

Application #: _____

Date: _____

Project Name: _____

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**Town of Florida
Planning Board
Application to the Planning Board**

A completed Application must be filed at least ten (10) days prior to the meeting at which it is to be considered by the Planning Board, including all applicable attached information.

Applicant: <u>Borrego Solar</u>	Property Owner: <u>Martin J. Milano</u>
Address: <u>55 Technology Drive</u>	(if different) Address: <u>1292 Route 300</u>
<u>Lowell MA 01851</u>	<u>Newburgh NY 12550</u>
Phone: (<u>315</u>) <u>378-9576</u>	Phone: () <u>914-213-4086</u>
Professional Advisor: <u>GHD Consulting Services Inc</u>	Other: _____
Address: <u>285 Delaware Avenue</u>	(if appropriate, please specify) _____
<u>Buffalo NY 14202</u>	Address: _____
Phone: (<u>716</u>) <u>362-8879</u>	Phone: () _____

1) **Property Location:** 153 YMCA Road
Address: _____
General Location: South side of YMCA Road near intersection of Bean Hill Road

Zoning District: 'A' Agricultural
Tax Parcel ID# (SBL): 102-1-19

2) **Type of Application (please check appropriate box(s)):**

<input type="checkbox"/> Major Subdivision/	\$500
<input type="checkbox"/> Minor Subdivision	\$100
Major Site Plan	\$500
<input type="checkbox"/> Minor Site Plan	\$100
<input checked="" type="checkbox"/> Special Permit	<u>\$100</u>
<input type="checkbox"/> Lot Line Adjustment	\$100

3) **Project Description:** Single 4.3 MW wind turbine (Vestas V150) and associated gravel access roadway and utilities

For each type of application a checklist detailing the required information has been attached. These checklists are only intended to be a guide to the applicant, for specifics on submission requirements, procedures, timeframes, etc., the applicant should refer to the applicable Town Ordinance (Zoning, Subdivision, etc.), and or State Law (SEQR, Ag & Markets, etc).

Applicant Signature: [Signature]

Date: 7/22/21

Property Owner's Signature: See Attachment for Property Owner Authorization

Date: _____

Application #: _____

Date: _____

Project Name: _____

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For Office Use Only

Total Amount received: \$ _____

Check # (s)/Date: _____

Received By: _____

Zoning Enforcement Officer's certification that application is complete and in conformance with Zoning Regulations.

(Zoning Enforcement Officer)

For Planning Board Use Only

The Planning Board held a Public Hearing on _____ (day) of _____ (date),
_____ (year) in consideration of this application.

The application is hereby:

- ☐ Approved
☐ Approved with modifications
☐ Disapproved

Modifications and comments: _____

Chairman, Town of Florida Planning Board

Date

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project:		
Project Location (describe, and attach a general location map):		
Brief Description of Proposed Action (include purpose or need):		
Name of Applicant/Sponsor:		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Project Contact (if not same as sponsor; give name and title/role):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees <input type="checkbox"/> Yes <input type="checkbox"/> No		
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input type="checkbox"/> No		
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
g. State agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
h. Federal agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
i. Coastal Resources. <i>i.</i> Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>ii.</i> Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>iii.</i> Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input type="checkbox"/> No		

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐ Yes ☐ No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐ Yes ☐ No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐ Yes ☐ No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐ Yes ☐ No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐ Yes ☐ No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☐ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☐ No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? _____

b. What police or other public protection forces serve the project site?

c. Which fire protection and emergency medical services serve the project site?

d. What parks serve the project site?

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

b. a. Total acreage of the site of the proposed action? _____ acres

b. Total acreage to be physically disturbed? _____ acres

c. Total acreage (project site and any contiguous properties) owned
or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☐ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☐ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☐ No

i. If No, anticipated period of construction: _____ months

ii. If Yes:

- Total number of phases anticipated _____

- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year

- Anticipated completion date of final phase _____ month _____ year

- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes,	
i. Total number of structures _____ ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length iii. Approximate extent of building space to be heated or cooled: _____ square feet	

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes,	
i. Purpose of the impoundment: _____ ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____ iii. If other than water, identify the type of impounded/contained liquids and their source. _____ iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____	

