



Horse Heaven Wind Farm

March 30, 2021 | EFSEC Informational Public Meeting

Today's Agenda:

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



70+

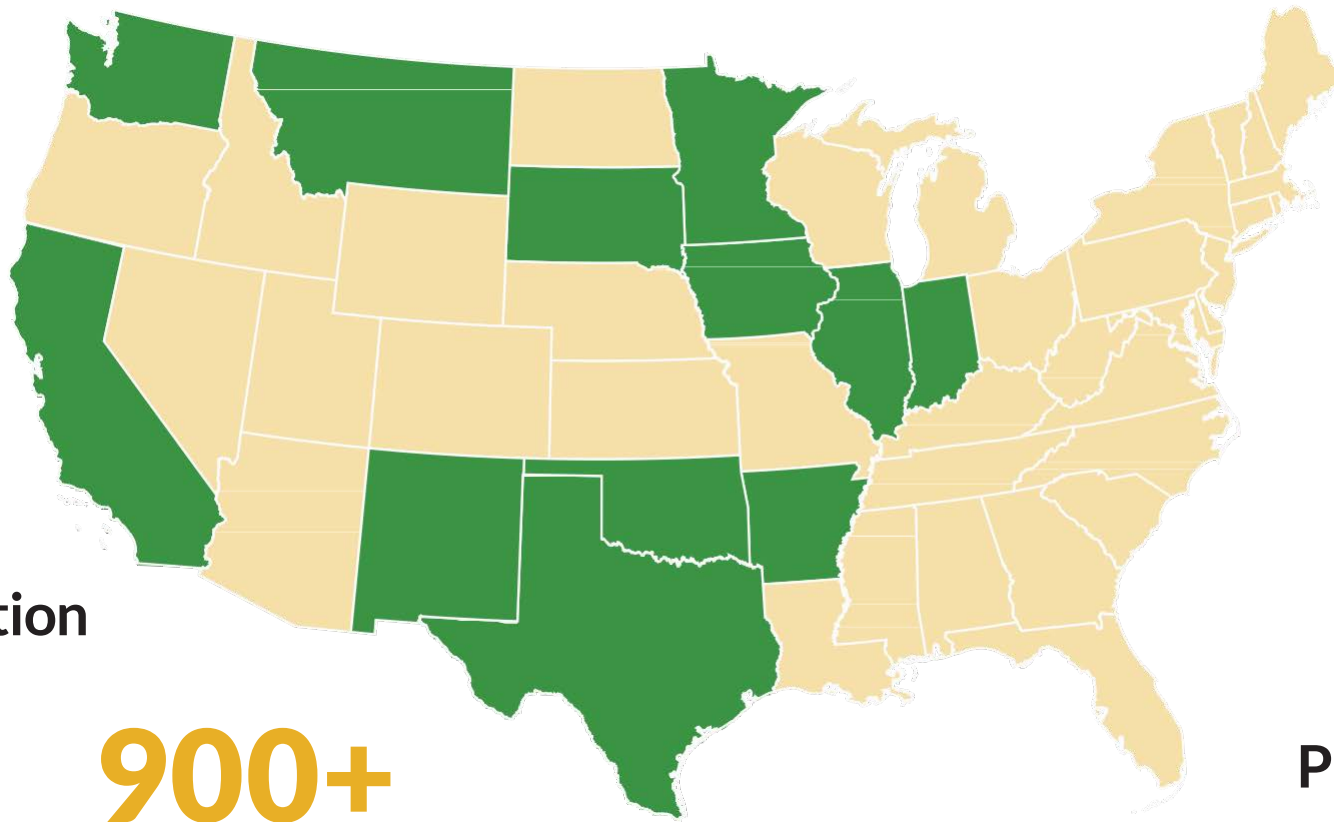
Caring Professionals

5

Projects in operation

900+

Years of Experience



948

Landowners
earning from clean
energy

12

Projects in development
or construction



Presentation Team.

Dave Kobus



Pat Landess



Javon Smith



Technical Consultants



Horse Heaven - Project Location



Development Process:



Site Selection



- ✓ Ideal Wind Conditions
- ✓ Participating Landowners
- ✓ Favorable Energy Policy
- ✓ Good Power Transmission
- ✓ Reduced Environmental Impacts

