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 project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Ball Hill Wind Energy Project		
Project Location (describe, and attach a general location map): Towns of Villanova and Hanover, Chautauqua County, NY (see attached mapping)		
Brief Description of Proposed Action (include purpose or need): The Proposed Action modifies the previously approved Ball Hill Wind Energy Project (which consists of 29 wind turbines, associated electrical collection and transmission lines, access roads and related wind energy facilities which include an operations and maintenance facility) by increasing the total maximum permissible height of all 29 wind turbines from ±495 feet to ±599 feet, the minor relocation of three (3) wind turbines (less than 135ft), and replacement of the ±5.7-mile overhead 115kV transmission interconnection circuit and associated collector substation with ±5.0 miles of four (4) predominantly underground 34.5kV circuits. The locations of twenty-six (26) of the wind turbines remain unchanged as does the substation for interconnection with the existing 230 kV transmission line. The proposed height increase is necessary to increase the efficiency and capacity of the wind turbines allowing for production of the most electricity within the same project footprint. Replacement of the overhead lines with underground cables will minimize visual, wetland, noise and agricultural impacts from the previously proposed 5.7-mile transmission line, which included the proposed used of approximately 80-foot-high poles and an additional substation. These changes will require the amendment of the Town of Villenova and Town of Hanover Zoning Laws to increase the maximum permitted height to accommodate the proposed wind turbines and modification of the previously established Wind Overlay Zone Districts and previously issued special use permits from the Town of Villenova and the Town of Hanover.		
Name of Applicant/Sponsor: Ball Hill Wind Energy, LLC	Telephone: E-Mail:	
Address: 11101 W. 120th Avenue, Suite 400		
City/PO: Broomfield	State: Colorado	Zip Code: 80021
Project Contact (if not same as sponsor; give name and title/role): Mark Lyons, Senior Manager	Telephone: 860 388 7730 E-Mail: mark.lyons@res-group.com	
Address: 455 Boston Post Road, Suite 206		
City/PO: Old Saybrook	State: Connecticut	Zip Code: 06475
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 Council, Town Board, or Village Board of Trustees ☑Yes ☐No	Amendment to Special Use Permit	June 2018
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	see Part F for additional details	
c. City Council, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☑No		
e. County agencies ☑Yes ☐No	Review	
f. Regional agencies ☐Yes ☑No		
g. State agencies ☐Yes ☑No		
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑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?
See Part F for additional details

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? Forestville, Pine Valley and Silver Creek Central School Districts

b. What police or other public protection forces serve the project site?
New York State Police, Chautauqua County Sheriff.

c. Which fire protection and emergency medical services serve the project site?
Hanover- Fire District 42, Forestville- Fire District 5

d. What parks serve the project site?
n/a

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)? Wind Energy Conversion Facility

b. a. Total acreage of the site of the proposed action? 10,496 +/- acres
b. Total acreage to be physically disturbed? 600 +/- acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 10,496 +/- 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 proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 10 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? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ 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? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ 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? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☑ Yes ☐ No

If Yes:

i .What is the purpose of the excavation or dredging? Installation of turbine foundations, access roads, and electric collection lines

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): see Part F for additional information
- Over what duration of time? 10 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

see Part F for additional information

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☑ Yes ☐ No

If yes, describe. see Part F for additional information

_____

v. What is the total area to be dredged or excavated? see Part F for additional information acres

vi. What is the maximum area to be worked at any one time? see Part F for additional information acres

vii. What would be the maximum depth of excavation or dredging? 10 feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan: _____

see Part F for additional information

_____

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? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): see Part F for additional information

_____

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:
see Part F for additional information

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

iv. Will 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), 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

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☐No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

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):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

_____

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? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. see Part F for additional information

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)?

see Part F for additional information

- If to surface waters, identify receiving water bodies or wetlands: see Part F for additional information
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

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? ☐Yes ☑No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

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? ☐Yes ☑No

If Yes:

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) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

