

SWEETLAND WIND FARM

HAND COUNTY, SOUTH DAKOTA

A project of



Sweetland Wind Farm: Project Basics





Project Overview

Capacity:

- Approximately 200-megawatts (MWs).

Land:

- Project comprised of voluntary Wind Leases and Good Neighbor Agreements with Thirty-seven (37) total landowners.

Proposed Project Footprint to Include:

- Up to 71 wind turbines and 15 potential alternate locations in Hand County.
- Access roads, underground 34.5-kV collector lines, underground fiber-optic cables for turbine communications, etc.
- An operations and maintenance (O&M) facility.
- Up to four permanent meteorological (MET) towers.

Proposed Project Substation:

- A 34.5 to 230-kV collection substation.

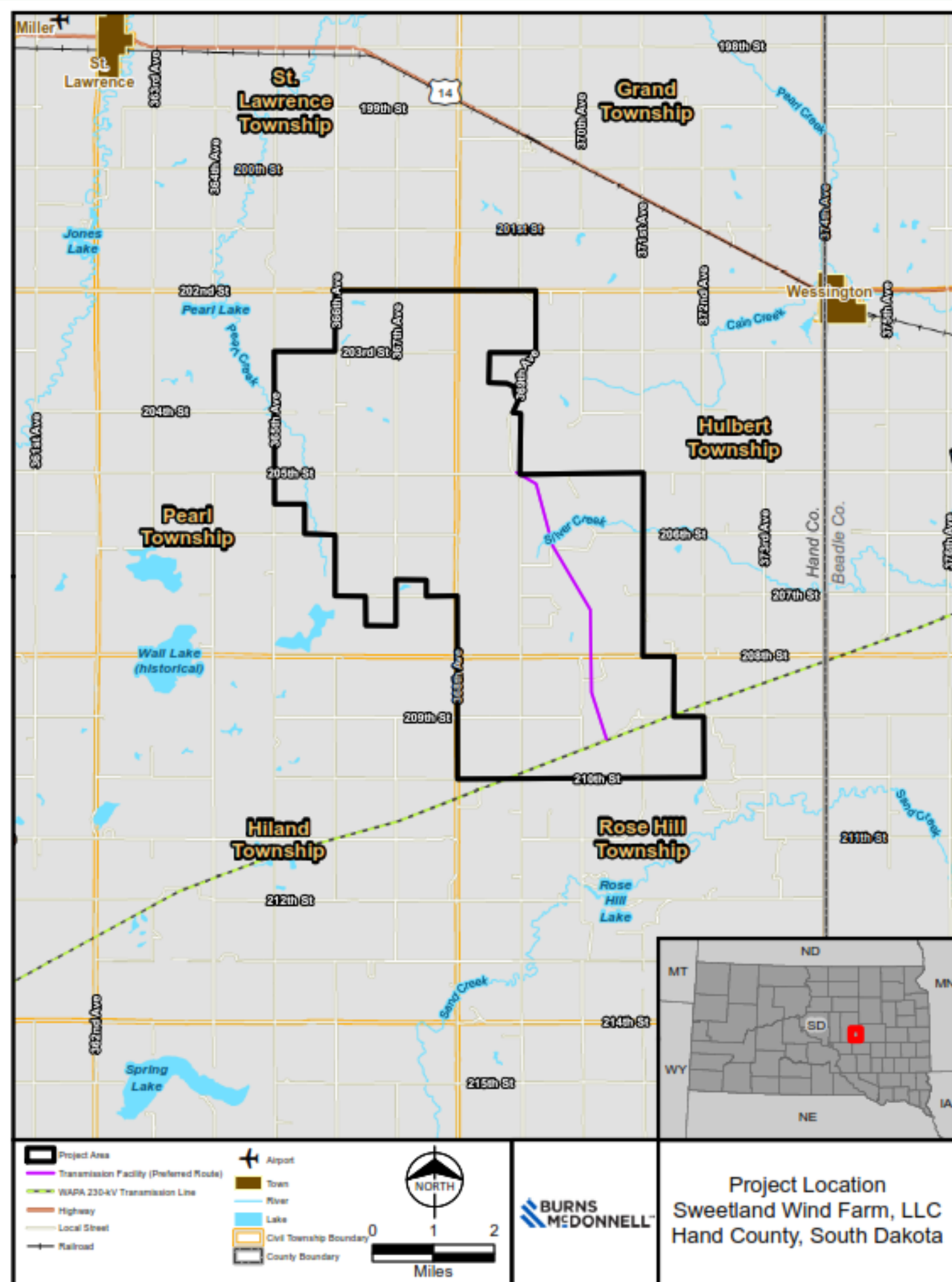
Proposed Project Transmission Line:

- A 230-kV gen-tie line route connecting the project substation to WAPA's (Huron to Fort Thompson) 230-kV transmission line where a new switchyard will be constructed. Only one gen-tie is proposed for the project.