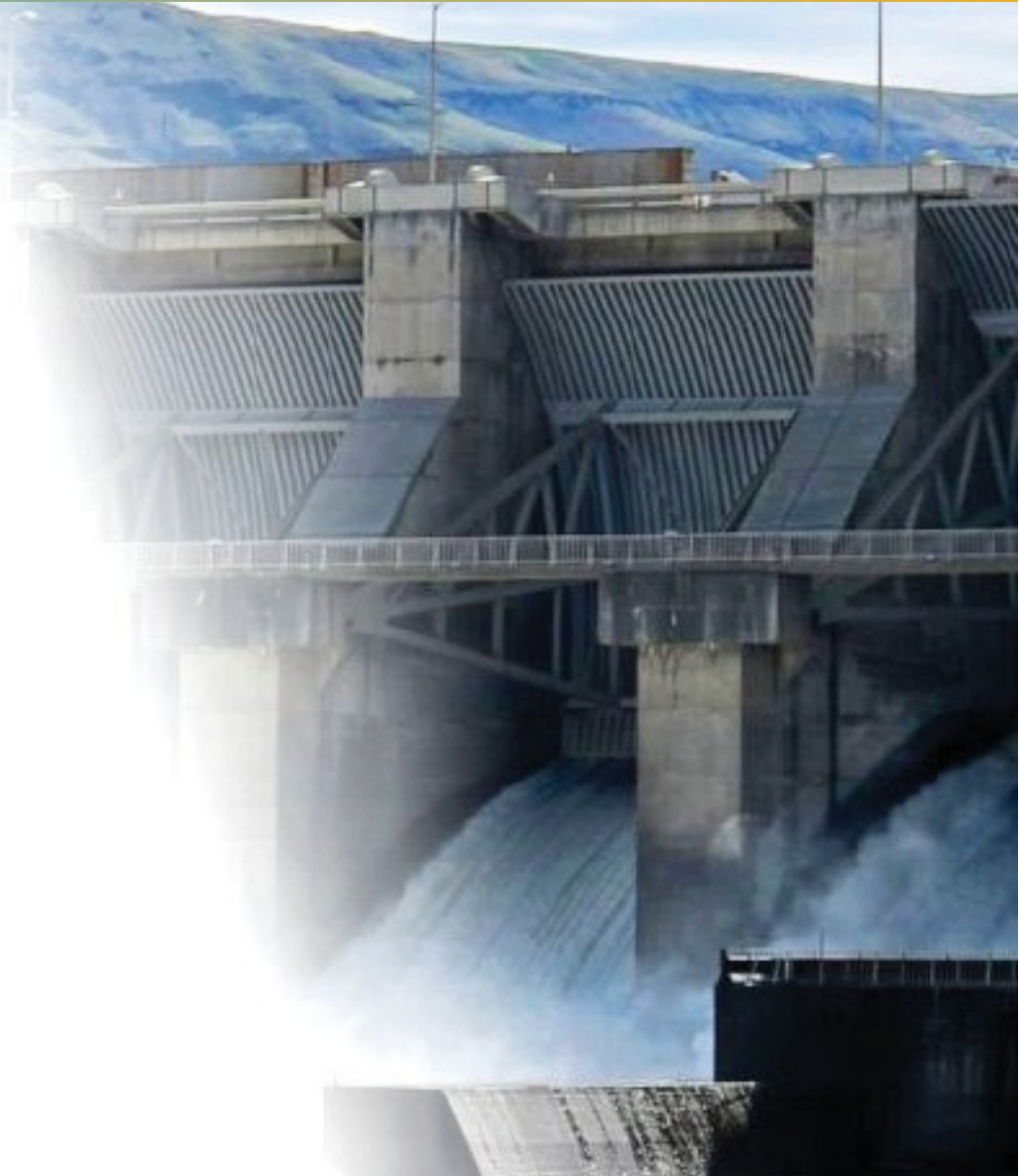


Regional Outlook



History of PNW Power Generation

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

**Increased
Demand**

**Climate
Change**

**Fossil Fuels
Phasing Out**

