

Arkwright Summit Wind Project FEIS Appendix F: Responses to Comments Received on the DEIS

No.	Committer	Date	Comment	Response	Section
1	CRA	6/10/08	<p>Conestoga-Rovers & Associates (CRA) has reviewed the Preliminary Visual Resource Assessment (VRA) report prepared by Saratoga Associates (SA) on February 18, 2008, for the proposed New Grange Wind Farm (NGWF) located in the Town of Arkwright, Chautauqua County, NY. The VRA, presented as Appendix F of the Draft Environmental Impact Statement (DEIS), includes a visual impact assessment, the identification of major and minor sensitive locations, a shadow flicker analysis, and photographic simulations. CRA also reviewed Section 2.5 of the DEIS, Aesthetic and Visual Resources.</p> <p>This review is based on modeled simulation results documented in the SA VRA report. As this is a preliminary report, additional comments may be provided once CRA has reviewed the final report and verified the modeling independently.</p>	The Applicant provided an updated SVRA as Appendix E to the Supplemental Environmental Impact Statement (SEIS) that was accepted by the Lead Agency on April 13, 2009.	2.5 - Aesthetic & Visual Resources
2	CRA	6/10/08	<p>Appendix F #1 The VRA does not state if there are other wind farms existing, proposed or under construction in the vicinity of the project. If there are, this fact should be stated near the introduction. If there are not other wind farms, then this should be clearly stated.</p>	An updated cumulative impact discussion was provided in the SEIS, Section 7.0. The Applicant researched online and agency records to identify wind and other development projects within 30 miles of the Arkwright Summit Wind Farm (ASWF). The Applicant also contacted numerous local officials in order to identify those developments which may not be publicly documented at the time of the filing. Table 7.1-1 in the SEIS lists six existing and proposed wind projects in Erie and Chautauqua Counties. Section 7.0 of the SEIS2 provides updated information with respect to regional proposed/existing wind farms, and includes a detailed discussion of potential cumulative impacts, including visual impacts.	7.0 - Cumulative Impacts & Benefits
3	CRA	6/10/08	<p>Appendix F #2 The make, model and generation capacity of the proposed turbines are never stated, although the total number of turbines (47) and total proposed generation capacity (79.9 MW) are. CRA recommends that this information be clearly provided near the introduction.</p>	The Vestas V110-2.0 and 2.2 MW models are now being considered for the Project. The details of these models are described in Section 1.0 of the SEIS2. Both the 2.0 MW and 2.2MW models have the same physical dimensions.	1.0 - Description of Proposed Action
4	CRA	6/10/08	<p>Appendix F #3 A turbine make and model is presented on page 41 of the VRA for the purposes of developing photographic simulation. The turbine used was a Vestas V90 1.8 MW unit with an 80-meter hub height and 90-meter diameter blades. This is the first mention of a specific turbine in the VRA. It is unclear in the report if this make/model of turbine will be the final unit of choice for the NGWF. CRA recommends that, until the final choice of turbine is decided, that it be clearly stated in the text that the use of the Vestas V90 1.8 MW unit is purely for development of preliminary photo simulations only. In addition, all photo simulations, viewshed analysis, and flicker calculations presented in the VRA should be labeled as "PRELIMINARY" as they may change once the choice of turbines is finalized.</p>	The Applicant provided an updated SVRA as Appendix E to the SEIS. For the SEIS2, the Vestas V110-2.0 and 2.2 MW models are being considered for the Project, and are described throughout the SEIS2. The details of these model are described in Section 1.0 of the SEIS2. Both the 2.0 and 2.2 have the same physical dimensions. The Vestas V110 was used in the updated Second Supplemental Visual Resource Assessment (SVRA2), which is appended to the SEIS2.	1.0 - Description of Proposed Action
5	CRA	6/10/08	<p>Appendix F #4 Table 8 – Shadow Flicker Summary should include three additional columns. One column should describe whether each map ID is a project participant or not. The second column should provide the maximum predicted hours per day. The final column should provide the total number of shadow days predicted.</p>	The Applicant provided an updated shadow flicker assessment as part of the SVRA in Appendix E to the SEIS. Table 8 (SEIS Appendix E) provides the requested information, including identification of project participants, the maximum potential shadow hours per day, and the total number of shadow days per year. An updated shadow flicker analysis is included as Appendix K of the SEIS2.	2.5 - Aesthetic & Visual Resources
6	CRA	6/10/08	<p>Appendix F #5 Based on shadow flicker concerns identified in correspondence submitted on April 2, 2008 by Councilman Jeffrey N. Dietrich, Town of Arkwright, to Robert Adams, CRA recommends that additional mitigation measures be investigated and potentially made available, including the installation of window awnings, the planting of screening foliage, and the possible relocation of Turbine 22 further west/southwest.</p>	See response to Dietrich comments dated 4/2/08. (Comment 176).	2.5 - Aesthetic & Visual Resources
7	CRA	6/10/08	<p>Appendix F #6 Further to item 5 above, sample charts showing the times of year and length of time when shadow flicker</p>	The Applicant provided an updated shadow flicker assessment as part of the SVRA in Appendix E to the SEIS. Figure 4 (SEIS	2.5 - Aesthetic & Visual Resources

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			may occur should be presented.	Appendix E) provides sample charts showing the times of year and length of time when shadow flicker may occur at two sample receptors. Shadow will not be evident every day and for the entire amount of time shown on the sample charts. In addition, an updated shadow flicker analysis is included as Appendix K of the SEIS2.	
8	CRA	6/10/08	Appendix F #7 If additional wind farms are proposed or scheduled for the local area, a cumulative visual impact and shadow flicker assessment should be performed.	See response to CRA Memo on DEIS Appendix F, #1 (Comment 2). In addition, Section 7.0 of the SEIS2 provides updated information with respect to regional proposed/existing wind farms, and includes a detailed discussion of potential cumulative impacts, including visual impacts.	7.0 - Cumulative Impacts & Benefits
9	CRA	6/10/08	Appendix F #8 It is noted that the VRA mentions 47 turbines as part of the NGWF, but the Noise Impact Assessment references 50 turbines. CRA recommends that the total number of project turbines be confirmed and that all reports and assessments be corrected to reflect the confirmed number. Further, any predictive models executed (e.g., noise, flicker, zone of visual impact, etc.) should be revised.	The VRA provided in the DEIS (Appendix F) included an analysis of 47 turbines. The NIA provided in the DEIS (Appendix H) was also based on 47 turbines and mentioned "approximately" 50 turbines, meaning 47. The updated SVRA provided in the SEIS (Appendix E), as well as the updated NIA and other studies submitted with the SEIS, included an analysis of 44 turbines. See also response to CRA comments on Appendix H dated 6/10/08 (Comment 19).	1.0 - Description of Proposed Action
10	CRA	6/10/08	DEIS Section 2.5 #1 A statement that the VRA being referenced is preliminary should be incorporated near the beginning of the section.	Comment noted. Given that the entire DEIS is a draft document, all of the information appended to the DEIS to support the environmental impact analysis is also draft and preliminary. An updated SVRA was provided as Appendix E to the SEIS. The visual simulations in the updated SVRA have been labeled preliminary in response to this comment.	2.5 - Aesthetic & Visual Resources
11	CRA	6/10/08	Conestoga-Rovers & Associates (CRA) has completed a review of the Environmental Sound Survey and Noise Impact Assessment (Assessment) and DEIS Sections 2.7 prepared by Hessler Associates, Inc. (Hessler) for the New Grange Wind Farm, LLC, proposed for the Town of Arkwright in Chautauqua County, New York State. CRA has not reviewed the Cadna A modeling files designated with a ".cna" file extension.	Comment noted. The Applicant provided an updated NIA as Appendix H to the SEIS that was accepted by the Lead Agency on April 13, 2009.	2.7 - Sound
12	CRA	6/10/08	Appendix H #1 The Assessment should differentiate between participating and non-participating residences in the text. The noise impact at non-participating residences should be presented and discussed.	The Noise Impact Assessment that was prepared for the SEIS2 and included as Appendix N, identifies both participating and non-participating residences within the noise impact threshold. These residences are identified in plots 1-4 of the Noise Assessment, and in a table that provides the address, receptor number, and expected average Project sound level. Additionally, as stated in Section 2.7.3.2 of the SEIS2, Arkwright Summit will offer a good neighbor agreement and corresponding payment to landowners with occupied residences that would fall within the 41 dBA nominal impact threshold line, based on the FEIS project layout.	2.7 - Sound
13	CRA	6/10/08	Appendix H #2 The Assessment should tabulate and summarize the noise impact predicted for all non-participant homes within this project area. The table should provide a receptor number, corresponding street address for reference, and a total predicted noise impact in "dBA".	See response to Comment 12.	2.7 - Sound
14	CRA	6/10/08	Appendix H #2 The noise impact at "Receptor 101" is a concern identified in April 2, 2008 correspondence to Robert Adams from Councilman Jeffrey N. Dietrich, Town of Arkwright. Receptor 101 is not a reference made in this Assessment and may be a reference made in the Shadow Flicker Study for this project site.	Identification of the site as "Receptor 101" is from the shadow flicker assessment provided in the DEIS (Appendix F), not the noise assessment. Impacts to noise receptors are provided in Plots 1-4 of the NIA in the SEIS (Appendix H).	2.7 - Sound
15	CRA	6/10/08	Appendix H #3 Discussion and evaluation of cumulative noise impacts from adjacent wind farm projects should be included, if appropriate. If there are not adjacent wind farms of	See response to CRA Memo on Appendix F, #1 (Comment 2).	7.0 - Cumulative Impacts & Benefits

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			noise impact significance, a qualitative statement to that effect should be included in the text.		
16	CRA	6/10/08	Appendix H #4 Wind farm project opponents may object to the presence of wind turbines regardless of real or perceived impacts. Therefore, public advisory meetings should be scheduled in advance of construction start-up to educate local residents on the wind farm and to explain Noble's [sic] commitment to minimize impact to the public. This discussion should be included in the text.	Arkwright Summit is committed to public outreach as part of the Project, as evidenced by the numerous open houses, dinners, presentations and mailings. Arkwright Summit will continue these efforts moving forward	
17	CRA	6/10/08	DEIS Section 2.7 #5 Section 2.7.2.3: CadnaA version 3.5 was used for acoustic modeling purposes, however software version 3.7 is available. A statement to justify the use of this earlier software version should be made in the text.	The latest available version of CadnaA was used at the time the modeling was done for both the DEIS and SEIS and SEIS2. The program is automatically updated as new versions become available from DataKustik. Version 3.5 was utilized for the NIA provided as Appendix H to the DEIS. Version 3.7 was used in the NIA provided as Appendix H to the SEIS. Version 4.4.145 of CadnaA was utilized for the NIA that was prepared for the SEIS2.	2.7 - Sound
18	CRA	6/10/08	DEIS Section 2.7 #6 Section 2.7.2.3: The ground absorption coefficient value of G = 0.5 was input and should be referenced in the text.	As stated in the NIA (DEIS Appendix H, Section 3.4, page 29), a ground absorption coefficient of 0.5 was used for the modeling.	2.7 - Sound
19	CRA	6/10/08	DEIS Section 2.7 #7 Section 2.7.2.4: 50 turbines were the subject of the study and should be referenced in the text.	Only 47 turbines were reviewed. The 50 turbines referenced at the beginning of the text was an approximation, not the exact number. See response to CRA comments on Appendix F dated 6/10/08 (Comment 9).	2.7 - Sound
20	CRA	6/10/08	DEIS Section 2.7 #8 Section 2.7.2.4 (last paragraph): A subheading "Low Frequency / Tonal Noise" should be added to clearly identify this discussion section.	Comment noted. Additional information on the subject of low frequency noise was provided in the SEIS Appendix H, Environmental Sound Survey and Noise Impact Assessment, Section 3.8 and Annex A.	2.7 - Sound
21	CRA	6/10/08	DEIS Section 2.7 #8 The lack of adequate information about low frequency noise is an issue that was identified in an April 2, 2008 correspondence to Robert Adams from Councilman Jeffrey N. Dietrich, Town of Arkwright. Additional discussion in the text is recommended on this topic.	<p>Additional information on the subject of low frequency noise was provided in the SEIS Appendix H, Environmental Sound Survey and Noise Impact Assessment, Section 3.8 and Annex A.</p> <p>As discussed in Section 3.8 of Appendix H to the SEIS, modern wind turbines of the type proposed for the Project do not generate low frequency or infrasonic noise to any significant extent and impacts are not anticipated. Early wind turbines with the blades downwind of the support tower were prone to producing a periodic thumping noise each time a blade passed the tower wake; however, this effect no longer exists with the upwind blade arrangement technology used today.</p> <p>In addition to the study provided in Annex A to the appendix ("How the 'mythology' of infrasound and low frequency noise related to wind turbines might have developed" by Dr. Geoff Leventhall, a highly respected acoustician in the field of low frequency noise), a new study has been recently completed by Sondergaard [Ref. 12] with the specific objective of determining whether large wind turbines produce significant low frequency noise. Extremely careful measurements were made based on the IEC 61400 measurement procedure using multiple elaborate wind screens over a microphone placed on a reflective ground plate (where the wind velocity is theoretically zero) to preclude self-noise contamination. The results of this testing show that for a typical 1.5 MW turbine its sound levels taper down steadily in magnitude towards the low end of the frequency spectrum and that the sound energy below about 40 Hz is actually comparable to or less than the sound energy in the natural rural environment where the measurements were made</p> <p>It is generally thought by acousticians specializing in wind turbine noise that amplitude modulation, or the swishing sound, with a "frequency" of about 1 Hz is, in fact, what many people are actually mean by the term "low frequency noise".</p>	2.7 - Sound

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				<p>Another measure of low frequency noise is the "C-weighted sound level", which does not substantially suppress the lower frequencies to the extent A-weighting does. Because of this characteristic, C-weighted sound levels are most commonly used to measure and evaluate noise sources that produce significant amounts of low frequency noise, such as from combustion turbines. In ANSI Standard B133.8 Gas Turbine Installation Sound Emissions [Ref. 5] a threshold level of 75 to 80 dBC is given as the approximate on-set point for complaints and the perception of vibrations due to airborne sound. The maximum predicted C-weighted sound level for any residence within the site area is 60 dBC. This level is well below the threshold of perception, therefore no adverse impact is expected at any receptors from low frequency noise.</p> <p>These conclusions are not just theoretical but have been verified in field studies. A recent post-construction noise study completed in October 2008 at a wind farm in Wisconsin concludes that, "[h]ealth effects in the form of sleep interference and low frequency noise level issues are addressed and it is concluded there should not be adverse response caused by these issues" (http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=102715).</p>	
22	CRA	6/10/08	DEIS Section 2.7 #9 Section 2.7.3.1: "Construction activity will be limited to the daytime hours to reduce the potential impact of construction noise, whenever possible." The daytime period of 7 a.m. to 8 p.m. should be defined and added to this statement.	As stated in Section 2.13 of the SEIS2, pursuant to Section 12(A)(14) of the Towns' Wind Energy Facilities Laws, Project construction will generally be limited to the hours of 7 AM to 7 PM. However, a waiver will likely be requested to allow certain activities to occur outside these hours. Such activities are anticipated to be limited, and will not be conducted without advanced notice and approval by the Towns (see also discussion of waivers below).	2.7 - Sound
23	NYSDEC, Rudyard Edick	3/11/08	If you could please provide me a list of DEC classified streams that will be impacted (by type - whether C(t), etc). Please include the nature of each impact and a quantitative description.	Delineated streams within the Project Area were provided in Table 5-3 of the Wetlands and Waterbodies Report included as Appendix C to the SEIS. The report has been provided to both the NYSDEC and USACE for jurisdictional determination. Both agencies conducted a field visit to the site in July 2009. Jurisdictional Determinations are pending, and impacts will be identified in the Joint Application for Permits to both the USACE and NYSDEC. An updated Wetlands and Waterbodies Report, which identifies delineated streams within the Project Site is included as Appendix E to the SEIS2.	2.2 - Water Resources
24	NYSDEC, Rudyard Edick	3/11/08	Also, if you could please list the DEC wetlands that will be impacted with the nature and acreage of impact.	Delineated wetlands within the Project Area were provided in Table 5-2 of the Wetlands and Waterbodies Report included as Appendix C to the SEIS. The report has been provided to both the NYSDEC and USACE for jurisdictional determination. Both agencies conducted a field visit to the site in July 2009. Jurisdictional Determinations are pending, and impacts will be identified in the Joint Application for Permits to both the USACE and NYSDEC.	2.2 - Water Resources
25	NYSDEC, Rudyard Edick	3/12/08	Please send a copy of the DEIS package to Ken Roblee (a key member of our DEC regional staff) at the following address. If you could expedite the mailing please. I don't believe our regional staff received a copy. Ken is specifically interested in a detailed map of the turbine layout. Would you have anything of finer resolution than present in the DEIS document? If so, please send it to us both. Mr. Ken Roblee DEC Region 9 Office 270 Michigan Ave. Buffalo, NY 14203-2999.	A copy of the DEIS was mailed to Ken Roblee, as requested.	
26	NYSDEC,	3/12/08	Also, please arrange a meeting to discuss your bird/bat	A meeting was arranged and held on February	2.3 -

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	Rudyard Edick		studies as soon as possible. You can arrange this through myself but the key people who need to be present are Brianna Gary (DEC Central Office) and Regional Staff. It is imperative that such studies commence as quickly as possible. I am attaching a key document - our draft bird/bat study guidelines for proposed commercial wind energy developments. Please familiarize yourself with this document. I am also attaching our scoping issue document - I realize this stage has passed but it may be useful to you in the future.	4, 2009 with the NYSDEC to discuss bird and bat studies. As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	Biological, Terrestrial & Aquatic Ecology
27	NYSDEC, Rudyard Edick	5/12/08	Executive Summary Project Description The second paragraph of this section (ES-1) states that construction is "anticipated to commence as early as spring 2008 and to finish by the end of 2009, with some preliminary clearing potentially occurring in fall 2008." The dates listed here do not seem correct; it seems "spring 2008" should be "spring 2009." This should be amended to correctly reflect a construction schedule.	The SEIS provided an update to the anticipated construction timeframe as a correction in response to this comment. Section 1.6 of the SEIS indicated that construction is anticipated to begin in the spring of 2010, with some preliminary clearing possible in the fall of 2009. The schedule has been updated subsequent to the submission of the SEIS. A revised construction schedule is presented in Section 1.0 of the SEIS2, with construction anticipated to begin in May, 2016.	Executive Summary
28	NYSDEC, Rudyard Edick	5/12/08	Executive Summary Summary of Mitigation Measures This section provides a bulleted list of "specific measures designed to mitigate or avoid adverse potential environmental impacts" from the construction or operation of the project (ES-4 & ES-5). The 13th bullet states "performing post-construction monitoring to improve understanding of possible avian impacts." DEC would like to clarify that post-construction monitoring is not a mitigation activity. Monitoring and evaluating impacts alone does not mitigate for the loss of environmental or wildlife resources. Post-construction monitoring must also include an evaluation of impacts to bats (see comments on DEIS Section 3.2 below for further discussion of this issue).	Comment noted. Additionally, As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	Executive Summary
29	NYSDEC, Rudyard Edick	5/12/08	Section 2.3: Biological, Terrestrial, and Aquatic Ecology- Existing Conditions Section 2.3.1.3: Wildlife and Terrestrial Habitat Breeding Bird Survey The second paragraph of this section states that "a total of 1,117 species were recorded" during two breeding bird surveys. This is an error; "species" should be "individuals."	Comment noted. The second paragraph of Section 2.3.1.3 of the DEIS should read "a total of 1,117 individuals were recorded" during two breeding bird surveys.	2.3 - Biological, Terrestrial & Aquatic Ecology
30	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.1.4: Threatened and Endangered Species The fifth paragraph of this section states that "no upland sandpipers or short-eared owls, species which may be present but difficult to detect, were documented in the Project Area during the surveys." It should be noted that short-eared owls are typically found in New York only during the winter, with very few pairs remaining through the year to breed. If owls do use the site, they would likely only be seen on winter surveys. As no winter surveys were conducted as part of the pre-construction work at the site, it is not unexpected that no short-eared owls were detected.	Section 2.3.1.4 of the SEIS provided further discussion on the short-eared owl and referenced literature and regional data to support the conclusion that short-eared owl use of the Project Site is not expected to be high due to the lack of suitable habitat.	2.3 - Biological, Terrestrial & Aquatic Ecology
31	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.1.4: Threatened and Endangered Species The eighth paragraph states that "no eastern small-footed myotis were captured...during spring, summer, and fall 2007." If mist-netting or other trapping techniques were employed on site, either for all bats or targeting this species, information regarding the timing, locations(s) and results of these efforts should be provided.	Section 2.3.1.4 of the SEIS provides a discussion on AnaBat surveys relating to small-footed myotis. No small-footed myotis were positively identified during the AnaBat surveys. Additionally, site conditions do not appear to be highly suited to this species' summer habitat.	2.3 - Biological, Terrestrial & Aquatic Ecology
32	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.1.4: Threatened and Endangered Species The last paragraph of this section mentions rare plant surveys that will target the preferred habitats of each protected species likely to occur in the project area. Efforts should be made to ensure surveys are done at an appropriate time of year that will allow for detection of each of the species being searched for.	As stated in Section 2.3.1.2 of the SEIS, rare plant surveys were conducted in the summer of 2008 during the wetland delineation effort. The surveys did not identify any rare, threatened, or endangered plant species of concern. Further information is provided in Appendix C of the SEIS.	2.3 - Biological, Terrestrial & Aquatic Ecology
33	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.1.5 Other Sensitive Wildlife Resources This section discusses the Dunkirk Harbor/Point Gratiot and Wheeler's Gulf Important Bird Areas (IBA), both of which are within 5 miles of the project area. Each IBA receives its designation based on certain criteria, such as being a major waterfowl concentration area or a critical breeding area for a give species or assemblage of species. The specific reasons(s) that these areas are considered IBA should be discussed in this section, as well as what the implications of a wind energy project in the vicinity of recognized resource areas might be.	Section 2.3.1.5 of the SEIS provided further discussion of the Dunkirk Harbor and Wheeler's Gulf IBAs.	2.3 - Biological, Terrestrial & Aquatic Ecology
34	NYSDEC,	5/12/08	Section 2.3.2: Potential Impacts	Comment noted. Section 2.3.2 of the SEIS	2.3 -

