

Appendix M

Revised Decommissioning Plan

Westwood

DECOMMISSIONING PLAN
Big Bend Wind Project

Cottonwood and Watonwan Counties, Minnesota

September 2021



Prepared For:

Apex Clean Energy, Inc.
310 4th Street Northeast
Suite 300
Charlottesville, VA 22902

Table of Contents

1.0	INTRODUCTION / PURPOSE / PROJECT DESCRIPTION	2
2.0	ENGINEERING TECHNIQUES	2
3.0	DECOMMISSIONING	3
3.1	RECLAMATION	6
4.0	BEST MANAGEMENT PRACTICES (BMPs)	7
4.1	EROSION CONTROL	7
4.2	SEDIMENT CONTROL	8
4.3	CONTROLLING STORMWATER FLOWING ONTO AND THROUGH THE PROJECT	9
4.4	PERMITTING	9
5.0	TIMELINE	10
5.1	DECOMMISSIONING SCHEDULE	10
5.2	ADVANCE NOTICE TO PRIVATE PROPERTY OWNER	10
5.3	ADVANCE NOTICE TO COUNTIES AND MINNESOTA PUBLIC UTILITIES COMMISSION	11
6.0	WATER REGULATORY COMPLIANCE	11
6.1	HEALTH AND SAFETY STANDARDS	11
7.0	DECOMMISSIONING COSTS AND FINANCIAL ASSURANCE	11
	Table 1 – Cost Estimate	13
	Figure 1 – Schedule	16
	Figure 2 – Turbine Layouts and Constraints	17

1.0 INTRODUCTION / PURPOSE / PROJECT DESCRIPTION

The Big Bend Wind Project (the "Facility" or the "Project") is a wind-power-generation project proposed by Big Bend Wind, LLC (the "Owner"), in Cottonwood and Watonwan Counties (the "Counties"), Minnesota. The Facility includes the construction of permanent facilities of up to 52 wind turbine generators, access roads, a met tower, a collection substation, an overhead transmission line, underground collection lines, and an operation and maintenance (O&M) facility. The project will have a nameplate capacity of up to 300 Megawatts (MW) and will utilize up to 52 turbines by either of the following manufacturers: Nordex N-153; Vestas V162; or GE-158. The turbine energy production rate ranges between 5.8 to 6.0 MW each. Located north of Mountain Lake, Minnesota, the project extends east to Butterfield, west to near Trunk Highway 30 (TH 30). See Figure 2.

The area, the project occupies, is almost exclusively agricultural land, planted in row crops. The exceptions are the windbreaks planted on the north and west sides of residences, with approximately two residences per square mile, and wooded areas along a few of the waterways, such as the Watonwan River. In addition to the turbines, substation, and O&M listed in the first paragraph, the project includes one met tower; approximately 16 miles of access roads; 31 miles of crane paths; 39 miles of underground collection system; and 20 miles of transmission line from the project step-up substation to the point of interconnect (POI) substation. The project is still in the early stages of development. The schedule assumes a December 31, 2023, Commercial Operations Date (COD). At this time there is no Power Purchase Agreement (PPA) in place.

The purpose of this Decommissioning Plan (and its succeeding and revised Decommissioning Plans, the "Plans") is to describe the means and methods that can be used to remove project facilities, and reclaim, restore, and return the land altered during the construction and operation of the wind project to its predevelopment condition to the extent feasible, in accordance with the requirements of Minn. R. 7854.0500, subp. 13, Cottonwood County Zoning Ordinance Section 25 and Watonwan County Zoning Ordinance Section 12-M. For this project, the predevelopment condition is agricultural use, and the goal will be to return the land to an agricultural ready (tilled to farmable) condition. The useful life of commercial-size turbines is generally considered to be up to 30 years. This plan is intended solely for the decommissioning of the Big Wind Project and its related substation, 20-mile transmission line, and operations and maintenance facility (O&M). A separate decommissioning plan has been prepared for the Red Rock Solar Project.

2.0 ENGINEERING TECHNIQUES

While the decommissioning of the wind farm requires sequential events, due to the number of turbines and the size of the project the work tasks can occur in multiple locations at the same time. The overlap of these events is depicted in Figure 1. Because these activities can occur in parallel the overall time required to decommission the project is controlled by the number of crews working in parallel.

Decommissioning includes several tasks and activities such as:

- Public Road Modifications
- Preparation of crane paths to accommodate movement of large industrial cranes to and from each turbine location;
- Preparation of crane pads for removal of turbine components;
- Removal of aboveground components (turbines, transformers, met towers, substation(s), and possibly the operation and maintenance facility);

- Removal or abandonment in place of the underground collection system and fiber optic cables;
- Removal of access roads (unless the landowners request the roads to remain) and restoration of crane paths;
- Reclamation, re-grading, and restoration of disturbed areas including topsoil reapplication, decompaction of soils, and tilling to an agricultural ready condition;
- Installation, maintenance, and removal of necessary sediment and erosion controls during and following decommissioning; and
- Repair of public roads and culverts to pre-decommissioning conditions

During decommissioning, participating landowners will be consulted to determine the scope and extent of reclamation work to be completed. Some Facility infrastructure such as the access roads may be left in place at the landowners' request.