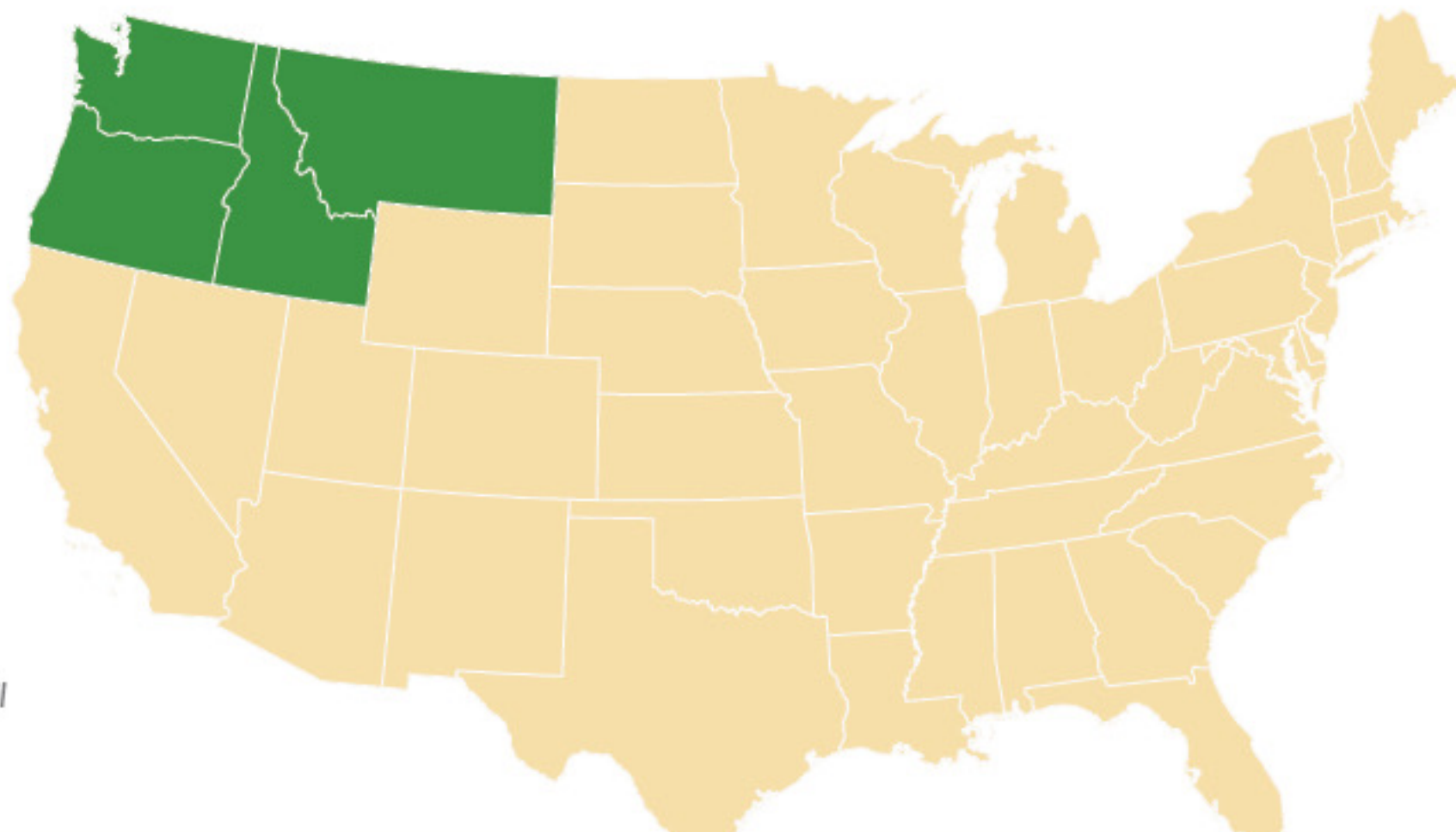
Source: Northwest Power and Conservation Council

Regional Power Supply

8,000 MW

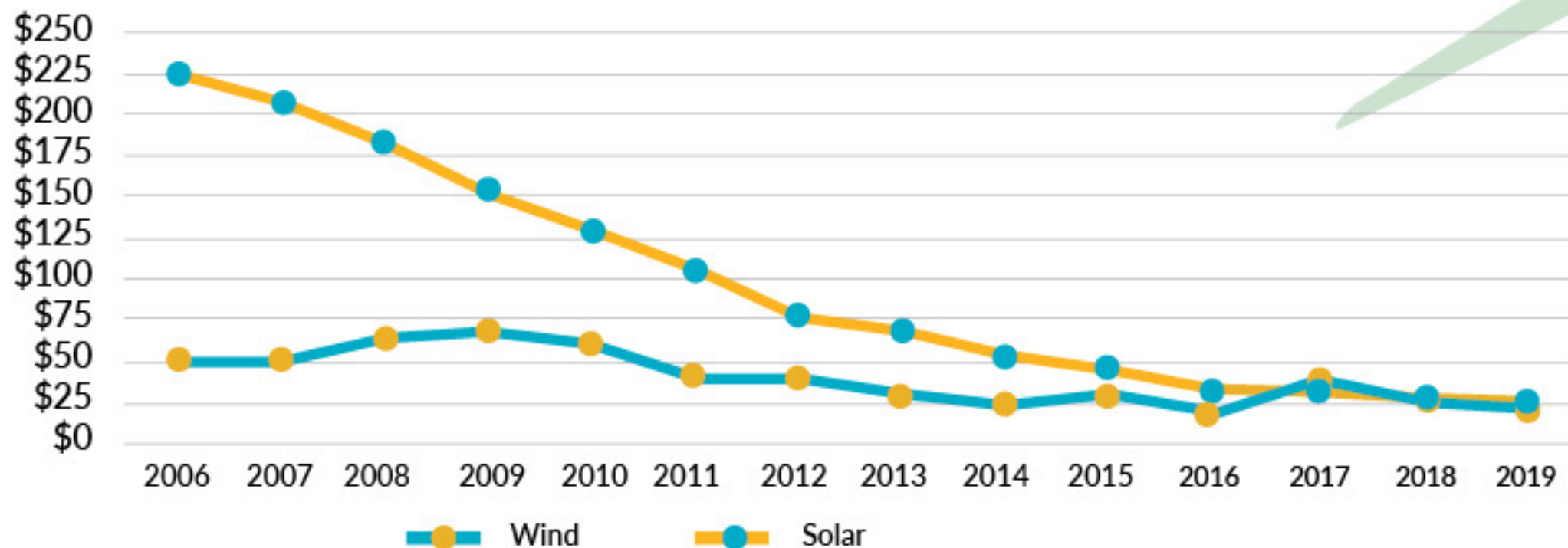
New Capacity
Needed **by 2030**

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.