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	Rudyard Edick		<p>Section 2.3.2.1: Construction This section contains information regarding the amount of vegetation within the project area that is expected to be disturbed on a temporary and permanent basis. According to Table 2.3-5, a total of 330.84 acres of upland forest habitat and 133.19 acres of agricultural land will incur temporary impact, while another 102.2 acres of forest and 68.8 acres of agricultural land will have permanent impacts. DEC considers any impact to forested habitat that involves the cutting or clearing of trees to be a permanent impact, even if that area is then kept in a shrub-scrub successional condition or left to regenerate naturally into forest. Mature and second-growth forested habitats take much longer to regenerate after tree cutting takes place, and the wildlife and vegetative communities are drastically different. Impacts to crop/pastureland, grassland, and successional shrubland may be considered temporary as the types of vegetation in these habitats are either replanted or regrow to their pre-constructed state in a few years or less.</p> <p>Based on the numbers provided in Table 2.3-5, a recalculation of the impacts to vegetation within the project area would yield a total of 133.19 acres of agricultural land that is temporary impacted (22% cultivated crops and 78% pasture/hay), and 433.04 acres of forested habitat that will be permanently impacted (42% deciduous forest, less than .01% evergreen forest, and 44.2% mixed forest). The acreage of each type of forested habitat that is expected to be kept in a successional habitat condition for the life of the project should be included in this analysis, as well as the amount of each forest type that will be allowed to regenerate after construction activities cease.</p> <p>The third paragraph states that "deciduous and mixed forests, and pasture/hay fields account for all permanent disturbances in the Project Site." However, Table 2.3-5 includes 14.1 acres of cultivated crops as permanently impacted. The text and table should be updated to account for all of the above comments. Moreover, the total amount of vegetation in the Project area, affected by both temporary and permanent construction activities should be recalculated to reflect these changes.</p> <p>Section 2.3.2.2 Operation Vegetation The values presented here regarding the expected temporary and permanent impacts to vegetation should be changed to reflect comments provided under section 2.3.2.1.</p> <p>Section 2.3.2.2 Operation Loss of Habitat The acreage values provided here should be amended to reflect comments made under Section 2.3.2.1 regarding the amount of habitat disturbed temporarily and permanently. A total of 501.84 acres of wildlife habitat will be permanently lost, with 433.04 acres expected to be lost in forested habitats. The amount of converted forestlands that will be maintained as shrubland or grassland, the acreage that will be converted to project facilities, and the total loss of wildlife habitat that is expected within the larger Project Area should also be provided.</p>	includes an updated Table 2.3-5 and discussion on impacts to vegetation and the loss of habitat from operation of the wind farm. The table provides temporary and permanent impacts based on the project footprint during construction and the reduced footprint during operation to differentiate between areas that will be allowed to revegetate after construction and those areas that will be permanently converted to Project facilities. Subsequent to the submission of the SEIS, impact numbers have been revised and are presented in Table 17 of Section 2.3 of the SEIS2.	Biological, Terrestrial & Aquatic Ecology
35	NYSDEC, Rudyard Edick	5/12/08	<p>Section 2.3.2: Potential Impacts Section 2.3.2.1: Construction Birds and Bats It is stated in this section that "displaced species are expected to disperse to suitable habitats that occur adjacent to the Project or use temporarily disturbed habitats," and that "permanent loss of forested habitats is expected to be minimal." Without more supporting information, DEC cannot agree with this, as species that use forested areas are likely to be affected by a 433 acre loss of habitat within the project area. Forest interior-dependent species are less likely to use forested areas that have been fragmented, and will not next in "temporarily disturbed" forest, as the nature of the disturbance involves removing trees required by the birds.</p>	<p>As discussed in Section 2.3.2.1 of the SEIS, the current management of land in the region surrounding the Project has created a patchwork of forested areas interspersed with open fields, roads, rural housing, farms, gas wells, and other developments. The loss of forested habitat to the Project will occur in an area where historically forested conditions have been dynamic, highly variable, and fragmented. Some of the forested acreage lost to the Project will be within already fragmented forests and along existing forest edges. That is, not all of the 55.7-acre loss of forest presented in the SEIS will be considered interior forest and in fact much of this impact will be on the edge of habitats and potentially affect edge occurring species. Due to the existing fragmented forest conditions, little interior forest conditions exist in the Project Area.</p> <p>Additionally, as presented in Section 2.3 of the</p>	2.3 - Biological, Terrestrial & Aquatic Ecology

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				SEIS2, the total permanent impact to forests resulting from Project construction and operation has been revised to 53.6 acres.	
36	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.2: Potential Impacts Section 2.3.2.1: Construction Threatened and Endangered Species In this section, it is stated that "to avoid potential impacts to nesting great blue herons, turbine locations were sited approximately 0.25 miles away from the known great blue heron nesting colony near the "Project." A justification of how this distance was deemed adequate to avoid impacting the herons should be provided through literature citations, communications with DEC staff of other qualified biologists, or from other information sources.	Section 2.3.1.5 of the SEIS provided further discussion on the great-blue heron and sources of information regarding the presence of the rookery. While the Applicant avoided the great blue heron rookery based on old reports, recent investigations by the Applicant and correspondence and meetings with the NYSDEC and others have revealed that the rookery no longer exists in its previous location.	2.3 - Biological, Terrestrial & Aquatic Ecology
37	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.2.2 Operation Birds The third paragraph of this section states that "...breeding resident birds would not be adversely affected by the Project." DEC recommends that this be changed to read "...breeding resident birds are not likely to be adversely affected by collision impacts, though it is unknown to what degree habitat fragmentation, displacement, and avoidance of turbines and other Project components will impact breeding birds within and adjacent to the site." Not enough data has been gathered regarding the impact of wind projects on wildlife, and thus little information is available to proclaim with any certainty that birds will "not be" affected by wind projects.	The Applicant agrees that the statement should say "not likely". ASWF is committed to post-construction monitoring to determine impacts from the wind project. As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	2.3 - Biological, Terrestrial & Aquatic Ecology
38	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.2.2 Operation Displacement/Disturbance It is stated in this section that "wildlife is expected to acclimate to the presence and operation of wind turbines" and that "grassland species sensitive to the visual presence of large objects in their habitats may suffer greater disturbances than forest wildlife species." The issue of fragmentation, displacement, and degree of habituation by breeding birds in response to turbines is an issue DEC is concerned about. Post-construction monitoring shall include displacement surveys to confirm the type and level of impact the wind project has on birds.	See response to Comment 37. As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing. Once fully developed, the post-construction monitoring plan will include an assessment of displacement impacts.	2.3 - Biological, Terrestrial & Aquatic Ecology
39	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.2.2 Operation Threatened and Endangered Species Although state-endangered short-eared owls were not recorded during breeding bird or migrant surveys, or BBA blocks adjacent to the project area, it should be noted that this species' presence in New York outside of the winter months (December until March) is very limited, and it is not expected they would be observed during the spring, summer or fall. The potential impact of the wind project on the short-eared owls cannot be determined at this time as no surveys have been done on-site to estimate the use of the area by these birds.	See response to Comment 30.	2.3 - Biological, Terrestrial & Aquatic Ecology
40	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.2.2 Operation Threatened and Endangered Species DEC requests more information on the vegetation practices that are intended to reduce the potential harm to ground-dwelling species and promote optimal growth of grassland vegetation as mentioned in the fourth paragraph of this section.	Section 2.3.2.2 of the SEIS provided further discussion on vegetation practices and impacts to grassland species. Although some existing grassland habitat would be lost to development of permanent Project facilities (Table 2.3-5 of the SEIS), new habitat would be added because a portion of permanently affected forested lands would be maintained as non-forested areas (e.g., areas associated with the underground collection system rights-of-way). Vegetation maintenance activities would maintain open areas such as those used by grassland birds.	2.3 - Biological, Terrestrial & Aquatic Ecology
41	NYSDEC, Rudyard Edick	5/12/08	Section 2.3.3 Mitigation Section 2.3.3.2 Fish and Wildlife The fourth paragraph of this section discusses the formation of a Technical Advisory Committee for review of the post-construction survey protocols and results. Although conducting post-construction surveys is necessary for monitoring the direct and indirect impacts of a wind energy project on wildlife resources, DEC does not consider them to be a mitigation measure, but rather a mechanism to determine if further mitigation is needed once the project is operational.	Comment noted. The applicant recognizes that post-construction monitoring does not, in and of itself, represent a mitigation measure. The results from the post-construction monitoring for the Project will be used to establish the potential need for further mitigation activities. Additionally, as stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	2.3 - Biological, Terrestrial & Aquatic Ecology
42	NYSDEC, Rudyard Edick	5/12/08	Section 3.2 Unavoidable Adverse Impacts- Proposed Mitigation Measures for Long-Term Unavoidable Environmental Impacts Table 3.2-1 depicts impacts to various environmental	Comment noted. Project facilities including the turbines have been sited away from sensitive habitats and protected areas to the maximum extent practicable. Additionally, as stated in	3.0 - Unavoidable Adverse Impacts

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			factors due to the project, and lists potential mitigation factors. The "funding of post-construction studies to monitor potential impacts on birds and bats" is not considered a mitigation option. Post-construction monitoring studies are used to determine the mortality and habitat displacement experienced by birds and bats as a result of the project, and to verify the environmental impacts predicted by pre-construction surveys. Appropriate mitigation measures for impacts to birds and bats may include feathering blades or curtailing operation during specific times or under certain conditions during which animals are most active or most likely to encounter turbines; providing for conservation easements on or near the project area; or decommissioning or relocating offending turbines. In addition to those listed in the table, other mitigation options to be initiated prior to construction of the project would include siting turbines away from sensitive habitats such as wetlands, core forested areas, ridgelines that may be used during migration, and other protected areas.	Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	
43	NYSDEC, Rudyard Edick	5/12/08	Section 3.2 Biological Resources It is stated here that studies were conducted "to inventory the species endemic to the Project Area, as well as those that migrate through." As DEC is not aware of any species endemic to Chautauqua County, this should be changed to "species native to the Project Area." It is also stated that risk to these species was assessed based on the pre-construction studies conducted at the project area, and was found to be "comparable to, or of lesser risk than, other wind projects in New York." How this was determined should be defined more clearly.	Response 8/6/09: The Applicant acknowledges that the statement should read "native species."	3.0 - Unavoidable Adverse Impacts
44	NYSDEC, Rudyard Edick	5/12/08	Section 3.3 Environmental Compliance and Monitoring Program Ecological Resource Monitoring This section states that the Applicant will "monitor avian and bat activity during Project operation in accordance with the post-construction monitoring protocol developed in cooperation with the NYSDEC and USFWS." This work plan should be developed following the Draft Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects (Guidelines) available at http://www.dec.ny.gov/energy/40966.html . DEC recommends a three year post-construction study, including daily searches at a portion of the turbines in the project from April 15 until November 15. Bias correction factors that need to be considered include searcher efficiency, scavenger removal rates, amount of plot area unsearched, and accounting for carcasses that likely fell outside of the search plot. Habitat displacement surveys, bat acoustical monitoring, and other concurrent studies such as raptor surveys and/or radar will also be recommended for post construction surveys. Details regarding plot size, turbine selection, vegetation management, permit acquisition, carcass handling, data recording, reporting, and other aspects of the survey need to be discussed with DEC and USFWS. A final post-construction study work plan acceptable to all involved parties should be in place prior to the start of project construction.	EDP Renewables (formerly Horizon), parent company of Arkwright Summit, has been one of the pioneers for post-construction monitoring in New York with the Maple Ridge wind project. Results and lessons learned at Maple Ridge will be used to further improve study protocols in an effort to continue to expand the knowledge of wind turbine and wildlife interactions and impacts. Additionally, As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	3.0 - Unavoidable Adverse Impacts
45	NYSDEC, Rudyard Edick	5/12/08	Section 7: Cumulative Impacts A thorough discussion of potential direct (collision) and indirect (habitat fragmentation/loss) impacts to birds, bats, and other wildlife needs to be included in the FEIS based on whatever information is available from other proposed wind projects in Chautauqua and Erie Counties.	See response to Comment 2. Section 7.0 of the SEIS provided an updated cumulative impacts discussion. Section 7.0 of the SEIS2 provides an updated cumulative analysis based on the currently proposed Project layout, the most up-to-date wildlife data, and the location of other proposed/existing wind projects nearby.	7.0 - Cumulative Impacts & Benefits
46	NYSDEC, Rudyard Edick	5/12/08	Appendix E Avian and Bat Studies Section 3.0 Study Components and Methods Section 3.1.1 Diurnal Point County Surveys-Methods The proximity of the proposed wind development site to the shore of Lake Erie may concentrate migrating raptors in greater numbers and at different altitudes than at other locations in New York - especially in the spring. Although pre-construction data for this project was collected prior to the release of the Guidelines, the timing of surveys missed all of March and most of April migration. Moreover, data collection missed the early and later parts of the fall migration (mid-August through September, and November through mid-December). Additionally, as each observation point was visited for only 60 minutes on each survey day, a total of only 20	The study plan for Arkwright Summit was developed prior to the draft wind power guidelines for New York, however, it was developed with input from both the NYSDEC and USFWS. During the study plan development it was determined to focus the raptor migration surveys during periods when the greatest number of migrant raptors would be expected. As discussed in the report, to determine the optimal survey window, historical data from established hawk watch sites in New York was reviewed. Surveys for migrant raptors were conducted during the approximate two week window in both the spring and fall when the greatest number of raptors historically	2.3 - Biological, Terrestrial & Aquatic Ecology

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			hours of observations were made each spring and 18 hours each fall. Most raptors wait until late morning or afternoon to migrate so they can utilize warm thermals of air for soaring flight. Even with a rotational schedule for visiting each point, only a couple of hours of observations were made during daily peak migration times at each point.	<p>moved through based on data from the past five years. While this approach would miss early and late migrants it does provide relative information when large number of raptors would be expected for comparison with established raptor migration sites.</p> <p>The objectives of this approach allow the site to be compared to sites with known high numbers of migrants to determine the relative importance of the site to migrant raptors and whether or not additional study should be conducted. The timing of the studies was discussed with the NYSDEC and the data was determined to be adequate for meeting these stated objectives. In addition, the site was studied for two years with similar results, confirming that the site does not occur within a zone of high raptor migration traffic</p> <p>Un updated study plan, and an additional raptor and eagle study were conducted subsequent to the preparation of the SEIS, and included as Appendix H to the SEIS2.</p>	
47	NYSDEC, Rudyard Edick	5/12/08	<p>Appendix E Avian and Bat Studies Section 3.0 Study Components and Methods Section 3.1.1 Diurnal Point County Surveys-Methods When calculating the potential risk to birds colliding with turbine blades, the "first flight height recorded was used to estimate the percentages of birds flying within the "likely zone of risk." If a raptor first seen at an altitude lower than 25 meters or higher than 125 meters then changed its flight height to bring it within the zone of risk while being observed in or near the project area, was that observation using in the final calculation of birds recorded within the zone of risk? If not, all birds observed between 25 and 125 meters should be included in the final calculation of percentage of total birds in the zone of risk - even if an individual was first seen at a different location.</p>	<p>The exposure index calculated from the avian point count data provides a relative measure of risk based on the observations made during the study. To standardize the analysis and provide equal weight to all observations, only data based on the point of first observation was used. All observations of raptors have a point of first observation; however, the duration of observation for each raptor was highly variable. For example, some birds may have only been observed for a few seconds, while others may have been in the field of view for several minutes. By conducting the analysis as suggested, to include observation for birds that may have changed flight height or eventually flown through the zone of risk, heavily weights the analysis towards those birds observed for longer periods of time and de-emphasizes those birds just seen for long enough to record the pertinent data. Since the survey method was intended to count as many birds as possible, more emphasis was placed on locating and counting unique observations, than following a single bird for long periods. To provide relative measures of risk and determine which species may be at risk of greatest impact, it is important to treat all observations equally.</p>	2.3 - Biological, Terrestrial & Aquatic Ecology
48	NYSDEC, Rudyard Edick	5/12/08	<p>Appendix E Section 3.1.2 Diurnal Point County Surveys-Results All information in this section should be presented separately for each season and year the surveys took place, including the written summaries of most commonly observed species, exposure indices calculations, number of birds per survey, sensitive/listed species observed, and other parameters, as well as everything presented in Tables 1, 2, 3, 4, 5, and 6. Tables 1, 2, 3, 4, and 5 in Appendix A should also be revised to show 2005 and 2007 data separately at the Reference Area. Table 6 would provide a much more useful summary of results if the information under each heading were broken down for both spring and fall seasons in 2005 and 2007 for the New Grange project area and the Reference Area. Combining observations for all seasons and years at each location eliminates the possibility of any analysis that might show annual differences in species composition, flight height, timing of migration, raptor use of the site, or other information relevant to determining the potential impact of a wind project on migrating birds.</p> <p>Appendix E Section 4.1 Discussion - Migratory Raptors The information in Table 10 should be presented separately for 2005 and 2007, and data from the Reference Area also included for both spring and fall of each year.</p>	<p>Subsequent to the preparation of the SEIS, a Grassland Bird Assessment, Breeding Bird Survey, and an Eagle Observation Study have been conducted, which are appended as Appendix H to the SEIS2. Section 2.3 of the SEIS2 provides summaries of these studies and their results.</p>	2.3 - Biological, Terrestrial & Aquatic Ecology
49	NYSDEC, Rudyard Edick	5/12/08	<p>Appendix E Section 4.1 Discussion - Migratory Raptors The results of the raptor migration surveys at the New Grange and the Reference Area show a low to moderate overall number of birds per observer hour for spring and</p>	<p>According to information from the NYSDEC, the mean number of raptors per observer hour for proposed wind development sites throughout New York is 5.5 in spring and 3.8 in fall. Results</p>	2.3 - Biological, Terrestrial & Aquatic Ecology

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			<p>fall of 2005 and 2007 when taken together. However, a full analysis of annual migration is not possible at this time as data for both seasons and years is combined in the report (see attached report and map). When a breakdown of the results becomes available, a comparison should be made with the results of raptor migration surveys conducted at other proposed wind project sites in addition to established hawk watch locations. The methodologies for surveys done in conjunction with pre-construction wind surveys are generally similar to one another in scope, duration, and overall effort, but constitute a lower overall effort from most established hawk watch sites. Many raptor surveys for wind projects are conducted on only a few days during each migration season using a single observer recording data from between one and four locations at mid-day within the project area, for a total effort of approximately 12-60 hours per season. Hawk watch sites are typically operated by several observers on a daily basis throughout the spring or fall migration, usually from one or two adjacent locations during the majority of daylight hours. These differences should be kept in mind when evaluating and comparing results from study areas with established hawk watch sites. Most of the wind development sites in New York are not located in areas where large numbers of raptors are known to migrate, such as along the shores of the Great Lakes. To accurately and adequately evaluate the potential risk to birds, it is important to put the results of migrant surveys in context not only with the larger raptor migration across New York, but also within the areas where turbines are being proposed. Post-construction studies will be used to confirm the collision impact this project may have on raptors.</p>	<p>from the New Grange study for the two years are lower in the spring and higher in the fall but are not significantly less than or greater than the whole state estimates. As noted above, the baseline study plan was developed prior to state guidelines for wind project studies. At the time, agency input was the primary criteria for determining study scope, duration and overall effort. The intent and focus of the raptor migration surveys was to determine if the proposed site may have high migrant traffic or be of concern and thus warrant additional study or project modifications to minimize potential for impacts. The study effort was sufficient to determine if there was a problem due of large numbers of migrant raptors. Because the survey methods were different than methods used at hawk watch sites and even some other wind projects studied, it is more important to provide comparable summary results for determining potential impacts. For this reason, some of the analyses used data combined across all years of study to increase the sample size and reduce variability in the estimates. It is however, acknowledged that comparing year to year variation is important, and the additional information requested is provided in the supplement to the report.</p> <p>Another important factor to note is that, while the overall survey effort was lower than a typical hawk watch monitoring site, it was comparable to many of the other studies at proposed wind projects in NY and the data was standardized by effort (observer hour) to provide a comparable metric to the other studies and hawk watch sites, In addition, the surveys at the site and references area targeted days when conditions were conducive the raptor migration and within the period when the peak of broad-winged and sharp-shinned hawks would be expected to be moving through. This likely resulted in inflated standardized estimates of raptor migration through the project area. As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.</p>	
50	NYSDEC, Rudyard Edick	5/12/08	<p>Appendix E Section 3.4 Bat Surveys In section 3.4.2, 15.5 calls/night is reported as a high number of recorded calls; Table 8 shows 15.7 calls/night as a high, recorded at the radar pond site. This inconsistency should be corrected.</p>	<p>The Applicant acknowledges that the correct value for the high number is 15.7calls/night.</p>	2.3 - Biological, Terrestrial & Aquatic Ecology
51	NYSDEC, Rudyard Edick	5/12/08	<p>Appendix E Section 3.4 Bat Surveys The dates that each detector was inoperable due to technical malfunctions, bad weather, or other problems should be provided, along with the number of calls recorded at each detector on each night. The nightly weather conditions throughout the survey period should also be provided and will help in determining what the relationship is between bat activity and the weather.</p>	<p>The number of nights that during each study period (spring, summer, fall) that were used in the analysis is noted in the report. The exact nights that were excluded from the analysis due to Anabat failure is not relevant to the actual data analysis because activity is reported as a mean over the nights sampled during each period. Also, determining the relationship between bat activity and weather was not part of the original scope of study. Weather data was not recorded during the anabat surveys and, while this would be an interesting analysis to look for relationships between weather and bat activity, it would not change the impact assessment. Overall bat activity (5.1 bat passes per night) is relatively low compared to other sites in NY.</p> <p>An additional Acoustic and Mist-Net Bat Survey Report was prepared subsequent to the preparation of the SEIS. This study is included as Appendix H to the SEIS2, and the results and summarized in Section 2.3 of the SEIS2.</p>	2.3 - Biological, Terrestrial & Aquatic Ecology
52	NYSDEC, Rudyard Edick	5/12/08	<p>Section 4.2 Discussion - Nocturnal Migration It is stated here that the passage rates at the New Grange project area were lower in both spring and fall than at most other radar studies done in New York. It is also stated that passage rates were "higher in the spring than in the fall," which is a "pattern similar to other migration studies in New York." This is contrary to the</p>	<p>At the time of the baseline studies report, results were available from 14 nocturnal migration studies in the northeastern U.S. Eight of these studies, approximately 60% had higher passage rates in the spring than in the fall which is the trend seen at the Arkwright Summit Project Area. While new data may be available,</p>	2.3 - Biological, Terrestrial & Aquatic Ecology

