and resident rainbow trout if there were to be channel restoration and enhancement to perennial flows" and "lowest reaches of Swale Creek are designated critical habitat for the Mid-Columbia steelhead distinct population segment."[15]

Additionally, surface water from Swale Creek is used for irrigation in the Goldendale area.[16] The Klickitat River Salmon and Steelhead Production Plan prepared in 1990 lists preventing further degradation of summer flows in the Swale Creek drainage as a habitat protection objective which would also serve to prevent negative impacts to agriculture and irrigation.[17] AR reiterates that reduced instream flows in the Swale Creek watershed could have long-lasting impacts on salmon spawning, rearing and migration, domestic and agricultural water supply, terrestrial wildlife habitat, stock watering, and aesthetics and recreation well downstream of the Project's upper reservoir.

AR also remains concerned about the amount of water that the Project proposes to use. The Draft EIS states that "Water for the initial fill would be purchased from [Klickitat Public Utility District (KPUD] using a KPUD-owned conveyance system and existing water right."[18] Further, "it is assumed that the initial fill would be completed over 6.5 months." The Draft EIS also states on page 62 that, "a one-time withdrawal to complete the initial fill" is needed. However, Ecology states later in the document, "that water right authorizes a maximum instantaneous rate of 35.3 cubic feet per second and annual total withdrawal quantity of 13,911 acre-feet per year (AFY), which includes a maximum consumptive use of 4,861 AFY" and "...the initial fill of the proposed project system would occur across a 2-year period to comply with the annual maximum consumptive use quantity of the underlying water right."[19] (Note: the Cliffs Comprehensive Water System Plan in Appendix K of the FLA indicates that the consumptive use is not to exceed 4,851 AFY—a difference of 10 AFY compared to Ecology's analysis).[20] This contradictory information requires explicit clarification. It is AR's understanding based on the Draft EIS and Rye's application materials that the proposed total allowable consumptive water quantity is almost 3,000 AFY less than what Rye states is needed for initial reservoir fill. In this case, it would be a violation of the water right to conduct a one-time withdrawal to complete the initial fill in a 6.5-month period. AR requests a thorough explanation of the exact quantity of the water right, and the legally allowed timeline to withdraw the quantity of water needed for initial fill accounting for water supplied to the Project for construction.

AR also understands that at least a portion of KPUD's water right is held in the State's water right trust program. If water from this trust is used for the Project, Ecology should ensure that any and all necessary processes which determine extent and validity of the water rights are executed in

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[15] Ecology (June 6, 2022), Draft EIS. p .107

[16] Confederated Bands and Tribes of the Yakama Nation, Washington Department of Fisheries, & Washington Department of Wildlife. (1990). *Klickitat River Subbasin Salmon and Steelhead Production Plan*. Washington. Retrieved from http://docs.streamnetlibrary.org/Subbasin_Plans/Columbia_Gorge/Klickitat90.pdf

[17] Confederated Bands and Tribes of the Yakama Nation et al. Klickitat River Subbasin Plan, p 17.

[18] Ecology (June 6, 2022), Draft EIS. p. 16.

[19] Ecology (June 6, 2022), Draft EIS. p. 69

[20] FFP Project, 101, LLC (June 23, 2020). Final License Application, Appendix K: KPUD Letter, p. 47. Retrieved from: https://goldendaleenergystorage.com/assets/documents/FLA/Goldendale-FLA_Appendix-K_KPUD-Letter.pdf

compliance with state law. We encourage Ecology to closely examine KPUD's water right and allocated uses, and to include a clear explanation of initial fill timing in its Final EIS.