All dismantling, removal, recycling, and disposal of materials generated during decommissioning will comply with rules, regulations, and prevailing laws at the time decommissioning is initiated and will use approved local or regional disposal or recycling sites as available. Recyclable materials will be recycled to the furthest extent practicable. Non-recyclable materials will be disposed of in accordance with state and federal law.

This estimate identifies the following facilities for recycling or disposal of materials generated by decommissioning. The Cottonwood County Land Fill is capable of taking construction debris, including concrete waste, general waste, and granular materials for "Daily cover". Metal recycling is assumed to occur at New Ulm Steel & Recycling, approximately 50 miles from the project site. Transformers, generators, and other electrical equipment will be shipped to T&R Electric in Coleman, South Dakota, approximately 100 miles from the project.

3.0 DECOMMISSIONING

Public Road Modifications and Removal

Temporary turning-radius modifications are not expected to be needed for decommissioning as turbines that have reached the end of useful life have a scrap value. Transportation of the turbine components off-site will be accomplished using conventional over-the-road trucks. Following removal of the decommissioned turbine components, any turning-radius modifications required for decommissioning will be removed and any disturbed areas will be restored to pre-construction conditions using thorough decompaction techniques and re-application of topsoil. After all hauling activities are complete, the public roads will be restored to pre-decommissioning conditions, or payment for road-life consumed will be made. Equipment required for this work includes road graders, compaction rollers, dump trucks, front-end loaders, and tractors.

Crane Path Preparation and Removal

To facilitate the movement of the large industrial cranes used to disassemble the turbines, crane paths will be required between the turbine sites. A crane-path network will be designed for the construction of the wind project. The same corridors are likely to be used for decommissioning. Some turbine access roads may be temporarily widened from their operational width by compacting in place soils to create crane shoulders on roads that were configured to accommodate crane travel during the construction of the Facility. Preparations include compaction of native soils, construction of temporary road crossings, and construction of crane mat crossings, low water crossings, and/or temporary culverts to cross streams. Following disassembly of the wind turbines, the temporary crossings will be removed and the crossing areas will be restored to pre-

decommissioning conditions. The soil on the crane paths will be decompacted and restored to a tillable condition. The equipment required for this work includes compaction rollers, timber crane mats, rough terrain forklifts for moving the crane mats, and tractors for decompacting the soil. See section 3.1 for additional information on reclamation and restoration. No waster material is generated by this activity.

Crane Pad Preparation, Removal, and Restoration

A crane pad will be prepared at each turbine location to be used during dismantling of the turbines. Temporary alteration of turbine pads may be necessary to facilitate crane movements during decommissioning of above-ground turbine components. If such alteration is necessary, topsoil from the additional disturbed areas will be stripped and isolated, for re-application after turbines have been dismantled and crane pads removed. After the removal of all turbine components, the crane-pad area will be removed by excavating any granular materials placed during the initial construction of the crane pad. Disturbed areas will be restored to pre-construction conditions by re-grading the area, reapplying topsoil, and de-compacting the subsoil and topsoil. The equipment required for this work includes skid steer loaders, crane mats, rough terrain forklifts, and tractors. See section 3.1 for additional information on reclamation and restoration.

Wind Turbine Removal

Each turbine consists of steel tower segments, nacelle, rotor and hub assembly, and three blades. The turbine disassembly will be accomplished using large industrial cranes. If it is not cost-effective to resell the turbines, the components will be processed on-site into sizes that conform to scrap metal recycling requirements. The materials can then be sold for scrap material value and recycled. The tower sections, in particular, represent a substantial amount of high-quality steel materials. The processed scrap materials will be loaded on tractor-trailers and removed from the site to a prearranged receiving location, or directly to a recycling or disposal facility. If the components are resold, the individual components will be loaded onto turbine transport vehicles similar to the vehicles originally used to deliver the turbine parts. The equipment required for this task also includes rough terrain (RT) helper cranes, hydraulic shears, and gas cutting torches. The vast majority of turbine waste is structural steel, copper, aluminum, and cast iron. All of these materials have robust markets for recycling. The oil from the transformers and gear will be drained and can also be recycled by qualified and certified recyclers. The small amount of remaining material can be disposed of at commercial landfills. Any hazardous wastes identified will be disposed of at certified facilities and the proper documentation will be compiled.

Turbine Foundation Removal and Restoration

Turbine foundations are fabricated from concrete and rebar. Topsoil and aggregate from the area surrounding the foundations will be stripped, segregated, and stockpiled near the work site for reapplication during restoration. This work can be accomplished using small bulldozers or skid steer loaders. The turbine foundation will be exposed using backhoes or other earth-moving equipment. The pedestal (upper part of the turbine foundation) will be removed down to four feet below grade. Demolition of mass concrete is generally accomplished using hydraulic hammers mounted on a backhoe or similar equipment (hoe ram), or by the use of expansive chemicals placed in holes drilled in the concrete. Concrete and rebar will be broken into manageable-sized pieces and loaded into dump trucks to be hauled off-site for recycling as aggregate or disposal, typically at a commercial landfill.