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			available data which show a number of sites in New York that have radar survey results with higher mean passage rates in the fall than the spring. The statewide mean passage is 254 targets/km/hr in spring and 319 targets/km/hr in fall (see attached radar table and map). The implications of these pre-construction data results are as yet unknown, as no post-construction surveys have been done that include radar to allow for comparison of pre-construction radar results and mortality rates estimated by ground searches.	the patterns seen at the Arkwright Summit Project Area are not dissimilar to other studies in New York and the northeastern U.S.	
53	NYSDEC, Rudyard Edick	5/12/08	Appendix E Section 4.5 Discussion-Sensitive Species More detail should be provided on the season, year, and location of federal and state listed and special concern species observed during sensitive species surveys were recorded in the project area and reference area, as "individuals were seen in one season/year, not another season/year."	An updated/revised table with this information is provided as Table 15 in Section 2.3 of the SEIS2.	2.3 - Biological, Terrestrial & Aquatic Ecology
54	NYSDEC, Rudyard Edick	5/12/08	Stormwater Pollution Plan The detailed construction plan needs to incorporate stringent containment of construction materials, particularly concrete slurry. This would include such practices as the use of watertight forms, silt/stormwater fencing, controlled concrete truck washout areas, and covered storage of equipment and construction chemicals. Engineering specifications to describe these proposed practices need to be detailed in this plan. Additional impacts may result from spills of petroleum and other chemicals during construction and operation of the Project. The Stormwater Pollution Prevention Plan (SWPPP) should prevent or minimize spill incidents and maximize control and cleanup of any of these incidents. The SWPPP should be developed in consultation with the DEC Regional Water Engineer.	The Applicant will adhere to and design the Project to conform to the NYSDEC SPDES General Permit for storm water discharges (GP-0-08-001). ASWF will work with the NYSDEC on any variances and clarifications on design issues related to the general permit, and once agreement is complete with the NYSDEC, the Project will submit the Notice of Intent for coverage under the General Permit to the NYSDEC.	2.2 - Water Resources
55	NYSDEC, Rudyard Edick	5/12/08	Surface Water The DEIS does not contain specific details with respect to stream crossings. However, a March 14th email from Tetra Tech to the DEC lists six NYSDEC C(t) streams that will be impacted. The FEIS should discuss these impacts in detail as well as what measures could be taken to avoid or mitigate the effects and why such impacts are necessary. Generally speaking, all stream crossings should be done in the dry. Work in all protected trout streams should be done between June 1st and September 30th. The details of each stream crossing should be worked out in coordination with regional DEC Fish and Wildlife staff. Moreover, if work occurs within 50' of the top of a bank of a DEC classified C(t) or C(ts) stream, erosion control planning will be necessary. This should be part of the storm water management plan for the site. However, according to the DEIS, no DEC-regulated streams will be impacted by the project. If, at a future date, impacts to DEC regulated streams are determined to occur, a DEC Article 15 permit will need to be obtained.	Comment noted. The Wetland and Waterbodies Report, which is included as Appendix E to the SEIS2, identifies delineated streams within the Project Site. Furthermore, DEC-mapped streams, including protected streams that occur within the Project Site are listed in Table 10 in Section 2.2 of the SEIS2. Anticipated impacts to streams, and mitigation measures that will be used during construction are described in detail in Sections 2.2.2.1 and 2.2.3 of the SEIS2.	2.2 - Water Resources
56	NYSDEC, Rudyard Edick	5/12/08	The source of water to be used for dust control and other aspects of project construction should be discussed.	Dust control will be achieved primarily through application of water or an approved dust control agent. Dust suppressants will be chosen from those approved for use by the NYS Department of Transportation. If water is applied, the source of this water will be water trucks brought on site or an onsite water well. If a well is necessary, Arkwright Summit will obtain all applicable approvals from agencies and landowners. Water for dust abatement is not anticipated to be appropriated from surface waters.	2.1 - Geology, Topography & Soils
57	NYSDEC, Rudyard Edick	5/12/08	Wetlands - General Issues Projects that propose to disturb regulated wetland areas, buffer areas and protected streams require permits from the DEC and the US Army Corps of Engineers (USACE). DEC wetland permit regulations at 6 NYCRR 663.2(z) define a "regulated activity" as any form of draining, dredging, excavation, or mining, either directly or indirectly; any form of dumping or filling, either directly or indirectly; erecting any structures, construction roads, driving pilings, or placing any other obstructions whether or not changing the ebb and flow of the water; any form of pollution, including but not limited to installing a septic tank, running a sewer outfall, discharging sewage treatment effluent or other liquefied wastes into or so as to drain into a wetland; or any other activity which substantially impairs any of the several functions or benefits of wetlands which are set forth in section 24-0105 of the (Freshwater Wetlands) Act. These activities	See response to Comment 24. The wetland delineation was provided as Appendix C to the SEIS. A second revised version was sent to the NYDEC in July 2009 in anticipation of a July 21, 2009 field visit. This field visit was conducted as planned and NYDEC staff verified the delineations and potential impacts. During the field visit, the NYDEC requested additional information regarding potentially jurisdictional wetland WS63-W46. This information was provided on July 23, 2009. Wetland delineations for the Project Layout proposed in the SEIS2 were conducted during the growing season of 2015. An updated Wetland and Waterbodies Report was prepared and included as Appendix E to the SEIS2. This report was submitted to the DEC on September	2.2 - Water Resources

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			<p>are subject to regulation whether or not they occur upon the wetland itself, if they impinge upon or otherwise substantially affect the wetland and are located within the adjacent area.</p> <p>Before DEC can consider a permit application, wetland delineations prepared for the project must be verified by agency staff. DEC jurisdiction and resulting acreage impacts may vary based on DEC verification of wetland delineations. It is DEC policy that wetland impacts are not permitted, even with mitigation, until other alternatives have been explored, including avoidance, minimize or reduction or impacts. Generally applicants are required to: 1) Examine alternative project designs that avoid and reduce impacts to wetlands; 2) Develop plans to create or improve wetlands or wetland functions to compensate for unavoidable impacts to wetlands; 3) Demonstrate overriding economic and social needs for the project that outweigh the environmental costs of impacts on the wetlands.</p> <p>The DEC guidance document, Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation, October 26, 1993, states that "Temporary disturbances, where pre-construction conditions are essentially restored, for example when laying a pipeline, do not require compensatory mitigation since there is no permanent loss. However, impacts to the wetland still must be first avoided then minimized as with any other project, and efforts to reduce disturbances during construction, such as erosion control, will still be required." USACE defines "permanent" impacts as the loss of waters of the United States, and includes the area where fill is placed plus areas that are adversely affected by flooding, excavation, or drainage as a result of a project. Where the project area is restored to pre-construction contours and elevation, it is not included in the calculation of permanent loss of waters (permanent impacts). This includes temporary construction mats (e.g. timber, steel, geotextile) used during construction activities and removed upon the completion of the work. However, where certain functions and values of waters of the United States are permanently adversely affected (such as the conversion of a forested wetland to an herbaceous one in a permanently utility right-of-way), USACE requires mitigation to reduce the adverse effects of the project to the minimal level. The wetlands analysis in the FEIS should be refined to apply the full range of potential impact criteria to the proposed construction activity in the determination of total area of permanent impact; not just those areas proposed for permanent placement of fill. This is necessary to quantify the total affect area for permitting and requirements for mitigation. Simple re-grading to pre-construction contours following excavation in a wetland area may not be enough to restore the full function of the existing wetland area. Any clearing or grading that disturbs wetland soils can result in permanent impacts to wetlands. Grading a wetland or adjacent are can substantially alter surface water drainage and flow patterns; may temporarily increase erosion; and may eliminate fish and wildlife habitat. Clear-cutting removes the vegetative cover of wetlands and may reduce their ability to absorb water and serve as habitat, and can also cause soil erosion. Dredging or excavation may increase water depth and remove wetland vegetation, thus altering the basic characteristics of, and perhaps destroying, wetlands. Fish and wildlife feeding or reproductive capacities may be altered, as may cover types, turbidity, sediment deposition, and erosion patterns. Any of these activities can cause the permanent loss of benefits provided by wetlands and may, in fact, destroy wetlands entirely.</p>	<p>22, 2015 and a field visit was conducted on November 13, 2015. Anticipated impacts to surface waterbodies resulting from construction and operation of the proposed Project are described in detail in Section 2.3 of the SEIS2.</p>	
58	NYSDEC, Rudyard Edick	5/12/08	<p>In the third paragraph of Section 2.2.1.2 (page 2-27), it is stated that "two State-regulated forested wetlands totaling 74.0 acres occur within the Project Area," but that "none of these wetlands or adjacent upland buffers would be crossed by the footprint of the turbine layout." Staff concurs with this statement based on currently mapped wetlands FO-1 and FO-10. Similarly, in Table 2.2-5, "Wetlands Crossed by the Project," no State-regulated wetlands are listed.</p> <p>However, the last paragraph of Section 2.0 of Appendix D1 states "the wetland field observations conducted and the associated map do not constitute formal wetland field delineation...Tetra Tech will conduct a formal wetland delineation of the proffered turbine areas, for determination of regulatory permits required in the spring</p>	See responses to Comments 24 and 57.	2.2 - Water Resources

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			of 2008." Until these delineations are complete and verified by NYSDEC personnel, we cannot conclude that there will be no impacts to State-regulated wetlands or buffer areas, or that no unmapped wetlands (i.e., wetlands exceeding 12.4 acres in size that are not currently mapped as State-regulated wetlands) are present in the project area.		
59	NYSDEC, Rudyard Edick	5/12/08	Figure 2.2-3, hydric Soils in the Project Area, indicates there are several locations that contain significant areas of hydric soils near proposed turbine locations and along collection system routes. Particularly notable are those adjacent to Turbines 46R and 44R. All such areas should be field delineated by Tetra Tech and reviewed by NYSDEC personnel prior to the FEIS.	See responses to Comments 24 and 57.	2.2 - Water Resources
60	NYSDEC, Rudyard Edick	5/12/08	If additional areas are determined to be State-jurisdictional wetland following NYSDEC field verification, New Grange's Article 24 application must specifically address their efforts to avoid and minimize impacts to the wetlands(s) and associated 100-foot adjacent areas(s). Moreover, the Article 24 application must include a table that identifies impacts associated with each crossing of a freshwater wetland and/or adjacent area (including whether impacts are temporary or permanent), and propose mitigation to compensate for the wetland and adjacent area impacts. Mitigation sites would need to be contiguous with a State-jurisdictional wetland.	See response to Comments 24 and 57.	2.2 - Water Resources
61	NYSDEC, Rudyard Edick	5/12/08	The sixth paragraph of Section 2.2.2.1 on Page 2-33 states that "construction of the project would permanently convert 1.49 acres of forested wetlands to non-forested wetland cover type." It implies that such conversion is State-regulated wetland but it does not identify where or which wetland. This is contradictory to the above statement that no State-regulated wetlands are impacted by the project. We need further clarification on this section.	See response to Comments 24 and 27.	2.2 - Water Resources
62	NYSDEC, Rudyard Edick	5/12/08	DEC Visual Policy, Assessing and Mitigating Visual Impacts, DEP-00-2, July 31, 2000, defines aesthetic impact as that which occurs when there is a detrimental effect on the perceived beauty of place or structure identified as a significant scenic or aesthetic resource. Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource identified, a determination should be made on the basis of the existing visual setting of the inventoried resource and the likelihood that visibility of the proposed project will compromise the existing setting and diminish public enjoyment of that resource.	<p>The NYSDEC visual Policy states, "Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place. Proposed large facilities by themselves should not be a trigger for a declaration of significance. Instead, a project by virtue of its siting in visual proximity to an inventoried resource may lead staff to conclude that there may be a significant impact."</p> <p>Based on this definition, it is reasonable to conclude that simple visibility of the proposed wind farm from any of the affected resources of statewide significance does not result in detrimental effect on the perceived beauty of the place or structure.</p>	2.5 - Aesthetic & Visual Resources
63	NYSDEC, Rudyard Edick	5/12/08	DEIS Section 2.5 and Appendix F describes the Visual Resource Assessment (VRA) conducted for this project. The study area for the VRA extends to a five-mile radius from the outermost turbines, in accordance with DEC Visual Policy. Consideration is also given to resources of high cultural or scenic importance located beyond the five-mile radius as recommended by the DEC policy document, "Assessing and Mitigating Visual Impacts" available on our website. Visual mapping was conducted on a "hypothetical" layout of turbines at all proposed sites with a worst case blade tip height of 410 feet (for daytime studies) and nacelle height of 275 feet (for nighttime lighting studies). For this analysis, resources of statewide significance identified within the 5-mile study area included four in the Village of Fredonia, all with possibly filtered visibility: Fredonia Grange #1, Fredonia Commons Historic District, Fredonia Post Office, and Dunkirk Post Office. Two other visual resources of statewide significance included the Boutwell Hill State Forest and Overland Trail and the Canadaway Creek Wildlife Management Area. Other important visual resource identified outside the five-mile radius include the Historic Dunkirk Lighthouse (standing 61-ft tall at 5.5 miles from the nearest turbine), Lake Erie Waterfront (City of Dunkirk at 5.5 miles from nearest turbine), Lake Erie State Park (Brockton - 8.5 miles away), the Seaway Trail (closest point is 5.3 miles from the nearest turbine),	<p>Comment noted. Additional visual simulations were provided in the updated SVRA in Appendix E to the SEIS. The visual receptors for photo simulations were determined based on input from the Town and their consultant after acceptance of the DEIS in the fall of 2008. See response to Comment 68 for additional information regarding the Applicant's consultation with SHPO on historical resources.</p> <p>An updated SVRA2 was completed and included with the SEIS2 as Appendix J.</p>	2.5 - Aesthetic & Visual Resources

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			and the NY Boat Launch on Cassadaga Lake at 5.3 miles from the nearest turbine.		
64	NYSDEC, Rudyard Edick	5/12/08	With respect to selection of key receptors for photo simulation, the DEC recommends that the following visual resources also be considered for visual analysis in the FEIS: Canadaway Creek WMA (to include potential open views from trails), the observation deck of the Dunkirk Lighthouse, the Underwater Blueway Trail (due to unobstructed view and closes approach within 6 miles of the nearest turbine), and the following local importance sites: the Arkwright Hills Campground, Woodbury Vineyards, Roberian Winery, NYS Route 60 at East Maine Street, NYS Route 39 at Route 20, Hamlet of Black Corners, Hamlet of Cowdens Corner, Hamlet of Arkwright, and Hamlet of Hamlet. These receptors are either of high importance (e.g., statewide significance), in close proximity to the turbines, or represent novel perspectives relative to currently analyzed locations. The FEIS should discuss in greater depth the rationale behind selection of key receptors - particularly with respect to the above.	Comment noted. Additional visual simulations were provided in the updated SVRA in Appendix E to the SEIS. The visual receptors for photo simulations were determined based on input from the Town and their consultant after acceptance of the DEIS in the fall of 2008. Table 7, Key Receptors Selected for Photo Simulation, provides a list of the receptors included in the photo simulations. An updated SVRA2, which includes updated visual simulations was completed and included with the SEIS2 as Appendix J.	2.5 - Aesthetic & Visual Resources
65	NYSDEC, Rudyard Edick	5/12/08	Also, the visual analysis was performed assuming a nacelle height of 263 feet and a blade tip height of 410 feet. As multiple turbine types are under consideration, it is unclear if this represents the worst case or not. If not, it should.	Both the VRA submitted in the DEIS (Appendix F) and in the updated SVRA in the SEIS (Appendix E) utilized the Vestas V90 for the visual analysis. The Vestas V90 turbine, with a nacelle height of 263 feet and a blade tip height of 410 feet, is the tallest turbine of those considered for the Project and represents the worst-case scenario for visual impacts, as noted in the updated VRA in the SEIS (page 44). The Suzlon S88 is also currently under consideration for the Project and is shorter than the V90 with a total blade tip height of 406 feet. The GE 1.5 and Acciona 1.5 are also under consideration for the Project and are also smaller than the Vestas V90. An updated SVRA2 was completed and included with the SEIS2 as Appendix J. This simulation utilized the Vestas V110 turbine model, which is the model under consideration for the SEIS2 and FEIS Project Layouts.	2.5 - Aesthetic & Visual Resources
66	NYSDEC, Rudyard Edick	5/12/08	A discussion of the cumulative visual impact of these turbines with respect to existing turbines from nearby wind farms, either operational or in construction, should be included.	Section 7.0 of the SEIS2 provides an updated cumulative analysis based on the most recent project layout and all existing/proposed wind projects in the vicinity.	7.0 - Cumulative Impacts & Benefits
67	NYSDEC, Rudyard Edick	5/12/08	In accordance with DEC Visual Policy, screening should be considered as an option to mitigate visual impacts. The DEIS Section 2.5.3 discusses mitigation. The mitigation plan should discuss the potential to mitigate visual impacts via strategically located plantings or turbine relocation for identified Visual Resources. Direct mitigation options, when feasible, should be applied such as screening or selective turbine re-location. Offsets should be employed when other types of mitigation would be uneconomic or only partially effective.	Arkwright Summit is committed to a neighbor payment program that will help landowners mitigate visual impacts using screening or plantings, if they feel that is necessary. Additionally, Arkwright Summit will implement the Complaint Resolution Procedure outlined in Appendix L of the DEIS in the event that visual impact complaints are submitted during operation of the Project The Complaint resolution procedure is also provided as Appendix O to SEIS2.	2.5 - Aesthetic & Visual Resources
68	NYSDEC, Rudyard Edick	5/12/08	Per New York State Office of Parks, Recreation, and Historic Preservation electronic correspondence to us on April 28, 2008, they have not received any architectural building surveys or archaeological work to review. Hence, no findings on this respect have been issued by OPRHP on New Grange Wind Farm as of yet. This information needs to be provided to OPRHP as soon as possible. If OPRHP determine the wind farm will have an adverse impact on cultural resources within the Area of Potential Impact surveyed, the project sponsor must work in consultation with OPRHP to pursue feasible and prudent plans that avoid or mitigate the adverse impacts. DEIS Section 3.6 includes a discussion of cultural resources in the project area and the Area of Potential Effect (APE) for visual impacts to historical places as well as possible mitigation options. Because the potential visual impacts to historic resources are closely linked to the visual assessment referenced above, DEC's comments regarding mitigation (as described in the above paragraph) apply here as well.	The Historic Architectural Resources Investigation (5-Mile Ring Study) was submitted to the SHPO for review in February 2009 and was included as Appendix G to the SEIS. SHPO determined that under Section 106 of the National Historic Preservation Act the project would have an adverse effect on cultural resources. In correspondence dated August 25, 2009, the Applicant indicated that consultations with the Town Supervisor and Town Historian of the Town of Arkwright had defined multiple mitigation actions related to two cemeteries in the Town of Arkwright. These actions are detailed in Section 2.6 of the SEIS2. The applicant has re-confirmed the mitigation projects detailed in Section 2.6 of the SEIS2, and NYSOPRHP's August 27, 2015 letter also indicates their continued support for these mitigation projects. (See SEIS2 Appendix M).	2.6 - Historic, Cultural & Archeological Resources
69	NYSAg&Mkts, Michael Saviola	5/8/08	In Section 1.5.5 and 1.6.7 of the DEIS, the overhead electrical collection system is discussed. The applicant	The overhead lines along Farrington Hollow Road were sited along the road to avoid the	2.13 - Land Use & Zoning

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			<p>proposes to integrate just under 5 miles of overhead 34.kV power lines into the electrical collection system for the project. 1.4 miles of the proposed overhead power lines traverses active agricultural land along Farrington Road. The DEIS states that this is being done to minimize or avoid disturbance to environmentally-sensitive sites or in areas of safety concern or construction constraints in the southeast portion of the proposed Project Site; however, the DEIS does not identify exactly what those constraints are or provide justification for proposing overhead vs. underground (preferred method of installation in active agricultural fields). The Project Applicant also proposes approximately 3.3 miles of overhead 34.5 kV lines to collect the power from the turbines to terminate at the proposed substation in Pomfret. Much of this proposed overhead segment traverses active agricultural land south of Cable Road. Poles and guying wires associated with angle structures located in active agricultural fields present a permanent disruption to normal farming practices that have lasting effects far beyond the life of the proposed Project. The areas directly adjacent to where guying wires are anchored to the ground are, in effect, rendered unusable by the farmer after construction and should be identified and included in the DEIS as a permanent impact to agricultural land. Because of this the Department strongly recommends that the overhead portions along this northern segment be moved north of the current proposed location and run along Cable Road, or bury the electrical collection system (in active agricultural lands) to a minimum of 48 inches below grade (36" in unimproved pasture).</p>	<p>environmentally sensitive area where a Blue Heron rookery once was. While this site is now abandoned, the Applicant feels that running the overhead lines along the road, where other overhead lines currently exist, minimizes the overall impact of the lines by making them consistent with current use. This approach has been approved by the landowner, who will receive additional compensation for the overhead line. As for the lines that will deliver the power from the project to the grid, those lines will be sited overhead to avoid the impact of the five trenches necessary to deliver the power underground. These lines will be sited along the edge of roads or fields to minimize the impacts to farming activities and stay consistent with general practice of siting lines along roads.</p>	
70	NYSAg&Mkts, Michael Saviola	5/8/08	<p>The Applicant should develop a Drain Tile Repair Plan for mitigating potential impacts to subsurface drain tile if encountered. In the plan, the Project Applicant should identify areas within the project site where there is a potential to encounter existing subsurface drain lines. Based on the likelihood of encountering existing subsurface drain lines (especially in intensively farmed areas comprised of glacial-derived and heavy lacustrine silt soils) the Department recommends that the Project Applicant inquire with both the farmer (landowner) and the Chautauqua County Soil & Water Conservation District (SWCD) to determine if there is record of designs or "as-built" drawings of any subsurface drain (tile) lines on the agricultural portions of the Project. New subsurface drain lines shall be either 4" or 6" dia. AASHTO M252 single wall drain line or equivalent and shall be installed in accordance with the USDA-Natural Resources Conservation Service (NRCS) Conservation Practice Standard for "Subsurface Drain" (608). F405 may not be used in agricultural lands for this drain tile application. A drain tile identification and repair plan should be prepared for review by the Department and fully developed and implemented prior to the commencement of construction.</p>	<p>The lease agreement signed by participating landowners in the project area includes extensive provisions regarding the protection of drainage tiles. The language ensures that Arkwright Summit will repair drainage tiles damaged as a result of construction or operational activities. This language was developed in close consultation with local landowners involved in the agricultural business and has been approved by all of the participating landowners involved in the Project.</p>	2.13 - Land Use & Zoning
71	NYSAg&Mkts, Michael Saviola	5/8/08	<p>Section 1.6.6 discusses the installation of underground collection lines. The only activities that can be conducted in agricultural fields without first stripping topsoil are walking the crane across a field (as long as it doesn't cause rutting in excess of 4" deep) and the installation of buried cables in no more than 2 parallel trenches less than 20" wide. If the trench width for the installation of the cable exceeds 20 inches or if 2 or more trenches (cables) are being installed, topsoil stripping is required. The Department requires this because of the risk of rutting, soil compaction, and topsoil mixing with subsoil (damage to topsoil layer). It should be emphasized that decompaction is still required following a single circuit cable installation, even if the topsoil is not stripped. This requirement should be clearly identified in future Project documents. Any severed drain tile should be repaired using the heavier AASHTO M252 single wall drain line and sleeved with 80 PVC to span the trench prior to backfilling. Burial depth in "unimproved" pastureland is 36" and 48" in all other active agricultural lands. Burial depth within the soil profile is important from the farming standpoint due to the permanence of the cable's position in the soil profile. Inappropriate depth of the electrical collector system will diminish current and future farm operators' capacities to administer the scope of land-fitting practices required to meet specialized cropping needs. Such practices can range from deep tillage to the future installation of additional subsurface drain lines. Restoration in buried</p>	<p>As discussed in Appendix C of the DEIS, "Agricultural Protection Measures", in the "Excavation and Backfill" section, "All agricultural areas to be disturbed by excavation (for tower foundations, electric cable trench, etc.) shall first be stripped of topsoil. Topsoil stripping must be undertaken on the full area anticipated to be disturbed by excavation, grading and/or piling of excavated subsoil/rock. For installation of buried electric lines, no topsoil stripping is required if direct burial methods (e.g., cable plow, rock saw) are used, depending upon total area of disturbance. If width of disturbance (i.e. parallel buried circuits) exceeds 30 feet, topsoil stripping and protection measures are required." Further, the applicant will strip topsoils and decompact soils as necessary, as outlined in Appendix C and Section 1.6.6 of the DEIS. Also as discussed in Section 1.6.6 of the DEIS, the applicant will bury any underground cables to a depth of 48", as requested by Ag & Markets.</p> <p>As discussed in Section 2.1 of the SEIS, the applicant will adhere to the NYSAg&Mkts Guidelines for Agricultural Mitigation for Wind Power Projects (Last updated in 2013) to the maximum extent practicable during construction of the Project.</p>	2.13 - Land Use & Zoning

