Washburn Wind Energy LLC
Request for Special Permit
March 27, 2018

Special Permit Application Submittal
to
Planning and Zoning Commission
and
Board of Adjustment

Black Hawk County, Iowa
Introduction

Washburn Wind Energy LLC (WWE) hereby submits this Application as a Request for Special Permit to construct and operate the proposed Washburn Wind Project in Black Hawk County (the “Project”), Iowa pursuant to the Black Hawk County Code including section 18.70.240 Wind Energy Facilities.

The Project, sized up to 70 megawatts (MW), will include the following major wind energy facilities to be constructed including up to but not greater than 35 Vestas 2.0 MW wind turbines, an underground primary cable collection system, a substation, a permanent MET tower, and a permanent Aircraft Detection Lighting System (ADLS) for automatic obstruction lighting activation. These facilities are described in detail within this Application.

This Special Permit Application package has been submitted in formats consisting of one (1) hardcopy (contained in a 3-ring notebook plus Zoning Site Plan engineering prints) plus one (1) complete set of files in electronic format. The information has been organized within numbered “Tabs” in the notebook and the electronic files have been named by the corresponding “Tab” number as well.

- The cover letter for this Application package serves as an “executive summary” for the submittal and is found in Tab 1.
- The Black Hawk County’s official Request for Special Permit form as completed and signed is in Tab 2.
- The Table of Contents for the entire Special Permit Application package is in Tab 3 (i.e., naming the content sections for Tabs 1 – 26).
- This “Central Narrative” Special Permit Application Submittal document herein serves as the main body of WWE’s request and is in Tab 4.

The Zoning Site Plan contained herein has been engineered to satisfy County requirements from an overall initial design standpoint as detailed throughout this Special Permit Application package. Work is continuing to bring final design and remaining preparatory work to completion. Upon receiving the Special Permit from Black Hawk County, Washburn plans to finalize and submit all applications for such approvals to satisfy all state, Federal and local laws and regulations. After receiving the Special Use Permit, Washburn would not seek a building permit(s) from Black Hawk County for any wind energy facilities to be located in Black Hawk County unless and until Washburn has received all necessary approvals for the project under state, Federal, and local laws and regulations. Please refer to Tab 5 for a signed Legal Authority Statement in this regard.
The proposed Washburn Wind Farm by definition falls within the County’s Ordinance as a “Wind energy facility, large” project. It will consist of up to but not greater than thirty-five 2.0 MW Vestas V110 wind turbines with rotor diameters of 110 meters and turbine tower hub heights of 95 meters. The Zoning Site Plan depicts locations for 40 turbines which include “alternates”. As is common during the final design phase of wind project development, some of the proposed 40 turbine locations may not meet all final design and siting criteria (e.g., geotechnical study results, final shadow flicker and/or noise study results, etc.). In those individual cases, proposed turbine locations that are found to be suboptimal will be removed as the final design layout is formulated. In any case, the final design will consist of not greater than 35 turbines.

**Washburn Wind Project Development and Anticipated Construction Timeline**

Initial development efforts for the Washburn Wind Project began early in 2016 when a generator interconnection request for the Project was filed with MISO and contacts with local landowners commenced along with multiple filings over time with the FAA for determining the design viability of various preliminary Project layouts. The nearly 2-year process of designing, engineering and finalizing the windfarm layout and obtaining necessary easements with landowners came to fruition in March 2018. Upon receiving approval from Black Hawk County of the Special Permit, Washburn Wind Energy LLC will complete all remaining work to satisfy all state, federal and local laws and regulations. A signed statement to this effect is included in the Application in Tab 5.

Major construction activities for the Project are currently anticipated to commence later in 2018 or by summer 2019 with full commercial operations beginning as early as late 2019. Finalization of a definitive construction schedule will be subject to evolving transmission interconnection factors and dynamic market influences that will dictate eventual customer need for this renewable energy resource.

Required property easements throughout the overall footprint area of the Project have been secured and memorandum of easement documents, as publicly recorded with the County, have been included within this Application in Tab 12. Additionally, WWE has sent letters to Project neighboring landowners informing them of this proposed Project and inviting them to partake in individual meetings for purposes of describing the Project, answering questions and offering them a neighbor agreement for their consideration and execution if they so desire.
Washburn Wind Project Environmental and Community Benefits

The environmental and economic benefits of the proposed Washburn Wind Project are noteworthy. The Project’s annual renewable energy output will be equivalent to supplying electricity to nearly 26,000 homes, offsetting over 430 million lbs. of CO2, removing some 42,000 cars from the roads, or planting over 5 million trees. Revenue to landowners, neighbors and the County is expected to exceed $35 million over 30 years, a significant stimulus to the local economy. The wind farm will also be another diversified addition to the renewable energy already being produced in Black Hawk County, providing further impetus to attracting new businesses and residents to the area. The renewable energy produced by the Project will complement current growth in the surrounding urban and rural areas.

