Comment 20210331-6MBRri

Info Meeting comment #IM0001
Horse Heaven Wind Farm
Docket #210011

First Name: Michael

Last Name: Novakovich

Organization: Visit Tri-Cities

Address: 7130 W. Grandridge Blvd., Suite B

City: Kennewick

State: WA

Zip: 99336

Email: Michael@VisitTri-Cities.com

Subscribed: true

Attachment Count: 1

Tags:

Responses:

Attachments

21 Visit Tri-Cities Opposition Horse Heaven Hills Wind Farm EFSEC.pdf 178.25KB

Comment:

Please see the attached document submitted on behalf of Visit Tri-Cities.

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March 29, 2021

Ms. Kathleen Drew
Energy Facility Site Evaluation Council
Horse Heaven Wind Farm
621 Woodland Square Loop SE
P.O. Box 43172
Olympia, WA 98504-3172

RE: Horse Heaven Wind Project

Dear Ms. Drew:

The Visit Tri-Cities Board of Directors is in opposition to the proposed Horse Heaven Wind Farm project in Benton County. Our concern is this installation will have significant adverse impacts on our tourism economy, which has been devastated by the pandemic. We respectfully ask that you reject Scout Clean Energy's EFSEC application.

COVID-19 has had devastating impacts to the Tri-Cities tourism economy as witnessed by the 55% decline in lodging tax revenues we experienced in 2020, loss of businesses and loss of permanent jobs in the tourism and hospitality sector. As Washingtonians have been diligent in working to mitigate this public health crisis and its associated financial and emotional impacts, it is expected to take several years for our tourism economy to return to 2019 performance. On behalf of our stakeholders and our community, we have committed considerable energy and resources to foster economic recovery. This includes working with the Governor's office, local agencies and our community to ensure public health and to safely bring back our tourism economy, which enhances quality of life for all Tri-Citians.

Pre-pandemic, tourism provided half-a-billion dollars in economic impact to the Tri-Cities and supported over 5,600 permanent jobs in our community. The pandemic has crippled our industry; we have had a number of tourism and hospitality businesses close, a significant loss of jobs, and hotels have experienced record low occupancy rates, with some properties being shuttered.

A competitive advantage of our region is our wine industry. Visitors to the Tri-Cities are literally in the Heart of Washington Wine Country; the vast majority of our State's wine grapes are grown here. Our Red Mountain American Viticulture Area is home to rolling vineyards and estate wineries with incredible views of the Horse Heaven Hills. The beauty of our region and its rugged desert hills are a significant tourism draw. This encapsulates our brand promise of outdoor recreation and wide-open spaces. From wine lovers, to bird watchers to visitors whose interest lies in the exploration and understanding of the Great Missoula Floods, the Horse Heaven Hills provide a wealth of leisure opportunities, which drive significant quality-of-life impacts.

The proposed Horse Heaven Wind Farm is expected to have adverse impacts on our tourism economy for years to come. The towering wind turbines would rob our region of its scenic beauty, have detrimental impact on wildlife, while creating a perception of a windy destination translating into a loss of visitation. Relatedly, a downturn in our tourism economy translates to loss of permanent jobs, businesses and the quality-of-life impacts our activities fund.

Again, we respectfully ask that you reject Scout Clean Energy's EFSEC application for the Horse Heaven Wind Farm.

Sincerely,

Rob Roxburgh
Chair, Visit Tri-Cities Board of Directors

Michael Novakovich
President & CEO, Visit Tri-Cities

Comment 20210331-aAUURn

Informational Meeting Public Comment #LU0002
Horse Heaven Wind Farm
Docket #210011

First Name: Michelle

Last Name: Froh

Organization:

Address: 1017 East Eastlake Dr

City: kennewick

State: WA

Zip: 99337

Email: michelle.froh@yahoo.com

Subscribed: false

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

I am opposed to the installation of the Horse Heaven Hills windfarm. As you know, wind energy is far less efficient as the other green energy options, such as nuclear. Washington state already produces far fewer carbon emissions than other states, so adding these windmills will not improve our emissions. It is not a reliable source of energy and won't improve the risk of black outs, even in those states slated to use the energy produced. I feel this project is simply "environmental virtue signaling" by those in state government, and big money for a private company not even located in Washington state. Any jobs created will be temporary. Most importantly, they will permanently destroy our ridge lines and landscape, decrease property values for those on the "black line", harm our tourism industry, and harm the unique flora and fauna of our region. This is a "no win" for Tricities.

Informational Meeting Public Comment #LU0003
Horse Heaven Wind Farm
Docket #210011

Comment 20210331-chQp9E

First Name:

Last Name:

Organization: City of Richland

Address: 625 Swift Blvd, MS-4

City: Richland

State: WA

Zip:

Email: hthroop@ci.richland.wa.us

Subscribed: false

Attachment Count: 1

Tags:

Responses:

Attachments

Horse Heaven Wind Project - COR Letter of Opposition.pdf 577.67KB

Comment:

Please see attached letter.

CITY OF RICHLAND
RICHLAND CITY COUNCIL
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March 26, 2021

Energy Facility Site Evaluation Council
621 Woodland Square Loop, P.O. Box 43172
Olympia, WA 98504-3172

RE: Scout Clean Energy's Horse Heaven Wind Project

Energy Facility Site Evaluation Council:

I am writing today to voice my opposition to Scout Clean Energy's Horse Heaven Wind Project, which is proposed to be located in unincorporated Benton County and directly adjacent to the City of Richland. As Mayor of the City of Richland, I am well aware of how it will affect the greater Richland area and its surrounding communities, and ask that EFSEC deny Scout Clean Energy's request for an expedited review of this application for the reasons outlined below.

The City of Richland is home to 60,000 residents, many of whom work for agricultural and technical employers in Benton County. The City has wonderful parks that citizens have shown consistent and strong support for. To be clear: parks and outdoor recreation are very important to our residents and to many others in Benton County.

The City collaborates with Benton County for recreational areas similar to Horse Heaven Hills for the enjoyment of local residents. One area includes Badger Mountain Natural Preserve, which is accessed from several City trailhead parks. Badger Mountain Natural Preserve, like Horse Heaven Hills, is a favorite recreational hike for many citizens in and around Richland. Wind mills would negatively impact the natural area enjoyed by City and County residents.

Additionally, an expedited review should not be approved during an emergency declaration from the Governor, the nature of which prevents complete participation of public, regulatory, and site certification processes. The Horse Heaven Wind Project satisfies several of the criteria indicating that a full review should be conducted (as defined in WAC 463-60-117): environmental impact, area affected, magnitude of project, and the degree to which the project represents a change of use of the proposed site. No previous application for a project this complexity – combining wind, solar, and battery storage – has ever been considered by EFSEC. This alone is a sufficient basis upon which an expedited review should be denied. However, the following should also be taken into consideration when deciding whether or not an expedited review should be permitted:

- The full environmental impacts are not fully documented, addressed, or known by the applicant. Some negative impacts to the bat population are addressed, but minimally. What other environmental impacts from this project are not known and will not be considered due to the truncated nature of an expedited review?

- On pages 1-66 of the application, the applicant identifies over 6,869 acres of area that will be either temporarily or permanently impacted. This along with the complexity of the proposed project exceed the magnitude that is appropriate for expedited review.
- A wind farm would be a radical departure from the current use of the proposed site, which land that is currently a combination of agricultural, recreational, and Department of Natural Resource open space.

To further elaborate, the Horse Heaven Wind Project is neither needed nor beneficial for our community. This may sound counterintuitive considering events in other states, such as rolling blackouts in California during August 2020 followed by the rolling blackouts and multi-day power outages in Texas in February 2021. However, wind and solar projects are intermittent energy resources that do not provide any firm energy capacity. City of Richland customers expect reliable energy resources and the City concurs with the technical aspects of Benton PUD's wind policy perspective. The Horse Heaven Wind Project will not be a reliable source of energy generation.

The City of Richland is a municipal electric utility and a load-following customer of Bonneville Power Administration (BPA). The City proudly provides its customers with low-cost electricity, using a fuel mix composition where the percentage from clean, carbon-free resources exceeds 92%. The City is already well positioned to meet the Clean Energy Transformation Act (CETA) requirements codified in Chapter 19.405 RCW. While the City has to meet the renewable energy, requirements set forth in Chapter 19.285 RCW, the City is already covered with renewable resources through 2026. Even after 2026, any renewable resource would need to be shaped into a flat block energy resource. Currently, shaping and ancillary services for renewables add approximately $20/MWh compared to BPA wholesale energy resources, which presently cost a total of $40/MWh. Unshaped energy resources from the Horse Heaven Wind Project would not be economical for the City's electrical rate payers.

In summary, I appreciate the opportunity to share my concerns with you regarding the Horse Heaven Wind Project. This project will negatively impact natural areas, will not meet the City's firm energy needs, and it will not be an economical resource as an unshaped product. With respect to technical and business considerations, as well as our natural resources, please consider this letter as our formal opposition to the Horse Heaven Wind Project.

Sincerely,

Ryan Lukson
Mayor

Cc:
Richland City Council
Jon Amundson, Interim City Manager
Clint Whitney, Energy Services Director

Enclosure:
Benton PUD's Wind Power and Clean Energy Policy Perspectives

Wind Power and Clean Energy Policy Perspectives

Rick Dunn, General Manager

Commissioners:
Barry Bush
Jeff Hall
Lori Sanders

July 14, 2020

Executive Summary

Clean energy technology and public-policy development continue to be in the news and at the forefront of much political debate and discussion. While wind power has emerged as a popular choice for helping meet greenhouse gas emission reduction goals, reasonable questions continue to be raised regarding its ability to cost-effectively contribute to the powering of modern civilization and how the lifecycle environmental and ecological impacts compare to other types of technologies.

With Washington State's passage of the Clean Energy Transformation Act (CETA) in 2019 and the current schedule for expiration of renewable energy federal tax credits, there is a resurgence in proposed wind power development activity in the Pacific Northwest (PNW), including projects proposed for eastern Washington and Benton County specifically.

As developers and many elected officials tout the economic and environmental benefits of wind farms, Benton PUD believes it is important for our customers and the general public to hear utility perspectives. Unlike the narrower focus of some wind power interests, utilities must balance environmental benefits and concerns with costs and power grid reliability; and we will be held accountable if we fail on any of these dimensions.

While Benton PUD acknowledges wind power development in the PNW will likely continue as Washington State utilities respond to the 2025 CETA deadline for eliminating coal-fired energy and in response to nearby state and corporate clean energy mandates and goals, we do not support further development of wind power in the PNW for the following primary reasons:

1) Benton PUD's current power supply is hydro and nuclear based and is over 93% "non-emitting" by Washington State standards. While we are ahead of the clean energy curve, we do experience supply deficits during hot summer months and deeply cold winter periods. To cover these deficits, we make power market purchases from generation resources that can be counted on to run on the days and hours needed (dispatchable). Since wind power relies on natural weather conditions decoupled from electricity demand, it is not dispatchable generation and therefore will not help us resolve our seasonal energy deficit problems.

2) The PNW's hydroelectric generation resources are the foundation of a reliable and clean energy supply that has historically resulted in Washington State contributing no more than 0.5% to the nation's annual total greenhouse gas (GHG) emissions from electricity production; even with soon to be retired coal-fired power plants in the mix. Further development of wind power in the PNW will not result in consequential reductions in national or global GHG emissions attributable to Washington State utilities and will do very little to mitigate the increasing risk of northwest power grid blackouts; which could grow to a 26% probability by 2026 if utilities are unable to replace the reliable generating capacity of shuttered coal plants.

3) The low availability of wind power requires utilities to continue paying for dispatchable generation capacity that may run infrequently but is still sized to meet most of the peak energy demand on the grid. This "double paying" is why electricity rates in countries and states with high wind penetrations are rising despite the declining costs of this popular renewable energy source. Benton PUD believes further wind power development will unnecessarily contribute to increases in northwest utility retail electricity rates which could erode the economic development advantage low rates has given our region for many years.

4) Energy production from wind farms in the PNW is often high during periods of maximum hydro generation contributing to energy gluts that can drive short-term market prices to zero or even to negative values due to federal tax credits received by wind power. To minimize the net cost of hydro generation the region needs for year-round flexible and reliable electricity, the value of surplus hydro energy sales needs to be maximized. Building more wind farms in the PNW will contribute to untimely energy supply gluts and low short-term market prices which reduces surplus hydro energy sales revenues, increases net hydro power costs and puts upward pressure on retail rates Benton PUD and other utilities charge our customers.

5) Benton PUD believes the best long-term, sustainable and environmentally responsible strategy toward meeting the CETA goal of 100% clean electricity in Washington State by 2045 could be to transition coal power to natural gas and then natural gas to nuclear. It is estimated wind power requires 30 to 45 times as much land and about 10 times as much concrete and steel to produce the equivalent power of nuclear. In addition, a recent study estimates that assuming hydro and nuclear power in the PNW stay in place, meeting a theoretical 100% clean electricity goal in our region using wind (and solar) power would require a land area 20 to 100 times the area of Seattle and Portland combined.

6) Benton PUD supports Energy Northwest (EN) in their efforts to develop small modular reactor (SMR) technology. However, we are concerned continued large-scale investments in PNW wind power projects will contribute to increases in the normally surplus annual energy supplies in the region thereby eroding the hourly energy supply opportunities needed by SMRs to achieve economic feasibility. Maintaining the existing Columbia Generating Station operations while expanding SMR technology development and possible manufacturing in the Tri-Cities represent opportunities for economic stability and growth in an area with a long history of grid-scale energy production and world class scientific research capabilities.

As some legislators and certain advocacy groups continue to call for more wind power while simultaneously calling for removal of hydro-electric dams, Benton PUD believes it is important

for our customers and citizens of Washington State to hear the utility side of the energy story. To this end, we are committed to facilitating education and outreach efforts based on the premise that all energy choices represent economic and environmental tradeoffs and that consideration of utility business models and the physics of the power grid matter when taking a position to promote one form of power generation technology over another.

Existing wind farm development in Washington State and along the northern Oregon border has already resulted in the industrialization of previously scenic hillsides, canyons and desert vistas in the region in and around Benton County. Before Benton PUD customers and citizens throughout our region accept further sacrifice of the natural beauty and open spaces that are part of our way of life, we want them to know there are other options we should be asking our legislators and utility industry leaders to urgently and seriously consider. This is the reason for this report and for our formal declaration that Benton PUD does not support further development of wind power in the PNW.

Existing Power Resources and Loads

Despite clean energy policies and trends favoring wind and solar power, continued development of wind farms in the northwest is not expected to be necessary or beneficial to serving the interests of Benton PUD customers for at least the next decade or more. This is primarily due to our hydro and nuclear rich wholesale power supply contract with the Bonneville Power Administration (BPA) which entitles Benton PUD to annual energy amounts that are normally greater than what is consumed by our customers. In addition, our BPA contract in combination with other energy purchases and contracts results in a power supply that is already over 93% "non-emitting" and clean by Washington State standards.

With this said, it is important to recognize Benton PUD does face significant power supply challenges under the terms and conditions of our current BPA contract. These challenges are rooted in the timing of BPA energy delivery which does not always align with our customer demand for electricity. Benton PUD is a "summer peaking" utility with our highest customer demand being driven by irrigated-agriculture pumping operations combined with high residential and business air conditioning; see FIGURE 1.

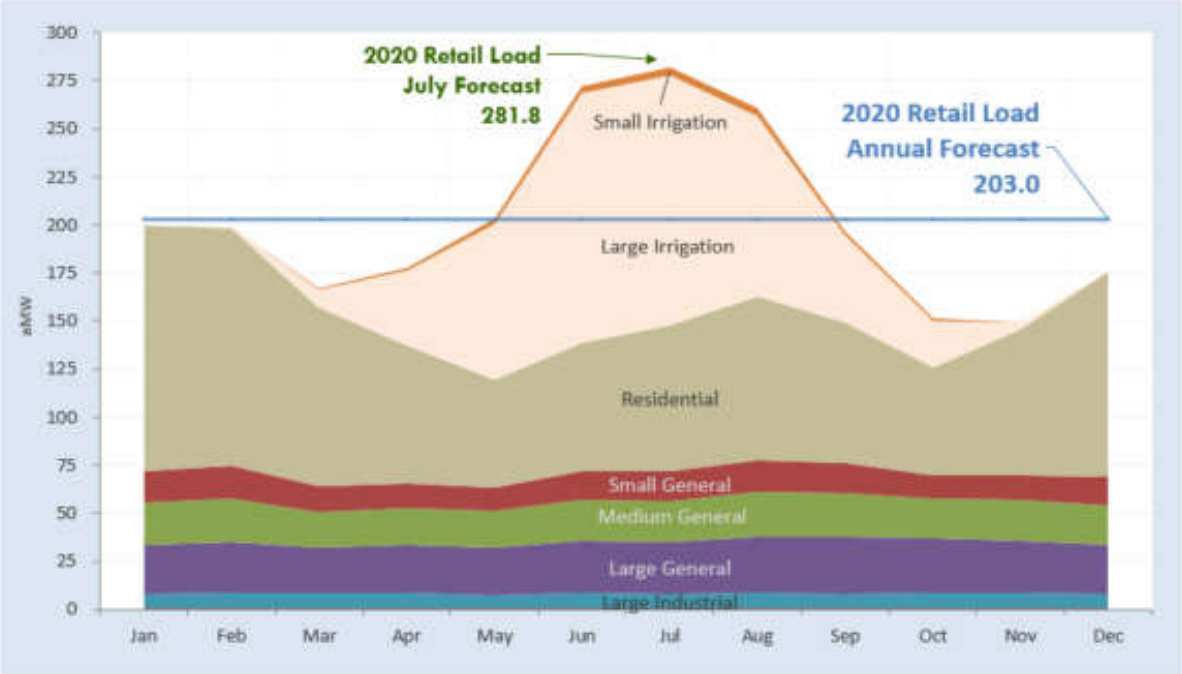

FIGURE 1

As a "Slice" customer of BPA, Benton PUD has rights to a fixed percentage of the electricity generated by BPA resources for any given hour of the year which can be highly variable. As BPA resources are predominantly hydro-electric, the variability is driven by the timing and quantity

of runoff from snowpack as well as short term precipitation events which must be managed to serve interests that compete with power generation; including fish and wildlife, flood control, river navigation and recreation.

To gain further perspective, it is instructive to know that Benton PUD's annual allocation of BPA wholesale energy in typical water years delivers about 225 average megawatts (aMW) which is more than our total annual customer retail energy consumption forecast beyond the year 2030. On average, our BPA supply is currently 11 aMW more than our customers consume on an annual basis. However, while Benton PUD currently has a "long" annual energy supply position, we do experience regular seasonal energy supply deficits in the summer and on occasion can come up short during deep cold periods in the winter. These seasonal energy supply shortfalls, referred to as capacity deficits, are a function of Benton PUD's dependence on the availability of "fuel" (river flows) for BPA's hydro resources which can vary significantly from year-to-year and month-to-month; see FIGURE 2.

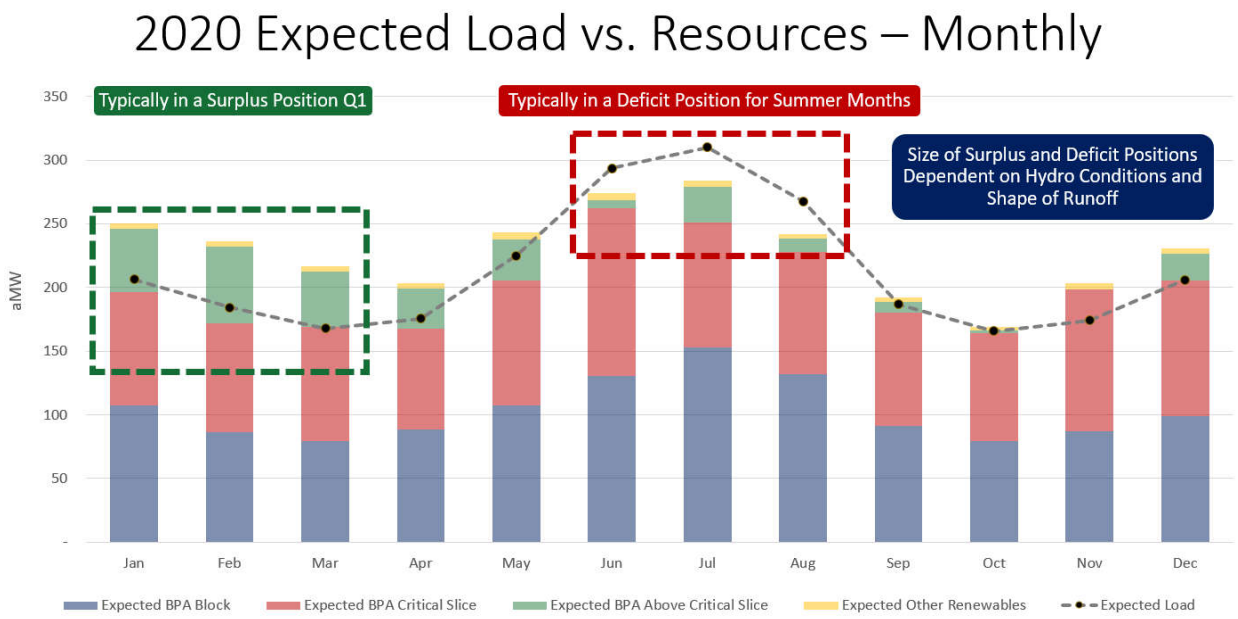

FIGURE 2

Under Benton PUD's Slice contract with BPA, they are required to guarantee delivery of firm monthly energy represented by the combined total of a "Block" and "Critical Slice" amount. The "Above Critical Slice" is the amount of energy BPA is forecasting will be available to Benton PUD but not guaranteed. Slice customers can re-sell surplus energy received from BPA when supply exceeds what is required to serve customer loads but in return must accept and independently manage the risk that loads may be higher than the available BPA supply.