Schedule:

- Start of construction: Q4 2019
- Commercial Operations Date (COD): Q4 2020

Project Area



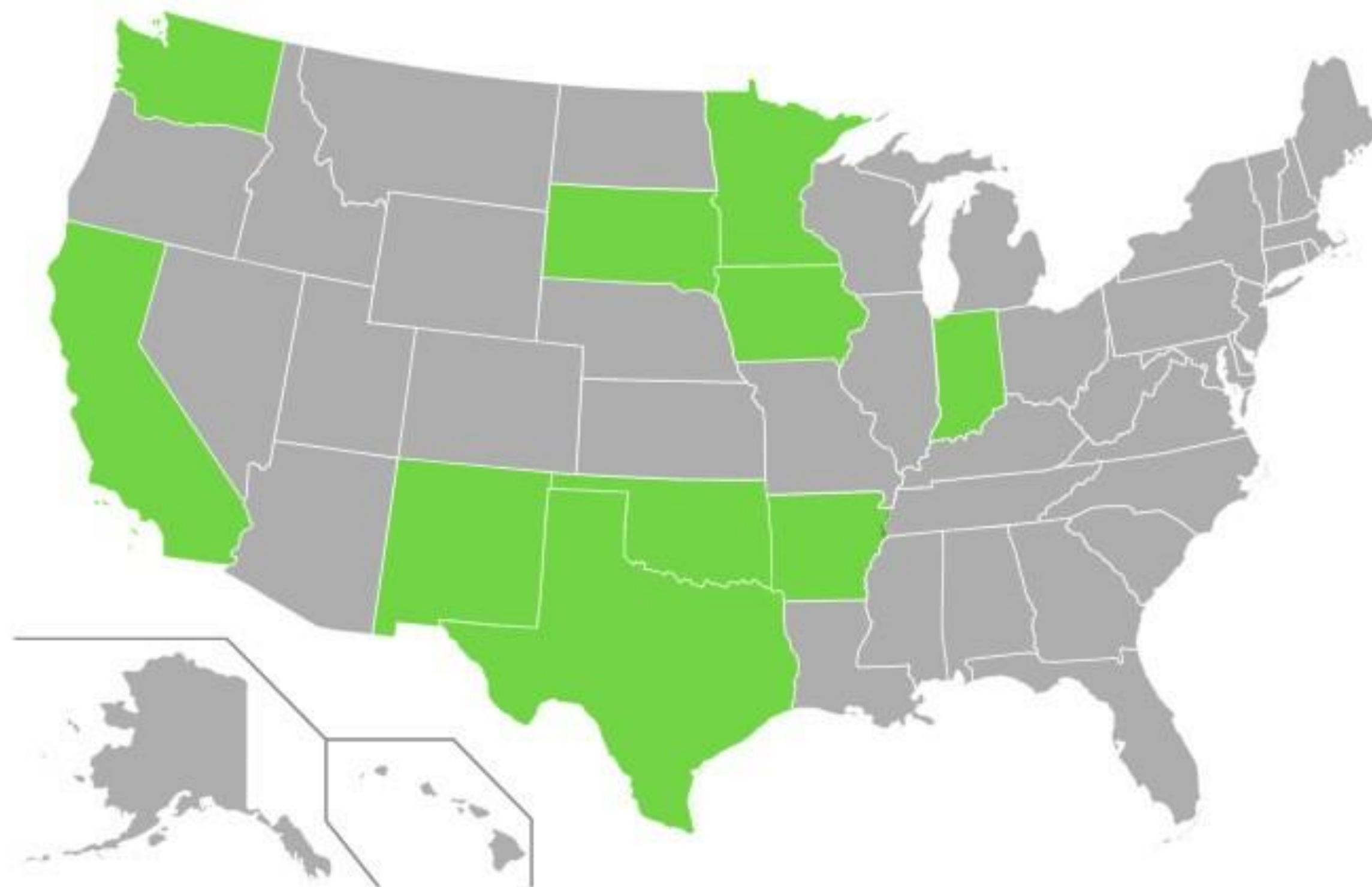
- The project is located in southeastern Hand County, and is bisected by Vayland Road (aka 369th Avenue/County Road 9) and 205th Street.
- The gen-tie line will be located entirely in the project area. Will extend from the project substation to the existing WAPA 230-kV transmission line.
- The project area is approximately 20,979 acres.