Following the removal of turbines and foundation pedestals down to four feet below grade, the resulting voids will be backfilled with clean native subsoils and compacted to a density similar to

surrounding subsoils. Topsoil will then be reapplied to the site and graded to blend with the surrounding grade and preserve pre-existing drainage patterns. The soil and topsoil will be de-compacted and restored to a tillable pre-construction condition or re-seeded to promote re-vegetation. If necessary, the site will be temporarily or permanently re-vegetated, depending upon location, time of year, and anticipated post-decommissioning land use. Any drain tile lines damaged during removal and restoration of turbine foundation areas will be repaired to ensure drainage is maintained.

Access Road/Met Tower Road Removal and Restoration

Access roads will be removed or left in place based on the individual landowner's request. Removal of access roads will entail removal of the road base aggregate and any other materials used for constructing the roads. During removal, the topsoil adjacent to both sides of the roads will be stripped and stockpiled in a windrow paralleling the road. The road base materials will then be removed by bulldozers, wheeled loaders, or backhoes, and hauled off-site in dump trucks to be recycled or disposed of at an off-site facility. On-site processing may allow much of the aggregate to be re-used to improve public roads. The aggregate base can often be used by local landowners for driveway or clean fill. Another option is to use the aggregate base as "daily cover" at a landfill where it is usually accepted without cost. If geotextile fabric was utilized under the aggregate base, it will be removed and disposed of in a landfill off-site. The access-road removal will proceed from the turbine area to the public roads to limit tracking and provide stable access during removal. Following removal, topsoil will be reapplied and graded to blend with surrounding contours to promote pre-construction drainage patterns. 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. Since topsoil stayed with each landowner during the construction of the wind farm there will be adequate topsoil to restore each area to its pre-construction condition. The soil and topsoil will then be decompacted to a minimum depth of 18 inches and re-restored to pre-construction tillable conditions or re-vegetated.

Underground Electrical Collection Lines

The electrical cables and fiber optic conduits will be installed at a depth of a minimum of 48 inches (by plan), and contain no material known to be harmful to the environment. The only exception is cables entering ground-mounted transformers (if any) and junction boxes. Accordingly, the majority of underground cables will be left in place, non-functional. Any cables that must be removed will likely use specialized trenching equipment or backhoes. Following cable, junction box, and route marker removals, disturbed areas will be restored by the restoration methods described above for access roads, including the reapplication of topsoil to match the surrounding grade and preserve or promote pre-existing drainage patterns.

Overhead Electrical Transmission Lines

The overhead electrical lines associated with the Facility connect the project substation, located within the project footprint, to the voltage step-up substation at the point of interconnection north of the project. All poles, conductors, switches, and lines associated with this interconnection link will be removed and hauled off-site to a recycling facility or disposal site. Underground infrastructure such as pole foundations will be removed down to four feet below grade. Most transmission line poles are direct burial, so there is no foundation remaining after removal. Pole foundation holes will be filled with a suitable clean compactable material. Topsoil will be applied and the areas re-vegetated to pre-construction conditions. The interconnection substation

will be owned by the transmission line owner, so the scope of interconnection facility decommissioning is not included with this plan. Transmission line work requires specialized equipment including man lifts, cable reels, pole removal/installation lifts, etc.

Substation

All steel framing, conductors, switchgear, transformers, security fence, and other components of the step-up facility(ies) will be disassembled and recycled, or reused off-site. The rock base 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 of at an off-site facility. Permanent storm-water treatment facilities, such as retention basins, will be removed. Topsoil will be reapplied to blend with the surrounding grade to promote pre-construction drainage patterns. Soil and topsoil will be decompacted and the site will be restored to the pre-construction tillable conditions using conventional farm tractors, plows, and discs.

Operations and Maintenance Facility

Big Bend may rent an existing building or construct a new building for its O&M facility. Hydraulic oil and lubricants will be stored in the building during the operation of the wind project. The project will have a Spill Prevention Control and Countermeasure plan in place during operations that will require immediate clean-up of any spilled hazardous materials, so the cleanup of any hazardous materials is an operating cost and not a decommissioning cost.

The O&M facility, if constructed, will likely be a sturdy, general-purpose, steel building. Buildings have a longer useful life than wind turbines so the building will not likely be at the end of its useful life when the Facility is decommissioned. Decommissioning will consist either of the sale of the building, the donation of the facility, or the demolition and removal of the structure, foundation, and rock base parking lot and associated storm-water treatment facilities. This estimate has assumed the sale of the building and site, but to be conservative, no sale proceeds have been recognized.

If demolition is undertaken, all associated materials, (including concrete and rock) will be removed from the site using backhoes and bulldozers, and hauled off-site in dump trucks. All materials which can be recycled will be brought to an approved facility. The remaining materials will be disposed of at an approved landfill. Topsoil will be reapplied to the site and graded to blend with the surrounding grade to promote existing drainage patterns. The soil and topsoil will be de-compacted and restored to pre-construction tillable conditions or re-vegetated.