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? ☑Yes ☐No

If Yes:

see Part F for additional information

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☑ Randomly between hours of 7AM to 5PM.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

see Part F for additional information

_____

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☑No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

see Part F for additional information

i. During Construction:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:
see Part F for additional information

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No
Describe: see Part F for additional information

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:
see Part F for additional information

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No
Describe: see Part F for additional information

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No
If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

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? ☑ Yes ☐ No

If Yes:

i. Product(s) to be stored Mineral oil in transformers and turbines. See Part F for additional information

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: see Part F for additional information

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☑ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):
Herbicides may be used for vegetation control at the substation location. See Part F for additional information

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☑ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- 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 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.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☑ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:
see Part F for additional information

_____

_____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	see Part F		
• 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: _____ _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

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? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

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? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

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? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

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? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☐ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- 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? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >6 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: see Part F _____%
_____%
_____%

d. What is the average depth to the water table on the project site? Average: +/- 3 feet

e. Drainage status of project site soils:
☑ Well Drained: +/-14 % of site
☑ Moderately Well Drained: +/-36 % of site
☑ Poorly Drained +/-50 % of site
see Part F for additional information

f. Approximate proportion of proposed action site with slopes:
☐ 0-10%: _____% of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site
see Part F for additional information

g. Are there any unique geologic features on the project site? ☐ Yes ☑ 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)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, 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? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name see Part F for additional information 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? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: see Part F

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

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? ☑ Yes ☐ No

See Part F for additional information

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? ☐ Yes ☑ No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☑ Yes ☐ No

If yes, give a brief description of how the proposed action may affect that use: The area is generally used for recreational

E.3. Designated Public Resources On or Near Project Site

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? ☑ Yes ☐ No

If Yes, provide county plus district name/number: Chautauqua County District 5 (CHAT005) and District 10 (CHAT010)

b. Are agricultural lands consisting of highly productive soils present? ☑ Yes ☐ No

i. If Yes: acreage(s) on project site? See Part F for additional information

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ 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? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): see Part F for additional information

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Boutwell Hill State Forest and Canadaway Creek Wildlife Management Area. See Part F for additional details.

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? ☐ Yes ☑ 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? ☐ Yes ☐ 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_____

PRINT FORM

Full Environmental Assessment Form
Ball Hill Wind Energy Project
Modification of Special Use Permits and Height Restrictions
Towns of Villenova and Hanover, Chautauqua County, NY

Section F. Additional Information

The following supplements and expands upon the information provided in the Full Environmental Assessment Form (FEAF) – Part 1 completed for the Ball Hill Wind Energy Project. The Project has been described in detail previously in the DEIS (2008), SDEIS (2016), FEIS (2016) and SEQRA Statement of Findings (2016) that were developed by the Applicant and the Lead Agency. The information provided herein represents a discussion of substantive changes to the information arising from the proposed modifications to the Project.

A. Project Purpose and Need

The Proposed Action modifies the previously approved Ball Hill Wind Energy Project (which consists of 29 wind turbines, associated electrical collection and transmission lines, access roads and related wind energy facilities which include an operations and maintenance facility) by increasing the total maximum permissible height of all 29 wind turbines from 495 feet to a maximum of 599 feet, the minor relocation of three (3) wind turbines (less than 135' from their approved locations), and replacement of the ±5.7-mile overhead 115kV transmission interconnection circuit and associated Collection Substation with ±5.0 miles of four (4) predominantly underground 34.5kV circuits. The locations of twenty-six (26) of the wind turbines remain unchanged, as does the substation for interconnection with the existing 230 kV transmission line.

The proposed height increase is necessary to increase the efficiency and capacity of the wind turbines allowing for production of the most electricity within the same project footprint. Replacement of the overhead lines with underground cables will minimize visual, wetland, noise and agricultural impacts from the previously proposed 5.7-mile transmission line, which included the proposed use of approximately 80-foot-high poles and an additional substation. These changes will require the amendment of the Town of Villenova and Town of Hanover Zoning Laws to increase the maximum permitted height to accommodate the proposed wind turbines, and modification of the previously issued special use permits from the Town of Villenova and the Town of Hanover.