Project Owner: Background

Sweetland Wind Farm, LLC is a Delaware limited liability company and a wholly owned subsidiary of Scout Clean Energy. Scout Clean Energy is a North American renewable energy development company focused on utility scale wind development. The Scout Clean Energy team has an extensive track record developing large-scale wind energy projects. Project will be operated and maintained by Harvest Energy Services, an affiliate company under common management of Scout Clean Energy.

Scout Clean Energy currently has projects under development in the following states and continues to expand:





Project Due Diligence and Commitments





Due Diligence

The project has coordinated with and continues to coordinate with agencies and stakeholders including:

- Western Area Power Administration (WAPA),
- U.S. Fish and Wildlife Service (USFWS),
- Federal Aviation Administration (FAA),
- U.S. Army Corp of Engineers (USACE),
- U.S. Department of Agriculture (USDA),
- South Dakota State Historic Preservation Office (SHPO),
- South Dakota Game, Fish, and Parks (SDGFP),
- South Dakota Department of Environment and Natural Resources (SDDENR),
- South Dakota Department of Transportation (SDDOT) and Aeronautics Commission,
- South Dakota Governor's Office of Economic Development (SDGOED),
- Hand County and Townships,
- Cheyenne and Arapahoe, Yankton Sioux and Crow Creek Tribes.



Due Diligence (continued)

The project has conducted the following Environmental Studies, Surveys and Analysis including:

- Baseline Avian Studies, two years total (May 2017- Present),
- Bat Activity Studies, two years total (June-October 2017, May-October 2018),
- Bat Summer Presence/Absence Survey Report (November 14, 2018),
- Eagle and Raptor Nest Surveys, two years total (March & May 2017, March & May 2018),
- Whooping Crane Stopover Habitat Assessment Report (December 2018),
- Native Grassland Habitat Report (July – September 2018),
- Wetland Delineation Report,
- Cultural Resources Survey,
- Historical/Architectural Survey,
- AM and FM Radio Report,
- Off-Air TV Analysis,
- Microwave Study,
- Obstruction Analysis & Airspace Analysis,
- Sound Study,
- Shadow Flicker Analysis.



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Environmental Assessment Process

- In order for the Project to interconnect to WAPA's 230 kV transmission line, WAPA must conduct an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA).
- The EA will tier off the analysis conducted in the *Upper Great Plains Wind Energy Final Programmatic Environmental Impact Statement* (UGP PEIS), prepared jointly by WAPA and the USFWS (WAPA and USFWS, 2015).
- As part of the NEPA process, compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, is required. As such, WAPA is consulting with SHPO and interested tribes regarding cultural resource surveys as part of the Section 106 compliance process.



Project Commitments

- Compliance with state and local setbacks, “Hand County Development Agreement Executed December 2018”:
 - 1,320 feet wind turbine setback from currently occupied residences
 - 1.1 times wind turbine tip height setback from maintained County roadway
 - 1.1 times wind turbine tip height setback from maintained township roadway
 - 1.1 times wind turbine tip height setback from existing overhead distribution and transmission lines
 - 500 feet or 1.1 times height of tower, whichever is greater, setback from non-participating property lines pursuant to SDCL 43-13-24
 - Shadow flicker commitment limits shadow flicker from wind turbines at currently occupied residences to 30 hours per year or less, unless waived by the owner of the occupied residence.
 - Project noise commitment limits wind turbine noise to 50 dBA at currently occupied residences of participating landowners and 45 dBA at the currently occupied residences of non-participating landowners unless waived in writing by the owner of the occupied residence.
 - Wind turbine lighting commitment to comply with applicable FAA requirements and any South Dakota Public Utilities Commission facility permit condition placed on the project requiring the utilization of an Aircraft Detection Lighting System (ADLS).



