Submittal Date: June 6, 2025

### **Riverbend Wind Energy Facility**

Wind Energy Siting Certification Application: Exhibit A-1

> Prepared for: Fremont, Elk & Speaker Townships

> > Prepared by:

**MI Energy Developments, LLC** 

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#### I. PROJECT INTRODUCTION

MI Energy Developments, LLC, a subsidiary of REV Renewables (REV), headquartered in New York City, New York, proposes to construct the Riverbend Wind Energy Facility (Project) in Sanilac County, Michigan.

The Project will be located in Fremont, Speaker and Elk townships. The Project proposes to permit up to 50 turbine pad locations, up to 26 within Fremont Township and up to 24 within Speaker Township. There are no turbines proposed within Elk Township. The Project will include approximately 22,141 acres of participating land within Sanilac County, Michigan, of which approximately 64 acres of land will be utilized for above ground infrastructure. There are five potential turbine technologies being considered for the project, a Nordex N169 5.5 MW turbine, Vestas V162 6.2 MW, 6.8 MW and 7.2 MW turbines and a Vestas V163 4.5 MW turbine, totaling approximately 300 megawatts (MW), which is enough capacity to supply approximately 90,000 homes with electricity.

As detailed throughout the application narrative, the Project has diligently designed a facility that maintains compliance with the Michigan Public Service Commission's (MPSC) wind energy siting certificate requirements outlined in the Application Filing Instructions and Procedures, as well as compliance with the Affected Local Units' (ALUs) local zoning ordinances to the extent the local zoning ordinances' requirements are not more restrictive than the requirements of Public Act 233 of 2023 (MCL 460.1221, et seq.) (PA 233). Under PA 233, given that REV is submitting an application to the ALUs under their reported compatible renewable energy ordinances, REV does not believe it is legally obligated to submit a copy of the Project's Site Plan/Narrative (nor publish the same), in advance of submitting its application under the ALUs' stated compatible renewable energy ordinances. However, REV is doing so, as well as hosting public meetings in ALUs, as a measure of good-faith to demonstrate REV's desire to act as a good neighbor to the communities where the Project will be located.

#### II. EXHIBIT A-1: SITE PLAN NARRATIVE

#### **EXHIBIT A-1.1 – PLANNED FACILITIES**

A-1.1.a – Site Plans must, at a minimum, depict the following information:

1. The proposed location of the facility and potential right-of-way extents, including proposed electric collection and transmission lines and interconnections, all fenced in or secured areas, as well as ancillary features located on the facility site such as roads, railroads, switchyards, energy generation, storage or regulation facilities, substations, and similar facilities.

Refer to Sheets 2, 4-34, 36-60, 62-63 of the Site Plan in **Appendix A**.

2. The proposed location of any off-site utility interconnections that are available to the applicant at the time of application, including all electric transmission lines, communications lines, stormwater drainage lines, county and intercounty drains, and appurtenances thereto, to be installed connecting to and servicing the site of the facility.

The Project will not include any off-site utility interconnections or ancillary infrastructure. Refer to Sheets 2, 4-34, 36-60, 62-63 of the Site Plan in **Appendix A**. Fiber communication lines will be installed with collection lines, and both will utilize the same route.

3. The proposed limits of clearing and disturbance for construction of all facility components and ancillary features, including laydown yards and temporary staging or storage areas.

Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A**. Turbine components will be temporarily staged at each proposed location within the displayed limits of disturbance.

4. Major institutions, parks, and recreational areas within 1000 feet of the site.

Refer to the Site Plan in **Appendix A** and **Figure 9 – Recreational Uses Map** for any of the above features.

5. Lakes, reservoirs, streams, canals, rivers, wetlands, and other waterbodies within 1000 feet of the site.

Refer to the Site Plan in **Appendix A** and **Figure 2 – Water Resources Map** for any of the above features applicable to the Project area.

#### 6. Legal boundaries of cities, villages, townships, and counties within 1000 feet of the site.

Refer to the Site Plan in **Appendix A** and **Figure 1 – Site Location Map.** 

#### 7. Occupied structures within 1000 feet of the site.

Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A** and **Figure 10 – Occupied Dwellings Map**.

8. The location of inverters and other noise-emitting facilities showing the distance to occupied structures, property lines, and public rights-of-way.

Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in Appendix A.

9. The area of the proposed site or right-of-way for the facility, and the identification of participating properties and adjacent properties.

Refer to Sheets 2, 4-34, 36-60, 62-63 of the Site Plan in Appendix A.

#### 10. The location of any deeded easement known to date that exists within the footprint of the facility.

Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A.** At the time of filing this application there was no publicly available data regarding deeded easement locations. As a result, the Project has provided all deeded easements known to date. Prior to construction, the Project will perform necessary surveys to identify all existing deeded easements in relation to Project infrastructure.

i. The existing site plan elements, including without limitation, project boundary(ies), parcel boundaries, public roads, railroads, public right-of-way, existing public utilities, and easement locations shall be shown as approximate locations based on readily available desktop/GIS/publicly available spatial data within the footprint of the facility.

A site plan was prepared for the proposed Project using the latest edition of USGS maps and GIS mapping to the extent available. The location and layout of Project infrastructure can be found on the Site Plan in **Appendix A** of this application.

The site plan for the Project provides a comprehensive layout of the proposed facility and right-of-way extents, including essential features such as electric collection lines, transmission lines, interconnections, and secured areas. The site plan also includes proposed ancillary features located on the facility site such as roads, a switchyard (to be built by others), a substation, underground collector system, meteorological towers and similar infrastructure. The plan details the locations of both on-site and off-site utility interconnections as well as the areas designated for construction clearing and disturbance. Additionally, the plan includes any identified nearby significant institutions, parks, recreational areas, waterbodies, legal boundaries of surrounding municipalities, and occupied structures within 1,000 feet of the site. The proposed Project area participating properties, adjacent properties and locations of known deeded easements (those publicly available) that exist within the footprint of the facility are included in the site plan. All existing site elements, such as public roads, utilities, railroads, parcel boundaries, and easements, are represented based on available spatial data, depicting the approximate locations of relevant components within the Project's footprint.