Major wind farm construction activities also benefit the local economy with significant increases related to local lodging, restaurant, gas station, retail, and supermarket businesses. Significant economic multiplier effects of money spent in the county are also expected. The proposed Washburn Wind Farm is anticipated to create hundreds of temporary construction jobs and several permanent maintenance and management jobs.

Project Developer Experience and Business Relationships

WWE is a wholly owned subsidiary of RPM Access LLC (RPMA). In 2016, RPMA established Washburn Wind Energy LLC as the project company for the Washburn Project.

Since 2000, RPMA and its predecessor, Midwest Renewable Energy Corporation, have initiated and developed over 1,500 MW of wind farms in Iowa and Kansas representing a total of 16 utility-scale projects. RPMA has developed wind projects throughout the following Iowa counties: Worth, Winnebago, Greene, Delaware, Fayette, Marshall, Tama, Madison, Adams, Grundy, Mahaska, and Howard. To date, RPMA’s Iowa projects represent approximately 17% of all wind nameplate capacity installed throughout the state. In addition to long-term demonstrated project development expertise, RPMA currently operates and retains ownership interests in three Iowa wind farms with a combined nameplate capacity of 130 MW giving us a unique perspective in interactions with land owners and the public. The RPMA team consists of sixteen full-time, seasoned power professionals who each have their areas of expertise in wind energy and other facets of the power industry.

Primary partners, innovative ventures and ongoing business relationships over the years include Central Iowa Power Cooperative (CIPCO), Madison Gas and Electric (MGE), the Missouri Joint Municipal Electric Utility Commission (MJMEUC), the Kansas Power Pool (KPP), the City of Independence (IPL), Missouri, Kansas Municipal Energy
Agency (KMEA), MidAmerican Energy (MEC), Berkshire Hathaway Energy (BHE), Alliant Energy, Google, BlackRock, Facebook, a joint venture between Entergy and Shell, and Iberdrola Renewable Energies.

**Washburn Wind Compliance Documentation Pursuant to Black Hawk County Ordinance 18.70.240 Wind Energy Facilities**

Washburn Energy compliance documentation is described and referenced following each applicable Ordinance excerpt listed below (i.e., **bolded excerpts in italics** are listed generally in the order as presented throughout the Ordinance).

**E. Regulatory Framework.**

1. **Large wind energy facilities may only be constructed in areas that are zoned “A” agricultural district, “A-L” agricultural-limited district, and “C-M” commercial-manufacturing district upon approval of a special permit by the Board of Adjustment after recommendation of the County Planning and Zoning Commission.**

The WWE project layout has been designed for proposed facilities to be constructed in current zoning areas designated as “A” Agricultural District and “C-M” Commercial-Manufacturing District.

3. **Application for a special permit, if required, for a large or small wind energy facility shall be submitted with the following information:**

   a. **A properly filled out and signed application.**

      See completed and signed Request for Special Permit Application Form in Tab 2.

   b. **A signed statement indicating that the applicant has legal authority to construct, operate, and develop the wind energy facilities under state, federal and local laws and regulations, including Federal Aviation Administration (FAA), Federal Communications Commission (FCC), and state and local building codes.**

      See signed Legal Authority Statement in Tab 5.
c. A description of the number and kind of wind energy facilities to be installed.

The WWE Project will consist of not greater than thirty-five 2.0 megawatt wind turbines with 110 meter rotor diameters erected on monopole tubular steel towers with a hub height of 95 meters. The locations of proposed turbines are shown on the Zoning Site Plan in Tab 6.

The point of high voltage transmission interconnection will be located between the new 161/34.5 kV 75 MVA Wind Farm substation and the new MEC 161 kV breaker station located between Electric Farms and Shaulis substations on the MEC 161 kV line in Black Hawk County, Iowa, which is located west of the town of Washburn and approximately one mile south of Waterloo. Said interconnection and substation facilities are further described in Tab 7. The substation location is shown on the Zoning Site Plan in Tab 6.