AR also has growing concerns about impacts to groundwater after reviewing the Draft EIS. Ecology states, "Water quality will likely degrade within the pumped storage system over time…"[21] This deterioration of reservoir water quality is expected to include bacterial contamination from wildlife and the introduction of oils, lubricants, and other materials from the Project's conveyance system, and will likely be compounded by the effects of evaporation. AR is concerned about 1) the impacts of this water quality degradation on wildlife that may interact directly with the reservoirs, and 2) the impacts of the degraded water quality on groundwater recharge via anticipated reservoir leakage. We are also concerned by the following statement: "neither the Applicant's Environmental Report, Exhibit E of their FERC FLA (FFP 2020a), nor the Preliminary Supporting Design Report (HDR 2020b) include an analysis to predict water quality changes in the system over time."[22] AR requests an exhaustive reservoir water quality monitoring plan be developed by Rye in collaboration with Ecology and evaluated in the Final EIS.

The Draft EIS mentions, "the lower reservoir is anticipated to include a double liner system to further minimize any potential for leakage." AR requests clarification as to why only the lower reservoir will be double lined, as it is our understanding that both reservoirs will be subject to degraded water quality and leakage. The Draft EIS also states that "very limited geologic/hydrogeologic information is available" in the area of the proposed upper reservoir.[23] The speculative nature of this analysis is concerning, and AR requests that further analyses are conducted to substantiate the claim that there would be no significant impact to groundwater from reservoir leakage in the Swale Creek watershed.

Ecology also mentions in relation to Project impacts to groundwater,

> …the estimated amount of groundwater recharge lost would be 14 AFY and the estimated amount of runoff to streamflow lost would be 5 AFY. Based on the net gain to and loss determination presented in Table 4.2-4c, the estimated 30 AFY of artificial recharge from underground leakage would more than offset these amounts. As such, no impacts on surface water hydrology are expected to occur in the northern portion of the study area.[24]

AR is concerned that underground reservoir leakage is being considered artificial groundwater recharge, particularly given Ecology's understanding that the water quality within the reservoirs is expected to degrade overtime. We are also concerned by the following statement in the Draft EIS:

> Should the project's actual operating water balance indicate that the leakage is less than estimated in this analysis, the Applicant will be required to propose alternative mitigation…Mitigation options could include delivering water directly into the affected subbasin (increasing the quantity of make-up water purchased from KPUD) or implementing out-of-kind riparian enhancements.[25]

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[21] Ecology (June 6, 2022), Draft EIS. p. 45
[22] Ecology (June 6, 2022), Draft EIS. p.79
[23] Ecology (June 6, 2022), Draft EIS. p.59
[24] Ecology (June 6, 2022), Draft EIS. p. 76
[25] Ecology (June 6, 2022), Draft EIS. p .78

AR is extremely concerned that reservoir leakage is being considered mitigation for impacts to groundwater from reservoir construction. We are also concerned by the notion of mitigating impacts to groundwater with riparian enhancements. Direct, on-site mitigation is strongly preferred over any off-site, indirect mitigation measures such as riparian enhancements. We are not confident in the current understanding of the hydrology and interplay between potentially contaminated Project reservoirs, groundwater, and aquifers in the study area, and therefore do not believe that a definitive determination of no significant and adverse impacts is appropriate. AR requests a more thorough explanation of Project impacts to groundwater given anticipated water quality degradation (particularly in the area of the proposed upper reservoir), a more comprehensive analysis of existing groundwater systems in the northern part of the study area, and a rationale for why only the lower reservoir will be double lined.

III. Contaminated site management

Portions of Project infrastructure, including the lower reservoir, are slated for construction atop the site of the retired Columbia Gorge Aluminum (CGA) smelter, which is now a Resource Conservation and Recovery Act contaminated site. According to the Draft EIS, "The majority of the lower reservoir would be constructed in an area currently occupied by the [West Surface Impoundment (WSI)], a closed Solid Waste Management Unit (SWMU) associated with the former CGA smelter. "The contaminants of concern associated with SWMU 4 include sulfate, chloride, fluoride, and cyanide. Of these, sulfate is the primary contaminant present in groundwater associated with the WSI."[26] The Draft EIS also explicitly states, "In the area surrounding the lower reservoir, the existing groundwater is contaminated."[27] Rye proposes to fully remove the WSI in the initial phases of Project construction.