Any forecasted capacity deficits require Benton PUD to make purchases from wholesale electricity markets in order to augment our long-term power supply contracts. Consequently, we have people, processes and contracts in place to be sure our customer electricity demand is completely supplied on an hourly and around the clock basis. Benton PUD's wholesale electricity purchases are typically made in short-term monthly, weekly, day-ahead and hourly markets from generation resources that can be counted on to run on the days and hours needed (dispatchable). These dispatchable generation resources provide needed capacity to cover energy supply deficits that occur on the hottest and coldest days of the year.

Since wind power relies on natural weather conditions decoupled from electricity demand, it is not a dispatchable generation resource and therefore development of more wind power will not help Benton PUD resolve our seasonal capacity deficit problems; particularly our most acute deficits which occur in summer months with very low levels of wind. We are also concerned that preferences for wind power risk under investment in dependable and dispatchable natural-gas generation plants most utilities believe will be essential for replacing the capacity of coal-fired plants being rapidly retired and shut down in the Pacific Northwest and throughout the western United States.

While wind energy developed on a large scale can be a substitute for much of the annual energy produced by fossil-fueled power plants, it cannot provide the equivalent capacity required for balancing electricity supply and demand on an around the clock basis, and under a wide variety of weather conditions. Because the northwest is so dependent on the availability of water for hydro-electric generation, the coldest and hottest days of a year in which water resources are at a critically low level are of particular concern for electric utilities and is why other reliable and dispatchable generation must be standing by and ready to run on demand. When power grid supply does not meet demand on a moment-by-moment basis, blackouts can occur. Benton PUD is concerned that a deepening dependence on wind power as a replacement for energy produced by coal plants in the northwest could have serious consequences in the not-too-distant future if grid operators are faced with the simultaneous occurrence of drought conditions (low hydro power production), extreme temperatures, low wind and not enough dispatchable electricity generators to meet peak customer demands.

To gain further perspective, it is also instructive to consider Benton PUD's 11 aMW "long" BPA annual energy position in the context of customer growth which is currently forecasted to result in an increase of about 0.4 aMW of energy consumption per year. This relatively low growth rate is driven by our continued investments in effective conservation measures as well as improvements in the energy efficiency of new homes and businesses. In the simplest analysis, Benton PUD's expected annual supply of BPA power represents over 27 years of

customer growth which means we are not currently looking to add substantial amounts of "baseload" annual energy to our power supply portfolio from wind power or other resources.

With this said, new large loads associated with electricity intensive businesses or industry locating in Benton PUD's service territory are a wild card that could require acquisition of new generation resources. Another resource acquisition driver could be preferences for wind and solar power which are often used to brand businesses as sustainable. In either case, given the requirements of Washington State's Clean Energy Transformation Act (CETA) and other clean energy policies and preferences in adjacent states and regions, wind and solar power may be the only significant energy resources available to meet a future Benton PUD need. While not ideal, we would choose solar power over wind given that solar energy production curves are better aligned with our summer peaking load profile and would contribute to reducing our regular summer capacity deficits on most days.

Existing Wind Power Resources

Currently, Benton PUD's power supply portfolio includes wind energy through direct contracts from the Nine Canyon (9 MW) and White Creek (9.1 MW) projects delivering about 5.7 aMW of total energy on an annual basis. These contracts were initiated by Benton PUD in response to the qualifying renewable energy requirements of Washington State's Energy Independence Act (EIA) which initially did not include energy from existing hydro generation.

In addition to direct wind power purchases, Benton PUD's contract with BPA includes an allocation of about 1.4 aMW of their wind portfolio's annual energy production. All the wind resources in Benton PUD's portfolio along with BPA's hydro generation resulting from incremental improvements to turbine-generator efficiency (incremental hydro) are considered EIA qualifying renewable energy. This means energy from these resources provide a renewable energy credit (REC) for every megawatt-hour of electricity generated.

REC allocations and purchases are how Benton PUD meets the renewable portfolio standard (RPS) currently required by EIA mandates. In 2020 Benton PUD will need a total of about 30 aMW of REC allocations and purchases each year to meet the current 15% RPS requirement. We plan to meet our compliance requirement with 7.1 aMW of total wind power RECs from Nine Canyon, White Creek and BPA; 2.6 aMW of BPA incremental hydro REC allocations; and 20.4 aMW of REC purchases from other entities, including wind farms.

It is important to emphasize that a REC is a certificate corresponding to the environmental attributes of energy produced from qualifying renewable resources and does not necessarily

represent purchases of physical electricity. While Benton PUD has contractual rights to the electricity produced by the Nine Canyon and White Creek projects, it is usually surplus to our annual customer energy requirements except under a worst-case low hydro generation scenario.

With that said, Benton PUD's share of Nine Canyon's physical electricity is always scheduled to supply our load with the net effect during low customer load periods of increasing our BPA hydro surplus which we sell in regional wholesale electricity markets. Due to power scheduling complexities, Benton PUD's share of the White Creek project's physical electricity is bundled with other utility shares and sold to another counterparty at a price currently well below the relevant market power index. This below index pricing is an indicator of the reduced value of wind energy compared to other more dependable generation resources.

Revenues from the sales of physical electricity attributed to Nine Canyon and White Creek are considered as offsets to the total annual cost of Benton PUD's EIA renewable-energy compliance which is budgeted to be $3.8 million in 2020. We expect to continue to rely on REC purchases as the primary means for meeting EIA mandates with some relief possible in 2030, depending on CETA rules which are currently under development.

Benton PUD considers the incremental cost and dependence we have on continued operation and development of wind and solar power for REC purchases as a perverse outcome of EIA mandates given our extraordinarily clean power supply and surplus annual hydro and nuclear-based energy position.

Surplus Energy and Market Sales

With respect to Benton PUD's net annual surplus of energy, it is important to understand the timing of when most surplus hydro generation occurs. For Benton PUD, the best combination of market price and volume of surpluses occurs in January through March with the highest volume and lowest prices occurring in April and May. When our hydro supply exceeds customer demand, our BPA contract allows us to sell the surplus energy into wholesale electricity markets. The revenues generated by our sales have the effect of buying down our annual wholesale power costs.

Energy production from wind farms in the northwest can also be high during periods of maximum hydro generation contributing to energy gluts that can drive market prices to zero or even to negative values due to federal tax credits received by wind power. The wholesale electricity market distortions created by wind power tax credits combined with the availability

of abundant and low-priced natural gas has driven market prices to very low levels in recent years. Consequently, the value of Benton PUD surplus hydro energy sales has been significantly reduced from over $50 million in 2008 to under $20 million today.

While there are efforts underway centered on possible expansion of the Western Energy Imbalance Market (EIM) to an extended day ahead market (EDAM) that could increase the economic value of BPA hydro flexibility and capacity, Benton PUD believes further development of wind power in existing "energy only" wholesale markets will continue to contribute to the devaluation of hydro. To be clear, Benton PUD believes abundant and low-cost natural gas has been the major driver of wholesale electricity price reductions but building more wind farms will contribute to downward pressure on prices.

Overall, the erosion of the market value of hydro energy has resulted in upward pressure on the prices BPA charges Benton PUD and consequently on the retail rates we charge our customers. Since 2007, BPA's revenues derived from market sales have dropped from over $400 million to under $200 million in some years which leaves them looking to their ratepayers to make up the difference. Benton PUD's net power supply costs are budgeted to be $84 million in 2020 which is up 40% since 2010 when actual costs were $60 million.

Oversupply and Curtailments

Additional concerns regarding the development of more wind power are oversupply and curtailments which are well described in a report developed by Harvard University for the Bonneville Power Administration in May 2018.[1]

> *…As more intermittent renewable energy is added to the grid it creates oversupply, particularly during low demand hours, when generation exceeds load. Oversupply causes low or negative prices for wholesale energy during periods of overgeneration. When scheduled generation exceeds scheduled demand in the hour-ahead market, the price of energy falls below zero in an attempt to balance supply and demand. After accounting for changes in generation and load between the hour-ahead and real-time markets, if generation still exceeds load and there are no more generators willing to receive payments to reduce their output, then balancing authorities must order generators to curtail output to maintain system frequency. Negative bids often represent the lost opportunities for the generator to take advantage of tax credits for renewable energy production.*

[1] Patricia Florescu and Jack Pead, "*Realizing the Value of Bonneville Power Administration's Flexible Hydroelectric Assets*", 12, 13, 14, Mossavar-Rahmani Center for Business & Government, Harvard University, May 2018.

> *…Due to the Pacific Northwest's reliance on hydroelectricity, oversupply becomes more problematic in the springtime when both river flows and wind generation are high. Under those circumstances, extra water can be spilled from the dams so that it does not contribute to oversupply, but too much spill exceeds water quality standards and can harm fish and other aquatic species. If water cannot be spilled, it must be passed through the hydropower turbines, thus generating electricity.*
>
> *For conditions like these, BPA implemented the Oversupply Management Protocol, under which non-hydrogeneration is displaced to protect aquatic life and maintain system reliability. Displacement decisions are made according to a least-cost displacement cost curve that lists generation in order of cost, from the least cost facility to the highest-cost facility, until the required displacement quantity is achieved.[53] After a federal court case concluded in 2011, BPA enacted a new protocol that compensated wind generators for lost revenues from curtailment and assigned the costs of curtailing generation during oversupply events to BPA transmission customers.[54]*

While Oversupply Management Protocol costs have not been extremely high[2] relative to other costs incurred by Benton PUD through our BPA transmission contract, we are concerned more wind power on the grid will contribute to increases in BPA costs and will add more complexity to the already difficult balancing act of managing river flows to meet the competing interests of power generation, environmental stewardship, barging operations, flood control and recreation.

Pacific Northwest Resource Adequacy Challenges

The Pacific Northwest's clean hydroelectric generation resources are unmatched anywhere in the United States and are the primary reason Washington State contributed on average no more than 0.5% to the nation's annual total greenhouse gas emissions from electricity production each year between 1980 and 2017[3]; even with coal plants in the mix.

While our already clean electricity sector is the envy of the nation, policy makers in Washington State have set the course for 100% clean by 2045 through passage of the Clean Energy Transformation Act (CETA). While a long-term goal like this is clearly aspirational at this point,

[2] BPA's displacement costs of OMP were around $4.87 million in 2018 and $2.2 million in 2017 https://www.bpa.gov/Projects/Initiatives/Oversupply/Pages/Annual-Oversupply-Review.aspx.
[3] U.S. Energy Information Administration, "*State Carbon Dioxide Emissions Data*" https://www.eia.gov/environment/emissions/state/.

the near-term consequences of CETA's underlying requirements are significant and very concerning when it comes to maintaining power grid reliability. The most consequential requirements are the explicit removal of coal power from utility portfolios by 2025 and the "social cost of carbon" which must be used as a cost adder when utilities evaluate investments in new generation resources. As intended by legislators, this cost adder will have a chilling effect on investments to construct new natural-gas power plants which utilities would normally consider to be the logical replacement for dispatchable capacity associated with retiring coal plants.

Unfortunately, CETA along with other anti-fossil-fuel sentiment in Oregon and California energy policies has put northwest utilities in a position where it appears only wind and solar power along with batteries, pumped hydro and customer load curtailments (demand response) will be allowed to try and solve utility capacity deficits. The problem is that science, economics and project development cycle times indicate the politically preferred technologies are not ready to provide solutions at the scale needed to mitigate the already unacceptable increase in the risk of blackouts projected for the Pacific Northwest beginning in 2021[4]. In their most recent assessment, the Northwest Power and Conservation Council (NWPCC) estimates that accelerated coal-plant retirements could increase the likelihood that generating capacity will not be adequate for meeting demand to a level of 26% by 2026. This is well above the 5% threshold established as the limit for an adequate regional power supply.

Benton PUD is a relatively small player in the northwest grid, but our seasonal capacity deficits are significant. This is why we joined forces with other members of the Public Generating Pool (PGP) and several investor owned utilities to co-fund a study by E3 Consulting[5] of what will be required to maintain power grid reliability in the Pacific Northwest while further de-carbonizing the electricity sector. This study found that deep de-carbonization is possible but that natural gas fired generation will be needed to maintain power grid reliability; it would just run infrequently.

While development of wind farms may be politically fashionable and appeal to many in the general public as a harmonization of nature with electricity production, the science and economics indicate powering modern civilization with intermittent generation resources like wind and solar power comes at a high financial and environmental cost. E3's study concludes that increasing the Pacific Northwest's inventory of wind power from the 2018 level of 7

[4] Northwest Power and Conservation Council, "*Pacific Northwest Power Supply Adequacy Assessment for 2024*": October 2019.
[5] Energy+Environmental Economics, "*Resource Adequacy in the Pacific Northwest"*: Public Generating Pool, March 2019.

gigawatts to a level of 38 gigawatts by 2050[6] would only result in an effective capacity contribution from wind of 19%. In other words, a more than fivefold investment in wind power which E3 estimates would cover an area as much as 37 times the combined areas of Seattle and Portland, would only allow regional utilities to count on 19% of the capital investment to produce electricity when it is most critically needed. The E3 study also estimates the area required to achieve a theoretical 100% clean electricity sector in the northwest using only wind and solar power (assuming existing hydro and nuclear stay in place) would require a land area as much 100 times the combined areas of Seattle and Portland.

On November 12, 2019 Benton PUD Commissioners adopted Resolution 2523 in support of actions to ensure electric sector resource adequacy in the Pacific Northwest. This resolution provides a sound argument for why northwest utilities have serious concerns regarding the reliability of the northwest power grid and why Benton PUD questions the wisdom of continued development of large numbers of wind farms in our region when we are facing potentially serious consequences associated with power grid blackouts.

Other Considerations

The "fuel" for wind power is dilute and intermittent requiring additional investments in backup generation technologies to meet the always-on requirements of power grids. While developers and advocates often tout continued reductions in the cost of wind energy, the low availability of wind power requires utilities to continue paying for dispatchable generation capacity that may run infrequently but is sized to meet most of the peak energy demand on the grid. This "double paying" is why electricity rates in countries and states with high wind penetrations have risen significantly amid claims of low-cost renewable energy.

CETA together with the Energy Independence Act (EIA) appears to have established an undefined increase in Washington State's renewable portfolio standard (RPS) which will undoubtedly lead to some level of double paying in Washington State. Establishing preferences for wind and solar energy with no accompanying targets for greenhouse gas (GHG) emission reductions in the electricity sector has been shown through comprehensive study to result in unnecessary increases in the cost of electricity while not reducing GHG emissions in the most cost-effective manner possible[7].

[6] 38 gigawatts of nameplate wind power capacity is what E3 determined would be required in an optimal scenario to reduce greenhouse gas emissions from electricity production by 80% below 1990 levels; an often-quoted goal from the Intergovernmental Panel on Climate Change (IPCC).

[7] Energy+Environmental Economics, "*Pacific Northwest Low Carbon Scenario Analysis - Achieving Least-Cost Carbon Emissions Reductions in the Electricity Sector*": Public Generating Pool, December 2017.

Additionally, the land area required for wind turbine construction and transmission lines needed for grid interconnections can be immense and the negative ecological and environmental impacts of this "energy sprawl" may outweigh the perceived or real benefits. Benton PUD believes lifecycle economic and environmental impacts expected to result from further development of wind power need to be scrutinized to a much higher degree with greater recognition of issues like the global impacts of raw materials mining and the disposal of wind turbine blades which are currently destined for landfills.

Benton PUD acknowledges every source of energy production takes a toll on the environment but believes wind power is often given a pass due to its popularity with policy makers and many in the general public. One source estimates wind power requires about 30 to 45 times as much land to produce a comparable amount of power as nuclear and that concrete and steel requirements for wind are about 10 times greater[8]. We believe these are important and relevant considerations as investments are made in power generation projects that will have long lasting environmental and financial impacts.

Benton PUD supports provisions of CETA that count hydro and nuclear energy toward the 100% clean by 2045 objective. However, we believe a more cost-effective and potentially less risky trajectory toward this goal would have been to allow for the transition from coal to natural gas and to promote an increase in the development of nuclear energy as the best long-term and sustainable strategy. We believe it is reasonable to suggest the most balanced and environmentally responsible actions you can take to "clean up" the electricity sector is to produce as much low or non-emitting electricity as possible in the smallest area possible. This seems to be best accomplished with energy dense fuels like natural gas and uranium.

Benton PUD supports EN in their efforts to develop small modular reactor (SMR) technology. However, we are concerned continued large-scale investments in wind power will substantially increase the normally surplus annual energy supplies in the Pacific Northwest (PNW) thereby eroding the hourly energy supply opportunities needed by SMRs to achieve economic feasibility. According to the Bonneville Power Administration (BPA)[9] the generating potential from federal and non-federal hydro projects in the PNW can vary by almost 7,000 aMW annually and by almost 14,000 aMW in some months, depending on project operations and the availability of water. But even in the worst water years, the PNW region is projected to have annual firm energy surpluses for the next ten years, assuming the region's 4,000 MW of uncommitted independent power producer (IPP) generation capacity is available to serve regional loads. Adding to this "long" regional energy position with continued development of

[8] Robert Bryce, "*Power Hungry – The Myths of "Green" Energy and the Real Fuels of the Future"*: Pages 84, 91.
[9] Bonneville Power Administration, "*2018 Pacific Northwest Loads and Resources Study*": April 2019, Section 3.

large-scale wind farms does not bode well for the development of SMR based generating projects given their relatively high capital costs and the need for lots of run time in order to reduce energy production costs to levels that will make them competitive with other technologies.

Conclusions

It appears additional wind farm development in the Pacific Northwest (PNW) is gaining momentum and is a foregone conclusion in the minds of many legislators, members of the general public and even some utilities. Benton PUD believes it is reasonable to question whether continuing to favor investments in intermittent wind power and putting up roadblocks to the development of dispatchable natural-gas power plants is more about environmental virtue signaling than it is about serving the best interests of the citizens of Washington State.

There is no denying the fact that thanks to abundant PNW hydro energy, Washington State has historically been one of the lowest contributors to electricity sector greenhouse gas (GHG) emissions in the United States and that electricity sector contributions to total statewide GHG emissions have been only 16 to 19%[10], even with coal plants in the mix. Put another way, what urgent "dirty energy" problem are we attempting to solve through the aggressive timelines and technology restrictions of the Clean Energy Transformation Act (CETA) that is worth sacrificing vast amounts of our natural landscapes and risking blackouts that jeopardize the health, safety and wellbeing of northwest electricity customers?

While language exists within CETA requiring future reporting to the governor's office to address concerns with power grid reliability, it appears legislators do not believe the risk of blackouts is real. If they did, they would accept the results of already existing utility studies and immediately begin to work on modifications to CETA to remove disincentivizes for the development of dispatchable natural gas plants needed for replacing retiring coal-plant capacity. So, at this point, investor owned utilities are announcing plans for new wind power projects to meet CETA deadlines, and along with all northwest utilities, are hoping the efforts of the Northwest Power Pool (NWPP) to develop power-generation resource adequacy standards can be completed and implemented in time to avoid blackouts[11].

