BEFORE THE STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

APPLICATION OF CAPE VINCENT WIND POWER, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED TO CONSTRUCT AN APPROXIMATELY 200-285 MEGAWATT WIND ELECTRIC GENERATING FACILITY IN THE TOWN OF CAPE VINCENT, NEW YORK

CASE 12-F-0410

COMMENTS OF NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ON THE PRELIMINARY SCOPING STATEMENT FILED BY CAPE VINCENT WIND POWER, LLC

Dated: April 18, 2013

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INTRODUCTION

Pursuant to 16 NYCRR § 1000.5(g), the New York State Department of Environmental Conservation ("DEC") submits the following comments on the Preliminary Scoping Statement ("PSS") filed on March 29, 2013 by Cape Vincent Wind Power, LLC ("CVWP" or "Applicant") with respect to the proposed Cape Vincent Wind Farm ("CVWF") - a major electric wind generating facility. Pursuant to PSL Article 10 § 166(1)(b), DEC is a party to this proceeding and filed a Request for Party Status with the Secretary on April 18, 2013.

OVERVIEW

In DEC's opinion, and as evidenced below, the PSS filed by CVWP is not in the form that it will appear in the application – making review difficult; and although replete with redundancies, is also lacking in reasonably available and necessary information, while containing a host of items needing further clarification. The PSS does not contain any Exhibits using the numbering system in the regulations, but rather uses its own alphabetic nomenclature with subparts, repeating some of the same information and statements from section to section. It also appears to DEC that the PSS is, for the most part, very general in nature, lacking in specificity of important local elements to this particular project, and devoid of "as much information as is reasonably available concerning the proposed facility". Many of the Applicant's responses to comments and questions raised during consultations remain unanswered, or simply state that they will be addressed in the application. Clearly, the PSS is not in compliance with either the intent or spirit of the requirements of 16 NYCRR § 1000.5 especially Subsection (l)(1 through 8), which are intended to allow for a meaningful discussion between the Applicant, the public, affected agencies, and other stakeholders toward development of the Application.

PSS REQUIREMENTS

The PSS is a requirement of PSL §163, and 16 NYCRR §1000.5, which provide that the PSS must contain, as much information as is reasonably available concerning the proposed facility, generally in the form (though in less detail) that it will appear in the application; and a brief discussion, on the basis of available information, of all of the following items:

1. description of the proposed facility and its environmental setting;
2. potentially significant adverse environmental and health impacts resulting from the construction and operation of the proposed facility in the environmental setting;
3. a responsive analysis as to those issues identified in consultations with the public, affected agencies, and other stakeholders;
4. proposed studies or program of studies designed to evaluate potential environmental and health impacts, including, for proposed wind-powered facilities, proposed studies during pre-construction activities and a proposed period of post-construction operations;
5. proposed and ongoing studies monitoring for potential impacts to avian and bat species, both preconstruction and post-construction;
6. measures proposed to minimize environmental and health impacts or to mitigate those impacts which are not reasonably avoidable;
7. where the proposed facility intends to use petroleum or other back-up fuel for generating electricity, a discussion and/or study of the sufficiency of the proposed on-site fuel storage capacity and supply;
8. a preliminary analysis of the consistency of the proposed facility with the enforceable policies of the New York State coastal management program or local waterfront revitalization program;

9. reasonable alternatives to the facility that may be required by PSL § 164(i), i.e.
    a. a description and evaluation of reasonable and available alternate locations to the proposed facility, if any;
    b. a description of the comparative advantages and disadvantages as appropriate; and
    c. a statement of the reasons why the primary proposed location and source, as appropriate, is best suited, among the alternatives considered, including a "no action" alternative, to promote public health and welfare, including the recreational and other concurrent uses which the site may serve;

    provided that the information required shall be no *more* extensive than required under Environmental Conservation Law ("ECL") Article 8 - Environmental Quality Review aka SEQRA;
10. identification of all other state and federal permits, certifications, or other authorizations needed for construction, operation or maintenance of the proposed facility;
11. an identification of all other State and Federal permits, certifications, or other authorizations needed for construction, operation or maintenance of the proposed facility;
12. a list and description of all State laws and regulations applicable to the construction, operation or maintenance of the proposed facility and a preliminary statement demonstrating an ability to comply;
13. a list and description of all local laws, and regulations applicable to the construction, operation, or maintenance of the proposed facility and a statement either providing a preliminary assessment of an ability to comply or indicating specific provisions that the applicant will be requesting the board to elect not to apply, in whole or in part, and a preliminary explanation as to why the board should elect not to apply the specific provisions as unreasonably burdensome

in view of the existing technology or the needs of or costs to ratepayers whether located inside or outside of such municipality;

14. a description of the applicant, its formation, status, structure, holdings, affiliate relationships, powers (including whether it has or will seek to obtain the power of eminent domain, either directly or indirectly), franchises and consents;
15. a description of the applicant's property rights and interests or those it proposes to acquire to all lands of the proposed facility and any private or public lands or private or public streets, highways or rights-of-way crossed by any interconnections necessary to serve the facility such as, but not limited to, electric lines, gas lines, water supply lines, waste water or other sewage treatment facilities, communications and relay facilities, access roads, rail facilities, or steam lines;
16. any other information that may be relevant, material issues raised by the public and affected agencies and the applicant's response thereto, or that the Siting Board may require.

SUMMARY OF DEC REVIEW

DEC's CVWF review team, including Region 6 Natural Resources Staff (Fisheries, Wildlife, and Habitat) which has experience reviewing wind projects in the Region, reviewed CVWP's PSS and is providing the following comments and recommendations. In doing so, the review team also evaluated the provided Cape Vincent Wind Farm documentation with careful consideration of the ECL (available at: http://public.leginfo.state.ny.us/) as it applies to DEC's mission to "*conserve, improve, and protect New York State's natural resources and environment and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being*" (http://www.dec.ny.gov/24.html).

According to the PSS, Cape Vincent Wind Power, LLC is a New York limited liability company, *currently* a wholly-owned subsidiary of BP Wind Energy North America Inc., ("BP Wind Energy") a Delaware corporation with headquarters in Houston, Texas. BP Wind Energy is an indirect, wholly-owned subsidiary of BP p.l.c. ("BP"), a company organized under the laws of England and Wales with international headquarters in London, U.K. BP Wind Energy has interests in 16 wind farms in 9 states worth $5 billion and having a gross generating capacity of nearly 2,600 MW. However, five days after filing the PSS, it was reported that "Conglomerate BP says it will divest its U.S. wind portfolio - more than 2.6 GW of installed capacity - in order to focus on its core oil and gas business…According to a company spokesperson, the company's portfolio also includes projects in various stages of development, including an additional 2 GW of projects that are nearly shovel ready." http://www.nawindpower.com/e107_plugins/content/content.php?content.11326 (see also http://invezz.com/analysis/energy/is-the-sun-setting-on-renewable-energy-investment) How such a divestment will affect CVWP and the project, and whether BP considers CVWF "shovel ready" is not yet known.

In the PSS, CVWP relies heavily on studies that were designed and conducted for two separate previously proposed projects in this general area: the original Cape Vincent Wind Energy Project ("CVWEP") and the St. Lawrence Wind Farm ("SLWF"), which were each markedly smaller. Both of these previous projects area had smaller turbines with less of a rotor-swept area (e.g. the newly proposed CVWF is considering using turbines – as yet unknown or unidentified - that have a rotor swept area up to 72.48% larger than the original SLWF (121,921.97 sq. ft. versus 70,685.775 sq. ft.) and 44.29% larger than the original CVWEP (121,921.97 sq. ft. versus 84,496.205 sq. ft.). Furthermore, the overall layout for the newly proposed CVWF is similar but altered from the combined layout of the two former

projects. The overall rotor swept area (number of turbines x the individual turbine rotor swept area) for the CVWF is about 30% larger than what was proposed in the two former projects (15,118,323.82 sq. ft. versus 10,702,656 sq. ft.).

DEC is still awaiting maps from CVWP depicting the total Project layout (e.g. tower locations, interconnection lines, transmission lines, buildings, roads, temporary construction areas, state lands, stream and wetland crossings … etc.) in relation to known locations and associated habitat of endangered, threatened, and species of special concern ("E/T/SC Species") that were promised to DEC personnel at a meeting in Lowville, NY on July 17, 2012 and as recently as on a telephone conference on February 2, 2013. Furthermore, the *Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects*, finalized by the DEC in August 2009, http://www.dec.ny.gov/docs/wildlife_pdf/finwindguide.pdf, specifically requests (on pages 4 & 5) that DEC is to be provided maps and Geographical Information Systems ("GIS") data in order to aid the project developer with planning.

The lack of information contained in the PSS creates a high degree of variability in the estimate of the potential adverse impacts or benefits that a large commercial project of this type may have to an area. Without the proper knowledge of where and at what scale a project is to take place, an assessment of the potential adverse impacts or benefits would hold little value on behalf of the health, safety and welfare of the people of the state with regard to the overall economic and social well being of the people, their families, visitors, or tourists to this region.