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			<p>cable areas where topsoil is stripped includes subsoil decompaction, rock picking (>4" dia. rocks uplifted through subsoil decompaction), topsoil replacement disking and seeding. For restoration following cable installation where topsoil is not stripped (no more than 2 buried cables) the Department still requires decompaction, disking (seedbed preparation), stone picking (>4" in dia.), lime, fertilizer and seed on the previously disturbed areas.</p>	<p>In addition, on June 17, 2015 a review of the Project layout was conducted by Michael Saviola of the NYS Department of Agriculture and Markets (NYSDAM) and Ben Brazell of EDR. The purpose of this site visit was to review the proposed Project layout in the context of agricultural operations. Mr. Saviola suggested minor revisions to the location of the proposed substation, segments of three access roads, and two segments of the route of the proposed Generator Lead Line. The Applicant reviewed these suggested changes relative to identified environmental resources (e.g., wetlands), with the participating landowners, and with their Project engineer. The Applicant incorporated those recommendations requested by NYSDAM that were acceptable to landowners and/or that did not conflict with the locations of wetlands or other potential environmental impacts.</p>	
72	NYSAg&Mkts, Michael Saviola	5/8/08	<p>Environmental Monitoring and Compliance — Appendix A of the DEIS, Agricultural Protection Measures, describes measures intended to reduce or eliminate agricultural impacts as a result of the project. The document includes references to a "Construction Manager" or "Environmental Monitor". Due to the agricultural mitigation/restoration activities required as part of the proposed project, the Department recommends that the Project Sponsor hire a competent "Agricultural Inspector". Competent agro-environmental inspection and supervision of site preparation, construction and restoration activities is fundamental in helping ensure sound implementation, and to meet the standards which are formally reviewed and adopted by the various parties. Such "Ag.-specific inspection/supervision is critical to a wind power project due to its concentrations of localized activity, extending over the expanse of the numerous tower sites, access roads and buried electrical collector cable zones. The Department recommends that in addition to the responsibilities outlined in Appendix A, the Agricultural Inspector should be empowered to order correction of acts that violate Department requirements for activities being conducted on active agricultural lands, and have "stop work authority" in order to allow timely corrective action to occur. The Agricultural Inspector should also provide regular reports to appropriate involved and interested agencies, including Ag. & Markets staff responsible for technical review and field monitoring activities. Because seasonal conditions often allow for extension of the construction schedule to include night time hours or weekends, a detailed Agricultural Monitoring Plan should be developed and include assurance that a staff of inspectors is available to provide coverage at all times that construction activities are occurring on agricultural lands. This plan should be fully implemented prior to commencement of construction. To preserve objectivity during compliance inspections, the Department recommends the Project Sponsor provide funding for the Lead Agency to hire the Agricultural Inspector(s).</p>	<p>ASWF will ensure that the environmental monitor for the Project is fully trained on the Ag & Markets guidelines. The environmental monitor will be empowered with stop work authority if he/she sees any of the Ag & Markets guidelines violated during construction. ASWF will be in continued consultation with Ag & Markets to ensure that the layout conforms as much as possible to Ag & Markets guidelines. During a meeting with Mr. Saviola in Spring 2008 many of these layout issues were discussed and at that time Mr. Saviola commented that the layout already showed consideration of many of Ag & Markets best practices.</p> <p>As discussed in Section 3.3 of the SEIS2, an Environmental Compliance and Monitoring Program will developed that includes components pertaining to planning, training of personnel, preconstruction coordination, construction and restoration inspection, restoration of public roads, ecological resource monitoring, and agricultural resource monitoring.</p>	3.0 - Unavoidable Adverse Impacts
73	NYSAg&Mkts, Michael Saviola	5/8/08	<p>Section 1.6.4 of the DEIS contains a description of access roads being permanently left in place after construction. Exhibit 1.6.1 depicts temporary and permanent access road details. This section also makes brief mention of maximum permanent road widths of 54 feet and occasional pull-offs. The project sponsor should provide more detail on the construction of access roads and "turnoffs" through agricultural areas and the agricultural protection measures to be employed. The exact locations of the turnoffs, permanent access road areas to remain in agricultural fields should be indicated on the project drawings and made available to the Department for review and approval prior to the issuance of the FEIS. Topsoil stripped from access roads constructed in agricultural lands should be windrowed or temporarily stored directly adjacent to the location where the soil was stripped. This will eliminate the need to handle or move the topsoil more than once and will reduce or eliminate the likelihood of topsoil becoming mixed with other soil types, subsoil, rock, or other materials. Linear topsoil stockpiles serve to delineate and control construction vehicle and equipment access</p>	<p>Turnoffs are the small spokes off access roads that will be used to turn around large vehicles while minimizing the disturbance to nearby areas. These turnoffs are temporary impacts and will be restored after the construction period. The turnoffs will be constructed in the same manner as the roads described in Section 1.6.4 and Appendix C of the DEIS. From Appendix C of the DEIS, "Construction Specifications -- Access Roads", "In developing roads on active agricultural land, strip all topsoil from the entire work area and stockpile in windrows along the road or in designated temporary storage areas. Temporarily stockpiled topsoil shall be segregated from other excavated material (rock and/or subsoil). Stockpiled topsoil must be left on the property from which it was removed." Also from Appendix C of the DEIS, "Permanent roads through agricultural land shall be constructed by placing up to 12 inches of stabilized gravel on a geotextile mat over compacted sub-grade.</p>	2.13 - Land Use & Zoning

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			to un-stripped portions of agricultural fields. Linear topsoil stockpiles shall be appropriately coordinated with the placement/installation of underground collector cables installed adjacent to access roads. During site restoration, permanent access roads in active agricultural areas should be constructed "at-grade" to allow for unimpeded farm equipment access and shall not inhibit the existing farm cropping pattern.	When constructing roads through active agricultural land, final road surface should be level with the adjacent field surface. If drainage or other issues preclude a level surface, the road shall be elevated no more than 6 inches above the surrounding field. Topsoil shall be used during restoration to create a smooth transition between the road surface and surrounding agricultural land, so as not to impede crossing by farm equipment."	
74	NYSAg&Mkts, Michael Saviola	5/8/08	Section 1.6.5 discusses turbine foundation installation. Disturbance outside of the designated 250 foot radius turbine area will be limited to the storage of excess topsoil, subsoil, or woody material including roots, logs, and/or wood chips. The practice of utilizing agricultural lands for "additional temporary workspace" for the temporary storage of subsoil or woody material is prohibited unless the entire "A-Horizon" (topsoil) is first stripped and stockpiled separate from the subsoil, subsurface spoils (rock), or woody debris.	The applicant will adhere to the protocols outlined in Appendix C of the DEIS, "To prevent damage to adjacent agricultural land, all vehicle traffic and parking shall be confined to the access roads, designated work areas at the tower sites, and/or designated parking and material laydown areas. Any necessary pull-offs and parking areas will be developed outside of active agricultural fields. If this is not possible, all topsoil shall be stripped from agricultural areas used for vehicle and equipment traffic and parking. Such areas will be restored at the end of construction." Further, "Temporary construction parking, staging and storage areas on active agricultural land will be developed by removing all topsoil from areas that will receive vehicular traffic. Topsoil will be stockpiled in windows or piles adjacent to the staging area and on the same property from which it was removed. The exposed subsoil will be covered with a geotextile mat and 12 inches of stabilized gravel."	2.13 - Land Use & Zoning
75	NYSAg&Mkts, Michael Saviola	5/8/08	In accordance with the SPDES General Permit for Construction Activity, GP-0-08-001, permanent gravel access roads are defined as "impervious cover" and are subject to post-construction Stormwater Management Practice (SMP) requirements. The Department recommends that the Applicant design a Stormwater Pollution Prevention Plan (SWPPP) which includes SMPs that will not permanently disrupt existing and future farming practices, demonstrates equivalence to the State's technical standard and adequately accommodates existing and future farming practices without compromising farm viability (field workability) or creating additional agricultural land conversion to a non-agricultural use. If additional agricultural land is taken out of production, or converted to a non-agricultural use as a result of post-construction SMP implementation, alternative SMPs should be designed by the Applicant and reviewed by the Department and approved by DEC prior to the filing of the Notice of Intent (NOI). It should be emphasized that careful siting of access roads is even more critical, given the potential need for post-construction SMPs. Portions of agricultural lands converted (to a non-agricultural use) as a result of the implementation of SMPs should be quantified and included in the anticipated impacts section of the DEIS.	The Applicant will submit a Stormwater Pollution Prevention Plan (SWPPP) prior to construction in accordance with the SPDES General Permit for Construction Activity, GP-0-08-001. This is required by law for all projects over one acre. The SWPPP will be submitted to the NYSDEC prior to construction.	2.13 - Land Use & Zoning
76	NYSAg&Mkts, Michael Saviola	5/8/08	Section 2.1.2 discusses potential construction impacts on site soils. The primary impact to the physical features of the proposed Project will be the disturbance of soils during the installation of project components (e.g., foundations, underground 34.5 kV cable, access roads, temporary staging areas, turbine sites and substation site). The Department expresses concern regarding potential soil drainage impacts. Soils in this region of the State are of glacial origin and most typically have "fragipans" which inhibits vertical infiltration of water, resulting in predominantly lateral subsurface drainage. Fragipans are typically very well expressed in glacial-derived soils. Therefore, existing flow patterns can be disrupted/impeded by construction activities (excavation). Where subsurface drainage follows construction trench-lines for the underground cables, this disruption can create artificial wet areas, hillside seeps and waterboils. Due to these limitations, it may be necessary to install interceptor drain lines (6" dia. AASHTO M252 single wall drain line) at strategic locations along the proposed underground cable routes. When exact locations of project components are determined, the Project Applicant should provide more detailed site-specific analyses of soil characteristics along the proposed underground 34.5 kV cable route, access roads, and turbine sites to determine locations requiring subsurface drainage intended to address the limitation cited above.	Comment noted. Exact specifications will be part of the SWPPP submitted to the NYSDEC prior to construction.	2.1 - Geology, Topography & Soils

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77	NYSAg&Mkts, Michael Saviola	5/8/08	Section 2.1.2 discusses Prime Farmland and Farmland of Statewide Importance. Because of the amount of potential disturbance to highly productive soils, the Department recommends that the applicant provide a more detailed (site-specific) review of soil types in the actual proposed locations of site features (access roads, turbine sites, along buried collector lines, laydown areas, etc.). In addition, the Department recommends that the applicant identify the Prime Soils and Soils of Statewide Importance that exist on active agricultural lands; specifically, local acreage of prime farmland and farmland of statewide importance that may be permanently impacted by non-agricultural conversion, and develop additional protection measures intended to reduce or eliminate potential adverse impacts. The Department further recommends that active agricultural lands be field delineated and labeled on project drawings (pasture/grazing or cropland) for the identification of topsoil protection measures during construction. Active Agricultural land (land-use) designations shall be made in consultation with Department staff.	Figure 6 of the SEIS2 identifies soil types that occur in the location of all of the proposed Project facilities. Impacts to Prime Farmland and Farmland of Statewide Importance are presented in detail in Section 2.1.2.1.2 and Section 2.1.2.2.1 of the SEIS2.	2.1 - Geology, Topography & Soils
78	NYSAg&Mkts, Michael Saviola	5/8/08	Based on a review of the Soil Survey and map of surficial geology, excavation for turbine foundation sites and the electrical gathering system may likely unearth substantial quantities of stone and rock spoil from the various subsoil layers. It is important to restore the original soil profile and prevent either large rocks or concentrations of stone material used as backfill from obstructing normal farm tillage operations and disabling farm machinery. Also, if the backfilling phase is completed while there is water in trenches or excavations, long stretches of buried electrical collector lines with prolonged soil saturation conditions can occur. Such saturated soil conditions can result in significant restoration difficulties and delays. The excavations and trenches should be backfilled with the excavated spoil material and compacted during backfilling to minimize trench settling. Topsoil should not be used as backfill and should remain in its segregated stockpile until all deep ripping (decompaction) and stone removal work is completed. On agricultural land, blasted or excavated bedrock, boulders, and concentrations of excavated stone or rock materials should not be returned to the excavation or trenches any closer than 24 inches from the exposed work surface of the stripped portion of right-of-way. The remainder of the backfill should be limited to suitable subsoil material, backfilled up to the top of the exposed work surface. Excess waste rock/stone materials should be removed and disposed of from active agricultural areas.	Comment noted. The Applicant will adhere to the measures outlined in Appendix R of the SEIS2 and will continue to consult NYSAg&Mkts.	2.1 - Geology, Topography & Soils
79	NYSAg&Mkts, Michael Saviola	5/8/08	Section 3 discusses mitigation measures. In addition to the Guidelines developed for Agricultural Mitigation for Wind Power Projects, the Department has also developed recommendations for seeding, fertilizing and lime for farmland restoration. Although these recommendations were originally developed and intended for natural gas pipeline right-of-way projects, the same agronomic principles apply to farmland restoration on wind power projects. This document, Seeding, Fertilizing and Lime Recommendations for Gas Pipeline Right-of-Way Restoration in Farmlands (Rev. 6/15/2005), is presented as Attachment A. Plans for re-seeding disturbed areas should be developed in consultation with the Department and the landowner in accordance with these recommendations. Seed mixtures to be utilized in restoration activities in pastures or paddocks utilized by horses shall be grasses that are most tolerant to frequent grazing and "foot traffic" including Kentucky Bluegrass, Orchard Grass, Perennial Ryegrass, and certified Edophyte-free Tall Fescue. The Project Sponsor should be responsible for developing temporary grazing plans and coordinating livestock exclusion from newly restored and re-seeded areas of pastures for a minimum of one growing season.	As discussed in the "Restoration" section of Appendix C of the DEIS, "Restored topsoil will be stabilized by seeding and/or mulching in accordance with guidance provided by the EM [Environmental Monitor] in consultation with the landowner/farm operator."	3.0 - Unavoidable Adverse Impacts
80	NYSAg&Mkts, Michael Saviola	5/8/08	Because portions of the proposed project will likely affect active pastures, it will be necessary to temporarily exclude, or re-locate livestock from the area of disturbance and also necessary to restrict livestock access once restoration activities have been completed. Adequate fencing types should be defined and agreed to by the landowner and/or farm operator. If livestock are present during construction activities, provisions should be made by the Project Applicant (Agriculture Inspector) to maintain the integrity of the livestock fencing and any animal watering systems. In addition, alternative grazing plans should be developed by the Project Applicant and	Arkwright Summit will work closely with landowners to ensure that livestock are protected and controlled with proper and agreed upon fencing in active pasture areas as applicable.	2.13 - Land Use & Zoning

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			agreed to by the farm operator and/or landowner for each affected pasture area. Daily inspection activities shall include integrity checks of the livestock fencing and watering systems.		
81	NYSAg&Mkts, Michael Saviola	5/8/08	The Project Applicant as well as the Department cannot rely solely on the discretion of the Environmental Monitor to allow vehicle and equipment placement/traffic on un-stripped or matted agricultural fields. It is the Department's opinion that farm field re-entry restrictions and exclusions based on extreme wetness and soil moisture conditions are not effectively determined and enforced by Project Applicants. Therefore, in strict adherence with the Department requirements, no vehicle, heavy equipment traffic or construction materials shall be allowed on agricultural fields for any purpose (regardless of soil moisture [plasticity] conditions) without prior removal (stripping) of the topsoil layer or placement of timber mats and other appropriate topsoil protection measures. Additionally, some activities such as tree clearing may utilize sections of existing farm roads. Many are actually field edges that are typically utilized infrequently by the farm operator for fields access. Unless the proposed route is a well-defined farm road (heavily compacted, no vegetation, etc.), topsoil stripping or limber matting shall be required. Unless "tractor paths" or "unimproved roads" appear like the farm driveway, they should be treated the same as an agricultural field. Anything that is determined to be a legitimate or clearly defined farm road should be restored to at least original condition. Under no circumstances should any right-of-way clearing or electrical contractors be allowed vehicle/equipment access onto or along agricultural fields (or through the use of timber matting). All construction activities in agricultural fields, including equipment and vehicle access for clearing, shall be conducted on topsoil stripped or timber matted travel and work areas. If questions arise as to the designation of or status of the proposed use of field edges, "unimproved roads", or "tractor paths" for vehicle and equipment access, the Department shall be notified and the area in question will be field reviewed by staff and a mutual determination will be made prior to construction.	In addition to the expertise of the Environmental Monitor, the applicant will adhere to the measures outlined in Appendix R of the SEIS2.	2.13 - Land Use & Zoning
82	NYSAg&Mkts, Michael Saviola	5/8/08	Section 2 describes potential construction-related impacts to agricultural lands. The section further describes the projects compatibility with agricultural land use and includes a sentence which states that "farming can occur right up to the base of modern wind turbines". In the past, Department staff has met with other wind farm developers to discuss the issue of subsoil decompaction directly adjacent to turbine bases. Some have stated that subsoil decompaction could not be conducted within a 35-foot radius of the base of the tower because of the grounding wires and the need for compacted soil over the tower foundation for stability. The Department has indicated that the compacted subsoil soil adjacent to the turbine base will result in long-term crop loss for the farmer that is not anticipated. Since decompaction over the foundations has been an issue on other wind farm projects in New York State, we encourage the applicant to clarify the issue of subsoil decompaction (min. depth of 18") to determine if, in fact, subsoil decompaction can occur directly adjacent to the base of the turbines. If decompaction cannot occur directly adjacent to the base of each turbine in agricultural lands, the Project Applicant should provide for additional landowner compensation for long-term crop loss and include a detailed analysis of this problem and account for the additional long-term crop loss that will result from the dense compaction at the turbine sites.	Every lease agreement that the Applicant holds with a landowner includes compensation for crop loss.	2.13 - Land Use & Zoning
83	NYSAg&Mkts, Michael Saviola	5/8/08	In accordance with the Department's Guidelines, construction activities conducted in agricultural fields will require either topsoil stripping or heavy timber matting. No vehicle equipment storage or laydown areas shall occur on agricultural lands without topsoil being stripped and stockpiled or through the use of timber matting (regardless of soil moisture conditions or time of year). Topsoil shall be stockpiled until plasticity, as determined by the Atterberg Field Test, is significantly reduced. Topsoil stockpiles left in place over winter should be seeded and mulched with straw mulch at a rate of 2 to 3 bales per 1000 Sq. Ft. in accordance with USDA-Natural Resources Conservation Service (NRCS) Conservation Practice Standard for Mulching (484). Straw (not hay) mulch should be used on stockpile topsoil.	Comment noted. The Applicant will adhere to the guidelines set forth in Appendix R of the SEIS2, Which are consistent with the contents of the Mr. Saviola's comment.	2.13 - Land Use & Zoning

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84	NYSAg&Mkts, Michael Saviola	5/8/08	While a construction or restoration schedule may be approximated, it is never predictable certainly how soon the soil conditions will be favorable for the scope of heavy-duty restoration work that is essential along the agricultural portions of the proposed Project. The relative precipitation together with corresponding soil moisture and local seasonal level of perched or apparent high water tables, hydrologically active areas, etc., all influence the timing of restoration activities. Post-winterization right-of-way restoration schedules should not be triggered by the local farming's timing of "surface tillage"; which, depending on elevation and soil characteristics, might be satisfactory in April or perhaps May; but may not be suitable for the deep tillage demands of Project restoration until late May or early June or later. Prior to construction, it is important that the project Applicant compensate farmers accordingly for their crop losses. Agricultural Inspector(s) need to help affected farmland operators understand the restoration criteria and the need for drier, non-plastic, subsoil consistence before effective restoration activities can occur. Agriculture right-of-way restoration is not applied when the exposed right-of-way subsoil and topsoil berm are in a "plastic" state of soil consistence, per the Atterberg field tests. Similarly, site clearing for the facilities proposed on active agricultural land should not commence while soils are in a highly plastic or saturated state.	See responses to Comments 82 and 83.	2.13 - Land Use & Zoning
85	NYSAg&Mkts, Michael Saviola	5/8/08	The DEIS does not include a description of post construction bird and bat studies that might be required by NYSDEC. The Department has observed the post construction studies being conducted at the Maple Ridge Wind Farm and has noted that a significant amount of agricultural land has been temporarily taken out of production as a result of these studies. If such studies are anticipated in agricultural fields, the potential impacts should be provided to the Department prior to completion of the FEIS for review and comment.	As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing. Given the relatively wooded nature of the area, impacts to agricultural areas are expected to be minimal. If there are any studies in agricultural areas, those studies will be conducted with the agreement of the landowner.	2.3 - Biological, Terrestrial & Aquatic Ecology
86	NYSAg&Mkts, Michael Saviola	5/8/08	The Department recognizes that many of the proposed access roads and turbine locations will likely change prior to the issuance of the FEIS and the Lead Agency adopting its Findings Statement. The Department requests that any changes to the project layout be submitted to the Department staff for the purpose of conducting additional field review (if necessary) of the revised locations. The deficiencies in the DEIS and information requested above should be made available to the Department for review prior to the issuance of the FEIS. Inclusion of the requested information in the FEIS does not allow the Department an opportunity to review and assess the potential impacts and provide additional comments (if necessary). Therefore, the Department requests that this information be provided for review prior to the release of the FEIS.	Revised layout information was provided in the SEIS that was accepted by the Lead Agency and made available for public and agency review on April 13, 2009. The Applicant assumes that submittal of SEIS will adequately fulfill the request for submission of a revised layout prior to the FEIS. The SEIS process provided a comment period for additional review. In addition, further revisions that have been made to the Project are addressed in the SEIS2, which was accepted by the lead agency as complete on October 12, 2015. The SEIS2 process provided a 34 day comment period for additional review. Copies of the completed SEIS2 were sent to interested and involved agencies including NYS Ag&Mrks, NYSDEC, NYSDPS, and NYSDOT.	
87	NYSAg&Mkts, Michael Saviola	5/8/08	It is requested that the Project Sponsor advise the Department and project staff regarding tentative project planning, pre-construction meetings and for contractor site walks of the proposed work areas prior to the commencement of construction activities. The Project Applicant is encouraged to closely coordinate with the Department to develop an appropriate schedule for site inspections to assure that the goals of the Department's Guidelines and Standards are being met.	Comment noted.	
88	NYSDPS, James Austin	5/9/08	DPS includes the Staff of the Public Service Commission (PSC) and is an involved agency in the State Environmental Quality Review Act (SEQRA) review of the project. Pursuant to Public Service Law (PSL) §68, the facility owner would be required to obtain a Certificate of Public Convenience and Necessity (CPCN) for a wind generating project proposed to operate above 80 megawatts (MW). The §68 review would include consideration of the capability of the developer to function as an electric corporation and to provide safe and reliable service. As pointed out in previous correspondence, the §68 review can only proceed following receipt of an application to the PSC by the developer; to date, no such petition has been received. Such a petition must include a verified statement by a responsible official of the company showing that it has received all legally required municipal consents giving it the right to use town	Although 47 sites were submitted for analysis in the DEIS, those 47 sites were based on a layout using a 1.5 MW turbine, the smallest MW unit under review and therefore the unit requiring the greatest number of sites. Arkwright Summit LLC (formerly (formerly New Grange Wind Farm LLC and Picket Brook Wind Farm, LCC) has submitted an interconnect request to the New York Independent System Operator for 79.8 MW and does not intend to exceed 79.9 MW for the Project and therefore does not require a Certificate of Public Convenience and Necessity. The SEIS2 analyzed 38 potential turbine sites, with the intention of using a combination of 36 2.0 and 2.2 MW turbines to achieve a total of 78.4 MW for the Project. Consequently, the	