B. Government Approvals

Discretionary approvals may include the following:

Town of Villenova: Amendment to Special Use Permit and Local Law Amendment
Town of Hanover: Amendment to Special Use Permit and Local Law Amendment
County of Chautauqua Planning Board: Review and Referral

C. Planning and Zoning

C.3. Zoning

The zoning laws for both the Town of Villenova and the Town of Hanover regulate wind energy facilities and were discussed in the DEIS (Section 2.23), SDEIS (Section 2.12), and SEQRA Statement of Findings (pp. 24-32) for the Project. The proposed action seeking amendment of the maximum permitted height regulations in both the Villenova and Hanover Zoning Laws to allow for a height increase of 104 feet to accommodate the proposed wind turbines.

D. Project Details

D.2. Project Operations

D.2.a Excavation

Each wind turbine would permanently occupy a round foundation base that is approximately 78 feet in diameter, only a portion of which would be exposed. Preparation of each turbine site for installation of spread footer foundations would involve excavation of surface materials to a depth of approximately 10 feet. After excavation is complete, concrete would be spread on the bottom of the excavation to level it in preparation of the rebar installation. After the rebar, steel and a turbine bolt cage would be installed, and the concrete placed for the foundation and turbine pedestal. Each foundation would utilize approximately 625 cubic yards of concrete and rebar steel. The final design of each foundation will be submitted with the building permit application for each turbine site.

Additional details relative to Project construction can be found in section 1.2.2 of the DEIS and 1.3.3 of the FEIS.

D.2.b Wetlands and Waterbodies

While the proposed turbine height increase will not result in changes to the wetland and waterbody impacts discussed in the SDEIS and FEIS, the layout changes resulting from the minor shift of T8 will result in avoidance of approximately 408 square feet of temporary impacts to Wetland Q1, a palustrine scrub-shrub (PSS) wetland. However, the revised limits of disturbance for T8 now encroaches on a small portion (566 square feet [.013 acres]) of Wetland A653, a Palustrine Emergent wetland (PEM). This increase in impact, 166 square feet, is de minimis and is offset by the significant decrease in impacts resulting from the transmission line modifications described below.

The replacement of the 115kV overhead transmission line with four circuits of collection that will be installed predominantly underground will result in a significant decrease in the wetland impacts discussed in the SDEIS, FEIS, and SEQRA Statement of Findings. The decrease is the result of the elimination of a portion of the right-of-way southwest of T35, the realignment of a portion of the right-of-way between Dennison Road and the Interconnection Substation, and the planned directional bore under the forested portions of NYSDEC Freshwater Wetland SC-12 and SC-13. Table 1 presents the changes in the impacts resulting from the construction of transmission and substation facilities since the SDEIS.

The route and installation modifications have resulted in a 6.52 acre decrease in the temporary wetland impacts, an approximately 50% reduction in the impacts previously anticipated from the

electrical corridor connecting the Project to the Interconnection Substation. This reduction includes avoidance of more than 3 acres of forested wetland conversion, of which 2.8 acres are NYSDEC jurisdictional.

The reroute between Dennison Road and the Interconnection Substation was facilitated by the change from overhead to underground construction. Previously the overhead 115kV transmission line was routed to minimize permanent impacts to active agricultural land from the placement of pole structures, which resulted in additional wetland impacts. As the installation of underground electrical lines only temporarily impacts agricultural activities during the construction season, the alignment was modified allowing for minimization of impacts to several large NYSDEC Freshwater Wetlands. This change, coupled with the proposed directional bore, resulted in a decrease in impacts to NYSDEC Freshwater Wetlands SC-12 and SC-12 from 5.9 acres of temporary disturbance to 0.55 acres. It also eliminated all 2.82 acres of impacts resulting from the permanent removal of trees in these wetlands. In addition, the impacts to the 100-foot regulated adjacent areas decreased from 3.33 acre to 1.97 acres and an additional 1.55 acres of adjacent area tree removal was avoided. As proposed, the 0.55 acres of temporary impacts are limited to portions of the Freshwater Wetlands located within active or fallow agricultural fields.

