Horse Heaven Wind Farm
Today’s Agenda:

- Scout Clean Energy
- Project Team
- Horse Heaven Project Overview
- Environmental Compliance
- Economic Benefits
- Public Consultation
Meet Scout.

- 70+ Caring Professionals
- 900+ Years of Experience
- 5 Projects in operation
- 12 Projects in development or construction
- 948 Landowners earning from clean energy
Presentation Team.

Dave Kobus  
Pat Landess  
Javon Smith
Horse Heaven - Project Location
Development Process:

Site Selection

- Ideal Wind Conditions
- Participating Landowners
- Favorable Energy Policy
- Good Power Transmission
- Reduced Environmental Impacts
Regional Outlook
The bounty of traditional power generation resources in the region has long been one of the nation’s greatest energy advantages, but several factors are now impacting the historic surplus of electricity.
Resource Gap

The Pacific Northwest region will be facing a huge resource gap over the next decade.

— Northwest Power and Conservation Council

Source: Northwest Power and Conservation Council
Regional Power Supply

8,000 MW

New Capacity Needed by 2030

Source: Northwest Power and Conservation Council
Renewable Prices Decreasing

Wind & Solar Prices

Source: United States Department of Energy
Efficient & Reliable:

1 Year
Carbon Payback

5-8 Months
Energy Payback
Recycling & Disposal:

85-90% Recyclable

Turbine blades are the most inert, non-problematic waste we’re accepting.

— Cynthia Langston
Casper Solid Waste Manager
Horse Heaven Project
Project Layout
1,150 Megawatts

- 244 wind turbines maximum
- Solar panels
- Battery storage
- In total 6,869 acres disturbance (for life of project)
- 1.1% of existing GMA Agriculture lands in Benton County
Horse Heaven Design

Hybrid systems can help stabilize grids, increase efficiencies, and lower power costs. Design elements take advantage of:

- Winter-peaking wind
- Summer-peaking solar
- Battery storage
Wind Turbines

Modern turbines are more **efficient** and **productive** than those built just a decade ago.

**Best-in-class** models will be used with **superior power performance** in this wind regime, be certified to International Standards, and offer state-of-the-art **grid compatibility**.
Wind Turbines

- Improved Reliability (motor driven blade pitch vs. hydraulic)
- Optimized maintenance access
- Reduced down-time
- Improved performance (higher hub-heights and longer blades)
- Lower noise
<table>
<thead>
<tr>
<th>Turbine Parameters/Features</th>
<th>Turbine Layout: Option 1</th>
<th>Turbine Layout: Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GE 2.82 MW Turbine</td>
<td>GE 3.03 MW Turbine</td>
</tr>
<tr>
<td>Tower Type</td>
<td>Tubular</td>
<td>Tubular</td>
</tr>
<tr>
<td>Maximize Number of Turbines considered</td>
<td>244</td>
<td>244</td>
</tr>
<tr>
<td>Turbine Rotor Diameter</td>
<td>127 / 417 (meters/feet)</td>
<td>140 / 459 (meters/feet)</td>
</tr>
<tr>
<td>Turbine Hub Height (ground to nacelle)</td>
<td>89 / 292 (meters/feet)</td>
<td>81 / 266 (meters/feet)</td>
</tr>
<tr>
<td>Maximum Total Height (ground to blade tip)</td>
<td>152 / 499 (meters/feet)</td>
<td>151 / 496 (meters/feet)</td>
</tr>
<tr>
<td>Tower Base Diameter</td>
<td>4.6 / 15.1 (meters/feet)</td>
<td>4.6 / 15.1 (meters/feet)</td>
</tr>
</tbody>
</table>
Optimized solar layout, will be sited closer to interconnection to minimize infrastructure. Models selected closer to construction, will utilize best available technology.

- Single axis tracking
- Non-reflective materials reduce glare impacts
Solar Arrays

Some land will be removed from agricultural production for the life of the project.

• Three sites evaluated
• Solar impacts up to **294 acres** representing **less than 1% of existing** Ag land in Benton County
Battery Storage

Ability to store power for when it’s needed most, helping to mitigate the variability of renewables, and deliver consistent and predictable power to the grid.

- Two BESS of 150 MW storage
- Approx. 6 acres each
- Lithium-ion batteries
- Fenced, adjacent to substations
Battery Storage

Stored in shipping containers on concrete foundation and maintained for **optimal performance**.

