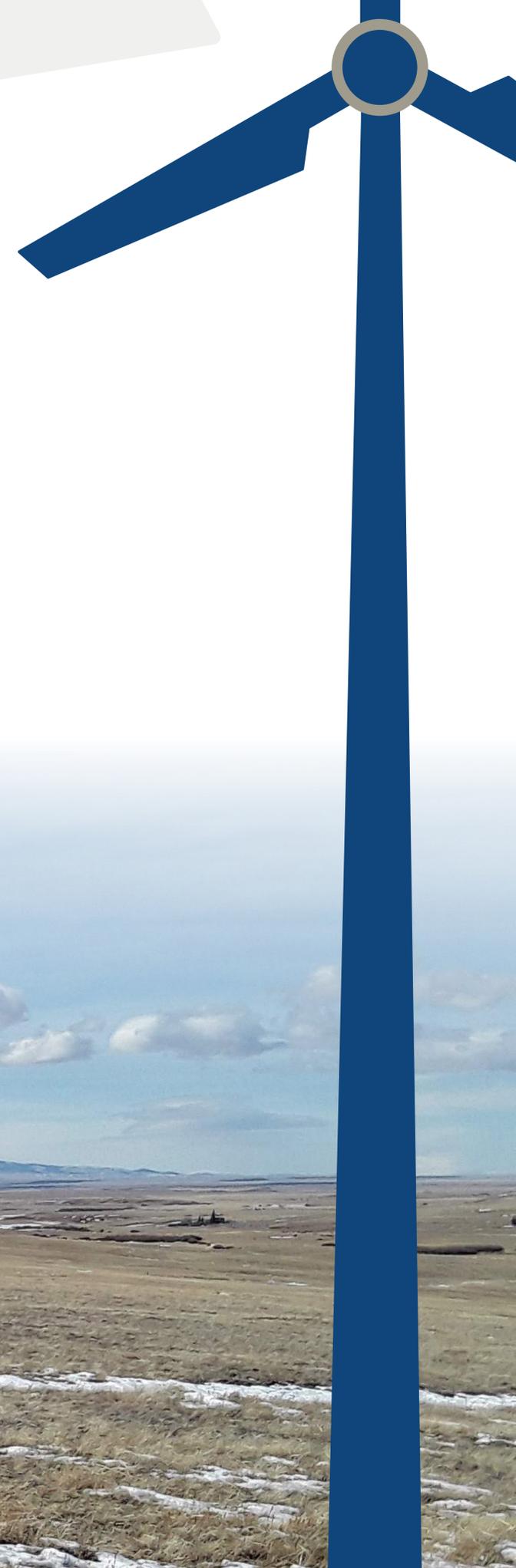


# RAIL TIE WIND PROJECT

## NEPA PUBLIC SCOPING MEETING

HILTON GARDEN INN, LARAMIE, WYOMING  
JANUARY 14, 2020



# PROJECT DESCRIPTION

## RAIL TIE WIND PROJECT

### PROJECT OVERVIEW

The Rail Tie Wind Project (Project) is a utility-scale wind energy generation facility being developed by ConnectGen Albany County LLC (ConnectGen) in Albany County, Wyoming.

- **Location:** Near Tie Siding, Project Area is bisected by U.S. Highway 287
- **Nameplate capacity:** 504 megawatts
- **Project area:** 26,000 acres of private and state land
- **Interconnection:** Ault-Craig 345-kV transmission line jointly owned by Western Area Power Administration, Tri-State, and Platte River Power Authority

### CONNECTGEN OVERVIEW

ConnectGen is an independent renewable energy company focused on the development of greenfield wind, solar, and energy storage projects across the United States. ConnectGen is headquartered in Houston, Texas, and backed by Quantum Energy Partners.

