

Record Hill Wind, LLC // Natural Resources Protection Act
Construction of 50.6 megawatt wind energy development - Roxbury

Excerpts from the Department's License Record

- Decommissioning Plan

**Section 29
Decommissioning Plan**

1.0 Anticipated Life of Wind Turbines

Megawatt-scale wind turbines are designed and certified by independent agencies for a minimum expected operational life of 20 years. The Clipper Liberty 2.5-megawatt turbine selected for the Record Hill Wind Project (Project) is a megawatt-scale technology, and as such, has been certified as having at least 20 years of anticipated life (see Section 27, Public Safety).

It is in the applicant's long term financial interests to maximize the operational lifespan of the wind turbine generators, and the applicant therefore plans to employ a proactive maintenance regime to ensure turbines are in good repair for at least the full 20 years of expected life. As the wind turbines approach the anticipated end of life, it is expected that technological advances will economically drive the replacement of existing turbines with newer models.

2.0 Trigger for Implementing Decommissioning Plan

Decommissioning will follow the standards set by the Maine Department of Environmental Protection (MDEP). Currently, these standards dictate that decommissioning will be required if the project has not generated electricity for a period of 12 continuous months, unless the company produces evidence of mitigating circumstances. Such evidence may include delays surrounding long lead time for spare part procurement, or a force majeure event that interrupts the generation of electricity. As used here, a "force majeure" event means instances such as fire, earthquake, flood, tornado, or other acts of God and natural disasters; strikes or labor disputes; war; any law, order, proclamation, regulation, ordinance, action, demand or requirement of any government agency; suspension of operations of all or a portion of the project for routine maintenance, overhaul, upgrade, or reconditioning; or any other act or condition beyond the reasonable control of Record Hill Wind LLC (RHW).

3.0 Description of Work Required – Wind Turbines

Based on a work plan developed by Reed and Reed Inc., the turbines will be dismantled in the reverse of the erection sequence. A large (i.e., +/- 400-ton) crane will be brought to the site and assembled, along with various support cranes and equipment. On a particular tower site, the work sequence will most likely proceed as follows:

- Assemble and stage crane on pad at turbine;
- Install erosion control measures as required;
- Disconnect electrical connections;
- Remove rotor and block on ground;
- Disassemble rotor;
- Remove nacelle and set on ground;
- Remove turbine tower sections and stage on ground;
- Remove electrical down tower assembly;
- Haul off turbine components;
- Remove foundation;
- Backfill foundation;
- Remove electrical collector system; and
- Rehabilitate disturbed areas.

The turbines will be dismantled using standard best management practices. Critical lift plans will be developed specifically for each major turbine component. The components will be removed from the site and transported to appropriate facilities for reconditioning, salvage, recycling, or disposal. Depending upon the ultimate destination, some components may need to be disassembled on-site to maximize reuse or ensure compliance with applicable disposal regulations.

4.0 Description of Work Required – Other Components

Decommissioning of the non-turbine aspects of the project will follow MDEP permitting guidelines. Currently, these provisions call for foundations, anchor bolts, rebar, conduit, and other subsurface components to be removed to a minimum of 24 inches below grade. Items not known to be harmful to the environment buried greater than 24 inches below grade may be left in place, at the applicant's sole discretion. Once removal is complete, the excavation will be backfilled with material of quality comparable to the immediate surrounding area. The disturbed soils of the site will be rehabilitated, including appropriately grading and re-seeding the area, unless the landowner of the affected land requests otherwise in writing.

The Project collector system, substation, and interconnection facilities will be removed and salvaged, recycled, or repurposed to the maximum amount economically practical, providing that applicable regulations are followed. Any other components will be hauled to approved disposal sites. Any trenches or holes that remain after removal will be backfilled, and the surface areas will be rehabilitated.

Construction pads will be rehabilitated and re-seeded. Road improvements and stream crossings will not be removed. Improvements to town and county roads that were not removed after construction at the request of the Town or County will remain in place.