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input type="checkbox"/> No (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) If Yes:	
i. What is the purpose of the excavation or dredging? _____ ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? • Volume (specify tons or cubic yards): _____ • Over what duration of time? _____ iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____ _____ iv. Will there be onsite dewatering or processing of excavated materials? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe. _____ _____ v. What is the total area to be dredged or excavated? _____ acres vi. What is the maximum area to be worked at any one time? _____ acres vii. What would be the maximum depth of excavation or dredging? _____ feet viii. Will the excavation require blasting? <input type="checkbox"/> Yes <input type="checkbox"/> No ix. Summarize site reclamation goals and plan: _____ _____ _____	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____ _____	

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? Yes ☐ No ☐
If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No ☐
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☐ Yes ☐ No ☐
If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐ Yes ☐ No ☐
If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No ☐
- Is the project site in the existing district? ☐ Yes ☐ No ☐
- Is expansion of the district needed? ☐ Yes ☐ No ☐
- Do existing lines serve the project site? ☐ Yes ☐ No ☐

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No ☐
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No ☐
If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☐ No ☐
If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☐ No ☐
If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No ☐
- Is the project site in the existing district? ☐ Yes ☐ No ☐
- Is expansion of the district needed? ☐ Yes ☐ No ☐

<ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will a line extension within an existing district be necessary to serve the project? _____ <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ _____ _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans): _____ _____ _____</p>		
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ _____ _____</p>		
<p>e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p style="margin-left: 40px;">_____ Square feet or _____ acres (impervious surface)</p> <p style="margin-left: 40px;">_____ Square feet or _____ acres (parcel size)</p> <p>ii. Describe types of new point sources. _____ _____</p> <p>iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? _____ _____</p> <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ _____ • Will stormwater runoff flow to adjacent properties? _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>		
<p>f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? _____</p> <p>If Yes:</p> <p>i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? Yes No</p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____
<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 		

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p>	
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p> <p>_____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ 	

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☐ No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☐ No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site			
a. Existing land uses. i. Check all uses that occur on, adjoining and near the project site. <input type="checkbox"/> Urban <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential (suburban) <input type="checkbox"/> Rural (non-farm) <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____ ii. If mix of uses, generally describe: _____ _____			
b. Land uses and coverytypes on the project site.			
Land use or Coverytype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

<p>c. Is the project site presently used by members of the community for public recreation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>i. If Yes: explain:</i> _____</p>	
<p>d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes,</p> <p><i>i. Identify Facilities:</i></p> <p>_____</p> <p>_____</p>	
<p>e. Does the project site contain an existing dam? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p><i>i. Dimensions of the dam and impoundment:</i></p> <ul style="list-style-type: none"> • Dam height: _____ feet • Dam length: _____ feet • Surface area: _____ acres • Volume impounded: _____ gallons OR acre-feet <p><i>ii. Dam's existing hazard classification:</i> _____</p> <p><i>iii. Provide date and summarize results of last inspection:</i></p> <p>_____</p> <p>_____</p>	
<p>f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p><i>i. Has the facility been formally closed?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <ul style="list-style-type: none"> • If yes, cite sources/documentation: _____ <p><i>ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:</i></p> <p>_____</p> <p>_____</p> <p><i>iii. Describe any development constraints due to the prior solid waste activities:</i> _____</p> <p>_____</p>	
<p>g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p><i>i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:</i></p> <p>_____</p> <p>_____</p>	
<p>h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p><i>i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Yes – Spills Incidents database <input type="checkbox"/> Yes – Environmental Site Remediation database <input type="checkbox"/> Neither database </div> <div> Provide DEC ID number(s): _____ Provide DEC ID number(s): _____ </div> </div> <p><i>ii. If site has been subject of RCRA corrective activities, describe control measures:</i> _____</p> <p>_____</p> <p><i>iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, provide DEC ID number(s): _____</p> <p><i>iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):</i></p> <p>_____</p> <p>_____</p>	