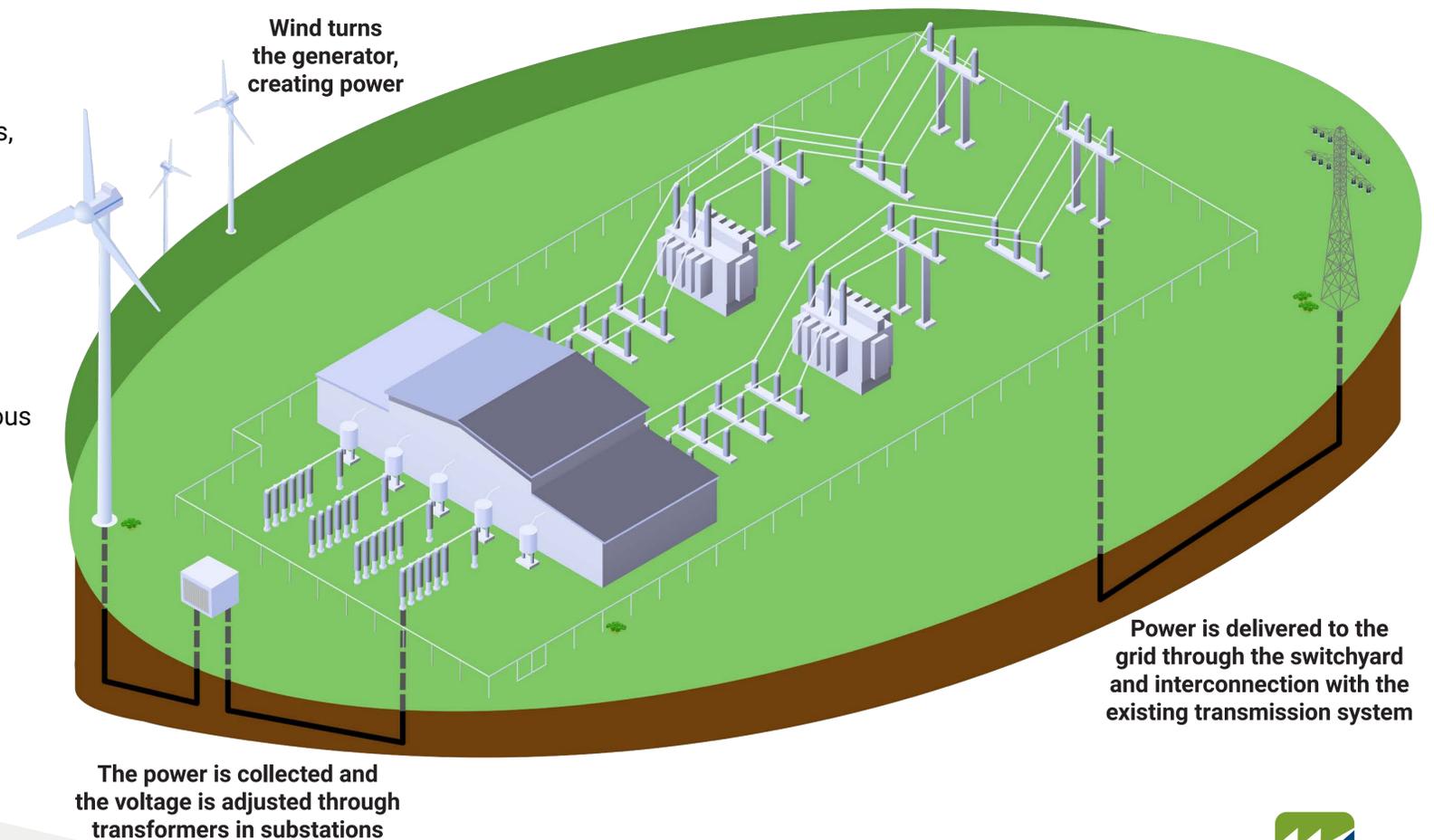
### GOALS AND OBJECTIVES

ConnectGen's purpose for the proposed Project is to respond to increasing market demand for sources of renewable energy. Demand for renewable energy is primarily driven by the rapidly falling costs of wind- and solar-generated electricity and state clean energy mandates. Many western utilities have announced ambitious plans to add large amounts of renewable energy to their portfolios in the coming years.