DEC respectfully requests that the PSS be revised to address the lack of compliance with PSL § 163, and 16 NYCRR § 1000.5, so that more meaningful comment and discussions can take place. In

addition, when the Article 10 Application is filed it should provide detailed information from additional studies that will be conducted in relation to the new Project layout. These studies should be designed in consultation with local state and federal biologists who have extensive expert knowledge regarding the natural resources of this region. Additional studies should not begin until acceptance and approval by the DEC and other involved agencies.

DEC has reviewed the PSS and is providing the following comments and recommendations listed on the following pages and referenced by which section and page of the PSS that the statement was found. Finally, these comments and recommendations may not be exhaustive, given the brief time period for review and lack of detailed information provided.

DEC SPECIFIC COMMENTS/RECOMMENDATIONS

1. **Section 1.0 Introduction** (Pages 1-14)

A. Item (2) states; "a preliminary scope of an environmental impact analysis containing a brief discussion, on the basis of reasonably available information, of the following items:

I. Subparagraph (vii) on page 2 states; "where it is proposed to use petroleum or other back-up fuel for generating electricity, a discussion and/or study of the sufficiency of the proposed on-site fuel storage capacity and supply (not applicable)".

II. **Comment/Recommendation(s):**

1. The Article 10 Application should include detailed information regarding the storage and use of on-site fuels, oils, or other potentially petroleum based fluids during construction, operation, maintenance, and potential decommissioning after the projects life span of the proposed Cape Vincent Wind Farm. It is DEC's experience that:

a. Many of the wind power projects that have been previously reviewed in Region 6 have proposed to use fuel on-site for construction equipment and back-up generators to supply electricity to the project during construction and testing phases before connection to a grid (see Section 2.15.1 (p. 57); and

b. Some of these projects have also proposed to use fossil fuel fired generators during the operational phase of the project at times when the project was not generating its own electricity (e.g. wind speed too slow or too fast for safe, reliable operation; power outage from the grid …etc.).

B. **Subsection 1.2 Proposed Facility**

I. On page 5 the PSS states; "The SLWF design had consisted of 51 turbines while the original Cape Vincent Wind Farm had envisioned 84 turbines, making the total number of turbines between the two projects equal to 135 turbines. After an extensive review to optimize the layout of the combined project, CVWP has removed 11 turbines, reducing the total project size to 124 turbines."

II. On page 5 the PSS states; "The SLWF had contemplated using turbines that ranged in output from 1.5 to 3.0 MW per turbine, while the range for turbines under consideration for the CVWEP was 1.5 to 2.5 MW per turbine. The maximum blade-tip height was estimated to be approximately 430 feet and the rotor width (diameter) to be approximately 300 feet to 328 feet. The latest turbine options under consideration would have the maximum blade-tip height increasing to 499 feet and the rotor width to approximately 394 feet."

III. The PSS states (p. 6) that "The Study Area ("Study Area") generally includes the area within a radius of at least five miles from all generating facility components, interconnections and related facilities and alternative locations sites, although differs for the evaluation of some resources."

IV. **Comment/Recommendation(s):**

1. The Article 10 Application should take into account that the previous studies for the SLWF and the original CVWEP projects, were for two separate projects and were designed to assess the potential impacts of each separately and with markedly smaller turbines and layouts.

a. The newly proposed CVWF is considering using turbines that have a rotor swept area larger than what was considered in either former project previously.
b. The newly proposed CVWF's overall project layout is changed somewhat from the layouts proposed and evaluated in the two former project proposals.

2. DEC recommends that the Applicant design and conduct new studies to be included in the Article 10 Application, in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region.
   a. New studies would be needed in order to more accurately assess the potential impacts that the new CVWF Project may have based on the use of larger turbines and an altered footprint (Project Layout) from the two separate projects previously mentioned.
3. DEC recommends including information from studies that have been and are being conducted at the nearby Canadian wind power project on Wolfe Island which has similar social, economic, and environmental conditions as Cape Vincent, NY.
   a. It is recommended that this information also be used to assess the potential cumulative impacts that may affect the health, safety, and welfare of the people of the state and their overall economic and social well being, such as, but not limited to;
      i. The potential cumulative effect on avian and bat resources,
      ii. the potential cumulative effect on the overall viewshed of the residents of Cape Vincent, within and adjacent to the Project area, the potential economic impact to environmental recreation such as tourism, sportfishing, boating/canoeing/kayaking, bird watching, hunting, camping… etc.

4. Five miles is the minimum study area required by 16 NYCRR 1000.2(ar) for wind generating facilities, although for facilities in areas of significant resource concerns, the size of a study area shall be configured to address specific features or resource issues and could be larger. In addition, since the radius does not cross the U.S./Canada border the radius is significantly less than 5 miles from any facility component all along the St. Lawrence River. The political boundary should not be a limitation on the study of environmental impacts. Therefore the radius should be increased/

C. **Subsection 1.3 Environmental Setting** (Pages 6-14)

I. **Heading 1.3.5 Wetlands**

1. On page 9 the paragraph states; "Approximately 3,000 acres of wetlands are located in the Town of Cape Vincent consisting of emergent (18 percent), forested and scrub/shrub (76 percent), ponds (4 percent), lake (1 percent), and riverine (1 percent) cover types. In the Town of Lyme there are approximately 4,800 acres of wetlands consisting of emergent (12 percent), forested and scrub/shrub (43 percent), pond (2 percent), lake (39 percent), and riverine (3 percent) cover types. See Section 2.22 for more details regarding "Terrestrial Ecology and Wetlands."

II. **Comment/Recommendation(s):**

1. The Article 10 Application should include a detailed discussion on the potential impacts to rare communities that are present in this area which were not discussed in the PSS.
    a. Rare and significant communities in this area that were not mentioned in the PSS include a silver maple-ash swamp, alvar grasslands, limestone woodlands,

calcareous pavement barrens, sinkhole wetlands, waterfowl winter concentration areas, and raptor winter concentration areas.

III. **Heading 1.3.8 Water Resources & Aquatic Ecology** (Pages 10-12)

1. On page 11, in the first full paragraph, the PSS states; "*Surface Waters* – The Project is situated within the Chaumont-Perch watershed (USEPA Hydrologic Unit Code "HUC" 04140102) of the eastern section of Lake Ontario (Minor Tribs Drainage Basin and the Upper St. Lawrence watershed (HUC: 04150301) of the St. Lawrence River Drainage Basin (USEPA, 2012)[4]."
2. **Comment/Recommendation(s):**
    a. The Hydrologic Unit system is a standardized watershed classification system developed by USGS in the mid 1970's. The HUC classification was not developed by the US EPA. This should be clarified in a revised PSS, or at the very least in the Article 10 Application to accurately reflect the proper usage for the term "HUC". For more information regarding the proper definition of the Hydrologic Unit system please visit the following URLs:
        i. http://nwis.waterdata.usgs.gov/tutorial/huc_def.html or
        ii. http://cfpub.epa.gov/surf/huc.cfm?huc_code=04150102
            a) Notice the EPA site states; "USGS Cataloging Unit: 04150102".
3. On page 12, the PSS states; "*Aquatic Life*" – Most of the streams associated with the project do not support extensive fish communities."

4. **Comment/Recommendation(s):**

a. The Article 10 Application should include detailed information regarding the fish communities within the streams and rivers located in the Towns of Cape Vincent, Lyme, and the Village of Chaumont.

b. A query from Version 45 of the DEC Statewide Fisheries Database indicates the following numbers of species found in local waterbodies near the Project area;

Waterbody	**Number of Fish Species**
Chaumont River	24
Kents Creek	18
Lake Ontario	41
Scotch Brook	16
Shaver Creek	6
St. Lawrence River	33
Three Mile Creek	11
Unnamed Water	11

5. The Applicant should define what is meant by the usage of the term “extensive fish communities”. The above table clearly demonstrates that a substantial diversity of fish species exist within local area waterbodies which could be labeled as having “extensive fish communities”.

   a. From the DEC Statewide Fisheries Database there are over 50 different species of fishes found within the Towns of Cape Vincent, Lyme, and the Village of

Chaumont combined. Some species identified from this database that would be of concern to the DEC are:

i. Lake Sturgeon – state listed "Threatened" species

ii. American Eel

iii. Several economically important sportfish species

b. There are also fish species listed in the Natural Heritage Database which would be of concern to the DEC and they are as follows:

i. Blackchin Shiner in the Chaumont River

ii. Iowa Darter in Mud Creek, Cape Vincent

iii. Quillback – Chaumont Bay

2. Section 2.0 Environmental Analysis (Pages 14-222)

A. Subsection 2.2 Overview & Public Involvement (Pages 14-22)

I. Heading 2.2.2 Other Material Issues Raised by the Public and Affected Agencies

1. In Table 2.2-1 on page 14, a comment from the Town of Cape Vincent stated; "Specifications should be provided for the type(s) of wind turbines proposed for Cape Vincent."

a. The response from the Applicant stated; "A specific turbine model has not been selected at this time due to uncertainty regarding availability of turbine models, although it is expected that the output per turbine will range from 1.7 to 3.0 MW"

2. In Table 2.2.1 on page 15, a comment from the Town of Cape Vincent stated; "Size of project, 200-285 MW range equates to a 42.5% variation."

a. The response from the Applicant stated; “The project consists of 124 turbine locations. Due to various wind turbine technologies available in the marketplace, the overall Project size will not be determined until a model has been selected.”

