

EXPEDITION WIND, LLC:
PROJECT DEVELOPMENT
PLAN NARRATIVE

ABSTRACT

Conditional Use Permit (CUP) Application and Project Development Plan, Summary Information for Marion County Planning and Zoning, and County Commission.

September, 2019

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Project Development Summary

In June of 2018, Expedition Wind, LLC ("**Expedition**" or "**Expedition Wind**" or the "**Project**") executed acquisition agreements with Windborne Energy, Inc., Sunwind Energy Group, LLLP and Top Notch Performers, LLC for the purchase of the *Doyle Wind Project* assets, including but not limited to their leasehold interests, meteorological towers and data, Generation Interconnection Agreement and the corresponding zoning permits covered under five approved Conditional Use Permits previously issued as Resolution Nos. 10-19, 11-22, 2014-13, 2014-22 and 2015-5 (the "**Doyle CUPs**").

Immediately upon closing, the Doyle Wind Project assets were organized into Expedition Wind LLC, a registered Kansas Limited Liability Company, wholly owned by National Renewable Solutions, LLC ("NRS. NRS as owner and developer of Expedition, is the applicant of this Conditional Use Permit ("CUP") application, and proposed Development Project Plan.

Since the acquisition, NRS has significantly advanced the development activity alongside its financial partner, Ares Management ("**Ares**"), including the addition of a sixth CUP, County Resolution No. 19-11. Ares is funding the development activities and has an exclusive option to acquire the Project with the intention of owning, operating, and marketing the power through a long-term Power Purchase Agreement ("**PPA**").

National Renewable Solutions, LLC is a national renewable energy development company based in Minneapolis, Minnesota. With its strong history of utilizing a successful community model, the NRS team has developed over 850 MW of operating or in-construction wind generation. Ares, as the ultimate owner of the operating project is an experienced owner/operator of gas and renewable generation and now owns and manages over \$125B of capital and over 4GW of generation in the U.S., including 430MW of wind generation.

Expedition Wind is now pleased to have executed a PPA with a party for a 25 year contract to purchase the renewable energy generation from the Project. The Project is now planning a definitive schedule for final development tasks, engineering design, and construction. Currently, we anticipate a Commercial Operations Date ("**COD**") in the month of October, 2020. This places the Project on a construction start schedule as soon as November, 2019.

Local & State Economic Impacts

While this specific CUP application is for one small area of land, planned for a portion of the Expedition Wind project transmission line, the benefits to be felt by the community and state hold just as much merit for this CUP as it did with Expedition Wind's previously approved CUP. As a 200MW wind facility, including an approximately 21-mile transmission line (which will be mostly located in Marion County), this project stands to provide the area with one of the biggest economic boosts it has seen in several years.

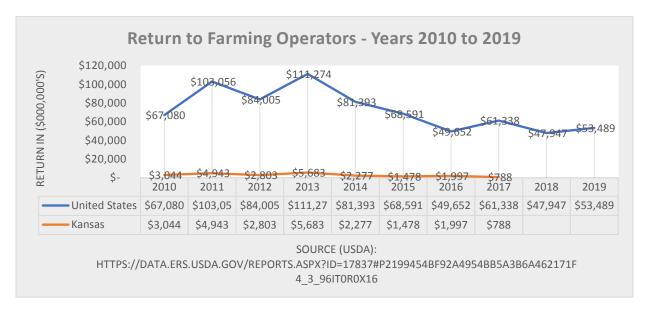
The wind industry has a strong history of providing strong economic opportunities to rural America, investing on average, \$13.6 billion annually since 2006 and \$140 billion cumulatively, predominantly in rural America, over that period.

Kansas continues to be a national leader in renewable energy, with over 6,000 MW of installed capacity. In 2017, the state generated 36% of its electricity from wind, ranking #2 in the nation for a total share of energy generated (AWEA, 2018). As of Q4 2018, there was 5,653 MW of installed capacity in Kansas and the State is now ranked #5 in the nation for most installed capacity. In the first quarter, 2019, Kansas grew to over 6,000 MW with 671 MW under construction and an additional 1,020 MW is advance development (AWEA, 2018). This leadership has resulted in nearly \$10 billion in investment capital going to rural communities distributed all across the state (Department of Energy, 2019).