Disturbed areas will be reseeded with native grasses to promote re-vegetation of the area. Restoration shall include, as reasonably required, leveling, terracing, mulching, and other necessary steps to prevent soil erosion to ensure establishment of suitable grasses and forbs and to control noxious weeds and pests.

5.0 Estimate of Decommissioning Costs

Decommissioning costs are estimated at \$37,646 per turbine, and \$59,500 for the Operations and Maintenance Building. A detailed breakout of these costs can be found in Appendix 29-1.

The Total Estimated Decommissioning Cost will be \$828,215 ($\$37,646 \times 22$ turbines + \$59,500).

6.0 Ensuring Decommissioning and Site Restoration Funds

The project will ensure that financial assurance for decommissioning costs will be fully established at least five years prior to the expected end of useful economic life of the project. At the discretion of Record Hill, a study may be commissioned to update the Total Estimated Decommissioning Cost at any time prior to year 15 of the project, which will replace the cost estimate in Appendix 29-1. On or prior to December 31 of each year, years 11-14 of the project's operation, 20 percent of the Total Estimated Decommissioning Cost (\$165,643, using the cost estimate in Appendix 29-1), will be reserved in the form of cash or a letter of credit to the Decommissioning Fund. On or prior to December 31 of year 15 of the project's operation, the estimated cost of decommissioning (minus salvage value) will be reassessed, and an amount equal to the balance of such updated estimated cost of decommissioning, less salvage value and less the amounts reserved in years 11-14, shall be reserved for decommissioning and site restoration.

Upon complete decommissioning of the site, any remaining balance of the Decommissioning Fund shall be returned to RHW.

1168

Appendix 29-1

Decommissioning Costs Per Turbine W/ No Salvage Value

Mobilization	\$8,950.00
General Conditions (Supv., Insurance, etc.)	\$14,500.00
Rotor Removal/Disassembly	\$12,000.00
Nacelle Removal	\$9,650.00
Tower Removal	\$24,500.00
Load & Prepare Components for Hauling	\$16,000.00
Foundation Demolition	\$22,000.00
Pad Electrical Removal	\$7,800.00
Foundation Backfill	\$6,500.00
Crane Pad Installation/Removal	\$11,800.00
Seed & Mulch Pads, Road Shoulders	\$7,300.00
Miscellaneous	\$3,600.00
Demobilization	\$4,000.00
Recycling and reclamation	-\$113,658.42
	=====
TOTAL PER TURBINE COST	\$34,941.58
Turbines	22
Total Turbine Decomissioning Cost	\$768,714.86

Operations and Maintenance Building Removal

Building Demolition	\$32,000.00
Foundation Removal	\$20,000.00
Site Rehabilitation	\$7,500.00
	=====
TOTAL BUILDING COST	\$59,500.00
Total Project Decomissioning Cost	\$828,214.86

2. Concerning the proposed decommissioning plan, please describe in what manner funds will be held in the interim in the anticipation of decommissioning, and submit a plan for the Department or a third party to have authority to the decommissioning funds for the purpose of site restoration if dissolution of the limited liability company was to occur.

As set forth in Section 29 of the joint Site Law/NRPA application, Record Hill Wind LLC has agreed to ensure that financial assurance for decommissioning costs will be fully established at least five years prior to the expected end of the useful economic life of the project. The financial assurance may be in the form of a performance bond, surety bond, letter of credit, parental guaranty or other acceptable form of financial assurance. Record Hill Wind LLC agrees that the financial assurance shall be kept in place until such time as the decommissioning work has been completed, provided, however, that to the extent available as liquid funds, the financial assurance may be used to offset the costs of the decommissioning.

Record Hill Wind LLC will structure the financial assurance such that the Maine Department of Environmental Protection will have third-party authority to access and utilize the decommissioning funds for the specific purpose of affecting decommissioning and site restoration as described in Section 29 of the joint Site Law/NRPA application. The sole trigger for the Department's third-party rights shall be the full dissolution of the project's owner.

Applicant (Record Hill) reply to DEP
request for additional information.
(December 17, 2009)