On page S-2, Ecology writes, "There is uncertainty related to subsurface conditions on the site, including geologic conditions and the location of a potential groundwater divide separating the aquifers of the northern and southern portions of the study area. Additional geotechnical studies proposed by the Applicant are expected to address this uncertainty as the design process proceeds." AR asserts that a thorough understanding of this information is essential and has significant consequences in relation to the West Surface Impoundment.

A Final EIS must not be speculative, and Ecology should only issue its Final EIS after areas of uncertainty related to current conditions are resolved.

As previously stated, AR remains concerned about the potential adverse impacts of reservoir leakage (especially at a contaminated site) on groundwater in and around the Project area. The risk of contaminated water interacting the Columbia River through reservoir leakage or failure to too great and should be thoroughly evaluated. AR, again, requests an exhaustive reservoir water quality monitoring plan be developed by Rye in collaboration with Ecology and evaluated in the Final EIS.

IV. Impacts to terrestrial wildlife and plants

The Draft EIS finds, "the proposed project would have no significant and unavoidable adverse impacts related to terrestrial species and habitats, with inclusion of mitigation to reduce significant

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[26] Ecology (June 6, 2022), Draft EIS. p. 170
[27] Ecology (June 6, 2022), Draft EIS. p .174

impacts" even though Project construction would permanently destroy 193.6 acres of existing habitat and temporarily disturb another 54.3 acres.[28] AR disagrees that there will be no significant and unavoidable adverse impacts given the presence and potential destruction of areas of smooth desert parsley and other plants that are culturally significant to the affected Tribal Nations. The loss of habitat for these plants directly impacts Treaty-reserved rights to gather in the proposed Project area. Despite Ecology's assessment that "the area lost is relatively small and other areas of smooth desert parsley are located nearby," Tribal members will lose permanent access to traditional gathering territory and culturally significant plant species habitat.

Both construction and operation of the Project stand to impact migratory and resident birds, raptors, bats, and several fish and amphibian species through the destruction or disruption of habitat, construction of attractant waterbodies, and placement of attractants in close proximity to existing windfarms. Specifically, the construction of both the upper and lower reservoirs is likely to attract migratory and resident birds and bats to an area in which an active wind farm operates, increasing the risk of avian and bat mortality caused by collisions with wind turbines. In a May 28, 2019 letter to FERC from Washington Department of Fish and Wildlife (WDFW), WDFW writes, "The new source of water will attract waterfowl, bats and bald eagles *(Haliaeetus leucocephalus),* putting them at a high risk of negatively interacting with wind turbines; consequently, increasing wind turbine mortality rates on them."[29] Further, Ecology acknowledges that the Project is located within the Pacific Flyway, one of the primary north-south migratory routes of various bird species.[30] AR remains concerned about the Project's potential to attract these terrestrial species and potentially cause direct adverse impacts. Rye proposes several measures including covering the reservoirs with shade balls and installing fencing to deter birds and other wildlife but proposes no specific deterrent measures for bats. Ecology's Final EIS should include information about the general efficacy of the proposed deterrent measures and any additional recommendations for protecting bat species.

In addition to the reservoirs' inclination to attract wildlife, construction of the Project and noise caused by ongoing operations has the potential to impact breeding and pre-fledged birds including the federally protected golden eagle.[31] "There is a potential for significant indirect adverse impacts on talus and cliff habitat if they can no longer support breeding raptors because of the proximity of human development and reduced prey availability. Such impacts could result in ongoing or repeated disturbance of habitat that is critical to species viability."[32] AR maintains that the potential of Project development to magnify impacts to terrestrial wildlife, even with Rye's proposed mitigation, is grounds for the exploration of geographic alternatives.

AR also requests clarification regarding an Eagle Incidental Take Permit mentioned in the Draft EIS: "An Eagle Incidental Take Permit may be required if disturbance to golden eagles cannot be avoided and if impacts are determined to constitute "take" under the Bald and Golden Eagle Act."[33] We ask that Ecology, in its Final EIS, explain when the need for this permit would be reviewed and by whom.