The underground cable collection system routes connecting the wind turbines to the substation are detailed on the Zoning Site Plan in Tab 6.

The permanent MET tower is described in Tab 8. The location of said tower is shown on the Zoning Site Plan in Tab 6.

The permanent Aircraft Detection Lighting System (ADLS) for automatic obstruction lighting activation is further described in Tab 14. The location of said tower is shown on the Zoning Site Plan in Tab 6.

d. A description of the large or small wind energy facilities’ height and design, including a cross section, elevation, and diagram of how the wind energy facilities will be anchored to the ground, prepared by a professional engineer licensed in the state of Iowa.


Thus far, for purposes of preliminary project feasibility evaluations, geotechnical borings and related engineering study results have been completed at two (2) wind turbine sites, namely, at Turbine No. 17 and No. 21 (see Zoning Site Plan, Tab 6). A single wind turbine foundation design was determined to satisfy the geotechnical engineering study requirements for both locations. See said foundation design in Tab 10.
e. A statement from the applicant that all wind energy facilities will be installed in compliance with manufacturer’s specifications, and a copy of those manufacturer’s specifications. 

See enclosed installation compliance statement in Tab 11.

f. A signed statement from the landowner(s) of the site stating that he/she will abide by all applicable terms and conditions of this section and the special permit, if approved.

See recorded Memorandums of Easements in Tab 12 documenting said requirement, as signed by each landowner.

g. A statement indicating what hazardous materials will be used or stored on the site, and how those materials will be stored.

See Vestas hazardous chemicals on site and storage documentation in Tab 13.

h. A statement indicating how the wind energy facility will be lit, if applicable.

See Engineer’s Briefing on this topic in Tab 14.

j. For large wind energy facilities, a site plan prepared by a professional engineer or surveyor licensed in the state of Iowa, drawn to a scale of not less than one inch to 100 feet (one inch to 50 feet preferred), showing the parcel boundaries and a legal description, two-foot contours for the subject site and 100 feet beyond the subject site, support facilities, access, proposed landscaping and fencing, and all other buildings on the site and within the 100 feet beyond the site.

See Zoning Site Plan in Tab 6.

k. Any utility or easement locations shall be indicated on the site plan.

See Zoning Site Plan in Tab 6.
I. For large wind energy facilities, photo exhibits visualizing the proposed wind energy facilities.

See photo visualizations in Tab 15.

m. For large wind energy facilities, a signed statement from the landowner(s) of the site stating that a lease has been executed or has been agreed upon by all parties and will be executed if the applicant does not own the land.

See recorded Memorandums of Easements in Tab 12 documenting said requirement, as signed by each landowner.

9. For large wind energy facilities, a certificate of insurance with a minimum of $2,000,000 liability coverage per incidence, per occurrence, shall be required for the life of the facility. Each renewal period will require a copy of certificate of insurance be provided to Black Hawk County. An expired insurance certificate or an unacceptable liability coverage amount is grounds for revocation of the special permit.

See current insurance certification in Tab 16.

10. For large wind energy facilities, the County shall require an irrevocable letter of credit, bond, or cash escrow, held in trust in favor of Black Hawk County, to recover the costs associated with removal of a use terminated large wind turbine tower and appurtenant facilities. The amount of the irrevocable letter of credit, bond, or cash escrow shall be set by the Board of Adjustment prior to special permit approval and shall remain in effect until released by Black Hawk County. The issuer of the irrevocable letter of credit or bond shall be suitable to the County.

See Washburn decommissioning and facilities removal study in Tab 17 to support the determination of the amount of financial security as to be established by the Board of Adjustment. Said financial security requirement shall be satisfied by Washburn Wind Energy LLC in conjunction with WWE submitting to the County its applications for building permits.
j. The owner of a large wind energy facility (applicant) shall reimburse the Black Hawk County for any and all repairs and reconstruction to the public roads, culverts, and natural drainage ways resulting directly from the construction of the large wind energy facility. A qualified independent third party, agreed to by Black Hawk County and the applicant, and paid for by the applicant, shall be hired to inspect the roadways and drainage ways to be used or effected during construction. This third party shall be hired to evaluate, document, videotape, and rate road and drainage way conditions prior to the construction of the large wind energy facility and again within 30 days after the large wind energy facility project is complete. Any damage done by the applicant or subcontractors shall be repaired or reconstructed at the applicant's expense.