## A-1.1.b – An aerial photograph or a map using satellite imagery with depictions of planned facilities, fences, roads, occupied buildings, and planned screening, landscaping, and vegetative cover.

The site plan for the proposed Project includes a map of the planned facilities, roads, occupied buildings. The Project does not anticipate including screening, landscaping or vegetative cover, outside of restoration to any areas disturbed during construction. Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A.** 

# A-1.1.c – A dimensioned drawing or map with dimensions added showing setbacks from the project boundary and fences to all structures on participating properties, road rights-of-way, waterways, wetlands, occupied buildings and structures on nonparticipating properties, and property lines of non-participating properties.

The site plan for the proposed Project includes a dimensioned map showing setbacks from the Project boundary and fences to the substation on participating properties, road rights-of-way, waterways, wetlands, occupied buildings and structures on nonparticipating properties, and property lines of non-participating properties. Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A**.

## A-1.1.d – A description of the maximum height of solar panels, wind turbines, storage facilities, and associated electrical equipment in relation to existing overhead communication and electric transmission lines.

The potential proposed turbine technologies for the Project include the Vestas V162 with a total height of 656 feet, the Vestas V163 with a total height of 655 feet, and the Nordex N169 with a total height of 645 feet. The project will also include meteorological towers with an approximate height of 390 feet, as well as electrical equipment including lightening protection poles and high-voltage send off structures with an anticipated height of approximately 55 feet, main power transformers and interior substation with an approximate maximum height of 25 feet, and a substation fence with an approximate height of 8 feet. Typical existing overhead communication and transmission lines range from 30 to 60 feet for distribution and 80 to 150 feet for high voltage transmission. Refer to the height specifications for proposed turbine technology located on Sheet 64 of the Site Plan in **Appendix A**.

#### EXHIBIT A-1.2 – AREA LAND USE INFORMATION

A-1.2.a – Exhibit A-2 maps must show, at a minimum, the following information within the proposed facility (including all components and ancillary feature(s)) and within 1,000 feet of the proposed facility (including all components and ancillary feature(s)). The applicant should ensure that all items provided are clear and legible which could entail providing some of the requested items on separate layers, separate portable document format (pdf) maps, or by showing some areas on another scale.

The area land use maps for the proposed Project include all required details within and surrounding the facility up to 1,000 feet, including all components and ancillary features. To enhance clarity and legibility, specific items have been provided on separate layers, individual PDF maps, or at varied scales where necessary. Refer to **Figures 1-10**.

## **1.** Municipal boundaries and taxing jurisdictions, at a scale sufficient to determine and demonstrate relation of facilities to those geographic and political features.

The area land use maps for the proposed Project include municipal boundaries and taxing jurisdictions at a scale sufficient to determine and demonstrate relation of facilities to geographic and political features. Refer to **Figure 1 – Site Locations Map**.

2. Proposed land uses within the facility and surrounding area including, but not limited to, the identification of land being utilized for agriculture including the cultivation of specialty crops according to publicly available data.

The area land use maps for the proposed Project include the planned land uses within the facility and surrounding area. This includes, but is not limited to, identification of agricultural land and the cultivation of specialty crops according to publicly available data. Currently, all the land within the proposed locations for turbine pad placement is utilized for agriculture and/or cultivating crops. Refer to **Figure 3 – Land Use Map**.

## **3.** Farmland, including, but not limited to, prime farmland within the facility and surrounding area within 1000 feet of the perimeter.

The area land use maps for the proposed Project identify existing farmland, including prime farmland within the facility and the surrounding area within 1,000 feet of the perimeter. Approximately 7% (2,440 acres) of the Project area is designated as farmland of local importance, 12% (4,183 acres) is designated as prime farmland, 76% (26,494 acres) is prime farmland if drained, 1% (349 acres) is prime farmland if drained and either protected from flooding or not frequently flooded during the growing season, and the remaining 4% (1,394 acres) of the Project area is not designated as prime farmland or farmland of local importance. Approximately 11% (804 acres) of the land within 1,000 feet of the proposed Project boundary is designated as prime farmland, 76% (5,553 acres) is prime farmland if drained, less than 1% (73 acres) is prime farmland if drained and either protected from flooding or not frequently flooded during the growing season, and 9% (658 acres) is designated as farmland of local importance. The remaining 3% (218 acres) of the buffer area is not designated as prime farmland of local importance. Refer to **Figure 4 – Prime Farmland Map**.

## 4. Existing overhead and underground major facilities for electric, gas, and telecommunications transmission.

The area land use maps for the proposed Project identify major existing overhead and underground facilities for electric, gas, and telecommunications transmission per publicly available databases. Identified facilities within and directly adjacent to the Project area include transmission lines, natural gas pipelines and cellular towers. Refer to **Figure 6 – Utility Infrastructure Map**. The Project will coordinate with smaller local utilities prior to construction to obtain any necessary crossing agreements that may be required.

5. A map of all properties upon which any component of a facility or ancillary feature would be located must show the current land use, tax parcel number and owner of record of each property, and any publicly known proposed land use plans for any of these properties. Also, identify any parcels within the project boundaries participating in farmland development rights agreements under Michigan's Farmland and Open Space Preservation Program (PA 116).