v. Is the project site subject to an institutional control limiting property uses? <input type="checkbox"/> Yes <input type="checkbox"/> No <ul style="list-style-type: none"> If yes, DEC site ID number: _____ Describe the type of institutional control (e.g., deed restriction or easement): _____ Describe any use limitations: _____ Describe any engineering controls: _____ Will the project affect the institutional or engineering controls in place? <input type="checkbox"/> Yes <input type="checkbox"/> No Explain: _____ _____
E.2. Natural Resources On or Near Project Site
a. What is the average depth to bedrock on the project site? _____ feet
b. Are there bedrock outcroppings on the project site? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %
c. Predominant soil type(s) present on project site: _____ % _____ % _____ %
d. What is the average depth to the water table on the project site? Average: _____ feet
e. Drainage status of project site soils: <input type="checkbox"/> Well Drained: _____ % of site <input type="checkbox"/> Moderately Well Drained: _____ % of site <input type="checkbox"/> Poorly Drained: _____ % of site
f. Approximate proportion of proposed action site with slopes: <input type="checkbox"/> 0-10%: _____ % of site <input type="checkbox"/> 10-15%: _____ % of site <input type="checkbox"/> 15% or greater: _____ % of site
g. Are there any unique geologic features on the project site? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, describe: _____ _____
h. Surface water features. i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <input type="checkbox"/> Yes <input type="checkbox"/> No ii. Do any wetlands or other waterbodies adjoin the project site? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i. iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <input type="checkbox"/> Yes <input type="checkbox"/> No iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <ul style="list-style-type: none"> Streams: Name _____ Classification _____ Lakes or Ponds: Name _____ Classification _____ Wetlands: Name _____ Approximate Size _____ Wetland No. (if regulated by DEC) _____
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, name of impaired water body/bodies and basis for listing as impaired: _____ _____
i. Is the project site in a designated Floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No
j. Is the project site in the 100-year Floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No
k. Is the project site in the 500-year Floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Name of aquifer: _____

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p>_____</p> <p>_____</p>	
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>_____</p> <p>_____</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> <p>_____</p> <p>_____</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p> <p>_____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> <p>_____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District ii. Name: _____ iii. Brief description of attributes on which listing is based: _____	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? <input type="checkbox"/> Yes <input type="checkbox"/> No	
g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Describe possible resource(s): _____ ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Identify resource: _____ ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____ iii. Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> No	

F. Additional Information

Attach any additional information which may be needed to clarify your project.

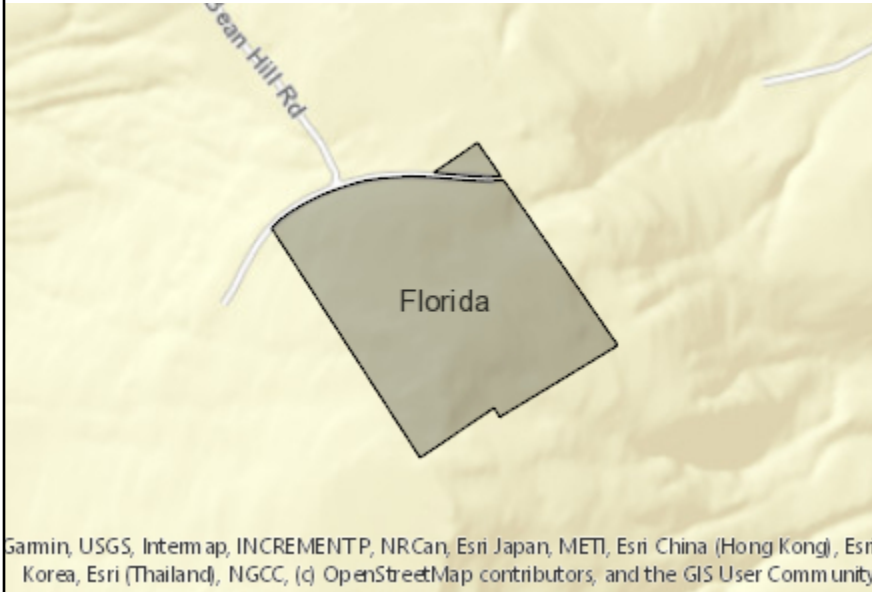
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name _____ Date _____

Signature  _____ Title _____



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas: Mohawk Valley Heritage Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	MONT003
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No



Decommissioning Plan

**153 YMCA Road Wind Energy Project,
Town of Florida, Montgomery County, NY**

Borrego Solar

July 21, 2021

GHD 337




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1. 153 YMCA Road Wind Project

1.1 Purpose of this report

This report summarizes the specific project components that will be removed, the costs associated with their removal and, where applicable, their associated salvage value. This report also provides overall unit costs (per turbine) for decommissioning the 153 YMCA Road Wind Project (Project).