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			property, such as the rights-of-way of public streets. Consideration of a §68 petition will also require that DPS coordinated review with the Office of Parks, Recreation and Historic Preservation (OPRHP) pursuant to §14.09 of the Parks, Recreation and Historic Preservation Law, unless there is federal agency review which implements §106 of the National Historic Preservation Act.	project does not require a Certificate of Public Convenience and Necessity.	
89	NYSDPS, James Austin	5/9/08	Project Facility Layout and components discussion should be supplemented. The interconnection substation facilities description is incomplete. Substation location should include preliminary site plans, which should include relevant property information, including location of property lines, tax parcel numbers of site and adjoining properties, setbacks from property lines, any area requirements of local laws, temporary and permanent access roads, and laydown areas for construction. Site slope, grading and drainage needs should be assessed. Access road alignment, slope, and curvature should be indicated, to demonstrate sufficient access for construction and operation of the proposed facilities.	Details regarding the substation proposed for the SEIS2 Project layout can be found in Section 1.1 of the SEIS2. Final design of the substation will be created in coordination with National Grid, the transmission owner.	1.0 - Description of Proposed Action
90	NYSDPS, James Austin	5/9/08	Station lighting should be designed to preclude off-site light trespass and glare. Drop-down optical features should not be allowed. Task lighting should be controlled by manual switch, rather than motion-sensor activated, which can be activated by animals and wind-blown debris.	Arkwright Summit will take these comments into consideration as lighting plans are developed in coordination with National Grid, the transmission owner.	2.5 - Aesthetic & Visual Resources
91	NYSDPS, James Austin	5/9/08	The proposed substation location is within an area of prime agricultural soils, and is likely to exhibit limitations including shallow depth to seasonal high water table.	The substation will be designed in accordance with NYSDEC and NYSAg&Mkts guidelines.	1.0 - Description of Proposed Action
92	NYSDPS, James Austin	5/9/08	Discussion of setbacks does not address the presence of gas transmission pipelines in the project area, including high pressure major transmission line and gathering lines from local network of production wells. Appropriate setbacks of wind turbine grounding system design, testing and maintenance standards should be investigated.	Arkwright Summit has contracted Fisher Associates to survey all of the gas lines and gas wells in the project area. These surveys have been verified by the local gas well and gas line operators. Arkwright Summit is working with all of the local gas well operators to ensure minimum impact to their equipment and is pursuing agreements for the crossing of easements and the shared use of access roads.	1.0 - Description of Proposed Action
93	NYSDPS, James Austin	5/9/08	Turbine lightning protection grounding system design, testing, and maintenance standards should be developed for ongoing system protection throughout the life of the project.	Section 1.5.7 of the DEIS, Project Grounding System, describes the grounding system for the WTGs, as well as the substation and underground collection system grounding. Section 2.10 of the DEIS, Public Safety, provides additional discussion on lightning protection.	2.10 - Public Safety
94	NYSDPS, James Austin	5/9/08	The proposed route of the overhead electric connection line to the substation site includes angle structures at an area of steep slopes at a ravine, with slopes exceeding 35% adjoining a stream (north of Route 83). Alternative route locations should be investigated, which avoid angles at this type of location, which will present construction and environmental management problems. The proposed site will be difficult to restore.	Since submittal of the DEIS, Arkwright Summit has revised the route of the overhead line to avoid ravines and steep slopes wherever possible as part of a comprehensive constructability review. The revised route was presented in the SEIS. In addition, a revised route of the overhead Generator Lead was presented in the SEIS2. The layout presented in the SEIS2 avoids steep slopes to the maximum extent possible.	1.0 - Description of Proposed Action
95	NYSDPS, James Austin	5/9/08	Effects on Use and Conservation of Energy Resources The DEIS contains several statements of a general nature regarding the long-term beneficial effects on the use and conservation of energy resources. The DEIS indicates that the Project will displace specific amounts of air pollutants. The developer should provide a more specific assessment of the potential beneficial effects of the proposed project. Offset emissions characterization should be based on an analysis which states the assumptions made in those studies and the results of those studies. Study should include a list of all generators that were used in the assumptions and document the changes made to the generation; and discuss how the impact mission was measured for the generation and how that information was obtained. Include the name of the programs used for analysis; and provide a contact person to discuss the studies with.	Appendix D of the SEIS, Avoided Air Emissions from the Operation of the Arkwright Summit Wind Farm, provides further information regarding the potential effects of the Project from displacement of air emissions. The study provides a discussion of assumptions and methodology used in the analysis. Section 2.4 of the SEIS2 provides an updated analysis of the air pollution offsets that will be provided by the revised Project. The calculations were performed using an emissions calculator provided by Abraxas Energy Consulting, which utilizes average emissions by state as a basis to calculate project-specific emissions of a number of pollutants.	8.0 - Effects of Use & Conservation of Energy Resources
96	NYSDPS,	5/9/08	Section 2.6 Historical, Cultural, and Archaeological	The Supplemental Phase I Archaeological	2.6 - Historic,

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	James Austin		Resources The analysis is not complete, due to the incomplete survey and analysis of historical resource in the area of potential affect of the Project. The survey, impact analysis and mitigation plan options should be provided as a supplement to the DEIS. Consideration of mitigation measures for adverse effects should first assess direct mitigation measures such as turbine relocation, or project down-sizing; then assess indirect mitigation measures such as screening. Only after consideration of direct and indirect mitigation measures have been exhausted should development of offset measures be relied upon for adverse effect mitigation. Historic structures analysis should consider the landscape setting of structures; potential change in setting due to project construction and operation should include consideration of facility components including wind turbines and overhead electric lines.	Investigation Report was submitted to the SHPO for review on February 10, 2009 and was included as Appendix F to the SEIS. SHPO determined that under Section 106 of the National Historic Preservation Act the Project would have an adverse effect on cultural resources. As part of consultation with the Lead Agency and NYSOPRHP for the DEIS and SEIS, the Applicant had previously defined mitigation projects to address the impacts to cultural resources posed by the Project. In correspondence dated August 25, 2009, the Applicant indicated that consultations with the Town Supervisor and Town Historian of the Town of Arkwright had defined the following proposed mitigation actions related to two cemeteries in the Town of Arkwright, totaling \$102,000.	Cultural & Archeological Resources
97	NYS DPS, James Austin	5/9/08	Section 2.10.3.2.5 Lightning Strikes Discussion should be amended to address turbines near gas pipelines. Setback distances, testing and maintenance protocol should be developed. Discussion does not address the presence of high pressure major transmission line and gathering lines from local network of production wells within the project area. Appropriate setbacks of wind turbine grounding systems from gas transmission system should be investigated.	Arkwright Summit has maintained a setback distance of 500ft from gas wells in accordance with section §662.E.6 of the local wind law. Arkwright Summit has also consulted with National Fuel and El Paso to develop appropriate safety measures for the high pressure transmission line. A turbine setback of 500ft was agreed upon by all parties in order to maintain the safety of the gas transmission system. Crossings of the high pressure line by roads and underground lines have been similarly reviewed and construction specifications for those crossings are under development. Specifications for the crossing of the smaller distribution lines are being developed on a case by case basis in close consultation.	2.10 - Public Safety
98	NYS DPS, James Austin	5/9/08	Turbine lightning protection grounding system design, testing, and maintenance standards should be developed for ongoing system protection throughout the life of the project.	See response to Comment 93.	2.10 - Public Safety
99	NYS DPS, James Austin	5/9/08	Section 2.12 Communication Facilities Discussion of microwave facilities and transmission effects references Appendix K-1. The conclusions in Section 2.12.2.2.1 regarding setbacks from worst case Fresnel zones (WCFZs) should be elaborated, since the discussion in Appendix K-1 state that "because the turbine locations were not provided, we could not determine if any potential obstruction cases exist between the planned wind turbines and the microwave systems." (App. K-1, pg. 1). The offsets from the WCFZs should be specified to confirm the conclusion that a vertical analysis is not necessary.	As clarified in Section 2.12.2.2.1 of the SEIS, the layout includes a 45-meter (148-foot) setback from the Worst Case Fresnel Zone (WCFZ) of microwave beam baths that intersect the Project Site, as shown in the microwave report in Appendix K1 of the DEIS. The WCFZ represents the buffer around the microwave beam path where structures may create interference with the microwave beam transmission. As the name suggests, this is a worst case distance, and the actual Fresnel zone is normally closer to 50ft, especially in areas close to emitters like the tower on Center Road. The 45-meter setback used as one of the criteria for siting the wind turbines accounts for the 45-meter radius of the rotor blades in order to site the turbine and rotating turbine blades outside of the WCFZ. In addition, as described in Section 2.12 of the SEIS2, the final Project layout avoids potential impacts to Fresnel zones.	2.12 - Communication Facilities
100	NYS DPS, James Austin	5/9/08	Section 2.13 Land Use and Zoning Discussion of agricultural land use and impacts (at 2.13.1.3 and 2.13.2.2.3) does not address the proposed location of the interconnection substation at an active agricultural field, including prime farmland soils. There is no indication of access road to the substation, so there may be additional agricultural use conversion for permanent access road, also.	See response to Comment 91.	2.13 - Land Use & Zoning
101	NYS DPS, James Austin	5/9/08	Discussion of mining and natural gas use at 2.13.1.4 does not address major gas transmission pipeline facilities in the Town of Arkwright, within close proximity of several wind turbine locations.	See response to Comment 92.	2.13 - Land Use & Zoning
102	NYS DPS, James Austin	5/9/08	Proposed interconnection substation location should include preliminary site plans, including relevant property information, location of property lines, tax parcel numbers of site and adjoining properties, setbacks from property lines, any area requirements of local laws, temporary and permanent access roads, and laydown areas for construction. Site slope, grading, and drainage needs should be assessed. Access road alignment, slope, and curvature should be indicated to demonstrate sufficient access for construction and operation of the	See response to Comment 89.	1.0 - Description of Proposed Action

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			proposed facilities.		
103	NYSDPS, James Austin	5/9/08	Discussion of mitigation measures at 2.13.3.1.3 should address interconnection grounding system and system communication or SCADA line burial depths in agricultural lands.	See response to Comment 89.	2.13 - Land Use & Zoning
104	NYSDPS, James Austin	5/9/08	Section 4.0 Alternatives Analysis Consideration should be given to alternative substation and permanent access location. Avoidance of permanent impact to prime agricultural soils may be appropriate. Alternative locations (minor modification as appropriate) to avoid interference with: microwave WCFZs; gas transmission pipeline right-of-way; and alternative overheads line routing to avoid structures on steep ravine slopes may be appropriate.	Response 8/6/09: For alternative substation location see Comment 91. For microwave Comment 99 For gas and transmission lines see Comment 92. For overhead lines see Comment 94.	4.0 - Alternatives Analysis
105	NYSDPS, James Austin	5/9/08	Appendix N Preliminary Fire Protection and Emergency Response Plan The emergency response plan should also address areas other than the turbine sites, including along overhead electric lines and the interconnection substation location. Overhead poles should be marked with operator name and contract number, and poles individually numbered for incident and emergency reporting purposes.	The final emergency response plan for the Project will include areas other than turbine sites, including along overhead electric lines and the interconnection substation location. The overhead poles will be marked with operator name and contract number and will be individually numbered for incident and emergency reporting purposes.	2.10 - Public Safety
106	Dunkirk Aviation, Louis Nalbone (President Dunkirk Aviation Sales & Services) and Dave Sanctuary (Chautauqua County Airports Manager)	5/30/08	It is important to note that all of the turbines in the proposed New Grange Wind Farm penetrate the departure surface that rises from the departure end of Runway 33 at the Dunkirk airport for 26 nautical miles at a slope of 40:1.	There are numerous other obstacles (e.g. a 2849' AMSL tower less than 4 miles from the end of Runway 33, contrasted against the height of most of the proposed turbines of less than 2,000' AMSL) in the area that penetrate the TERPS surface to a greater extent than the turbines within the Project. Additionally, the FAA is only concerned with the area within 40,000 feet or approximately 7.5 miles horizontally from the airport. Distances beyond 40,000 feet are not evaluated under TERPS. Based on the FAA's review of this area and the controlling obstacle of the tower, the majority of the project locations submitted in the DEIS received a determination of No Hazard from the FAA (Appendix J of the SEIS). Those that received a Notice of Presumed Hazard were either dropped from the layout or surveyed to confirm the vertical height is within 100ft in order to receive the Determination of No Hazard. Arkwright Summit will file revised Notices of Proposed Construction for the final turbine locations prior to construction per the FAA's requirements. All of the changes to the layout since the DEIS represent an improvement or no significant change to aviation safety from previous layouts. The Applicant had previously received determinations identifying potential obstructions to the locations of turbines proposed. The applicant has entered into an agreement with the FAA for the decommissioning of the VORTAK at the Dunkirk Airport which will remove the obstruction for those determinations. A secondary obstruction is the circling height for Category D airplanes. The applicant requested the FAA mitigate the circling height and through an internal review and public comment period determined that the Dunkirk airport did not meet the FAA's requirement for the frequency of Category D airplanes landing at the airport. The FAA is currently finishing their review of the FAA determinations and based on conversations with FAA, the Applicant expects the Determination of No Hazard for all turbine locations by December 2015.	2.10 - Public Safety
107	Dunkirk Aviation, Louis Nalbone (President Dunkirk Aviation Sales & Services) and Dave Sanctuary (Chautauqua County Airports Manager)	5/30/08	There are several sites located to the north eastern section of the proposed wind farm that raise additional concerns about the safety risks to aircraft approaching Runway 33 under instrument meteorological conditions.	Based on consultation with Dunkirk Aviation and the FAA, Arkwright Summit has removed two locations from the DEIS layout. See also response to Comment 106.	2.10 - Public Safety
108	Dunkirk Aviation, Louis Nalbone	5/30/08	It is our understanding that to date the Federal Aviation Administration has not made any determination on the	The applicant has entered into an agreement with the FAA for the decommissioning of the	2.10 - Public Safety

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	(President Dunkirk Aviation Sales & Services) and Dave Sanctuary (Chautauqua County Airports Manager)		site locations in question.	VORTAK at the Dunkirk Airport which will remove the obstruction for those determinations. A secondary obstruction is the circling height for Category D airplanes. The applicant requested the FAA mitigate the circling height and through an internal review and public comment period determined that the Dunkirk airport did not meet the FAA's requirement for the frequency of Category D airplanes landing at the airport. The FAA is currently finishing their review of the FAA determinations and based on conversations with FAA, the Applicant expects the Determination of No Hazard for all turbine locations by December 2015.	
109	Dunkirk Aviation, Louis Nalbene (President Dunkirk Aviation Sales & Services) and Dave Sanctuary (Chautauqua County Airports Manager)	5/30/08	The Chautauqua County-Dunkirk airport master plan calls for an extension of Runway 33. Although there is no future date scheduled for this potential, it is in everyone's best interest to consider this possibility when evaluating the impact of the wind farm on local area aviation safety.	The extension planned for Runway 33 is on the approach end and would extend the runway to the southeast (actually better described in aeronautical terms as lengthening the approach end of Runway 33 or moving the departure end of Runway 15). For purposes of consideration and impact by the proposed turbines, there is no impact as the extension simply moves the approach end of the runway closer to the 1229' AMSL existing obstacle that currently defines and restricts the Minimum Descent Altitude to 1480' AMSL to the GPS approach to Runway 33. Additionally, the previously noted 2,849 AMSL existing tower is more than 800' feet taller than any of the proposed turbines. See also response to Comment 106.	2.10 - Public Safety
110	Dunkirk Aviation, Louis Nalbene (President Dunkirk Aviation Sales & Services) and Dave Sanctuary (Chautauqua County Airports Manager)	5/30/08	Please remember that this project could have long term effects on the aviation safety in Chautauqua County. We look to you to respect our concerns and keep us informed of your discussions regarding this project.	Arkwright Summit is committed to addressing the concerns of all involved stakeholders and looks forward to continuing discussions with Dunkirk Aviation.	2.10 - Public Safety
111	Askin, Kerry	5/26/08	Turbines sited close to my property need to be relocated or removed to keep my views and peacefulness undisturbed.	Turbines have been sited in accordance with Town of Arkwright Zoning Ordinance, Article VI-A, which was passed in early 2007 and filed with the State of New York Department of State on March 8, 2007. A detailed description of the Project layout criteria is available in Section 1.5.1 of the DEIS.	1.0 - Description of Proposed Action
112	Askin, Kerry	5/26/08	Your company should have and should now provide visual predictions for the main areas of the project as seen by those living in the project area. We are the ones most affected by your project. We should be able to see how your plan will affect our lives. I find it ironic and disturbing that there is more information for Fredonia residents than locals when it comes to the visual impacts of the project.	Comment noted. Additional visual simulations were provided in the updated VRA in Appendix E to the SEIS. The visual receptors for photo simulations were determined based on input from the Town and their consultant after acceptance of the DEIS in the fall of 2008. An updated SVRA2 was provided as Appendix J to the SEIS2, which provides updated visual simulations based on the revised Project layout.	2.5 - Aesthetic & Visual Resources
113	Askin, Kerry	5/26/08	Residents who are concerned about falling property values need a guarantee that property values will not fall as a result of this project, or a financial settlement/payment must be made to ensure that lifetime savings and investments are not lost as a result of actions taken by your company. And I mean more than paying an estimated annual electric bill, which is a slap in the face to a concerned property owner.	Arkwright Summit utilized the best available industry studies that employ quantitative methodologies to develop the conclusions provided in the DEIS, SEIS, and SEIS2 Section 2.9. The Renewable Energy Policy Project (REPP) 2003 study of over 24,000 home sales surrounding 10 U.S. wind projects, showed no evidence of adverse effects on property values (Sterzinger, Fredric, and Kostiuik 2003). An April 2006 Bard College masters thesis study of a 20-turbine wind project in Madison County similarly concluded that there was no evidence that the wind project affected home values (Hoen 2006). The Lawrence Berkeley National Laboratory's report <i>The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis</i> , was released in December 2009. A more broad approach to assessing potential impacts on property values of residences near wind facility projects was undertaken for this study and consequently it is the "most comprehensive and data-rich analysis to date in the U.S. or abroad on the impacts of wind projects on nearby property values" (Hoen et al., 2009). This study's analysis is based on information from	2.9 - Socioeconomic s

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				<p>10 communities surrounding 24 existing wind power facilities spread across nine states. The study included the Fenner Wind Farm and Waymart Wind Farm (total turbine blade tip height 328 feet) in Wayne County, Pennsylvania, two facilities that are comparable in terms of land use and rural condition to the Arkwright Summit Wind Farm. While the Fenner Wind Farm is a considerably smaller Project, the study area is similar in composition and land use. Homes included in the study were located from 800 feet to over five miles from the nearest wind energy facility. This study used a methodology based on the hedonic pricing model to identify the marginal impacts of different housing and community characteristics on residential property values. Analysis of possible impacts on property values was undertaken by dividing the impacts into three non-mutually exclusive categories, area stigma, scenic vista stigma, and nuisance stigma. Area stigma may occur regardless of whether the wind facility is within view of the home. The mere fact that a wind facility is generally nearby may adversely affect a home's value. Scenic vista stigma is based on the concern that a home may be devalued because a wind facility is within view and/or interrupts an existing scenic vista. A nuisance stigma can occur because of the potential for extenuating factors from a nearby wind facility, such as noise or shadow flicker (regardless of whether they actually occur). Exploration of the effects of all three stigmas resulted in finding no persuasive evidence that neither the view of the wind facilities nor the distance of the home to the facilities is found to have any significant effect on home sales prices. The study recognizes the possibility that the value of an individual home (or small numbers of homes) has been or could be negatively impacted by a nearby wind facility (Hoen et al., 2009). However, even if such occurrences do exist "they are either too small or too infrequent to result in any widespread, statistically observable impact" (Hoen et al., 2009).</p> <p>Property values are the result of the interaction of several variables ranging from national economic conditions to local provision of basic services. While scenic qualities are one such variable, it is only one localized attribute among several variables that may combine to influence property values.</p> <p>In addition, significant positive variables that would result from the Arkwright Summit Wind Farm and could potentially increase property values include lower local taxes, improved local infrastructure, and new development of local businesses that will be possible from the revenue from the Project to the County, Town and school districts. Further information regarding the socioeconomic benefits of the project, such as new job opportunities and revenue to the local economy, was provided in Appendix I to the SEIS.</p>	
114	Askin, Kerry	5/29/08	<p>These two statements (the application and the DEIS) are filled with detailed and specific information, so much that I believe individual residents could be overwhelmed by the volume and content of these materials. To insure that the best interests of all residents are met, I believe the town should hire an independent agency to review these documents and check for their scientific and statistical accuracy. I am requesting that when the final copies appear, this independent agency be hired to go over the application thoroughly and any problems or inconsistencies that are noticed can be discussed at an open Town meeting after these documents have been reviewed by a professional. This is a much too large and serious project to allow without complete and earnest scrutiny by the Arkwright Town Board.</p>	<p>The Town of Arkwright has hired the engineering firm GHD (formerly Conestoga-Rovers Associates, or CRA) of Buffalo to check all of the Applicant's submittals for quality and accuracy. CRA has submitted multiple public memoranda to the Town Board, and the Applicant has responded to each of the comments raised. This agency is completely independent of the Applicant and serves under the direction of the Town of Arkwright. While the funds for these services are provided in escrow by the Applicant, the choice of provider for these services is up to the Town of Arkwright.</p>	
115	Askin, Kerry	5/29/08	<p>Having read many of the documents in the above mentioned books, I am very concerned about the overall quality of the reports. Many scientific conclusions use</p>	<p>The DEIS, SEIS, SEIS2, and FEIS were prepared in accordance with SEQR regulations and industry best practices and utilizes</p>	