A Joint Application for Permit describing the proposed Project impacts, including the removal of the overhead transmission line, and mitigation was submitted to the USACE and NYSDEC in May 2017, copies of which were provided to the towns of Villanova and Hanover. An addendum describing the minor changes associated with the shifting of the three turbines will be provided in June 2018. Ball Hill is in discussion with the USACE to determine a final mitigation plan to address the proposed impacts. It is anticipated that final permits will be received in Fall 2018.

Table 1
Transmission Line and Substation Wetland Impacts

Document	Total Construction Disturbance (acres)	Ground Disturbance and Placement of Fill Impacts in all Wetlands		Forested Wetland Impacts		
		Placement of Fill (acres)	Temporary Ground Disturbance and Temporary Placement of Fill (acres)	Permanent Impacts due to Permanent Forest Conversion (acres)	Temporary Forest Conversion	Emergent and Scrub/Shrub Wetlands Allowed to Revert to Their Natural State
SDEIS	10.44	1.02	9.42	3.17	0.00	6.24
FEIS	13.44	0.00	13.44	6.13	0.00	7.31
June 2018 Amendment	6.92	0.00	6.92	3.03	0.00	3.89
Change from FEIS	(-6.52)	0.00	(-6.52)	(-3.10)	0.00	(-3.42)

D.2.e Stormwater

The proposed modifications to the Project will not result in significant changes to the potential impacts from stormwater runoff that were described in the DEIS, SDEIS, and FEIS. The removal of the Collection Substation results in a decrease of approximately 1 acre of graveled surface. A draft Stormwater Pollution Prevention Plan (SWPPP) was provided in Appendix E of the FEIS. This document will be updated prior to construction to reflect the final design changes, and authorization under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002) will be obtained from NYSDEC.

D.2.j Traffic

The proposed modifications to the Project may result in an increase in construction related traffic. The Transportation Study provided in Appendix M of the FEIS assumed approximately 1,392 truckloads of concrete would be necessary to complete the foundations for the 29 turbines. Given the larger turbine requires a larger foundation, it is anticipated that 1,812 truckloads will be needed (assuming 10 yards per trip) which represents an additional 420 truckloads (approximately 14 additional trips per turbine).

As discussed in Section 2.11 of the SDEIS and in the SEQRA Statement of Findings, construction related traffic will be limited to the hours allowed in the local laws. In addition, Ball Hill will manage construction traffic in accordance with its road use agreements, which designate approved routes as well as provide a commitment to repair and/or improve roadways utilized by the Project.

D.2.l Hours of Operation

D.2.m Noise

The comprehensive sound level assessment report prepared for the Project on October 4, 2016 (Sound Report) and incorporated in the FEIS was revised October 23, 2017 to assess the sound level effects of the turbine changes and elimination of Collection Substation proposed herein (Revised Sound Modeling Memo, see Appendix F of the Application). A summary of the changes in A-weighted L_{10} sound power levels at the 769 receptor points studied for the Project in the Sound Report is presented in Table 2.

Table 2
Change in A-weighted L_{10} Sound Power Levels

Sound Level Change	Number of Receptor Points	Resulting Sound Level
No Change	589	
Quieter	161	
+1db	17	≤26db (16 points); 36db (1 point)
+2db	2	22db

With the proposed changes, the Project remains fully compliant with all applicable noise restrictions in Town local laws.