The most significant economic impacts of the Expedition project will be felt by the Project landowners, Marion County government, and the school districts, as this new source of revenue will add additional investment into farms, infrastructure, and educational tools. The chart below shows how the Kansas agricultural sector is faring relative to other US farmers – and clearly there is room for improvement.

Without Kansas' wind revenue, these agricultural numbers would be much worse. Over 190 participating Marion County private landowners (most of whom live and work the land in the county) will be paid at least \$64 million over the life of the Project. Those payments will occur through a combination of annual participation, turbine and acreage payments; as well as one-time payments for the installation of roads, underground electric collection lines, turbine access roads and transmission lines.

Our Project landowners, including those of whom Expedition is submitting this application on their behalf, have expressed not just a "want to have" for this revenue, but a clear need in order to continue to support their current farming operations.



The payments to landowners are derived from a community development model in which all participating lands and turbines receive a payment based on a percentage of the annual revenue received by the Project. Those who have signed transmission easements with Expedition, will receive \$35,000/mile of transmission line sited on their property. Additionally, after completion of construction, we affirm that we will be in contact with every landowner (large or small), within one-half (1/2) mile of final turbine locations relating to this Development Plan and offer an opportunity to be included in the Project and to receive \$2,000 annually.

While we likely will not be able please everyone, we pledge to pay every participating landowner a minimum payment of \$2,000 per contract per year, regardless of how large of a landholding they have. A redacted copy of our lease has been previously provided to the County, and a copy of the Transmission Easement is included in **Attachment 2**.

Biological & Environmental Review

National Renewable Solutions has a strong history in environmental screening, studies, due diligence and risk mitigation to wildlife that ensures the protection of sensitive special and natural habitats and species. Additionally, NRS believes strongly in the preservation of natural landscapes by developing its projects with a low impact design to avoid land alterations that may adversely impact native species, hydrologic features, and agricultural operations.

Overall, the Project has been studying the biological impacts in the area since 2010. Expedition began a more comprehensive environmental diligence effort in 2018, even before our acquisition agreements were finalized for the Doyle Wind Project assets to ensure Project success and to provide good environmental stewardship. These studies were performed by Curry & Kerlinger, Allied Environmental, Aeolis Consulting Services and Westwood Professional Services. All of these firms are well-respected environmental and biological firms.

Westwood has completed a comprehensive "Wrap" document detailing the results of all the avian, bat, and biological studies into one comprehensive document, and included in **Attachment 4**, which also covered the area included in this CUP application.

Further, the Project has consulted, and will continue to communicate with the US Fish and Wildlife Service ("USFWS") as well as the Kansas Department of Wildlife, Parks and Tourism ("KDWPT") to ensure protection of any sensitive species. KDWPT's initial review and final review provided in September of 2019 are also provided in **Attachment 4.**

Avian and Bat Monitoring

In April 2018, Expedition contracted with a biological resources expert at Aeolis Consulting Services (ACS) to conduct both an Avian Point Count Survey and Bat Acoustic Monitoring Survey of the proposed Project area, including the area for this CUP application. These studies have been completed and found to have a low impact on local biology and habitat across all sensitive species as identified by the State or Federal Government. Studies are currently being compiled into a final biological study report by Westwood Professional Services.

Expedition Wind has performed both Tier I and Tier II studies, as necessary.

Tier I Environmental Studies

- Migratory Birds & Bats
- Raptor
- Historical or Cultural Features
- Wetland Features

Tier II Studies - Onsite focused evaluation

- Avian Point-Count Studies
- Raptor Observations
- Acoustical Bat Studies

As the Project is located in eastern Kansas, the proposed footprint avoids the main migratory Whooping Crane and avian migratory corridor that encompasses western and west-central Kansas where the majority of migrating species travel through seasonally.

Also, due to the lack of dense and diverse tree species, roosting habitat is likely to be limited to relatively few species as well as eliminating nesting and perching opportunities for predatory birds.

