A REPORT FOR

DECOMMISSIONING PLAN

BLUE CREEK WIND

Paulding & Van Wert Counties, Ohio

FEBRUARY 2022

PREPARED FOR:

AVANGRID RENEWABLES

PREPARED BY: Westwood

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1.0 INTRODUCTION/PURPOSE

The Blue Creek Wind Farm is an existing wind farm project operated by Avangrid Renewables (Avangrid) near the town of Van Wert and spanning the two counties of Paulding and Van Wert, Ohio. The project included the construction of 152 turbines, access roads, two substations, one interconnect facility, underground and overhead collection lines, and an operation and maintenance building on 27,000 acres of privately owned land.

The purpose of this updated decommissioning plan is to outline and describe methods and means Avangrid will use to reclaim, restore, and return the land areas altered during the construction of the wind farm to predevelopment condition and use. The plan identifies project areas and components which will be removed once the wind farm is no longer needed or when the project has surpassed the useful lifespan of the turbines and facilities.

2.0 FUTURE LAND USE

Prior to the Blue Creek Wind Farm development the existing land use was primarily farm land/agricultural land (>90% of project area) with a lesser extent of the area consisting of grassland, wetlands, hay land, manufacturing, livestock production, residential, and a gravel quarry. Once the project areas are decommissioned the areas will be returned to the predevelopment condition of farming and agricultural land and uses.

3.0 ENGINEERING TECHNIQUES

Decommissioning of the wind farm includes multiple phases and activities such as:

- Removal of above ground project components (turbines, transformers, overhead collection lines, met towers, substations, interconnection facilities, access roads and operations and maintenance facility) and re-establishment of predevelopment vegetative cover.
- Removal of below ground structures (turbine foundations, met tower foundations, electrical facilities, and building foundations) to a depth of 60 inches (5 feet) and; underground collection cables (where applicable) to a depth of 36 inches (3 feet).
- Removal of access roads (unless landowners request the roads remain).
- Application of necessary sediment and erosion controls during and following decommissioning activities.
- Temporary road improvements, if needed, to support access by turbine component transports and cranes.
- Drainage tiles damaged by decommissioning operations will be repaired and restored to their condition prior to decommissioning activities.

- Public roads and public bridges damaged by decommissioning activities and traffic will be restored to the pre-decommissioning condition.

During decommissioning the landowners will be consulted to identify the extent and type of work to be completed. Some project infrastructure such as the access roads may be left in place at the request of the landowner. Underground utility lines if deeper than three (3) feet below the ground surface elevation may be left in place to minimize land disturbance and associated impacts to future land use.

Compacted soils will be de-compacted to a depth of 18 inches to facilitate surface water infiltration. Topsoil will be de-compacted to a depth of 18 inches, or to the depth of the topsoil, whichever is less, so that topsoil and subsoil mixing is minimized.

All dismantling and removal/recycling of materials will comply with state and federal rules, regulations and prevailing laws at the time of decommissioning using approved disposal or recycling sites.

3.1 DECOMMISSIONING

Turning Radius and Access Road Modifications and Removal

Temporary turning radius modifications are not expected to be needed to allow for transportation of the turbine components off-site as the components will be dismantled and processed on-site to reduce member size for handling and transporting off-site. Turning radii will be reconstructed at intersections where necessary, generally at the same intersections as for the construction of the facility. Following removal of the turbine components, the turning radius modifications, if not needed for the remaining decommissioning schedule, will be removed and the temporary widened roadways will be restored to preconstruction condition through de-compaction and reapplication of topsoil or previous surfacing (as in the case of road shoulder modification). Previously vegetated areas will be re-vegetated.

Crane Pad Grading and Removal

This cost estimate is based on the felling of all turbines, which eliminates the need for large industrial cranes, and the associated crane paths and crane pads.

Wind Turbine Felling

This cost estimate assumes the technique of “felling” will be used to bring the turbine components to the ground for disassembly and processing for recycling. Numerous wind turbines have been felled to date, including thousands of abandoned turbines in Palm Springs and Tehachapi, California. Felling has several advantages over disassembly using large crawler cranes. As evidence of the success of this technique we have reviewed confidential information prepared for the decommissioning of the Cerro Gordo Wind Project in Clear Lake, Iowa, dated October 2018. The information listed 12 projects where the felling technique had been used in four states. Some of the felled turbines included Vestas V-80, NEG Micon 108/110, and Siemens 2.3 MW. The decommissioning on the Cerro Gordo Wind Project was accomplished during the summer of 2020.