D.2.n Outdoor Lighting

Pursuant to Federal Aviation Administration (FAA) requirements, all 29 WECS will include hazard lighting. This is required as all twenty-nine (29) proposed WECS have received a Determination of No Hazard from the FAA, each of which is conditioned on the obstruction marking and lighting condition of white paint and synchronized red lights. Copies of all FAA Determinations of No Hazard are provided in Appendix I of the Application. There will be no lights during the day. There will be red flashing lights during the night, designed at a minimum intensity and duration of time with an illumination pattern that will primarily be directed upward, as recommended by the FAA

As described in the FEIS (FEIS; Table 2.4-1) lighting at the substation and O&M facility will consist of manually activated full-cutoff exterior lighting and temporary work lighting, with no drop-down optics. During normal operations, the substation will not be lit except as required for site security and/or as required by federal, state, or local agencies. Routine maintenance work at the substation is expected to occur during daylight hours; however nighttime work (requiring lighting) may be required in an emergency or for reliability reasons. Elimination of the Collection Substation will result in a decrease in the anticipated light sources from the Project.

D.2.p Bulk Storage of Petroleum

Sources of oil could include the main power transformer, gear oils, and hydraulic fluids located in the turbines, and any oil or fuel storage as part of construction. As discussed in the DEIS, SDEIS, and FEIS, Ball Hill will develop and implement a construction spill prevention and control (SPCC) plan prior to construction. In addition, prior to operation of the Project, Ball Hill will develop an operational SPCC plan, pursuant to 40 Code of Federal Regulations (CFR) Part 112, because the volume of oil stored on site would be greater than 1,320 gallons. Ball Hill general policies for the implementation of environmental monitoring practices are included in the Environmental Monitoring Plan in Appendix S of the FEIS.

D.2.q Use of Pesticides

As noted in the SEQRA Statement of Findings (pp. 81), the application of herbicides and pesticides is not anticipated, except for within the fenced substation enclosure. The elimination of the Collection Substation, as well as most of the overhead lines, has minimized the potential areas that herbicides may be used.

E. Site and Setting of Proposed Action

E.1.a Existing Land Uses

The proposed modifications to the Project do not result in any substantive changes to the existing land uses described in the DEIS, SDEIS, and FEIS.

E.1.b Land Use and Covertypes

The proposed modifications to the height of the proposed turbines and the minor shifts of three turbines do not result in any substantive changes to the existing land uses described in the DEIS, SDEIS, and FEIS.

The replacement of the 115kV overhead transmission line with four circuits of predominantly buried electrical lines will result in a minor decrease in the amount of tree clearing necessary and a slight increase in the acreage of agricultural lands crossed by the Project. The realignment of the right-of-way that was facilitated by the change from overhead to underground, as well as the directional bore under the NYSDEC wetland, decreases the proposed tree clearing necessary for the project by approximately 7 acres. The realignment will result in approximately 3.7 acres (approximately 2,000 linear feet) of additional impacts to agricultural land. However, unlike the placement of poles and guy wires, these impacts will be temporary and limited to the duration of construction and restoration. As described in the SEQRA Statement of Findings (pp. 22), activities within agricultural fields will be conducted in accordance with applicable NY State Department of Agriculture and Markets (NYSDAM) guidelines to the greatest extent practicable, and in accordance with Town approvals and landowner input. It should be noted that NYSDAM has

indicated a strong preference for underground placement of electrical collection wires within agricultural fields.

E.1.h. Potential Contamination History

Ball Hill is unaware of any sources of contamination exist near Project facilities. A Phase I Environmental Site Assessment will be completed as part of Project to identify any possible environmental concerns."

E.2. Natural Resources on or Near Project Site

E.2.c-f Soils

See DEIS (Section 2.3), SDEIS (Section 2.2), and FEIS (Section 1.4.2) for a detailed discussion of soil types that occur within the Project Area.

E.2.h Surface Water Features

The proposed modifications to the Project will not result in a substantive change the surface water bodies discussed in the DEIS, SDEIS, nor FEIS.

E.2.m Wildlife

Section 2.9.3 of the DEIS, 2.5 of the SDEIS, and various comment responses within the FEIS describe the wildlife that occur within the Project Area. The proposed Project modifications do not result in substantive changes to these discussions.

Please see the Additional Information section below for a discussion of the potential effects on bird and bat species resulting from the proposed Project modifications.