1.2 Scope and limitations

This report: has been prepared by GHD for Borrego Solar and may only be used and relied on by Borrego Solar for the purpose agreed between GHD and Borrego Solar as set out in our Master Services Agreement.

GHD otherwise disclaims responsibility to any person other than Borrego Solar arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

1.3 System Description

The proposed Project is a wind energy facility located in the township of Florida, Montgomery County, New York. In general, the Project facilities will be comprised of one wind turbine, overhead and underground electrical collection system, access road, and associated facilities.

1.4 Decommissioning Sequence

Should the Project be decommissioned, the following facilities would require removal and the associated disposal of materials and equipment:

- Wind turbines
- Foundations
- Access roads
- Overhead and underground electrical system

2. Wind Turbines

2.1 Wind Turbine Decommissioning

Properly maintained wind turbines typically have a life expectancy of 20 to 25 years. At the end of the Project life, depending on market conditions and project viability, the wind turbines may be “re-powered” or upgraded with more efficient turbines and equipment. However, if not upgraded, or if the turbines are non-operational for an extended period of time (such that there is no expectation of their returning to operation), they will need to be decommissioned.

For the basis of this estimate, a Vestas Model V150, 4.3 MW turbine with a height of 105 meters (344 feet) was used for the calculation of unit weights for the salvage values of the equipment and materials. The turbine, along with the tower and associated components, will have resulting salvage values after decommissioning and removal of the units.

The major components of the wind turbines (tower, nacelle, hub and blades) are modular items that allow for ease of construction and disassembly during decommissioning or replacement. The tower is comprised of approximately 260 tons (236 metric tons) of painted steel structure. The hub is comprised of approximately 35 tons (31.7 metric tons) of cast iron/steel. Both the tower and the hub have the potential to be salvaged for scrap value. The nacelle has an overall unit weight of approximately 120 tons (108.5 metric tons) and is constructed of a combination of steel, copper, composite materials, and various other materials. Portions of the components within the nacelle and generators, along with overhead aluminum wires, have the potential to be salvaged for scrap value.

Scrap metal prices historically fluctuate with existing market conditions. The current salvage value for scrap #1 heavy melt steel (HMS) is approximately \$446.00 per US ton. Salvage values for #3 copper materials (CU 88 percent to 90 percent) currently average \$7,080 per US ton (\$3.55/lb.). Salvage values for aluminum wire currently average \$1.04 per pound. The salvage unit values for scrap steel, copper and aluminum are estimated based on current commodity prices. The commodity market prices used in the above estimate were obtained from Scrap Monster and various other sources, in July 2021 (July 2021 prices).

For the purpose of this decommissioning plan, it is assumed that the tower and nacelle will yield approximately 70 percent steel materials of which 75 percent of the available steel materials are adequate to process for salvage. Since the hub assembly is a cast iron/steel manufactured unit, it is anticipated that the hub assembly will yield 100 percent salvageable metallic materials. Copper salvage estimates were derived by assuming 10 percent of the total nacelle weight consists of copper bearing materials. Overhead aluminum power transmission wires would be salvaged. Since the construction of the rotor/blades are predominantly non-metallic materials (fiberglass reinforced epoxy and carbon fibers), no salvageable value for the rotor/blades were used in the decommissioning cost estimate. This is considered a conservative salvage estimate.

Based on the design of the wind farm incorporating one turbine, the total estimated steel salvage value for the tower, nacelle and hub assembly is estimated to be approximately \$100,350. The total estimated copper salvage value is estimated to be approximately \$85,000. The total estimated aluminum salvage value is estimated to be approximately \$130.

Petroleum, oils and/or lubricants (POL) contained in the wind turbine nacelle would require the removal and off-Site disposal during wind turbine decommissioning. Using currently estimated disposal costs, the costs anticipated for removal of POL from the nacelle and associated hauling fees to an approved off-Site disposal location, would be approximately \$1,000.00 for each wind turbine.