The felling of turbines eliminates the use of crane paths and crane pads that are otherwise necessary to disassemble the components of a turbine. In addition to the costs associated with preparing crane paths and pads, this method will reduce the total disturbed area that needs to be reclaimed and restored during the decommissioning process, as well as the amount of crop loss. The elimination of the use of large cranes also reduces the number of trucks delivering and removing equipment and reduces the time required for decommissioning. Felling consists of disconnecting electrical connections and draining oil, hydraulic fluid, and any other liquids from the turbine. A long cable is attached to the nacelle, and to a piece of heavy equipment, such as a bulldozer, positioned on the access road. Wedge-shaped areas are then cut out of the tower steel using cutting torches to create a hinge that will direct the turbine to fall on, or next to, the access road when pulled by the dozer. Felled components will then be processed on site to sizes meeting recycling requirements of the scrap metal recycler. The processed components will then be loaded onto trucks and hauled for recycling.

Wind Turbines

Each wind turbine consists of five (5) steel tower segments, a nacelle, a rotor hub and three blades, which are modular components and can be disassembled after being felled. The turbine disassembly will be accomplished using the felling method. The components of the wind turbines may be refurbished and reused where feasible, or sold for scrap material value if applicable. The tower sections in particular represent a substantial amount of high-quality steel materials. The components may be placed on tractor-trailers and removed from the site to a prearranged receiving location/ facility or reduced in size onsite for transportation with standard truck sizes if the turbines are to be sold for scrap value.

The turbine foundations are reinforced concrete spread footing foundations. The foundations will be exposed using backhoes, bulldozers and other heavy earth moving equipment. The top of the foundation will be removed to a depth of five (5) feet below the final surface. Demolition of mass concrete is generally accomplished using hydraulic hammers mounted on a backhoe or similar equipment (hoe ram), or using expansive chemicals placed in holes drilled in the concrete. The concrete and rebar, broken into manageable-sized pieces, will be contained and hauled off site to be recycled or disposed of.

Following removal of the turbine and foundation, the resulting void will be backfilled with suitable sub-grade material of quality comparable to the immediate surrounding area and compacted to approximately 90% of the material’s Standard Proctor density. Topsoil will be reapplied at the site and graded to match surrounding grade to promote the existing drainage patterns. The topsoil will be de-compacted and tilled to a condition suitable for re-vegetation.

Access Roads/Turbine Foundation Area Removal and Restoration

Removal of access roads, based on feedback from the landowners, will include the road aggregate surface, cement stabilized base and geotextile fabric (if any). Landowners may request an access road remain in place. During road removal, the topsoil along the access roads will be stripped and stockpiled in a windrow along the road. The road and base materials will be removed by bulldozers and wheeled loaders, or backhoes, and hauled using dump trucks from the project area to be recycled or disposed of at an off-site facility. The geotextile fabric, if any, will be recycled or disposed of in a landfill off site. The access road removal will proceed from the turbine area to the township/county roads to limit tracking during the removal activities. Following removal, topsoil will be reapplied and graded to match surrounding grade to preserve existing drainage patterns. The topsoil will be de-compacted and tilled to a farmable condition or re-vegetated depending upon location and land use at the time of decommissioning. Topsoil to cover the access roads, turbine rings, and met tower rings will be acquired from the areas where it was stockpiled (or wasted) during the original construction. (Topsoil stayed with each landowner in the construction of the wind farm.) Any drainage tile lines which were damaged during removal and restoration of the turbine foundation area will be repaired to maintain drainage.

Underground Electrical Collection Lines

The electrical cables and fiber optic conduits are installed at a depth of approximately three to four feet, and contain no material known to be harmful to the environment. Accordingly they will be left in place and non-functional when possible. Any cable at a depth of less than three (3) feet, such as cables entering and exiting the turbine foundations or substations/ transformers, will be removed. Following any necessary removal, the area will be restored by reapplication of topsoil to match the surrounding grade and maintain existing drainage patterns. The topsoil will be de-compacted and tilled to a condition for re-vegetation.