3.1 RECLAMATION

In addition to the reclamation activities described above for each decommissioning activity, all unexcavated areas compacted by equipment and activity during the decommissioning will be de-compacted. All materials and debris associated with the Facility decommissioning will be removed and properly recycled or disposed of at off-site facilities.

As necessary, the topsoil will be stripped and isolated prior to the removal of structures and facilities for reapplication to promote future land use activities. The topsoil will be reapplied following backfill, as necessary, and graded to blend with adjacent contours to maintain pre-construction drainage patterns. The topsoil reapplied will be free from rocks larger than four inches and will not contain debris from decommissioning. If the area is not going to be used for crops, the topsoil will then be re-vegetated using seed mixes approved by the local Farm Service Agency, Soil and Water Conservation District, or Natural Resource Conservation Service. Temporary erosion protection such as mulch, hydromulch, or erosion-control blankets will be applied in accordance with

the requirements of the project Storm Water Pollution Prevention Plan (SWPPP). Since agricultural land is routinely tilled, opening up the soil and removing vegetation, and because the project area is very flat, the extent of erosion and sediment controls is expected to be very limited. Pricing for decompressing soils uses the Minnesota Department of Transportation (MnDOT) average bid price for Subsoiling. The pricing for tilling to a farmable condition uses the MnDOT average bid price for Soil Bed Preparation. The revegetation costs for the substation and O&M, which may take longer, or require more extensive reclamation are based on the RS Means costs for Hydroseeding for large areas, including lime, fertilizer, seed, and mulch (Line Number 32 92 19 13.1100.)

4.0 BEST MANAGEMENT PRACTICES (BMPs)

During decommissioning, erosion and sediment control BMPs will be implemented to minimize the potential for sedimentation of surface waters and waters of the state. Because decommissioning will entail disturbance to more than one acre of soil, the Owner will prepare a SWPPP and process a National Pollutant Discharge Elimination System (NPDES) permit prior to initiating soil disturbing activities. Potential BMPs described below are examples that will be subject to refinement in the SWPPP. The decommissioning team will review the permitting requirements at the time of decommissioning, and obtain any other necessary permits, which may include a U.S. Army Corps of Engineers (USACE) Section 404 Permit to Discharge Dredged or Fill Material. Because virtually all of the project area is currently used to raise crops exposed soil is a common condition and only minor erosion and sediment control is expected.

4.1 EROSION CONTROL

Erosion control measures are described generally here but will be refined based on the standard of practice current at the time the SWPPP is developed for decommissioning. All disturbed areas without permanent impermeable or gravel surfaces, or planned for use as cropland, will be vegetated for final stabilization. All slopes steeper than 4:1 should be protected with erosion control blankets. Restoration should include seed application prior to the application of the blanket. All slopes 4:1 or flatter should be restored with seed and mulch, which will be disc anchored.

Project Phasing/Design BMP: Periods during which disturbed soils are exposed should be minimized to the degree possible. Stabilization of soils will generally be accomplished immediately following decommissioning of the access roads, turbine sites, electrical and fiber optic cables, step-up substation, and O&M facilities. Where this is not possible, temporarily exposed soils will be temporarily stabilized with vegetation in accordance with the SWPPP for decommissioning.

Erosion Control Blankets and Seed BMP: Erosion control blanket (double-sided netting with wood fiber or weed-free straw fiber blanket) will be used as temporary stabilization for areas of slopes steeper than 4:1 and areas of concentrated flow, such as ditches, swales, and similar areas around culverts. Seed will be applied in these areas with the blanket for temporary and/or permanent vegetative growth as necessary. The SWPPP developed for decommissioning will provide detailed specifications for erosion control blankets to be used under various slope and drainage conditions.

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.

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 (wood fiber to resist loss from grazing by wildlife or domestic animals) will be applied at a rate of two tons per acre to provide temporary erosion protection of exposed soils areas with slopes flatter than or equal to 3:1. Seed will be applied with the mulch for temporary and/or permanent vegetative growth as called for in the SWPPP. Mulch will be used for all soil types where slopes are flatter than 3:1 and no significant concentrated flows are present. The mulch will be disc-anchored to the soil to keep it from blowing away. The mulch prohibits the impact of the raindrop from dislodging soil and subsequently carrying the soil away during sheet drainage. In sandy soils, a tackifier may be used to assist the disc anchoring if the mulch cannot be secured to the sandy soils.

Soil Stockpiles: Topsoil that is stripped from the construction site and base materials will be stockpiled on-site. Stockpile areas will be located in areas that will not interfere with the decommissioning activities, and 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 stockpiles are not placed within existing silt fences or other sediment control, where the potential exists for material to be eroded and transported to sensitive natural 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 at a final grade that will not be used for agriculture, the permanent seed will be applied to promote vegetative cover for permanent erosion control. Temporary mulch and/or erosion control blanket will be applied as appropriate in areas to provide temporary erosion protection until the permanent seed is established.