Based upon the anticipated total labor and equipment cost, including mobilization and demobilization, the estimated cost for dismantling of the turbines is outlined below. The cost estimate is based upon a two-day dismantling effort per turbine and included costs for a lift crane, secondary crane, mobilization, demobilization, and associated labor costs. The estimate includes the costs associated with the transport of the turbine components from the Site to a recycling facility.

Table 2.1 **Wind Turbine Decommissioning**

Turbine Decommissioning	Unit Cost	Unit
Mobilization to Site – Assume 1 day	\$31,000	Per Turbine
Turbine Removal/Dismantling	\$47,600	Per Turbine
Load/Transport Turbine Parts for Recycling	\$38,100	Per Turbine
Removal/Disposal of POL	\$1,000	Per Turbine
Total Estimated Cost for Turbine Removal	\$117,700	Total

3. Wind Turbine Foundations

3.1 Wind Turbine Foundation Decommissioning

The target removal depth of the foundation is required to be a minimum of 3 feet below grade for foundations located in non-agricultural lands and a minimum of 4 feet below grade for foundations located in active agricultural lands. For the purpose of this estimate, all foundations were calculated for removal to a depth of 4 feet to prevent interference with future farming activities. The estimated cost of removing each foundation includes the costs associated with mobilization, demolition, backfill and disposal of material, and final site restoration as shown in Table 3.1.

Table 3.1 Wind Turbine Foundation Decommissioning

Turbine Foundation Decommissioning	Unit Cost	Unit
Mobilization to Site – Assume 1 day	\$9,300	Per Foundation
Concrete Demolition – Assume 3 days per Foundation	\$12,600	Per Foundation
Disposal of Materials – Assume 1 day per Foundation	\$12,600	Per Foundation
Total Estimated Cost for Foundation Removal	\$34,500	Total

3.2 Wind Turbine Grounding System

The grounding system for each wind turbine consists of a grounding ring of copper cable that runs in a circle around the edge of the foundation near the foundation bottom. This ring connects several copper grounding rods driven into the ground around the perimeter of the foundation. A typical foundation is constructed so that the bottom of the spread footer is approximately 10 to 12 feet below grade (a typical depth used for example purposes only). The copper grounding ring would be approximately 12 feet below grade and the grounding rods would be installed so that their highest point is also 12 feet below grade. Because all of these components are more than 4 feet below grade, removal will not be required. Additionally, there is no recognizable benefit to removing these components. For these reasons, removal of the wind turbine grounding system is not part of this decommissioning plan.

4. Access Roads

4.1 Typical Access Road Construction Details

Based on preliminary data, a total of approximately 3,800 square yards of access road is included under this Project. The access road is approximately 1,700 feet long, 20 feet wide and 13 inches thick constructed of stone.

Typical access roads are constructed of a layer of geotechnical fabric and a final compacted course of gravel 13 inches in thickness. The actual details of construction have not been finalized at the time of this report and may be modified during final design of the Project.

4.2 Access Road Decommissioning

The decommissioning of the access road will involve the removal and transportation of the aggregate materials off site for separating the salvageable aggregate material. It is possible the local township may accept this material without processing for their use; however, for the purpose of this report, it is assumed that all materials will be removed and hauled to a reprocessing site within a 20-mile round-trip distance of the wind turbine. The decommissioning procedure will also include the removal and proper disposal of the geotextile fabric. It is assumed that a large amount of the

geotextile will be removed along with the aggregate and sorted at the off-site processing area to be disposed of in a nearby landfill. The estimate of access road decommissioning costs considers the current cost of hauling and excavation. The following unit price costs were used in the preparation of this estimate:

- Geotextile fabric removal (\$0.25 per square yard)
- Geotextile fabric disposal (\$150.00 per cubic yard)
- Gravel aggregate removal and hauling (\$17.90 per cubic yard)

The salvage value of the access road materials is based upon the following assumptions:

- 75 percent of the aggregate will be salvaged for reuse as aggregate base course gravel.
- Remaining material (25 percent) is suitable for general fill in non-structural fill areas.