II. **Comment/Recommendation(s):**

1. Certainly, CVWP should know by now which wind turbines it plans to use, especially since it has indicated height and rotor swept area. In order for the DEC and/or other involved agencies to begin a valid review of any potential impact or benefit from this project, the turbine model and specifications, along with the layout and entire footprint of the Project should be known.
   a. The lack of this information creates a high degree of variability in the estimate of the potential adverse impacts or benefits that a large commercial project of this type may have to an area.
   b. Without the proper knowledge of where and at what scale a project is to take place, an assessment of the potential adverse impacts or benefits would hold little value on behalf of the health, safety and welfare of the people of the state with regard to the overall economic and social well being of the people, their families, visitors, or tourists to this region.
2. Exhibit A – Location of Facilities and Exhibit B – Study Area appear to have been created using Geographical Information Systems software so this information should be readily available to all interested parties. Both of these Exhibits only show the general layout of the Project and fail to show any type of potential impact analysis. The GIS information has been previously requested.

3. Data regarding the proposed site development and planned operational layout of the Project should be provided to the DEC and other involved agencies in the form of shapefiles, coverages, geodatabases, and/or geometric networks for use in Geographical Information Systems (GIS) software via ESRI's ArcGIS suite of software (e.g. ArcMap) including but not limited to:
    a. Polygon coverages/shapefiles for the total project area as well as any concrete and building structures proposed for construction;
    b. Line coverages/shapefiles/geometric networks for the transmission and interconnect lines as well as proposed temporary construction and maintenance roads;
    c. Polygons of the proposed temporary construction and maintenance roads for assessing the overall impact of the road footprints; and,
    d. Point coverages/shapefiles for any tower locations and/or any other structures that would be best represented as a point.

B. **Subsection 2.3 Location of Facilities** (Pages 22-23)

I. Heading 2.3.1 Other Material Issues Raised by the Public and Affected Agencies

1. In Table 2.3-1 on page 23 in the PSS, several comments from the Town of Cape Vincent stated the following;
    a. "The most important information BP can provide to our community are maps outlining turbine locations. … Detailed project maps have been the most scrutinized documents in all the open houses and DEIS filings in the past. All other materials are of far less significance to the average property owners. Good maps are a must in any public information program."

b. "BP's map lacks boundaries of the project, setbacks from property lines, location of turbines, a legend of host landowners and adjacent landowners. Location of electric lines, substations, interconnection switching stations, and interconnection points are vague and indeterminable."

c. "Maps do not show setbacks."

i. The response from the Applicant to all of those questions is stated as; "Project maps have been and remain available on the project website, in the local CVWF office, and have been on display at each of the public forums, including the Open House, and meetings with the Town of Cape Vincent and Lyme. A Project map is also provided as part of the PSS submittal. Setbacks were outlined in the PIP submittal."

II. **Comment/Recommendation(s):**

1. In order for the DEC and/or other involved agencies to begin a valid review of any potential impact or benefit from this project, the turbine model and specifications, along with the layout and entire footprint of the Project should be known.

a. The lack of this information creates a high degree of variability in the estimate of the potential adverse impacts or benefits that a large commercial project of this type may have to an area.

b. Without the proper knowledge of where and at what scale a project is to take place, an assessment of the potential adverse impacts or benefits would hold little value on behalf of the health, safety and welfare of the people of the state with regard to the overall economic and social well being of the people, their families, visitors, or tourists to this region.

2. Exhibit A – Location of Facilities and Exhibit B – Study Area appear to have been created using Geographical Information Systems (GIS) software; therefore this information should be readily available for conducting a proper review. Both of these Exhibits only show the general layout of the Project and fail to show any type of potential impact analysis. The GIS information has been previously requested.
3. Data regarding the proposed site development and planned operational layout of the Project should be provided to the DEC and other involved agencies in the form of shapefiles, coverages, geodatabases, and/or geometric networks for use in Geographical Information Systems (GIS) software via ESRI's ArcGIS suite of software (e.g. ArcMap) including but not limited to:
    a. Polygon coverages/shapefiles for the total project area as well as any concrete and building structures proposed for construction;
    b. Line coverages/shapefiles/geometric networks for the transmission and interconnect lines as well as proposed temporary construction and maintenance roads;
    c. Polygons of the proposed temporary construction and maintenance roads for assessing the overall impact of the road footprints; and,
    d. Point coverages/shapefiles for any tower locations and/or any other structures that would be best represented as a point.

C. **Subsection 2.4 Land Use – Exhibit 4** (Pages 24-31)

I. **Comment/Recommendation(s):**

1. The Article 10 Application should be corrected to provide consistency in the usage of the term "Exhibit" and the associated nomenclature in referencing each "Exhibit".

2. For example, Subsection 2.4 – Land Use apparently refers to Exhibit 4 while the PSS does not contain any Exhibits using a numbering system. Instead, the PSS uses an alphabetic nomenclature (e.g. Exhibits A – I).
3. Looking for the Land Use information in Exhibit 4 under Exhibit D does not produce Land Use information, instead, the reader of the PSS finds a "Production/Curtailment Impact Study" in Exhibit D (the 4th exhibit contained in the PSS) for the purposes of estimating "the effects of the Facility on emissions and the energy dispatch of existing must-run resources, such as wind, hydroelectric and nuclear facilities".

D. **Subsection 2.5 Electrical System Effects – Exhibit 5** (Pages 31-37)

I. **Comment/Recommendation(s):**

1. The Article 10 Application should be corrected to provide consistency in the usage of the term "Exhibit" and the associated nomenclature in referencing each "Exhibit".
2. For example, Subsection 2.5 Electrical System Effects apparently refers to Exhibit 5 while the PSS does not contain any Exhibits using a numbering system. Instead, the PSS uses an alphabetic nomenclature (e.g. Exhibits A – I).
3. Looking for the Electrical System Effects information in Exhibit 5 under Exhibit E does not produce Electrical System Effects information, instead, the reader of the PSS finds a "Summary of Pre-construction Wildlife Studies, Methods and Findings" in Exhibit E (the 5th exhibit contained in the PSS).

II. **Heading 2.5.10 (j) Vegetation Management Practices**

1. On page 37 the PSS states; "As part of the Operations and Maintenance procedures for the facility, a vegetation plan will be developed. The vegetation plan, for instance, may call for potential tree removal to avoid dangerous interference with the equipment. The

plan would also include prescribed inspection intervals for the Project substation, interconnection switching station, and generator interconnection line to ensure proper vegetation control. Note, after construction is complete, the connecting transmission operator would be responsible for owning and operating the interconnection switching station as well as that portion of the generator connection line that continues onto the Lyme 115kV tap."

2. **Comment/Recommendation(s):**

   a. As part of a Vegetation Management Plan, the Applicant should prepare an Invasive Species Control Plan (ISCP) to be used in conjunction with vegetation management to insure that the Operations and Maintenance procedures do not inadvertently contribute to the spread of invasive species.

   b. An ISCP should be a 'normal' best management practice during the construction, operation & maintenance, and decommissioning should the project be decommissioned after its expected life-span.

   c. The Applicant should conduct a study to determine what potential impacts could occur to State Regulated Wetlands and their associated Adjacent Areas through the use of vegetation management activities detailed in a Vegetation Management Plan.

E. **Subsection 2.6 Wind Power Facilities – Exhibit 6** (Page 37)

I. **Comment/Recommendation(s):**

1. The Article 10 Application should be corrected to provide consistency in the usage of the term "Exhibit" and the associated nomenclature in referencing each "Exhibit".

2. For example, Subsection 2.6 Wind Power Facilities refers to Exhibit 6 while the PSS does not contain any Exhibits using a numbering system. Instead, the PSS uses an alphabetic nomenclature (e.g. Exhibits A – I).
3. Looking for the Wind Power Facilities information in Exhibit 6 under Exhibit F does not produce Wind Power Facilities information, instead, the reader of the PSS finds the "Town of Cape Vincent Zoning Law of 1989 Amended 2012 (Local Law No. Three, August 1, 2012)" in Exhibit F (the 6th exhibit contained in the PSS).