#### i. For wind facilities, all properties within 2,000 feet of such facilities must be shown.

The area land use maps for the proposed Project include details of properties hosting any component of the facility or ancillary features, providing the current and/or proposed land use, tax parcel numbers, and owners of record for each property. In addition, the area land use maps include details of all properties within 2,000 feet of Project facilities. Additionally, a search of the 2024 Equalization Reports for Fremont and Speaker Townships was used to identify parcels participating in Michigan's Farmland and Open Space Preservation Program (PA 116). Refer to Sheets 3, 35 & 61 of the Site Plan in **Appendix A** and **Figure 5 – PA 116 Map**.

#### 6. Existing local zoning districts.

The area land use maps for the proposed Project identify all existing local zoning districts. According to the Township Zoning Maps, the proposed Project area is located entirely within the Agricultural Residential (AR), Agricultural (AG) or Rural Residential (RR) zoning districts. Refer to Sheets 3, 35 & 61 of the Site Plan in **Appendix A**.

## 7. Designated coastal areas, inland waterways, groundwater management zones, designated agricultural districts, flood-prone areas, and coastal erosion hazard areas.

The area land use maps for the proposed Project identify all designated coastal areas, inland waterways, groundwater management zones, designated agricultural districts, flood-prone areas, and coastal erosion areas. Refer to **Figure 2 – Water Resources Map** for any inland waterways and **Figure 7 – Water Management Map** for any ground water management zones and flood-prone areas. The Project did not observe and coastal areas, designated agricultural districts or coastal erosion hazard areas within the Project area.

8. Recreational and other land uses that might be affected by the sight or sound of the construction or operation of the facility, interconnections and related facilities. Identify any wild, scenic, and recreational river corridors, open spaces, known archaeological, geologic, historical, or scenic areas, parks, designated wilderness, forest lands, scenic vistas, conservation easement lands, federal or state designated scenic byways, nature preserves, designated trails, public-access fishing areas, major communication and utility uses and infrastructure, and institutional, community, and municipal uses and facilities.

The area land use maps for the proposed Project identify all recreational and other land uses potentially impacted by the sight or sound of construction or operation of the facility. These maps include wild, scenic, and recreational river corridors, archaeological, geologic, and historical sites, wilderness areas, forest lands, conservation easement lands, nature preserves communication uses, utility infrastructure, and institutional, community, and municipal facilities. The following uses were not identified within the Project area: open spaces, scenic areas, parks, scenic vistas, designated scenic byways, trails, and public-access fishing areas. Refer to **Figure 9 – Recreational Uses Map** for any of the above features. Due to confidentiality requirements, archaeological site data obtained from the Michigan State Historic Preservation Office (SHPO) has been excluded from publicly available mapping materials.

# 9. Depict the proposed facilities, adjacent properties, all structures within participating and adjacent properties, property lines, and the projected sound isolines along with the modeled sound isolines including the statutory limit and any limits that have been adopted in administrative rules by the MPSC (not applicable at this time).

The area land use maps for the proposed Project depict all planned facilities, adjacent properties, structures within participating and adjacent properties, and property lines. Additionally, the sound study map shows the projected sound isolines and modeled sound isolines, indicating compliance with statutory limits. Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A** and the Sound Modeling Study in **Appendix B**.

## 10. Depict the area that will be impacted by shadow flicker for wind facilities, including isolines indicating areas expected to experience 30 hours or more per year of shadow flicker and locations of occupied structures.

The area land use maps for the proposed Project depict the area that will be impacted by shadow flicker for wind facilities, including isolines indicating areas expected to experience 30 hours or more per year of shadow flicker and locations of occupied structures. Refer to Sheets 4-33, 36-59, 62-63 of the Site Plan in **Appendix A** and the Shadow Flicker Analysis in **Appendix D**.

#### EXHIBIT A-1.3 – EXPLANATORY INFORMATION

A-1.3.a – Written explanations of the elements and features shown on all provided maps as well as other planned site/facility information including a description of the project area and the portion of the community where the project will be sited including socioeconomic and demographic profiles and

## major industries in the area. Examples of relevant project area information include geography, topography, cities, villages, townships, counties, major industries, and landmarks.

The Project is situated in Fremont and Speaker Townships, as well as the southeast corner of Elk Township in Sanilac County, Michigan. Sanilac County is on the eastern edge of Michigan, approximately 60 miles north of the metro Detroit area. The Project is located approximately 3 miles north of the City of Yale and approximately 13 miles south of Sandusky, the largest city in Sanilac County. In general, the topography of the Project area includes relatively flat terrain dominated by agricultural use. Much of the native forest cover has been cleared for farmland, but wooded areas still exist primarily near creeks and areas less desirable for farming. There are numerous creeks and drains within the Project area, but no large rivers or lakes. Key landmarks in Sanilac County include the Sanilac Petroglyphs Historic State Park, Sanilac County Historic Village & Museum, Port Sanilac Lighthouse, Lexington State Harbor, Forester Park, and the Minden City State Game Area.

According to the U.S. Census Bureau, as of 2023, Fremont Township had a population of 874 with a median age of 49.5 years. The racial composition is predominantly White (94.6%), with minimal representation from other racial and ethnic groups. The median household income stands at \$62,361, and the poverty rate is at 8.7%. According to the U.S. Census Bureau, as of 2023, Speaker Township had a population of 1,446 with a median age of 36.6 years. The township's racial makeup is 92.9% White, with Hispanic or Latino (2.6%), and other racial groups comprising the remainder. The average household income is \$57,778, and the poverty rate at 8.6%. According to the U.S. Census Bureau, as of 2023, Elk Township had a population of 1,378 with a median age of 51.8 years. The township's racial makeup is 89.7% White, with Hispanic or Latino (5.2%), African American (1.7%), and other racial groups comprising the remainder. The average household income is \$58,636, and the poverty rate at 10.8%. Key industries in Sanilac County include agriculture, manufacturing, and tourism and recreation.