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			words like "appear to have" and "does not seem to.." when discussing the impacts these wind turbines will have on the environment. To ensure that this project will not cause harm to our Arkwright environment, we need more definitive studies, with more solid conclusions.	language common in environmental impact assessment. The DEIS, SEIS, SEIS2, and FEIS present conclusions based on the best scientific information available and new analyses prepared specific to the Project. The SEQR process allows for public and agency review of the documents prepared for the environmental analysis. Additionally, the DEIS, SEIS, SEIS2, FEIS supplemental reports, and subsequent studies are independently reviewed by a third-party consultant chosen by the Town of Arkwright. The SEIS2 provides further discussion to add, clarify, and revise information based on the public comments received on the DEIS and SEIS.	
116	Askin, Kerry	5/29/08	I am also concerned about huge omissions in the reports and major errors. The major route in the project area is mislabeled as Route 84 on many documents, and several pictures are missing from the visual effects section. The distances from viewer to turbine in many of the projections are completely inaccurate...How can we trust the overall quality of these documents when such basic things are incorrect or missing?	Comment noted. See response to Comment 115.	
117	Askin, Kerry	5/29/08	I object to the overall bias that is evident in this report and I question the overall validity of the data if it is presented in such a biased fashion. For example, when discussing the Great Blue Heron rookery that was located on Farrington Hollow Road, this report includes documents submitted by the DEC that pinpoint the rookery's location and discuss the amount of nests at this site and the types of trees these herons prefer nesting in. Yet in that same section Horizon refers to "rumors about a rookery that may have existed long ago" ...when it has clearly been established that there is (was) a rookery. And I know there is a rookery because I have visited it every year since 1981! It has been a spring ritual to visit the rookery and I have even made friends with the family whose property is in the front of the rookery. Yet Horizon talks of "rumors" of a heron rookery within this project's boundaries??!! With this kind of biased reporting, I believe all the documents come under suspicion, and again, I call for a professional review of these documents on behalf of the Town Board before any final decisions are made. Are the Great Blue Herons going to be endangered by this project? "A rumor of an apparent historic appearance of a great blue heron rookery of undetermined size" is a misleading statement that causes me concern...is this rookery gone?? What happened to it? Where are the herons? Has this project endangered them, or will it?	See response to Comment 36.	2.3 - Biological, Terrestrial & Aquatic Ecology
118	Askin, Kerry	5/29/08	Another concern of mine is the amount of land that will need to be cleared as a result of this project. Does the DEIS ever offer a total acreage of land that needs to be cleared? This is a figure that should be made available to the public.	The DEIS references the specific acreage that we will temporarily and permanently impact as a result of the construction or operation of the project. These numbers are available in Section 1.1 and Section 2.1 of the DEIS and were updated in these sections of the SEIS. The updated total acreage of impacts to environmental resources resulting from Project construction and operation are provided throughout the SEIS2. With regard impacts to vegetation, please refer to table 17 in Section 2.3 of the SEIS2.	2.1 - Geology, Topography & Soils
119	Askin, Kerry	5/29/08	Will this not have a detrimental effect on the wildlife in the area? How much nesting habitat will be destroyed and what deep woods species will be affected?	Sections 2.3 of the DEIS, SEIS, and SEIS2 discuss the effects of the Project on wildlife. See also Appendix E of the DEIS, and Appendix H of the SEIS2.	2.3 - Biological, Terrestrial & Aquatic Ecology
120	Askin, Kerry	5/29/08	Isn't this area of Chautauqua County host to valuable stands of old growth timber stands? Will this project negatively affect these old trees?	Arkwright Summit has committed to a comprehensive timber reimbursement program with participating landowners. This program pays landowners the fair market value of valuable tree species, such as Black Cherry, unless the participating landowner chooses to remove such trees themselves. Fair market value for these trees will be determined by a timber appraiser mutually agreeable to both Arkwright Summit and the landowner. In addition to paying the fair market value of specific trees, Arkwright Summit compensates landowners for timber land taken out of production.	2.3 - Biological, Terrestrial & Aquatic Ecology

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121	Askin, Kerry	5/29/08	What invasive plant species might become a problem in this area due to all the clear cutting that will be done?	An Invasive Species Control Plan has been developed and included as Appendix I to the SEIS2. This plan identifies invasive species that are likely to occur within the Project vicinity, and mitigation measures that will be followed to prevent the spread of these species during Project construction.	2.3 - Biological, Terrestrial & Aquatic Ecology
122	Askin, Kerry	5/29/08	What effect will this project have on the property values in Arkwright, especially the non-participating ones? I find the information in the DEIS to be very weak. Wouldn't the residents of Arkwright be better served to have a thorough study done on the effect wind turbine farms can have on local property values? I am not at all convinced by reading these reports that there won't be a negative effect on our property values. I request that more information be provided to the public before any final decisions are made concerning the future of this project. For evaluating the effect of this project on local property values, I request that several locally active realtors provide their professional opinion on this topic...we need lots of opinions. I also request that the final DEIS will include a comprehensive survey of the literature regarding the pertinent research on wind turbine projects and their effects on local property values so that educated conclusions can be made. Furthermore, if it is found that some properties will suffer in value, then just compensation should be due the landowners and these provisions should be clearly spelled out in the final copy of the DEIS. Profit for some should not come on the backs of their neighbors.	See response to Comment 113.	2.9 - Socioeconomic s
123	Askin, Kerry	5/29/08	Why does the permit application state in sect. 3 that "this project is consistent with current land use and compatible with the rural residential...land use," when it is not??? How can you call 47 400+ foot moving turbines "consistent" with current land use?	The project meets the requirements in the Town of Arkwright Zoning Ordinance VI-A. Across the State of New York, many wind projects are sited in agricultural and rural residential areas. The presence of the Project allows the continuance of current land use. The Project will have a small total footprint compared to the larger forested and agricultural areas. A complete discussion of regional and local land use is available in Section 2.13 of the DEIS. An updated discussion of the Project in relation to regional and local land use is provided in Section 2.13 of the SEIS2.	3.0 - Unavoidable Adverse Impacts
124	Askin, Kerry	5/29/08	Shouldn't we have a guarantee of which turbines will be used (Sect.1.1) and whatever is used will be equal to or less noisy than those tested? Can the company or town guarantee that there will be no sound/nuisance problems for its residents? Shouldn't there be clear and just compensation rules for those who may suffer from noise problems?	As described in Section 1.0 of the SEIS2, the Applicant is now considering the Vestas V-110 turbine model for the Project. Section 2.7 of SEIS2 and the associated study (Appendix N) provide a detailed analysis of the noise properties of this turbine model, and any potential sound-related impacts that may occur. Additionally, mitigation measures for impacts resulting from turbine noise are clearly stated in Section 2.7 of the SEIS2.	1.0 - Description of Proposed Action
125	Askin, Kerry	5/29/08	How are project site boundaries determined? How can you say in Sect. 1.3 that this "project is designed to limit potential intrusions on host communities" when my house will be surrounded by noisy and unsightly turbines. To stay consistent with your stated goals, I request that you eliminate or remove certain turbines from your project (e.g. #57,56,18ar,18br,maybe 25+26).	See response to Comment 111.	1.0 - Description of Proposed Action
126	Askin, Kerry	5/29/08	Where are the "additional parcels Horizon is currently negotiating for and shouldn't these locations be made public to provide a full picture of this project?	The Project Area consists of the parcels proposed to be included in the Wind Overlay Zone. Information regarding participating properties was provided in the Special Use Permit Application submitted to the Board in January of 2008. The information will also be included in the updated Special Use Permit application submittal to the Board following completion of SEQR.	1.0 - Description of Proposed Action
127	Askin, Kerry	5/29/08	When will the wetland delineations mentioned on page 1.9 be available for public scrutiny?	Wetland delineations were provided as Appendix C to the SEIS. See also responses to Comments 23 and 24 for further information regarding USACE and NYSDEC review of the wetland delineations. Updated wetland delineations are provided as Appendix E to the SEIS2, and shown in figure 10 if the SEIS2.	2.2 - Water Resources
128	Askin, Kerry	5/29/08	Why are you ignoring the advice of current turbine hosts and standard industry practice to set all setbacks at a minimum of 2000 feet? I believe that following this	See response to Comment 111. The layout conforms to the setbacks established in the Town of Arkwright Local Zoning Ordinance, as	1.0 - Description of Proposed

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			guideline could make this project a lot more acceptable to all residents.	well as industry standards and manufacturer specifications with respect to setbacks and public safety. Setbacks of 2,000 feet as the commenter suggests are not typically found throughout industry practice or guidance, such as the NYSERDA model zoning ordinance (2005). Proper siting has been and continues to be a priority of Arkwright Summit throughout the project design and permitting process. Source: NYSERDA. 2005. Wind Energy Model Ordinance Options. Available online at http://www.powernaturally.org/programs/wind/olkit/2_windenergymodel.pdf .	Action
129	Askin, Kerry	5/29/08	Which roads are going to be improved for this project (Sect 1 page 10) and how will this affect local traffic?	Section 2.8 and the Transportation Study in Appendix I of the DEIS provided information regarding road improvements and effects on local traffic. An additional transportation study was completed in 2015, and included as Appendix P to the SEIS2. The study identifies roads that will be improved for construction purposes.	2.8 - Traffic & Transportation
130	Askin, Kerry	5/29/08	I don't think this project avoids the most populated areas as stated on page 1.10. I live on Route 83 and your project is certainly going to affect my views.	Comment noted.	1.0 - Description of Proposed Action
131	Askin, Kerry	5/29/08	In Sect. 4, I find your conclusions under No Action to be very misleading. How can you claim losses when nobody has made any money yet? And if it is potential losses you are talking about, shouldn't you be just as concerned about the potential loss to local property values?	The discussion in Section 4 of the DEIS focuses on the opportunity costs of the No Action Alternative. Potential loss of property values is discussed in Section 2.9 and Appendix J of the DEIS. See also response to Comment 113.	4.0 - Alternatives Analysis
132	Askin, Kerry	5/29/08	Doesn't this project require over 18 new miles of access roads in this town, and isn't that going to have a dramatic and negative effect on our environment?	Access roads throughout the project are sited in accordance with NYSDEC and NYSAg&Mkts guidelines and will be designed and constructed to adhere to best management practices. Additionally, the Project Layout analyzed for the SEIS2 has been reduced to 12.4 miles of Access Road.	1.0 - Description of Proposed Action
133	Askin, Kerry	5/29/08	Will the company follow its maps when placing transmission lines underground? Or will cost become an overriding factor that results in more lines being placed above ground? I request that all lines that are marked as underground on the maps stay as underground lines, and that all efforts be made to make all lines underground.	Arkwright Summit is committed to placing lines underground to the extent possible based on electrical, engineering, and environmental constraints. Changes to the collection line system due to terrain characteristics or input from agencies such as the NYSDEC and NYSAg&Mkts have been incorporated in the layout presented in the SEIS2, which includes 18 miles of underground interconnection lines, and 5.9 mile overhead generator lease line.	1.0 - Description of Proposed Action
134	Askin, Kerry	5/29/08	Where is the photo for sites 18BR and 57? These two are very close to my house and it would be helpful to have these photos.	Additional visual simulations were provided in the updated SVRA in Appendix E to the SEIS. The visual receptors for photo simulations were determined based on input from the Town and their consultant after acceptance of the DEIS in the fall of 2008	2.5 - Aesthetic & Visual Resources
135	Askin, Kerry	5/29/08	I disagree with the conclusions in Appendix K, Section 5. They are simply not completely true. Can these claims be substantiated?	A response to this comment is not possible. The commenter has not provided specific conclusions from the cited Appendix or the basis for questioning the conclusions. The studies in Appendix K were prepared by technical consultants. The conclusions of the reports in Appendix K are based on field measurement and observation, empirical data, and databases of communications facilities.	2.12 - Communication Facilities
136	Askin, Kerry	5/29/08	I request that more consideration be given to the rights of non participating residents. There seems to be a bias against those who don't want the visual and auditory interference these turbines will cause...the scope of this project is so big and the changes to the character of the community so dramatic that I believe there should be more efforts to increase compensation to residents who don't approve of the project...perhaps a law that requires the company to compensate the landowners for the full value of their property if they agree to vacate because of the turbines.	The Applicant is committed to involving non-participating members of the community in the project. For the past few years, the Applicant has engaged in a consistent effort to reach out to all members of the community including hosting open houses, participating in local forums and panel discussions, setting up booths and local fairs and trade shows, sponsoring local events, sending out brochures and other mailings, issuing press releases, participating in interviews with local print and broadcast media outlets and giving presentations for local organizations like	3.0 - Unavoidable Adverse Impacts

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				Rotary. In addition, the Applicant has been present at many Town Board meetings in order to update the Town Board members and community residents of the status of the Project. See also response to Comment 113 regarding property values.	
137	Askin, Kerry	5/29/08	Isn't there a potential for over 400 bird kills a year at these turbine sites? Isn't that environmentally careless and damaging?	<p>As shown in Appendix E of the DEIS, the Town of Arkwright has less avian activity than other reference sites in area. Given the lower number of avian sighting during the survey period, a lower number of avian impacts is expected in the Project area. Arkwright Summit is committed to post-construction monitoring and will continue to work closely with the NYSDEC to ensure that all post-construction studies adhere to the NYSDEC's guidelines.</p> <p>Furthermore, many national and New York-based environmental advocacy groups have come out in strong support of wind power in New York. These groups include Clearwater, Environmental Defense, Environmental Advocates of New York, Natural Resources Defense Council, New York League of Conservation Voters, Sierra Club and many more. Even conservation groups known for their specific interest in birds, like the Audubon Society, have come out in strong support for wind power.</p> <p>Section 2.3 of the SEIS2 provides a detailed analysis and discussion regarding potential impacts to avian and bat species. This includes the results of studies that have been performed specifically for this Project (Appendix H of the SEIS2), as well data from other nearby wind projects. Mitigation measures are also described.</p>	2.3 - Biological, Terrestrial & Aquatic Ecology
138	Askin, Kerry	5/29/08	Will there be much blasting during the construction phase and how will this affect our homes and wells?	Arkwright Summit will perform geotechnical analysis of the project area prior to construction. A preliminary blasting plan has been prepared and included as Appendix A to the SEIS2. If blasting is deemed to be necessary, the measures outlined in this plan will be adhered to.	1.0 - Description of Proposed Action
139	Askin, Kerry	5/29/08	Weren't some of the bird studies too brief to draw valid conclusions? The data on bats seems weak; shouldn't we require me definitive studies on this and all avian issues?	<p>The Applicant is committed to working with the NYSDEC. Project-specific studies were developed in consultation with the NYSDEC. See responses to Comments 30, 31, 35, 38, 39, 46, 49, 51, and 52.</p> <p>Section 2.3 of the SEIS2 provides a detailed analysis and discussion regarding potential impacts to avian and bat species. This includes the results of studies that have been performed specifically for this Project (Appendix H of the SEIS2), as well data from other nearby wind projects. Mitigation measures are also described.</p>	2.3 - Biological, Terrestrial & Aquatic Ecology
140	Askin, Kerry	5/29/08	The turbines causing "moderate risks to red tailed hawk and turkey vultures" seems unacceptable to current standards. Is the DEC in complete approval with this project?	See response to Comment 47. Arkwright Summit developed the avian and bird study plans in consultation with the NYSDEC. Additionally, As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	2.3 - Biological, Terrestrial & Aquatic Ecology
141	Askin, Kerry	5/29/08	Exactly which turbines will require lighting?	The preliminary lighting plan was provided in Appendix O of the DEIS. The final lighting plan will be approved by the FAA.	1.0 - Description of Proposed Action
142	Askin, Kerry	5/29/08	In Table 5 under Visual headings there is no mention of Route 83 in Arkwright, only Villenova...this is needed data.	Additional visual simulations were provided in the updated SVRA in Appendix E to the SEIS. The visual receptors for photo simulations were determined based on input from the Town and their consultant after acceptance of the DEIS in the fall of 2008. Updated visual simulations are provided in the SVRA2 (Appendix J of the SEIS2).	2.5 - Aesthetic & Visual Resources
143	Askin, Kerry	5/29/08	When will the Final DEIS be issued and how long will the community have to review the updated and corrected information before the Town Board takes any action?	A Supplemental Environmental Impact Statement (SEIS) with updated Project information was submitted to the Lead Agency on April 3, 2009 and was accepted for public review on April 13, 2009. A public comment period on the SEIS was provided through June 1, 2009. A second Supplement Environmental	

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				Impact Statement (SEI2) with updated Project information was submitted to the lead agency on October 2, 2015, and accepted as complete on October 12, 2015. The FEIS has been prepared to address and respond to public and agency comments received on both the DEIS, SEIS, and SEIS2.	
144	Askin, Kerry	5/29/08	Who is going to do the post construction monitoring of environmental issues and how will that information be made available to the public?	Arkwright Summit will incorporate the requirements of agencies such as the Town of Arkwright, NYSDEC, NYSAg&Mkts, and the USACE into the compliance and monitoring program. As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	3.0 - Unavoidable Adverse Impacts
145	Askin, Kerry	5/29/08	What is the process for getting turbines relocated?	The SEQR process, through public and agency review of the DEIS, SEIS, and SEIS2, is the process approved by the state to engage all stakeholders involved in the layout to site turbines on private property in a responsible manner. The layout presented in the FEIS is the result of several revisions based on environmental and engineering constraints and public and agency input on the DEIS and SEIS.	1.0 - Description of Proposed Action
146	Askin, Kerry	5/29/08	I think it is very important that residents be provided visual data of the effects on the project, but there are no projections for what the project will look like from my house. I find this to be very important information and feel that it should be made available to me. How can I get these projections and what if I find them to be completely unsatisfactory?	See response to Comment 134.	2.5 - Aesthetic & Visual Resources
147	Askin, Kerry	5/29/08	I am a short wave and medium wave radio enthusiast. Will the turbines have a negative effect on my reception and if they do shouldn't be have clearer methods of redress for the citizens?	The communications study in Appendix Q-4 of the SEIS2 provides an evaluation of potential impacts to radio signals. As stated in section 2.12.3.2.3, "If Project operation results in any impacts to existing AM and FM coverage, the Applicant will address and resolve each individual problem, as necessary. This will be accomplished through the Complaint Resolution Procedure outlined in Appendix O [of the SEIS2]."	2.12 - Communication Facilities
148	Booth, Elizabeth and Robert	5/30/08	LAND LEASES Our first concern is regarding land leases. A significant portion of this document covers the siting and mitigation issues around the placement of transmission lines, yet Horizon has not secured the land leases necessary to say where there transmission lines for this project will be located.	All Project components, including the electrical lines, will be placed only on land under easement, lease, or ownership by Arkwright Summit. These properties will be included in the established Wind Overlay Zone pending approval of the Special Use Permit by the Town. The Project layout in the SEIS2 shows the Project Site with all Project components proposed within the boundary of the Wind Overlay Zone. See also response to Comment 133 for further information regarding the layout presented in the FEIS.	1.0 - Description of Proposed Action
149	Booth, Elizabeth and Robert	5/30/08	PROPERTY VALUES 2.9.2.2.2 a. The DEIS bases an opinion that there will be no adverse affect to property values on information from a report , Renewable Energy Policy Project report, which is not applicable to Arkwright because: i. The information is outdated and does not analyze "modern" wind installations (most of the information is from wind installations built in the early to mid 1990s) ii. None of the projects reviewed in the REPP report are anything like the project proposed for Arkwright: none have a project area with the number of people, homes and property parcels that we have here. iii. The report looks at a 5 mile range when analyzing property values. We need to look at a much closer range, what the affects will be in the project area and the surrounding areas of our town. While I care how this installation may affect a town like Fredonia, I care more about what the impact will be here in Arkwright. b. The second report sited was one done by a graduate college student studying some of the smaller wind installations in New York, and many of the same issues apply to this report. c. The DEIS neglected to include any of the reports, which are readily available, which show that there are adverse affects on property values.	An updated analysis of property values in relation to the Project is provided in Section 2.9 of the SEIS2. This includes the results of multiple studies that have been conducted subsequent to the preparation of the DEIS, including studies that assess wind farms that are comparable to the proposed Arkwright Summit Wind Farm.	2.9 - Socioeconomic s
150	Booth, Elizabeth and Robert	5/30/08	3) POPULATION & HOUSING 2.9.2.2 a. We question the statement that this project will provide	Please refer to Section 2.9 of the SEIS2 for updated information on the potential	2.9 - Socioeconomic

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			10 to 15 full time jobs. What will these jobs entail? Will these jobs be in Arkwright? What sort of wages will they pay?	socioeconomic impacts of the Project. According to the economic analysis conducted for this Project, approximately 13 full time jobs will be created as a result of Project operation. Of these, 5 will be onsite, labor-related jobs, 4 will result from local revenue and supply chain impacts, and 4 will result from induced impacts. The total earnings for these jobs will total approximately 1.1 million dollars.	s
151	Booth, Elizabeth and Robert	5/30/08	<p>SITING OF TURBINES</p> <p>a. It was recently (May 17th) reported that Horizon continues to construct test towers in Arkwright. To us, this means one of two things:</p> <p>i. Horizon is still not sure where to place the wind turbines, rendering a significant portion of the information presented in the DEIS unreliable and not applicable to the project.</p> <p>ii. There will be another "phase" to this project with additional turbines being sited in Arkwright. If this is the case, the DEIS should address this now, not in the future.</p>	Both of these assumptions are incorrect. The temporary meteorological (met) towers that have been erected are used to verify the wind for the financiers of the project. Arkwright Summit does not have any plans for a second phase of this project. All of the met towers erected in Arkwright are within the project area.	1.0 - Description of Proposed Action
152	Booth, Elizabeth and Robert	5/30/08	<p>AVIATION CONCERNS</p> <p>a. There needs to be an assessment of the project by the F.A.A. The DEIS doesn't provide any information beyond lighting plans. What is the final assessment by the Air Traffic Department Dept., and the Airways Facilities and Flight Procedures Dept?</p> <p>b. There is no mention of how this project will impact rescue helicopters in their service to our community.</p>	<p>Search and rescue operations are, by definition, conducted under the Federal Aviation Administration's (FAA) Visual Flight Rules (VFR) requiring a visibility of a minimum of three (3) miles and a ceiling of one thousand feet (1,000'). Operating in these visual conditions will allow any pilot to "see and avoid" any obstacles, natural or man-made. Additionally, the typical airborne search is conducted at altitudes of one thousand feet (1,000') or higher (and given the terrain in this specific area, perhaps much higher) in order to provide a reasonable view of the search area. At that altitude, aircraft, including helicopters, would be well clear of the turbines. Additionally, at that altitude, they would be provided adequate vertical separation required by the FAA of five hundred feet (500'). It should also be noted that there is an existing tower in the center of the project's turbine cluster that stands at two thousand eight hundred forty-nine feet (2,849') above sea level, or approximately eleven hundred feet (1,100') above ground level, that surpasses the heights of the WTGs by nearly seven hundred feet (700').</p> <p>See also response to Comment 106.</p>	2.11 - Community Facilities & Services
153	Booth, Elizabeth and Robert	5/30/08	<p>VISUAL IMPACT AND NOISE</p> <p>a. The DEIS analysis of alternatives is deficient regarding visual impact and noise.</p> <p>i. States that mitigation of visual impact and noise issues will be accomplished by offering neighbor agreements to neighboring landowners located outside the project site within 2,500 feet of a wind turbine.</p> <p>SEQRA requires a DEIS to provide a sufficient account of alternatives to the project, including alternative siting strategies for wind turbines. This DEIS does not provide meaningful accounts of possible alternatives. Wouldn't a reasonable alternative be to not place a turbine within 2,500 feet of a neighboring property without a "neighbor agreement"?</p> <p>b. The DEIS does not provide any information regarding the impact of the wind turbines planned for projects in surrounding towns.</p> <p>c. The DEIS does not provide landowners and interested parties with sufficient, detailed information regarding the siting of turbines and the relationship to neighboring properties.</p> <p>i. Horizon should provide a detailed map of where each turbine is planned in relation the surrounding dwellings. This map should include property lines and names of the landowners, and should be mailed to every landowner in and surrounding the proposed project area (including properties in other towns).</p> <p>ii. The DEIS includes a list of landowners who have chosen to review contracts from Horizon, but there is no information as to which landowners have signed contracts. Information should be made available regarding which property owners have and have not signed contracts with Horizon to facilitate a review and</p>	<p>Sections 4.0 (Alternatives Analysis) and 7.0 (Cumulative Impacts and Benefits) of the SEIS2 provide an updated discussion of the issues raised by the commenter with respect to the Project layout assessed in the SEIS2. Additionally, the 2015 Local Permit Application, which was submitted to the lead agency (Town of Arkwright) on October 9, 2015, contains a detailed figure showing the exact location of each proposed turbine, and the associated setbacks.</p>	4.0 - Alternatives Analysis, 7.0 - Cumulative Impacts & Benefits