4.2 SEDIMENT CONTROL

Removal of Ditch Crossing BMP: Temporary ditch crossings may be needed to accommodate the movements of cranes or other heavy equipment. Perimeter controls such as silt fence will be used at crossing locations to minimize runoff from exposed soils. Crossings will be done during dry conditions, if possible. If a stream is wet at the time of the crossing, alternative BMPs will be applied. These could include a temporary dam and bypass pump to install the crossing in dry conditions. Timber construction mats will be used as needed to prevent compaction and rutting at crossing locations. All temporary fills and construction mats will be removed immediately after the crossing is successfully completed and the temporarily disturbed area restored using the appropriate BMPs as described above.

Dewatering: A temporary sump and rock base will be used if a temporary pump is used 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 avoid the intake and discharge of turbid water. 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 draining into receiving waters of conveyances/ditches. If discharge water is unavoidably turbid, dewatering bags, temporary traps, rock weepers, or other adequate BMP will be used to control sediment discharge.

Silt Fence BMP or Fiber Logs: Silt fences or fiber logs will be used as perimeter controls down-gradient of exposed soils during construction to capture suspended sediment particles on-site, to the extent possible. The standard silt fence or fiber logs will also be used in smaller watershed areas where the contributing areas are typically less than 1/4 acre of drainage per 100 feet of standard silt fence or the fiber logs. Standard silt fence or fiber logs will also be used for stockpiles 8 feet high or higher which have slopes of 3:1 or steeper. Standard silt fence or fiber logs should not be used in areas of highly erodible soils which are found within streams, slopes, or banks of creeks and streams within the Facility's site.

Rock Entrance/Exit Tracking Control BMP: Rock construction entrances will be installed where access to a construction area is needed from adjacent paved surfaces.

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 low gradient of the slopes in the project area, controlling stormwater flow that enters the project area will likely require minimal effort 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 diversion controls 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.

Rock Check Dams: It may be necessary to install temporary check dams within swales or ditches that convey stormwater from areas disturbed by decommissioning activities. Rock check dams are effective for velocity control, sediment control, and augment temporary stabilization of channels. 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. Spacing depends upon the slope. Downgradient rock checks should have the top elevation at the same elevation as the bottom of the previous (upgradient) rock check.

Hay Bale Check Dams: Haybale 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 endpoints of the bale where the bale meets the grade, 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 Minnesota Pollution Control Agency (MNPACA) requirements at the time of decommissioning.

4.4 PERMITTING

All decommissioning and restoration activities will comply with federal and state permit requirements. Decommissioning activities that will disturb more than one acre of soil may trigger the

NPDES Construction General permitting process and Minnesota general permit or Notice of Intent. The permits, if required, will be applied for and received prior to any regulated decommissioning construction activities commencing. A SWPPP will be developed prior to filing a Notice of Intent. 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 Facility. No air permits are currently required for construction activities typical for decommissioning. Minnesota Pollution Control Agency (MNPCA) 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 the ongoing operation of the Facility. Should decommissioning activities cause temporary or permanent impacts to wetlands, and MNDNR Wetlands Permit will be obtained prior to any activities commencing if required. Should decommissioning activities cause temporary or permanent impacts to vernal pools, a USACE General Permit for the State of Minnesota will be obtained prior to any activities commencing. Should any interim permits become needed, they will be closed out with documentation of compliance at decommissioning. A Spill Prevention, Control and Countermeasures (SPCC) Plan for decommissioning, separate from the operating SPCC will likely be required.

5.0 TIMELINE

Decommissioning of the wind farm will be initiated if the project has not produced electricity for a period of one (1) year 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 SCHEDULE

It is anticipated that the decommissioning activities for the project can be completed in an eight (8) month period. The estimated costs for decommissioning are tied to assumptions about the amount of equipment mobilized, the crew sizes, weather and climate conditions, and the productivity of the equipment and crews. Very few utility-sized wind farm has been decommissioned to date, and most that have been decommissioned have been repowered, so there are no historical activity durations available for some of the activities that can be applied directly. See Figure 1 for a sample decommissioning schedule.

5.2 ADVANCE NOTICE TO PRIVATE PROPERTY OWNER

The Facility owner will provide the Landowner or Tenant with a minimum of 48 hours prior notice before accessing his/her property for construction or deconstruction of a Commercial Wind Energy Facility.

Prior notice shall consist of either: (i) a personal contact, telephone contact, or email contact, whereby the Landowner or tenant is informed of the Facility owner's intent to access the land; or (ii) the Facility Owner mails or hand delivers to the Landowner or tenant's home a dated, written notice of the Facility Owner's intent. Such written or hand or hand-delivered notice shall include a toll-free number at which agents of the Facility Owner can be reached. The Landowner or tenant need not acknowledge receipt of the written notice before the Facility Owner can enter the Landowner's property.