Benton PUD strongly supports the efforts of the NWPP, but we do not support further development of wind power in the PNW. We believe continued investments in large-scale wind farm development in the PNW will: (1) contribute very little to keeping the regional power grid

[10] Department of Ecology State of Washington, "*Washington State Greenhouse Gas Emissions Inventory: 1990-2015 Report to the Legislature*,": December 2018, Publication 18-02-043, Pg. 6, Table 2.
[11]Northwest Power Pool Resource Adequacy: https://www.nwpp.org/about/workgroups/12

reliable and will not help Benton PUD solve our seasonal energy deficit problems; (2) contribute to the devaluation of hydro-generation assets and put upward pressure on retail rates Benton PUD and other utilities charge our customers; (3) risk underinvestment in needed dispatchable capacity today and future investments in visionary advancements in nuclear energy technology; (4) further sacrifice scenic hillsides, canyons and desert vistas in our region for little if any net environmental benefit.

Comment 20210331-nGrcjF

Informational Meeting Public Comment #LU0004
Horse Heaven Wind Farm
Docket #210011

First Name:	Last Name:	Organization:
Aaron	Chan	

Address:	City:	State:	Zip:
1905 S ARTHUR ST	KENNEWICK	WA	99338

Email:	Subscribed:	Attachment Count:
awchandc@gmail.com	false	0

Tags:

Responses:

Attachments

Comment:

As a long time resident and business owner in Kennewick WA, Benton County, I am submitting my comment of opposition to the proposed Horse Heaven Hills wind farm in southern Benton County. There are many reasons out there for opposition, but I will stick with my main point being that the wind farm will be a detriment to our community in the long run and the proposed and perceived benefits are unachievable.

Comment 20210331-pS5udd

Informational Meeting Public Comment #LU0005
Horse Heaven Wind Farm
Docket #210011

First Name: Brent

Last Name: Kirby

Organization:

Address: 8606 W 5th Ave.

City: Kennewick

State: WA

Zip: 99336

Email: brent_kirby@yahoo.com

Subscribed: false

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

I'm writing in strong support of the Horse Heaven Wind Project. I especially appreciate the inclusion of energy storage, which is critical to including more intermittent renewable energy on the grid. The climate change crisis demands an all-of-the-above strategy for carbon-free energy. The size of this project, over one gigawatt, is of a scale necessary to have a significant impact on carbon emissions. Modern large wind turbines spin slowly enough for birds to avoid them. Bird death is not an issue with these turbines. For those opposed on aesthetic grounds, we must allow projects such as these, even at small personal sacrifice, to avoid catastrophic effects due to climate change across our state, nation, and planet.

Comment 20210331-y6shqC

Informational Meeting Public Comment #LU0006
Horse Heaven Wind Farm
Docket #210011

First Name:	Last Name:	Organization:
Christopher	Kuperstein	I speak in a personal capacity

Address:	City:	State:	Zip:
1905 N 543 PR NE	Benton City	WA	99320

Email:	Subscribed:	Attachment Count:
chris@kuperstein.org	false	0

Tags:

Responses:

Attachments

Comment:

I reside in a location in Badger Canyon such that I will most certainly impacted by the adjacent Wind Farm. I have approximately measured that the nearest wind turbine is approximately 1.4km WSW of my present location. I am not opposed to a Wind/Solar/Storage development in principle, but request, AS A CONDITION OF DEVELOPMENT, that the following two conditions be placed upon the project:

Condition 1: A bulk of evidence in multiple articles I have researched after reading the DOE memo regarding property values indicates that I will most certainly lose property value. I request that EFSEC, and the County Commissioners, as a condition of development, require that any adjacent landowner who loses value as a result of this project be made whole by the developer and/or operator of said wind project. This condition is common among wind projects across the middle and eastern portions of this nation and is uniquely absent in wind projects in western states.

Condition 2: Both my daughter and I are light sensitive. As such, blade flicker will have a real negative health outcome on my family. I request, that EFSEC, and the County Commissioners, as a condition of development, require that software be installed pursuant of stopping any and all turbines that are actively causing blade flicker across my property or any other affected property adjoining the project area.

Other Considerations:
1) I enjoy watching the stars with my telescope during summer nights and educating my children about astronomy. That education will be severely impacted by blinking red lights and the physical presence of wind turbines across the southern 1/4 of the night sky from my property. I would like to continue such summer night viewing, and will be required to drive 10-25 miles in one direction or another to get a clear night sky view. This impact will most certainly increase this family's CO2 emissions, which will be counterproductive to the State's CO2 emissions goals.
2) I believe noise to not be a major impact due to the regular train traffic in the area.
3) I have minor concerns about the wind turbulence introduced by the wind project, and the possibility of improved dust pick-up and deposition of Horse Heaven dust on my property; it happens already; but perhaps will increase after this project is installed.
4) I have reviewed the tetra tech document regarding County Revenue. I believe the assumptions of this document to be in gross error. The first gross error is the construction sales tax estimate. The document indicates an assumed 8.6% sales tax rate, but, as washington is a destination-based sales tax rate, almost all, or possibly all of the project area lies within a county taxation area that is 8.0%, which would lead to a 7% shortfall in expected sales tax revenue to the state and county over the lifecycle of the project. The second assumption is an assumed mil rate for property tax rates of 11.49/$1000 of assessed value. My property valuation is 8.5/$1,000 of assessed value, and spot checking assessment in the area, it appears that the property tax will be closer to my valuation than the assumption. The result is that there might be a 26% shortfall in property tax revenue over the lifecycle of the project. I would recommend that EFSEC and Benton County Commissioners run their own reality check on the taxation expected, or ask Scout Clean Energy to pursue a second opinion regarding their tax revenue assumptions.

I am generally for a diverse energy mix within Washington state. However, I cannot support a project that will have such a grave impact on my property's resale value, and the health of my family and my animals. Please remove the wind turbine structures closest to Badger Canyon to lessen the impact this land owner.

Comment 20210331-GMMTCn

First Name: DaJuan

Last Name: Recknagle

Organization:

Address:

City:

State: WA

Zip:

Email:

Subscribed: false

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

How many Eagles and Ferruginous Hawks will likely be killed or displaced by the project? The draft on the EFSEC site states uses words like 'unlikely'. The ferruginous hawk being a threatened species one is too many to die for wind turbines that only turn some of the time. Please do not allow this project to go forward and kill more of our wildlife.

Comment 20210331-MjmOm0

Informational Meeting Public Comment #LU0008
Horse Heaven Wind Farm
Docket #210011

First Name: Lara

Last Name: Rozzell

Organization: National Park Service

Address:

City: Twentynine Palms

State: CA

Zip: 92277

Email: lrozzell@nps.gov

Subscribed: true

Attachment Count: 1

Tags:

Responses:

Attachments

NPS map near Horse Heaven Wind.jpg 334.30KB

Comment:

The National Park Service (NPS) received notification from the Energy Facility Site Evaluation Council (EFSEC) that it has been identified as an agency with potential information on evaluation of the proposed Horse Heaven Wind Farm project in the State of Washington. NPS is aware that EFSEC is holding an Information Public Meeting and Land Use Consistency Hearing on March 30, 2021, during which time it is accepting public and written testimony regarding the project. It is our understanding that EFSEC is conducting scoping on the recently submitted application, after which it will determine the appropriate level of state environmental review for the project. This letter provides preliminary information on the Lewis and Clark National Historic Trail (NHT) and the Wallula Gap National Natural Landmark (NNL).

Lewis and Clark National Historic Trail

The NPS administers the Lewis and Clark NHT, which is located on the Columbia and Snake Rivers in the vicinity of the proposed project. The Trail was established by Congress in an amendment to the National Trails System Act in 1978. 16 U.S.C. § 1244(a)(6). The NPS is charged under this Act with the identification and protection of the historic route, remnants, and artifacts of the Lewis and Clark Expedition for public use and enjoyment. There is a great deal of local, regional, and national interest in recognizing and preserving the resources of the Lewis and Clark NHT.

The visual setting from the river segments and auto tour route for the Lewis and Clark National Historic Trail is an important part of the visitor experience. Lewis and Clark National Historic Trail is concerned regarding the potential adverse visual impacts to this segment of the Trail (see Figure 1 below). NPS recommends the preparation of a viewshed analysis based on the current project plan from key observation points identified by the Trail in order to identify areas of the project that may be visible and better understand potential impacts to the visual setting. In addition, NPS would like to work with the EFSEC and the project proponent on any Federal Aviation Administration lighting plan, or other facility outdoor lighting plan, for the project to better understand potential impacts to dark night skies and possible solutions as available. NPS staff is available to assist with this effort.

Wallula Gap National Natural Landmark

The Wallula Gap NNL is the largest, most spectacular, and most significant of the several large water gaps through basalt anticlines in the Columbia Basin in Washington state. The Wallula Gap NNL is located within two miles of the proposed Horse Heaven Wind Farm project (see Figure 1 below). The proposed wind farm might be visible from the landmark. Wallula Gap was designated an NNL in 1980 by the Department of Interior Secretary Cecil Andrus. Wallula Gap is designated a nationally significant geologic resource as an outstanding example of a water gap (bottleneck) associated with the catastrophic Ice Age floods of 13,000 to 15,000 years ago.

The NNL Program was established in 1962 and is managed by the NPS. The NPS works alongside and in partnership with other state, federal, municipal and private landowners to recognize and encourage the conservation of NNL sites, which collectively illustrate the nation’s biological and geological history. Landmark sites are designated for their outstanding condition, illustrative character, rarity, diversity, and value to science and education. NNL designation is honorific. The NPS does not impose land use restrictions on landmarks, thus protection and conservation of these significant resources resides with NNL landowners/managers.

(see attachment) Figure 1: This map identifies the approximate proximity of the proposed project to the Wallula Gap NNL and the Lewis and Clark NHT Historic Route. The Lewis and Clark NHT Auto Tour Route, though not displayed on the map, roughly parallels the Historic Route and is how visitors access the corridor. The NPS will provide the Auto Tour Route mapping as requested.

Next Steps

The NPS appreciates the opportunity to provide information to the EFSEC on NPS areas and resources in proximity to the project and looks forward to future opportunities to work with the EFSEC through its environmental review process. If you have any questions, please feel free to contact the following individuals: Sarah Quinn, Renewable Energy Program Manager, (303) 895-4242 or sarah_quinn@nps.gov; Dan Wiley, Senior Leader, Integrated Resources Stewardship, Lewis and Clark National Historic Trail. 402-672-1418 or Dan_Wiley@nps.gov. Thank you for your consideration.

Comment 20210331-19v3U0E

Informational Meeting comment #IM0009
Horse Heaven Wind farm
Docket #210011

First Name: Aaron

Last Name: Chan

Organization:

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State: WA

Zip: 99338

Email: awchandc@gmail.com

Subscribed: false

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

I agree with the comments from the Benton County Commissioner, Will McKay, as well as the speaker that followed him from the Benton County Planning Commission?. Thanks.

Comment 20210331-1fwGJVA

Informational Meeting Comment #IM0010
Horse Heaven Wind Farm
Docket #210011

First Name: Aaron
Last Name: Pickett
Organization:

Address: 206 Edgewood Dr
City: Richland
State: WA
Zip: 99352

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Subscribed: false
Attachment Count: 0

Tags:
Responses:

Attachments

Comment:

This project approval should not be allowed to circumvent county leadership. As stated in Forbes: "This wind farm will have no effect on climate change or carbon emissions, will not replace fossil fuel at all, will mar the beautiful vistas of this area, provide a trivial number of temporary construction jobs, and preferentially kill raptors and migratory birds in the great Pacific Northwest Flyway zone. "
https://www.forbes.com/sites/jamesconca/2021/03/08/wind-turbines-on-washingtons-horse-heaven-hills--how-not-to-pursue-a-green-new-deal/

Please reject this proposal, or at least submit its approval to local authorities.

Comment 20210331-1n5QZGo

Informational Meeting Comment #IM0011
Horse Heaven Wind Farm
Docket #210011

First Name: William
Last Name: Pennell
Organization:

Address: 7420 Ricky Road
City: Pasco
State: WA
Zip: 99301

Email: bill@craea.com
Subscribed: false
Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

Comments on Scout Clean Energy’s Horse Heaven Wind Farm Project

I wish to raise several concerns about this project. I will not comment on the project’s direct environmental and visual impacts as I am sure they will be adequately covered by others, although siting a project of this magnitude within sight one of the largest urban areas in Eastern Washington does pose problems that would be less if it were located in a more remote area.

I object to the allegation made by a spokesperson for Scout Energy in a recent op ed in the Tri-City Herald that opposition to this project is political or is being raised by people who deny the existence of anthropogenic climate change. That could not be farther from the truth. I am a retired atmospheric scientist with an engineering background. For many years I directed the climate research program at Pacific Northwest National Laboratory, and my first assignment when I joined PNNL was to work on the Department of Energy’s wind energy program. So I know something about the technology. I also know that climate change is an existential challenge that must be addressed. Achieving the goal of zero net greenhouse gas emissions to the atmosphere is the most challenging environmental problem we have ever faced. It will transform how we live. It will be the work of decades, and it will require application of every zero-emissions electrical generation we have: wind, solar, hydro and, yes, nuclear. But these technologies must be utilized where they can do the most good, and they must be applied with full consideration of how they will affect supply and electrical grid reliability. Just throwing new renewable projects onto the grid without adequately understanding their effects on grid operations is not the way to go.

I also object to Scout’s frequent claim to the public that the Horse Heaven Wind Farm Project will alleviate the Pacific Northwest’s future electrical generation capacity problem. We know this is false. Wind, even with a few hours of on-site energy storage, is not dispatchable generation. It cannot be counted on to be available when needed. The reason is not the technology, but the wind resource. The wind resource is not well correlated to the demand for electricity on a seasonal or hourly basis. This basic climatology coupled with wind’s inherent variability greatly complicates grid operations resulting in both under and over supply. In fact, experience to date shows that the region’s hydro system is operated more to accommodate wind’s variability than vice versa. And recent engineering studies show that as more and more wind capacity is added to our hydro-based system, reliable operation of this system will become increasingly difficult. (As just one example of one less-considered effect, see “The impact of wind power growth and hydrological uncertainty on financial losses from oversupply events in hydropower-dominated systems,” Applied Energy, 194, (2017) pp 172-183.)

One of wind energy’s greatest advantage is as a fuel-saver. But experience in our region has shown the fuel “saved” is most often water that must be spilled over the dams and not the fossil fuels that power thermal generation.

In closing, I urge the State of Washington Energy Facility Site Evaluation Council to give more attention to the impact that increasing wind energy generating capacity will have on the operation of our electrical supply system, including the actual impact it is having on fossil fuel emissions. After all, it is possible to have too much of a “good thing.”

William T. Pennell
Pasco, Washington

Comment 20210331-1GQJ7ON

Informational Meeting Comment #IM0012
Horse Heaven Wind Farm
Docket #210011

First Name: DaJuan

Last Name: Recknagle

Organization:

Address:

City:

State: WA

Zip:

Email: dajuan_k@hotmail.com

Subscribed: false

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

Please do not approve or send this project to the governor for approval. the bird/bat conservation strategy does not give a good sampling of the actual bird wildlife population in the area. a 10 min sampling is not enough time, on any day I can step out in my yard and stand there for 10 minutes and not see any birds for 10 minutes and other times I can have a hawk fly through my yard chasing a quail or other small animal. I live within 4 miles of the proposed site, so the hawks I see could be nesting/hunting in the proposed site. Again do not approve this project as one hawk, eagle or any other wildlife is too many.

Comment 20210331-1VH2xS4

Informational Meeting Comment #IM0013
Horse Heaven Wind Farm
Docket #210011

First Name:	Last Name:	Organization:
Andrew	Schmitt	Schmitt Farms

Address:	City:	State:	Zip:
4403 Mount Daniel Ct	West Richland	WA	99353

Email:	Subscribed:	Attachment Count:
dwas2010@gmail.com	false	0

Tags:

Responses:

Attachments

Comment:

This project is going on land that produces 20-30 bushel wheat. Everyone knows that this is a SEPA determination of nonsignificance so that is besides the point. As far as land use, we as the largest operator on the Horse Heaven hills do not see that there is ever a possibility for any other type of land use other than DRY land wheat farms...unless we get irrigation someday then it will still be agricultural just irrigated.
As someone that is on these parcels of land everyday I know that once they are in the residents of the Tri Cities won't even notice them.
The trickle down economic effect is more than general residents of the Tri Cities can understand.

This project needs to go forward.

Comment 20210331-23WoBa8

Informational Meeting Comment #0014
Horse Heaven Wind Farm
Docket #210011

First Name:	Last Name:	Organization:
Patrick	Grengs	

Address:	City:	State:	Zip:
1600 ALA MOANA WAY	WEST RICHLAND	WA	99353

Email:	Subscribed:	Attachment Count:
pixelate@mathsavers.com	true	0

Tags:

Responses:

Attachments

Comment:

Greetings – I am a 30 year resident of the Tri-Cities and offer my comments:

- Each wind turbine requires 2500 tons of concrete for the foundation. The amount of CO2 generated to produce the concrete is enormous. The rate of CO2 production in terms of windmill installations around the world would place this among the top CO2 producing countries were it measured as such. Insisting that windmills are somehow Green is a blatant scam.
- Turbine blades wear out due to stress fractures and must be replaced over their operating lifetime (15-30 years). The blades are similar to airplane wings – they develop micro-fractures during use. There is no current cost-effective method for recycling the wind blades – in spite of the quote from Cynthia Langston of Casper Wyoming Solid Waste Management.
- Some may find the appearance of the turbines to be attractive (thinking only of the instantaneous electricity produced). Others, look at the turbines as pollution – destroying the clean open spaces. The Columbia River Gorge has already been desecrated with these eyesores.
- Wind turbines change the wind velocity to such an extent, that in the larger wind farms,the rows of turbines at the trailing end of the wind vector move much more slowly as a result of the momentum of the wind being significantly dampened by the turbines on the front of the wind wave. In short, the actual amount of power produced is significantly less than the calculations from the models.
- When you have over 260,000 wind turbines, around the world, that directly change the climate via significant reduction in surface convective air currents which dampen advective atmospheric mixing, and nobody from the Sierra Club, Earth First, the IPCC or the Friends of Global Progress is even bothering to wave a flag of concern, then you can be assured that Climate Change alarmism is less a matter of science and more a matter of politics and taxpayer financed corporatism.

I am fully opposed to this project.
Thank you for this opportunity to offer our commentary.
Patrick D. Grengs II / West Richland, Washington

Comment 20210331-2bQ3EEL

Informational Meeting Comment #0015
Horse Heaven Wind Farm
Docket #210011

First Name: Rylan

Last Name: Grimes

Organization: IBEW Local 112

Address: 99504 N Snively Rd

City: West Richland

State: WA

Zip: 99353

Email: ibew112rgrimes@owt.com

Subscribed: true

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

My name is Rylan Grimes and I am a life long resident of the Tri-Cities and an Organizer for The International Brotherhood of Electrical Workers Local Union 112 here in Kennewick. Local 112 represents over 1000 electricians in SE Washington and NE Oregon and we are in support of this project because of the good paying jobs it will create both during and after construction. Wind combined with solar and battery storage is a very reliable source of energy generation and the IBEW has been proving that in sites all over Oregon. We currently have a couple project like this right now in Oregon in Gilliam and Morrow counties. When we combined renewable energy with the Hydroelectric and the Nuclear that we already have it will give us a healthy amount of diversification in our energy generation that will keep our grid reliable for decades.
And windmills are nothing new to The Tri-cities as there has been windmills on the face of Jump of Joe since I graduated from Southridge High School over 15 years ago. I haven't once looked upon them with disgust in fact I look upon them with pride knowing that I worked on a few windmills just like them when I was an apprentice electrician. IBEW local 112 looks forward to working with Scout Energy and their electrical contractor to successfully complete this project in the near future. Thank you

Comment 20210331-2gLsS3q

Informational Meeting Comment #0016
Horse Heaven Wind Farm
Docket #210011

First Name: Lisa

Last Name: Fitzner

Organization:

Address: 19947 W Coeur d'Alene LK SHR

City: Coeur d'Alene

State: ID

Zip: 83814

Email: lefitzner@aol.com

Subscribed: true

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

From 1983 to 1998, I worked as a Wildlife Biologist in Benton County, Washington. During that time, I was employed by the USCOE at McNary Dam and as a District Wildlife Biologist for WDFW. My graduate school research, on native passerines, was conducted on the USDOE Hanford Site. Although my job entailed collecting data on numerous wildlife species, I primarily worked with small and nongame wildlife (waterfowl, upland birds, and nongame).

While working as a biologist, I often I traversed the area being considered for wind/solar development. Although many people think of the wheat fields between the crest of the Horse Heavens and the Columbia River as being a biological desert, the number of raptors that utilize the wheat fields is substantial. During the fall and winter, I frequently observed raptors including, kestrels, prairie falcons, red-tailed hawks, rough-legged hawks, and northern harriers foraging in the wheat fields. I also observed golden eagles and occasionally bald eagles, utilizing these habitats. In early fall, large groups of Swainson’s Hawks perch on the powerlines just south of the McBee Grade summit (this species often congregates in large flocks before migrating to South America).