## **1.** Provide justification for how the proposed project location, layout, construction methods, etc. minimize the following:

#### i. Environmental and Natural Resource impacts

The Project is designed to be compatible with the natural environment and will be constructed, operated, and maintained to not adversely affect the natural environment. The Project will adhere to applicable local, state and federal permitting requirements and is working closely with relevant agencies to employ best management practices (BMPs) in relation to environmental and natural features.

The Project will not impact the water quality or water supply in the area. The Project is designed such that post-construction stormwater flows will not materially exceed pre-construction flow. As such, the Project is unlikely to affect groundwater and drainage. Implementation of a Soil Erosion and Sedimentation Control Plan and BMPs will minimize adverse effects on soil and water quality during construction and operation. Natural features of the landscape will be retained wherever practicable to help control erosion and contain storm water runoff. Additionally, water usage for the Project is only anticipated during the construction phases to fill water trucks for dust control and vegetation purposes. Water usage will be minimal and in accordance with any applicable regulations and landowner agreements, and there are no proposed plans for water to be obtained from local wells for continual use once construction is complete.

Numerous studies and reports have been completed as part of the due diligence process to ensure impacts to threatened and endangered species and sensitive habitats will be minimized. These studies include a Site Characterization Study (2021), Phase 2 Presence/Absence Bat Acoustic Survey (2021), Two Years of Pre-Construction Avian Surveys (2021-2022 and 2022-2023), Wetland Delineation (2021, 2022, 2023 & 2024) Environment, Great Lakes, and Energy (EGLE) Water Resources Division (WRD) Joint Permit Application pre-application meeting with Randy Evilsizer (11/2022), and a Threatened and Endangered Species Habitat Assessment (2023).

Operation of a wind energy facility will not generate emissions, smoke, fumes, or odors. The proposed Project will not generate liquids or other waste, solid or hazardous, that is detrimental to health, safety, or general welfare. As such, the Project will not disturb or be hazardous to any surrounding uses permitted within the adjacent zoning districts or produce any hazardous by-products. Furthermore, at the end of its operational life, the Project will be decommissioned so the land may be returned to its current use.

#### ii. Noise

Predicted noise levels for all receptors are at or below the 55 dBA limit set forth in MCL 460.1226. Refer to the Sound Modeling Study in **Appendix B**. Construction equipment will be equipped with all legally required noise mitigation. Applicant will coordinate with the Engineering Procurement and Construction (EPC) contractor, once determined, to ensure that sound specific mitigation measures are implemented and followed to the extent practicable.

#### iii. Visual impacts

Project structures, including towers and turbines, will be painted with non-reflective/off-white color designed to minimize visual impacts. The wind turbine base and blades shall be a color consistent with industry standards. No advertising or graphics will be placed on any part of the tower or blades. Mandatory lighting required by the FAA will be implemented, which could include only certain turbines, and the potential to synchronize lights to minimize impacts and preserve the rural character of the surrounding area.

#### iv. Impacts to traffic

The expected traffic generated by the Project will be safely and efficiently accommodated by the existing capacity of the road system. Construction of the Project will be conducted using current roads and highway infrastructure. The project team will inform the local authority of potential disruptions to traffic during construction. The Project will not create excessive traffic during the operational phase. Each turbine is serviced by its own access road. Although very unlikely there is a chance that during the life of the Project that a tower could collapse, a blade or fragments could be dislodged, or ice may be thrown from a blade, the setback distances from roads are great enough to ensure the protection of the traveling public and nearby properties. Transportation and installation of the Project's components will likely require temporary impacts such as turning radii improvements, as well as temporary impacts to infrastructure such as road signs and above ground utilities. All temporary impacts will be restored to their original state to the maximum extent practicable. The Project will work closely the Sanilac County Road Commission during construction to minimize any potential impacts to local traffic. Temporary radii improvements as well as any proposed permanent access roads will be graded and will consist of gravel over compacted material.

Prior to Project construction, the Project will consult with the Sanilac County Road Commission regarding workforce and component delivery routes to obtain any necessary approvals and, if requested, the Project will enter into a Road Use Agreement. If the Sanilac County Road Commission does not require a Road Use Agreement, the Project will continue to coordinate with the Road Commission. During operation, the Project will generate minimal vehicular or pedestrian traffic. Access roads were designed to provide ingress and egress points for maintenance crews and emergency service vehicles and will not increase runoff to existing drains.

#### v. Impacts to solid waste disposal capacity

Waste generated throughout the project life cycle, including construction and operation, will be handled and disposed of in a manner that complies with applicable environmental regulations. Waste and hazardous materials will be collected and stored in proper storage containers at the operation and maintenance building onsite prior to disposal. Waste that cannot be recycled will be transported to an approved landfill facility. Recyclables, such as metals, glass, plastics and paper products will be taken to certified recycling facilities. Any materials deemed hazardous will be managed according to applicable environmental regulations, with the involvement of certified hazardous waste disposal companies.

## vi. Impacts to county and intercounty drains and preliminary plans to minimize, mitigate, and repair drainage issues; and

The proposed Project's excavation and stormwater management measures are designed to prevent increased surface drainage and minimize runoff to adjacent properties. The Project will obtain all applicable permits and comply with Erosion and Sediment Control and Storm Water Management best practices. Above-ground infrastructure will be set back from any county drain rights-of-way. If deemed necessary, a crossing permit will be obtained from the Sanilac County Drain Commissioner.

#### vii. Other impacts to non-participating property owners during construction and operation.

The Project is designed and will be constructed, operated, and maintained to prevent adverse effects to neighboring lands. The Project will preserve the agricultural character and visual appearance of the area by maintaining adequate setbacks from inhabited structures, non-participating parcel property lines, and public roads. The closest proposed turbine location to a non-participating property line is 748 feet, and 762 feet to a public road. Design measures will be employed to preserve the viewshed and rural character of adjacent non-participating properties. Additionally, portions of the Project area outside of the turbine pads may be utilized to continue farming or other agricultural uses.