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			enforcement of setbacks.		
154	Booth, Elizabeth and Robert	5/30/08	The information in the DEIS, and all future information provided by Horizon and the Arkwright Town Board, should be made available at an easier-to-access location, such as a public library.	A copy of the DEIS was provided to the Fredonia Public Library on August 14, 2008. A copy of the SEIS was provided to the library on April 14, 2009.	
155	Booth, Elizabeth and Robert	5/30/08	Mailing should be sent to all homeowners / landowners in Arkwright, and landowners from other towns that border the project, that includes a detailed map of where the turbines, transmission lines and other "built" structures or roads are proposed, including dwellings, out buildings, and property lines.	The Applicant has made multiple efforts to reach out to all members of the community with multiple mailings, press releases and continued participation in local forums, panels and events. The Applicant has made all of the detailed layout information available online, at the local library and at our offices which are open regular business hours, five days a week.	
156	Booth, Elizabeth and Robert	5/30/08	In conclusion: After reading what was available for review on the New Grange web site, it is clear to us that Horizon has failed to provide sufficient information about this proposed project. This renders a significant portion of the analysis in the DEIS deficient, and the Town Board (acting as the lead agency) should require a supplemental DEIS and a second public hearing to review the information before moving ahead with this project.	The Applicant submitted the SEIS to the Town Board on April 3, 2009. The SEIS was accepted by the Town Board on April 13, 2009 as adequate for public review. The Town's consulting engineering firm, GHD (formerly CRA), reviewed the document for accuracy. Comments from agencies and the public were accepted and have been included in the final response document as part of the FEIS.	
157	Bretl, Fred	3/28/08	Generally, this DEIS appears to be mostly comprehensive and well assembled. In my review, I have identified several concerns; several rather inconsequential and several of a more impactful nature.	Comment noted.	
158	Bretl, Fred	3/28/08	First of all, as 'CRA' is representative of the TOA's concerns, I believe that there should be a summary statement. It should express the comprehensive thoroughness of the DEIS (and FEIS) as well as reference that the information that is being communicated, is relative to the most current and objective scientific endeavors and references. If this is true, it thereby communicates to the individuals of the region, the TOA, and all other organizations/agencies that are actively interested and/or involved with this project, a statement of quality assurance which instills a level of confidence that the information is objective, accurate, and current.	<p>The Executive Summary presented in the DEIS, SEIS, and SEIS2 is part of the overall application package that has been reviewed by the Town and their consultant and found adequate under the Town's zoning regulations and the SEQR process. As stated in the public notices that accompanied both the DEIS, SEIS, and SEIS2, the DEIS was completed and accepted by resolution of the Lead Agency on February 27, 2008, the SEIS was completed and accepted by the Lead Agency on April 13, 2009, and the SEIS2 was completed and accepted by the Lead Agency on October 12, 2015.</p> <p>The FEIS is a product of the review of the DEIS, SEIS, and SEIS2 by the Town, the Town's engineer (GHD – formerly CRA), involved and interested agencies, and the public. Responses to all of the comments received on the DEIS, SEIS, and SEIS2 have been provided in this FEIS.</p> <p>Additionally, following the submission of the FEIS, the Town will prepare a Statement of Findings expressing the Town's evaluation of impacts on environmental resources from the Project. Under the SEQR regulations, the Findings Statement must (6 NYCRR §617.11(d)):</p> <p>(1) consider the relevant environmental impacts, facts and conclusions disclosed in the final EIS;</p> <p>(2) weigh and balance relevant environmental impacts with social, economic and other considerations;</p> <p>(3) provide a rationale for the agency's decision;</p> <p>(4) certify that the requirements of this Park have been met;</p> <p>(5) certify that consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating conditions to the decision those mitigative measures that were identified as practicable.</p>	Executive Summary
159	Bretl, Fred	3/28/08	1) In Section 2.5 Aesthetic and Visual Resources, there is NO reference to the visual impact OR a description of the overhead transmission lines. Although on page 2-94 it states that, "Ancillary facilities will be located, as feasible, away from major transportation corridors... and that the Applicant will maximize to the extent possible (which is rather ambiguous and open-ended), the	The updated SVRA provided as Appendix E to the SEIS included visual simulations of the proposed transmission line. The locations were chosen based on input received from the Town and their consultant and included Farrington Hollow Road and NYS Route 83. Figures A15 and A16 of the VRA show the existing and	2.5 - Aesthetic & Visual Resources

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			subsurface routing of electrical interconnects.... Section 2.5 should have a very thorough description of the visual impacts of the proposed overhead transmission lines and mitigating measures. There should also include a pictorial exhibit as seen similarly of the WTG's as seen in Volume 2 Appendix F & G.	simulated views of the proposed transmission line from those locations. The SVRA2, included as Appendix J to the SEIS2 provides updated visual simulations from these locations.	
160	Bretl, Fred	3/28/08	There should be carryover reviews of the overhead transmission lines in the other referenced resources, especially the impact on biological resources (avian and bats).	Impacts from the overhead transmission line are evaluated throughout the SEIS and SEIS2, including impacts to soils (Section 2.1), water resources Section 2.2), visual resources (Section 2.5), and cultural resources (Section 2.6).	2.3 - Biological, Terrestrial & Aquatic Ecology
161	Bretl, Fred	3/28/08	What is the Applicant's 'Response Plan' in the event of overhead transmission line failure which may be caused by falling trees or vehicular accidents? Reference: Section 2.10 Public Safety.	The easements that the Applicant has signed with Arkwright and Pomfret landowners provides a sufficient width to clear vegetation and avoid the potential of falling trees hitting the overhead lines. Similarly, most lines in the Project are sited away from public roads to mitigate possibility of vehicular accidents.	2.10 - Public Safety
162	Bretl, Fred	3/28/08	2) As some of the developed snowmobile trails traverse parts of the Project's area, what is the expected impact of the Project and access roads relative to the snowmobile trails? Reference: Section 2.11.2.2.6 fails to state the impact on snowmobiling (a recreational resource) and Section 2.11.3.2.6 does not state what the Applicant's mitigating measures will include except that they will intend to hold meetings with the recreational clubs. Does the Applicant's Lease Agreement restrict future usage of the snowmobile trails which traverse the Project's area? These trails have been developed for many years and would indicate potential economic and recreational impacts if restricted.	Arkwright Summit has reviewed snowmobile paths to avoid siting turbines on area trails. Snowmobiling in the area will not be restricted during Project operation. Arkwright Summit has been in consultation with local snowmobile groups such as the Cherry Creek Snow Goers to educate snowmobilers about safety measures for wind turbines. The Cherry Creek Snowmobile Trail crosses the access road between turbine 15 and turbine 93 in two locations (see Figure 19). This access road will not be fenced or blocked in any manner that would prevent recreational use to the trail system. Therefore, potential impacts to recreational users enjoyment of the snowmobile trail have been avoided. Construction impacts are expected to be minor and short-term for the duration of the construction period, which will mainly occur outside of the winter snow season.	2.11 - Community Facilities & Services
163	Bretl, Fred	3/28/08	3) When will the Aviation Hazard Review take place by the FAA? Reference: Section 2.12. How may their findings affect the Project?	See response to Comment 106.	2.12 - Communication Facilities
164	Bretl, Fred	3/28/08	4) What is the Worst Case Fresnel Zone setback, in linear distance? Reference: Section 2.12.2.2.1-page 2-173.	See response to Comment 99.	2.12 - Communication Facilities
165	Bretl, Fred	3/28/08	5) Will these (and other) errors be corrected in the final drafts as an indication of quality? a) Misspellings: ex. page 2-86, Lake Eerie? vs. Lake Erie.	Comment noted. Page 2-86 of the DEIS should say "Lake Erie."	
166	Bretl, Fred	3/28/08	5) Will these (and other) errors be corrected in the final drafts as an indication of quality? b) Mislabeledings: ex. Volume 2 Figures A4- A through G labels Rt. 84 instead of Rt. 83.	Comment noted.	
167	Bretl, Fred	3/28/08	5) Will these (and other) errors be corrected in the final drafts as an indication of quality? c) Inconsistencies: ex. the start date of the Project is stated differently on page ES-1 vs. page 2-116.	Comment noted. See response to Comment 27.	
168	Bretl, Fred	3/28/08	5) Will these (and other) errors be corrected in the final drafts as an indication of quality? d) Omissions: ex. Dominant Tree species as referenced on page 2-83, fails to list the Back Cherry tree (<i>Prunus serotina</i>) which happens to be the most valuable timber species in the region. Does the omission of this tree under value its resource value when considering the mitigating measures of timber loss?	See response to Comment 120.	
169	Bretl, Fred	3/28/08	6) What assurance(s) does the TOA , property owners, and contracted developers have relative to the enforcement of standards and best management practices when it comes to OSHA (construction safety), Erosion and Sediment Control Plans, Storm Water Pollution Prevention Plans, Spill Prevention Containment & Counter measure Plans, and State Pollution Discharge Elimination Systems, etc? Who verifies that there are involved agencies over seeing the project, insurance plans and bonds in place to provide security and protective measures?	As Described in Section 3.3 of the SEIS2, After the completion of the SEQRA process and permits have been issued, but prior to construction, the Applicant will develop a construction and operation environmental compliance program. It is anticipated that this may include the Applicant employing at least one environmental inspector during construction to ensure compliance with the Project's environmental commitments and permit requirements. The Environmental Compliance and Monitoring Program will include components pertaining to planning, training of personnel, preconstruction coordination, construction and restoration inspection, restoration of public roads, ecological resource monitoring, and agricultural resource monitoring. Arkwright Summit will	3.0 - Unavoidable Adverse Impacts

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				incorporate the requirements of agencies such as the Town of Arkwright, NYSDEC, NYSAg&Mkts, and the USACE into the compliance and monitoring program.	
170	Bretl, Fred	3/28/08	7) What are the proposed/accepted maintenance plans (policies) that the Applicant will comply to? As they state, "We place a high priority on facility maintenance, not only for operational purposes, but for aesthetic appearances as well."	EDPR LLC, the parent company of Arkwright Summit, is the operator of the largest wind farm in the State of New York - Maple Ridge. As such, EDPR has strict safety and maintenance measures to which Arkwright Summit will adhere throughout the operation of the Project. EDPR's maintenance record at Maple Ridge has been held up as an example of best management practices by the New York Department of Agriculture and Markets in presentations regarding wind energy projects in New York.	1.0 - Description of Proposed Action
171	Bretl, Fred	3/28/08	8) Will the PILOT be paid throughout the Project's life span, including through start up, operations, and decommissioning (if/whenever this takes place)?	Discussions regarding the PILOT program are ongoing with Chautauqua County Industrial Development Agency. Arkwright Summit is committed to working with the IDA to create a PILOT program that is acceptable to all of the involved taxing jurisdictions.	2.9 - Socioeconomic s
172	Cardot, Jeffery and Linda	4/28/08	[In support of the project.]	Comment noted.	
173	Dietrich, Jeffrey	4/2/08	The information Horizon provided regarding low frequency noise levels is inadequate. I have reviewed multiple reports regarding the harmful effects of low frequency noise. Low frequency noise can affect sleep, concentration, and ability to learn. The results Horizon has published are not even from the same model or size of turbine intended for use in the New Grange project. This matter requires further investigation. Planned mitigation efforts for immediate and possible future problems need to be in place.	See response to Comment 21. Additional information on the subject of low frequency noise was provided in the SEIS Appendix H, Environmental Sound Survey and Noise Impact Assessment, Section 3.8 and Annex A. Appendix H provides references to several studies regarding low frequency noise; the commenter has not provided evidence or reference to published literature to support the comment.	2.7 - Sound
174	Dietrich, Jeffrey	4/2/08	I did not find any reports about blue Herons. This has been a repeated point of concern by our planning board in the past, and citizens alike. It is reported that there is a rookery in the town of Arkwright. Research needs to be conducted on these birds, and the effects the turbines will have on their habitat.	See response to Comment 36.	2.3 - Biological, Terrestrial & Aquatic Ecology
175	Dietrich, Jeffrey	4/2/08	The shadow flicker data needs clarification. Stating that a receptor will be affected so many hours a year does not say how many days this may encompass. If for example, 15-20 minutes of sunrise or sun down are used. If this is the case, then 20 hours a year is 60-80 affected days. The suggested use of shades is an inadequate solution, besides which shades are only useful indoors. Every receptor of shadow flicker effects needs to be accompanied by specification of times of year and length of time of effect and satisfactory compensation or mitigation efforts need to be put forth.	The updated Shadow Flicker Report provided as Appendix K to the SEIS2 includes the requested information. Table 1 of the Shadow Flicker Report includes Shadow Days per year for each receptor location.	2.5 - Aesthetic & Visual Resources
176	Dietrich, Jeffrey	4/2/08	Unit #22 is of personal concern giving 26 hours 50 minutes yearly of shadow flicker effect at receptor site 101 which is my property. I know from its location that this encompasses spring and summer which greatly affects the quality of my family's environment. This is the highest effect at a non-participating residence in the proposed project, and surpasses the residence of the landowner of the site of turbine #22 by as many as 20+ hours. The turbine will be completely viewable from any vantage point on the property.	The updated SVRA in Appendix E of the SEIS provided revised shadow flicker estimates in Table 8. According to Table 8, maximum potential shadow hours per year at receptor 101 have been significantly reduced from 26:50 in the DEIS to 20:19 in the SEIS. The reduction is the result of significant cost, time, and effort on the part of the Applicant to reduce and mitigate impacts from shadow flicker. In addition to these efforts, the Applicant has discussed the option of awnings or plantings with the commenter. Due to significant changes in the Project layout since the preparation of the SEIS, based on the layout presented in the SEIS2, receptor 101 is now anticipated to receive 19 hours and 5 minutes of shadow flicker per year, with a maximum of 44 minutes per day.	2.5 - Aesthetic & Visual Resources
177	Dietrich, Jeffrey	4/2/08	The noise at receptor 101 is also of significant concern, as there are no barriers to absorb any sound and this site is downward of prevailing winds.	Plot 2 of the sound study presented in Appendix I of the DEIS and Appendix H of the SEIS show that "receptor 101" characterized in the visual study is only within the 41dBA sound contours in the "worst-case" wintertime conditions. For clarification, "receptor 101" is terminology used in the visual resource assessment. The noise impact analysis does not have numbered receptors; however, houses are indicated on the figures accompanying the report. Also note, the title of Plot 2 was corrected in the SEIS to read "worst-case" instead of "typical." In plots 1-4 of the Environmental Sound Survey	2.7 - Sound

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				and Noise Impact Assessment, which was prepared for the SEIS2, this receptor is well outside of the noise impact thresholds across all conditions investigated in the study.	
178	Dietrich, Jeffrey	4/2/08	I feel that there are many issues that have been glossed over in this environmental impact statement. I also feel that non-participating residents need more protection in the form of proper placement and security of health safety.	Comment noted. A detailed discussion of the Project layout criteria is available in Section 1.5.1 and public safety is specifically discussed in Section 2.10.	2.10 - Public Safety
179	Heisler, Jennifer	4/20/08	[In support of the project.]	Comment noted.	
180	Holland, Robert and Dorothy	4/4/08	The governmental process utilized in introducing an industrial project of a scope and size as New Grange Wind Farm has been unfair to the community. Ex: The public has been excluded from the negotiations with Horizon Wind Energy. Closed meetings... The Public Meeting to present the Planning Board's years of research and efforts to supply "due diligence" to this process was sabotaged by allowing a Horizon Wind representative to respond and block the process of full disclosure.	The Applicant has complied with the process outlined by the State Environmental Quality Review Act. These comments and responses are a part of the Applicant's dedication to this process. The public has not been excluded from negotiations with the Applicant, as such negotiations have not yet taken place. At the time of this comment, the applicant had not yet even submitted an application for a PILOT agreement with the Chautauqua IDA. As for the Applicant's participation in a public meeting, we fail to see why the applicant's participation would sabotage a public meeting. Indeed, there seems to be a double standard here, where closed meetings are unacceptable unless it is the applicant who is barred from participating. In all cases, the Applicant is committed to the open process outlined by the State Environmental Quality Review Act. In addition, the applicant recently signed and is in compliance with the New York Attorney General's voluntary Code of Conduct, which promotes transparency and ethical business practices in wind power development in the State of New York.	
181	Holland, Robert and Dorothy	4/4/08	The irreparable harm to community. Landowners and Horizon Wind entered into non-disclosure agreements thereby pitting neighbor against neighbor. Adjacent communities entered into agreements for Wind Farm Projects with Horizon and terms were not discussed or compared with surrounding towns as recommended to our Town Board in Public Meetings and are on record. Fracturing of a social system the contributed to Arkwright's #1 Rural Town designation has long-term negative implications for sustainability and survival of the community. Other communities have essentially been abandoned after Wind Farm Installations with a dramatic increase of non-resident property owners. The undue tax burden on remaining residents is substantial and place the remaining non-participating landowners at risk of losing their land due to inability to pay taxes. The negotiations for Payment-in-lieu of Taxes between our Town Board and Horizon did not serve the majority of landowners in Arkwright. The decisions made have been of substantial benefit to the minority. Long-term economic loss needs a mitigation process prior to approval of Application, as per SEQRA.	All non-disclosure agreements that the Applicant has signed with local landowner have been with the agreement of that landowner. The Applicant questions the assertion that communities have been abandoned. EDPR, parent company of Arkwright Summit, is the operator of the largest wind farm in New York State, Maple Ridge, and has seen broad acceptance of the wind farm. The Jefferson Community College Lewis County "Survey of the Community" found that overwhelmingly residents of Lewis County support the notion that "development of the Maple Ridge Wind Farm has had a positive effect on Lewis County." The same study revealed that over 3/4 of county residents support expansion of the Maple Ridge Wind Farm, PILOT negotiations for the Project are currently ongoing.	
182	Holland, Robert and Dorothy	4/4/08	The report is notable for its lack of thorough sound analysis and predicted economic losses and irreparable damage. Hessler's claims to adherence to DEC Noise Policy requires independent part to establish accuracy of background noise due to poor instrument placement and inadequate windscreen that result in increased background noise measurements. No scientific justification for sites chosen in the sound analysis. (Highest points such as our residence contain many quiet sub environments). No reference to summertime noise problems while indoors due to windows and doors being open and NO leaf noise to "mask" turbine noise. Arkwright residents do spend considerable time out of doors in winter while showshoeing, cross country skiing, and dog walking on private lands. This report makes assumptions re: personal habits of residents. Noise pollution as experienced by people is the perception of unwanted sounds. There are advanced technologies to determine the presence of unwanted sounds. The Hessler report does not discuss or analyze the sound levels of construction noise or infrasound even though these measurements should be readily available with the amount of pre-existing Wind Installations. The proposed 47 turbines	The updated Environmental Noise Impact Assessment provided as Appendix N to the SEIS2 includes sections that specifically address the potential for sound impacts across both wintertime and summertime, and factor in variables such as the presence/absence of foliage. The NIA also addresses the potential for construction noise, and utilizes the DEC Noise Policy Guidelines to establish the noise impact thresholds used in the noise modeling methodology. Section 2.9 of the SEIS2 addresses potential impacts to property values and other economic impacts associated with the proposed Project. In regards to the assumption that Arkwright residents spend less time outdoors in the winter, the wintertime activities mentioned here create a significant amount of noise themselves that would effectively mask any sounds from nearby turbines. Some wintertime activities, like snowmobiling, increase the ambient noise not just for the person enjoying the activity, but also for a large area around that person.	2.7 - Sound