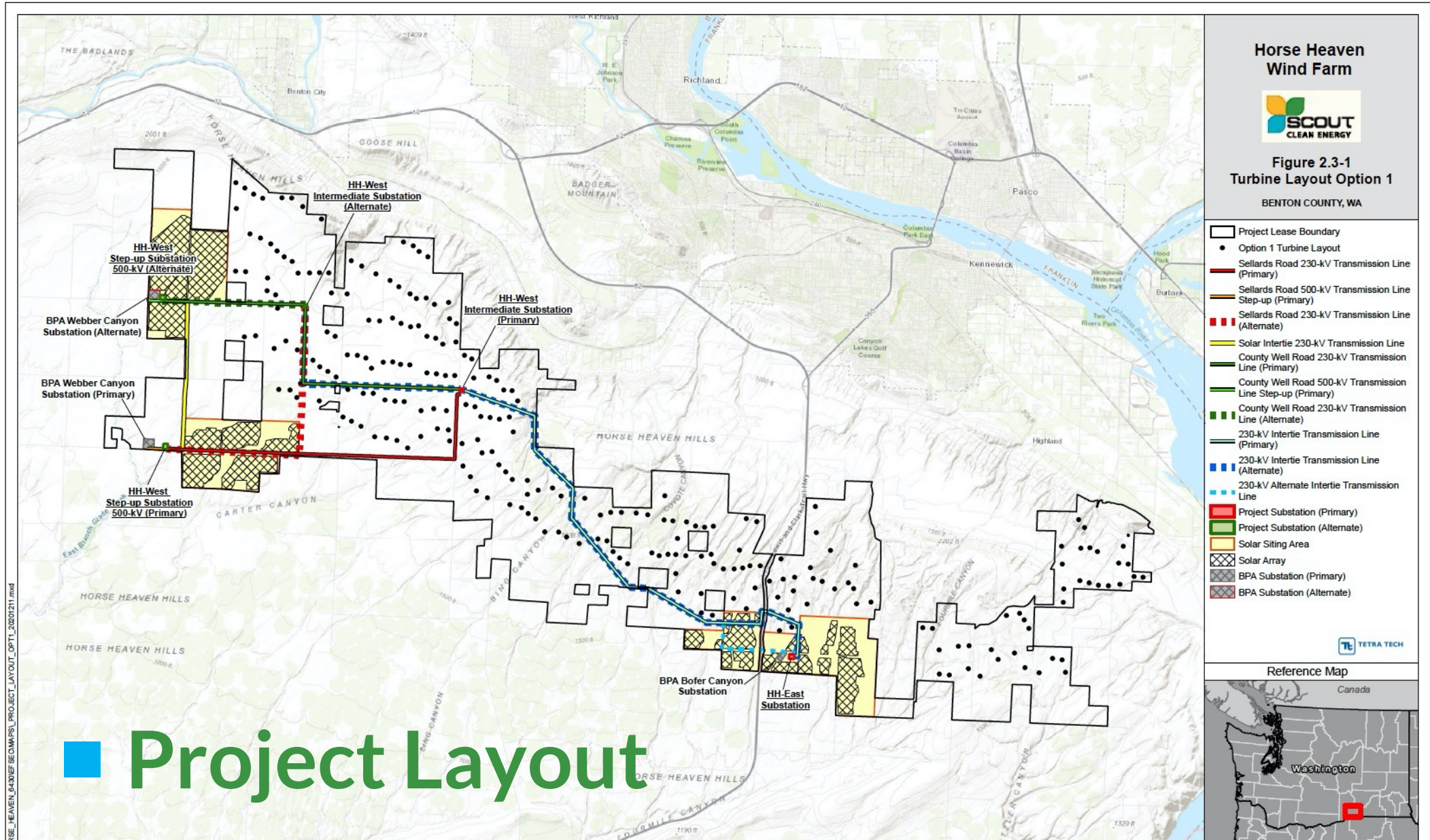


— **Cynthia Langston**

*Casper Solid
Waste Manager*

Horse Heaven Project





■ 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

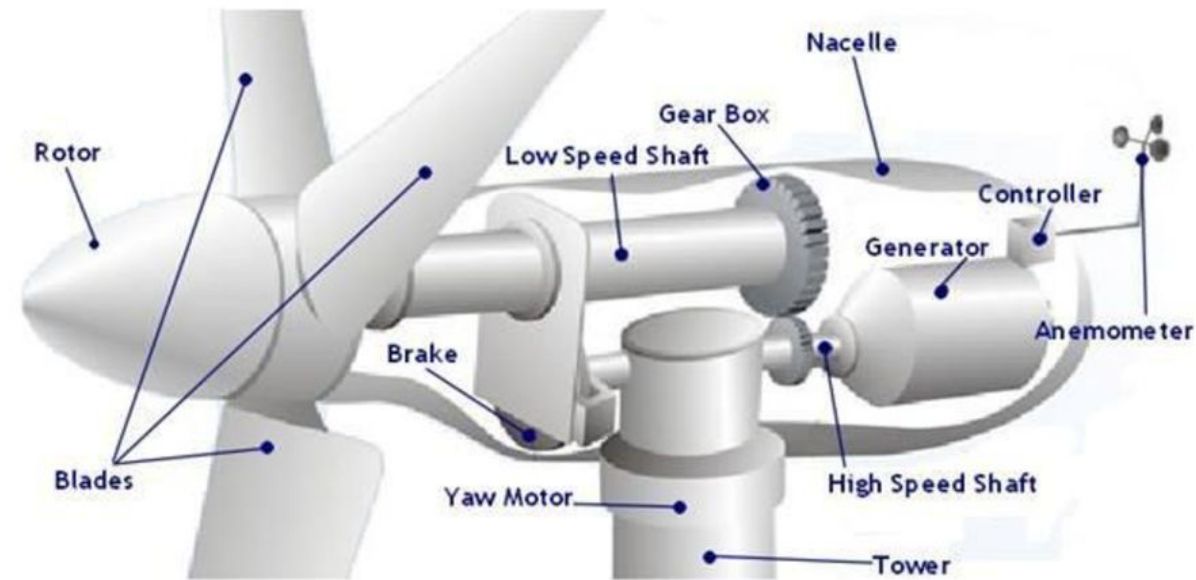
Modern turbines are more **efficient** and **productive** than those built just a decade ago.

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**



Wind Turbines

Turbine Parameters/Features	Turbine Layout: Option 1		Turbine Layout: Option 2	
	GE 2.82 MW Turbine	GE 3.03 MW Turbine	GE 5.5 MW Turbine	SG 6.0 MW Turbine
Tower Type	Tubular	Tubular	Tubular	Tubular steel / Hybrid
Maximize Number of Turbines considered	244	244	150	150
Turbine Rotor Diameter	127 / 417 (meters/feet)	140 / 459 (meters/feet)	158 / 518 (meters/feet)	170 / 557 (meters/feet)
Turbine Hub Height (ground to nacelle)	89 / 292 (meters/feet)	81 / 266 (meters/feet)	125 / 411 (meters/feet)	115 / 377 (meters/feet)
Maximum Total Height (ground to blade tip)	152 / 499 (meters/feet)	151 / 496 (meters/feet)	204 / 671 (meters/feet)	200 / 657 (meters/feet)
Tower Base Diameter	4.6 / 15.1 (meters/feet)	4.6 / 15.1 (meters/feet)	4.6 / 15.1 (meters/feet)	4.7 / 15.5 (meters/feet)

Solar Arrays

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**.

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.