The Project will not create any hazardous or disturbing impacts on neighboring uses. The Applicant conducted a shadow flicker analysis at occupied structures. Turbines that produce more than thirty (30) hours of shadow flicker per year will be mitigated by commercially reasonable mitigation measures approved by the applicable governing body and in consultation with the affected receptor. Additionally, the Project will maintain the area's low density and will not increase area road traffic once constructed. Any excavation measures required for the Project will not increase surface drainage. Furthermore, stormwater mitigation efforts will minimize run-off to adjacent properties or county drains.

Wind turbine towers will not be climbable on the exterior. All utility grid wind energy systems are designed to prevent unauthorized access to electrical and mechanical components and have access doors that are kept securely locked at all times when service personnel are not present. All access doors to wind turbine towers and electrical equipment will be lockable. Appropriate warning signs will be placed on wind turbines towers, electrical equipment, and Wind Energy Facility entrances.

The Project will properly maintain all access roads and work with landowners to provide adequate measures to deter trespassers from the public right of way entrance. The Project will provide a complete set of material safety data sheets, to the extent they are obtainable, for any hazardous products that may be a part of the Project. In addition to this, the Project will work with the local Fire Department to provide any necessary safety equipment and annual training necessary to comply with any safety requirements or emergency situations that may occur.

Overall, the Project is designed to protect the health, safety, welfare, social well-being, and economic well-being of those using the land, nearby residents, landowners adjacent to the Project, and the community at large.

#### 2. Provide the number of acres of the proposed site for the facility.

The proposed Project area includes approximately 22,141 acres of participating land, of which approximately 64 acres will be utilized for permanent infrastructure associated with the Project. The remaining unused acreage will be restored and returned to landowners following construction.

**3.** Provide written descriptions explaining the relation of the location of the facility site, and all ancillary features not located on the facility site, to the ALUs of government.

All infrastructure, including ancillary features, are located within the facility site.

4. Provide a qualitative assessment of the compatibility of the facility, including any off-site staging and storage areas, with existing, proposed and allowed land uses located within a 1,000-foot perimeter of the facility site. The assessment shall identify the nearby land uses of and shall address the land use impacts of the facility on residential areas, schools, civic facilities, recreational facilities, and commercial areas. The assessment and evaluation shall demonstrate that conflicts from facility-generated noise, traffic, and visual impacts with current and planned uses have been minimized to the extent practicable.

The Project is designed and will be constructed, operated, and maintained to ensure compatibility with the predominantly existing land uses within a 1,000-foot perimeter. The Project area consists primarily of active agricultural land with scattered residences. Refer to **Figure 3 – Land Use Map**. Uses adjacent to Project facilities and within the general Project area also include churches and civic facilities. Refer to **Figure 9 – Recreational and Other Land Uses Map**. The Project has been sited in a manner that complies with applicable PA 233 and the MPSC requirements.

Surrounding woodlots and farmland will be preserved to the extent possible, with portions of the Project area available for continued agricultural use outside of the active operational footprint. Residential housing in proximity to the Project will benefit from design measures such as setbacks, security measures, shadow flicker mitigation, and sound mitigation, ensuring that the Project maintains the rural and residential character of the area. The Project has been sited to avoid receptors to the extent practicable and to mitigate potential sound impacts through strategic placement of infrastructure.

The proposed Project will maintain the low-density character of the region and avoid adverse effects on surface drainage through comprehensive stormwater management measures, preventing changes to runoff to neighboring properties. The inclusion of traffic management strategies during construction and minimal operational traffic post-construction will ensure compatibility with the area's infrastructure. Overall, the Project has been designed to align with and complement the surrounding land uses, preserving the community's character while protecting the health, safety, and welfare of nearby residents and stakeholders.

5. Provide a description of the planned screening, landscaping, and vegetative cover. For solar developments, describe the plan to establish and maintain pollinator habitat and vegetative ground cover for the life of the proposed facility. This information is not required if the proposed facility is located entirely on brownfield land.

The proposed Project is not a solar facility and thus does not require a plan to establish and maintain pollinator habitat and vegetative ground cover for the life of the proposed facility. Typical ground cover restoration will occur once construction is complete and regular farming operations and land uses can resume.

i. Describe the plan to meet or exceed pollinator standards throughout the lifetime of the proposed facility as established by the "Michigan Pollinator Habitat Planning Scorecard for Solar Sites" developed by the Michigan State University Department of Entomology in effect on February 27, 2024, or any applicable successor standards approved by the Commission.

ii. Explain how the seed mix used to establish pollinator plantings shall not include invasive species as identified by the Midwest Invasive Species Information Network, led by researchers at the Michigan State University Department of Entomology and supporting regional partners.

The proposed Project is not a solar facility and thus the pollinator planting standards for approval in Exhibit A-1.3.a.5.i-ii do not apply.

## 6. Provide a written description of how planned fencing complies with the version of the National Electric Code in effect on November 29, 2024, or as approved by the Commission.

The Project will include perimeter security fencing that meets the requirements of the National Electric Code installed around the proposed substation. All access doors to wind turbines will be lockable and will not be climbable on the exterior. Construction, installation and permitting of the switchyard will be conducted by a separate entity. Refer to the Site Plan in **Appendix A**.

#### **EXHIBIT A-1.4 – CONSTRUCTION INFORMATION**

#### A-1.4.a – Describe the project's proposed construction and installation methods including:

#### **1**. Soil surveying and testing plans, pursuant to NREPA.

Soil testing is not anticipated for the project. If a reason arises for testing to be performed, any specific requirements pursuant to NREPA will be considered, as applicable to soil testing. In addition, the project will implement BMPs during construction activities involving soil disturbance to minimize erosion, sedimentation, and off-site impacts. Refer to Sheets 64-65 of the Site Plan in **Appendix A** for anticipated BMPs that could be utilized.