Components include:
- Heating & cooling
- Ventilation
- Fire suppression
- Inverters
- Transformers
Natural Environment

Protections and Compliance

- Air
- Wetlands & Water
- Earth
- Habitat & Vegetation
- Fish & Wildlife
Environmental Review

Air

- Wind & solar power generation are emission free.
- During construction, fugitive emissions and dust controlled through standard practices and methods.
- Operations & Maintenance impacts on air quality would be minimal.
Environmental Review

Wetlands & Water

- No wetlands/standing water have been identified within Micrositing Corridor or the Solar Siting Areas to-date.

- Project design and construction will avoid impacts to wetlands and other water bodies (streams) when feasible.

- Construction and operation would have minimal to no impacts on groundwater.
Environmental Review

Earth

- Review and mitigation plan includes geology, soils, topography, unique physical features, seismicity and erosion.
- Final siting intends to avoid geological hazards.
- No impacts expected to areas identified with combined erosion hazards and steep slopes, landslides, or liquefaction.
- Soil erosion & sediment controlled during construction.
- Project operations would have no impact on soil erosion.
Environmental Review

Habitat & Vegetation

Habitat within majority of Project Boundary has been heavily modified due to historic and current agriculture and grazing activity.

- 89% is Agricultural, Planted grassland, or Developed/disturbed land.
- Project facilities sited on previously disturbed areas to the extent feasible.
Environmental Review

Fish & Wildlife

- To **mitigate and avoid impacts** to wildlife resources, baseline studies conducted from 2017-2020 to inform layout and design.

- Protocols and study methodologies consistent with
  * USFWS Land-Based Wind Energy Guidelines
  * USFWS Eagle Conservation Plan Guidance
  * WDFW Wind Power Guidelines

- Bird and Bat Conservation Strategy voluntarily prepared to proactively address potential impacts to birds and bats.
Environmental Health

Setbacks address statutory & industry standards

- Aesthetics
- Ambient Noise
- Shadowflicker
Visual Simulations
Visual Simulations
Historical and Cultural Preservation
Economic Benefits
Washington State Fiscal Impacts

The project area encompasses lands managed by the Washington DNR. Parcels are state trust lands, which generate revenue for public schools and institutions. DNR parcels may host up to 10 wind turbines and a portion of solar project.

- **State & Local Sales & Use Tax**
- Exemption available up to 100% of the sales or use tax paid on qualified items, and installment labor and services.
Local Benefits: **Tax Revenue**

The Horse Heaven Hills Wind Project will result in millions of dollars in annual tax revenue to Benton County.

$19.4 Million

*Just in the First Year of Operation*

includes phases 1 & 2

$262.9 Million

*Over the 35-Year Operating Life*

includes phases 1 & 2
Local Benefits: Jobs

The Horse Heaven Wind Project will create hundreds of new jobs in the Tri-Cities region.

930+ Construction Jobs
At full build-out

56 Long-term Jobs
direct, indirect, induced
Public Consultation

Website
Facebook Page
Newsletter
Paid Advertising
Small Group Presentations
Virtual Open House
Public Opinion Survey
Survey of Registered Voters
Benton County, WA
SUMMARY FINDINGS
Support for Renewable and Wind Energy

“Do you feel it is very important, somewhat important, not very important, or not important at all for state and local governments to support the development of [renewable/wind] energy sources to help meet Washington’s need for electricity?”

Renewable Energy Sources

- Important: 80%
- Somewhat: 24%
- Very: 55%
- Not Important: 17%
- Not very: 9%
- Not at all: 7%
- (Don't know): 3%

Wind Energy Sources

- Important: 70%
- Not: 29%
- Not very: 12%
- Not at all: 16%
- (Don't know): 41%
- (Don't know): 2%
“As you may know, there is a proposal to develop a wind farm in Horse Heaven Hills, just south of Tri-Cities. Given what you know today, do you support or oppose the proposal for this wind energy project in Horse Heaven Hills?”

**Initial Support**
- Support: 54%
  - Strongly: 32%
  - Somewhat: 22%
- Oppose: 35%
  - 10% (Don't know)
  - 25%

**Support After Pro/Con Messaging**
- Support: 61% (+7)
  - 39%
- Oppose: 34% (-1)
  - 28%
  - 7%
  - (Don't know) 4%
Stay Connected

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Conclusion