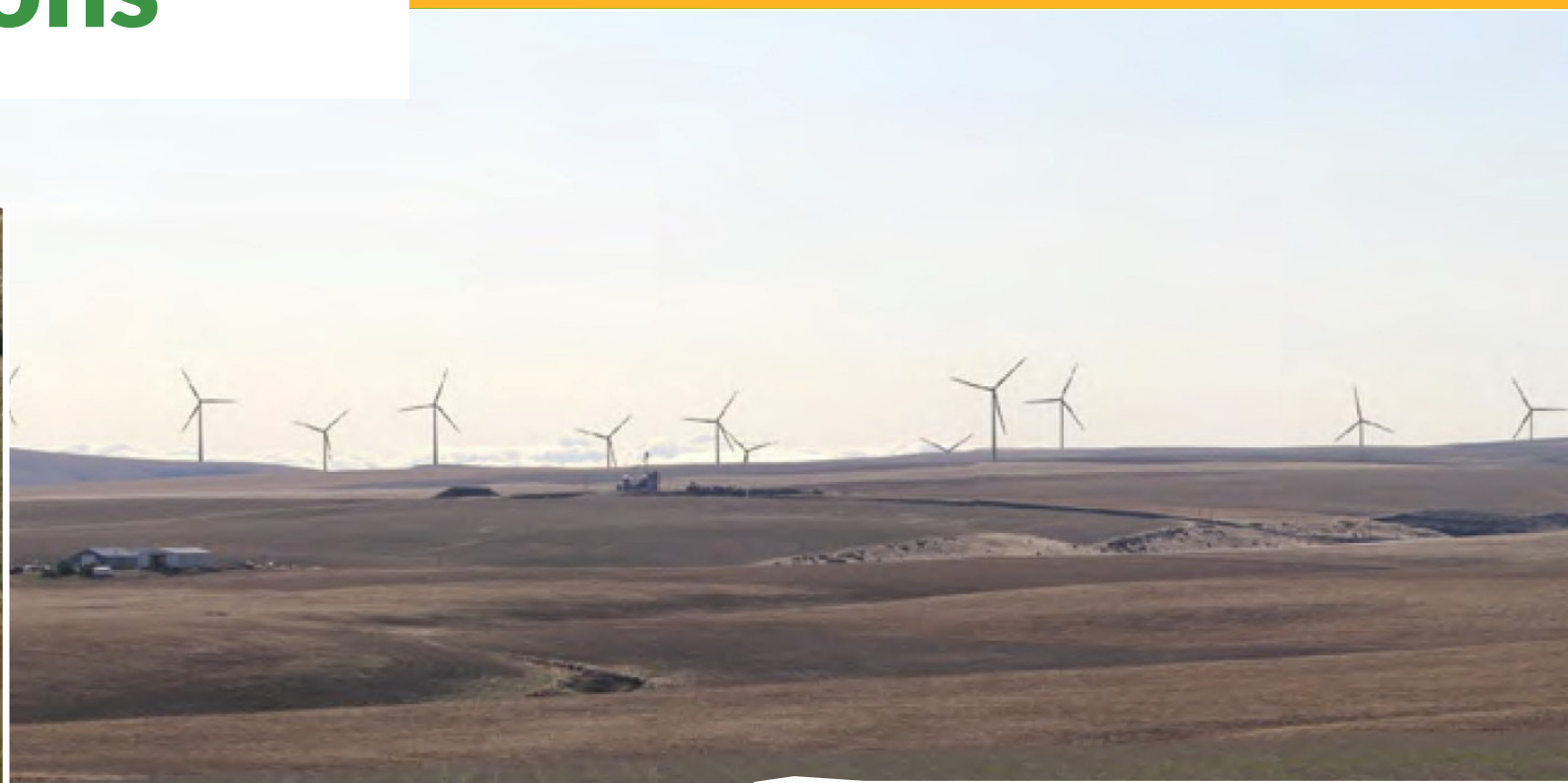
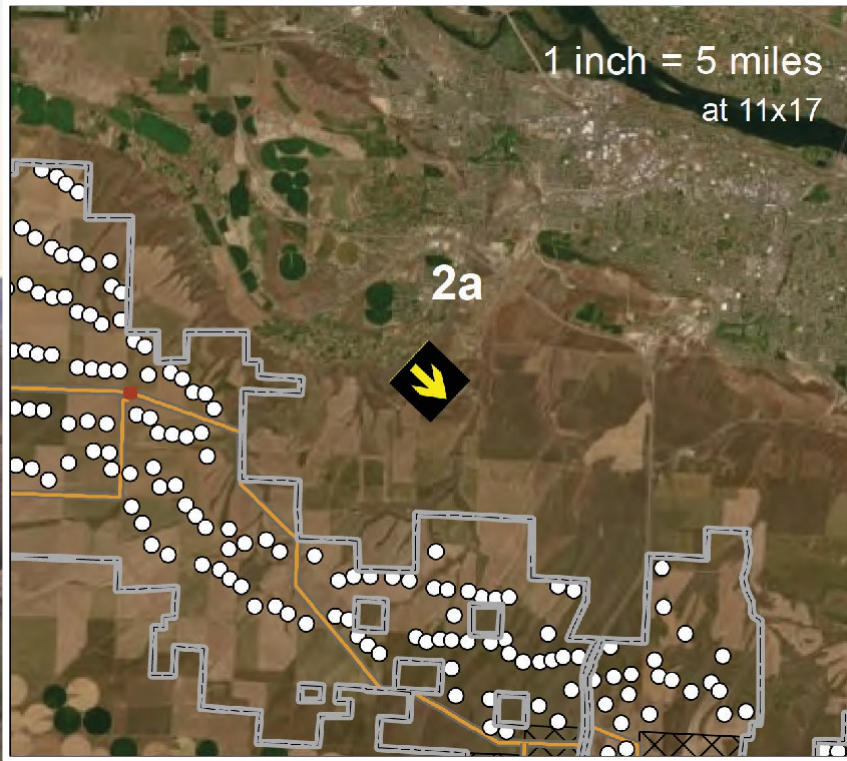
Environmental Health