Assuming the materials would be stockpiled at the process site and sold by the processor at a later date, the salvage values are as follows:

- Reprocessed aggregate to be used as base course (\$8.00 per cubic yard)
- Remaining aggregate and sand to be used as general fill (\$2.50 per cubic yard)

The only scenario that could offer a lesser cost to remove and salvage the aggregate would be disposal at a nearby site that needed inert fill. For the purposes of this estimate, no consideration has been given to this option since no suitable site has been identified for disposal of the material. The estimated costs for access road removal and disposal are presented in the Table 4.1.

Table 4.1 Access Road Decommissioning

Access Road Removal	Quantity	Unit Cost	Total Cost
Gravel Course Access and Utility Road Removed (CY)	1,385 CY	\$17.90 /CY	\$24,790
Geotextile Fabric Removal	3,800 SY	\$0.25/SY	\$950
Geotextile Fabric Disposal	3 CY ±	\$150.00/CY	\$450
Total			\$26,190
Use			\$26,200

Table 4.2 presents the estimated salvage values obtained from the removal (reclaimed) of aggregate materials.

Table 4.2 Aggregate Salvage Values Removed

Removed Aggregate Salvage Values	Quantity	Unit Salvage Value	Total Salvage Value
Gravel Aggregate Course (reused) (CY)	1,050 CY	\$8.00/CY	\$8,400
Aggregate (reprocessed as general fill) (CY)	335 CY	\$2.50/CY	\$838
Total			\$9,238
Use			\$9,300

5. Crane Pads

The crane pad will be constructed of gravel materials similar to the access road in the previous section and therefore, the quantities for decommissioning have been included above. All work for removal shall be conducted at the same time during decommissioning.

6. Overhead and Underground Electric

6.1 Wires and Poles Typical Installation

Power collection wires will be installed in a combination of underground and overhead on poles. Overhead will be removed during decommissioning, but because underground components are installed a minimum 4 feet below grade in agricultural areas, removal will not be required.

6.2 Overhead Wires and Poles Decommissioning

As a part of decommissioning of this project, all overhead wires will be removed and salvaged as necessary. Power poles will be cut off and removed off site for disposal or potential salvage during decommissioning of the project. For the purposes of this report, associated wire salvage values have not been included as they are negligible, and no salvage value was included for removed poles. The labor and equipment cost for the removal of poles and wires is estimated at \$5,000.

7. Earthwork and Topsoil Restoration

Once all the aboveground improvements and access roads are removed, the remaining work to complete the decommissioning of the site will consist of backfilling and grading the disturbed areas including the turbine foundation site and access roads. It is assumed that some existing materials and topsoil will be available at the site and reused on the site for restoration. It is estimated that approximately 1,350 cubic yards of material will be imported from off-site sources to supplement the fill available on the site for final site restoration. The estimated decommissioning cost for earthwork restoration is presented in Table 7.1.

Table 7.1 *Earthwork and Topsoil Restoration*

Description	Quantity (CY)	Cost (per CY)	Total Cost
Earthwork Fill Materials	1,350	\$13	\$17,550
Topsoil Materials	250	\$18	\$4,500
Total			\$22,050
Use			\$22,100

8. Summary of Decommissioning Costs

This estimate was developed using the various cost resources listed below:

- R.S. Means
- GHD historical data
- Vendor quotes (where applicable)
- Current/historic commodity prices
- Estimator judgment

The following is a summary of the total cost of decommissioning the turbine:

Decommissioning Costs – 1 Each Vestas Model V150, 4.3 MW Wind Turbine	
Turbine Removal (included removal/disposal of POL in nacelle)	\$117,700
Turbine Foundation Removal	\$34,500
Access Road Removal	\$26,200
Electrical Removal	\$5,000
Earthwork and Topsoil Restoration	\$22,100
Total Decommissioning Costs	\$205,500
Salvage Value – Wind Turbine	
Steel Salvage Value	\$100,350
Copper Salvage Value	\$85,000
Aluminum Salvage Value	\$130
Aggregate Salvage Value	\$9,300
Total Salvage Value	(\$194,780)
Salvage Value Net Decommissioning Costs	
Total Value	\$10,720
Value per Turbine Use	\$11,000



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