#### 2. Grading and excavation.

Grading for the project is expected to be minimal and only required to smooth existing grades for the installation of access roads and staging areas. Areas requiring excavation for the installation of project infrastructure will be restored to existing conditions to the extent practicable. Refer to Sheets 64-65 of the Site Plan in **Appendix A** for additional details on the grading requirements for proposed project infrastructure.

## **3.** Construction of temporary and permanent access roads, staging areas, and laydown areas and trenches.

Refer to Sheets 64-65 of the Site Plan in **Appendix A** for preliminary details on the construction of temporary and permanent access roads, and trenches. Construction and installation of staging areas and laydown yards require additional input from the EPC once determined.

#### 4. Stringing of cable and/or laying of pipe.

Underground collection and fiber communication installation will utilize a plowing or trenching method. The method and machinery will be decided by the EPC, once determined. In areas where trenching or plowing is not feasible, either due to difficult terrain, stream crossings, road crossings, existing railroad crossings or environmental concerns, directional drilling methods may be utilized.

#### 5. Installation of electric transmission line poles and structures, including foundations.

A generation interconnection line will be required between the proposed substation and switchyard and a structure will be required for interconnection to the existing overhead transmission. Details regarding these structures, foundations and methods of construction will be determined later in the engineering process once utility requirements have been determined.

#### 6. Depth of underground infrastructure.

The Project will install all underground collection at a minimum of 4 feet below existing grade. Depths for utility crossings under county roads, county drains, streams, and existing railroads will be determined through further consultation with the County Road and County Drain Commissions, railroad owner and

EGLE for stream crossings. Illustrative details are shown for turbine foundations on Sheet 64 of the Site Plan in **Appendix A**.

#### 7. Post-construction restoration.

Refer to Sheet 64 of the Site Plan provided in **Appendix A** for details on temporary and permanent stabilization to occur following construction activities. The Project will restore the Project area after construction. Roads segments, upgrades, and entrances identified as temporary will be completely removed, sub-base de-compacted and replaced with previously stockpiled native topsoil such that the land is restored as close to its pre-construction condition. The Project will remove piles of debris and other unusable materials. Construction trailers and other temporary infrastructure will be removed. Temporary fencing and erosion control measures will be removed as needed.

#### 8. Maps showing the following:

#### i. The planned routes (may be preliminary) for cranes and other heavy equipment.

Refer to Sheets 2, 4-34, 36-60, 62-63 for preliminary crane walk routes and Sheets 02 and 34 for preliminary haul routes for delivering turbine components and heavy equipment within the Site Plan in **Appendix A.** 

## ii. The location of any existing deeded easement granted to any entity within the footprint of the facility.

At the current stage of development deeded easements are not available via publicly available resources. As development progresses, easement locations will be incorporated and accounted for in the design and placement of project infrastructure.

iii. The location of known existing and proposed county and intercounty drains, drain easements, and underground drainage tile including data provided by the county drain commission or the property owner as applicable and to the extent available.

The location of known county drains within the project boundary are displayed in Sheets 2 and 34 of the Site Plan in **Appendix A**. The Applicant is in the process of coordinating with Sanilac County Drain Commission to obtain easement locations to be incorporated in the project design at a later date.

#### **EXHIBIT A-1.5 – ALTERNATIVES**

A-1.5.a – Provide a map and description of each alternative site location, proposed site layout, or other alternatives that are or were considered, including rationale for why alternative locations were not selected for development.

If the proposed site of the energy facility is undeveloped land, the applicant must provide a description of feasible alternative developed locations, including, but not limited to, vacant industrial property and brownfields, and an explanation of why they were not chosen for the project site.

An alternative site location is not being considered for the Project as the location of the proposed turbines was determined by evaluating numerous factors including, but not limited to available wind resource, participating land, setbacks, sound restrictions, shadow flicker restrictions, project interconnection, and avoidance of natural features and sensitive habitats. The Project's chosen site location is best suited to provide the above necessary conditions for wind energy development. Considering these conditions, buildable areas were developed to determine turbine placement, as well as placement of ancillary features. Additionally, throughout the design process the Project has welcomed and taken all practicable steps to address community comments and is committed to working closely with the affected communities to address any concerns as the Project moves forward.

Throughout the life of the Project, numerous layouts have been considered utilizing the determined buildable areas. As the design has progressed, the Project has been able to decrease the number of proposed turbine locations to 50. Previous layouts discussed with the associated ALUs had included up to 56 potential turbine locations. Specific turbine locations have been removed due to a number of factors including but not limited to landowner feedback, MPSC siting requirements and layout optimization. Refer to the Alternative Layout Plan and Project Study Area Map that includes all areas that have been considered for turbine locations provided in **Appendix J**.

The Project currently proposes to use turbine technologies that will minimize impacts to the surrounding land. Alternative turbine technologies considered would have increased the total number of turbines required for the Project to meet the targeted output. As part of the Project design process, numerous potential turbine technologies have been identified. Comprehensive modeling and impact assessments—including studies on sound propagation and shadow flicker—have been conducted to identify and mitigate any potential effects on the local environment and nearby residents. The final turbine selection will be based on site-specific conditions and performance criteria while ensuring minimal impact on both the community and natural resources.

#### EXHIBIT A-1.6 – CHANGES

A-1.6.a – Provide a map and description of any known potential modifications or variations in the proposed site plan that are being considered at the time of filing and that will be finalized prior to construction.