Trees that grow near the alfalfa fields in Badger Canyon provide nesting habitat for numerous raptors including, Swainson’s and red-tailed hawks, and various species of owl. Burrowing owls successfully raise their young in the deep soils that occur in Badger Canyon. Cliff habitats in the Horse Heavens provide nesting substrate for ferruginous hawks as do isolated trees that occur near the Horse Heaven ridge line. Before migrating, some of these species fatten on rodents that reside in harvested or fallowed wheat. All these species can be found in the area that Horse Heaven Wind Farm LLC proposes for development.

The incredible wind resources of the Tri-Cities appear to be enhanced by the convergence of Rattlesnake and Horse Heaven Hills. Birds, especially raptors, utilize the thermals created by the strong winds to power their migration. In addition to raptors, flocks of songbirds migrate along these ridgetops. I have personally observed large flocks of songbirds (ie. bluebirds and horned larks) flying along the ridgelines of Benton County.

In addition to raptors and songbirds, sandhill cranes (hundreds if not thousands) migrate across the top of the Horse Heavens. Although I have not personally observed cranes on the ground, other individuals have reported seeing them in the wheat fields just south of the Horse Heaven Hills.

Amazing numbers of waterfowl, winter on the Columbia and Yakima Rivers. The Umatilla Wildlife Refuge provides wintering habitat for a good portion of the ducks in the Pacific Flyway. Waterfowl also breed along rivers, ponds, and canals near the base of the Horse Heaven Hills.

Due to the incredible avian resources of the Tri-Cities area I have serious concerns about placing wind turbines along such an extensive area of the Horse Heaven Ridgeline. A few of my numerous questions are as follows:

Will the thousands of waterfowl that utilize the Columbia and Yakima Rivers mistake solar farms for water; only to be lured to their death?

How extensively is the Horse Heaven Ridgeline utilized as a migratory corridor? Strong winds often preclude doing accurate wildlife surveys in this area.

Many years of data will need to be collected to get a true understanding of how this area is being utilized. Current data collected by West Inc. is not substantial enough to draw conclusions about the wildlife use of this area.
Will the birds/bats that migrate along the Horse Heaven ridgeline be cut to pieces in wind turbines?
To answer these and many of many other questions, a thorough Environmental Impact Study should be conducted prior to any energy development. Issuing a Determination of Non-Significance would be completely irresponsible.
For over 30 years I have protected nearly 170 acres of pristine shrub-steppe habitat at the base of the Horse Heavens. I sincerely hope my efforts to provide wildlife habitat in this area has not been for naught.
Sincerely,

Lisa Fitzner

Comment 20210331-40yykgv

Informational Meeting Comment #0017
Horse Heaven Wind Farm
Docket #210011

First Name: travis

Last Name: swayze

Organization: IBEW Local 112

Address: 114 north edison

City: kennewick

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Zip: 99336

Email: ibew112tswayze@owt.com

Subscribed: true

Attachment Count: 0

Tags:

Responses:

Attachments

Comment:

I represent over 1000 electrical workers who live within 45 miles of this project who support the construction of the Horse Heaven Wind Project as a viable source of green energy and also a great way to support the local economy in Eastern Washington. Although there have been multiple arguments against, previously built Wind Projects have been a great source renewable energy with limited impact to the environment and creatures who live within these projects.

Comment 20210331-4iYq3Or

Informational Meeting Comment #0018
Horse Heaven Wind Farm
Docket #210011

First Name:	Last Name:	Organization:
Jon	Padvorac	

Address:	City:	State:	Zip:
8016 Babine Drive	Pasco	WA	99301

Email:	Subscribed:	Attachment Count:
sirpadvorac@gmail.com	true	0

Tags:

Responses:

Attachments

Comment:

I was disappointed in the lack of definition of mitigation measures and impacts - based on this document it appears that the plan is to get approval for the project, then survey to determine the extent of damages caused by the final design, and use the developer's choice of mitigation measures at that time. Shouldn't the impacts be determined upfront, and included in the public outreach and permitting process?

The draft habitat mitigation plan was full of conflicting information - the proposed approach seems to be in conflict with the industry guidelines mentioned in the document itself. The project will have an impact on large birds - which are some of the most critical species in question, and the proposed mitigation methods do not seem to adequately address this. Also, what is the impact to raptors of a small footprint fenced area around a wind turbine? This document would claim the impact would be the loss of habitat area under the turbine - not the hazard to birds flying between adjacent critical habitat areas. This doesn't make practical sense.The draft habitat mitigation plan was full of conflicting information - the proposed approach seems to be in conflict with the industry guidelines mentioned in the document itself. The project will have an impact on large birds - which are some of the most critical species in question, and the proposed mitigation methods do not seem to adequately address this. Also, what is the impact to raptors of a small footprint fenced area around a wind turbine? This document would claim the impact would be the loss of habitat area under the turbine - not the hazard to birds flying between adjacent critical habitat areas. This doesn't make practical sense.

The critical habitat proposed to be destroyed as part of this project would not be mitigated for after the project is done - this could leave a mess of dust, weeds, and modified landscape behind once the investors move on to another project somewhere else.

The proposed project approach does not seem to be in compliance with WDFW M-5002 policy, which states that the goal is to have no loss of habitat function and values, and to prioritize onsite mitigation. If loss of habitat is not yet defined, and mitigation measures offsite may be used at the developer's option, how is their plan in compliance with WDFW's intent for this critical habitat?

During the presentation the developer had poll results based on the results of their "public outreach" that seemed to favor this project. I don't know what outreach process they followed, but most people I know have not heard about this project until recently, and based on the meeting today those who have heard about it are almost exclusively strongly opposed to it. I strongly doubt the thoroughness and accuracy of the public outreach performed for this project.

As mentioned - existing wind farm projects have resulted in a surge of invasive weeds in the surrounding areas due to lack of maintenance. The community does not want more of this.

The ecosystem in the area is fairly delicately balanced between predators and prey - with airborne predators helping keep prey animals in check, and keeping rattlesnake populations under control. I am worried that the impacts on raptors will upset the natural equilibrium of predators/prey in the area, and result in an overpopulation of rattlesnakes, which will endanger our pets and children.

The research reports used to show that revegetation under solar panels were for west-side projects, and the document itself warns about the possible lack of applicability of these results to the east side of the mountains. I do not agree with the proposed approach of not counting the area under the solar panels as being impacted.

I am strongly opposed to this project, and I based on review of the draft habitat mitigation plan, it appears that the developer does not have the best interest of this community or the environment in mind. The approach to permitting and mitigation is not transparent and is grossly in favor of the developer, and I believe will have substantial impacts on local wildlife lasting well beyond the duration of the project.

Comment 20210331-4l37F6H

Informational Meeting Comment #0019
Horse Heaven Wind Farm
Docket #210011

First Name: Jon

Last Name: Padvorac

Organization:

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Subscribed: true

Attachment Count: 1

Tags:

Responses:

Attachments

20210317_AppL_HMP_FEB2021.pdf 498.04KB

Comment:

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Comments by Jon Padvorac

APPENDIX L: HABITAT MITIGATION PLAN

Draft Habitat Mitigation Plan

Horse Heaven Wind Farm

Benton County, Washington

Prepared for:
Horse Heaven Wind Farm, LLC

Prepared by:

TETRA TECH

19803 North Creek Parkway
Bothell, WA 98011

February 2021

TABLE OF CONTENTS

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

Applicant	Horse Heaven Wind Farm, LLC
ASC	Application for Site Certification
BBCS	Bird and Bat Conservation Strategy
BCC	Benton County Code
BESS	battery energy storage system
BPA	Bonneville Power Administration
CAO	Critical Areas Ordinance
EFSEC	Energy Facility Site Evaluation Council
FWHCA	fish and wildlife habitat conservation area
GE	General Electric
GMA	Growth Management Act
HMP	Habitat Mitigation Plan
Micrositing Corridor	Wind Energy Micrositing Corridor
MW	megawatt
MWac	megawatts output as alternating current
O&M	operation and maintenance
Project	Horse Heaven Wind Farm
PV	photovoltaic
RCW	Revised Code of Washington
SCA	Site Certification Agreement
SEPA	State Environmental Policy Act
SG	Siemens Gamesa
Tetra Tech	Tetra Tech, Inc.
Turbine	wind turbine generator
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WEST	Western Ecosystems Technology, Inc.

1 INTRODUCTION

The Horse Heaven Wind Farm (Project) is a renewable energy generation facility that would have a nameplate energy generating capacity of up to 1,150 megawatts (MW) for a combination of wind and solar facilities as well as battery energy storage systems (BESS). Horse Heaven Wind Farm, LLC (the Applicant) proposes to construct up to 244 wind turbine generator (Turbine) locations and up to three solar arrays, with all possible Turbine locations and solar array extent cumulatively reviewed in the analysis of potential resource impacts in the Project's Energy Facility Site Evaluation Council (EFSEC) Application for Site Certification (ASC) and this Draft Habitat Mitigation Plan (HMP), although fewer Turbines and solar arrays may be constructed for this Project. As described in the EFSEC ASC, the Project is considering two general Turbine options comprising four different Turbine technologies to facilitate flexible Turbine siting: Turbine Option 1 consists of up to 244 General Electric (GE) 2.82-MW or 3.03-MW Turbines, and Turbine Option 2 consists of up to 150 GE 5.5-MW or Siemens Gamesa (SG) 6.0-MW Turbines.

Power generated by the Project would be transmitted to existing Bonneville Power Administration (BPA) transmission lines via two interconnections. Other Project components would include up to two BESS, underground and limited overhead electrical collection lines, underground communication lines, new Project substations, access roads, operation and maintenance (O&M) facilities, meteorological towers, control houses, and temporary construction yards. The Project would likely be built using a phased approach, with two phases currently under consideration. The EFSEC ASC describes the following example phased approach: Phase 1 could consist of 650 MW, with 350 MW generated via wind plus 300 MWac (megawatts output as alternating current) generated via solar; Phase 2 could consist of 500 MW, with either 250 MW generated via wind plus 250 MWac generated via solar or 500 MW generated via wind. Construction of the two Project phases would last approximately 11 months each, for a total of approximately 22 months of construction activity for the full 1,150 MW build-out.

The Project Lease Boundary (i.e., the extent of parcels in which the Applicant has executed a lease to construct Turbines, the solar array, and associated facilities) encompasses approximately 72,428 acres and contains the Project's Wind Energy Micrositing Corridor (Micrositing Corridor; i.e., the area in which the Turbines and supporting facilities would be sited during the final design) and the Solar Siting Areas (which consist of the three areas under consideration for siting of the proposed solar arrays during the final design) (see Figure 3.4-1 of the EFSEC ASC). The Micrositing Corridor and the Solar Siting Areas are larger than the Project's final footprint to allow minor rerouting to optimize the design and to avoid resources that may be discovered during the final design and pre-construction process.

2 REGULATIONS AND GUIDELINES

2.1 EFSEC

Energy facilities subject to review by EFSEC include thermal electrical generation, pipelines, electrical transmission lines, petroleum refineries, petroleum storage, and alternative energy electrical generation (wind, solar, geothermal, landfill gas, wave or tidal action, and biomass). However, alternative energy facilities (of any size) are not required to enter the EFSEC process in Washington; the applicant may opt in to the EFSEC process, or may choose to permit the project at the local level. For the proposed Project, the Applicant has elected to be sited under EFSEC jurisdiction.

Once an alternative energy facility has elected EFSEC permitting, EFSEC coordinates all evaluation and licensing steps for siting certain energy facilities in Washington. EFSEC specifies the conditions of construction and operation. If approved, a Site Certification Agreement is issued in lieu of other individual state or local agency permits. Chapter 80.50 of the Revised Code of Washington (RCW) includes the laws EFSEC must follow in siting and regulating major energy facilities. Title 463 of the Washington Administrative Code (WAC) sets forth the regulations establishing how EFSEC functions under state and federal law.

EFSEC is responsible for evaluating applications under the Washington State Environmental Policy Act (SEPA; see Section 2.3) and to ensure that environmental and socioeconomic impacts are considered before a site is approved. After evaluating an application, EFSEC submits a recommendation to the Governor. If EFSEC determines that constructing and operating the facility will produce minimal adverse effects on the environment, ecology of the land and wildlife, and ecology of the state waters and aquatic life, and meets its construction and operation standards, then it recommends that a Site Certification Agreement (SCA) be approved and signed by the Governor. The SCA lists the conditions the applicant must meet during construction and while operating the facility.

WAC 463-60-332 outlines how potential impacts to habitat, vegetation, fish, and wildlife must be addressed in the EFSEC ASC. This information has been prepared and presented in Section 3.4 of the ASC. This HMP has been prepared pursuant to WAC 463-60-332(3), which requires that the EFSEC ASC include a detailed mitigation plan. In addition, this HMP describes how the Project follows the Washington Department of Fish and Wildlife (WDFW) Wind Power Guidelines (WDFW 2009), as applicable, and Policy M-5002, pursuant to WAC 463-60-332(4).

2.2 Benton County Critical Areas Ordinance

Under Washington State's Growth Management Act (GMA), all cities and counties are directed to adopt critical areas regulations. Counties and cities are required to include the best available science in developing policies and development regulations to protect the functions and values of critical areas (RCW 36.70A.172). Benton County's Critical Areas Ordinance (CAO) was developed to comply with the requirements of the GMA, and was most recently updated on August 21, 2018, consistent with the GMA periodic review requirement in RCW 36.70A.130.

Benton County's regulations regarding critical areas are established in Title 15 of the Benton County Code (BCC). Title 15 defines critical areas as including any of the following areas or ecosystems: (1) wetlands (see Chapter 15.04 BCC); (2) critical aquifer recharge areas (see Chapter 15.06 BCC); (3) frequently flooded areas (see Chapter 15.08 BCC); (4) geologically hazardous areas (see Chapter 15.12 BCC); and (5) fish and wildlife habitat conservation areas (FWHCA; see Chapter 15.14 BCC).

Per BCC 15.14.010, FWHCAs include the following: (1) areas where federal or state designated endangered, threatened, and sensitive species have a primary association[1], (2) state priority habitats and areas associated with state priority species, (3) habitats and species of local importance as designated by Benton County (i.e., shrub-steppe habitat), (4) waters of the state, (5) naturally occurring ponds under 20-acres and their submerged aquatic beds that provide fish or wildlife habitat, (6) lakes, ponds, streams, and

[1] Primary association area - The area used on a regular basis by, in close association with, or is necessary for the proper functioning of the habitat of a critical species. Regular basis means that the habitat area is normally, or usually known to contain a critical species, or based on known habitat requirements of the species, the area is likely to contain the critical species. Regular basis is species and population dependent. Species that exist in low numbers may be present infrequently yet rely on certain habitat types (Benton County 2018).

rivers planted with native fish populations, (7) Washington State Wildlife Areas, and (8) Washington State Natural Area Preserves and Natural Resource Conservation Areas (Benton County 2018). Information provided in Section 3.4 of the EFSEC ASC submitted for this Project, as well as this HMP, addresses the requirement per BCC 15.14.030 for the Applicant to provide a habitat assessment and discuss the habitat avoidance, minimization, and mitigation measures proposed for the Project.

As described in Section 3.4 of the EFSEC ASC, the Project would include disturbance in areas considered FWHCAs as defined by the CAO (i.e., primarily shrub-steppe and associated wildlife species). This HMP addresses mitigation for these impacts.

2.3 SEPA

SEPA is the state interdisciplinary policy that identifies and analyzes environmental impacts associated with state governmental decisions, including permits to construct energy facilities. The applicable SEPA statutes and regulations include RCW Ch. 43.21C, Washington Environmental Policy Act, WAC Ch. 197-11, Washington State Department of Ecology SEPA Rules, and Section 6.35 of the BCC, which establish requirements for compliance with SEPA. As the Applicant has elected to be sited under EFSEC jurisdiction, as discussed above, EFSEC will serve as the lead agency for SEPA review. The Applicant has prepared a SEPA Environmental Checklist in compliance with the statutes and regulations set out above (see Appendix C of the EFSEC ASC). EFSEC would issue a SEPA Determination to satisfy these regulations. Sections 4 and 5 of the SEPA Checklist address potential impacts to plants and animals, and part of Section 8 addresses critical areas designated by the applicable local jurisdiction (described above). This HMP, in addition to the analysis provided in Section 3.4 of the Project's EFSEC ASC, supports the finding that, with the implementation of proposed mitigation, probable significant adverse environmental impacts can be reduced to a level of non-significance as defined and understood in SEPA.

2.4 WDFW Wind Guidelines

WDFW published the Wind Power Guidelines in 2009 to provide consistent statewide guidance for the development of land-based wind energy projects that avoid, minimize and mitigate impacts to fish and wildlife habitats in Washington State (WDFW 2009). The guidelines are intended to provide permitting agencies and wind project developers with an overview of the considerations made by WDFW in the review of wind energy project proposals. The permitting authority (e.g., EFSEC) is responsible for SEPA review before issuing a project permit. However, WDFW is considered an agency with environmental expertise through SEPA and provides review and comments on environmental documents. The Applicant used the Wind Power Guidelines to develop this HMP where applicable, including the mitigation considerations listed below summarizing the criteria for the habitat selected to replace the functions and values of habitat impacted by the Project (i.e., replacement habitat):

- Like-kind (e.g., shrub-steppe for shrub-steppe, grassland for grassland) and/or of equal or higher habitat value than the impacted area, noting that an alternative ratio may be negotiated for replacement habitat that differs from impacted habitat;
- Given legal protection (through acquisition in fee, a conservation easement, or other enforceable means);
- Protected from degradation, including development, for the life of the project to improve habitat function and value over time;
- In the same geographical region as the impacted habitat; and

- At some risk of development or habitat degradation and the mitigation results in a net habitat benefit.

2.5 WDFW M-5002 Policy

WDFW established Policy M-5002 requiring or recommending mitigation in 1999. This policy applies to all habitat protection assignments where WDFW is issuing or commenting on environmental protection permits, documents, or violation settlements; or when seeking commensurate compensation for impacts to fish and wildlife resources resulting from oil or other toxic spills. The Applicant reviewed Policy M-5002 to support the develop of this HMP, including the following considerations:

- The goal is to achieve no loss of habitat functions and values. Mitigation credits and debits will be based on a scientifically valid measure of habitat function, value, and area. Ratios will be greater than 1:1 to compensate for temporal losses, uncertainty of performance, and differences in functions and values.
- On-site in-kind mitigation is preferred.
- Mitigation plans will include the following: baseline data, estimate of impacts, mitigation measures, goals and objectives, detailed implementation plan, adequate replacement ratio, performance standards to measure whether goals are being reached, maps and drawings of proposal, as-built drawings, operation and maintenance plans (including who will perform), monitoring and evaluation plans (including schedules), contingency plans, including corrective actions that will be taken if mitigation developments do not meet goals and objectives, and any agreements on performance bonds or other guarantees that the proponent will fulfill mitigation, operation and maintenance, monitoring, and contingency plan.
- Mitigation measures will be completed before or during project construction.
- Mitigation site will be protected for the life of the project.
- Mitigation banking may be an acceptable form of mitigation.

3 AGENCY CONSULTATION HISTORY

The Applicant met with the U.S. Fish and Wildlife Service (USFWS) and WDFW in two joint consultation meetings regarding the proposed Project on September 19, 2017 and January 28, 2020 (Jansen 2017; Jansen and Fossum 2020). The Project as proposed at the time of these first two meetings consisted of a wind energy generation facility and did not yet include solar and BESS components. The Applicant subsequently met virtually with WDFW on January 27, 2021 to provide a Project status update including a description of the solar arrays and transmission route, as well as a summary of the avian, habitat, and rare plant surveys completed in 2020. The first meeting served as the agency kick-off meeting for the Project, with attendees from the Applicant, Western Ecosystems Technology, Inc. (WEST; the Applicant's consultant for wildlife survey work), USFWS, and WDFW. The Applicant provided an overview of the Project, presenting the initial layout at the time. Attendees discussed applicable wildlife and habitat surveys (i.e., bird presence, raptor nests, bat acoustic monitoring, and land cover), including survey design recommendations from USFWS and WDFW. Based on this meeting, the Applicant was able to confirm the survey approach, with adjustments per the agencies' input, and continue with ongoing surveys to inform the next stages of Project design.