II. **Heading 2.6.1 (a) Setback Requirements and/or Recommendations** (Pages 37-38)

1. Subheading – Manufacturer's Specifications
   a. On page 37 the PSS state; "Setback associated with the selected wind turbine model will be guided by the established recommendations of the original equipment manufacturer."
2. Subheading – Applicant Specifications
   a. On page 38 the PSS states; "Setbacks used on BP Wind Energy projects are designed to reduce environmental, health, and safety risks. As currently contemplated, setbacks for the combined Project meet or exceed the setbacks held by the previously proposed SLWF and CVWEP; no setbacks have been decreased."
3. Subheading – Local Ordinance or Laws
   a. On page 38 the PSS states; "The Project proposes to site wind turbines in the Town of Cape Vincent. The current Town of Cape Vincent Zoning Law was enacted on August 1st, 2012 ("CV Zoning Law"). The setback requirements as stated in the CV Zoning Law have the effect of unjustifiably and unreasonably

restricting the placement of turbines in agricultural districts and preclude CVWP from placing turbines in planned and/or optimal locations within the Town. In light of passage of the CV Zoning Law, CVWP decided to enter the CVWF into the Article 10 permitting process in September 2012."

III. **Comment/Recommendation(s):**

1. The Article 10 Application should take into account that the previous studies for the SLWF and the original Cape Vincent Wind Farm (CVWEP) projects, were for two separate smaller projects and were designed to assess the potential impacts of each separately and with markedly smaller turbines and layouts.
2. Proposed setbacks for the SLWF and the CVWEP should use the original manufacturer's recommendations as a minimum starting point and take into consideration the unique environmental, cultural, and community resources of this region by consulting with local town, village, state and federal agency personnel who have extensive expert knowledge of the resources in this region.

IV. **Heading 2.6.2 (b) Accommodation Setbacks Requirements and/or Recommendations**

1. On page 38 the PSS states; "CVWP will consult the manufacturer of the selected wind turbine model to make sure the manufacturer is in agreement with setbacks and/or positioning for the proposed turbine layout."

V. **Comment/Recommendation(s):**

1. The Article 10 Application should take into account that the previous studies for the SLWF and the original Cape Vincent Wind Farm (CVWEP) projects, were for two separate smaller projects and were designed to assess the potential impacts of each separately and with markedly smaller turbines and layouts.

2. Proposed setbacks for the SLWF and the CVWEP should use the original manufacturer's recommendations as a minimum starting point and take into consideration the unique environmental, cultural, and community resources of this region by consulting with local town, village, state and federal agency personnel who have extensive expert knowledge of the resources in this region.

F. **Subsection 2.7 Natural Gas Power Facilities – Exhibit 7** (Page 41)

I. On page 41 the PSS states; "This exhibit is not applicable to the proposed Cape Vincent Wind Farm."

II. **Comment/Recommendation(s):**

1. The PSS fails to mention if and what type of back-up power will be used to maintain electrical systems when the Cape Vincent Wind Farm is not generating its own electricity.
2. If natural gas powered generators are used for back-up power supply, then this section would be directly applicable.
3. The PSS should be revised or at the very least the Article 10 Application should be corrected to provide consistency in the usage of the term "Exhibit" and the associated nomenclature in referencing each "Exhibit".
4. For example, Subsection 2.7 Natural Gas Power Facilities refers to Exhibit 8 while the PSS does not contain any Exhibits using a numbering system. Instead, the PSS uses an alphabetic nomenclature (e.g. Exhibits A – I).
5. Looking for the Natural Gas Power Facilities information in Exhibit 8 under Exhibit H does not produce Natural Gas Power Facilities information, instead, the reader of the

PSS finds the "Village of Chaumont Land Development Code (Adopted March 19, 2007, filed April 13, 2007)" in Exhibit H (the 8th exhibit contained in the PSS).

G. **Subsection 2.8 Electrical Production Modeling – Exhibit 8** (Page 41)

I. At the bottom of page 41 the PSS states; "The scope of work for Exhibit 8 is attached to this PSS as Exhibit D."

II. **Comment/Recommendation(s):**

1. The PSS should be revised or at the very least the Article 10 Application should be corrected to provide consistency in the usage of the term "Exhibit" and the associated nomenclature in referencing each "Exhibit".

H. **Subsection 2.9 Alternatives – Exhibit 9** (Pages 42-52)

I. Heading 2.9.2 Alternative Project Design/Layout (Pages 42-46)

1. On page 43 the PSS states; "The proposed location of turbines and associated facilities accounts for feedback from stake holders at the local and state levels and results in a Project that factors in environmental, health, and safety issues while attaining cost-effective wind power."

2. **Comment/Recommendation(s):**

a. The PSS lacks the necessary information to assess how the proposed Project layout was designed to take into consideration both state and federal listed endangered, threatened, and species of special concern (E/T/SC species).

i. The DEC is still waiting for maps from CVWP depicting the total Project layout in relation to know locations and associated habitat of E/T/SC species that was promised to agency personnel at a meeting in Lowville, NY on July 17, 2012 and as recently as on a telephone conference on February 2, 2013.

b. From Exhibits A and Exhibits B in the PSS it appears that several wind turbines have been moved into fields that are known and were made known to previous wind developers to contain E/T/SC species occupied habitat.

c. The Article 10 Application should include the maps that were promised to the DEC and a detailed discussion regarding the adjustments that were made in the Project layout to first avoid, and then reduce or minimize potential impacts to:

   i. E/T/SC species occupied habitat,

   ii. wetlands,

   iii. waterbodies,

   iv. public access sites,

   v. public and state lands such as state Wildlife Management Areas (WMAs); and,

   vi. other unique natural resources like rare and significant communities such as a silver maple-ash swamp, alvar grasslands, limestone woodlands, calcareous pavement barrens, sinkhole wetlands, waterfowl winter concentration areas (the Atlantic flyway), and raptor winter concentration areas, … etc.

3. **Subheading 135-Turbine Alternative** (Pages 43-44)

   a. On page 44 the PSS states; “While it is anticipated that most of the collection system will be buried, overhead lines may be used to span wetlands and streams and to avoid installing multiple buried lines in certain locations. The installation of buried lines has impacts to vegetation, soils, and wetlands while the installation of overhead lines also has visual impacts. The installation of overhead lines, as proposed, will reduce impacts to soil and water resources but will increase visual

impact during operation. To minimize adverse visual impact, most overhead lines will be carried on single metal poles or equivalent structure, somewhat taller, but generally comparable in height compared to the existing network of distribution lines that currently run throughout the Project area. The overhead lines will be routed to reduce the need for right-of-way clearing and to be compatible with agricultural land and farming operations."

4. **Comment/Recommendation(s):**
    a. Annual or semi-annual clearing of vegetation for overhead electrical collection and transmission lines have the potential to repeatedly impact wetlands, their associated adjacent areas, E/T/SC species occupied habitat, as well as rare and significant plant communities.
    b. The Article 10 Application should be corrected to provide a Vegetation Management Plan, including an Invasive Species Control Plan that would first, avoid potential impacts during these operations, secondly minimize and reduce impacts to wetlands, their associated adjacent areas, as well as rare and significant plant communities.
    c. A Mitigation Plan should be drafted in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region to offset any impacts to wetlands, their associated adjacent areas, E/T/SC species occupied habitat, as well as rare and significant plant communities.
5. **Subheading – Transmission Line Alternatives** (Page 45)
    a. On page 45 the PSS states; "As an option to stringing an overhead generator interconnection line to carry power from the Project, CVWP studied the

feasibility of using a buried line. For a project of this size, this would require the interconnection cable to not simply be buried, but to be encased in concrete. The result would remove the transmission line from view, but would require high construction costs that would contribute to making the project uneconomic. In addition, underground placement would generally require greater disturbance to wetland features which are located along the various routes identified. These wetlands are proposed to be crossed by aerial spans, greatly reducing both short-term and long-term impacts to the wetland ecology. Maintenance of an underground transmission line of this length would be very likely to incur higher costs of repairs during the project life, as well as requiring substantially greater impacts to the environment in the case of any line maintenance, repairs, or upgrades."

6. **Comment/Recommendation(s):**
    a. Annual or semi-annual clearing of vegetation for the electrical collection and transmission lines have the potential to repeatedly impact wetlands, their associated adjacent areas, E/T/SC species occupied habitat as well as rare and significant plant communities.
    b. The PSS should be revised or at the very least the Article 10 Application should be corrected to provide a Vegetation Management Plan, including an Invasive Species Control Plan that would first, avoid potential impacts during these operations, secondly minimize and reduce impacts to wetlands, their associated adjacent areas, as well as rare and significant plant communities.

c. A Mitigation Plan should be drafted in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region to offset any impacts to wetlands, their associated adjacent areas, E/T/SC species occupied habitat, as well as rare and significant plant communities.