### FACILITY DESCRIPTION

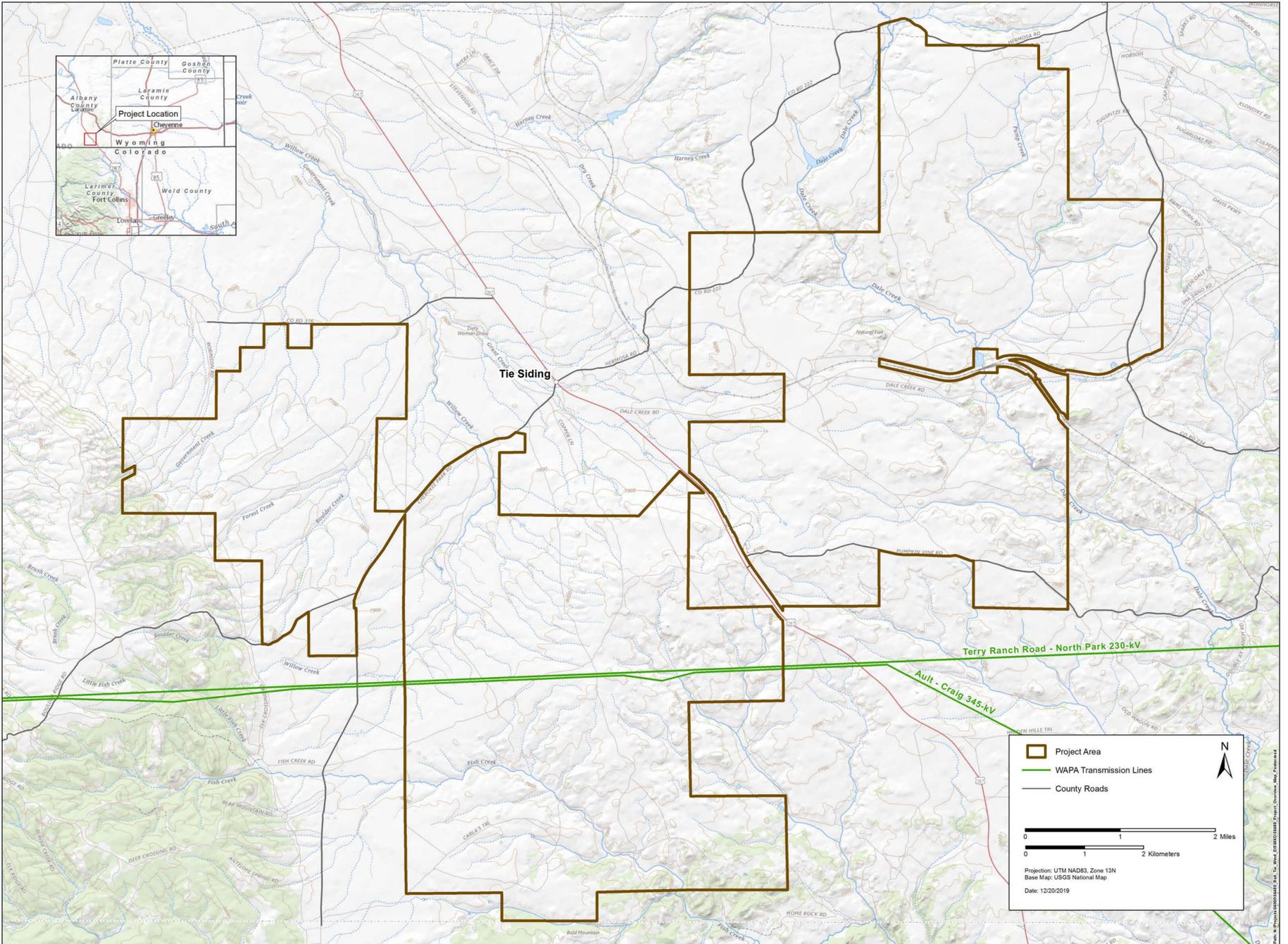
The proposed Project would consist of 84 to 151 wind turbines with a combined energy generating capacity of up to 504 megawatts of electricity, enough to power more than 180,000 homes. In addition to wind turbines, the Project is anticipated to include:

- **Access roads**
- **Collection lines**
- **Substations**
- **Interconnection switchyard**
- **345-kV transmission gen-tie line**
- **Operations and maintenance building**
- **Meteorological towers**
- **Construction laydown yards**