5.3 ADVANCE NOTICE TO COUNTIES AND MINNESOTA PUBLIC UTILITIES COMMISSION

The Facility owner will provide written notice to Cottonwood and Watonwan Counties Commissioners, the Minnesota Pollution Control Agency (MnPCA), the Minnesota Public Utilities Commission (PUC), and any other local, state, or federal permitting agencies at least 30 days prior to commencement of decommissioning. Upon completion of decommissioning, the Facility owner will provide written notice to Cottonwood and Watonwan Counties Commissioners, MnPCA, and the Minnesota PUC within 30 days

6.0 WATER REGULATORY COMPLIANCE

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

1. Complete a SWPPP consistent with the requirements of the Minnesota NPDES General Construction Permit applicable at the time of decommissioning.
2. Submit the NPDES Notice of Intent at least thirty (30) days prior to starting construction activities associated with decommissioning.
3. Once notification of permit coverage is received, decommissioning will commence.
4. During decommissioning, 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 Plans, and implementation of the SWPPP.
5. Within 30 days of completing decommissioning and restoration, a Notice of Termination (NOT) will be submitted to Minnesota Pollution Control Agency to terminate coverage of the NPDES permit.

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

1. Notification to the USACE if needed, of expected activities such as temporary stream/water body crossings.
2. Verification of necessary permits (if any).
3. Apply for any necessary Section 404 permits prior to commencing work within waterways/wetlands.
4. As applicable, develop Plans 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.

6.1 HEALTH AND SAFETY STANDARDS

Work will be conducted in strict accordance with the Owner's health and safety plan. The construction contractor hired to perform the decommissioning 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 Plans. A site safety officer will be designated by the construction contractor to ensure compliance. This official will have stop-work authority over all activities on the site should unsafe conditions or lapses in the safety plan be observed.

7.0 DECOMMISSIONING COSTS AND FINANCIAL ASSURANCE

This cost estimate was prepared: (1) in current dollars; (2) with the salvage value of equipment or materials calculated separately. The estimate includes: (i) an analysis of the physical activities necessary to implement the approved reclamation plan, with physical construction and demolition costs based on applicable Minnesota Department of Transportation unit bid prices and RS Means material and labor cost indices for Windom, Minnesota; (ii) the level of effort or number

of crews required to perform each of the activities; and (iii) an amount to cover contingencies above the calculated cost. The Estimate is shown on a total cost and a per-turbine basis.

The total cost of the decommissioning of the Big Bend Wind Project is approximately \$9,860,804 (\$189,631 per turbine), which includes a ten percent (10%) contingency on the demolition costs, engineering/administration costs, and crop top loss. The salvage/scrap value of the turbines, transformers, and other materials is approximately \$4,332,297, or \$83,313 per turbine. Including resale and salvage values the net cost is plus of revenues over costs of approximately \$5,528,506 or \$106,317 per turbine.

If the Company fails to decommission the turbines in material compliance with the decommissioning and restoration requirements of this Plan, the County may choose to decommission the turbines located therein and make a claim or claims upon the Security (defined below), for the decommissioning costs. If the County does not choose to decommission the turbines, a landowner may undertake decommissioning of the turbines located on his or her property and claim decommissioning costs incurred by the landowner, subject to the terms of the land agreement between such landowner and the Company.

The Company shall provide to the County security in the form of a (or combination of) performance bond, surety bond, letter of credit, corporate guarantee, or another form reasonably satisfactory to the County (the "Security") that is accessible by the county or landowner. The Company will provide the Security to the County no later than the 10th anniversary of the operation date of the Project (the "Initial Security").

The Security will be in an amount equal to the Net Removal Cost (definition to follow). As set forth above, Westwood calculates the current Net Removal Cost as \$106,317.00 per turbine. The Net Removal Cost will be reevaluated prior to provision of the Initial Security, and the amount of the Initial Security will be equal to the Net Removal Cost at the time that the Initial Security is due. To determine the Net Removal Cost for the Initial Security, the Company shall choose a licensed professional engineer, who may be an employee of the Company or an employee of an affiliate of the Company, with knowledge of the operation and decommissioning of wind farms (a "Professional Engineer"), which Professional Engineer will be reasonably satisfactory to the Commission and retained by the Company. The Professional Engineer will determine the removal cost per turbine times the total number of the operating turbines located in the County minus the estimated resales or salvage value of any Project equipment located in the County included in the decommissioning (the "Net Removal Cost"). In the event Company does not suggest any Professional Engineer that is reasonably satisfactory to the Commission, the Commission and the Company shall each select a Professional Engineer licensed in Minnesota and the Professional Engineers thus selected shall select a third Professional Engineer, which shall each provide an estimate of the Net Removal Cost; the Security will be in an amount equal to the average of the three estimates of the Net Removal Cost. The Company shall pay all fees in obtaining the estimates of the Net Removal Cost.

The Security shall be reevaluated by a Professional Engineer following the process set forth in the preceding paragraph on the fifth anniversary of the Commercial Operation Date and every five years thereafter. The amount of Security may be modified to reflect any adjustments to the Net Removal Cost. The Security will stay in place until the Decommissioning of all of the turbines in the Project is complete; provided that in the event of Decommissioning of a turbine is completed

prior to the remaining turbines in the Project, the Security will be reduced by the amount applicable to such turbine.