I. **Subsection 2.21 Geology, Seismology and Soils – Exhibit 21** (Pages 87-100)

I. **Heading 2.21.1 (a) Existing Surface Slopes** (Pages 87-88)

1. The PSS states; "To the extent practicable, the proposed facilities will be sited in relatively flat areas. A small amount of the study area has been identified as having steep slopes. Detailed maps delineating existing slopes (0-3%, 3-8%, 8-15%, 15-25%, 25-35%, 35% and over), as applicable, on and within the drainage area potentially influenced by the Project and interconnections will be included in an Appendix to the Application."

II. **Comment/Recommendation(s):**

1. The Article 10 Application should contain a specific plan describing the added pre-cautions and best management practices that will be used for working in the identified steep sloped areas. An additional assessment ensuring that turbine site selection has been properly evaluated in relation to the identified steep sloped areas should also be included.

III. **Heading 2.21.3 (c) Excavation and Backfill Analysis** (Page 88)

1. On page 88 the PSS states; "Accordingly, an Invasive Species Plan will be developed specific to the Project construction activities for identifying the presence of invasive species in spoil material and to prevent the introduction and/or spread of invasive species by the transport of fill material to or from the site. The Invasive Species Plan

will detail procedures to reduce the introduction of invasive vegetation to all areas disturbed during construction."

IV. **Comment/Recommendation(s):**

1. The Article 10 Application should be corrected to provide an Invasive Species Control Plan (ISCP) that would first, avoid potential impacts during these operations and secondly, minimize or reduce impacts by;
    a. Inspecting all equipment, parts, and materials brought on site before and during construction activities,
    b. Physically removing all plant or animal matter from equipment, parts, and materials brought on site,
    c. Cleaning and Disinfecting of any surface that has come into contact with an invasive species or unknown vegetation.
    d. Re-inspecting all equipment, parts, and materials before moving to a new site; and,
    e. Repeating the above steps at each construction site.

V. **Heading 2.21.5 (e) Material to be Removed from the Project Area** (Pages 89)

1. On page 89 the PSS states; "Unless contaminated soil or any other undesirable material is encountered during construction, excavated soils are typically reused on site for backfill and contour smoothing with the goal of not removing soil from a particular area. Large stone and bedrock will be crushed for use in the immediate project area. Area surveys and geotechnical investigations will likely be conducted to determine if these conditions exist within the limits of disturbance. A detailed description and preliminary calculations of the proposed type and amount of cut

material or spoil to be removed from the facility site and interconnections will be developed as needed."

VI. **Comment/Recommendation(s):**

1. If the crushing device being used for the above mentioned operations produces a product faster than 150 tons per hour or is a diesel motor driven crusher that is larger than 400 Horsepower then an Air Permit and Registration would be required.
2. The Article 10 Application should include the detailed specifications for the proposed crusher unit to ensure that the best management practices and conditions of an Air Permit and Registration would be followed.

VII. **Heading 2.21.6 (f) Excavation and Backfill Analysis** (Page 90)

1. On page 90 in the 2nd paragraph the PSS states; "Following topsoil removal by dozer and pans, excavators will be used to excavate a foundation hole. If bedrock is encountered and it is anticipated to be able to be ripped, it will be excavated with a backhoe. If the bedrock could not be ripped, it will be excavated by pneumatic jacking, or blasting. Blasting will be utilized only if ripping or hammering are not practicable."
2. On page 90 in the 3rd paragraph the PSS state; "Direct burial methods via cable plow, rock saw and/or trencher will be used during the installation of underground interconnect lines whenever possible. In general, the cable may be buried 36 to 48 inches deep depending on soil conditions, depth to bedrock, and land use."
3. On page 90 in the 4th paragraph the PSS states; "Open trench installation may be required where there are unstable slopes, excessive unconsolidated rock, or standing or flowing water. Open trench installation is performed with a backhoe and will general

result in a disturbed trench 36 inches wide. Similar to a trench cut by a trencher or rock cutter, a Bobcat or small bulldozer will be used to replace soils and restore the grade."

VIII. **Comment/Recommendation(s):**

1. The DEC's Bureau of Mineral Resources guidance for blasting should be followed.
    a. Seismographs will be placed at the nearest structures to measure the seismic activity during and after the blasting.
    b. Blasting limits are described based upon the Z-curve for peak particle velocities versus frequency to protect nearby structures.
    c. Also, a Blasting Plan would need to be submitted and approved by the DEC before blasting could begin.
2. This section does not discuss what effect the multitude of buried, underground interconnection and/or transmission lines may have to intercept groundwater which is sometimes referenced as 'Pipe Flow' or 'Piping'.
    a. 'Piping' occurs when normal path of groundwater is intercepted because the soil and sediment compactness has been altered, modifying the hydraulic conductivity of the soil and sediment layers, allowing water to flow in the path of least resistance along the cable, line, or pipe that has been buried. This is a common practice around residential dwellings to keep groundwater from entering a basement known as interceptor trenches for positive groundwater control.
    b. The Article 10 Application should include a discussion in this section regarding the potential for the disturbance of the soil hydraulic conductivity along with what

mitigation measures will be proposed to ameliorate the effects of groundwater interception

3. Open trenching is not a viable option for flowing water sites. The preferred option is the use of a cofferdam combined with a pump around technique.
4. Open trenches must also be backfilled “as you go” for burying lines.
5. No open trench shall remain open before proceeding to the next site.
6. The Article 10 Application should be corrected to include the above recommendations during excavation and backfill operations.

IX. **Heading 2.21.9 (i) Blasting Plan** (Page 91)

1. On page 90 the PSS states; “If blasting is required, it will be conducted in compliance with a Blasting Plan, and in accordance with all applicable laws and good engineering practices to avoid impacts to sensitive receptors.”
2. **Comment/Recommendation(s):**
   a. The DEC’s Bureau of Mineral Resources guidance for blasting should be followed.
      i. Seismographs will be placed at the nearest structures to measure the seismic activity during and after the blasting.
      ii. Blasting limits are described based upon the Z-curve for peak particle velocities versus frequency to protect nearby structures.
      iii. Also, a Blasting Plan would need to be submitted and approved by the DEC before blasting could begin.

X. **Heading 2.21.12 (l) Regional Geology, Tectonic, and Seismology** (Pages 92-95)

1. On page 95 the PSS states; "Additional geotechnical investigations, consisting of subsurface exploration, laboratory analysis, and seismic refraction testing will be conducted to encompass the entire Project area. Exhibit 21 will be updated with the results of these studies.

2. **Comment/Recommendation(s):**

   a. The Article 10 Application should also included detailed local geotechnical investigation on all proposed turbine locations to ensure that the stability of the bedrock is compatible with the additional load of concrete base pads and wind turbines. The emphasis of the study would be to identify potential problem areas such as Karst formations, sinkholes, or other solution-enlarged conditions before construction begins.

XI. **Heading 2.21.17 (q) Subsurface Analysis and Impacts** (Pages 97-100)

1. On page 100, under the heading of *Drainage Features* the PSS states; "If areas of potential subsurface drainage including drainage tile or solution-enlarged joints (Karst conditions) are encountered during construction, they will be avoided, protected, or completely restored. CVWP will mitigate these potential impacts where necessary, including installation of culverts and water bars to maintain natural drainage patterns. In addition, where Project roads are constructed or existing roads are improved, design of these roads will include drainage systems."

XII. **Comment/Recommendation(s):**

1. The Article 10 Application should also included detailed local geotechnical investigation on all proposed turbine locations to ensure that the stability of the

bedrock is compatible with the additional load of concrete base pads and wind turbines. The emphasis of the study would be to identify potential problem areas such as Karst formations, sinkholes, or other solution-enlarged conditions before construction begins.

2. Installation of culverts should follow the guidance provided in the DEC brochure titled; "Stream Crossings: Guidelines and Best Management Practices" which may be found at the following URL:
   a. http://www.dec.ny.gov/permits/49066.html, with a printable version found at;
   b. http://www.dec.ny.gov/docs/permits_ej_operations_pdf/streamcrossbmp.pdf
3. Another valuable source of information for design stream crossings and the use of culverts is the U.S. Forest Service document titled; "Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings." This document may be found at the following URL:
   a. http://www.fs.fed.us/eng/pubs/pdf/StreamSimulation/index.shtml

J. **Subsection 2.22 Terrestrial Ecology and Wetlands – Exhibit 22** (Pages 103-135)

I. **Heading 2.22.1 Potentially Significant Adverse Impacts** (Pages 103-107)

1. On page 103 of the PSS it states; "The determination of potentially significant adverse impacts to terrestrial ecology and wetland resources is based on compiled state and federal resource information, results of extensive onsite multi-season studies, and discussions with various state and Federal agencies on the wildlife species and habitat types documented or expected to exist within the Project and the likely impacts of the construction and operation of the Project on wildlife. These impacts are grouped below

as follows: general wildlife habitat, mammals (other than bats), avian and bat resources, state and federal endangered and threatened species, and wetlands."

