STATE OF NEW YORK
BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

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

PRELIMINARY SCOPING STATEMENT

EXHIBIT E

SUMMARY OF PRE-CONSTRUCTION

WILDLIFE STUDIES, METHODS AND FINDINGS

Exhibit E

Summary of Pre-Construction Wildlife Studies, Methods and Findings

Survey Type	Survey Date	Methods	Key Findings
Indiana bat mist-netting	7/24/07 - 7/31/07 6/5/08 - 6/21/08	2007 - 10 mist net sites 2008 - 10 mist net sites	2007 - -17 Indiana bats captured at 4 sites (2 adult males, 6 juvenile males, 6 adult females, 2 juvenile females and 1 juvenile of unknown sex) 2008 - 4 Indiana bats captured at 3 sites (1 adult male, 1 adult female, and 2 juvenile females)
Indiana bat mist-netting	7/24/07 - 7/29/07 6/1/08 - 6/15/08	2007 - 6 mist net sites 2008 - 11 mist net sites	2007 4 Indiana Bats captured at 3 sites 2008 - No Indiana bats were captured.
Indiana bat night time radio telemetry	7/31/07 - 8/5/07 6/6/08 – 6/12/08	2007 - One adult female and one juvenile Indiana bat tracked 2008 – 2 adult female Indiana bats tracked	2007 – roost sites and foraging areas identified. 2008 - roost sites and foraging areas identified
Indiana bat radio telemetry/Roost Tree & Emergence Counts	6/7/08 - 6/21/08	2008 - 2 Indiana bats tracked (both adult females)	2008 - 6 roost sites identified; exit counts ranged from 1 to 33 individuals
Indiana bat radio telemetry Roost Tree & Emergence Counts	7/25/07 - 8/04/07	2007 - 6 Indiana bats tracked (3 adult females, 2 juvenile males, and 1 adult male)	2007 -13 roost sites identified; exit counts ranged from 1 to 19 individuals
Acoustic bat surveys	4/13/06 - 6/2/06 6/28/06 - 8/8/06 8/13/06 - 10/9/06	Spring and Summer - 3 AnaBat sampling locations - 1 unit placed at project met tower in open field and 2 other units deployed near wooded riparian areas within the project area; 1 riparian unit stolen in late spring and never recovered. Fall - 3 units at 1m, 25m, and 50m along met tower. Additional "roaming" or mobile AnaBat unit deployed during the summer using handheld AnaBat unit for 9 nights (3 sampling periods of 3 consecutive nights each)	Spring - 241 bat calls recorded over 49 nights (4.92 calls/night) Summer - 431 calls recorded over 15 nights (28.73 calls/night) Fall - 475, 205, and 33 calls recorded over 48, 48, and 51 nights at the low, mid, and high-level detectors, respectively (9.90, 4.27, and 0.65 calls/night)
Acoustic bat surveys	4/13/06 - 5/29/06 6/28/06 - 8/8/06 8/13/06 - 10/9/06	Spring - 1 unit at met tower at ground level, 2 non-met units at ground level Summer - 1 unit at met tower at ground level, 1 non-met unit at ground level Fall - 1 unit at met tower at ground level, 1 non-met unit at 10m above ground level at	Spring - met tower unit detected 769 bat calls over 39 nights (19.72 calls/night); two non-met locations detected 320 and 782 calls over 11 and 24 nights (29.09 and 32.58 calls/night). Summer - met tower unit recorded 198 calls over 9 nights (22.0 calls/night). The single non-met detector recorded 500 calls over 9 nights (55.56 calls/night).

