

BITTER ROOT TRANSMISSION LINE PUBLIC INPUT MEETING

Deuel County, SD December 18, 2018

250 MW Cedar Point Wind Project | Limon, Colorado | RES Developed and Constructed | Vestas WTGs



- Introductions
- RES overview
- Project details
- Questions & discussion





RES at a glance - North America

QUICK FACTS

Founded: 1997

Technologies: Wind, Solar, Energy Storage, Transmission & Distribution

Services: Development, Construction, Operations

Locations: Broomfield, CO (HQ); Austin, TX; Minneapolis, MN; Oakville, Ontario; Old Saybrook, CT; Montreal, Quebec

Employees: >1,000









EXPERIENCE

Wind & Solar: 10,000+ MW renewable energy construction portfolio, of which we've developed over 4,000 MW

Transmission: 1,000+ miles of overhead & transmission lines (up to 345kV), 300+ substations, & 100+ distribution circuits built

Energy Storage: 128+ MW construction portfolio

Projects: 105+ projects in the U.S., Canada, & the Caribbean res

MORE THAN 10,000 MW OF NORTH AMERICAN PROJECT EXPERIENCE



WIND & SOLAR

Construction: >10,000 MW, of which Development: >4,500 MW Operations: >450 MW

ENERGY STORAGE

Construction: >128 MW, of which Operations: >100 MW

TRANSMISSION & DISTRIBUTION

Construction: >1,000 miles of t-lines >100 substations >300 miles of distribution circuits

105+ PROJECTS

UNITED STATES

Phone 303.439.4200

info.US@res-group.com

ABOUT OUR COMPANY

RES offers safe, reliable, and economic integrated energy solutions for centralized utility-scale and distributed communityscale electricity markets.

CANADA

RENEWABLE ENERGY SYSTEMS | RES-GROUP.COM

Phone 514,525,2113

info.Canada@res-group.com

Ŕ



Considerations for Routing Transmission Line

Setbacks (required by law):

- From roads/right-of-way
- From county section lines
- From homes
- From nonparticipating landowners

Environmental constraints:

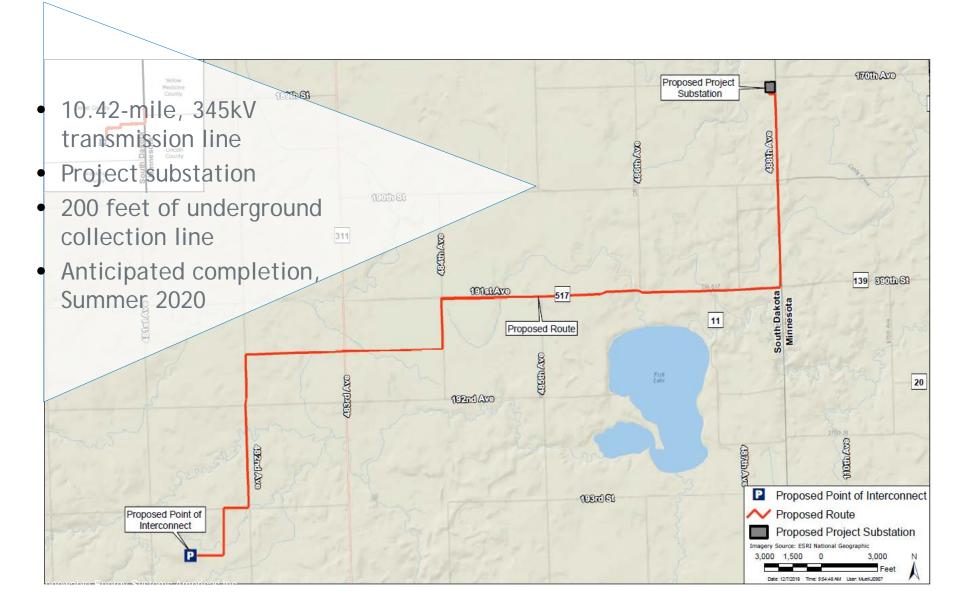
- Environmentally unbuildable areas (wetlands, low areas, etc.)
- Avoid USFWS grassland easements

Local Feedback:

- Landowner wishes
- Minimize impacts to agriculture

BITTER ROOT TRANSMISSION LINE





BITTER ROOT TRANSMISSION LINE

power for good*

- Single-circuit transmission line
- 85 monopole steel structures
- 95-130 feet tall
- 674-ft (average) span between structures







Environmental (and other) studies

- Complete
 - USFWS lands and easement mapping
 - Agency inquiry letters
 - Wetlands, cultural, and habitat field studies

Underway

- Consultation with U.S. Fish and Wildlife Service, South Dakota Department of Game, Fish and Parks
- Permitting through PUC, U.S. Army Corps of Engineers, Deuel County, and other applicable state and local agencies

BITTER ROOT TRANSMISSION LINE



Project Schedule

- Interconnection Agreement January 2019
- SD PUC Permit Spring 2018

- All other permits required prior to construction Summer 2019
- Start of construction Fall 2019
- Project commissioned August 2020







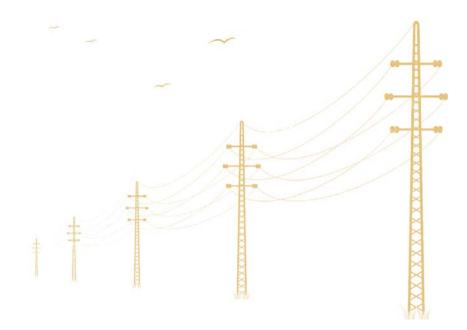
Construction Overview

- Route clearing removal of trees and brush within right-of-way
- Temporary laydown/staging areas material deliveries, construction vehicles and equipment storage
- Ground assembly of structures
- Lift and set structures direct embed poles, some require concrete foundations
- Stringing and pulling of conductor
- **Restoration and energization** dismantle temporary facilities, restore disturbed areas, re-seeding



Project Benefits

- Delivering enough clean energy to power 57,500 average households each year.
- Local construction jobs, such as electrical, excavating, concrete, & drain tile.
- Increased local business (hotel, dining, services, etc.) during construction.
- \$125,000+ in annual payments to local landowners.
- Local contractors hired for maintenance.
- Increases the region's tax & employment base over the long-term.





Thank you!

Michelle Matthews Development Manager 612.590.8653 Michelle.Matthews@res-group.com

Sean Flannery Permitting Director 651.338.5986 Sean.Flannery@res-group.com 330 2nd Avenue South Suite 820 Minneapolis, MN 55403 www.res-group.com