II. **Comment/Recommendation(s):**

1. The Article 10 Application should include a detailed discussion on the potential impacts to rare communities that are present in this area and were missed in the PSS.
2. Items missed during the review are rare communities in this area that include a silver maple-ash swamp, alvar grasslands, limestone woodlands, calcareous pavement barrens, sinkhole wetlands, waterfowl winter concentration areas, and raptor winter concentration areas.

III. **Subheading – General Wildlife Habitat** (Page 103-104)

1. On page 104 in Table 2.22-1, Land Cover with Limits of Disturbance, the PSS indicates that 149.2 acres of Eastern North American Flooded & Swamp Forest will be removed or disturbed.
2. **Comment/Recommendation(s):**
    a. The removal or disturbance of 149.2 acres of Eastern North American Flooded & Swamp Forest is significant if avoidance is not practiced.
    b. The Article 10 Application should provide specific detail as to the avoidance measures to be used. It is highly recommended that the Applicant consult with local state and federal habitat/wetland biologists to develop improvements of planned avoidance measures to help minimize the removal or disturbance of habitat types to the greatest extent practicable.

IV. **Subheading – Avian and Bat Resources** (Pages 104-105)

1. On page 105 the PSS states; “CVWP has conducted pre-construction surveys specifically for grassland birds. Information collected during those surveys has been used to inform project design to avoid and minimize indirect impacts resulting from construction or operation of the Project, to the extent practicable. CVWP will conduct post-construction fatality monitoring studies to determine the direct impact of operating wind turbines on birds and bats and confirm the estimated impacts of the Project.” … “CVWP will conduct post-construction fatality monitoring studies to determine the direct impact of operating wind turbines on grassland birds as well as studies designed to estimate the indirect impact of operating wind turbines on grassland birds.”
2. **Comment/Recommendation(s):**
    a. The timing and duration of the above mentioned pre- and post-construction fatality studies on grassland birds to determine the direct and indirect effects is not mentioned.
    b. The PSS does not mention what steps that were taken to avoid and minimize both the direct and indirect effects of construction and operation of the Project on avian and bat resources.
    c. The Article 10 Application should include details of the timing and duration of all pre- and post-construction monitoring studies for the Project. The Application should also include a detailed discussion as to the steps that were taken to avoid and minimize both the direct and indirect effects of construction and operation of a commercial scale operation such as this Project. Proposed avoidance and

minimization measures should be developed in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region.

V. **Subheading – Wetlands** (Page 106-107)

1. On page 107 of the PSS it states; “Unavoidable fill of wetlands will result in the permanent loss of acreage and associated functions and values. Although wetland impacts will be avoided to the extent practicable, any clearing through forested wetlands could result in a change from tree species to shrub and herbaceous vegetation. Impacts to non-forested wetlands are expected to be short term and vegetation is expected to return to pre-construction conditions in one to two growing seasons.”
2. **Comment/Recommendation(s):**
    a. No estimate of the total acreage of wetlands that may be removed or disturbed appears under this subheading and this would be considered a “Potentially Significant Adverse Impact”.
    b. A change wetland type will be considered a loss of functions and values of that wetland.
    c. The Article 10 Application should provide specific details regarding the total acreage of wetlands that will potentially be impacted along with the proposed mitigation that will be used for the conversion or loss of wetland functions and values.

VI. **Heading 2.22.2 Extent and quality of Information Required** (Pages 107-108)

1. On page 107 of the PSS it states; “Extensive pre-construction wildlife studies and data relating to the presence, abundance, or distribution of wildlife species in the Project Area have been conducted or compiled since 2006.”

VII. **Comment/Recommendation(s):**

1. The Article 10 Application should take into account that the previous studies for the SLWF and the original Cape Vincent Wind Farm (CVWEP) projects, were for two separate smaller projects and were designed to assess the potential impacts of each separately and with markedly smaller turbines and layouts.
2. The DEC recommends that the Applicant design and conduct new studies to be included in the Article 10 Application, in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region.
    a. New studies would be needed in order to more accurately assess the potential impacts that the new CVWF Project may have based on the use of larger turbines and an altered footprint (Project Layout) from the two separate projects previously mentioned.
3. The DEC recommend including information from studies that have been and are being conducted at the nearby Canadian wind power project on Wolfe Island which has similar social, economic, and environmental conditions as Cape Vincent, NY.
    a. It is recommended that this information also be used to assess the potential cumulative impacts that may affect the health, safety and welfare of the people of the state and their overall economic and social well being, such as, but not limited to;

i. The potential cumulative effect on avian and bat resources,

ii. The potential cumulative effect on the overall viewshed of the residents of Cape Vincent, within and adjacent to the Project area,

4. The potential economic impact to environmental recreation such as tourism, sportfishing, boating/canoeing/kayaking, bird watching, hunting, camping… etc
5. The Article 10 Application should provide specific detail on additional studies that will be conducted in relation to the new Project layout. These studies should be designed in consultation with local state (DEC) and federal biologists (USFWS) who have extensive knowledge regarding the natural resources in this area.
   a. While the previous data collected will be useful; it is imperative that additional pre-construction studies be conducted in relation to the actual layout of the new Cape Vincent Wind Farm Project boundary.

VIII. **Subheading – General Wildlife Habitat** (Page 108)

1. On page 108 the PSS states; “Plant community and wildlife habitat characterization has been completed for the previous Project layout and will need to be updated to reflect the limits of disturbance for revised Project. Updated information will be included in the Article 10 Application.”
2. **Comment/Recommendation(s):**
   a. The Article 10 Application should take into account that the previous studies for the SLWF and the original Cape Vincent Wind Farm (CVWEP) projects, were for two separate projects and were designed to assess the potential impacts of each separately and with markedly smaller turbines and layouts.

b. The DEC would recommend that the Applicant design and conduct new studies to be included in the Article 10 Application, in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region.

i. New studies would be needed in order to more accurately assess the potential impacts that the new CVWF Project may have based on the use of larger turbines and a larger overall footprint (Project Layout) than the two separate projects previously mentioned.

IX. **Subheading – State and Federal Endangered or Threatened Species** (Page 109)

1. On page 109 in the PSS it states; "The Project has consulted the USFWS and DEC and is currently preparing avoidance, minimization and mitigation strategies for threatened and endangered species in compliance with the federal Endangered Species Act (ESA 1973) and Part 124 of New York State Environmental Conservation Law Article 11."
2. **Comment/Recommendation(s):**

a. The correct reference for the code of rules and regulations governing endangered and threatened species of fish and wildlife; species of special concern, and incidental take permits should be as follows:

i. 6 NYCRR Part 182 (pursuant to ECL Article 11-0535)

b. For more information regarding endangered, threatened, and species of special concern please visit the following URL:

i. http://www.dec.ny.gov/regs/3932.html

c. The Article 10 Application should provide the correct information for referencing the New York code of rules and regulations governing endangered and threatened

species of fish and wildlife; species of special concern and incidental take permits.

X. **Subheading – Wetlands** (Pages 109-110)

1. On page 110 of the PSS it states; "Wetlands within the SLWF and CVWEP limits of disturbance were delineated during the period between 2007 and 2010 using methods described in either the 1987 the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987)[15] for delineations completed prior to 2010 or the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region for delineations completed after 2010."

XI. **Comment/Recommendation(s):**

1. Wetland delineations are technically only valid for a period of 5 years.
2. All delineations performed before 2008 will need to be re-delineated and should incorporate procedures from the DEC's; "New York State Freshwater Wetlands Delineation Manual (July 1995)" for state regulated freshwater wetlands, which can be found at the following URL:
   a. http://www.dec.ny.gov/docs/wildlife_pdf/wdelman.pdf

XII. **Heading 2.22.3 Proposed or On-going Studies during Pre-construction** (Pages 110-113)

1. Subheading – General Wildlife Habitat
   a. On page 110 the PSS states; "Habitat characterization within the revised Project will be based on identification and description of the type of plant communities present on the Project, including the overhead transmission line, and adjacent properties. Plant communities will be classified using the U.S. Geological Survey

Gap Analysis Program ("GAP") national land cover data set (Version 2) and will be identified to ecological system level describing dominant species and subdominant associates."