E.2.o Threatened and Endangered Species

Section 2.9.3.2 of the DEIS, 2.5 of the SDEIS, and various comment responses within the FEIS address the potential for occurrence and impacts to non-avian and bat threatened and endangered species. The proposed Project modifications do not result in substantive changes to these discussions.

Please see the Additional Information section below for a discussion of the potential effects on bird and bat species resulting from the proposed Project modifications.

E.3. Designated Public Resources on or Near Project Site

E.3.a-b Agricultural Land

The Project is located in two Chautauqua County Agricultural Districts: District 5 (CHAT005) and District 10 (CHAT010). While the modification to the collection line right-of-way north of Dennison Road will involve additional active agricultural land, it is generally located within the same mapped soil types as the previous route. These soils have been identified as Prime Farmland, Prime Farmland if drained, and Farmland of Statewide Importance.

As discussed previously, the realignment will result in approximately 3.7 acres (approximately 2,000 linear feet) of additional impacts to agricultural land. However, unlike the placement of poles and guy wires, these impacts will be temporary and limited to the duration of construction and restoration. As described in the SEQRA Statement of Findings (pp. 22), activities within agricultural fields will be conducted in accordance with applicable NY State Department of Agriculture and Markets (NYSDAM) guidelines to the greatest extent practicable, and in accordance with Town approvals and landowner input. It should be noted that NYSDAM has indicated a strong preference for underground placement of electrical collection wires within agricultural fields.

E.3.e-f Cultural Resources

Archaeological

On May 25, 2018 Panamerican Consultants, Inc (Panamerican) sent correspondence to the NYS Historic Preservation Office (SHPO) which described the proposed Project modifications, noted that they constitute a reduction in proposed Project disturbance area, and requested concurrence with their findings that no additional impacts to archaeological resources will occur. On May 29, 2018 Ball Hill received correspondence from the SHPO concurring with Panamerican's findings and indicating that no additional archaeological investigations are required. This correspondence is provided in Appendix G of the application.

Architectural

On June 5, 2018 Panamerican issued a letter summarizing the results of its review of any potential additional impacts to historic structures that might result from the modified viewshed associated with the proposed Project changes. This letter states: "The revised viewshed map documenting minimal increase in the positive viewshed and the [Saratoga Associates] report concludes that it is not anticipated that the adjustments (turbine model and layout) will significantly change the appearance of the previously approved Project layout, or its impacts on historic structures. This recommendation will be submitted to the New York SHPO for their confirmation and concurrence."

E.3.h Scenic and Aesthetic Resources (Visual Impacts)

In February 2018, Saratoga Associates completed a Technical Memorandum which analyzed the potential for additional impacts resulting from the proposed modifications (see Appendix E of the application). The review found that the increase in turbine height would result in the following:

- The Project screening would decrease by approximately 1.1% (from 67.7% to 66.6%) within the five-mile study area utilizing the vegetated viewshed mapping. However, this increase in visibility would be further mitigated by localized conditions such as landscaping, hedgerows, and structures.
- Within the 33.4% of the study area where the Project is visible, the increase in height has increased the area where 26-29 turbines will be visible by 2.2% (approximately 2,200 acres).
- A review of potential sensitive resources indicates that one additional resource, the Hamlet of Balltown, would potentially have the view of one turbine.

- A review of resources of Statewide Significance indicates that the Project would remain not notably visible at either Boutwell Hill State Forest or Canadaway Creek Wildlife Management Area.
- The Project previously anticipated having 22 of 29 turbines fitted with FAA lighting. Given the increase in height all 29 turbines will require lighting. However, as the previously lit turbines were located around the perimeter of the site, the increase in the area where lit turbines will be visible is relatively small (approximately 2%, from 28.1% to 29.6%)
- The increased height will result in an increase in the number of receptors potentially receiving 10-20 and 30+ hours of shadow flicker per year. In total, 35 receptors may exceed 30 hours of shadow flicker (an increase of 13 from 2016). The increases are:
    - 10-20 hrs/yr: 5 additional receptors (+2.1%)
    - 30-40 hrs/yr: 2 additional receptors (+0.8%)
    - 40+ hrs/yr: 11 additional receptors (+4.5%)

It should be noted that in the Statement of Findings issued for the Project, the Lead Agency found that the shadow flicker analysis is considered to present a worst-case scenario, and that it is anticipated that the number of hours per year that some receptors will experience shadow flicker will be less than modeled.