# PROJECT LOCATION

## RAIL TIE WIND PROJECT



### PROJECT ATTRIBUTES

<b>TOTAL OUTPUT CAPACITY</b>	<b>504 MW</b>
<b>PROJECT AREA</b>	<b>26,000 ACRES</b>

<b>Turbine Generators</b>	<b>Output</b>	<b>3 MW–6 MW</b>
	<b>Count</b>	<b>84–151</b>
	<b>Overall Height</b>	<b>up to 675 feet</b>
	<b>Nacelle Height</b>	<b>up to 410 feet</b>
	<b>Blade Length</b>	<b>up to 272 feet</b>
<b>Collection Lines</b>	<b>34.5 kV</b>	<b>80 miles, primarily underground; if overhead, 50- to 80-foot-tall structures</b>
<b>Substations</b>	<b>2 substations – 345 kV each</b>	<b>5 acres each</b>
<b>Transmission Lines</b>	<b>345 kV</b>	<b>4 miles, up to 125 feet tall</b>
<b>Interconnection Switchyard</b>	<b>1 site – 345 kV</b>	<b>8 acres</b>
<b>Operations &amp; Maintenance Facility</b>	<b>7,000-square-foot building</b>	<b>5 acres</b>
<b>Access Roads</b>	<b>All-weather; new, improved, and existing</b>	<b>60 miles, 20-foot-wide travel surface</b>
<b>Meteorological Towers</b>	<b>3 – self-supported lattice-mast</b>	<b>105 meter tall</b>
<b>Construction Laydown Yards</b>	<b>2 – temporary</b>	<b>15 acres each</b>