Over Head Electrical Collection Lines

All support structures (poles), conductors, switches, and lines will be removed and hauled off site to a recycling facility or disposal site. The support structures will be removed to a depth of at least 60 inches below final grade. The foundation holes will be filled with a suitable subsoil material. Topsoil will be applied and areas returned to a tilled condition or seeded to promote re-vegetation depending upon location.

Substation and Interconnect Facilities

Disassembly of the substations will occur in the areas owned by the Blue Creek Wind Farm project. The interconnect facility will be owned by the transmission operator and decommissioning of that facility will occur at their option. Any steel, conductors, switches, transformers, concrete pads, and other components of the substations will be disassembled and recycled or reused off-site. Foundations and underground components will be removed to a depth of five (5) feet. The rock base and subgrade material will be removed using bulldozers and wheeled loaders, or backhoes. The material will be hauled from the site using dump trucks to be recycled or disposed at an off- site facility. Additionally, the storm water handling facilities will be removed. Subgrade soils will be de-compacted and graded to blend with the adjacent topography. Topsoil will be reapplied to blend with the surrounding grade to preserve existing drainage patterns, and the site will be tilled either to a farmable condition or re-vegetated, depending upon location. Avangrid owns the land under the substations and after restoration is complete will seek to sell the parcels to the surrounding landowners.

Operations and Maintenance Building

The O&M Building is a sturdy, general purpose steel building. If the building is not repurposed, decommissioning will include disconnection of the utilities, demolition of the building structure, foundation, and rock base parking lot, and associated vegetated/storm water handling facilities. All associated materials will be removed from the site using wheeled loaders or backhoes and bulldozers and hauled off site in dump trucks. All materials which are able to be recycled will be brought to appropriate facilities and sold; the remaining materials will be disposed of at an approved landfill facility. Subgrade soils will be de-compacted and graded to blend with the adjacent topography. Topsoil will be reapplied at the site and graded to blend with the surrounding grade to maintain existing drainage patterns. Topsoil will be reapplied to match existing surrounding grade to preserve existing drainage patterns, and the site will be tilled either to a farmable condition or re-vegetated, depending upon location. Avangrid owns the land under the O&M Building and after restoration is complete will seek to sell the parcels to the surrounding landowners.

Miscellaneous Structures

All project signage will be removed following the decommissioning of the project and hauled off to a recycling facility or disposal site. The electrical junction boxes will be removed.

3.2 RECLAMATION

In addition to the reclamation activities described above for each decommissioning phase, any unexcavated areas compacted by equipment and activity during the decommissioning work will be de-compacted and tilled to a condition to be revegetated. All materials and debris associated with the wind farm decommissioning will be removed and properly recycled or disposed of at off-site facilities.

As necessary, the topsoil will be removed, isolated, and stockpiled on-site prior to removal of structures and facilities, for reapplication to stabilize the site. The topsoil will be reapplied following back fill (as necessary) and graded to match adjacent existing post-construction contours to maintain existing drainage patterns. Locations where topsoil was stockpiled, or wasted, during the construction of the wind farm will be accessed to assure the topsoil is reapplied to depths consistent with the predevelopment condition. Decompaction of the topsoil will be done at the depth of the topsoil or 18 inches, whichever is less, and tilled to a farmable condition or re-vegetated depending upon location and land use at the time of decommissioning. The seed mixes used for re-vegetation will be subject to approval by the local Farm Service Agency, Soil and Water Conservation District, or Natural Resource Conservation Service. Temporary erosion protection, such as hydro-mulch or erosion control blankets, will be applied depending upon location, land use activities, and erosion potential of the soils.

4.0 BEST MANAGEMENT PRACTICES (BMPs)

During decommissioning of the Blue Creek Wind Project, erosion and sediment control BMPs will be implemented to minimize potential for sedimentation of surface waters and waters of the state. Given that the construction and operation of the project includes detailed erosion and sediment control measures, it is not expected that additional measures will be necessary during decommissioning, unless new ground disturbance occurs. Potential BMPs are described below. The BMPs used should meet the specifications contained within the current regulations of the Ohio's Rainwater and Land Development Manual. Avangrid will review the permitting requirements at the time of decommissioning and obtain the necessary permits which may include National Pollutant Discharge Elimination System (NPDES) permitting and U.S. Army Corps of Engineers Section 404, Permit to Discharge Dredged or Fill Material if applicable. In addition, Avangrid will coordinate with the Ohio Environmental Protection Agency (EPA) and obtain permits if applicable.