While the increase in turbine height has resulted in minor increases to the potential visual impacts from the proposed Project, the replacement of the overhead 115kV overhead transmission line with a 34.5kV collection system installed predominately underground has resulted in decreased impacts to residences along the proposed transmission corridor.

Mitigation for the visual effects of the proposed Project were described in Section 2.7 of the SDEIS, Appendix I of the FEIS, and contemplated by the Lead Agency in the Statement of Findings (pp. 149-155).

Additional Information

Effects on Bird/Bats from Increased Tower Height

There is an increase in overall Project rotor sweep area of approximately 667,535 square feet with the change to 29 taller turbines. This is the equivalent of adding the sweep area of approximately five more turbines at the previously proposed dimensions. This is a ~17% increase in rotor sweep for the entire project. The maximum blade tip height at the new proposed turbines would increase 104 feet from 495 feet to 599 feet above ground level (agl). The minimum blade tip height at these turbines would rise by 58 feet, going from a previous height of 78 feet agl to 136 feet agl. These changes in dimensions and sweep area have been reviewed for possible changes in the potential impacts on bird and bat resources from those previously identified in the FEIS (Appendix H-1).

In the FEIS, the approximate number of bird and bat fatalities for the Ball Hill Wind project were estimated on a per-turbine and per-megawatt (MW) basis. The minimum and maximum per-turbine and per-MW rates from post-construction mortality monitoring studies in New York were used to establish a range of potential bird and bat fatalities. There are many differences in the post-construction mortality monitoring studies conducted in New York, including turbine height and turbine rotor sweep. The range of New York study

results are within the North American range of study results and provide reasonable estimates of bird and bat fatalities from collision for a project in New York. As the number of turbines and total MWs proposed for the Ball Hill Wind project are unchanged, there are no changes to these fatality estimate calculations. The approximate fatalities in the FEIS ranged from 19 to 563 birds per year and 20 to 1,630 bats per year. Ball Hill's plan to voluntarily reduce operations during the times of increased bat risk will result in lower mortality than the sites previously studied that did not employ similar operational reductions.

Taller turbines and more overall rotor sweep in the Project area could result in some slightly higher fatality rates than the previous proposed turbines. Most nocturnal songbird migration occurs between 400 feet agl and 2,000 feet agl. With turbines that are 104 feet taller and now reaching to 599 feet agl, more nocturnal bird migrants than previously may encounter the risk of turbine collision. Most diurnal bird flight occur below 500 feet agl, and with the lower reach of the rotors 42 feet higher than previously proposed, there could be slightly fewer bird collisions with the turbines in the daytime.

Potential changes are less clear for bats, but the current consensus is that taller turbines serve as a greater attractant to bats, perhaps being viewed as "taller trees" and from greater distances, and thus pose increased risk of collision. Similar to diurnal bird flight, the 58 feet of more open-air space from the ground could benefit some bat species that tend to fly closer to the ground when foraging. Even with taller turbines and more rotor swept area, it is not anticipated that fatalities to birds and bats would fall outside of the minimum and maximum rates from other studies in New York, as identified in the FEIS.

As part of the Article 11 permitting process, Ball Hill is coordinating with NYSDEC to develop a plan to mitigate for the potential incidental take of Northern Long Eared Bats (NLEB) which is listed as Threatened by both the State and Federal governments. While the details of this mitigation are not yet final, it will include periodic adjustments to the cut-in speed of the WECS as well as other components which will result in net positive benefits to the species. The final mitigation plan will be provided to the Town upon completion.