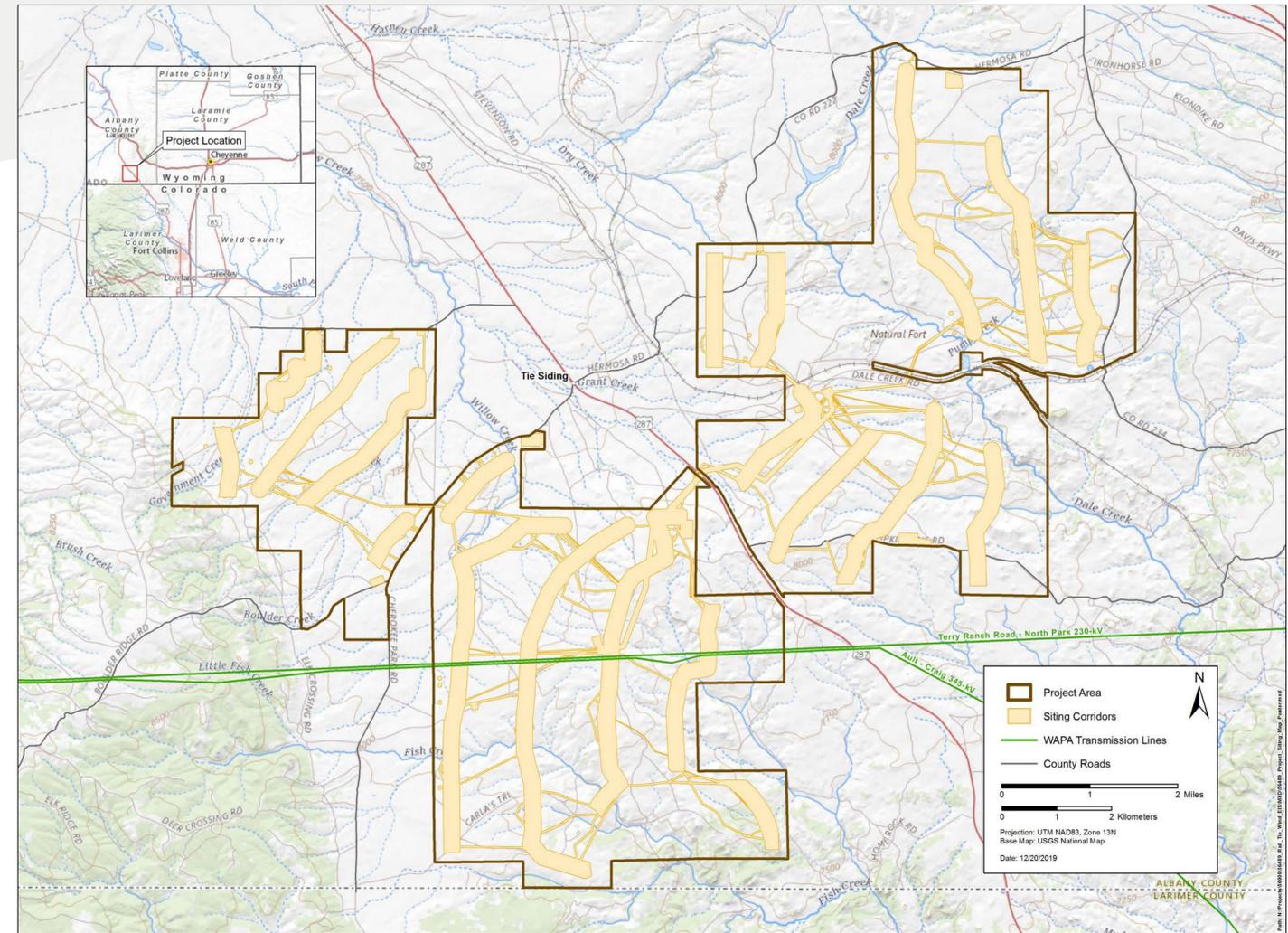
# PROJECT SITING

## RAIL TIE WIND PROJECT

### OPPORTUNITIES AND CONSTRAINTS

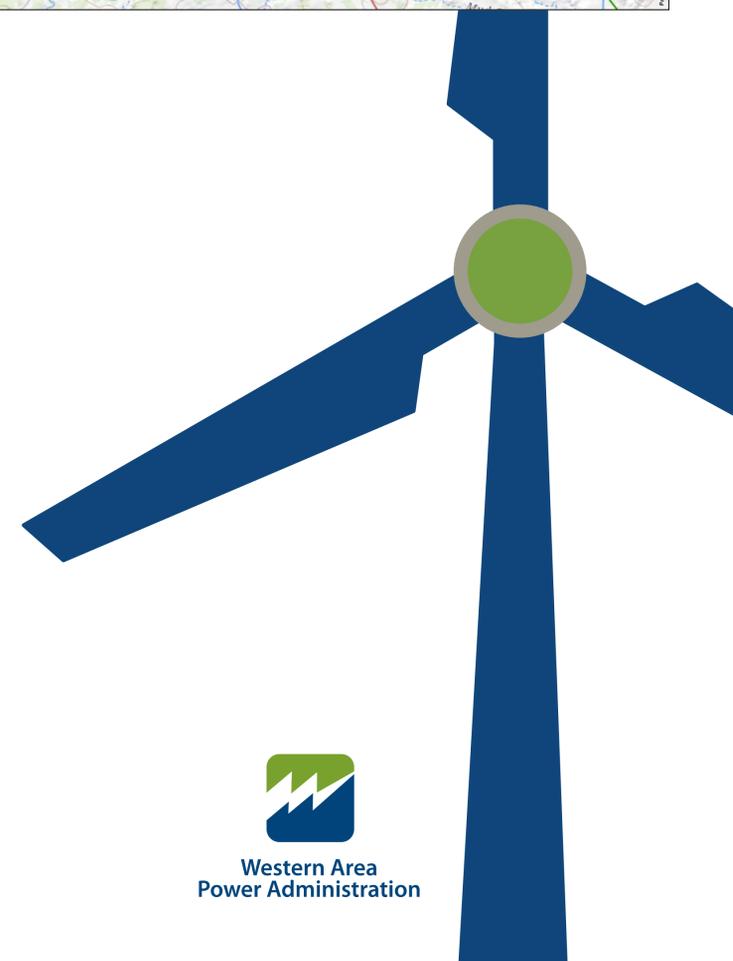
ConnectGen considered numerous factors to determine the most suitable location for the Rail Tie Wind Project. The factors listed below were the most important to selection of the Rail Tie Wind Project site.

- Access to high-quality wind resource (10 meters-per-second at turbine hub height)
- Proximity to existing high-voltage transmission capacity
- Minimization of impacts to sensitive wildlife and habitats
- Avoidance of protected lands
- Interest from local landowners and compatible land use
- Access to highways for materials delivery
- Constructability of terrain



### ALBANY COUNTY WIND ENERGY SITING REGULATIONS

FEATURE	SETBACK DISTANCE
Incorporated municipality	1 mile
Platted subdivision	5.5 times total turbine height
Residential dwelling or occupied structure	5.5 times total turbine height
Highway right-of-way	0.25 mile
State parks and wildlife refuges	0.25 mile
Third-party transmission lines and communication towers	1.1 times total turbine height
Adjacent property lines of non-participating landowners	1.1 times total turbine height
Public roads and railroads	1.1 times total turbine height



# WIND ENERGY ENGINEERING

## RAIL TIE WIND PROJECT

### WIND TURBINES

The major component of a wind project is the wind turbines. As turbine technology continues to improve, the industry is trending toward larger turbines with higher nameplate capacities. This means each individual turbine can generate more energy, so fewer turbines overall are needed for a wind project.