2. **Comment/Recommendation(s):**
    a. The proper name for GAP is the **National Gap Analysis Program**, please visit the following URL:
        i. http://gapanalysis.usgs.gov
    b. The National GAP Land Cover data uses Landsat 1999-2001 imagery and the CVWF Project will need to supplement this information with on the ground field collection of recent data through pre-constructions studies.
    c. The National Land Cover Dataset is created by the U.S. Geological Survey's Land Cover Institute. For more information please visit the following URL:
        i. http://landcover.usgs.gov/
3. **Subheading – Avian and Bat Resources** (Page 111)
    a. On page 111 the PSS states; "Based on extensive avian and bat studies completed within the Project area to date, additional studies for this group are not proposed. Potential avian mortality due to operation of the Project will be estimated using fatality rates derived from post construction mortality monitoring studies conducted at operational wind energy facilities located in New York and the northeast U.S."
    b. **Comment/Recommendation(s):**
        i. The Article 10 Application should take into account that the previous studies for the SLWF and the original Cape Vincent Wind Farm (CVWEP) projects,

were for two separate smaller projects and were designed to assess the potential impacts of each separately and with markedly smaller turbines and layouts.

ii. The DEC recommends that the Applicant design and conduct new studies to be included in the Article 10 Application, in consultation with local state and federal agency personnel who have extensive expert knowledge of the resources in this region.

c. New studies would be needed in order to more accurately assess the potential impacts that the new CVWF Project may have based on the use of larger turbines and an altered footprint (Project Layout) from the two separate projects previously mentioned.

i. The DEC recommends including information from studies that have been and are being conducted at the nearby Canadian wind power project on Wolfe Island which has similar social, economic, and environmental conditions as Cape Vincent, NY.

ii. It is recommended that this information also be used to assess the potential cumulative impacts that may affect the health, safety and welfare of the people of the state and their overall economic and social well being, such as, but not limited to;

a. The potential cumulative effect on avian and bat resources,

b. The potential cumulative effect on the overall viewshed of the residents of Cape Vincent, within and adjacent to the Project area,

c. The potential economic impact to environmental recreation such as tourism, sportfishing, boating/canoeing/kayaking, bird watching, hunting, camping… etc

iii. The Article 10 Application should provide specific detail on additional studies that will be conducted in relation to the new Project layout. These studies should be designed in consultation with local state (DEC) and federal biologists (USFWS) who have extensive knowledge regarding the natural resources in this area.

a. While the previous data collected will be useful; it is imperative that additional pre-construction studies be conducted in relation to the actual layout of the new Cape Vincent Wind Farm Project turbine locations and boundary.

4. **Subheading – Wetlands** (Pages 112-113)

a. On page 112 through 113 the PSS states; "Functions and values will be assessed using procedures outlined in the Highway Methodology Workbook Supplement issued by the USACE New England District (USACE, 1995) that prescribes a descriptive approach. This method integrates wetland science and value judgment into the overall assessment of a wetland. This method considers eight functions and five values. Principal and secondary, where applicable, functions and values will be designated to each wetland delineated within the 500-foot buffered Project limits of disturbance."

5. **Comment/Recommendation(s):**
    a. The Applicant will also be required to provide the conclusions of the DEC wetland compatibility and value tests as would be required by Article 24 of the Environmental Conservation Law for each class and each wetland disturbed.
    b. The Article 10 Application should provide specific details regarding the DEC wetland compatibility and value tests.

XIII. **Heading 2.22.4 Avoidance and Minimization Measures** (Pages 113-116)

1. **Subheading – State and Federal Endangered or Threatened Species** (Pages 114-115)
    a. On page 115 the PSS states; “To reduce, minimize, and/or avoid potential impacts to Blanding’s turtles and their habitats, CVWP will endeavor to:
        i. Site roadways and staging areas, to the extent possible, away from potential nesting areas and the travel corridors between nesting areas and identified potential Blanding’s turtle wetlands and suitable habitat areas. If it is not possible to re-site roads and staging areas, barriers and culverts/underpasses will be used to either prevent movement to or facilitate movement across these features.”
        ii. “Reduce construction clearance activities, to the extent practicable, during the peak nesting season in areas in and adjacent to Blanding’s turtle habitat (June 1 – July 31).”
    b. **Comment/Recommendation(s):**
        i. The construction avoidance window for Blanding’s turtles is from May 28th through July 9th.

ii. The Article 10 Application should reflect the correct construction avoidance window for Blanding's turtles as from May 28th through July 9th.

2. Subheading – Avian and Bat Resources (Pages 113-114)
   a. On page 113 the PSS states: "The proposed Project will continue to be designed to reduce impacts to birds and bats."
3. **Comment/Recommendation(s):**
   a. The Applicant should consult with local state (DEC) and federal biologists (USFWS) who have extensive knowledge regarding the natural resources in this area in order to reduce impacts to birds and bats.

XIV. **Heading 2.22.5 Proposed Measures to Mitigate Unavoidable Impacts** (Pages 116-117)

1. Subheading – General Wildlife Habitat (Page 116)
   a. On page 116 the PSS states; "Mitigation Options for wildlife habitat include:
      i. Restoring temporary disturbed areas, where practicable, to comparable pre-construction contours and reseeding with native (noninvasive) as soon as practicable following the completion of construction activities; and
      ii. Implementing a comprehensive Invasive Species Management Plan that outlines management measures to identify invasive that may occur in the Project area, and control and monitor their spread during each phase of construction."
   b. **Comment/Recommendation(s):**
      i. There is really no true mitigation for adverse modification of habitat mentioned as a consideration.

ii. The DEC requests that the Article 10 Application include a section that would detail the potential for habitat replacement through fee acquisition/conservation easement/active management as possible mitigation for the loss of habitat.

2. **Subheading – Grassland Birds** (Page 116)

   a. On page 116 the PSS states; “Specific mitigation plan development is on-going and includes consultation with the NYSDEC as per Part 182 of the New York Article 11.”

   b. **Comment/Recommendation(s):**

      i. The Region 6 DEC office in Watertown, NY is unaware of any specific mitigation plan development and requests that avoidance and minimization measures be utilized and then evaluated.

         a. After reviewing the results of the evaluation, and through consultation with local state (DEC) and federal biologists (USFWS) who have extensive knowledge regarding the natural resources in this area, an appropriate mitigation plan could then be developed. Such was the case when DEC was actively considering a permit application for the SLWF. Significant progress was made in assessment of adverse habitat modification, along with proposals and justifications for habitat replacement. A draft permit was prepared which included provisions for facility operational adjustments, habitat acquisition, habitat management, and performance bonding. Prior efforts in this

regard should be consulted when considering development of a mitigation plan.

ii. The correct reference for the code of rules and regulations governing endangered and threatened species of fish and wildlife; species of special concern, and incidental take permits should be as follows:

a. 6 NYCRR Part 182 (pursuant to ECL Article 11-0535)

iii. For more information regarding endangered, threatened, and species of special concern please visit the following URL:

a. http://www.dec.ny.gov/regs/3932.html

iv. The Article 10 Application should provide the correct information for referencing the New York code of rules and regulations governing endangered and threatened species of fish and wildlife; species of special concern and incidental take permits.

3. **Subheading – Wetlands** (Page 117)

a. On page 117 the PSS states; “Compensation for unavoidable fills in wetlands will be consolidated in one or more locations as yet undetermined. A compensatory mitigation plan will be prepared for any unavoidable permanent fill of wetlands or permanent conversion of forested wetland covered types to non-forested cover types. Wetlands will be mitigated in kind at a ratio to be determined in consultation with the appropriate regulatory agencies. Mitigation plans will contain sections on grading, planting, and monitoring for success of the mitigation.”

b. **Comment/Recommendation(s):**

i. Mitigation plans should be drafted in consultation with local state and federal habitat/wetland biologist.

ii. The mitigation plans should be reviewed and approved by local state and federal habitat/wetland biologist before construction begins.

iii. The Article 10 Application should include language which will ensure the Applicant will develop mitigation plan(s) by making the best use of the expert knowledge local state and federal habitat/wetland biologists have of the Project Area.

K. **Subsection 2.23 Water Resources & Aquatic Ecology – Exhibit 23** (Pages 136-146)

I. **Heading – Groundwater** (Page 136)

1. On page 136 in the 3rd paragraph the PSS states; "If dewatering of excavated pits for foundations occurs, it may result in minor and local lowering of the water table. Given the minor and highly localized character of these impacts, local water supply wells will not be adversely affected."

2. **Comment/Recommendation(s):**

a. This section does not discuss what effect the multitude of buried, underground interconnection and/or transmission lines may have to intercept groundwater which is sometimes referenced as 'Pipe Flow' or 'Piping'.

b. 'Piping' occurs when normal path of groundwater is intercepted because the soil and sediment compactness has been altered, modifying the hydraulic conductivity of the soil and sediment layers, allowing water to flow in the path of least resistance along the cable, line, or pipe that has been buried. This is a common

practice around residential dwellings to keep groundwater from entering a basement known as interceptor trenches for positive groundwater control.

c. The Article 10 Application should include a discussion in this section regarding the potential for the disturbance of the soil hydraulic conductivity along with what mitigation measures will be proposed to ameliorate the effects of groundwater interception.

d. The Article 10 Application should also include a discussion in this section on what mitigation measures will be used to offset the effects if the local water table is lowered and local water supplies become adversely affected.

II. **Heading – Aquatic Species and Invasive Species** (Pages 137-138)

1. On page 137 in the 1st paragraph the PSS states; "The NYSDEC has documented walleye spawning activity over gravel beds in Kents Creek upstream of Route 12E. The ability of Kents Creek to support a substantial resident population of walleye has not been confirmed; however, NYSDEC considers most of the spawning individuals in Kents Creek to be upstream migrants from Lake Ontario and/or the St. Lawrence River (NYSDEC, 2007)[20]. Field investigations confirm the density of fish bearing streams in the Project area is low and disturbances to streambeds and banks will be temporary; therefore, project-related impacts to aquatic species are not anticipated."