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		radar location. Additional "roaming" or mobile AnaBat unit deployed during summer using a handheld AnaBat unit for 9 nights (3 sampling periods of 3 consecutive nights each).	Fall - met tower unit recorded 463 calls over 50 nights (9.26 calls/night). The single non-met detector recorded 1629 calls over 50 nights (32.58 calls/night).
Acoustic bat surveys	8/4/08 -10/15/08	4 ground-based Anabat SD1 ultrasonic detectors	Total of 678 bat passes were recorded on 182 detector-nights s for a mean of 3.43±0.42 bat passes per detector-night. -High Frequency calls (>40kHz) recorded: 86.4% -Low Frequency calls (<40kHz) recorded: 13.7% High- and low-frequency calls were highest during the first week of the study, with a second peak during the first week of September before decreasing for the remainder of the study.
Raptor migration surveys	Spring & Fall 2006 Spring 2007	Spring 2006 - 12 point count surveys Fall 2006 - 30 point count surveys Spring 2007 - 21 point count surveys	Spring 2006 - Detection of 777 individual birds including 79 raptors of 10 species. NYSDEC species of special concern observed: sharp-shinned hawk, northern harrier, and osprey. Fall 2006 - Detection of 3,050 individual birds including 165 individual raptors of 10 species; NYSDEC threatened northern harrier was the most commonly recorded raptor species (n = 69, 76.7% of surveys). NYSDEC species of special concern observed: Cooper's hawk, sharp-shinned hawk, and common loon. Spring 2007 - Detection of 1,851 individual birds including 205 individual raptors of 9 species. NYSDEC species of special concern observed: Cooper's hawk, northern harrier, and osprey.
Raptor migration surveys	3/22/08 - 5/28/08	Twenty-one surveys conducted at 3 points within the project area, and 14 surveys were conducted at 2 reference points established outside of the project area for comparison.	At the 3 points in the Project area, 1,039 birds were recorded, including 137 raptors, representing 11 raptor species. Turkey vulture was the raptor species with the highest number of observations - 48.2%. Buteos tended to be the second highest sub-group observed, primarily red-tailed hawks which accounted for 13.9% of raptors observed. NYSDEC endangered species observed = 1 golden eagle, 1 peregrine falcon; NYSDEC threatened species observed = 20 northern harriers; NYSDEC species of special concern = 2 red-shouldered hawks, 3 sharp-shinned hawks, 2 osprey. At the 2 reference points, 5,273 birds were recorded, of which 4,569 [86.6%] were Canada geese, and 99 were raptors, representing twelve raptor species. Turkey vulture was the raptor species with the highest number of observations - 52.5%. A slightly higher proportion of red-tailed hawks were observed at the reference points (17.2%), than in the project area (13.9%). NYSDEC species of concern observed = 1 bald eagle (state-threatened), 1 upland sandpiper (state-threatened), 9 northern harriers, 3 sharp-shinned hawks, 4 red-shouldered hawks, and 2 osprey were recorded at reference points.

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Raptor migration surveys	4/14/06 - 5/1/06 3/21/07 - 5/1/07 9/23/07 - 11/11/07	Three Fixed- Point Survey Stations; 60 min observation periods.	Spring 2006 - each point surveyed 4 times, 12 total surveys (12 survey hours), 1,581 individuals recorded: 91 raptors of 9 species. Fall 2006 - each point surveyed 10 times, 30 total surveys (30 survey hours), 8,521 individuals recorded: 288 raptors of 9 species. NYSDEC threatened northern harrier was the most commonly recorded raptor species (n = 87, frequency = 90% of surveys). NYSDEC species of special concern observed: Cooper's hawk, sharp-shinned hawk, osprey. One Bald eagle observed. Spring 2007 - each point surveyed 7 times, 21 total surveys (21 survey hours), 2,666 individuals recorded: 232 raptors of 8 species. Total # species all season = 13.
Winter raptor and waterfowl surveys	Nine days between 11/5/06 - 3/1/07	Driving Surveys: 27 hours total survey time - *395 Individuals in 96 groups recorded* Fixed-Point Count Stations (3): 13.5 hours total survey time	Driving Surveys: 395 Individuals in 96 groups recorded Fixed-Point Count Stations (3): 255 individuals in 87 groups recorded during winter fixed point counts. Two species of waterfowl, two waterbird species, and six raptor species were observed during either survey. Canada goose was the most common waterfowl species observed during the winter surveys based on use estimates. Rough legged hawk and red-tailed hawk were the most common raptor species.
Winter raptor and waterfowl surveys	9 days between 11/5/06 - 3/1/07	Driving Surveys: 27 hours total survey time Fixed-Point Count Stations (3): 13.5 hours total survey time	Driving Surveys: 795 individuals in 159 groups recorded Fixed-Point Count Stations (3): 790 individuals in 146 groups recorded during winter fixed point counts. Four species of waterfowl, two waterbirds species, seven raptor species, and one upland gamebird species were observed. Unidentified scaup and Canada goose were the most common waterfowl species observed; red-tailed hawk and rough-legged hawk were the most common raptor species; 2 bald eagles observed during winter 2007 driving surveys
Winter Waterfowl and Raptor Surveys	17 days between 11/4/07 - 3/21/08	Three Fixed-Point Count Stations: 60-minute point count surveys conducted The scope of the survey was expanded for 2007-2008 and three additional survey points were added for a total of six survey stations.	Fixed-Point Count Stations (3): A total of 2,230 individuals in 280 groups of waterbirds, waterfowl and raptors were recorded during the surveys. Two species of waterfowl, three species of waterbirds (all gull species), and nine species of raptors were observed during the surveys. Canada goose was the most abundant and commonly observed waterfowl species recorded during the winter surveys. Rough-legged hawk and red-tailed hawk were the most abundant and common raptor species. State-Threatened species observed: 12 northern harrier and 2 Bald eagles. No short-eared owls were observed during the regular surveys or the agency site survey targeting short-eared owls.