The study results show that the probability of impacts among Bald Eagles or any endangered or threatened species is very low. Additionally, while there is a known historical Bald Eagle activity in Marion County, there were no eagles observed in the proposed footprint. More significant activity is likely to occur several miles north of the Project area, where water and general habitat is more favorable.

Of the 15 species of bats known to occur within North America, the acoustical monitoring studies only cataloged seven species in and around the project area. Physical identification did not take place because of the harm that can occur to species and the spreading of White Nose Syndrome, which continues to decimate populations across the U.S. No winter roosts for any of these bat species were identified or are known to occur in the project area, so seasonal migration to the area is not anticipated.

See Westwood's Environmental Site Characterization Study in **Attachment 4** for additional details regarding wildlife, avian, flora, fauna, or other species concerns.

Environmental Site Assessment

Expedition's wind turbine footprint is not, nor has it ever been, located in the Flint Hills Tallgrass Heartland. While the land in this CUP application may contain land that falls within the Flint Hills Tallgrass area, the only use we are proposing for this CUP is for overhead transmission lines, which is understood to be an accepted improvement.

Additionally, Expedition has contracted with Wichita-based Allied Environmental Consultants, Inc. to help with the study of the proposed Project footprint and the transmission line route and establish a wetland inventory for future field delineation efforts. These results have been incorporated into Westwood's environmental impacts study of the Project.

This not only helps the Project establish the necessary set-backs from water features but also helps in the siting process to avoid disturbance and alternations to the natural hydrologic features for stormwater runoff and drainage of agricultural areas. Hydrologic features are known to support biological activity and diversity. These setbacks also serve to minimize biological impacts.

A Phase 1 Environmental Site Assessment ("ESA") has been performed to ASTM 1527-13 standards on all Project property, including the entire transmission facilities route. The report indicates that there are no known Recognized Environmental Conditions ("REC") that may be disturbed during the construction process that could create risk to the environment (**Attachment 4**).

Geo-conservation and Cultural Studies

Expedition contracted with Westwood to complete a review of the Cultural Resources within the Project and surrounding area utilizing Kansas historical databases. The land for this CUP was studied within the 1-mile buffer in such report. While they identified two areas within near our Project as being Prehistoric in nature, both of these areas are within a section of land that has no planned or proposed project infrastructure. All other sites identified in the report (included as **Attachment 5**) are not within our Project properties and therefore not impacted by the Project.

Flood Zones

Expedition has done a thorough analysis of flood zones in the area in order to ensure the Project's roads, turbine pads, O&M buildings, met towers, and overhead transmission lines are not adversely effected. Vegetation establishment and other mitigation strategies (including soil erosion, sediment control and stormwater management) will be more completely addressed in **Attachment 3**. It concludes that there are no adverse impacts on flood plains as a result of the Project, including the area in this CUP. Westwood's Site Characterization Study ("Wrap") includes assessment of wetlands and hydrologic features within the Project turbine footprint and a 1-mile buffer (where the land in this CUP application falls), which were used for site planning purposes. They can be found in **Attachment 4**.

Permitting

Expedition Wind is seeking this seventh companion CUP alongside the previously issued Doyle/Expedition CUPs for the sole purpose of providing permitted access and installation of 345kV overhead electrical transmission facilities from the generation project to the Kansas Department of Transportation ("KDOT") right-of-way, along Highway 77. The project has been issued permits by KDOT for the purpose of placing the 345kV transmission line within the KDOT right-of-way from the entry into the Highway 77 right-of-way just south of the City of Florence in Section 18 Township 21N Range 5E, and then traveling south to the Point of Interconnection into Westar's 345kV Transmission line in Butler County, approximately five miles south of the town of Burns. The Development Plan for this application is included in **Attachment 1.**

Expedition understands that additional administrative permits and/or agreements will be required as conditions to the Conditional Use Permit ("CUP") before being able to move into the construction phase, including but not limited to entering into roads and decommissioning agreements, finalizing any necessary requirements with KDOT for our use of their right-of-way, and obtaining building permits. The more ministerial permits will be the responsibility of the EPC contractor and will be completed by them during the final engineering and design phase. It is expected that this CUP (if approved), would be integrated with the previously issued CUPs for Expedition's use, in order to streamline all remaining permitting items for the collective Project.