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[28] Ecology (June 6, 2022), Draft EIS. p. 115
[29] Washington Department of Fish & Wildlife (May 28, 2019), Additional study requests and comments on the PAD for the Goldendale Energy Storage Project. In FERC Docket No. 14861
[30] Ecology (June 6, 2022), Draft EIS. p. 117
[31] Ecology (June 6, 2022), Draft EIS. p. 130
[32] Ecology (June 6, 2022), Draft EIS. p. 133
[33] Ecology (June 6, 2022), Draft EIS. p. 135

V. Impacts to energy resources and Project viability

AR still holds serious concerns about the financial viability of the project and how the proposed hydropower project fits into the West Coast wholesale energy markets. According to the FLA, "the proposed project's pumped-water energy storage system is estimated to have between 70% to 85% net efficiency."[34] This efficiency is influenced by "weather and seasonal climate variability, and hour-by-hour regional electricity demand and dispatch from other energy generating sources."[35]

With data in the Project's Preapplication Document (PAD) and Draft License Application (DLA) mostly provided by Rye as sourced from various agencies and utilities, AR felt it necessary to have a third-party evaluate whether or not a project of this scope is economically viable and worth the various inherent impacts. Due to a combination of rising construction costs, decreasing open-market energy prices, and as a way to ground-truth the forecast of Project generation value, we believe that this independent report provides the necessary outside analysis of whether or not the Project can provide renewable energy integration and replacement capacity to support regional decarbonization goals affordably and reliably.

Anthony Jones of Rocky Mountain Econometrics (RME) developed a model of the market forces and financial viability of the Project based on the data provided in the Project's PAD and DLA. The final critique is attached as Appendix A and contains the following findings that remain a concern today:

1. While Rye's description of Project operations are preliminary in nature and not overly detailed in the PAD, the parameters of pumped storage project operations are well understood, the Project's construction costs are sufficiently well defined, and the wholesale energy environment in which it will operate are clear. As a result, RME concluded that the Project is very unlikely to operate profitably given the state of current and future West Coast and Northwest energy pricing.
2. While the Project may be technically able to serve in the stated capacity for a portion of each day, it will not be able to serve in that capacity for a large portion of each day when its upper reservoir has been partially or wholly used for power production and needs to be refilled.
3. Traditionally, pumped storage facilities are built in conjunction with other specific energy generation projects to extend the generating plant's efficiency range. The Project would be a free-standing, independent operation buying and selling power on the Western transmission grid, from and to the West Coast wholesale energy markets. Based on the overall costs and power generating capabilities, the project would be a price taker (having no control over the prices of energy sold) in most cases rather than a price setter (having the ability to influence energy market prices).

A robust cost benefit analysis, including an analysis of daily fluctuations in Mid-Columbia (Mid-C) energy rates, should be included in Ecology's Final EIS to determine the economic viability of the Project and its potential economic impacts. A well-grounded understanding of the Project's viability and its possible contributions to Washington state's decarbonization objectives will determine the Project's necessity and can prevent potentially profound economic consequences in our region. This Project will

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[34] Ecology (June 6, 2022), Draft EIS. p. 93
[35] Ecology (June 6, 2022), Draft EIS. p. 94

be precedent setting in the region, and the feasibility and long-term viability of the Project must be well understood before it has the opportunity to adversely impact numerous natural and cultural resources.