Setbacks address statutory
& industry standards

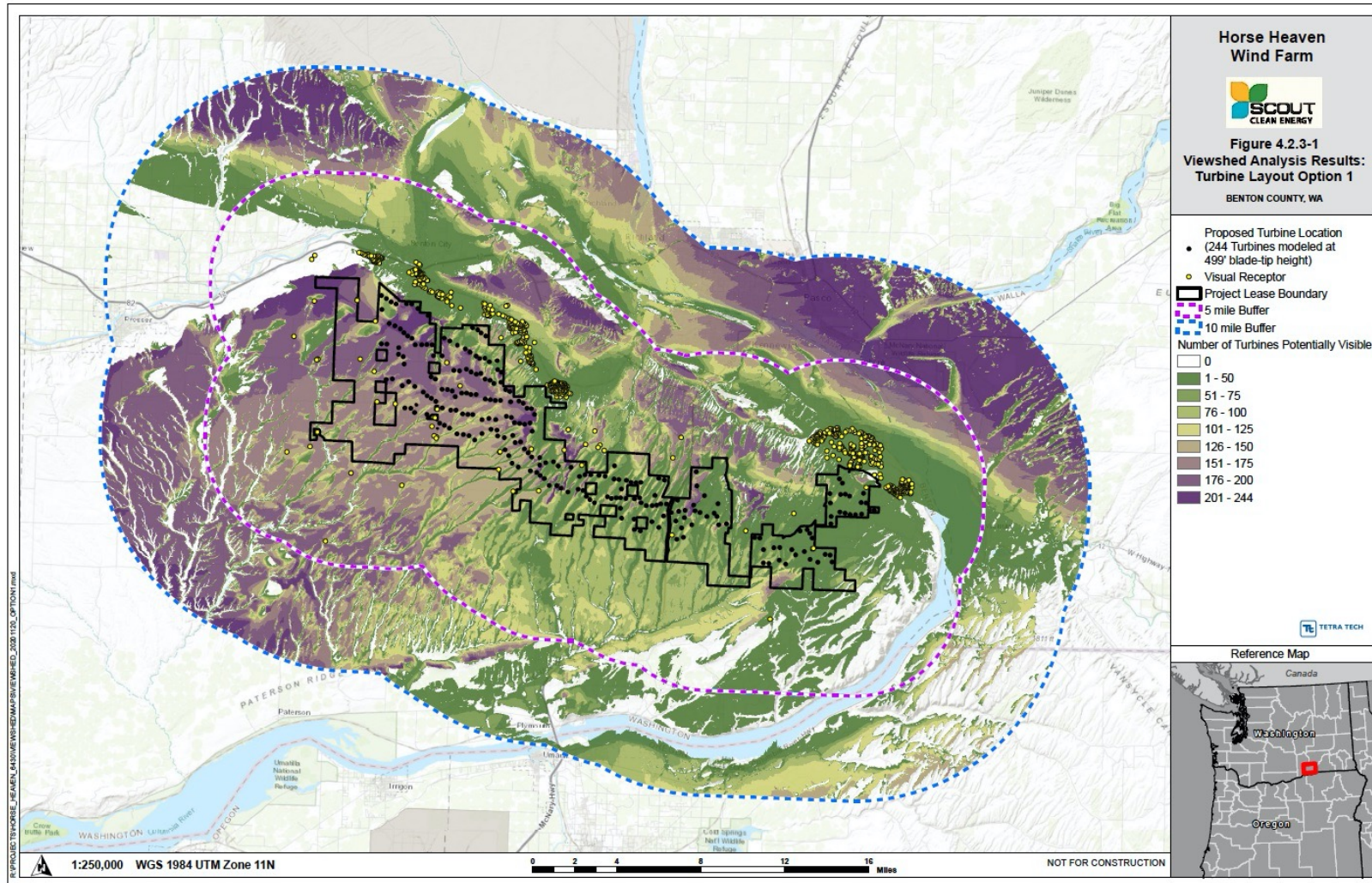
- Aesthetics
- Ambient Noise
- Shadow flicker



Visual Simulations



Visual Simulations



Proposed Turbine Location
(244 Turbines modeled at 499' blade-tip height)

Visual Receptor

Project Lease Boundary

5 mile Buffer

10 mile Buffer

Number of Turbines Potentially Visible

0

1 - 50

51 - 75

76 - 100

101 - 125

126 - 150

151 - 175

176 - 200

201 - 244

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

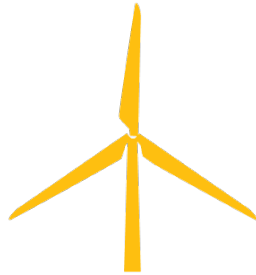
The Horse Heaven Wind Project will create **hundreds of new jobs** in the Tri-Cities region.