Further, Expedition Wind will continue to work diligently with the Director of Planning and Zoning to ensure adequate time for all public comments to be heard and P&Z to review, as is appropriate. NRS and its consultants will be available to respond to any and all inquiries and questions in a timely manner in order to ultimately provide that all applicable permits are to be issued with adequate review.

A Conditional Use Permit (CUP) that is required at the point of interconnection switching substation in Butler County has been recently unanimously approved by the Butler County Commission.

State

Other than any permits necessary to utilize the existing Kansas Department of Transportation ("KDOT") right-of-way for installation of transmission facilities within the State Highway 77, additional state-level permitting has not been required of the Project.

Federal

Except where the project may interact with wetlands with federal protection and erosion control and Stormwater Pollution and Protection Planning ("SWPPP"), for the purpose of this CUP, there are no federal authorizations required for the installation of these transmission facilities.

Erosion control (ie, SWPPP, SPCC, NPDES) will be the responsibility of the EPC contractor who will coordinate directly with the county and the State of Kansas to ensure compliance with all applicable rules and regulations.

Site Layout and Electrical Design

This CUP application includes approximately 55 acres in Marion County. While the Development Plan for this CUP is specific to this application, it will be incorporated into the overall project Development Plan, subject to the permitted use differences contained therein. Please see **Attachment 1** for a map representation of the proposed Project Development Plan for this CUP and **Attachment 2** for a complete list of Project parcels on which we are requesting this CUP.

The portion of the Project contained in this application includes only the access and transmission facilities elements, and the construction thereof. The transmission facilities reference the physical element of the project which connects the generation portion of the project to the point of interconnection facilities, as authorized by the transmission system owner (Evergy, in this case) through the Generation Interconnection Agreement ("GIA") studied by Southwest Power Pool and fully agreed with Evergy (f/k/a Westar Energy). These facilities are overhead structures and are at a 345kV voltage level.

The transmission facilities are currently in mid-design phase. The KDOT permit is based on a preliminary 30% design performed by Mortenson Construction and Ulteig. Similar to the County process, final KDOT construction building permits will be issued by KDOT upon review of the Issued for Construction (IFC) design set.

Structures and Equipment

North American Electric Reliability Corporation ("NERC") has established design standards for electric lines in the United States. The transmission facilities are designed to NERC standards. Generally, the design of the transmission facilities incorporates a single-circuit conductor design upon three main structure styles: tangent, turning, and dead-end structures. The tangent structures are in-line poles that are typical along a straight corridor. These are planned to be single-pole steel or concrete direct-embed towers between 110 feet and 125 feet in total height above the ground, depending on land and infrastructure clearances of the conductor lines. These structures will be placed at spans anywhere between 300 feet and 900 feet. There are several design styles of turning structures, depending on soil and existing utility clearance conditions, but can include single-pole steel with concrete foundation (if there is a concrete foundation, guy wires are not likely. In this case, neither take-out or guy wires would be necessary) or three-pole structures with guy wires at a similar height as the tangent structures. The dead end structures are likely to be single-pole steel structures with concrete foundations. Technical design assumptions as provided by CEG are included in **Attachment 1** to this CUP application.

Operations and Maintenance

Once the construction begins on the transmission facilities, Expedition will be responsible for maintaining the structures, conductors and the weed control at the base of towers or any other area the project restricts normal landowner use. Visual inspection of the transmission facilities will be performed regularly to ensure proper function and early identification of any potential maintenance issues. The project will incorporate the transmission facilities into the noxious weed plan used throughout the project, incorporating the Kansas Noxious Weed Law (KS State Statute 2-1313) and the NERC Transmission Vegetation Management Standards (Standard FAC-003-2). These standards are included in **Attachment 4**.

Construction

Expedition is talking with premier Engineering, Procurement and Construction (EPC) companies in the energy industry with decades of experience across dozens of wind projects. The EPC will be carefully selected so as to have a very strong financial capability and track record, to manage our Project schedule and availability constraints and compliment the Project's approach within the community. The final EPC contracting decision is expected in late fall 2019.

A preliminary pole placement has been submitted in **Attachment 1** of this application. This layout is not final, but is very representative of the spacing and quantity within the corridor.