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Marine radar surveys	8/15/06 - 10/15/06 4/19/07 - 6/8/07	Two fixed-station locations	Fall 2006 - North Location: Passage Rate was 345.8 +/- 13.3 targets/km/hr (mean +/- SE) and Mean Flight Altitude was 490.4 +/- 1.7 m above radar level; 7.7% of targets had flight altitudes less than 125 m Spring 2007 - South Location: Passage rate was 166.2 +/- 8.8 targets/km/hr and Mean Flight Altitude was 441.3 +/- 2.5 m above radar level; 14.0% of targets had flight altitudes less than 125 m
Breeding bird survey	6/29/06 & 7/6/06	20 point count locations (each sampled twice), 3-minute counts.	A total of 812 individual birds were observed in 462 groups of 63 species. Red-winged blackbird, bobolink, and song sparrow were the most common passerines; NYSDEC threatened species observed: northern harrier and Henslow's sparrow; special concern: horned lark, grasshopper sparrow, vesper sparrow; USFWS 2002 Birds of Conservation Concern: bobolink and wood thrush.
Breeding bird survey	6/30/06 & 7/7/06	20 point counts (each sampled twice), 3-minute counts.	A total of 1080 individual birds observed in 425 groups, 59 species. European starling, red-winged blackbird, and bobolink were the most common passerines observed; NYSDEC threatened species observed: northern harrier; special concern: horned lark, grasshopper sparrow; USFWS 2002 Birds of Conservation Concern: bobolink and wood thrush.
Grassland Breeding Bird Surveys	6/12/09 - 7/20/09 5/10/10 - 5/11/10	29 survey points; a total of 5 survey rounds (5-min counts in 100-m radius plots) conducted in June 2009, July 2009, and May 2010.	During round 3 (June 28-30, 2009), Henslow's sparrow calls were broadcast for one minute prior to the fixed-point count survey. During round 4 (July 6-9, 2009), sedge wren calls were broadcast for one minute prior to the fixed-point count survey and Henslow's sparrow calls were broadcast for one minute following the survey. Eighty-two unique species were identified over the 5 survey rounds; the most abundant species in terms of number of individuals observed were red-winged blackbird, yellow warbler, American Robin, song sparrow, bobolink, and savannah sparrow. The most abundant RTE species during fixed-point count surveys was grasshopper sparrow (31), which constituted 76% of all target RTE species observations. Relatively few Henslow's sparrows (4), northern harriers (2), upland sandpipers (2), and vesper sparrows (2) were observed. Sedge wren was not observed during fixed-point count surveys. Bald eagle (T - 3), black tern (E - 1), common loon (SSC - 2), Cooper's hawk (SSC - 2), grasshopper sparrow (SSC - 2), Henslow's sparrow (T - 1), northern goshawk (SSC - 1), northern harrier (T - 19), and upland sandpiper (T -2) were also recorded incidentally.
Grassland Breeding Bird Transect Surveys	5/20-21, 6/9-10, 6/25-26 & 7/7-8 2010	Surveys were conducted 4 times between May and July for a total of 189 transect surveys. Surveys were completed on 300-meter long transects arrayed at 37 proposed turbine	A total of 94 species were recorded; 67 species in Round 1 and 2, 73 species in Round 3, and 62 species in Round 4. Overall, a total of 6,738 birds were recorded; of which 30.2% of observations were of red-winged blackbird and bobolink (2.1% of all species). Mean use ranged from 12.0 to 15.1