4.1 EROSION CONTROL

All disturbed areas without permanent impermeable or gravel surfaces will be vegetated for final stabilization. All slopes steeper than 4H:1V shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tack or netting and pinning on slopes, as practical. All slopes 4H:1V or flatter shall be restored by seeding and mulching.

Project Phasing/Design BMP: Project Phasing will be planned to minimize the extent of exposure of soils at any given time, and allow for concurrent stabilization of soils following decommission activity of the turbine sites, met tower sites, substations, electrical, and O&M building.

Slope Protection: Erosion control blankets may be used as temporary stabilization for areas of steep slopes (steeper than 2H:1V), where needed or practical. Seed will be applied in these areas with the blanket for temporary and/or permanent vegetative growth as necessary. Slopes less than 2H:1V may be stabilized by seeding and mulching the exposed soils.

Ditch / Channel Protection: Where new channels are formed, as in the case of culverts removed from access roads and the removal of low water crossings, the resulting channel will be protected with erosion control blankets as described in the section above, Slope Protection.

Surface Roughening: Surface roughening or slope tracking is the act of running a dozer or other heavy tracked equipment perpendicular to the grade of disturbed slopes with a grade of 3H:1V and steeper with a continuous length of 75 feet or greater. The tracks will provide a rough surface to decrease erosion potential during an interim period until a smooth grade, seed and erosion control blanket can be applied.

Temporary mulch cover and seed BMP: Temporary mulch cover (hay mulch or equivalent) will be applied at a rate of two tons per acre to provide temporary erosion protection of exposed soil areas with slopes flatter than or equal to 4H:1V. Seed will be applied with the mulch for temporary and/or permanent vegetative growth as necessary. Temporary mulch is used for all soil types where slopes are flatter than 4H:1V and no significant concentrated flows are present. The mulch is disc-anchored to the soil to keep it from blowing away. The mulch prohibits the impact of rain drops from dislodging soil and subsequently carrying the soil away during sheet drainage. In sandy soils, the use of tackifier may be used to assist the disc anchoring if the mulch cannot be secured in the sandy soils.

Soil Stockpiles: Topsoil that is stripped from the construction site and base materials shall be stockpiled on-site. Stockpiles will be located in areas that will not interfere with the decommissioning phases and shall be located away from pavement, site drainage routes or other areas of concentrated flow. Stockpiles should also be located away from wetlands and surface waters. Perimeter controls such as silt fence will be installed around all stockpiles if not placed within existing silt fences or other sediment control where the potential exists for material to be eroded and transported to sensitive nature resources. Soils that are stockpiled for longer durations will be temporarily seeded and mulched or stabilized with a bonded fiber polymer emulsion.

Permanent seed and temporary mulch and/or erosion control blanket BMP: In areas of final grade, permanent seed will be applied to promote vegetative cover for permanent erosion control. Site areas to be vegetated will receive a minimum of six inches of topsoil and seed.

4.2 SEDIMENT CONTROL

Removal of Ditch Crossing BMP: Ditch crossing locations may be removed. Perimeter controls, such as silt fence, will be used at the crossing location to minimize runoff from the exposed soils and removal activities. Removal of the crossing will be done during dry conditions or, if the streams are wet/flowing, alternative BMPs such as, but not limited to a temporary dam and bypass pump to remove the crossing in dry conditions will be implemented.

Dewatering: If dewatering is needed, a temporary sump and rock base will be used where a temporary pump is installed to dewater an area of accumulated water. If a rock base cannot be used the pump intake will be elevated to draw water from the top of the water column to limit sedimentation. Energy dissipation (riprap) will be applied to the discharge area of the pump hose. The water will be discharged to a large flat vegetated area for filtration/infiltration prior to flowing into receiving waters of conveyances/ditches. If discharge water is turbid; dewatering bags, temporary traps and rock weepers or other adequate BMP's are needed to control sediment discharge.

Perimeter Controls and Sediment Barriers: Includes the installation of perimeter controls (silt fence, erosion logs, stone check dams, hay bales) prior to disturbing up-gradient areas around the perimeter of areas to be graded where field conditions dictate. Silt fence or fiber logs will also be used for stockpiles to limit sediment transport within the site.

Rock Entrance/Exit Tracking Control BMP: Rock construction entrances will be installed where access to a decommissioning area is needed from adjacent paved roads, to minimize sediment tracking.