During the second meeting, in January 2020, the Applicant presented the updated proposed Project layout and timeline, as well as a summary of biological surveys completed to date. Attendees included the

Applicant, WEST, Tetra Tech, Inc. (Tetra Tech; the Applicant's consultant for Project permitting and select biological and other surveys), USFWS, WDFW, and the Lower Columbia Basin Audubon Society (local stakeholder). The following summarizes key points for each of the biological survey topics discussed at the meeting:

- Avian Use and Raptor Nest Surveys
  - The Applicant described the one year of small bird surveys, two years of large bird surveys, and raptor nest surveys conducted as of the meeting date. USFWS concurred that surveys were conducted in compliance with USFWS guidance (i.e., USFWS' 2012 Final Land-Based Wind Energy Guidelines [USFWS 2012], the 2013 USFWS Eagle Conservation Plan Guidance Module 1 – Land Based Wind Energy [USFWS 2013], and the USFWS 2016 Eagle Rule Revision [USFWS 2016]).
  - WDFW noted setback recommendations that may be appropriate during construction during the nesting/fledging season for the ferruginous hawk (*Buteo regalis*) nest observed near the Project that was occupied all 3 years it was surveyed (2017-2019).
- Sensitive Species
  - WDFW concurred that, based on survey data and lack of irrigated agriculture and wetland resources, sandhill cranes (*Antigone canadensis*) do not occupy the Project Lease Boundary but instead typically fly high above the Project and use the area north of the Project for foraging, loafing, and roosting.
  - The Applicant confirmed that while no specific nest surveys were conducted for ground-nesting raptors, such as merlins (*Falco columbarius*), nests are likely to occur in the Project Lease Boundary based on observations of ground-nesting species during avian use surveys. Species such as short-eared owl (*Asio flammeus*), prairie falcon (*Falco mexicanus*), and northern harriers (*Circus hudsonius*) were observed during point count surveys and nests would have been recorded if incidentally observed.
- Land Cover
  - WDFW noted that eastside (interior) grasslands have a 1:1 mitigation ratio for permanent impact.
  - Audubon and WDFW concurred that shrub-steppe habitat is very important to maintain. WDFW noted that while the Project is not located in prime canyon shrub-steppe habitat, the Project could be a great opportunity to work together in conservation and restoration efforts.

The third (i.e., January 2021) virtual meeting with WDFW served to provide an update to WDFW on the Project design, permitting approach, and field surveys completed in 2020. Attendees included the Applicant, Tetra Tech, WEST, and WDFW. The Applicant provided an overview of the updated Project design (i.e., the addition of solar and BESS) and permitting approach (i.e., EFSEC). Tetra Tech and WEST described the results of habitat, rare plant, and avian use surveys completed in 2020. WDFW noted that the Project was well sited given the level of existing disturbance (e.g., agricultural activity and presence of non-native species) in the area, and identified minimization measures related to fencing that could further reduce potential impacts: fencing smaller areas of solar arrays rather than the entire solar facility in order to maintain habitat connectivity by maintaining travel corridors for wildlife, and restoring the areas under solar panels with native plant species.

4 HABITAT MAPPING

The Applicant used a combination of field survey data and desktop sources to map habitat within the Project Lease Boundary from 2017 through 2020, as described in Section 3.4.1.1 of the EFSEC ASC (Chatfield and Brown 2018a, 2018b; Tetra Tech 2021; USFWS 2018; USGS 2016; Yang et al. 2018). In general, habitat types and subtypes were adapted from habitat descriptions in the *Washington Department of Fish and Wildlife Wind Power Guidelines* (WDFW 2009) and *Wildlife-habitat Relationships in Oregon and Washington* (Johnson and O'Neil 2001), with some modifications as described below. Descriptions of habitat types and subtypes mapped within the Project Lease Boundary are provided in Section 3.4.1.1 of the EFSEC ASC. Table 1 provides a crosswalk between habitats mapped at the Project and WDFW Habitat Types and Classifications (WDFW 2009). Vegetation within the majority of the Project Lease Boundary has been degraded due to historical and current agriculture and grazing activity, and non-native invasive grasses and forbs are prevalent throughout the Project Lease Boundary.

Table 1. Project Habitat Type and Subtype Crosswalk with WDFW Habitat Type and Classification

Project Habitat Type	Project Habitat Subtype	WDFW Habitat Type	WDFW Classification
Agricultural land		Croplands	Class IV
Developed/disturbed		Urban and Mixed Environs	
Grassland	Unclassified grassland[1/]	Eastside (Interior) Grasslands	Class III
	Non-native grassland		
	Planted grassland	Conservation Reserve Program Lands	
Shrubland	Rabbitbrush shrubland		
	Sagebrush shrub-steppe	Shrub-steppe	Class II
	Dwarf shrub-steppe		
	Unclassified shrubland[1]		

1/ Unclassified grassland and unclassified shrubland habitat subtypes include those areas mapped during surveys conducted in 2018 or using NLCD data that were not further classified into subtypes (e.g., planted grassland, sagebrush shrub-steppe) during the 2020 desktop analysis (see Section 3.4 of the EFSEC ASC).

Of the nine upland habitat subtypes mapped within the Project Lease Boundary, two were not readily classified into either WDFW (2009) or Johnson and O'Neil (2001) habitat types or subtypes: non-native grassland and rabbitbrush shrubland. Non-native grassland was considered eastside (interior) grassland (Class III) WDFW habitat because these areas were dominated by non-native grassland and forb species. The non-native grasslands mapped at the Project likely provide lower functional value to wildlife than typical eastside (interior) grassland due to the presence of invasive species (e.g., several areas field-mapped as non-native grassland habitat in 2020 consisted of vast areas dominated by dense cover of cereal rye [*Secale cereale*], a Class C noxious weed [BCNWCB 2020; WSNWCB 2020]); however, eastside (interior) grassland provided the best fit because these areas did not meet the definition of pasture (WDFW 2009). Unclassified grassland was also considered eastside (interior) grassland, but may be reclassified following additional field verification prior to construction.

Planted grassland and rabbitbrush shrubland were considered to be likely Conservation Reserve Program (CRP) land (Class III) because these areas appear to have been planted with non-native grasses, native grasses, and/or native shrubs, and are therefore the functional equivalent of typical CRP lands, but their

current CRP enrollment status is unknown. Rabbitbrush shrubland was not considered shrub-steppe because this habitat subtype was observed in areas that appeared to be former agricultural lands that have subsequently been planted. It is unknown whether rabbitbrush was planted in these areas or has established naturally. Rubber rabbitbrush (*Ericameria nauseosa*) is an early seral species that readily colonizes disturbed sites, such as areas disturbed by overgrazing or fire or abandoned agricultural lands (Faber et al. 2013; Tirmenstein 1999; USDA 2017).

Sagebrush shrub-steppe and dwarf shrub-steppe were considered shrub-steppe (Class II) WDFW habitat because they were dominated by native shrubs such as big sagebrush (*Artemisia tridentata*) and rock buckwheat (*Eriogonum sphaerocephalum*). Lithosol soils were not observed in the sagebrush shrub-steppe habitat mapped within the Project Lease Boundary, but were observed within the mapped dwarf shrub-steppe habitat, indicating a likely increased length of time for restoration following disturbance (WDFW 2009). Unclassified shrubland was also conservatively considered shrub-steppe, but may be reclassified following additional field verification prior to construction.

5 PROJECT IMPACTS

Construction and operation of the Project would result in both permanent and temporary impacts to wildlife habitat, as well as modifications to habitat within the solar array fencelines. Areas of permanent impacts include locations of permanent infrastructure (e.g., Turbines, meteorological towers, BESS, substations, permanent access roads, and O&M facilities), and areas of temporary impacts include locations that would be disturbed during construction and revegetated following construction outside the solar array fencelines (e.g., locations of underground collection and communication lines and temporary construction yards) (see Table 2.1-1 in Section 2 of the EFSEC ASC). Temporary impacts associated with solar facilities include a 10-foot construction buffer along the outside of the solar fencelines. Where not permanently impacted due to permanent infrastructure (i.e., graveled interior access roads, inverter pads, and tracker system support posts), habitat within the solar array fencelines would be revegetated with low-growing vegetation following construction and would remain available to wildlife such as small mammals, birds, reptiles, and invertebrates in a modified condition.

Table 2 provides the estimated acres of impact to wildlife habitat from construction and operation of the Project, including the acres of temporary and permanent impacts within the Micrositing Corridor and Solar Siting Areas, and acres of habitat modification within the Solar Siting Areas. Table 2 conservatively includes the acres of impact to each habitat subtype under Turbine Option 1, which represents the estimated maximum acreage of impact (from the greatest number of Turbines and associated roads and collector lines) and thus would result in the maximum estimated acreage of mitigation (calculated in Section 7.3.1). If Turbine Option 2 is selected, impacts on habitat and thus the mitigation need would be reduced within the Micrositing Corridor. Impacts from the solar arrays and associated infrastructure would not vary based on Turbine options, but would be reduced if one or more of the Solar Siting Areas is not developed. Table 2 lists the acres of Project impact by impact type and habitat subtype; where these impacts result in the need for mitigation (i.e., outside of agricultural and developed land), these values are again listed in Section 7.3.1 where they are multiplied by their respective mitigation ratios to determine the mitigation need by habitat type and subtype.

Table 2. Estimated Impacts on Habitat Types from Construction and Operation of the Project

Habitat Type	Habitat Subtype	Micrositing Corridor		Solar Siting Areas		
		Temporary Impact (Acres)[1/]	Permanent Impact (Acres)[1/]	Temporary Impact (Acres)[2/]	Permanent Impact (Acres)[2/]	Modified Habitat Impact (Acres)[2/]
Agricultural land		2,309	257	53	239	5,382
Developed/disturbed		20	0.7	3	3	3
Grassland	Non-native grassland	47	4	0.1	0.1	3
	Planted grassland	199	18	3	6	100
	Unclassified grassland[3/]	135	6	9	20	333
Shrubland	Dwarf shrub-steppe	9	1	--	--	--
	Rabbitbrush shrubland	119	10	6	22	393
	Sagebrush shrub-steppe	17	0.8	--	--	--
	Unclassified shrubland[3/]	25	1	1	4	63
Total[4/]		**2,881**	**299**	**76**	**294**	**6,276**

Notes:

1/ Overlapping permanent disturbance is subtracted from temporary impact corridors/areas (e.g., temporary impact area around a Turbine does not include the Turbine foundation and graveled areas); those are included only in the permanent impact column.

2/ Temporary impacts associated with solar facilities include a 10-foot construction buffer along the outside of the solar fencelines. Permanent impacts include the solar inverters and new access roads within the solar siting areas. Modified impacts are associated with the solar arrays and include those areas within the solar fencelines that are outside areas of permanent impact. Following construction, low growing vegetation would be planted under and between the solar arrays; therefore, these impacts would be considered a modification of habitat versus a temporary or permanent impact.

3/ Unclassified grassland and unclassified shrubland habitat subtypes include those areas mapped during surveys conducted in 2018 or using NLCD data that were not further classified into subtypes (e.g., planted grassland, sagebrush shrub-steppe) during the 2020 survey or desktop analysis. Acres of impacts to each of these "unclassified" habitat subtypes may be revised following habitat surveys of the Solar Siting Areas and Micrositing Corridor that are planned to occur prior to construction.

4/ Totals may not sum exactly due to rounding.

The vast majority (86 percent) of habitat proposed to be permanently impacted within the Micrositing Corridor is agricultural land, followed by planted grassland, rabbitbrush shrubland, unclassified grassland, non-native grassland, unclassified shrubland, dwarf shrub-steppe, sagebrush shrub-steppe, and developed/disturbed (Table 2). The vast majority (86 percent) of habitat proposed to be modified within the solar array fencelines is agricultural land, followed by rabbitbrush shrubland, unclassified grassland, planted grassland, unclassified shrubland, developed/disturbed, and non-native grassland (Table 2).

Habitat proposed to be impacted within the northern and western Solar Siting Areas is almost entirely agricultural and disturbed land while just over half of the habitat within the eastern Solar Siting Area is agricultural and disturbed land with the remaining habitat consisting of grassland and shrubland habitat (e.g., see Figure 3.4-1 in Section 3.4 of the EFSEC ASC). Neither sagebrush shrub-steppe nor dwarf shrub-steppe (i.e., the higher quality habitat subtypes documented at the Project as described in Section 3.4.1.1 of the EFSEC ASC) have been mapped within the solar array fencelines, although field surveys would be conducted prior to construction to verify the results of desktop habitat mapping within the Solar Siting Areas. The Revegetation and Noxious Weed Management Plan (Appendix N to the EFSEC ASC) identifies a seed mix consisting of low-growing native grasses and forbs compatible with desired vegetation conditions under the solar arrays (i.e., species whose mature height would not interfere with or shade the solar array) for revegetation under the solar arrays, including areas that previously consisted of agricultural lands. Therefore, the majority of areas of proposed modified habitat under the solar array may provide higher quality habitat following revegetation compared to the current condition (e.g., areas

that are actively plowed and/or dominated by invasive species may provide higher quality habitat to wildlife once revegetated with low-growing vegetation). Details of planned revegetation, including seed mixes and methods, are provided in the Revegetation and Noxious Weed Management Plan (Appendix N to the EFSEC ASC).

Renewable energy facilities (i.e., wind and solar) have recently been built and proposed throughout the Columbia Plateau in Washington, including in Benton County (EFSEC 2021; Erickson et al. 2003; Yakima Herald 2019). Therefore, the Project has the potential to contribute to cumulative impacts on wildlife and habitat, including loss of habitat and direct mortality of birds and bats as described in the EFSEC ASC (see Section 3.4.2.3). Cumulative impacts are the comprehensive effect on the environment that results from the incremental impact of a project when added to other past, present, and reasonably foreseeable future actions (USFWS 2012). For example, Rodhouse et al. (2019) documented a decline in hoary bat occupancy consistent with wind energy development in the Pacific Northwest. However, the Applicant has avoided, minimized, or otherwise mitigated impacts from the Project as described in Section 7.0, which will also reduce potential cumulative impacts.

The Project was sited to minimize impacts to avian and bat species based on the results of pre-construction surveys, as described in the Applicant's Bird and Bat Conservation Strategy (BBCS), and the post-construction monitoring program described in the BBCS will serve to document fatality rates at the Project for review by a Technical Advisory Committee. Although wind energy facilities have been identified as a source of mortality for birds and bats (USFWS 2012; Erickson et al. 2003), results of a cumulative effects analysis suggest that no significant population-level effects are likely associated with existing and anticipated wind energy development in the Columbia Plateau (Johnson and Erickson 2011), which is similar to findings of other investigations of cumulative impacts associated with wind energy development in the United States (e.g., NAS 2008). Additionally, the Project was sited such that the vast majority of habitat proposed to be impacted by the Project is agricultural land that has been previously disturbed, thus minimizing impacts to habitat and wildlife. Habitat that is currently agricultural land within the solar array fencelines would be revegetated with low-growing primarily native vegetation and thus could provide higher quality habitat following revegetation (described below in Section 7.2) compared to the current condition of being actively plowed. Outside the solar array fenceline, impacts to grassland and shrubland habitat would be mitigated consistent with the WDFW (2009) Wind Power Guidelines, and thus replacement habitat would be provided such that there would be no loss in function or value of habitat (described below in Section 7.3). Additionally, development of the Project is consistent with the long-term climate goals of the Washington Clean Energy Transformation Act of 2019, which will transition the state to an electricity supply free of greenhouse gas emissions by 2045, and the Project may benefit wildlife of the Columbia Plateau by replacing fossil fuel sources of energy and thus mitigating the threat and cumulative impact of climate change on wildlife and habitat.

6 SCIENTIFIC BASIS

Example nearby wind projects resulted in an abundance of weeds in non-maintained areas

WDFW (2009) defines permanent impacts to habitat as those impacts that are anticipated to persist and cannot be restored within the life of the project, which may include "new permanent roads, operations and maintenance facilities, Turbine pads, impervious and/or areas devoid of native vegetation resulting from project operations." Areas that would be revegetated under the solar arrays following construction of the Project would not be impervious, would not be devoid of native vegetation, or otherwise built up, and would be restored within the life of the Project; therefore, these areas are generally not considered permanently impacted habitat. Following completion of construction, areas under the solar arrays would

be revegetated with low-growing vegetation (see Appendix N to the EFSEC ASC, the Revegetation and Noxious Weed Management Plan).

A recent study demonstrated that successful revegetation under solar panels is possible, even with native grass species adapted to full-sun conditions (Beatty et al. 2017). This study demonstrated that revegetation under solar panels was able to "achieve ground cover sufficient to control erosion and begin to restore wildlife habitat" (Beatty et al. 2017). A recent study in Oregon (Hassanpour Adeh et al. 2018) quantified changes to the microclimatology, soil moisture, water usage, and biomass productivity due to the presence of solar panels. In this study, areas under photovoltaic (PV) panels maintained higher soil moisture, showed a significant increase in late season biomass (90 percent more biomass), and were significantly more water efficient (328 percent more efficient), although caution should be used in applying these results from west of the Cascade Mountains to the drier Columbia Plateau (Hassanpour Adeh et al. 2018). Hernandez et al. (2020) evaluated the seed bank survival of two desert annual plant congeners, one rare (Barstow woolly sunflower [*Eriophyllum mohavense*]) and one common (Wallace's woolly daisy [*E. wallacei*]) in the Western Mojave Desert and found that seed bank survival across both species was significantly greater in shade (10 percent) microhabitats compared to runoff (5 percent) and control microhabitats (3 percent), possibly related to the shade microhabitats receiving less photosynthetically active radiation and having lower soil moisture and temperatures. Similarly, pre- and post-construction biological monitoring data at a PV solar facility in California indicated similar to higher vegetation productivity on-site compared to reference sites (Sinha et al. 2018). As a result, areas under solar panels that would be revegetated are generally considered modified rather than temporarily or permanently impacted.

As described above, habitat within the solar array fencelines would remain available to wildlife such as small mammals, birds, reptiles, and invertebrates in a modified condition. Limited research is available regarding the effects of PV array development (including the effects of fencing and shading) on residual wildlife habitat value; however, preliminary studies indicate residual habitat value remains for various species of birds, and the value may differ based on restoration and vegetation management practices. For example, DeVault et al. (2014) studied avian abundance at PV array fields and paired airport grassland areas using transect surveys. The results indicated that airport grasslands generally had greater species diversity and PV arrays generally had more total birds observed; however, overall bird mass was comparable at airport grasslands and PV arrays, suggesting more smaller birds tended to use the PV arrays than the airport grasslands. Similarly, Visser et al. (2018) measured bird abundance and diversity at a PV array facility in South Africa using point counts within and outside the facility. The primary conclusion of the study was that bird diversity and density were higher outside of the facility, but the facility was not absent of birds. Visser et al. (2018) found that the bird community inside the facility comprised birds that were generalist species or those that use grassland habitat. Thus, the species composition appeared to be associated with a change from a shrub/woodland habitat to a grassland habitat within the facility. This limited research demonstrates that while bird species use may change at PV arrays, use of the area is not eliminated; instead, the modified habitat supports a modified avifaunal community.

Similarly, post-construction biological monitoring data at a PV solar facility in California documented the presence of dozens of wildlife species, including California horned lark (*Eremophila alpestris actia*), ferruginous hawk, loggerhead shrike (*Lanius ludovicianus*), prairie falcon, black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Otospermophilus beecheyi*), San Joaquin kit fox (*Vulpes macrotis mutica*), and coast range fence lizard (*Sceloporus occidentalis bocourtii*) (Sinha et al. 2018). This California site was reseeded with native flora species to allow vegetation to grow beneath the solar

Why cannot this be an absolute requirement? Reference county code.

panels, creating new habitats, providing sources of food for various wildlife species, and providing dust control (Sinha et al. 2018). The results of monitoring indicated that, although solar facility construction activities do involve short-term disturbance, responsibly developed solar facilities can provide shelter, protection, and stable use of land to support biodiversity (Sinha et al. 2018).

7 MITIGATION MEASU

Why must the project extents include critical habitat? It seems the goals of the project are set in terms of production and this made it "not feasible" to preserve critical habitat.