Additionally, the energy generating capacity of the Project remains unclear. According to information in Rye's FLA, "The Project is designed to generate for 12 hours a day of full power generation, at a maximum of 1,200 MW and a minimum of 100 MW, and pump water from the lower reservoir to the upper reservoir in about 15 hours" (FLA, Exhibit B, p. 6). In order for the Project to produce its anticipated installed capacity (1,200 MW), it would need to generate power (run all water from the upper reservoir to the lower) for 12 hours. In a 24-hour period, this would allow for only 12 hours of time in which all water could be pumped back into the upper reservoir. With the given timeframe and with Rye's apparent impression of consistent Mid-C power prices, it is unclear how the Project would feasibly generate 1,200MW in a 12-hour period. In April 2021, FERC asked Rye to clarify this issue through supplemental information. Rye responded: "HDR estimates that the Project will be capable of delivering 14,745 MWh in a typical 24-hour generation-pumping operating cycle with 12 hours of generation and then 12 hours of pumping to be ready for the next cycle of operation."[36] This is contradictory to Exhibit B of the FLA which, again, indicates that the water will be pumped from the lower to upper reservoirs over a period of 15 hours. This contradictory information leaves room for concern that Project operations and energy generation are not fully understood by the applicant and could potentially be unviable. A comprehensive understanding of the operations and economic feasibility of the Project is imperative. We request this information be investigated and analyzed as part of the Final EIS.

Conclusion

Given the question of Project viability, in addition to the serious concerns related to impacts to natural and cultural resources, AR maintains that additional alternatives which meet the stated goal of the Project should be evaluated in Ecology's Final EIS. At present, the Draft EIS does not provide an adequate range of alternatives. Ecology provides the following rationale for dismissing the evaluation of other decarbonized energy storage technologies: "Other renewable/decarbonized energy storage technologies were suggested in scoping comments, such as the following: stacked blocks, liquid air, underground compressed air, flow battery storage, and solar and lithium-ion battery storage. None of these alternative energies meet the criteria to attain the proposal's objectives."[37] AR disagrees with this rationale, and requests that Ecology analyze decarbonized energy storage technologies as many do meet the Projects' objectives of producing and storing energy, as well as Ecology's criteria of reusing an existing industrial site, using an existing water right and water intake, and is in proximity to complementary energy projects and infrastructure.

Project alternatives should, at minimum, include analysis of industrial-scale battery installation(s) to meet the needs for grid regulation and to meet peak load in the area that would be served by the proposed project. Technologies such as industrial-scale batteries and stacked blocks could reasonably store energy produced by complementary facilities (hydropower from the adjacent John Day Dam, solar and wind energy from adjacent wind and solar farms, etc.) and utilize both the

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[36] FERC (July 1, 2021), Response to the Commission's Request for Additional Information. P. 2. In FERC Docket No. 14861

[37] Ecology (June 6, 2022), Draft EIS. p. 18

existing CGA smelter site and KPUD's water right for operational purposes. These technologies would not require the construction of underground conveyance tunnels or reservoirs, therefore drastically decreasing the cost to natural and cultural resources. Such alternatives may also prove more efficient or cost effective than the proposed Project while achieving the Project purpose. In summary, if the Project is intended to serve as a "battery" as the developer touts, then analyses of additional industrial-scale storage technologies (including actual batteries) are undoubtedly warranted.

American Rivers still has considerable concerns about the proposed Goldendale Pumped Storage Project, and our opposition to the Project based on its impacts to tribal cultural resources has been affirmed by this Draft EIS. Washington state's unparalleled Tribal, cultural, and natural resources are essential to this landscape and its communities. Given the severity of the unavoidable adverse effects of Project construction and operation on irreplaceable Tribal cultural resources and archeological sites; its infringement upon Tribal peoples' access to food and medicine in the area; potential adverse impacts to water quality, water supply, and wildlife; and its questionable viability, AR remains gravely concerned about this Project. AR requests that Ecology consult with affected Tribal Nations, other state agencies, and the applicant to gather all necessary and outstanding data, which has been mentioned throughout our comments, for inclusion in the Final EIS.

AR appreciates the opportunity to provide comments, and we thank Ecology for its review and consideration of our comments.

Respectfully submitted,

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American Rivers
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Appendix A

CRITIQUE OF THE
Goldendale Energy Storage
Hydroelectric Project
(FERC No. 14861)
NOTIFICATION OF INTENT