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



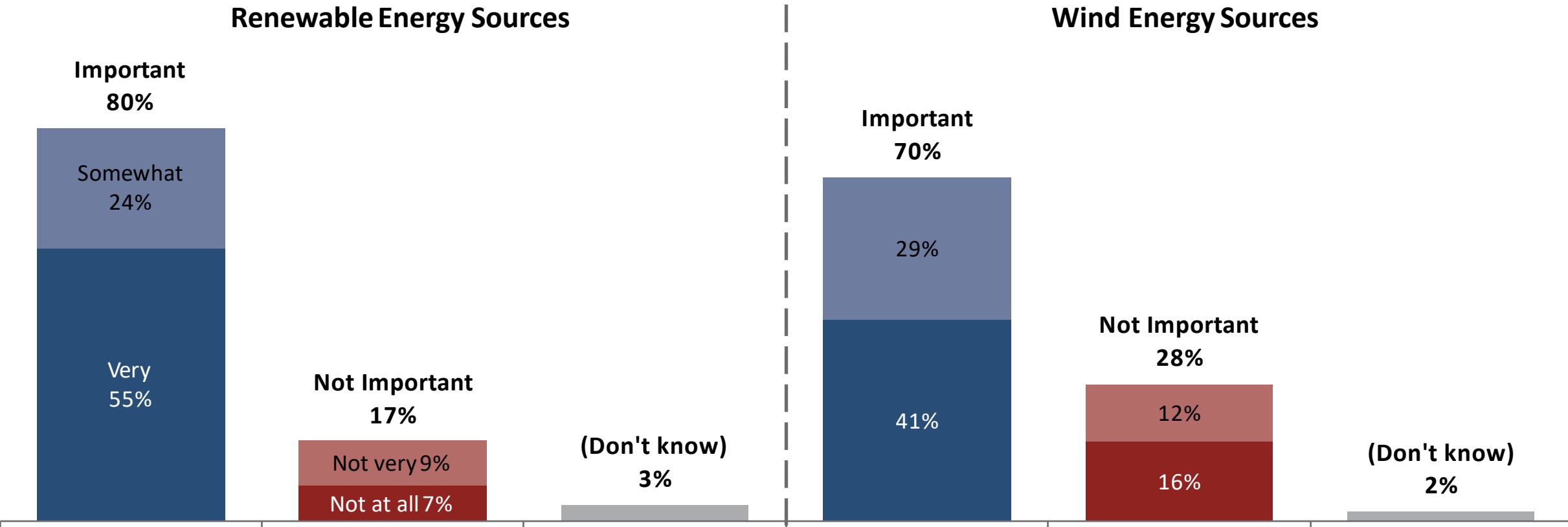
Survey of Registered Voters

Benton County, WA

SUMMARY FINDINGS

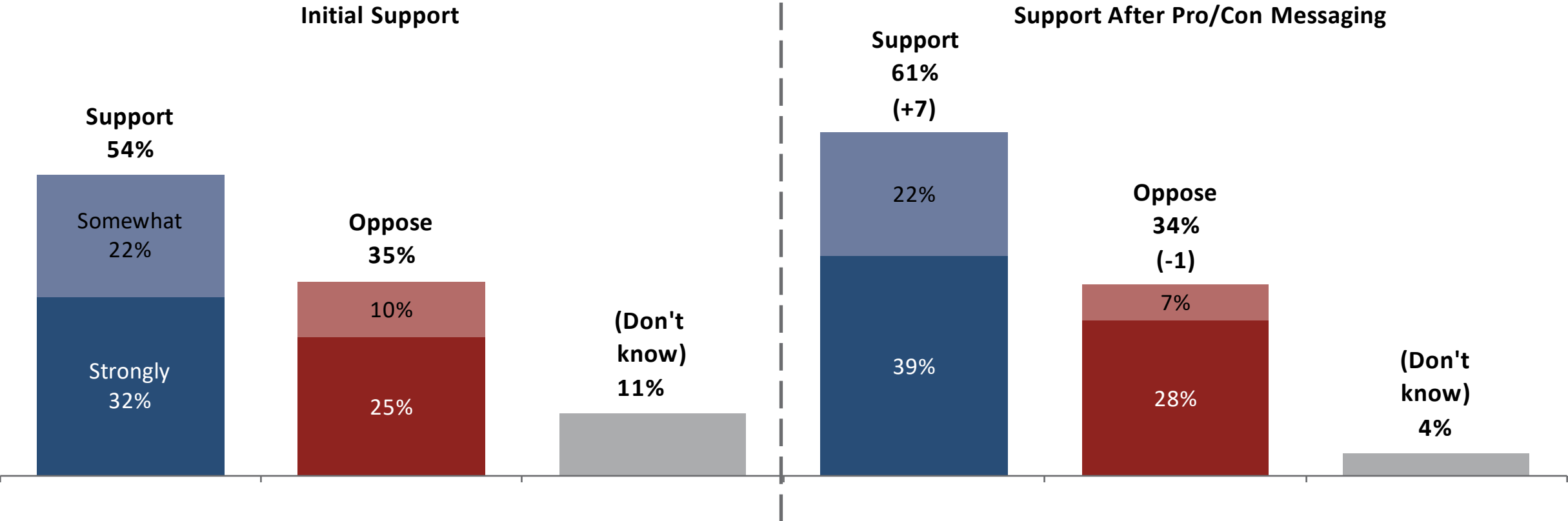
Support for Renewable and Wind Energy

“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?”



Horse Heaven Project Support

“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?”





Stay Connected

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Community Relations

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www.HorseHeavenWindFarm.com



Conclusion