Street Scraping/Sweeping BMP: Street scraping and sweeping will be used to retrieve sediment tracked, or washed, onto paved surfaces at the end of each working day, or as needed.

4.3 CONTROLLING STORMWATER FLOWING ONTO AND THROUGH THE PROJECT

Given the gradient of the slopes in the project area, controlling stormwater flow that enters the project area will help in reducing the potential of erosion and sedimentation during decommissioning activities. Only newly disturbed areas may require new, temporary stormwater control.

Diversion Berms/Swales/Ditches: It may be necessary to direct diverted flow toward temporary settling basins via berms, swales, or ditches. If these are deemed necessary for decommissioning activities, these must be stabilized by temporary mulch and seeding, erosion control blankets or by installing riprap to protect the channel from erosive forces.

Stone Check Dams: It may be necessary to install temporary check dams within swales or ditches that convey storm water from areas disturbed by decommissioning activities. Stone check dams are effective for velocity control, sediment control and to augment temporary stabilization of channels. In these situations, filter fabric can be utilized to help filter the flow, minimize the scour of the soil under the rock and facilitate removal of the check dams once permanent stabilization is achieved. The height of check dams should be at least two feet and spacing depends upon slope; the placement of the subsequent rock check should have the top elevation at the same elevation as the bottom of the previous (up-slope) rock check.

Hay Bale Check Dams: Hay bale check dams may be used for velocity control within swales of the project to slow the water runoff within the drainage channels/swales. The bales should be approximately three feet in length and anchored into the soil. The midpoint elevation of the top of the bale (i.e. ponding height) must be lower than the terminal end points of the bale where the bale meets the ground elevation to prohibit water from flowing around the bales thus causing erosion and scour. If the bales cannot be applied properly in the field, the use of rock checks as a replacement is recommended.

Temporary Sedimentation Basins: Sedimentation basins serve to remove sediment from runoff from disturbed areas of the site. The basins allow runoff to be detained long enough to allow the majority of the sediment to settle out prior to discharge. The location and dimensions of temporary sedimentation basins, if any are necessary, will be verified in accordance with Ohio EPA requirements at the time of decommissioning.

4.4 PERMITTING

All decommissioning and restoration activities will comply with federal and state permit requirements. Decommissioning activity that will disturb more than one acre of soil may trigger the NPDES Construction General permitting process and Ohio EPA General Permit OHR000005 Stormwater Permit. The permits, if required, shall be applied for and received prior to construction commencing with decommissioning activity. A Storm Water Pollution Prevention Plan (SWPPP), including proposed best management practices (BMPs), will be developed prior to filing a Notice of Intent (Ohio EPA application). If permanent crossings are to be removed and no discharge of dredged or fill material will take place, a Section 404 permit is not anticipated for the decommissioning of the wind farm. The Army Corp of Engineers will be notified of the work to take place at the time of decommissioning to verify the need of 404 permitting. If Section 404 permitting is required an Ohio EPA Section 401 Permit and Water Quality Certification will be required as well. Ohio air quality rules will be reviewed at the time the work is scheduled to determine if an air quality permit will be required. Further, no operating air quality permits are needed for ongoing operation of the wind farm facility. Should decommissioning activities cause temporary or permanent impacts to wetlands, an Ohio EPA Wetlands Permit will be obtained prior to any activities commencing, if required. Should decommissioning activities cause temporary or permanent impacts to vernal pools, an Army Corps of Engineers General Permit for the State of Ohio shall be obtained prior to any activities commencing, if required. Should any interim permits become needed, they will be closed out with documentation of compliance at decommissioning.