2. **Comment/Recommendation(s):**

a. In addition to walleye, there are several other economically important sportfish species, a threatened species, and three species listed in the Natural Heritage Database that would be of concern to the DEC which are found within or adjacent

to the general project area of the Towns of Cape Vincent, Lyme and the Village of Chaumont.

b. In light of this information, the Bureau of Fisheries and the Bureau of Habitat would recommend the use of the general warmwater construction avoidance window to ensure protection of these species during their spawning and rearing periods.

c. The Article 10 Application should include proposed mitigation measures to be used in the event that aquatic species are impacted as a result of construction measures

3. On page 137 in the 2nd paragraph the PSS states; “Based on results of previous studies, the Project area has suitable Blanding’s turtle habitat.”

4. **Comment/Recommendation(s):**

a. Discussions involving Blanding’s turtles, their habitat, and any associated potential impacts should be in a section for endangered, threatened, or species of special concern because the Blanding’s turtle is a New York State listed “Threatened” species.

b. The Article 10 Application should be corrected to include Blanding’s turtle discussions in a section for endangered, threatened, or species of special concern.

5. On page 138 of the PSS it states; “Eleven invasive species were identified by the NYSDEC as potentially occurring within the Project area:”

6. **Comment/Recommendation(s):**

a. The DEC recommends that the Applicant develop an Invasive Species Control Plan (ISCP) in consultation with DEC. In addition to the eleven (11) invasive

species listed on page 138, wild parsnip (*Pastinaca sativa*) is also present and will need to be included in the ISCP.

b. The Article 10 Application should be corrected to provide an Invasive Species Control Plan (ISCP) that would first, avoid potential impacts during these operations and secondly, minimize or reduce impacts by;

i. Inspecting all equipment, parts, and materials brought on site,

ii. Physically removing all plant or animal matter from equipment, parts, and materials brought on site,

iii. Cleaning and Disinfecting of any surface that has come into contact with an invasive species or unknown, and;

iv. Re-inspecting all equipment, parts, and materials before moving to a new site.

L. **Subsection 2.23.3 Proposed or On-going Studies during Pre-construction Activities** (Pages 140-142)

I. **Heading – Aquatic Species and Invasive Species** (Page 142)

1. On page 142 in the 2nd paragraph of the PSS it states; “Potential habitat to support Blanding’s turtle will be assessed within the revised Project area and within 500 feet of the areas to be disturbed.”

2. On page 142 in the 2nd paragraph of the PSS it also states; “If suitable habitat is located, the survey will expand to encompass the radial extent of the habitat cover type.”

II. **Comment/Recommendation(s):**

1. The analysis for assessing potential Blanding's turtle habitat should be expanded to include habitat within 1000 meters of disturbed areas and should be included in the section regarding E/T/SC species as it is a state listed species.
2. The methodology for conducting the assessment of potential Blanding's turtle habitat should fully describe what is meant by expanding the survey to encompass the radial extent of the habitat cover type.
3. The Article 10 Application should reflect the request for extending the assessment of potential Blanding's turtle habitat to include habitat within **1000 meters** of disturbed areas and this information should be in a section for endangered, threatened, or species of special concern as they are listed as a "Threatened" species. Likewise, the methodology for conducting the assessment of potential Blanding's turtle habitat should fully describe what is meant by expanding the survey to encompass the radial extent of the habitat cover type should be fully detailed in the Article 10 Application.

M. **Subsection 2.23.4 Avoidance and Minimization Measures** (Pages 143-144)

I. **Heading – Surface Wa**ter (Pages 143-144)

1. On page 143 the PSS states; "Potential impacts to surface waters will be minimal and will only occur during the construction of the Project. Results of field delineations for the Project area will be used to inform approaches for further avoidance, minimization, and/or reduction of impacts."

II. **Comment/Recommendation(s):**

1. In the unlikely event of a tower collapse or a nacelle/hub fire or other catastrophic event there is a potential for nacelle fluids to be leaked into nearby surface waters.

2. The Article 10 Application should provide a detailed description of the responding to a catastrophic event and the subsequent mitigation measures that will be employed to ameliorate any adverse impacts to surface waters of the State.

III. **Heading – Aquatic Species and Invasive Species** (Page 144)

1. On page 144 in the 2nd paragraph under the 3rd bulleted item the PSS states; "Construction clearance activities will be reduced, to the extent practicable, during the peak nesting season in areas in and adjacent to Blanding's turtle habitat (as June 1 – July 1)."

IV. **Comment/Recommendation(s):**

1. The construction avoidance window for Blanding's turtles is from May 28th through July 9th.
2. The Article 10 Application should reflect the correct construction avoidance window for Blanding's turtles as from May 28th through July 9th.

N. **Subsection 2.23.5 Proposed Measures to Mitigate Unavoidable Impacts** (Page 135)

I. **Heading – Aquatic and Invasive Species** (Page 145)

1. On page 145 the PSS states; "No significant adverse impacts to fish, amphibians, or reptiles are anticipated; therefore, no mitigation is proposed for aquatic species. Unavoidable impacts to Blanding's turtle habitat will be mitigated through enhancement, creation, or preservation of suitable Blanding's turtle habitat areas, including nesting areas, as part of the mitigation requirements for compliance with Article 11, Part 182 regulations."

2. **Comment/Recommendation(s):**
    a. The correct reference for the code of rules and regulations governing endangered and threatened species of fish and wildlife; species of special concern, and incidental take permits should be as follows:
        i. 6 NYCRR Part 182 (pursuant to ECL Article 11-0535)
    b. For more information regarding endangered, threatened, and species of special concern please visit the following URL:
        i. http://www.dec.ny.gov/regs/3932.html
    c. This section also failed to consider what mitigation would be proposed by the Applicant should there be adverse impacts to aquatic species even if they are unanticipated to occur.
    d. The Article 10 Application should provide the correct information for referencing the New York code of rules and regulations governing endangered and threatened species of fish and wildlife; species of special concern and incidental take permits.
    e. The Article 10 Application should also discuss potential mitigation options should aquatic species or habitats are inadvertently impacted through this Project.

O. **Exhibit E Summary of Pre-Construction Wildlife Studies, Methods and Findings**

I. **Survey Type – Eagle Nest Survey** (Page E-6)

1. On page E-6 the PSS states; “Bald eagle, osprey, and rough-legged hawk were observed on isolated and undeveloped islands in Lake Erie, while northern harrier was located in a cleared field on the mainland. One bald eagle nest, approximately 2 mi

outside of the 10-mile survey buffer and formerly identified by the NYSDEC, was documented as occupied with 2 chicks during the May 11, 2012, survey."

2. **Comment/Recommendation(s):**
    a. Cape Vincent is located along the shore of Lake Ontario and the St. Lawrence River so it is unclear as to what is meant by observations regarding avian wildlife "observed on isolated and undeveloped islands in Lake Erie".
    b. Furthermore the PSS does not specify what is meant by the term "10-mile survey buffer" and this should be clarified as many avian species easily travel more than 10 miles.
    c. Carlton Island is a significant habitat for wintering bald eagles and there are known roost and perch sites within approximately 2 miles of the closest proposed turbine. From Exhibit B it appears that the Study Area goes out only 4.5 miles from some of the proposed turbines.
    d. According to information from DEC's Potsdam office, there is one Bald eagle nest located approximately 10.5 miles from the nearest turbine and another located approximately 11.5 miles from the closest turbine as laid out on the map in Exhibit B.
    e. The Article 10 Application should provide clarification as to the actual geographic location of where the studies/surveys were conducted (e.g. Lake Erie, Lake Ontario, or the St. Lawrence River …etc.).

P. **Section 2.13 Real Property – Exhibit 13**

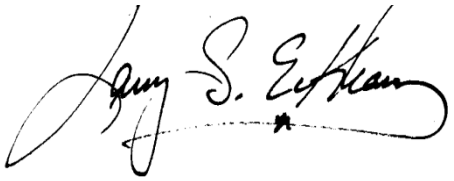
1. On p. 6, the PSS states "The preliminary real property drawing for Exhibit 13 (see Exhibit A) shows the parcels (leased or subject to easement as well as those that can

expect to be leased or made subject to easement) on which proposed project facilities …are to be located as well as the associated tax parcel numbers."

2. **Comment/Recommendation(s):**

Not only does the map (Exhibit A) not contain all the information the PSS maintains that it does, it does not contain the information that will be required by 16 NYCRR § 1001.13 which must presently be reasonably available to the applicant, e.g. owners of record of all parcels included in the site and adjacent properties, easements, grants and related encumbrances, public and private roads planned for use as access, differentiation between properties leased or subject to easement and those which have not been. These should have been made part of the PSS, and was previously requested by the Town.

Respectfully submitted,



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