Table 1: Cost Estimate

Big Bend Wind Project				
	Quantity	Unit	Unit Cost	Total Cost
Number of Turbines	52	Each		
Mobilization/Demobilization	1	Lump Sum	\$412,000.00	\$412,000
Permitting				
County Permits	1	Lump Sum	\$2,000.00	\$2,000
State Permits (SWPPP, SPCC)	1	Lump Sum	\$5,000.00	\$5,000
Subtotal Permits				\$7,000
Turbine Removal				
Disconnect Turbine Wiring	52	Each	\$2,632.00	\$136,864
Dismantel Turbine Tower, Hub, and Blades	52	Each	\$17,709.25	\$920,881
Disassemble Turbine Components	34,002	Tons	\$30.00	\$1,020,069
Loadout Turbine Components	34,002	Tons	\$37.00	\$1,258,085
Haul Turbine Components Offsite	34,002	Tons	\$14.40	\$489,633
Turbine Components Disposal	15,115	Tons	\$57.20	\$864,563
Excavate Around Turbine Foundation	52	Each	\$191.00	\$9,932
Remove Turbine Foundation to a Depth of 4 feet and Load	2,730	Cubic Yards	\$172.01	\$469,635
Backfill Excavation Area from Turbine Foundation Removal	52	Each	\$59.64	\$3,101
Haul Concrete (Turbine Foundation)	5,529	Tons	\$7.20	\$39,807
Crush Concrete (Turbine Foundation)	0	Cubic Yards	\$17.00	\$0
Disposal of Concrete from Turbine Foundation	2,730	Cubic Yards	\$54.21	\$148,008
Remove and Load Transformer	52	Each	\$1,015.00	\$52,780
Freight Transformer to Recycler	52	Each	\$217.17	\$11,293
Transformer Disposal (Including Oil)	52	Each	\$0.00	\$0
Deccompact Wind Turbine Generator Site	52	Each	\$106.75	\$5,551
Grade Wind Turbine Generator Site	52	Each	\$1,385.62	\$72,052
Erosion and Sediment Control at Turbine/Transformer Site	52	Each	\$80.00	\$4,160
Decompaction of Turbine Sites	17.9	Acres	\$418.71	\$7,498
Till to Farmable Condition at Turbine Sites	17.9	Acres	\$236.80	\$4,240
Subtotal Wind Turbine Generators				\$5,518,153
Met Towers (Free Standing)				1
Disconnect Tower Wiring	1	Each	\$658.00	\$658
Dismantel and Disassemble Tower	1	Each	\$3,553.00	\$3,553
Loadout Tower Components	4	Tons	\$37.00	\$149
Freight Tower Components Offsite	4	Tons	\$14.40	\$58
Excavate Around Tower Foundation	1	Each	\$57.30	\$57
Remove Tower Foundation to a depth of 4 feet and Load	1	Cubic Yards	\$172.01	\$139
Haul Concrete (Tower Foundation)	1	Cubic Yards	\$7.20	\$6
Disposal of Concrete from Met Tower	1	Cubic Yards	\$54.21	\$44
Remove Met Tower Access Roads		Included with Turbine Access Roads		
Grade Met Tower Site - Includes Met Tower Road	1	Each	\$1,385.62	\$1,386
Erosion and Sediment Control at Met Tower Site	1	Each	\$320.00	\$320
Decompaction of Turbine Sites	0.11	Acres	\$418.71	\$48
Till to Farmable Condition at Turbine Sites	0.11	Acres	\$236.80	\$27
Subtotal Met Towers (Free Standing)				\$6,445

Electrical Collection/Transmission System				38.6
Removal of Underground Collector System Cables (34.5 kV)	84	Each	\$400.00	\$33,600
Removal of Overhead Transmission Line Cables (161 kV)	95,312	Feet	\$7.90	\$752,965
Haul Underground Collector System Cables (34.5 kV)	3.5	Tons	\$14.40	\$51
Disposal of Removed Cables	1.1	Tons	\$0.00	\$0
Loadout Overhead Cables	312.5	Tons	\$37.00	\$11,564
Haul Overhead Cables (161 kV)	312.5	Tons	\$14.40	\$4,500
Disposal of Overhead Cables (161 kV)	312.5	Tons	\$0.00	\$0
Remove and Load Timber Transmission Poles	144	Each	\$1,015.00	\$146,578
Haul Timber Poles	144	Each	\$23.40	\$3,379
Transmission Tower Component Disposal	144	Each	\$97.50	\$14,080
Removal of Junction Box	32	Each	\$100.00	\$3,200
Till to Farmable Condition at Junction Box Locations	3.3	Acres	\$236.80	\$785
Subtotal Electrical Collection/Transmission System				\$970,703
Access Roads				80,123
Remove and Load Gravel Surfacing from Access Roads	23,740	Cubic Yards	\$2.42	\$57,333
Haul Gravel Removed from Access Roads	38,459	Tons	\$7.20	\$276,906
Disposal of Gravel Removed from Access Roads	38,459	Tons	\$0.00	\$0
Remove and Load Culvert from Beneath Access Roads	15	Each	\$448.00	\$6,720
Haul Culvert Removed from Access Roads	8	Tons	\$57.20	\$439
Disposal of Culverts	8	Tons	\$30.00	\$230
Remove Low Water Crossing from Access Roads	5	Each	\$3,400.00	\$17,000
Haul Low Water Crossing Materials Removed from Access Roads	5	Each	\$0.00	\$0
Disposal of Low Water Crossing Materials	5	Each	\$0.00	\$0
Decompact Access Road Corridor	80,123	Linear Feet	\$0.14	\$11,404
Grade Access Road Corridor	80,123	Linear Feet	\$1.30	\$103,808
Erosion and Sediment Control Along Access Roads	12,018	Linear Feet	\$0.48	\$5,769
Decompaction of Removed Access Road Area	44.1	Acres	\$418.71	\$18,484
Till to Farmable Condition at Turbine Access Roads	44.1	Acres	\$236.80	\$10,454
Subtotal Access Roads				\$508,546
Crane Paths				160,246
Installation and Removal of Low Water Crossing (Crane Mats)	10	Each	\$3,400.00	\$34,000
Haul Low Water Crossing Materials Removed from Path	10	Each	\$200.00	\$2,000
Decompaction of Crane Path	160,246	Linear Feet	\$0.09	\$13,685
Erosion and Sediment Control Along Crane Path	160,246	Linear Feet	\$0.48	\$76,918
Decompaction of Removed Access Road Area	59	Acres	\$418.71	\$24,645
Till to Farmable Condition at Turbine Access Roads	59	Acres	\$236.80	\$13,938
Subtotal Crane Paths				\$165,187