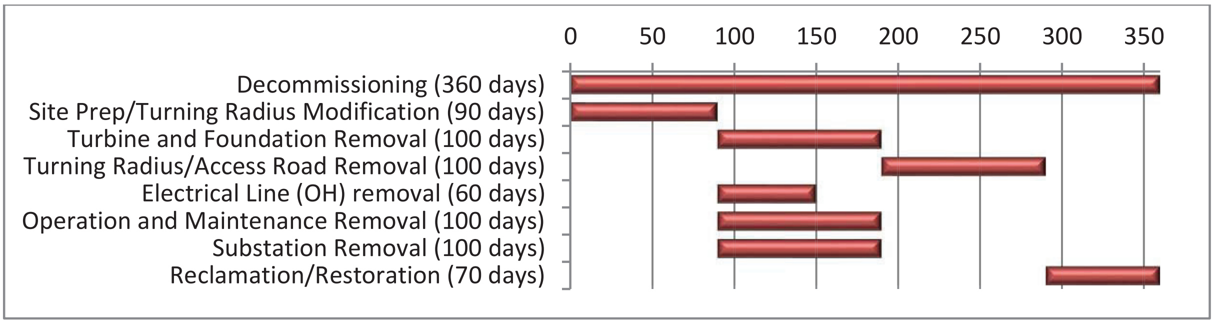
5.0 TIMELINE

Decommissioning of the wind farm will be initiated if the project has not produced electricity for a period of 12 months unless other mitigating circumstances prevail. The following sections outline a timetable for the decommissioning plan; steps towards compliance with applicable air and water quality laws and regulations; and steps for compliance with health and safety standards.

5.1 DECOMMISSIONING

It is anticipated that the decommissioning activities for the project will be completed in a 12 month period. The Estimated Project Schedule, shown below, is an estimated timeline of the decommissioning activities. This schedule is subject to change based on actual field conditions, weather conditions, and any unforeseen conditions.

Estimated Project Schedule



**Some tasks may be completed concurrently depending upon scheduling and methods of the contractor. Schedule is subject to change based on weather conditions and unforeseen conditions.*

5.2 AIR QUALITY/WATER REGULATORY COMPLIANCE

Water Quality: NPDES permitting may include the following steps for compliance.

1. Avangrid completing a SWPPP, if required. The plan will be developed prior to filing a Notice of Intent (NPDES application), to comply with the requirements of the Ohio EPA General Permit for Previously Permitted Discharges (General Permit OHR00000).
2. Avangrid submitting the Notice of Intent prior to starting construction activity associated with the decommissioning phase.
3. Once notification of permit coverage is received the decommissioning activity will commence.
4. During decommissioning activities compliance with the NPDES permit (applicable at the time of decommissioning) will be adhered to including inspections, documentation, maintenance of BMPs, record keeping, amendments to the plan and implementation of the SWPPP, as required.
5. Within 30 days of completing the decommissioning activities and restoration a Notice of Termination (NOT) will be submitted to the EPA to terminate coverage of the NPDES permit.

Water Quality: A Section 404 permit for Discharge of dredged and fill material, if required will include the following steps for compliance.

1. Notification and permits approval from the Ohio EPA and to the Army Corp of Engineers of expected activities such as crossing removals.
2. Verification of necessary permits (if any).

3. Avangrid will apply for any necessary Section 404 permits prior to commencing work within waterways/wetlands.
4. As applicable, plans will be developed to comply with necessary permit regulations.
5. Once receipt of applicable permits, decommissioning work will commence adhering to rules, timelines and requirements stated in applicable permits.

Water Quality: If a Section 404 permit is deemed necessary, a Section 401 Permit and Water Quality Certification permit from the Ohio EPA will be required.

1. Notification and permits approval from the Ohio EPA.
2. Verification of necessary permits (if any).
3. Avangrid will apply for any necessary Water Quality Certification permit prior to commencing work within waterways/wetlands.
4. As applicable, plans will be developed to comply with necessary permit regulations.
5. Once receipt of applicable permits, decommissioning work will commence adhering to rules, timelines and requirements stated in applicable permits.

5.3 HEALTH AND SAFETY STANDARDS

Work on the site will be conducted in strict accordance with Avangrid Health and Safety Plan. The construction contractor hired to perform the decommissioning work will also be required to prepare a site-specific health and safety plan. All site workers, including subcontractors, will be required to read, understand, and abide by the plan. A site safety officer shall be designated by the construction contractor to ensure compliance. This official shall have stop-work authority over all activities on the site should unsafe conditions or lapses in the safety plan be observed. All activities associated with the decommissioning of the project shall abide by the safety plan. Electrical, demolition and crane activities do affect the flow of each other, and if one is delinquent with the safety plan, the others will be affected with the stop-work authority. Control of the site during decommissioning activities will be maintained to restrict unauthorized access and ensure a safe working environment.

6.0 DECOMMISSIONING COSTS

The following is the estimate of the cost of dismantling the wind power facility. The estimate is based on the decommissioning approach outlined above and is conservatively based on the removal of up to 152 Gamesa G90 wind turbine generators and associated project facilities.