A Road Maintenance Agreement to satisfy this provision was provided by the Black Hawk County Engineer’s Office to WWE on October 18, 2017. See said partially executed Agreement in Tab 18.

WWE cooperated with the Black Hawk County Engineer’s office to obtain their concurrence on the location of all proposed driveway entrances to WWE’s wind energy facilities as depicted on the Zoning Site Plan in Tab 6. Said concurrence was documented in an email from the Black Hawk County Engineer’s office dated March 20, 2018. This determination served as an informal preliminary approval subject to WWE obtaining formal permits prior to constructing driveway entrances.

l. Any recorded access easement across private lands to a wind energy facility, in addition to naming the wind energy facility owner as having access to the easement, shall also name Black Hawk County as having access to the easement for purposes of inspection or decommissioning. If no such access easement exists, approval of the special permit for a wind energy facility shall constitute granting to Black Hawk County a right to access the wind energy facility for purposes of inspection or decommissioning.

See recorded Memorandums of Easements in Tab 12 documenting said requirement, as signed by each landowner.

G. Setbacks.
1. The following setbacks and separation requirements shall apply to all wind turbines:

a. Each wind turbine associated with a large wind energy facility shall be set back from the nearest nonparticipating landowner’s property line and from any other wind turbine a distance of no less than one and one-half times its total height.
c. Wind energy facilities must meet all utility setbacks and/or easements. The owner of the wind energy facility is responsible for contacting the appropriate entities to determine the location of all above and underground utility lines on the site including, but not limited to, electricity, natural gas, cable television, communication, fiber optic, etc.

See Zoning Site Plan in Tab 6.

I. Noise and Vibration.
1. Except during short-term events including severe windstorms, audible noise due to wind energy facility operations shall not exceed 60 dBA, when measured at the site property lines. If audible noise exceeds 60 dBA, the offending wind turbine must be inoperable until repairs are completed, or a waiver is obtained from affected property owners in accordance with subsection (I)(6) of this section.

See Engineer’s Briefing and supporting data on this topic in Tab 19.

J. Minimum Ground Clearance.
2. For large wind energy facilities, the minimum distance between the ground and any part of the rotor or blade system shall be 30 feet.


K. Signal Interference. The applicant or wind energy facility owner shall mitigate any interference with electromagnetic communications, such as radio, telephone, computers, communication devices, or television signals, including any public agency radio systems, caused by any wind energy facility. However, in no case shall a wind energy facility be located within the microwave path of an emergency communication tower.

See enclosed initial beam path study in Tab 20. This preliminary study, with favorable results, was performed for purposes of screening the preliminary turbine site layout to determine the proposed Project’s viability related to satisfying this provision. A final study will be performed, based on the final engineering design turbine layout, to demonstrate compliance with this provision prior to WWE seeking building permits.
**L. Shadow Flicker.** Wind energy facilities shall attempt to avoid shadow flicker in any off-site residences. The wind energy facility owner and/or operator shall make reasonable efforts to minimize or mitigate shadow flicker to any off-site residence to the satisfaction (determination) of the Zoning Administrator. Any off-site residence owner or wind energy facility owner may appeal the determination of the Zoning Administrator to the Board of Adjustment, as provided in BHCC 18.130.040(C)(1).

See Engineer’s briefing and supporting data on this topic in Tab 21.

**M. Ice Shedding.** The wind energy facility owner and/or operator shall ensure that ice from the wind turbine blades does not impact any off-site property.

See Engineer’s briefing on this topic in Tab 22.

**18.70.250 Land evaluation and site assessment (LESA) system.** Black Hawk County has adopted, in a separate report, a LESA system, and shall use it to evaluate agricultural land viability in relation to its land use decision-making processes. All requests for zoning ordinance map amendments, use exception permits, and conditional use permits shall be evaluated using LESA. The Zoning Administrator or designee shall calculate LESA scores on the parent parcel. The Zoning Administrator or designee has the authority to make interpretations, within the parameters set in the LESA worksheets, to calculate the score.

See a description of LESA considerations and a spreadsheet containing LESA property parcels in Tab 23.

**Additional Application Package Contents**

See Engineer’s Briefing on FAA filings in Tab 24.

See spreadsheet mailing list for participating and 500-foot adjacent parcels to support the County’s public notice requirement in Tab 25.

See enclosed printed mailing labels to support the County’s public notice requirement in Tab 26.