Minimization Measures

- Prepare a Bird and Bat Conservation Strategy (BBCS) in accordance with the USFWS WEG that will be implemented to minimize impacts to avian and bat species during construction and operation of the Project;
- Conduct construction monitoring during whooping crane migration seasons, and stop construction activities within 1 mile of observed whooping cranes until the crane leaves;
- Conduct operational monitoring during whooping crane migration seasons; operations staff will be trained to identify whooping cranes, and if any are noted in the project area, turbines will be shut down within 2 miles of the crane until it leaves;
- Train O&M staff to recognize sensitive species;
- Conduct post-construction fatality monitoring for 2 years to assess impacts;
- Design transmission lines and facilities using Avian Power Line Interaction Committee (APLIC) (APLIC, 2006; 2012) guidance to minimize the risk of electrocution and collision to avian species;
- Avoid siting turbines in wetlands and waterbodies;
- Avoid siting turbines in USFWS Grassland and Wetland Easements;
- Site turbines and other above-ground wind facility infrastructure away from prairie grouse leks to the extent possible; additionally conduct 2 years of post-construction lek monitoring;
- Tribal monitor on-site during wind farm construction.



Safety Commitments

The anticipated life of the project is approximately 35 years (including a potential repower and/or retrofit of the turbines and power system with upgrades based on new technology):

- Before construction and during operations the project will coordinate with local and county emergency management to protect the project in event of natural, manmade, or other incidents.
- The project will register each turbine location and the O&M facility with the rural (county) identification/addressing (fire number) and 911 systems.
- At the end of the project's life, decommissioning will be the responsibility of Sweetland. Financial assurances, as a protection, will be put in place as required in the wind leases and state authorities. Decommissioning will end after the project area is restored.



Sweetland Wind Farm Project Benefits





Community Economic Benefits

Recipient	Wind Turbines Sited in Boundary (71 Primary Locations)	Approximate Annual Tax Revenue ^{a,b,c}	Approximate Total Tax Revenue ^{a,b,d}
South Dakota	71	\$322,000	\$11,284,000
Hand County	71	\$238,000	\$8,337,000
Pearl Township	40	\$58,000	\$2,013,000
Hulbert Township	27	\$39,000	\$1,359,000
Rose Hill Township	4	\$6,000	\$201,000
Wessington School District	10	\$48,000	\$1,678,000
Miller School District	61	\$292,000	\$10,233,000
Total	--	\$1,003,000	\$35,105,000

Source: Sweetland Wind Farm, LLC, January 2019

(a) Assumes construction of 71 primary wind turbine locations.

(b) Taxes apportioned by the Hand County Auditor by 50 percent to school districts, 15 percent to townships, and 35 percent to the county. Taxes further apportioned according to the number of wind turbines located in each township and each school district.

(c) After the fifth year of receiving the total annual tax revenue as well as South Dakota State-aid funds for the school districts, the amount of the wind energy tax revenue that is considered local effort funding would increase by 20 percent each year until year 10, after which all wind energy tax revenue would be considered local effort funding in the South Dakota School Funding Formula, which may decrease the State-aid funds the school districts receive. However, as shown in the table, 100 percent of the wind tax revenue allocated to the school districts would still be received by the school districts.

(d) Assumes 35-year Project life.



Economic Development

Landowner Lease Payments

- Over its 35-year life, Sweetland Wind Farm will generate over \$21 million in landowner payments to participating landowners.
 - Prior to construction, landowners will have received approximately \$142,000.00 in development-related payments.

Local Spending During Construction

- During construction, about 200 workers will be living and shopping in the local area and surrounding towns.
- Several key construction materials will be sourced locally, including water, gravel and road materials.

Long-term Jobs

- Throughout operation, Sweetland Wind Farm will employ about 10 full-time operations and maintenance employees, generating approximately \$643,000 in wages annually to local community members.
- The wind turbine technicians will work out of an Operations & Maintenance (O&M) facility located within the Project.



Community Outreach and Support

The project has coordinated with stakeholders including:

- Hand County
- Rose Hill, Hulbert, Hiland & Pearl Townships,
- Hand County Economic Development,
- Hand County 4-H,
- Hand County Road Superintendent,
- Hand County Sheriff,
- And other local organizations and businesses.