6.1 DECOMMISSIONING ESTIMATE ASSUMPTIONS SUMMARY

- Site access is available for all sites.
- Contractor will be allowed to stage construction to obtain an efficient workflow.

- Contractor will not be required to perform work using the same means or methods used to produce this estimate.
- Contractor will be allowed to use the most appropriate, safest, and most efficient methods available to them at the time of performing the work.
- Contractor will secure and provide any required demolition permits or certificates.
- All recycled material is processed to manageable sizes for transport from site.
- Estimate includes transportation of recyclable materials to reduce the environmental impact of disposing materials at landfills.
- Required certificates for recycling, salvage or disposal of hazardous materials will be obtained from the appropriate facility operators, if applicable.
- 95% of Tower and 85% of Nacelle and Hub contain salvageable material. The towers consist of five sections totaling a weight of 38,760 tons, producing a salvageable weight of 36,822 tons). The nacelle and hub total weight is 13,467 tons, producing a salvageable weight of 11,447 tons. The weights shown are based on current Gamesa G90 turbine specifications. The adjusted 5 year average price is $292 per ton.
- Generator salvage (includes unprocessed copper) estimate is based on the assumption that 5% of the nacelle weight will be copper windings in the generators, adjusted 5 year pricing of $3.06/lb.
- Transformer salvage (includes unprocessed copper) estimate is based on the assumption of transformers with the total capacity of 304 MW of capacity.
- The blades are fiberglass and carbon fiber composite and do not have a salvage value.
- The transmission towers are made of structural steel and are assumed to have 95% salvage yield.
- Prices used in estimate are based on information found using public access for current pricing, information from previous projects estimated by Westwood, pricing included in the Ohio Department of Transportation (ODOT) Procedure for Estimating, and RS Means 2022, Quarter 1 material and labor cost database for Lima, Ohio.
- Damage to roads that will require repair is based on an estimate of the Equivalent Axle Loads (ESALs) from decommissioning operations. The number of ESALs from decommissioning activities is a fraction of the number due to construction activities.
- Damage to bridges from decommissioning activities has not been estimated. All loads from decommissioning activities will be within the legal range and the number of truck

loadings will be very small relative to the fatigue life of a bridge designed and built in accordance to the AASHTO Bridge Design Specifications.

Blue Creek Wind - DECOMMISSIONING COST ESTIMATE 2022	
General Conditions (Field Staff Cost)	$1,453,000
Operation & Maintenance Building	$191,705
Substations	$264,720
Met Tower (Dismantle and Removal)	$19,304
Access Road Removal (Remove Agg./Regrade)	$11,913,349
Turbine Tower Felling and Processing	$6,160,546
Transformer Removal	$147,655
Blade Disposal (Dismantle/Disposal)	$1,026,758
Turbine Foundation Removal (60 inches Demolition/Removal)	$2,384,163
Electrical Collection/Transmission Line Removal	$688,115
Erosion and Sediment Control BMP’s	$168,019
Site Restoration (Final Surfacing and Revegetation following Removals)	$2,334,629
Public Road Restoration	$2,856,000
Subtotal	$29,607,965
Contingency (7%)	$2,070,507
Total Estimated Decommissioning Cost (not including salvaged value)	$31,678,500
Total Salvage Value for Project	$14,821,500
Total Estimated Net Decommissioning Cost (including salvaged value)	$16,857,000
Total Estimated Net Decommissioning Cost Per Turbine	$111,000

The cost estimates shown have been prepared for guidance in decommissioning costs from the information available at the time of estimate. The final cost of the project will depend upon the actual labor and material costs, competitive market conditions, final project costs, implementation schedule and other variable factors. As a result, the final project cost will vary from the estimates presented herein and are highly subject to variation.

7.0 PROFESSIONAL EXPERIENCE

Westwood Professional Services (Westwood) has over 25 years of Wind power experience and has supported the development of over 160 GW of Wind projects across the United States by providing services in engineering, surveying, water resources, environmental services and GIS.

Westwood has extensive experience with government and environmental regulations, project cost estimation and project management. We have worked with Developers and Contractors on both large (over 100 turbines) and small sites to provide expertise in Wind Power generation solutions.

This report was prepared under the supervision of Brendan D. Miller, P.E. of Westwood Professional Services, Ohio Professional Engineer License Number: PE.80266.