7.1 Avoidance and Minimizati

The following avoidance and minimization measures were either applied during Project development or are proposed for Project construction and operations:

- To minimize impacts to wildlife, baseline studies were conducted at the Project consistent with the WDFW Wind Power Guidelines (WDFW 2009), the USFWS' 2012 Final Land-Based Wind Energy Guidelines (USFWS 2012), the 2013 USFWS Eagle Conservation Plan Guidance Module 1 – Land Based Wind Energy (USFWS 2013), and the USFWS 2016 Eagle Rule Revision (USFWS 2016). In order to minimize impacts to and avoid wildlife resources, the Applicant used the results of these baseline studies to inform the layout design.
- Project facilities were sited on previously disturbed (e.g., cultivated cropland) areas as feasible to avoid impacts to native habitats and associated wildlife species.
- The Project will use industry standard BMPs to minimize impacts to vegetation, waters, and wildlife.
- To the extent feasible, the solar array fencelines have been designed to enclose smaller solar arrays within the Solar Siting Areas rather than enclosing each entire Solar Siting Area, which will minimize habitat fragmentation and allow wildlife passage through the Solar Siting Areas. Fencing will be designed to be at least 4 inches above ground and will not have razor wire at the top.
- The Project was sited outside of wetlands and waters to the extent feasible to avoid and minimize impacts to these resources as described in Section 3.3 and Section 3.5 of the EFSEC ASC, which will also avoid impacts to fish and minimize impacts to wildlife species that use these habitats.
- If the final design results in impacts to waters of the state that cannot be avoided, the Applicant will work with EFSEC and WDFW to confirm whether a Hydraulic Project Approval is required, and will prepare an application accordingly.
- During construction, WDFW-recommended seasonal buffers (per Larsen et al. 2004) for ferruginous hawk nests would be observed to avoid disturbing nesting ferruginous hawks.
- During construction, WDFW-recommended seasonal buffers (per Larsen et al. 2004) for burrowing owl nests would be observed to avoid disturbing nesting burrowing owls, if present. If impacts to potentially suitable habitat cannot be avoided during final design, the Applicant will consult with WDFW regarding the need for burrowing owl surveys prior to construction, including surveys to determine habitat suitability for burrowing owls, and surveys for breeding owls if suitable habitat is present.
- The Applicant does not anticipate using pesticides during Project construction or operation; if unforeseen circumstances arise that require the use of pesticides, the Applicant will consult with WDFW and EFSEC regarding use of pesticides to avoid and minimize impacts to burrowing owl (per Larsen et al. 2004).

Why should approval continue if the habitat has not been surveyed, and impacts not quantified? I am not excited about the approach of approving a project with unknown impacts, and a fully detailed mitigation plan not concealed from the public outreach process.

- The Applicant would minimize bird and bat collision with Project infrastructure by implementing down-shield lighting (e.g., for permanent lighting at the substations and O&M facilities) that will be sited, limited in intensity, and hooded in a manner that prevents the lighting from projecting onto any adjacent properties, roadways, and waterways; lighting will be motion activated where practical (i.e., excluding security lighting);
- All permanent meteorological towers would be designed as free-standing (i.e., unguyed) to minimize collision risk for wildlife.
- The Applicant would acquire any necessary federal approvals as described in Section 2.23 of the EFSEC ASC. The Applicant will continue ongoing coordination with the USFWS regarding an eagle take permit for incidental take of bald and golden eagles, and will continue to evaluate eagle risk to determine if an eagle take permit is appropriate considering the use of the Project by bald and golden eagles. The Applicant does not plan to pursue an eagle take permit for the anticipated Phase 1 of the Project but will re-evaluate eagle risk and whether there is a need for an eagle take permit for the anticipated Phase 2 of the Project.
- Prior to construction, habitat surveys would be conducted within the Solar Siting Areas and portions of the Micrositing Corridor that were not surveyed in 2020. These habitat surveys would focus on documenting areas of sagebrush shrub-steppe habitat. Sagebrush shrub-steppe habitat would be avoided to the extent possible, and any unavoidable impacts mitigated as described in this HMP.
- Prior to construction, special status plant surveys would be conducted within the Solar Siting Areas and portions of the Project Micrositing Corridor that were not surveyed in 2020. If special status plant species are observed during pre-construction surveys, individuals and populations would be avoided to the extent possible. If avoidance is not possible, mitigation measures for impacts would be developed in consultation with the applicable agencies.
- The Applicant will limit construction disturbance by flagging any sensitive areas (e.g., wetlands, rare plant populations, if present) and will conduct ongoing environmental monitoring during construction to ensure flagged areas are avoided.
- The Applicant has prepared a BBCS that describes the surveys conducted, avoidance and minimization, and potential impacts to birds and bats and their habitat as a result of construction and operation of the Project (see Appendix M to the EFSEC ASC).
- The Applicant will conduct 2 years of standardized post-construction fatality monitoring to assess impacts of Turbine operation on birds and bats. Proposed post-construction fatality monitoring is described in the Applicant's BBCS (Appendix M to the EFSEC ASC).

7.2 Restoration

As described in the Revegetation and Noxious Weed Management Plan (Appendix N to the EFSEC ASC), temporarily disturbed areas and areas under the solar arrays would be revegetated following completion of construction with native or non-invasive, non-persistent non-native plant species. Example seed mixes consisting of native species are provided in the Revegetation and Noxious Weed Management Plan. Revegetation would begin as soon as feasible following completion of construction. Seeding would be done in a timely manner and within the appropriate season to facilitate germination. Site preparation, seeding techniques, and example seed mixes are described in the Revegetation and Noxious Weed Management Plan, along with success criteria, monitoring, and reporting. The Revegetation and Noxious Weed Management Plan also provides methods, monitoring, and reporting associated with the

The project would already be designed - it seems somewhat arbitrary to allow the wind farm to avoid impacts "to the extent possible" late in the process. At this point couldn't they claim that substantial modifications to the design weren't possible, and intentionally move forward with a project that would have substantial impacts?

The square footage model of habitat impact does not seem applicable to raptors and birds of prey who cover large areas. Introducing a small footprint hazard within their hunting area is a BIG impact!

prevention and control of the introduction and spread of noxious weeds from construction and operation of the Project

7.3 Compensatory Mitigation

After avoidance and minimization measures have been implemented, some impacts to wildlife habitat would remain. This section describes compensatory mitigation proposed to account for the effects of unavoidable impacts to habitat, in compliance with the regulations and guidelines described in Section 2.

I don't agree - previously in this report it was stated that the proportions of birds were different in these areas - this is an impact.

7.3.1 Calculation

Table 3 provides the estimated maximum number of acres of each habitat type and subtype proposed to be impacted by the Project under Turbine Option 1 that would result in the need for mitigation (i.e., excluding impacts to agricultural and disturbed land that are shown above in Table 2), and the resulting acres of mitigation needed based on the approach described in this HMP. In Table 3, the acres of impact are multiplied by the appropriate mitigation ratio, depending on impact type and duration as well as habitat subtype, in order to determine the mitigation need by habitat type and subtype. The temporary and permanent impact mitigation ratios shown in Table 3 are consistent with the WDFW (2009) Wind Power Guidelines because these impact types match the definitions provided in WDFW (2009). The modified habitat mitigation ratios were developed for this Project in the absence of solar development guidelines and considering that revegetated habitat under solar arrays does not meet the definition of temporary or permanent impacts from WDFW (2009). Table 3 summarizes Project impacts by impact type for habitat subtypes that result in the need for mitigation, for the purpose of calculating the maximum mitigation need for the Project. See Table 2 in Section 5 for a full tabulation of all Project impacts.

Table 3. Estimated Project Impacts on Habitat Subtypes and Associated Mitigation Need

Habitat Type	Habitat Subtype[1/]	WDFW Classification	Impact (Acres)	Mitigation Ratio[2/]	Mitigation (Acres)
Temporary Impacts Only[3/,4/,5/]					
Grassland	Non-native grassland	Class III	47	0.1:1	5
	Planted grassland		202	0.1:1	20
	Unclassified grassland[6/]		143	0.1:1	14
Shrubland	Rabbitbrush shrubland		126	0.1:1	13
	Dwarf shrub-steppe	Class II	9	1:1	9
	Sagebrush shrub-steppe		17	0.5:1	9
	Unclassified shrubland[6/]		26	0.5:1	13
Permanent Impacts Only[3/, 4/]					
Grassland	Non-native grassland	Class III	4	1:1	4
	Planted grassland		24	1:1	24
	Unclassified grassland[6/]		26	1:1	26
Shrubland	Rabbitbrush shrubland		32	1:1	32
	Dwarf shrub-steppe	Class II	1	2:1	2
	Sagebrush shrub-steppe		1	2:1	2
	Unclassified shrubland[6/]		5	2:1	10

Habitat Type	Habitat Subtype[1/]	WDFW Classification	Impact (Acres)	Mitigation Ratio[2/]	Mitigation (Acres)
Modified Habitat Only[4/]					
Grassland	Non-native grassland	Class III	3	0.5:1	1
	Planted grassland		100	0.5:1	50
	Unclassified grassland[6/]		333	0.5:1	166
Shrubland	Rabbitbrush shrubland		393	0.5:1	196
	Unclassified shrubland[6/,7/]	Class II	63	2:1	126
Total[8/]					**721**

Notes:

1/ Only impacted subtypes that result in the need for mitigation are shown.

2/ Temporary and permanent impact mitigation ratios are consistent with the WDFW (2009) Wind Power Guidelines; modified habitat mitigation ratios were developed for this Project in the absence of solar development guidelines and considering revegetated habitat under solar arrays does not meet the definition of temporary or permanent impacts from WDFW (2009).

3/ Overlapping permanent disturbance is subtracted from temporary impact areas (e.g., temporary impact area around a Turbine does not include the Turbine foundation and graveled areas); those are included only in the permanent impact calculations.

4/ Temporary impacts associated with solar facilities include a 10-foot construction buffer along the outside of the solar fencelines. Permanent impacts include the solar inverters and new access roads within the Solar Siting Areas. Modified impacts include those areas associated with the solar arrays. Following construction, low-growing vegetation would be planted under the solar arrays; therefore, these impacts would be considered a modification of habitat versus a temporary or permanent impact.

5/ Per WDFW (2009), for temporary impacts, a reduced mitigation ratio may be considered if restoration results in a higher level of habitat function than pre-project conditions. This reduced ratio may be applied as a credit to subsequent Project phases following determination that revegetated result in a higher level of habitat function compared to pre-Project conditions.

6/ Unclassified grassland and unclassified shrubland habitat subtypes include those areas mapped during surveys conducted in 2018 or using National Land Cover Database data that were not further classified into subtypes (e.g., planted grassland, sagebrush shrub-steppe) during the 2020 survey or desktop analysis. Acres of impacts to each of these "unclassified" habitat subtypes may be revised following habitat surveys of the Solar Siting Areas and Micrositing Corridor that are planned to occur prior to construction.

7/ For the purpose of mitigation within the solar fencelines, unclassified shrubland is conservatively assumed to be shrub-steppe (Class II habitat) and assigned a mitigation ratio of 2:1; areas under panels would not be revegetated with shrubs and thus construction of the solar array would constitute a permanent loss of shrub-steppe. Areas of unclassified shrubland would be field verified prior to construction and any areas assigned a different habitat subtype (e.g., rabbitbrush shrubland) will be re-assigned the appropriate mitigation ratio for modified habitat (e.g., 0.5:1).

8/ Totals may not sum exactly due to rounding.

For most habitat subtypes, the mitigation ratio for modified habitat is less tha
permanent impacts but greater than the ratio for temporary impacts for each l
function and value of these habitat subtypes will be reduced somewhat follov
arrays but not eliminated as described in Section 6.0. The habitat subtype un
conservatively assigned a mitigation ratio of 2:1 within the solar array fencel
potential for these areas to contain shrub-steppe (Class II) habitat; areas unde
revegetated with shrubs (e.g., sagebrush) and thus construction of the solar ar
permanent loss of shrub-steppe if shrub-steppe habitat cannot be avoided dur
unclassified shrubland will be field verified prior to construction and any are
habitat subtype (e.g., rabbitbrush shrubland) would be re-assigned the approp
modified habitat (e.g., 0.5:1). Therefore, excluding potential shrub-steppe habitat, revegetation of areas within the solar array fenceline outside of permanent impact areas (e.g., roads) in combination with the compensatory mitigation will result in no loss of functions and values of habitat overall.

As stated in this document, it is recommended to mitigate close to the impacted area to reduce impacts on the local ecosystem. Why should the applicant be allowed other mitigation options? It seems they would select the most profitable option for themselves, and not the best for the environment and community.

7.3.2 Mitigation Options

The Applicant proposes three potential mitigation options including (1) acquisition of a conservation easement to protect and enhance a compensatory habitat mitigation area, (2) mitigation fee with WDFW, and (3) payment to provide option with a local land trust or conservation organization, as available. In

It will result in a change in the ratio of species (favoring smaller birds), which will be detremental to the large raptors in the area.

So if the project has a design life of 20 years, what happens to the critical habitat that was impacted as part of the project, and will take generations to regrow?

addition, the Applicant would also consider alternative mitigation pathways if available in the future. The Applicant may use one option or a combination of options to mitigate for habitat impacts, and will determine the combination of the mitigation options that best correlate to the impacted areas in consultation with WDFW and the affected landowners, subject to EFSEC's approval. The final mitigation approach will offer enough suitable habitat to meet the regulatory requirements described in Section 2. The duration of all three mitigation options will be for the life of the Project.

Option 1 may include a conservation easement on habitat within or adjacent to the Project Lease Boundary that was avoided by Project infrastructure. For example, areas of sagebrush shrub-steppe and grassland initially proposed for Turbine locations have been avoided in the current layout, including areas of sagebrush shrub-steppe habitat subtype that were avoided due to their designation as WDFW PHS locations and critical areas (e.g., see Figures 3.4-1 and 3.4-4 of the EFSEC ASC). Sufficient acreage of like-kind habitat may be available within the Project Lease Boundary to mitigate for Project impacts and achieve no loss of habitat functions and values. This option would meet the criteria for replacement habitat outlined by WDFW (2009), including that it is like-kind, would be given legal protection as well as protection from degradation for the life of the Project, it is in the same geographical region as the impacted habitat, and is at some risk of deve[illegible] resulted in the initial placement of Turbines. selected for conservation easement, potentia[illegible] enhancements could include weed control, seeding, planting, and/or other appropriate measures to ensure habitat functions and values are improved over time. The mitigation area could be managed by the Applicant or a designated conservation partner to ensure the habitat is protected from degradation for the life of the Project.

What about after the project is done? Mitigation measures could be abandoned and the land permanentely modified?

Option 2 is based on the mitigation "by fee" option outlined in WDFW (2009), which states that the wind project developer, the permitting authority, and WDFW can identify an appropriate annual fee for the life of the Project to mitigate the Project's impacts on habitat. Alternatively, a "lump-sum" upfront payment could be applied in-lieu of annual fees and be determined by the number of acres of impact taking into consideration the duration of impact. The payment would be used primarily to support "stewardship" (management, monitoring, restoration, protection from degradation; WDFW 2009) of high-value habitat in the same ecological region as the Project. The stewardship funds could be applied to strategically important habitat acquired by WDFW throughout Washington. The annual fees or lump sum payment could be deposited into a dedicated WDFW account and may also be used for acquisition. The payment could be calculated by determining the cost per acre of obtaining a conservation easement and multiplying this by the acres of mitigation needed; the resulting valu[illegible]nt equivalent to the cost of mitigating via a conservation easement. Th[illegible]a conservation easement may also take into consideration the cost of h[illegible] maintenance and monitoring costs for the life of the Project.

Options 2 and 3 do NOT address impacts to wildlife in the delicate ecosystem, and are not the preferred mitigation measure in accordance with industry guidelines.

Option 3 may include a payment to a local land trust or conservation[illegible]f Badger Mountain, Tapteal Greenway; Land Trust Alliance 2021, Ritter 2021 Confederated Tribes and Bands of the Yakama Nation, Confederated[illegible]n Reservation, Nez Perce Tribe, and the Wanapum Tribe) to support a[illegible]vation project that benefits the types of habitats impacted by the Project. T[illegible]locations for mitigation in this option may consider areas identified for conservation and/or restoration by local tribes. The payment amount would be determined using similar methods as described for Option 2 (mitigation fee with WDFW), and could be used towards the acquisition and conservation of a property of the size described above to meet the Project mitigation need, or could be used to provide uplift to a larger

area and/or at an existing conservation easement. The payment amount and conservation project would be determined through coordination between the Applicant, EFSEC, WDFW, and the land trust or conservation organization or tribe.

Prior to construction the Applicant would update or supplement this HMP to identify the selected mitigation option based on coordination with stakeholders, availability of mitigation opportunities, and the final layout and final habitat mapping which will affect the quantity and habitat subtypes of impacted areas and thus the mitigation need. Additional details to be provided include a description of the baseline conditions at the mitigation area(s) including maps, mitigation measures (e.g., noxious weed control) and a description of how these mitigation measures have taken into consideration the probability of success, and ongoing management practices that will protect habitat and species, including a maintenance program.

This should be done upfront - not later with minimal ability of stakeholders to modify the final layout of the facility

7.3.3 Implementation Schedule

This HMP would be implemented concurrently with Project construction and continue through the life of the Project. Prior to construction the Applicant would confirm the selected mitigation option(s) and update or supplement this HMP to describe the mitigation area(s) and appropriate mitigation measures, as applicable, as well as documentation of a conservation easement and/or a long-term financial commitment, depending on the option selected. During construction, the Applicant would initiate baseline surveys to inform any mitigation treatments (e.g., noxious weed control, seeding, etc.). Prior to operation, the Applicant would initiate any mitigation treatments, which could continue, as needed, through Project operation.

8 MONITORING AND REPORTING

For Option 1 (Conservation Easement), the Applicant would hire a qualified investigator (botanist, wildlife biologist, or revegetation specialist) to conduct a comprehensive monitoring program for the mitigation area, as appropriate. For Option 2 (Mitigation Fee with WDFW), the annual or lump-sum fee would cover the costs for WDFW to monitor and report, as needed, on stewardship activities. For Option 3 (Payment to Provide), part of the payment would fund a stewardship endowment that would cover costs for the land trust, conservation organization, or tribe to monitor and report on how they have implemented the funding to meet the mitigation needs of the Project. The purpose of this monitoring is to evaluate on an ongoing basis the protection of the habitat quality and the results of any habitat enhancements.

For Option 1, the investigator would monitor the habitat mitigation area for the life of the Project beginning in the year following the initial planting/seeding as applicable. Monitoring would occur annually during the first 5 years following initial treatment, then occur every 2 years until year 10 (i.e., in years 7 and 9), then every 5 years thereafter. The Applicant would identify appropriate monitoring actions for the Conservation Easement and the habitat treatments that are implemented in consultation with WDFW. Depending upon specific habitat treatments implemented, the investigator may carry out the following monitoring procedures:

1. Assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria (see Section 9 of this HMP);
2. Record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year);

3. Record any wildfire that occurs within the mitigation area and any remedial actions taken to restore habitat quality in the damaged area;
4. Assess the success of the weed control program and recommend remedial action, if needed; and
5. Assess the survival rate and growth of planted/seeded species.

The investigator would visit identified monitoring locations within planted areas, as applicable. The mitigation area would be compared to baseline conditions to determine the success of any treatments, and may also be compared to reference sites at the Project to demonstrate how the mitigation achieves equivalent or greater habitat quality than the areas impacted. Prior to construction and after the mitigation option(s) has been selected, the Applicant would update or supplement this HMP to include additional monitoring details such as monitoring locations as applicable.

9 SUCCESS CRITERIA

I don't agree - success would be no impact to critical species

Mitigation of the habitat impacts of the Project may be considered successful if the Applicant documents through monitoring and reporting the protection and enhancement of sufficient habitat to meet the habitat replacement requirements as described in Sections 2 and 7.3.1 or provides commensurate funding. For Option 2, mitigation would be considered successful in meeting the Applicant's obligations at the time of payment to WDFW.

10 WASHINGTON ADMINISTRATIVE CODE COMPLIANCE

Compliance with the WAC is shown in Table 4.

