

## APPENDIX U

### Decommissioning Plan

# Decommissioning Plan Hounsfield Wind Farm

Prepared by:

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## **1.0 INTRODUCTION / PROJECT DESCRIPTION**

The Hounsfield Wind Farm Project is a commercial scale wind farm project proposed by the Upstate NY Power Corp. (Upstate Power). The project includes the construction and operation of up to 90 wind turbines, the installation and operation of associated collection lines, and related facilities including docking facilities, ship channel construction, helipad, living quarters, parking areas and operations and maintenance facilities on Galloo Island (the “Project”).

In addition to the construction activities associated with the Project as set forth above, the transmission of the electricity will require construction and operation of an approximately 50.6-mile transmission line, together with interconnection facilities (substations) and other related facilities, linking Galloo Island with the New York State power grid. The construction and operation of the 51.5-mile transmission line is subject to the review jurisdiction of the New York State Public Service Commission (PSC) under Public Service Law Article VII. As such it is a Type II action under SEQRA (6 NYCRR §617.5(c) (35)) and therefore not subject to SEQRA review (6 NYCRR §617.5(a)).

### **1.1 Purpose**

The purpose of this decommissioning plan is to identify the methodology that Upstate Power will use to mitigate potential impacts resulting from the cessation of operation of the facility at the end of the Project’s useful life. The decommissioning plan identifies the specific Project components that will be removed; the costs associated with the removal of the components and associated scrap value.

### **1.2 Anticipated Life of the Project**

The proposed wind turbine generators (“WTGs”) have an expected useful life of at least 20 years and are certified as such by international agencies that include Underwriters Laboratories and Germanischer Lloyd AG. The WTG will be continually maintained throughout the life of the Project. Moreover beyond the end of its useful life, or at any other time, if a WTG needed to be replaced for any reason, Upstate Power would likely install a new WTG at the site (repowering) to best make use of its investment in Project infrastructure and continue to take maximum advantage of the unique, clean, renewable, wind resource at the site.

The only scenario in which Upstate Power anticipates decommissioning the Project is if new technologies in energy production would make the wind farm financially unviable. This is not anticipated to occur over the next 20 years and beyond. Upstate Power will own the property upon Project commissioning and therefore can dedicate the land to energy production in the long term. The availability of infrastructure and the ability to generate electricity with relatively low operating cost will justify ongoing investment in equipment maintenance, repairs, or replacements.

## **2.0 Decommissioning Process**

Two scenarios related to the abandonment of the Project, and therefore, the need for decommissioning, would be abandonment during construction and abandonment during operation. In both scenarios, all decommissioning and restoration activities will adhere to the requirements of appropriate governing authorities and will be in accordance with all applicable federal, state, and local permits.

The decommissioning and restoration process includes the:

- removal of above-ground structures (turbines, transformers, overhead collection lines, and the substation,);
- removal of below-ground structures (turbine foundations);
- restoration of topsoil;
- re-vegetation and seeding; and
- implementation of a two year monitoring and remediation period.

The process of removing the wind farm components will involve evaluating and categorizing all components and materials based on their anticipated post-Project use. The categories will include recondition and reuse, salvage, recycle, and disposal. In order to reduce impacts from the transport of components to and from the island, materials will likely be stored onsite in a pre-approved location (loading dock area) until the bulk of similar components or materials are ready for transport. The components and material will be transported to the appropriate facilities for reconditioning and reuse, salvage, recycling, or disposal. In the unlikely event that the Project had to be decommissioned it is most likely that wind turbines and associated equipment would be sold to another power provider rather than sold for scrap for the value of the raw materials. Individual rotors, generating equipment and towers would likely have value and demand on the open market.

### **2.1 Equipment Removal**

#### **Aboveground Components**

##### *Wind turbines*

Wind turbines are comprised of the tower, nacelle and blades which are modular items that can be disassembled. Portions of both the nacelle and interior generator can also be salvaged for scrap value. If no purchaser of the intact wind turbine components can be identified, non-steel materials will be reduced to shipping dimensions for both barge and overland transport to an offsite disposal facility.

Similar to initial construction, this will necessitate the use of cranes and heavy equipment. If resold and not scrapped, tower sections and rotors will be transported in the same manner as their

delivery to the site. It is assumed that transportation costs will be the responsibility of the purchaser.

### *Transformers*

Transformer removal will consist of disconnecting the electrical connection system from the base transformer and high value sellable components will be removed and transported offsite. Aboveground cables will be removed and the copper conductor materials can be salvaged for scrap value.

### *Aboveground Electrical Collection lines*

Aboveground electrical collection lines and associated components will be dismantled and the materials will be disposed, recycled or sold. Poles will be removed and holes backfilled with clean topsoil.

### *Substation*

Disassembly will include the removal of the steel, conductors, switches, transformers and other materials that can be reconditioned and reused or sold as scrap.