Sweetland Wind Farm: Project Components





Wind Turbines & Permanent MET Towers



Model Name	Current Nameplate Capacity (MW)	Hub Height (meters/feet)	Rotor Diameter (meters/feet)	Tip Height (meters/feet)	Swept Area (sq. meters / sq. feet)
GE 2.82/127	2.82	89/290	127/417	153/499	12,668/136,354
GE 2.82/127	2.82	114/374	127/417	178/584	12,668/136,354

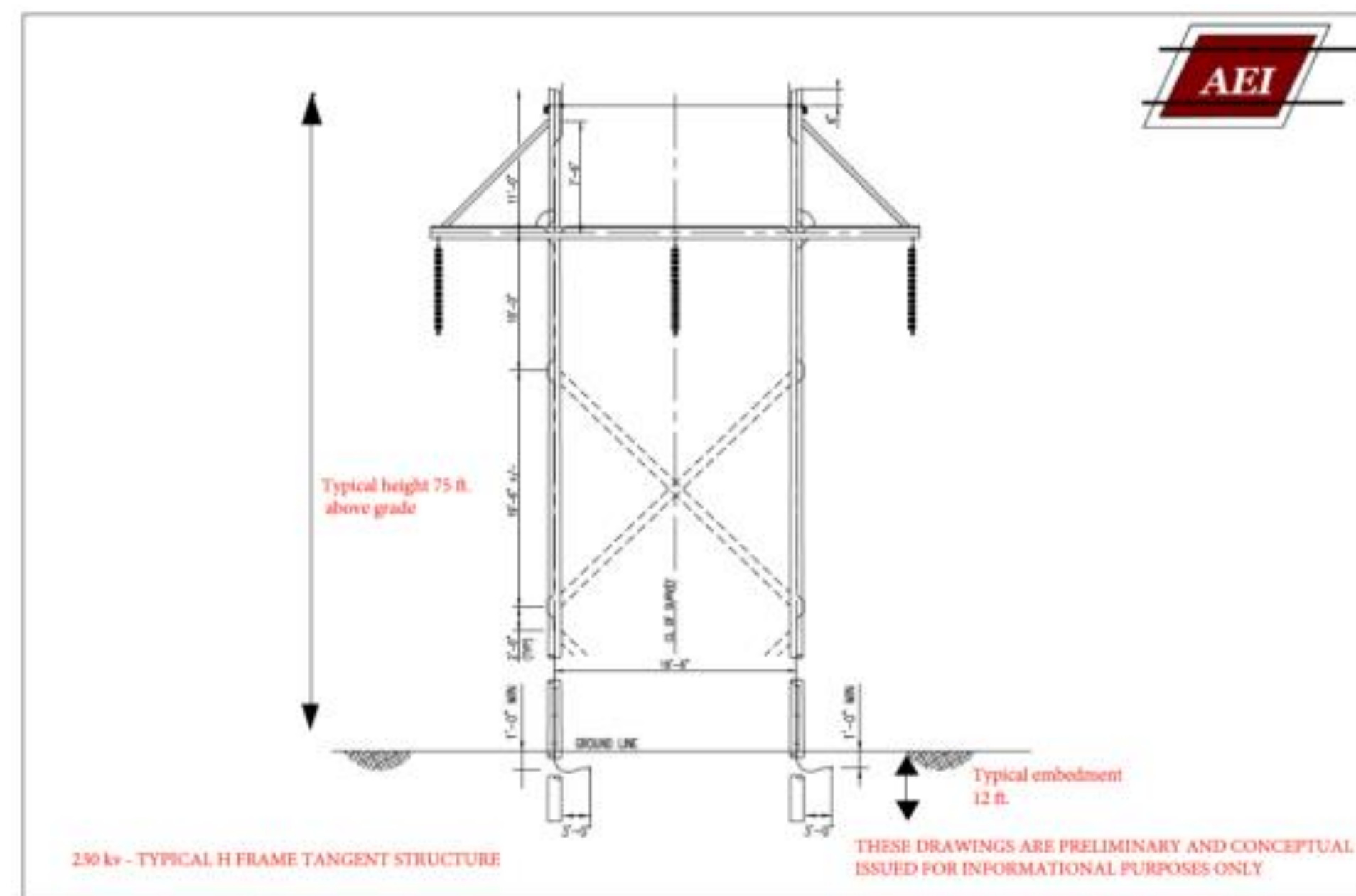
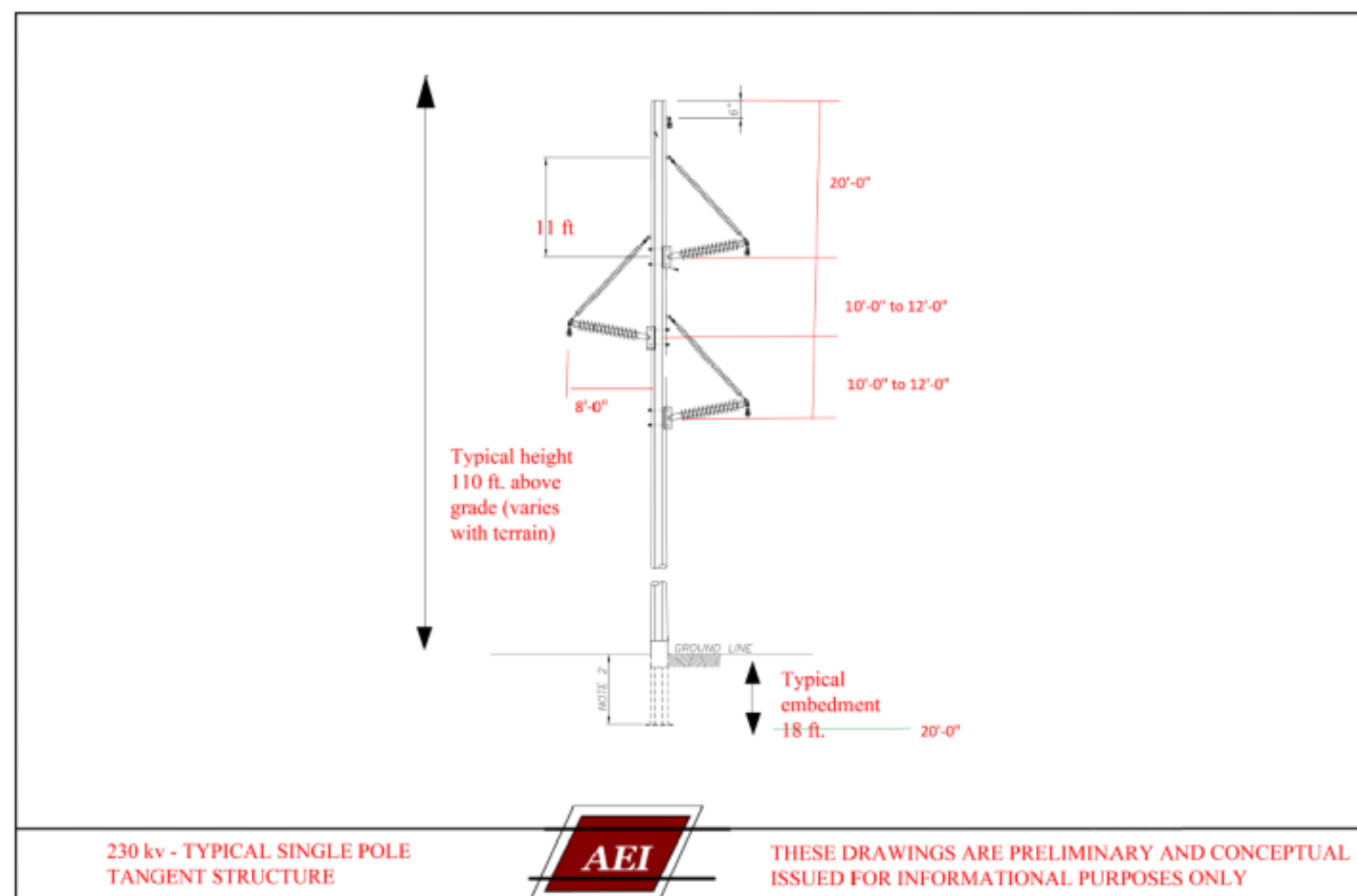
Wind Turbines & Permanent MET Towers



Up to four permanent MET Towers will be installed with the same hub height as the wind turbines to monitor the production of the turbines.

Gen-tie Line Dimensions

Steel monopole or wood h-frame structures will be used for Project gen-tie, will be directly embedded and spaced approximately 600' apart.





Permanent access road will be approximately 16' wide.



34.5- kV underground trench, approximately 42" deep. Slide 21

Turbine Foundations and Assembly



Substation and O&M Building



O&M Building Construction



Substation Construction

Conclusion