Substation				
Disassembly and Removal of Main Power Transformer(s)	1	Each	\$4,500.00	\$4,500
Freight Transformer(s) Offsite	1	Each	\$3,000.00	\$3,000
Disposal of Transformer (Including Oil)	1	Each	\$0.00	\$0
Excavate Around Transformer Foundation(s)	1	Each	\$1,910.00	\$1,910
Remove Complete Transformer Foundation(s)	1	Each	\$14,400.00	\$14,400
Backfill Excavation Area from Transformer Foundation Removal	1	Each	\$213.00	\$213
Haul Concrete (Transformer, Switch Gear, etc. Foundations)	170	Tons	\$7.20	\$1,225
Disposal of Concrete from Transformer Foundation	170	Tons	\$57.20	\$9,730
Demolish Substation Site Improvements (fences, etc)	1	Lump Sum	\$5,000.00	\$5,000
Demolish Control Building and Foundation	1	Lump Sum	\$12,000.00	\$12,000
Remove Medium/High Voltage Equipment	1	Lump Sum	\$3,500.00	\$3,500
Remove Structural Steel Substation Frame	1	Lump Sum	\$3,500.00	\$3,500
Haul - Demolition Materials, Removed Equipment & Structural Steel	1	Lump Sum	\$2,880.00	\$2,880
Disposal of Demolition Materials, Removed Equipment and Structural Steel	1	Lump Sum	\$0.00	\$0
Remove and Load Gravel Surfacing from Substation Site	1,076	Cubic Yards	\$2.42	\$2,597
Haul Gravel Removed from Substation Site	1,597	Tons	\$7.20	\$11,500
Disposal of Gravel from Substation Site	1,597	Tons	\$0.00	\$0
Decompact Substation Site	1.00	Acres	\$310.00	\$310
Grade Substation Site	1	Each	\$6,478.00	\$6,478
Erosion and Sediment Control at Substation Site	1	Lump Sum	\$640.00	\$640
Decompact Substation Site	1.00	Acres	\$418.71	\$419
Revegetate Sustation Site	1.00	Acres	\$13,358.40	<u>\$13,358</u>
Subtotal Substation				\$97,160
O&M Building		Assume resale		\$0
Public Roads Restoration	44.3	Miles	\$21,947.85	\$972,265
Total Direct Costs				\$8,657,458
Contingency (10%)				\$865,745.79
Total Demolition Costs				\$9,523,204
Cost Per Turbine				\$183,139
County Administration Costs (2.5%)	1	Lump Sum	\$238,000.00	\$238,000
Crop Loss (199.2 Acres)	199.2	Acres	\$500.00	<u>\$99,600</u>
Total Cost				\$9,860,804
Salvage/Recycle				
Turbine Towers (Structural Steel)	14,959	Tons	\$180.00	\$2,692,538
Turbine Nacelles (Structural Steel)	73	Tons	\$180.00	\$13,155
Met Towers (Structural Steel)	4	Tons	\$180.00	\$724
Substation Structural Steel)	10	Tons	\$180.00	\$1,800
Turbine Generators	10,645,493	Pounds	\$0.12	\$1,224,232
Aluminum Electrical Conductor (Supported)	2,200	Pounds	\$0.38	\$836
Transformers (copper windings)	451,241	Pounds	\$0.26	\$118,451
Transformers (oil)	26,840	Gallons	\$0.70	\$18,788
Subtotal Salvage				\$4,332,297
Total Demolition Minus Resale and Salvage Value				\$5,528,506
Total Demolition Minus Salvage per Turbine				\$106,317

Figure 1

Big Bend Wind Decommissioning Plan

Westwood