## **Belowground Components**

### *Turbine and Substation Foundations*

Turbine and substation foundations will be excavated to a depth of 36 inches below grade or to bedrock whichever is less to sufficiently expose and remove all anchor bolts, rebar, conduits and concrete which will be removed. The excavation will be backfilled with clean sub-grade material.

Although the manner of demolition will be the responsibility of the contractor, it is not anticipated that foundations will require blasting. If blasting becomes necessary, contractors will follow the methodologies outlined in the Blasting Plan.

### *Underground Collection System Cables*

The underground collection system cables will be cut back and abandoned in place. Removal of the cables would not be cost-effective for the decommissioning of the Project. No known hazards exist from the presence of unused cables. Maintenance buildings and roadways will also remain onsite.

## **2.2 Soil Restoration**

Once all of the above and below ground components designated for disposal or salvage have been removed, the remaining decommissioning work will consist of regrading and reseeding disturbed areas. It is estimated that approximately 226 cubic yards of earthwork and topsoil will be necessary to restore the Project Area to pre-construction conditions.

All disturbed areas will be restored to pre-existing conditions and contours. For example, crane pads used to disassemble the turbines are comprised of an area approximately 42 feet by 80 feet. The area in which the crane sits will likely caused compaction of the soil. At the conclusion of the decommissioning activities, the crane pad areas will be decompacted and restored to pre-existing conditions.

A monitoring and remediation period of two years immediately following the decommissioning and restoration activities will be provided. The monitoring period allows for the Project area to experience seasonal changes and allow the Project sponsor to determine if additional restoration is required.

### **3.0 Summary of Decommissioning Costs**

The estimated cost to remove the WTG was provided Cambria Contracting Corporation in a letter to American Consulting dated August 12, 2008. That estimate is considered to be the current dollar value (at time of approval) of salvage value and removal costs.

The estimated \$45,000 salvage value of the each WTG was based upon the worse case scenario assuming the only salvage value of the WTG is from scrapping the steel. The estimate was based upon the total weigh of one WTG, which is 230 tons consisting primarily of steel. However, because it did not separate the scrap value of all the constituent materials, this was a very conservative estimate considering approximately 31 tons of the total weight is copper (generator windings), which would yield a higher value than steel.

Also, there would be opportunities for re-sale for reuse of all or some WTG or WTG components. In reality, in the unlikely event that the Project had to be decommissioned it is more likely that WTG and associated equipment would be sold to another power provider rather than sold for scrap for the value of the raw materials. Individual rotors, generating equipment and towers would likely have value and demand on the open market.

Based on the current estimate, the Project sponsor would be paid a net salvage \$136,000. Therefore, based on this estimate, no bond is required at this time.

### **4.0 Financial Insurance**

Upstate NY Power will establish a bond upon the completion of construction that will be held by the Town of Hounsfield. The amount of this bond will be sufficient to decommission the site as outlined in this plan. The budget estimate, as briefly described in section 3.0, will be based on an independent estimate to remove all identified components (less scrap value), remove foundations to the specified depths and provide restoration services as outlined above.

### **5.0 Estimate Review of Decommissioning Costs**

This decommissioning plan and anticipated costs shall be reviewed and updated every 5 years by a licensed engineer selected by the Town of Hounsfield. Upstate NY Power Corp will reimburse the Town of Hounsfield for all costs incurred by the Town to review and update the decommissioning plan.

# Attachment A

## Cost Estimate – Cambria Contracting Corporation



Date: August 12, 2008

Owner: American Consulting Professionals of New York, PLLC  
70 Niagara Square, Suite 410  
Buffalo, New York 14202

Attention: Norman K. Wohlabaug, P.G., C.P.G.

Project: Hounsfield Wind Farm

Cambria Contracting, Inc. is pleased to provide you with the following estimated cost to complete the demolition of the Hounsfield Wind Farm located on Galloo Island in Eastern Lake Ontario as described in the following Scope of Work:

Scope of Work:

Mobilization/Demobilization of equipment to Galloo Island  
Furnish supervision, labor, equipment, and material required to complete the removal of (84)-3.0MW Vestas Wind Turbines known as the Hounsfield Wind Farm  
Remove of the top two feet of concrete foundation of each wind turbine  
Remove transformer and pad for each wind turbine  
Transport material off of island  
Backfill to existing grade with suitable soil material, grade site and hydro-seed

Price: Forty-Five Thousand Dollars per Each Wind Turbine \$45,000.00/ea.

It is estimated approximately 230 gross tons of scrap steel will be generated from the demolition of each wind turbine tower.

Salvage Value: Forty-Six Thousand Dollars per Each Wind Turbine \$46,000.00/ea.

Based upon the average yearly scrap price for steel scrap less the cost for demolition above each turbine can be removed for a credit of \$1,000.00. The total of (84)-units can be removed for a credit of \$84,000.00.

Thank you for the opportunity to provide you with this proposal. Should you have any questions or need additional information, please contact me direct at (716) 625-6690.

Regards,

William S. Eichhorn  
Estimator/Project Manager