The Project anticipates that the following features have the potential to be modified or vary from the proposed site plan and will be finalized before construction:

- Turbine Technology the Project is currently considering five different turbine technologies for construction, the Nordex N169 5.5 MW turbine, Vestas V162 6.2 MW, 6.8 MW and 7.2 MW turbines and the Vestas V163 4.5 MW turbine. All potential turbine technologies have been modeled for setbacks, sound and shadow flicker which are displayed in the Site Plan provided in Appendix A.
- ii. Access Roads design considerations including but not limited to landowner input, cost considerations and design optimization are ongoing. Known access road options are currently displayed in the Site Plan provided in **Appendix A**.
- iii. Collection Routes design considerations including but not limited to landowner input, cost considerations and design optimization are ongoing. Known collection route options are currently displayed in the Site Plan provided in **Appendix A**.

A-1.6.b – Minor changes are not required to be submitted. A minor change is any change within the project footprint that still allows the facilities to meet all of the criteria outlined in PA 233, does not create new or additional impacts and does not require new permits; however, a minor change does not include any of the following:

1. A change that would expand the footprint or perimeter of the site plan.

2. A change in planned technologies (such as the addition of an energy storage facility to an existing site or other technological changes increasing noise or impacting permit requirements).

**3.** Reduced setback distances from any part of the planned facilities to occupied structures, nonparticipating property lines, or rights-of-way if the new setbacks violate any setback requirements in PA 233.

#### 4. Any change that affects water detention or retention or other stormwater runoff.

#### 5. An increase in the height of the tallest equipment or structures.

#### 6. Repowering.

#### 7. Any increase of noise impacts to non-participating structures above the 55 dB average hourly limit.

The Project understands that any potential modifications or variations to the site plan being considered at the time of filing that will be finalized prior to construction and are not considered "minor changes" will need to be submitted for review and approval.

#### EXHIBIT A-1.7 – SOUND REPORT AND MONITORING PROTOCOL

A-1.7.a – Submit a report detailing the sound modeling results along with proposed preconstruction (optional) and postconstruction sound monitoring plans to be completed upon receipt of a siting certificate from the Commission as well as mitigation plans to ensure that sound emitted from the facilities will remain below the statutory limit throughout the operational life of the facilities. An overview of the sound report requirements is provided below.

**1**. Sound modeling must be conducted following the requirements of International Organization for Standardization (ISO) 9613-2 (2024), "Engineering method for the prediction of sound pressure levels outdoors."

2. The purpose of the Sound Report is to provide the Commission with information necessary to assess if the facility meets the noise limits defined in MCL 460. 1226.

3. All sound studies shall be completed by or under the direction of a qualified noise control engineer whose qualifications are documented in the report.

4. The sound monitoring should generally follow the requirements of the American National Standards Institute (ANSI) S12.18 and ANSI S12.9 Part 3, where applicable.

5. Reporting shall include, but is not limited to, the following:

i. Facility Description

ii. Maps and descriptions of sources and monitoring locations, including the distance from each to the nearest facility equipment.

iv. iii. Sound Modeling Results Discussion including an assessment of the noise impacts and ability to meet MCL 460.1226.

A pre-construction noise analysis report prepared by Hankard Environmental, a noise consultant based in Verona, Wisconsin, has been created in full compliance with all listed regulations and is available in Appendix B. This report includes sound modeling results, conducted per ISO 9613-2 (2024) standards, to predict outdoor sound pressure levels, and confirms the facility meets the noise limits set by MCL 460.1226. Prepared under the direction of a qualified noise control engineer, the report follows ANSI standards S12.18 and S12.9 Part 3 for sound monitoring. The document includes a facility description, maps and descriptions of sound sources and monitoring locations, modeling results, and an assessment of compliance with noise limits. It also includes post-construction sound monitoring protocols as required.

#### 6. Submit a Pre-construction Sound Monitoring Protocol (optional) in accordance with the guidance.

An ambient noise survey was conducted for the Project during June and July of 2024. Noise levels were measured at six locations representative of the non-participating noise-sensitive receptors located closest to the Project. The measurement points were selected to be representative of rural non-participating

residences, both close to and removed from existing sources of noise, which would be most impacted by the Project. The results of the ambient noise study can be found in **Appendix B**.

#### 7. Submit a Post-construction Sound Monitoring Protocol in accordance with the guidance.

A Post-construction Sound Monitoring Protocol is available in **Appendix C**. This protocol describes the post-construction sound monitoring equipment, measurement and analysis procedures, and documentation that the Project commits to pursuant to its application for a Renewable Energy or Storage Siting Certificate.

#### EXHIBIT A-1.8 – SHADOW FLICKER REPORT (WIND FACILITIES ONLY)

A shadow flicker report drafted by Stantec Consulting Services Inc, a consulting firm based in De Pere, Wisconsin, has been created in full compliance with regulations for wind facilities and is available in **Appendix D**. This report includes the potential amount of shadow flicker on sensitive receptors within the Project area. This has been modeled using EMD's WindPRO Version 3.4 software, an application that considers and positions the wind turbines in relation to receptors in the area as well as sun position as it passes through all 365 days per year and regional climatological information. The document includes a facility description, maps and descriptions of shadow flicker sources and monitoring locations, modeling results, and an assessment of compliance with shadow flicker limits and proposed mitigation options.

#### EXHIBIT A-1.9 – EMERGENCY RESPONSE PLAN

#### A-1.9.a – The Emergency Response Plan (ERP) shall include:

**1**. Evidence of consultation or a good-faith effort to consult with local first responders and county emergency managers to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, site access, etc.

2. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate Fire Response Plan (FRP)).

- 3. Emergency response measures by contingency.
- 4. Evacuation control measures by contingency.
- 5. Community notification procedures by contingency.

6. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.

7. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every 3 years.

8. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.

9. Other information the applicant finds relevant.

Refer to the draft Emergency Response Plan (ERP) provided in Appendix E.

A-1.9.b – Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the ERP. Additional consultation with local fire departments, first responders, and county emergency managers is required for amended plans.