ConnectGen is considering a range of turbine models with nameplate capacities between 3 MW and 6 MW. Depending on which turbine model is selected, the total 504-MW Project will be composed of 84 to 151 individual turbines. ConnectGen will select the turbine model based on final engineering and design, turbine availability from manufacturers, and ongoing wind resources studies.

To comply with Federal Aviation Administration and Albany County, Wyoming, regulations, turbines would require aircraft warning lights and would be nonreflective white or gray in color.

### PROJECT CONSTRUCTION

Construction of the proposed Project would occur over approximately 18 months, depending on the final size of the Project.

The expected sequence of construction activities is listed below (activities 3-7 would occur simultaneously).

- |  |  |
|--|--|
| 1 - Mobilization                                     | 5 - Transmission line construction       |
| 2 - Access roads and laydown areas                   | 6 - Foundations                          |
| 3 - Substation construction                          | 7 - Turbine installation                 |
| 4 - Operations and maintenance building construction | 8 - Commissioning and acceptance testing |



# THE NEPA PROCESS

## RAIL TIE WIND PROJECT

### WHAT IS NEPA?

The National Environmental Policy Act (NEPA) of 1969 and associated regulations requires federal agencies to consider the potential effects of major federal actions on the human and natural environments.

To comply with NEPA, WAPA prepares environmental impact statements (EIS) to analyze and disclose the impacts of major federal actions.

### WAPA'S ROLE

WAPA is responding to ConnectGen's request for interconnection with WAPA's high-voltage transmission grid. The interconnection and the associated action of constructing and operating the proposed wind farm raises the proposed Project to a major federal action under NEPA.

If WAPA's decision is to approve the interconnection request, an interconnection and interconnection switchyard would be constructed. WAPA would then own, operate, and maintain the 345-kV interconnection and interconnection switchyard located adjacent to the Ault-Craig transmission line.

SWCA Environmental Consultants is providing support to WAPA in the preparation of the EIS for the proposed Project. SWCA is also managing public involvement and public comments for the EIS process. Publication of the Draft EIS is anticipated for the fourth quarter of 2020.

### PUBLIC INVOLVEMENT

There are several opportunities in the NEPA process designated specifically for individuals, agencies, tribes, and organizations to provide comments. WAPA will accept input from any of these entities at any time during the NEPA process.

## ENVIRONMENTAL IMPACT STATEMENT PROCESS

 = Public Involvement Opportunities



# POTENTIALLY AFFECTED RESOURCES

## RAIL TIE WIND PROJECT

The EIS will consider potentially affected resources in the Project area, including those listed below.

- Agriculture
- Air Quality and Climate Change
- Biological Resources, including Endangered Species Act Section 7 compliance
- Cultural Resources, including National Historic Preservation Act Section 106 compliance
- Environmental Justice
- Geological Soils
- Hazardous Material
- Health and Safety
- Land Use and Recreation
- Mineral Resources
- Noise
- Paleontological Resources
- Recreation
- Socioeconomics
- Transportation
- Visual Resources



# VISUAL SIMULATIONS

## RAIL TIE WIND PROJECT

### TIE SIDING KEY OBSERVATION POINT

Baseline Condition



Conceptual Design with 3 MW Turbines



Conceptual Design with 6 MW Turbines



# VISUAL SIMULATIONS

## RAIL TIE WIND PROJECT

### THE BUTTES KEY OBSERVATION POINT



Baseline Condition

Conceptual Design with 6 MW Turbines, Daytime View



Conceptual Design with 6 MW Turbines, Nighttime View



# VISUAL SIMULATIONS

## RAIL TIE WIND PROJECT

### I-80 KEY OBSERVATION POINT

Baseline Condition



Conceptual Design with 3 MW Turbines



Conceptual Design with 6 MW Turbines