Table 4. Washington Administrative Code 463-60-332(3) Requirements Matrix

Requirement	Section(s) where addressed
(3) Mitigation plan. The application shall include a detailed discussion of mitigation measures, including avoidance, minimization of impacts, and mitigation through compensation or preservation and restoration of existing habitats and species, proposed to compensate for the impacts that have been identified. The mitigation plan shall also:	Entire
(a) Be based on sound science	Throughout (e.g., see Sections 6.0 and 7.3.1)
(b) Address all best management practices to be employed and setbacks to be established	Section 7.1
(c) Address how cumulative impacts associated with the energy facility will be avoided or minimized	Sections 5.0 and 7.1
(d) Demonstrate how the mitigation measures will achieve equivalent or greater habitat quality, value and function for those habitats being impacted, as well as for habitats being enhanced, created or protected through mitigation actions	Sections 5.0 and 7.3
(e) Identify and quantify level of compensation for impacts to, or losses of, existing species due to project impacts and mitigation measures, including benefits that would occur to existing and new species due to implementation of the mitigation measures;	Section 7.3.1 and 7.3.2
(f) Address how mitigation measures considered have taken into consideration the probability of success of full and adequate implementation of the mitigation plan	Section 7.0

Requirement	Section(s) where addressed
(g) Identify future use of any manmade ponds or structures created through construction and operation of the facility or associated mitigation measures, and associated beneficial or detrimental impacts to habitats, fish and wildlife	Not Applicable
(h) Discuss the schedule for implementation of the mitigation plan, prior to, during, and post construction and operation	7.3.3
(i) Discuss ongoing management practices that will protect habitat and species, including proposed monitoring and maintenance programs	Section 7.3.2, 8.0
(j) Mitigation plans should give priority to proven mitigation methods. Experimental mitigation techniques and mitigation banking may be considered by the council on a case-by-case basis. Proposals for experimental mitigation techniques and mitigation banking must be supported with analyses demonstrating that compensation will meet or exceed requirements giving consideration to the uncertainty of experimental techniques, and that banking credits meet all applicable state requirements.	Not Applicable

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From:	Jason Cowgill
To:	EFSEC (UTC)
Subject:	Fwd: Horse Heaven Hills Windfarm
Date:	Tuesday, March 30, 2021 12:07:17 AM

Informational Meeting Comment #IM0020
Horse Heaven Wind Farm
Docket #210011

External Email

Sent from my iPhone

Begin forwarded message:

Subject: Horse Heaven Hills Wind farm

To the Council,

I am a 49 year resident of Kennewick and the Tri Cities area. I am also a Graduate of Washington State University with a BS in Environmental Science and now a local business owner as well. I am married and have two middle school aged kids and we recently built our dream home in southwest Kennewick. Our backyard faces due south, directly at the very hillsides that the Horse Heave Hills wind farm would occupy.

Many of my neighbors strongly oppose this project for the obvious reason that they are concerned about declining property values as a result of the eyesore the wind farm would create. I am also opposed to this project but not just for the easily obvious.....I am very concerned for what comes after should this project be approved.

Our state has become very divided in recent years and it is a widely shared belief in Eastern Washington that our political fate continues to be determined by those that reside in Western Washington. When I was enrolled at WSU and studying Environmental Science one very interesting topic that was discussed in my Human Ecology class was NIMBY. This term refers to the tendency for people to show great support for things like prisons, work-release centers, solar farms, wind farms and really any project with a large footprint so long as it is "Not In My Back Yard."

We are not immune to this effect here in the Tri Cities but I find it very troubling to hear that similar projects that were to be located in the western part of the state were quickly shot down...no one wanted these giant windmills in their back yard. Steps are being taken to try and bypass local avenues for approval because they know we dont want it here.....and neither do people in western WA. The only difference is where the political power lies.

Despite my comments and lack of support for this particular new wind farm I do support renewables and alternative energy sources. We already live with a large number of windmills all over eastern WA and very little if any of the power that is generated stays local. If we have to live with the eyesore we should be the first in line to receive its benefits but that would not be the case here.

Going above our political heads here locally and green lighting this massive project would only confirm what many of us in eastern Washington already know....that what is important to us and what we value means little to the rest of the State.

Yes....these projects have to go somewhere, but we already have hundreds of windmills in place throughout Eastern Washington. Seattle doesnt want all of the state's homeless people just because they already have most of them. Please dont allow this project to move forward....we have to stare out our back window at these things and be reminded daily that the power they generate is benefitting people hundreds if not thousands of miles away.

Thank you for your time

Jason Cowgill

Sent from my iPhone

From:	mstrankman@aol.com	Informational Meeting Comment #IM0021
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Proposed Tri-Cities wind farm	Docket #210011
Date:	Tuesday, March 30, 2021 1:49:49 AM	

External Email

Washington state Energy Facility Site Evaluation Council members-

I just wanted to express my opinion on the proposed wind farm in the Tri-Cities area.
I believe the proposed wind farm is a bad idea, because-

1) The wind turbines will kill many birds (especially eagles, and hawks).
I live in a location in the Tri-Cities where I get the opportunity to watch hawks fly everyday when they are looking for their food. What a majestic bird!
Has any type of mitigation study been done to develop plans to limit the number of birds killed if the proposed wind farm is built?

2) The proposed wind farm will have many wind turbines placed on dryland wheat farms.
I don't think it is a good idea to have turbines on a dryland wheat farm, because of the potential for a wildfire (especially during the Summer months).
If this hasn't been evaluated, I think that it should be.

Thank you for reading my comments!

Mark Strankman

From:	Brittany Cartwright	Informational Meeting Comment #IM0022
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Horse Heaven Wind Farm	Docket #210011
Date:	Tuesday, March 30, 2021 2:40:29 AM	

External Email

To Whom It May Concern:

As a long time Tri Cities resident I was appalled when I heard of the plans for a wind farm to be located right outside our community. I grew up in Benton City and the thought of the beautiful vistas I enjoyed as a child being ruined by gargantuan tons of steel is heart breaking. Our local community will not benefit from these energy sources as we rely on hydro and nuclear power to more than adequately support us. After a crushing year for the wine/tourism industry due to Covid, building this wind farm just adds insult to injury. Numerous studies have shown the negative impact that wind turbines have on the local economy.
I beg you to consider the local community while considering this proposal. We do not want this wind farm. Please do not give it approval.

Brittany

From:	Dan and Sandy Bradford
To:	EFSEC (UTC)
Subject:	Horse Heaven Wind Farm - OPPOSE
Date:	Tuesday, March 30, 2021 3:19:56 AM

Informational Meeting Comment #IM0023
Horse Heaven Wind Farm
Docket #210011

External Email

We **strongly OPPOSE** the construction and operation of the Horse Heaven Wind Farm project in Benton County. This will impact our beautiful and natural views. Do not allow this venture to move forward.

Dan and Sandy Bradford
112215 N. Harrington PRNE
West Richland, WA. 99353

From:	DJ Crager
To:	EFSEC (UTC)
Subject:	Horse Heaven Hills Windfarm
Date:	Tuesday, March 30, 2021 5:26:34 AM

Informational Meeting Comment #IM0024
Horse Heaven Wind Farm
Docket #210011

External Email

Please stop the proposed Horse Heaven Hills wind farm from going in SO CLOSE to our community (Finley, Kennewick to Benton City). A gigantic turbine wall just to the south of city limits, will squash any plans for future urban growth. It will encourage more wind turbines to go in anywhere further south along Hwy 395 all the way to Plymouth, changing our landscape forever. Birds will die. Wildlife will be further displaced. Wind power seems so low-tech. Energy should be spent on innovations that aren't so destructive and long-lasting negatives to the landscape and communities.

Joan Crager
Kennewick, WA

From:	Esteban Ortiz	Informational Meeting Comment #IM0025
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Horse Heaven Wind Project	Docket #210011
Date:	Tuesday, March 30, 2021 5:36:52 AM	

External Email

Greetings,

I can not attend the public forum for this email. My name is Esteban Ortiz, I live in Richland, WA I moved out here in October 2019. I was excited to come out to the "evergreen" state mostly because it believes in wind, solar and other eco friendly power sources. I lived in Indiana and traveled many times to Chicago, if you ask anyone who has made the trip from Indianapolis to Chicago can tell you about the wind turbines. Everyone knows it is not an eye sore like people claim it will be out here in the area. All they say hey we are "halfway to Chicago" and they are glad to see "eco friendly" power!

It is called evolution and respecting our land. I hope people who oppose this can have an "ego" check. Be more conscious and self aware of what is going to produce power in the area.

Sincerely,

--
Esteban Ortiz
ortizesteban99@gmail.com
(925)727-2374

From:	Eric Greenwell
To:	EFSEC (UTC)
Subject:	Horse Heaven Wind Farm
Date:	Tuesday, March 30, 2021 5:46:44 AM

Informational Meeting Comment #IM0026
Horse Heaven Wind Farm
Docket #210011

External Email

I may not be able to attend the meeting today, but I have some questions that I hope will be addressed:

1) How much of the projects energy will be exported? In particular, during the period in the spring when we seem to have more wind and hydro than we need, leading to spilling lots of water.

2) Will residential energy rates be higher with the Scout wind farm than without a new wind farm?

3) What percentage of the yearly power is expected to be from solar?

Eric Greenwell

From:	janice love
To:	EFSEC (UTC)
Subject:	HORSE HEAVEN HILLS WIND FARM
Date:	Tuesday, March 30, 2021 6:25:05 AM

Informational Meeting Comment #IM0027
Horse Heaven Wind Farm
Docket #210011

External Email

I am a resident in West Richland. No way do I want this wind farm. It won't benefit anyone in the state of Washington. This is an boondoggle and the lucrative benefits will go to OUTSIDE WEAlTHY INTERESTS AND THE MANUFACTURERS of these EYESORES!..It is amazing that the groups who benefit monetarily chortle they are for the environment...these things will KILL COUNTLESS BIRDS..I built my home in West Richland to live in a beautiful area with some mountain ranges..never believing the area would be destroyed with 244 -500 feet of ugly steel structures with propellers on top and blinking red lights. We might as well call this THE NEW RED LIGHT DISTRICT. Take your stupid ideas elsewhere... my fear is those in Olympia will take the bribes from Colorado. Let Colorado figure their own problems out and they can blight their own scenery.

Janice K Love..Westv Richland

From:	Rick
To:	EFSEC (UTC)
Cc:	Sanne, Tiffani; lj.rohrer@leg.wa.gov
Subject:	Horse Heaven Hills Wind Farm Public Comments
Date:	Tuesday, March 30, 2021 6:33:23 AM
Attachments:	A Tedeschi Comments to Proposed Horse Heaven Hills WindMill Farm 3-30-21....pdf

Informational Meeting Comment #IM0028
Horse Heaven Wind Farm
Docket #210011

External Email

Dear Sir/Madame,

Submitted for your disposition are my comments and objection to the proposed windmill farm in my city/county. Thank you for your consideration.

Allan Tedeschi

75510 Country Heights Dr.
Kennewick, WA 99338
H (509) 438-9017
rickziklag@frontier.com

1. Has an Environmental Impact Statement (EIS) been prepared? If so, what is the reference for public review?
2. This project should not go forward if an EIS has not been prepared and evaluated by affected Washington State citizens, per the 1969 National Environmental Policy Act.
3. An EIS should address the following:
    a. Loss of property values. There are multiple studies that document property value impacts (e.g., as summarized by Forbes article: https://www.forbes.com/sites/judeclemente/2015/09/23/do-wind-turbines-lower-property-values/?sh=4237396b48cb . The high-end homes within visual and sound corridors of the proposed windmill farm and its resultant transmission lines could result in the loss of millions of dollars of property value.
    b. Loss of farm land affects. The reduction of farm land and impacts to the Washington State food supply chain need evaluated.
    c. Loss of future city residential and commercial expansion. The City of Kennewick and Benton County can only expand to the south. The loss of development and new homes could be in the billions of dollars.
    d. Cost-benefit analysis. The true efficiency of wind power in a state that has enormous green power generation already needs documented. The costs should include production of materials, construction, costs to manage the power to the existing electrical grid, impacts to other electrical sources, maintenance, and most importantly, dismantling upon end-of-life of the system.
    e. The need for systems and costs to make a system competitive with its extremely low power generation efficiency, such as the need for installation of a hydrogen fuel cell system to convert unwanted energy to potential power sources.
    f. Actual cost impacts to Washington citizens for raised power rates to support installation and operation.

I urge the state to reconsider and stop this project. An EIS would show extremely low value to citizens of this state for the cost impacts.

As a citizen within short visual distance of the proposed farm and electrical transmission equipment, I object to the destruction of our natural wildlife and physical beauty. I would not have bought the property I live on over 10 years ago if such a project would have been in existence. This alone demonstrates the loss of property values.

The destruction of our natural skyline beauty from existing windmill farms along the Columbia River, south-eastern Kennewick, and in Ellensburg is a travesty and blight. Do not further ruin our great state. Do not reduce our livelihoods by the impacts to raising taxes, power bills, and loss of property values.

Respectively submitted (by email),

Allan Tedeschi
75510 Country Heights Dr. Kennewick, WA 99338
(509) 737-1944
rickziklag@frontier.com

From:	Andra Cole
To:	EFSEC (UTC)
Subject:	Horse Heaven Informational Meeting
Date:	Tuesday, March 30, 2021 6:34:59 AM

Informational Meeting Comment #IM0029
Horse Heaven Wind Farm
Docket #210011

External Email

I live in south Kennewick and am opposed to this project.

Andra Cole, Kennewick

From:	Owen Kramer
To:	EFSEC (UTC)
Subject:	Horse Heaven Hills Wind Farm
Date:	Tuesday, March 30, 2021 7:31:28 AM

Informational Meeting Comment #IM0030
Horse Heaven Wind Farm
Docket #210011

External Email

I think that the Horse Heaven Hills Wind Farm is a wonderful idea. It will further diversify the Tri-Cities economy. Far from being an eyesore, it will add to the attractiveness of the area.

Owen Spencer Kramer
2354 Snohomish Avenue
Richland, WA 99354

From:	Emma Heintz
To:	EFSEC (UTC)
Subject:	Horse Heaven wind farm
Date:	Tuesday, March 30, 2021 8:26:12 AM

Informational Meeting Comment #IM0031
Horse Heaven Wind Farm
Docket #210011

External Email

Hello, I am sending this email to state that I am in favor of the Horse Heaven Wind farm. I think the “visual pollution” people are claiming are a silly argument.

There are only 1558 signatures on the “Save our Ridges” petition. However, www.tricitiesbusinessnews.com claimed that Benton City, Prosser, West Richland, Richland and Kennewick have 169,000 total across 5 cities in Benton County. Five cities that will be impacted by these Wind Turbines, but I only see benefits.

1558/169,000=0.00921893% of people say they do don’t want Wind Turbines.

Less than 0.01% of Benton County is against these wind farms. Since when did permits on private property get pulled because less than 0.01% of the neighbors say no?

Thank you,

Emma Heintz

Get Outlook for iOS

From:	Kimm Minkler	Informational Meeting Comment #IM0032
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	WIND FARM	Docket #210011
Date:	Tuesday, March 30, 2021 8:39:44 AM	

External Email

As a long-time Tri City resident (since the 1970's) I have watched the boom and bust of the local economy. In the last 10 years, there has been a very steady increase in jobs, houses, and amenities that have not been reliant solely upon Hanford, but are self-sustaining in their own right. This includes energy, which is abundant and low cost here in Tri Cities, which in turn attracts businesses and strengthens our tax base.

The Eastern side of the state has every right to decide whether or not a huge windfarm, solar facility, or anything else be based in their backyard, especially when the major benefit of the facility is for the Western side. We neither need nor want this facility; we have plenty of jobs and plenty of energy, as I have stated.

I strongly encourage Jay Inslee to vote NO on this proposal. Instead, perhaps he and other leaders of this state could begin concentrating on approving the newly developed "small" nuclear reactors that are easily set up, easily taken down, encapsulate all their own waste, and provide limitless power regardless of sun, wind, or rain (UNLIKE WIND FARMS). That's the future of energy; CLEAN NUCLEAR POWER.

Kimm D. Minkler
KMinkki@hotmail.com

From:	LA
To:	EFSEC (UTC)
Subject:	Oppose HHH Wind Farm
Date:	Tuesday, March 30, 2021 8:47:07 AM

Informational Meeting Comment #IM0033
Horse Heaven Wind Farm
Docket #210011

External Email

As a resident of Benton County WA, I am against the HHH Wind Farm. Please oppose the project!

Linnea Kohler

From:	Paula Nolte
To:	EFSEC (UTC)
Subject:	Horse Heaven Wind Farm
Date:	Tuesday, March 30, 2021 9:21:46 AM

Informational Meeting Comment #IM0034
Horse Heaven Wind Farm
Docket #210011

External Email

Our family lives in WA and we supported the wind Turbines from the beginning. We now know more and think...ENOUGH! The hills around our area are one of the longest , treeless in our country. We are a nuclear area with hero power. Put those turbines somewhere else. We are not for sale here.
Blades don't recycle. Birds a d animal impact. Property value affected. Fossil fuel is still needed to operate, transport, and repair. Energy generated is not even kept local. Outsiders contract with politicians who don't even live in our area. Some farmers make $ for land sale or land use but only a few with thousands of other locals impacted and given no voice. WE moved here for the open area now it's threatened.
Take them somewhere else.
Ron and Paula Nolte & family.
Benton City WA

From: Jackie Aman
To: EFSEC (UTC)
Subject: City of Kennewick - Horse Heaven Wind Farm
Date: Tuesday, March 30, 2021 9:31:41 AM
Attachments: image002.png
image003.png
COK Letter to EFSEC-signed.pdf

Informational Meeting Comment #IM0035
Horse Heaven Wind Farm
Docket #210011

External Email

Jackie Aman
City of Kennewick
City Manager's Office
O: 509.585.4238
jackie.aman@ci.kennewick.wa.us

KENNEWICK WASHINGTON

Leading the Way

March 30, 2021

Energy Facility Site Evaluation Council
Sonia Bumpus, EFSEC Manager
621 Woodland Square Loop, PO Box 43172
Olympia, WA 98504-3172

Re: Horse Heaven Wind Farm Project Proposal Expedited Review Process

Dear Ms. Bumpus,

On behalf of the Kennewick City Council I would like to state that we are grateful for the opportunity to comment today on the expedited review process for the proposed Horse Heaven Wind Farm Project, which would be located south of the City of Kennewick in unincorporated Benton County.

It is our understanding that the applicant, Scout Clean Energy, is requesting that their application for Site Certification be reviewed in accordance with the EFESEC expedited process requirements. The City of Kennewick would like to go on record that we oppose this request for expedited review. The expedited review process would significantly limit public involvement and result in reduced environmental impact review and analysis.

Based on the community interest in this project, we want to encourage EFSEC not to expedite the permit process but rather to provide significant opportunity for public input and comment as well as a thorough environmental review process. We believe this is in alignment with the Washington 2021 State Energy Strategy, which identifies the need for maximum outreach and engagement with communities and families in all parts of the state, to remove barriers and change systems that prevent participation. We support this sentiment to have maximum public engagement, review and analysis.

Thank you for the opportunity to comment on the proposed expedited review process for the Horse Heaven Wind Farm Project. Again, the Kennewick City Council respectfully requests that you deny the request for expedited review.

Sincerely,

Don Britain, Mayor
City of Kennewick

Office of the Mayor

210 W. 6th Ave • PO Box 6108 • Kennewick, WA 99336-0108
(509) 585-4238 • Fax (509) 585-4445 • go2kennewick.com

From:	Larry Gregory
To:	EFSEC (UTC)
Subject:	Proposed Windfall Project Comment
Date:	Tuesday, March 30, 2021 9:50:18 AM
Attachments:	Windmill Support Letter.docx

Informational Meeting Comment #IM0036
Horse Heaven Wind Farm
Docket #210011

External Email

Please see attached letter.

Sent from Mail for Windows 10

My family moved to the Tri-Cities in 1945 as World War II wrapped up. We consider this region to be our home. During our time here we have witnessed many changes and improvements, including additional bridges across the Columbia River (that some people protested). Farmland and sagebrush have turned into shopping centers, homes, schools, theaters and athletic fields. In fact, the building of regional dams created local employment and added to our available, clean and renewable energy for our ever-increasing electrical gadgets and expanding population. We have enjoyed the addition of the wind farms found in the Horse Heaven Hills, Walla Walla, Southeast Oregon, and Ellensburg areas. These spectacular machines are mesmerizing as the blades go round creating a fascinating "woosh" sound. Yes, we both consider the existing turbines to be a beautiful addition to our landscape and not an eyesore. Moreover, farmers welcome the added income while they continue farming the land. It is a win-win. And the Tri-Cities has been the beneficiary of the added electricity and employment from this "clean" industry.

During our decades of living here, we have been saddened by the NIMBY folks, the "not in my backyard." This regressive viewpoint detracts from the vital role industry provides in our current and future development. Even the "no change" folks who oppose almost anything new and want to preserve the past at all costs pose a negative approach to what our region can become. Let it be remembered that some of us can recall when Ice Harbor Dam was proposed and some locals were opposed because it would detract from our regional beauty. The windfarm proposal represents a new and cutting-edge energy addition and is just that, an addition, a new and beautiful benefit, not a detractor to tourism and economy.

We totally support the building of additional wind turbines in the Tri-Cities. This project will not deter tourism, just ask the city of Walla Walla. We welcome and endorse this vital project for clean electricity. We support this project that will benefit our region for years and years to come. And this activity can become one more part of improving the nation's crumbling infrastructure that has been neglected for far too many years. We would rather see wind turbines than additional homes along the horizon. Therefore, my wife and I COMPLETELY SUPPORT this wInd farm project in the Horse Heaven Hills and want to see it added to our economic base. There are too many benefits to ignore the progress it represents.