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		locations and 12 reference areas	birds/transect across rounds; averaging 13.4 birds/transect overall. Mean use was highest by passerines in all four rounds, ranging from 11.1 to 12.1 birds/transect. Passerines accounted for 80.3-95.3% of overall use and were recorded in all surveys. Blackbirds/Orioles had the highest mean use of any passerine sub-group; ranging from 4.93-6.83 birds/transect over rounds. Seven species of raptors were recorded during surveys; although mean use by this bird type was relatively low. Mean use by raptors ranged from 0.04 to 0.07 birds/transect and this bird type was only recorded in 11.6% of surveys. Four state-threatened species were recorded: 1 Henslow's sparrow, 4 northern harriers, 18 sedge wrens, and 2 upland sandpipers. In addition, 5 state species of concern were recorded: 6 American bitterns, 1 Cooper's hawk, 64 grasshopper sparrows, 1 osprey, and 12 vesper sparrows. Four northern harriers, 2 sedge wrens, 4 upland sandpipers, 1 grasshopper sparrow, and 1 sharp-shinned hawk (SSC) were recorded as incidental observations.
Overhead Transmission Line Blanding's Turtle Habitat Survey	6/17/10	Potential nesting habitat investigation conducted along a proposed Overhead Transmission Line route by Riveredge Associates. The habitat assessment began at the intersection of Swamp and Burnt Rock Roads and continued to the t-line terminus on the east side of CR 179 above the east bank of the Chaumont River.	Two contiguous areas were identified as potentially supporting Blanding's turtles in or adjacent to the study area and are referred to as 1) Swamp Road Wetlands and 2) Railroad Grade Wetlands. Areas of suitable Blanding's turtle habitat in the Swamp Road wetland include approximately 336 acres southwest of Swamp Road and 74 acres northeast of Swamp Road. Railroad Grade Wetland is continuous and hydrologically-connected with the Swamp Road Wetland at its northeastern edge, is bisected by an unused railroad grade, and is largely outside of the study area. The wetland contains approximately 103 acres of suitable Blanding's turtle wetland habitat and 72.7 acres of nesting habitat nearby. Based on field investigation and examination of available aerial photographs and wetland maps, the remainder of the proposed Overhead Transmission line in the study area does not support Blanding's turtle wetland habitat
Wind Farm Site - Blanding's Turtle Habitat Survey	6/3/10 & 6/4/10, 6/7/10 - 6/27/10	Site visits to the study area were performed to identify and evaluate areas within the project's zone of potential impact as potentially suitable Blanding's turtle nesting habitat. In areas with potential nesting habitat, surveys were performed for Blanding's turtle nesting activity, following the protocol developed by the New York State Department of Environmental Conservation (NYSDEC). Nesting activity surveys for Blanding's turtles were conducted	Four sites in the Study area associated with potential Blanding's turtle habitat were determined to possess potential nesting habitat features and were selected for Nesting Activity Surveys. Nightly surveys conducted during peak nesting times (6:00 PM to midnight) for 21 consecutive nights from 7 June through 27 June 2010 recorded 0 Blanding's turtles at the four sites with suitable nesting habitat.

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		in suitable areas such areas. Surveys focused on locating 1) nesting female turtles, 2) evidence of digging, 3) turtle tracks, and 4) nests destroyed by predators. Searches focused on habitat edges between potentially occupied wetlands and potentially suitable nesting areas.	
Blanding's Turtle Habitat Survey	11/18/2007	Wetlands and adjacent areas were evaluated to determine whether the vegetative structure, vegetative species composition, and other habitat parameters represent suitable habitat for Blanding's turtle for foraging, nesting, or overwintering.	A total of 51 wetlands were surveyed for Blanding's turtle habitat. These included 31 wetlands in the Project Area, and 20 wetlands in the proposed Overhead Transmission Interconnect ROW. Of these wetlands, five wetlands have potential Blanding's turtle habitat, with two wetlands classified as having high potential for Blanding's habitat. These wetlands are dominated by willow shrubs with channels, small shallow pools, basking sites, and hummocks, and are ideal habitat for Blanding's turtles.
Eagle Nest Survey	03/27/2012 & 5/11/2012	Two surveys were conducted on March 27 and May 11, 2012 within a 10-mile buffer of the Project area. The goal of the first survey was to document raptor nest structures, whereas the goal of the second survey was to revisit documented and potential bald eagle nests located during the first survey to determine nest success and productivity.	Five active red-tailed hawk nests, 6 active osprey nests, and 5 unoccupied, inactive large incidental stick nests were documented during the two surveys. No active bald eagle nests were documented within the 10-mile survey buffer in either of the two surveys. 4 incidental raptor species were recorded during the March 27 survey, including 5 bald eagle (NY Threatened species), 1 osprey (NY Special Concern species), 10 rough-legged hawk, and 1 northern harrier (NY Threatened species). 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.