If the Project's design, type, or manufacturer of facilities and equipment changes after the initial filing, the Project is committed to analyzing the ERP for any necessary updates and consulting with local fire

departments, first responders, and county emergency managers regarding any required amendments to emergency response protocols.

#### EXHIBIT A-1.10 - FIRE RESPONSE PLAN (FRP)

A-1.10.a – The FRP shall include the following:

1. Evidence of consultation or a good-faith effort to consult with local fire department representatives to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local fire department representatives is not possible, provide evidence of consultation or a good-faith effort to consult with the State Fire Marshal or other local emergency manager.

2. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.

**3.** A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.

4. For energy storage projects, a commitment to offer to conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and at least once per year while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.

5. For wind and solar projects, a commitment to conduct, or provide funding to conduct, sitespecific training drills with emergency responders before commencing operation, and upon request while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.

6. A commitment to review and update the FRP with fire departments, first responders, and county emergency managers at least once every 3 years.

7. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.

8. Other information the applicants find relevant.

Refer to the draft Fire Response Plan (FRP) provided in **Appendix F**.

A-1.10.b – Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the FRP. Additional consultation with local fire departments, first responders, and county emergency managers is required for amended plans.

If the Project's design, type, or manufacturer of facilities and equipment changes after the initial filing, the Project is committed to analyzing the FRP for any necessary updates and consulting with local fire departments, first responders, and county emergency managers regarding any required amendments to emergency response protocols. Refer to the draft Fire Response Plan provided in **Appendix F**.

#### EXHIBIT A-1.11 – COMMISSIONING PLAN (FACILITIES WITH STORAGE ONLY)

A-1.11.a – For energy storage projects, provide a Commissioning Plan in compliance with NFPA 855 (4.2.4 & 6.1.3.2).

The proposed Project is not an energy storage facility and thus the standards in Exhibit A-1.11 do not apply.

#### EXHIBIT A-1.12 – EMERGENCY OPERATIONS PLAN (FACILITIES WITH STORAGE ONLY)

A-1.12.a – For energy storage projects, provide an Emergency Operations Plan in compliance with NFPA 855 (4.3.2.1.4).

The proposed Project is not an energy storage facility and thus the standards in Exhibit A-1.12 do not apply.

#### EXHIBIT A-1.13 – HAZARD MITIGATION ANALYSIS (FACILITIES WITH STORAGE ONLY)

A-1.13.a – For energy storage projects provide a Hazard Mitigation Analysis in compliance with NFPA 855 (4.4).

The proposed Project is not an energy storage facility and thus the standards in Exhibit A-1.13 do not apply.

#### EXHIBIT A-1.14 – UNANTICIPATED DISCOVERIES PLAN

A-1.14.a – Submit an Unanticipated Discoveries Plan (UDP) that addresses the anticipated impacts and plans to mitigate impacts to the environment and natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species. The UDP must include:

1. A set of procedures to be followed if cultural resources are discovered. Examples of cultural materials include, but are not limited to, the following:

i. An accumulation of shell, burned rocks, or other food-related materials

- ii. Bones or small pieces of bone
- iii. An area of charcoal or very dark stained soil with artifacts
- iv. Stone tools or waste flakes (i.e., an arrowhead, or stone chips)
- v. Clusters of tin cans or bottles
- vi. Logging or agricultural equipment that appears to be older than 50 years
- vii. Buried railroad tracks, decking, or other industrial materials
- 3. A set of procedures to be followed if human remains are discovered.
- 4. A contact list that includes the following:
  - i. Contact for the State Historic Preservation Office
  - ii. Contacts for Tribal Historic Preservation Offices of Michigan
  - iii. Local, project-specific, emergency contacts (i.e., County Sheriff, County Medical Examiner.)

An Unanticipated Discoveries Plan has been prepared and includes procedures that the Project and their contractors will follow if previously undocumented cultural and natural resources, including but not limited to historic and cultural sites, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, and threatened or endangered species are located during construction activities. Refer to the Unanticipated Discoveries Plan provided in **Appendix G**.

#### **EXHIBIT A-1.15 – PARTICIPATING PARCEL LIST**

A-1.15.a – Provide a list of all parcels that are participating or adjacent to the proposed facilities, including land-owner information for each parcel. Landowner information may be redacted and filed confidentially pursuant to protective order at the discretion of the applicant if the land-owner information is not available publicly.

A list of all parcels participating in or adjacent to the proposed Project has been prepared and is available in **Appendix H**. This list includes landowner information for each parcel, with the option for landowner details to be redacted and filed confidentially under a protective order, should the information not be publicly accessible.

#### EXHIBIT A-1.16 – COMPLAINT RESOLUTION PROCESS

#### A-1.16.a – Provide a complaint resolution process for the site. The complaint process should include:

**1.** The name of a designated applicant representative provided with the authority to resolve local complaints.

2. A dedicated phone number for complaints.

3. An email address for complaints.

4. Website information instructing the public on the complaint resolution process.

## 5. Procedures for regular reporting of complaints received and how each complaint was resolved to be filed on a periodic basis in the docket.

A draft complaint resolution process for the site has been established and is detailed in **Appendix I**. This process includes the name of a designated applicant representative authorized to address local complaints, along with a dedicated phone number and email address for submitting complaints. Additionally, website information is provided to guide the public on how to use the complaint resolution process. Procedures are in place for periodic reporting of complaints received and their resolutions, which will be filed regularly in the docket.

#### III. CONCLUSION

This submission and its attachments provide comprehensive documentation of the Project's compliance with the Michigan Public Service Commission's (MPSC) Wind Energy siting certificate requirements, as outlined in the Application Filing Instructions and Procedures, as well as compliance with the ALU's local zoning ordinances to the extent the local zoning ordinances' requirements are not more restrictive than the requirements of PA