Larry And Peggy Gregory

6855 West Clearwater Avenue, A 101-154

Kennewick, WA 99336

From:	Shelley Scott	
To:	EFSEC (UTC)	Informational Meeting Comment #IM0037
Subject:	Wind farm	Horse Heaven Wind Farm
Date:	Tuesday, March 30, 2021 10:01:34 AM	Docket #210011

External Email

My husband and I are extremely opposed to this project. We don't need a huge wind farm to take away the natural beauty of the Columbia basin with two huge healthy rivers that supply hydroelectric power a plenty.
They are expensive, easily destroyed in severe freezing temps as noted in Texas this latest winter freeze there, and kill hundreds of birds which are plentiful in our beautiful basin.
Place these wind turbines out in the middle of Nevada or other desolate areas where water sources aren't plentiful.
Tri Cities is a booming community as is evident by me who grew up in Walla Walla in the 50's and 60's when this area was nothing but a support for Hanford and dams on the Snake and Columbia. Now, it is (in comparison) huge and thriving in growth even in the last 11 years since we moved here. We don't need this wind farm to continue the growth or potentially stop it and our tourism.
Sent from my iPhone Shelley Scott

From:	Myles Andrews	Informational Meeting Comment #IM0038
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Scout Energy Wind Farm Benton County	Docket #210011
Date:	Tuesday, March 30, 2021 10:14:40 AM	

External Email

I am commenting to show my opposition to the Scout Energy Wind Farm in Benton County, WA.

My name is Myles Andrews. I am a Benton county resident living on Red Mountain near Benton city.

II oppose the Wind Farm on the following items: Economic, Environmental, Tourism, Ignoring Urban Growth Boundaries, Visual pollution and Lack of need.

One of the reasons many companies locate to our area is the ability to attract good employees with the attractive climate and vistas. The Wind Farm will affect this negatively. Any jobs created will be short term.

Wind machines have been shown to cause damage to native animals including raptors and migratory birds.

Many people move to and visit our area to enjoy golfing, wine tasting and our natural vistas. All of which will be negatively affected by the Wind Farm.

The wind farm is very close to our existing Urban Boundaries and will limit further growth.

The proposed wind machines are taller than the space needle. We do not want hundreds of them on our skyline with their light reflecting flickering blades and flashing night time red lights.

The energy produced by the Wind Farm will mostly be generated when it is not needed here. The energy will be sent to California or western Washington. To save the costs of transmission, the Wind Farm should be located in those areas. Let those who use the energy deal with the above problems.

Again, I oppose this project and urge you to reject it.

Myles Andrews

Benton City, WA

From:	Cherryl Worley	
To:	EFSEC (UTC)	Informational Meeting Comment #IM0039
Subject:	Horse Heaven windmills	Horse Heaven Wind Farm
Date:	Tuesday, March 30, 2021 10:30:03 AM	Docket #210011

External Email

Most pollution is gathered in by your eyes, and becomes what you see. These windmills are the most biggest destructive liter that man could devise. No more could I go out and enjoy the night sky, or drive across our purple mountains majesty without the biggest liter pile that I have seen at other sites, utilizing the same inefficient technology, destroying the natural beauty of our landscapes. According to an article in the paper yesterday, this wheat farmer would benefit his family monetarily for generations to come, as I'm sure also it would benefit Scout Clean Energy, for many years if not generations to come.
I would wonder if Scout Clean Energy and the farmers who will receive monetary wind falls would be as enthusiastic to build these projects if the money went to the people who had to suffer looking at these eyesores, blight, contamination and liter.
I would think not, but their tune would rapidly change.
Our area in Eastern Washington contains some of the most contaminated earth in the world, yet the visual contamination and monstrosities would pale in comparison to the eyesore of this monstrous liter created by these windmills.
This is a direct assault at destroying our natural beauty of Eastern Washington.
Clean nuclear is on the immediate horizon. If it comes to frutation in the next few to several years, then we are stuck with these inefficient vehemouths.
I vote NO, NO, NO, ABSOLUTELY NOT!

Sent from my iPad

From:	Debra Buck	Informational Meeting Comment #IM0040
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Horse Heaven comment	Docket #210011
Date:	Tuesday, March 30, 2021 10:31:26 AM	

External Email

I am in favor of this energy development and storage facility.

We in WA should be proud to be leaders in the technologies already in demand around the globe!

Naysayers of alternative energy frequently bemoan the 'cost of large scale battery storage', but it's projects exactly like this that move the technology into the real world!

After all, computers were said to be too huge and bulky for effective home use, but demand created innovation.

Lastly, America could see the benefit of ugly, leaking oil derricks dotting the landscape for the last 100+ years, using the 'it's money, it's profit, it's private enterprise!'

This is exactly the same, but the wind farm is the source, not the goo under the earth. If people want to complain that there are downsides, welcome to reality.

Global transport awaits the new!

From:	mary Kubinski	
To:	EFSEC (UTC)	Informational Meeting Comment #IM0041
Subject:	Wind farm in east Wa	Horse Heaven Wind Farm
Date:	Tuesday, March 30, 2021 7:34:03 AM	Docket #210011

External Email

This wind farm is a bad idea from the start. It will only promote the tearing down of the dams, which are environmentally the cleanest energy. They are a blemish on the landscape and harmful to wildlife. Rethink this bad idea!

Sent from my iPad

From:	JJSMAS
To:	EFSEC (UTC)
Subject:	Against Horse Heaven Wind Farm
Date:	Tuesday, March 30, 2021 10:31:42 AM

Informational Meeting Comment #IM0042
Horse Heaven Wind Farm
Docket #210011

External Email

I understand that there is a public hearing today on the subject Scout Clean Energy project in Eastern Washington and I would like to express my opposition to the project.
My opposition is based on the following:

- The project will be of significant adverse impact the on the local scenery of the Tri-Cities for little to no redeeming value
- The wind energy produced, when available, will offset mainly existing hydro power produced in the Pacific Northwest, hydro power that is already highly environmentally sound, i.e., energy recovered from falling water heading to the ocean
- The project takes advantage of tax credits that will primarily benefit investors and leave the landscape of the Tri-Cities marred for decades.

John J. Sisk
Richland, WA

From:	Fred Giacci	Informational Meeting Comment #IM0043
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Objection to wind farm on Horse Heaven Hills	Docket #210011
Date:	Tuesday, March 30, 2021 10:40:24 AM	

External Email

I strongly object to the proposed wind farm on Horse Heaven Hills. There is no benefit to Tri-Cities residents or businesses. In fact it will only harm us. It's not fair for us to be expected to sacrifice for those on the west side of the state and even other states.
Fred Giacci

Sent from my iPhone

From:	Justin Meinecke
To:	EFSEC (UTC)
Subject:	Horse Heaven Hills Wind Farm
Date:	Tuesday, March 30, 2021 10:49:02 AM

Informational Meeting Comment #IM0044
Horse Heaven Wind Farm
Docket #210011

External Email

Hello,

I won't be available to attend the meeting tonight, but please know that I am opposed to the Horse Heaven Hills Wind Farm proposal and mark me down as such.

Thank you,
Justin Meinecke
Tri-Cities Resident

Informational Meeting Comment #IM0045
Horse Heaven Wind Farm
Docket #210011

From: daniel gary
To: EFSEC (UTC)
Date: Tuesday, March 30, 2021 10:57:53 AM

External Email

We do not want more windmills in benton county. I live in benton city and i do not want them. We have affordable electricty that is constant and reliable. Windmills create very expensive energy and un reliable and an eyesore. It will only providw very few long term jobs. Also windmills are foreign made so that doesn't help the United States economy. We don't need to send power to the west side. They can build their own if wind and solar power is so good. Hopefully the westside and east side will become 2 states in the future

Owens, Joan (UTC)

From: Paul Shoemaker <paulshoe@gmail.com>
Sent: Tuesday, March 30, 2021 11:26 AM
To: EFSEC (UTC)
Subject: Scout Energy Horse Heaven pollution

Follow Up Flag: Follow up
Flag Status: Flagged

External Email

Hello,

I oppose the Scout Energy Horse Heaven wind farm on the beautiful rolling hills south of the Tri-Cities.

I will be brief. I run a web site; hiketricities.com. I encourage people to get out and "enjoy the beauty that surrounds us". The proposed Scout Energy Horse Heaven Hills wind farm threatens that beauty. By placing more than 200, huge wind turbines along the Horse Heaven hills, our beautiful vistas will be ruined by this eye pollution.

Please deny the Scout Energy Wind Farm proposal. We have plenty of energy in our area from clean hydropower and nuclear power which we ship out of our area because of the surplus. If other parts of the west need this power, locate the wind farm in their back yards, not ours.

I've seen the blight these huge wind farms place on the natural surroundings along the Columbia Gorge and in southern Idaho. Please don't allow this to encroach upon our area here in the Columbia Basin.

I am really disheartened that Scout Energy chose to bypass local officials, comment, and opinions to go directly to EFSEC for this approval. I feel that now, it is up to you to recognize the opposition to this project and take action to stop it.

Thank you,
Paul Shoemaker, outdoor enthusiast, owner, hiketricities.com

Enjoy the Beauty that Surrounds Us
https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fhiketricities.com%2F&data=04%7C01%7Cefsec%40utc.wa.gov%7C410d373264374cb5c92f08d8f3a93690%7C11d0e217264e400a8ba057dcc127d72d%7C0%7C0%7C637527255963277539%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=sUTs5g1ydJjTcdbrdQ9GAeCV1M2j2zEMbXTsTFjZi3U%3D&reserved=0

From:	Ben DeForest
To:	EFSEC (UTC)
Subject:	Comments on the Horse Heaven Hills Wind Farm Project
Date:	Tuesday, March 30, 2021 11:43:14 AM
Attachments:	EFSEC Committee Letter.pdf

Informational Meeting Comment #IM0047
Horse Heaven Wind Farm
Docket #210011

External Email

EFSEC Committee Members:

Please see the attached letter for why I oppose the Horse Heaven Hills Wind Farm Project.

Respectfully,

Benjamin DeForest

EFSEC Committee:

I am a resident of the Horse Heaven Hills area and I live quite close to the intended installation location for the proposed HHH Wind Farm. I am an electrical engineer, Army veteran that deployed to Iraq, and former wildland firefighter. I am strongly opposed to the HHH Wind Farm. Not only will the wind farm be an eyesore and devalue land in the area, it will also disrupt the tourism of the area and affect the whole commerce of the area. Southeast Washington is not only a large farming area, but also has a lot of industrial and production activity as well, and is the location of the DoE Hanford Nuclear site. The local wineries are opposed to the wind farm because it will negatively impact their business as well.

The proposed HHH Wind Farm includes plans for solar/PV installations and Lithium-Ion battery storage facilities. I find this very concerning because of the fire danger Lithium-Ion storage facilities present. Southeast Washington is an area that has high fire danger in the summers and, as a wildland firefighter, I certainly fought plenty of fires in the area and in surrounding states during my five years of fighting wildfires. One of the most memorable fires I fought was the Vansycle Canyon Fire in August, 2011 which burned 4,508 acres and cost $535,000 in damages. It was memorable because it took place around the wind turbines near Wallula Junction. Fighting the Vansycle Canyon Fire presented a unique and pressing danger to the firefighting crews because of the proximity to the wind turbines. If it had damaged the wind turbines we all would have been in much greater danger than normal because of the potential of a wind turbine falling and posing an even bigger fire threat with the high voltage lines and oil contained in the support towers, turbine nacelles, and transformers at the base. And if the fire had taken out a wind turbine it would have increased the damage cost of the fire significantly. Combine the fire danger near wind turbines with the fire danger presented by Lithium-Ion storage facilities and it is a recipe for disaster just waiting to happen.

In April 2019, there was a fire at a Lithium-Ion storage facility in Surprise, Arizona. The fire then had an explosion which shot flames out 75 feet and upward 20 feet which knocked 4 firefighters unconscious and dislodged or removed their SCBA face masks and equipment as well as their helmets. Wildland firefighters do not have SCBA equipment and if they were responding to a fire such as that, they likely would have been killed or else would have had severe burns if they survived. This type of fire and explosion are not unique to the facility in Arizona and have been seen around the country and overseas numerous times since Lithium-Ion storage facilities have started being installed and used. It should be noted that in many installations it was discovered that large temperature fluctuations had a detrimental effect of the life of the storage facilities and caused many of the fires. I do not believe that these storage facilities are a smart option for an area that already has high fire risks.

Without the storage facilities, the wind farms are not particularly efficient. I had to perform calculations for the production potential and efficiency during my electrical engineering classes. The winds in the area are either quite still or very strong, with not a lot of in between. I am well aware of the fact that if wind turbines are in winds that are too strong they cannot run, and if the brakes keeping the blades from rotating fail, then the wind turbine will self-destruct in the most impressive manner which usually

involves the blade flexing too much in the wind and the tip of the blade striking the tower and tearing everything apart. Just over this past weekend we had winds that had sustained speeds of 30-45 mph with gusts up to 60-70 mph.

There are also the environmental concerns. There are many birds of prey and migratory birds that fly overhead where I live, which is close to the proposed installation site. There are also concerns about the maintenance and what effect it will have on the local environment. We already have several hydro-electric dams in Southeast Washington and they provide more power and are more consistent than wind turbines could ever be. They have elements in place to help the fish population and have actually help bolster the fish population in recent years with the fish ladders and hatcheries near the dams. So far, no wind turbine can say the same thing for bird populations. Another green source of power in Southeast Washington is nuclear. We have the Columbia Generating Station nuclear power plant here, and if combined with the dams, we have more green energy in Southeast Washington than almost anywhere else. Southeast Washington already supplies power to the rest of the state, and even to surrounding states, so it is quite apparent that an installation like this one is not going to benefit the local area. And the addition of a couple thousand temporary jobs and 50-60 permanent jobs will not have a very positive impact on this area. It is certainly not a large enough impact to counter the negative impact of the other areas of commerce and income for the area.

In addition to the reasons above, I do not support the proposed HHH Wind Farm project because, were it not for government subsidies, wind farms would not pay themselves off in their operational lifetimes. Combine this with the fact that wind turbine blades are not very environmentally friendly and have limited lifetimes themselves before they must be disposed of and that the blades cannot be recycled but are buried as trash, and everything about the project becomes quite abhorrent to myself and to other citizens that live in this area. Listen to the citizens that live in this area and do not allow this project to proceed.

Respectfully,

Benjamin DeForest
54407 E 95 PR SE
Benton City, WA 99320

Links:

"Regulator Says Lithium-Ion Batteries Create 'Unacceptable Risks'"
https://pv-magazine-usa.com/2019/08/08/lithium-ion-not-prudent-and-create-unacceptable-risks/

"South Korea Identifies Top 4 Causes For ESS Fires"
https://liiontamer.com/south-korea-identifies-top-4-causes-that-led-to-ess-fires/

"A Lithium-Ion Battery Burnt & Four Firefighters Knocked Unconscious: A Timeline, And Recommendations"
https://commercialsolarguy.com/2020/08/10/a-lithium-ion-battery-burnt-four-firefighters-were-knocked-unconscious-a-timeline-and-recommendations/

"APS Storage Facility Explosion Raises Questions About Battery Safety"
https://www.utilitydive.com/news/aps-storage-facility-explosion-raises-questions-about-battery-safety/553540/

"Northwest Annual Fire Report 2011" (PDF, see Vansycle Canyon on page 6 "NW 2011 Large Fires List")
https://gacc.nifc.gov/nwcc/content/pdfs/archives/2011_Annual_Report.pdf

"Blaze Nears Containment"
https://www.spokesman.com/stories/2011/aug/10/blaze-nears-containment/

"Crews Still Battling Wildfire in Walla Walla County"
https://www.seattletimes.com/seattle-news/crews-still-battling-wildfire-in-walla-walla-county/

"Unfurling The Waste Problem Caused By Wind Energy"
https://www.npr.org/2019/09/10/759376113/unfurling-the-waste-problem-caused-by-wind-energy

"The Cost of Decommissioning Wind Turbines is Huge"
https://www.instituteforenergyresearch.org/renewable/wind/the-cost-of-decommissioning-wind-turbines-is-huge/

"Wind Turbines" (US Fish & Wildlife Service)
https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/wind-turbines.php

"The Wind Turbine That Couldn't Cope With a Gale: £250,000 Tower Crashes To The Ground After Its Blades Spin Out of Control"
https://www.dailymail.co.uk/news/article-2270029/UK-weather-Heavy-floods-wreak-havoc-gale-force-winds-sends-115ft-turbine-ground.html

"Wrecked by Gales Again as Windfarms get £300,000 to Switch Off…In High Winds"
https://www.dailymail.co.uk/news/article-2083149/Wind-turbines-cope-UK-weather-3-blown-pieces.html

"Exploding Wind Turbines: A Look at The Max Speed of Wind Turbines"
https://dbldkr.com/exploding-wind-turbines-a-look-at-the-max-speed-of-wind-turbines/

"Top 5 Wind Turbine FAILS & Mishaps"
https://www.youtube.com/watch?v=kjnXpOMu09I

From:	tmpkap29@charter.net	Informational Meeting Comment #IM0048
To:	EFSEC (UTC)	Horse Heaven Wind Farm
Subject:	Wind Farm Benton County - Scout Clean Energy	Docket #210011
Date:	Tuesday, March 30, 2021 11:50:18 AM	

External Email

Energy Facility Site Evaluation Council

Re: Scout Clean Energy Wind Farm Project

I am writing in opposition to the Wind Farm Project Proposal for the Horse Heaven Hill Hills and associated ridgeline south of the Tri-Cities. While I generally am supportive of clean energy, I do not support this project for three reasons.

1. The energy will be exported to California and provides no benefit to our states or intrastate region's energy needs, yet our community bears the brunt of aesthetic impacts to our view shed and environmental impacts to wildlife, principally migrating birds and bats.

2. There is a tremendous liability of overcommitting our resources to clean but intermittent sources of electricity without supporting dependable baseload capacity. The recent debacle in Texas from the March snowstorm is in part a result of inadequate planning for available baseload capacity. With the specter of possible dam removal and continued growth in the Mid-Columbia region, we should be looking at opportunities to increasing non -intermittent base load capacity and to that end we should be giving modular nuclear energy systems more consideration and support for our future energy needs.

3. There is the appearance to me that the proponents of this project have not approached our Tri-City Community to "sell" this Project but have gone directly to the State EFSEC. In my view, this is putting the cart before the horse.

Thank you for providing the opportunity to comment on this project and its impact to my community.

Ted Poston

Retired Environmental Biologist
1852 Marshall Avenue
Richland, Washington

Phone 509 438-0531

From: Jennifer Cowgill
To: EFSEC (UTC)
Subject: Horse Heaven Hills Windfarm
Date: Tuesday, March 30, 2021 11:52:53 AM
Attachments: HHH opposition letter.pdf

Informational Meeting Comment #IM0049
Horse Heaven Wind Farm
Docket #210011

External Email

I oppose the proposed Horse Heaven Wind Farm by SCE for the following reasons;

1. The height of the turbines- these seem to be some of the tallest in the country
2. The amount of turbines- space needle sized objects littering the skyline
3. The proximity of the turbines to a largely populated area 250,000 people and growing.
4. The useful life is around 20 years. There is no good way to dispose of the blades, they are being buried now.
5. The Horse Heaven Hills is a beautiful landscape. The backdrop of wineries and recreation.
6. The Horse Heaven Hills has much wildlife to be protected.
7. The energy generated will not benefit us locally. IN fact it is far more likely to cause our energy prices to go up.
8. There is potential for much needed housing developments near parts of the proposed area. Our community is growing and must grow South.
9. Real Estate values will absolutely decline as a result of the visual impact and the proximity to homes. People move here for the lower cost of living and that includes low utilities.

Scout Clean Energy is out of Colorado. They are in the business of making wind and solar farms for MONEY. They are not living here or working here when its done. Sure they will generate some temporary jobs but the claims they are making about bolstering our community with an influx of tax dollars fall on deaf ears. We are not a desolate community that needs money for roads and schools.

From what I have read the wind farm and solar farm are going to be some of the biggest accomplishments for their company.

We are a thriving community rich with golf courses, rivers, wineries, hiking, biking, birdwatching and many other recreational activities that draw thousands every year.

Wind is really “IN” right now. What about when it isn’t?

Please leave the Horse Heaven Hills as they are,

Jennifer Cowgill
Owner/Referred Real Estate
Benton County Resident

From:	lmcmillin ici-tc.com
To:	EFSEC (UTC)
Subject:	Oppose Horse Heave Hills Wind Project
Date:	Tuesday, March 30, 2021 11:57:32 AM

Informational Meeting Comment #IM0050
Horse Heaven Wind Farm
Docket #210011

External Email

I would like to voice my opposition to the proposed Horse Heaven Hills wind project by Scout Energy.

Thank you,

Lydia McMillin
Industrial Constructors, Inc.
509-628-3335