In any case, landowners will be consulted to find the best and most agreeable pole placement to provide the least impact feasible to allow maneuverability of agriculture equipment necessary for operation. Host landowners will retain the right to use lands within the transmission facility easement.

Communication Towers and Emergency Radio Mitigation

Expedition has commissioned reports with communications experts, ComSearch, to ensure turbine and transmission line placement does not interfere with area communication towers and other radio signals, including microwave beam paths between stationary towers throughout the area. Emergency broadcast signals travel via these pathways. These paths must be protected to have a direct "line-of-sight" to assure no signal interruption. These paths have been incorporated into the necessary setback requirements to ensure compliance within our footprint.

Additionally, the Project filed notice with the National Telecommunications and Information Agency ("NTIA") to ensure compliance. The NTIA issued a response indicating that the Project is not expected to conflict with existing NTIA infrastructure.

In response to concerns raised about local interference with mobile communication towers and 800MHz emergency radio systems in the area, Expedition recently commissioned another ComSearch study to ensure the footprint and final turbine locations will not have any negative effects on such systems. The ComSearch reports are included as **Attachment 4**, but an excerpt from the report is below:

"The first responder, industrial/business land mobile sites, area-wide public safety, and commercial E-911 communications as described in this report are typically unaffected by the presence of wind turbines, and we do not anticipate any significant harmful effect to these services in the Expedition Wind project area."

- (Comsearch a CommScope Company, 2019)

Although the ComSearch report showed no material impact and, consistent with the conditions of our previously issued CUP Resolution No. 19-11, Expedition further agrees to provide additional assurance in the form of financial security in order to guaranty the quality of the area's communication towers and emergency radio systems, which can be drawn upon to install necessary signal boosters, extenders or repeaters for affected mitigation, should the County system require them (wherein this CUP would be incorporated into the agreement(s) corresponding to the projects existing CUPs with the County on this issue).

Health & Safety

Expedition's design firm, Consulting Engineers Group ("CEG"), is designing the line to comply with all federal, state and local safety standards, laws and regulations to ensure the safe and effective operations of the facilities.

Property Values

While the Project cleared this hurtle with respect to its CUP approved earlier this year, property values with transmission lines are less of a debated topic due to the prevalence of them. Expedition Wind is pleased to have consulted with the owners of the nearest homesite to the transmission facilities included in this CUP, approximately 1050ft south of the planned transmission corridor. This landowner has indicated their support and desire to participate in the project. Further, the project will be utilizing the KDOT right-of-way along Highway 77, so any homesites located along the highway are already subject to such use as we are proposing in this application.

Additionally, and as provided to the County previously, there are several published research studies about wind energy and property values has largely coalesced around a finding that homes sold after nearby wind turbines have been constructed do not experience statistically significant value impacts (Ben Hoen, 2013). It can be safely assumed all or most of the projects which these studies were based upon included transmission lines, such as the one we are proposing within this application.

The Lawrence Berkeley National Laboratory, working with and under a grant provided by the Department of Energy, collected data on 50,000 home sales, in 27 counties, across 9 states. Of those, 1,198 sales were within 1 mile of a turbine, and 331 were within a ½ mile of a turbine. Using several statistical modeling methods to provide for a greater confidence level, results showed no adverse effect on land value:

"Across all model specification, we find no statistical evidence that home prices near wind turbines were affected in either the post-construction or post-announcement/preconstruction periods."

(Ben Hoen, 2013)

"In the four study areas examined here, there is no evidence of systematic effects of either proximity or visibility of 345-kV transmission lines on residential real estate values."

(James A. Chalmers, 2009)

History has shown that markets remain unchanged for agriculture land in the presence of a wind energy facility. The additional cash flow from turbine rents, land payments, and other forms of compensation under the lease agreements used by the industry have more than compensated landowners who may have experienced any loss.

As additional evidence, and directly within Kansas, the Reno County Assessor contacted all 24 of the other statewide assessors seeking their concurrence of the effect of wind farms on area land/property values. 23 of the 24 assessors responded.... And ALL 23 said that have not lowered any property values of those lands in and around their County Wind Farms.

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