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			<p>covering 5,927 acres of Arkwright will result in permanent alterations of the town and be a source of noise pollution from not only the turbines but most of all from the wind turbulence effects through the blades. The Hessler report also makes note of increased levels of sound are more detectable at higher elevations. The proximity of wind turbines to our hill top residence that sits close to the road, 8765 Center Road, will be significantly impacted by sound. This sound impact will negatively impact our ability to enjoy our land, to use our land as a subject of art video with natural sound recordings and subject of painting. The sound will also adversely impact the income generating capacity of the approve Home Office that houses the Ken-Ton Physical Therapy's Chautauqua County office. Documentation exists that establishes Robert Holland (owner/resident) as an artist who has had his video's that include the existing landscape and soundscape screened in public (including Albright Knox Art Gallery (2006). Robert Holland is also the Artist of the Year Honoree by the Chautauqua Arts Council. Dr. Dorothy Foigelman-Holland, PT, DPT, CEO Ken-Ton Physical Therapy (owner/resident) has an approved home office and sees clients at this address and will have significant future economic loss due to construction, dust, noise and a physical environment inhospitable to carrying out the effective delivery of health care in a stress free environment necessary for a positive response to treatment in individuals already dealing with pain and nervous system irritability that enhances pain perception (Application for special use dated Sept. 25, 1995).</p>		
183	Holland, Robert and Dorothy	4/4/08	<p>The loss of future income directly related to this project. Future plans to utilize this property for artist retreat, for artist painting and photography and Health and Wellness Center on Center Rd. have been eradicated and require mitigation.</p>	<p>The Project should not limit any plans to use this property as an artist's retreat or wellness center. As mentioned in the response to the Comment 182, there are no anticipated sound impacts at the residence, even in the "worst-case" wintertime conditions, that would limit the current and future use of the residence for health and wellness treatment. As for the future plans to use the property for an artist retreat, many artists have found inspiration in the viewshed of wind turbines. Entire artist organizations, like REimaginations (www.reimaginations.com) have been formed using wind turbines as a central theme in artistic expression.</p> <p>The updated NIA provided as Appendix N to the SEIS2 is consistent with the previous versions of the study in that the residence remains well outside of any noise impact threshold across all conditions investigated.</p>	2.7 - Sound
184	Holland, Robert and Dorothy	4/4/08	<p>The loss of valuable aquifer resources. No reference in DEIS to established sole source aquifer in Arkwright. All residents, business and farms in Arkwright depend upon sole source aquifer for drinking water. What is required is a thorough analysis for quality and quantity and depth to water supply prior to any construction that may adversely impact this known valuable resource. Due diligence will require a glacial geologist/hydrologist to oversee said study.</p>	<p>An updated Hydrogeologic Study of the Proposed Arkwright Summit Wind Farm was included as Appendix B of the SEIS. This study incorporated a review of available information pertinent to the hydrogeologic conditions in the Project Area to evaluate the potential short term and long term impacts from the project on the quantity and quality of groundwater used for drinking water. The study also detailed mitigation measures that could be implemented if impacts were to occur.</p> <p>The Hydrogeologic Study concluded that potential impacts to water sources include possible spills from mechanical equipment during construction and operation, temporary water table elevation changes due to dewatering of foundation holes during construction, and possible disruptions of groundwater flow due to bedrock blasting (if necessary). The risk of these impacts occurring is very low. Specific impacts on individual residences' wells or spring sources are beyond the scope of the desktop study, however given the setbacks established for the project, specific impacts are unlikely.</p> <p>Based on a review of existing hydrogeologic conditions, the Project is not anticipated to have any significant impacts on the quality or quantity of groundwater used by residents as a drinking water source.</p>	2.2 - Water Resources

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185	Holland, Robert and Dorothy	4/4/08	The loss of bird habitat. Turbines are in close proximity to Blue Heron Rookery. Sound disturbance, blasting, and disturbance to breeding site needs to be addressed to prevent lasting damage to heron population. To feed, the herons must pass through turbines and resulting damage to herons is not addressed. Arctic birds are residing in Arkwright and are not included in the submitted study. Snowy Owl, Arctic Raptors are among the species seen here.	See response to Comments 30, 36 and 37.	2.3 - Biological, Terrestrial & Aquatic Ecology
186	Holland, Dorothy and Robert	4/4/08	The lack of a mitigation plan as dictated by SEQRA. A plan must be in place for mitigation prior to accepting application. Public needs to be informed and the community as a whole should be made aware of the process by a direct mailing explaining in lay man's terms the meaning of mitigation, what the issues are that may require mitigation and the informational mailing shall be done at the expense of the applicant, Horizon Wind Energy. This action would demonstrate good faith on the part of our elected representatives that they are looking out for the best interests of ALL residents in the town of Arkwright.	Every resource section in the DEIS, SEIS, and SEIS2 contains a subsection discussing the mitigation measures for each resource. See also response to Comment 208.	3.0 - Unavoidable Adverse Impacts
187	Holland, Dorothy	5/27/08	The burden of proof is on the applicant. The Town Board, if acting as lead agency, is responsible for researching the claims and taking responsibility to insure due diligence has been done. To date, no studies or reports have demonstrated wind energy generated will have any impact on reducing green house gases, lower dependence on foreign oil or reduce global warming. Wind energy generating capacities have been a fraction of what they propose. Prior to accepting the premise that wind farms are necessary for environmental reasons, evidence must be furnished to prove that underlying premise. The outdated grid, the energy exported away from the town and the inability to produce energy at times of higher consumption (summer) make wind energy a poor choice for long term solutions to our nation's challenge to develop renewable resources. Newer forms of capturing wind are being used in Arizona that do not use rotary blades thus eliminating the noise, flicker and visual impact problems. These alternatives are not discussed by the applicant as an alternative.	In regards to reducing greenhouse gases, dependence on foreign energy and global warming see responses to Comments 215 and 218. In regards to grid reliability, refer to response to Comment 216.	2.4 - Climate & Air Quality
188	Holland, Dorothy	5/27/08	This Wind Farm Application should not be accepted because they have not demonstrated the value they will add to this town and the non-participating landowners. There are no long term advantages to the community economically. Based on the tax-credits Horizon receives and their ability to avoid taxation based true the project can be determined to be an economic drain on the taxpayer. Over the long term, unless there is a sliding scale contribution on the part of Horizon to benefit ALL residents based upon their proximity to turbines and based upon realistically projected tax base shrinkage and property value decreases, the application should be denied. This company has been in business long enough to have enabled them to give back more generously to communities and research shows that the community windfall varies greatly town to town. The Arkwright Town Board will need to justify that the financial deal was comparable to similar communities with similar installation projects.	The economic and fiscal impact study included as Appendix I of the SEIS provides a discussion of the employment opportunities and annual revenues that are anticipated to result from the Project. The report concludes that economic and employment contributions that will result from the Project will include annual wages, annual royalty payments, annual payment-in-lieu of taxes (PILOT) payments, annual community host payments, annual sales tax revenue, and annual fire district payments. In addition, the total revenue from the Project may be greater due to additional revenue in the form of neighbor agreements that were not included in the study.	2.9 - Socioeconomic s
189	Holland, Dorothy	5/27/08	The claims of providing job growth are not substantiated and need honest disclosure in the short term and long term.	Appendix I to the SEIS provided an Economic and Fiscal Impact Study that estimated the direct employment opportunities and sources of revenue from the Project and calculated additional indirect and induced effects using input-output economic modeling software. The results of this study are summarized throughout Section 2.9 of the SEIS.	2.9 - Socioeconomic s
190	Holland, Dorothy	5/27/08	The consideration of noise adverse impacts is deficient. A recent study of actual noise levels at Maple Ridge Wind Farm in Lowville, New York by Clifford Schneider conflicts with projected noise impact data furnished in the DEIS. The distance to mitigate for potential adverse sound and visual impact should be increased to at least 1.5 kilometer based upon recent and past research. The Hessler report submitted is not current with regards to its sound collection and sound level measurements methods. Meaningful real time sound data should be collected from existing installations, such as Maple Ridge at various times of the day and night and at various times of year. An impartial 3rd party should be present at	Two separate baseline noise surveys were conducted to assess the existing acoustic environment in the Project Area. Ambient sound data was collected at five representative measurement locations during summertime conditions and eight representative measurement locations during wintertime conditions for a period totaling approximately one month. Long-term noise monitoring, which was conducted for the Project baseline sound survey, provides insight as to the average ambient sound levels in the Project area; however, ambient L ₉₀ statistical sound levels	2.7 - Sound

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			<p>sound collection to ascertain that no background noise was created to skew data. Generators, tractors and lawnmowers can be misrepresented in sound collection when they are unknowingly recorded as a "normal" part of the soundscape when they are in fact seasonal, expected, intermittent and familiar.</p> <p>The Arkwright ambient sound collection should be performed at elevations where sound accumulates at locations on property of non-participating landowners within 1.5 kilometer of potential turbine sites. It is imperative that the town commission a neutral 3rd party to oversee a repeat of the sound measurements to determine that the ambient sound measurements, ESPECIALLY AT NIGHT, in Arkwright were not contaminated by tractor noise or barking dogs, thus providing false positive noise levels not truly representative of the rural soundscape.</p> <p>Computer modeling has been scientifically determined to be inadequate and the formulas for calculating sound levels become less accurate as distance from the noise source increases. As a resident that lives approximately 3000 feet from several proposed turbines, I am very concerned with my quality of life since I wear binaural hearing aides that are sensitive to various frequencies and sound pressure changes and do not filter background from foreground noise. I am requesting Horizon to prepare and provide data on sound impact for hard of hearing residents who wear hearing aides that will amplify all noises without regard to filtering. The constancy of the turbine noise and its impulsive character are well documented annoyances that adversely impact quality of life and this will be magnified in an individual who wears hearing aides. Removing hearing aides is not an option since personal safety is comprised when an individual is deaf to phones, intruders, verbal warnings, running water, malfunctioning household appliances, children's calls for help, doorbells and emergency vehicle sirens.</p> <p>Schomer, Suzuki and Saito published "Evaluation of loudness-level weightings for assessing the annoyance of environmental noise" in The Journal of the Acoustical Society of America in 2001. They determined that the LLSEL formulation is better suited for measuring sound annoyance and that this result is true across a wide range of sound sources. A-weighting DOES NOT change with sound pressure levels whereas the equal-loudness-level contours vary with amplitude and frequency making them the most accurate detector of sound annoyance. Wind turbines impulsive noise must be analyzed with these tools.</p> <p>Pederson and Wayne published "Wind Turbine Noise, annoyance and self-reported health and well-being in different environments" in Occupation Environmental Medicine March 2007. Their Study demonstrated the need to take unique environments into account when planning a new wind farm so that adverse health effects are avoided. The influence of area-related factors should also be considered in future community noise research. The World Health Organization has established international health standards that identify nighttime noise levels above 42 dBA as a cause of sleep disturbance leading to secondary health impacts. Therefore noise measurements must be done at existing Wind Farms (such as Maple Ridge) to determine day and night time sound when the turbines are operational up to 1000 meters away.</p>	<p>were also measured and presented. This statistical sound level filters out sporadic, short-duration events such as dogs barking, and represents the quietest residual background sound level.</p> <p>CadnaA (versions 3.5, 3.7, and 4.41), the acoustic software model used for the Project analysis in the DEIS, SEIS, and SEIS2 adheres to the Organization for International Standardization's ISO-9613 standard, which has been developed to ensure the highly accurate calculation of environmental noise attenuation over long distances in an outdoor environment. In addition, conservative assumptions and worst case conditions were used in the Project analysis. The results of the analysis showed that the Project is not expected to generate sound levels in excess of the NYSDEC 6 dBA incremental increase guideline; however, incremental increases of less than 6 dBA may occur at residential receptors, falling within the range of 3 to 6 dBA.</p> <p>To minimize the potential for adverse noise impacts during Project operations, the Applicant has committed to several mitigative measures, as necessary, including the implementation of a complaint resolution program, a good neighbor agreement and corresponding payments to landowners with occupied residences, which would fall within the 41 dBA nominal impact threshold line, and sound testing after commissioning to ensure Project wind turbines are meeting manufacturer's noise specifications.</p>	
191	Holland, Dorothy	5/27/08	<p>The assumption that this project is in the best interest of the community is false. This community has been denied the opportunity to formulate a comprehensive plan prior to voting on wind law and accepting the Horizon application. We should postpone any voting on applications until a comprehensive plan is established. Our town's legal representation is Dan Spitzer. Mr. Spitzer is on record in the April 2008 Spree magazine as stating "The bottom line is, towns should enact local laws so they have the ability to make yes or no decisions based on local values." Mr. Spitzer's own words support establishing a comprehensive plan so that decisions can have a basis that considers the town's wants and desires. This community has not had full disclosure as to the options available for development and profit</p>	<p>Since the preparation of the DEIS, the State of New York has enacted Article 10 of the Public Service Law, which provides for review of new or re-powered electric generating facilities in a unified proceeding instead of requiring a developer or owner of such a facility to apply for numerous state and local permits. For a project such as the Arkwright Summit Wind Farm, which was already under the SEQR review process when the Article 10 legislation was enacted, the applicant has the option to either continue within the SEQR review process, or elect to initiate the Article 10 process. In the case of the Arkwright Summit</p>	2.9 - Socioeconomic s

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			sharing from other wind developers. If educated regarding the possibility of profit sharing with other Wind Companies, the community might decide to reject applications that do not include profit sharing. A comprehensive plan is the first step in preventing a fragmented community.	Wind Farm, the applicant has elected to keep the Project under the SEQR review process, for which the Town of Arkwright is the Lead Agency. Consequently, the decision making process for this Project remains firmly rooted in the local community. With respect to profit sharing with the local community, please see response to comment 188, 171, and 198.	
192	Holland, Dorothy	5/27/08	The public benefits of this project do not outweigh the negative impacts this project has on sustaining a community. Full disclosure to the community regarding the make up of our current taxpayer base needs to occur prior to deciding that farmers need this wind to survive. Wind farms do not exist as a form of agricultural welfare. This town has a small agricultural base and their tax burden is discounted due to agricultural status. The public should be made aware of the percentage of land held as agricultural and the total taxes paid and have that number compared to non-agricultural residents total land holdings and the total tax burden of that group. I do not believe the entire community is fairly represented by meeting attendance. The community can easily be analyzed by calculations which can then be used to make informed choices on behalf of the electorate. No application should be approved until these figures are made public.	The economic and fiscal impact study included as Appendix I of the SEIS provides a discussion of the employment opportunities and annual revenues that are anticipated to result from the Project. The report concludes that economic and employment contributions that will result from the Project will include annual wages, annual royalty payments, annual payment-in-lieu of taxes (PILOT) payments, annual community host payments, annual sales tax revenue, and annual fire district payments. In addition, the total revenue from the Project may be greater due to additional revenue in the form of neighbor agreements that were not included in the study.	2.9 - Socioeconomic s
193	Holland, Dorothy	5/27/08	The DEIS is inadequate with regards to analysis of turbine structure's visual impact. The proposed scope of this project and the lighting will make this project visible to surround communities as we saw with the TV transmission tower on Center Road. The Analysis as presented does not identify the visibility scope and distance nor does it evaluate its impact on the rural dark night sky. Nighttime photography of existing projects (such as Maple Ridge) should be done on a clear night to assess how tower lighting interferes with the ability to see the stars in the sky. Turbines in more populated areas and offshore would be much less intrusive to skies already contaminated by light pollution. Given the size and scope of this project there is no a berm or foliage wall could mitigate the visual impact. My property has value for its view and this project will adversely affect my property value by eliminating a valuable scenic view from one of the highest points in Arkwright with an unspoiled daylight panoramic view to Lake Erie and three other directions. A book titled "The Legal Landscape: Guidelines for regulating Environmental and Aesthetic Quality" by Richard Smarden and James P. Karp (1993) is an invaluable resource for analyzing the aesthetics of an environment. This was not referenced in the DEIS. No resources were referenced. The tools and categories to analyze aesthetics do exist and are recognized but the applicant ignores them. Re-evaluation is required to identify negative visual and negative aesthetic impact. The provisions of the Fifth Amendment to federal Constitution, and similar clauses in the State Constitutions, do not grant to the governments the power of eminent domain, but rather establishes limitations on its exercise. The widely adopted limitations are that the taking of land must be for a public use, and that the landowner must be paid just compensation. The clearest example of taking involves a physical invitation of the land by government.	A Visual Resource Assessment was provided as Appendix F to the DEIS and updated as Appendix E to the SEIS, and Appendix J to the SEIS2. As stated in the VRA Section 1.1, the visual analysis was conducted in accordance with the NYSDEC Program Policy "Assessing and Mitigating Visual Impacts" (NYSDEC 2000) (DEC Visual Policy) and State Environmental Quality Review (SEQRA) criteria to minimize impacts on visual resources. The methodology employed is based on standards and procedures used by the U.S. Department of Agriculture (National Forest Service, 1974, 1995), U.S. Department of the Interior, Bureau of Land Management (USDOI, 1980), U.S. Department of Transportation, Federal Highway Administration (USDOT, 1981), NYS Department of Transportation (NYSDOT, 1988), and the NYS Department of Environmental Conservation (NYSDEC, July 31, 2000). An FAA Lighting Plan was provided as Appendix O to the DEIS. Nighttime photography of Maple Ridge or other operating wind farms is not included as photographs of lights without the context of land would not provide a representation of nighttime visual impacts. The Town of Arkwright currently hosts multiple towers with the same red FAA approved light sources proposed for the Project. These existing sources, in conjunction with the lighting plan submitted in Appendix O, should provide residents with an appropriate estimation of the visual impact of the Project.	2.5 - Aesthetic & Visual Resources
194	Holland, Dorothy	5/27/08	Should our Town Board's rule in favor of the Wind project as it is currently laid out (destroying the visual landscape and aesthetic), the Town must compensate all affected landowners at fair market value. Since the applicant (Horizon) and the town (Arkwright) cannot prove necessity of the wind project the Town Board and the applicant are responsible for paying the property owner fair market value. The project as it is currently proposed strips the landowner of the major worth of their land investment by degrading the environment and rural nature of the community. Perlmutter v. Green 259 N.Y. 327, 182 N.E. 5 (N.Y. 1932) Perlmutter v. Green 259 N.Y. 327, 182 N.E. 5,6 (N.Y. 1932) Berman v. Parker 348 U.S. 26 (1954) Westfield Motor Sales Co. v. Town of Westfield, 129 N.J.	See response to Comment 113.	2.9 - Socioeconomic s

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			Super. 528,324 A. 2d 113 (1974) Village of Belle Terre v. Boraas 416 U.S. 1 Penn Central Transportation Co. v. New York City 438 U.S. 104 (1978) Bufford, Beyond the Eye of the Beholder: A new Majority of Jurisdiction Authorize Aesthetic Regulations, 48 U.M.K. C.L. Rev. 125 (1980)		
195	Holland, Dorothy	5/27/08	A supplemental DEIS must be done to answer the many questions and poorly defined mitigation plans. A second public hearing needs to be scheduled after the supplemental report is reviewed by the public. The next public hearing should be run with rules enforced to prevent grandstanding speeches that are not a response to the DEIS.	See response to Comment 156.	3.0 - Unavoidable Adverse Impacts
196	Jackson, Lois	4/8/08	As your review includes a report on the impact of property values, I am concerned about the misrepresentations of a report that states "...overlooks the vineyards and woods of Chautauqua County." This is not an accurate description of our landscape in the area, thus are we to assume that this gentleman has only researched the Town of Arkwright? This should constitute the need for further accurate studies on property values as well as ground water studies.	The topography of Arkwright is consistent with that description. Arkwright is located in the higher elevations of Chautauqua County with many local woods and vineyards in the lower elevations below. As described in the Methodology section of Appendix J of the DEIS, the author of the report, Barton DeLacy, visited Arkwright in October 2007. Additionally, a Hydrogeologic Study was provided as Appendix B to the SEIS.	2.9 - Socioeconomic s
197	Jackson, Lois	4/8/08	I am concerned about the ground water studies. What happens if this affects our water supply? I would urge you to provide homeowners with water studies that have both the quality and quantity accounted for and to incorporate a written plan so that nobody is left without water.	See response to Comment 184.	2.2 - Water Resources
198	Jackson, Lois	4/8/08	Why are neighboring towns once again getting more money for their turbines than Arkwright is getting? This project will have a significant impact upon our community. Many other communities pay no tax yet we will still be paying taxes? The use of a PILOT instead of assessing at value needs to be reviewed.	Arkwright Summit is committed to a fair and equitable PILOT program and the discussions regarding the PILOT program are ongoing with the Chautauqua County IDA. As for neighboring towns, there have been no other PILOT applications submitted to the IDA to date, according to IDA officials. Please see also response to Comment 156.	2.9 - Socioeconomic s
199	Jackson, Lois	4/8/08	What will be done to alleviate flicker at homes. Where are homeowners provided for. We know there will be flicker and yet there is not a plan to protect homeowners or help them deal with the effects?	Arkwright Summit is committed to a Good Neighbor Program for non-participating landowners near the Project.	2.5 - Aesthetic & Visual Resources
200	Jackson, Lois	4/8/08	What noise levels are we to expect and what happens if they go over that level? The ambient level at night is much lower than reported in your studies. These studies need to be reviewed and the town needs to hire an independent study.	The studies of the ambient noise levels provided as Appendix H to both the DEIS and SEIS, and Appendix N to the SEIS2 utilized two surveys of ambient noise levels during both the summer and winter. These surveys were both conducted over a period of approximately two weeks and recorded both daytime and nighttime conditions in a variety of locations. The Town consultant conducted a third-party review the NIA. Town of Arkwright Local Ordinance Article VI-A, §662 and §663 detail the specific local laws governing noise. Furthermore, post-construction monitoring for the Project will include analyses of Project sound levels, which will aid in the determination of the necessity for any further mitigation measures. Additionally, the Complaint Resolution Procedure (Appendix O of the SEIS2) will be utilized in the event that any unforeseen impacts occur.	2.7 - Sound
201	Jackson, Lois	4/8/08	I have a building permit and yet there is a wind turbine sited within 1000 feet from my permit site. Why? Mr. Spitzer and Mr. Norton both guaranteed that a building permit is a valid residence. As my husband was injured in a chain saw accident, our home was postponed. I would appreciate the wind turbine be moved over as there is plenty of room on the other side.	According to the Town of Arkwright Building and Codes Inspector, this permit has expired. Turbine 21 is the closest proposed turbine site to Ms. Jackson's property (SBL 149.00-2-27) and is 950ft from the property line at the nearest point, in full compliance with local law.	1.0 - Description of Proposed Action
202	Jackson, Lois	4/8/08	The plans for this project are not yet finalized. Landowners have not all signed and there is not a plan for the transmission lines that has signatures for an actual plan. So our comments may be changing as more details of the project are revealed. Will there be another hearing when they are final so that we will know the actual project and may comment upon the actual project?	See response to Comment 148. A revised layout was presented in the SEIS, and SEIS2 submittals, which were both followed by another public comment period.	1.0 - Description of Proposed Action

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203	Keller, Carol and Fred	4/7/08	Our only potable water supply is a spring. Have there been or will there be studies by hydrogeologist/glacial geologist concerning possible alterations to the aquifer? / Has the investigation of aquifer degradation been adequately studied by credentialed professionals such as hydrogeologist/glacial geologist and is the town prepared to assist us to gain mitigation of losses if our water supply is compromised?	See response to Comment 184.	2.2 - Water Resources
204	Keller, Carol and Fred	4/7/08	Are our taxes going to increase to supply the infrastructure needed for construction and maintenance of the turbines?	Arkwright Summit is responsible for the construction and maintenance of the Project and will enter into highway agreements to pay for improvements and maintenance necessary to local infrastructure. Additionally, the Project will provide revenue to the Town and other local taxing jurisdictions, as discussed in the fiscal impact study in Appendix I of the SEIS.	2.9 - Socioeconomic s
205	Keller, Carol and Fred	4/7/08	Have the possible health effects from low frequency sound been sufficiently studied?	See Response to Comment 173.	2.7 - Sound
206	Keller, Carol and Fred	4/7/08	Are the concerns of all Arkwright's residents been considered?	The comment response process is part of Arkwright Summit's commitment to address concerns of all Arkwright residents. The FEIS provides responses to concerns raised during the public comment periods on the DEIS and SEIS. Additionally, Arkwright Summit has held informational seminars at the Forestville Elementary School and the Cassadaga High School and has also held open houses, hosted bus tours, participated in panel discussions and given presentations for a variety of local organizations, all in an effort to address the concerns of Arkwright residents. Outside of these more public forums, representatives of Arkwright Summit have spoken directly with landowners in order to answer questions and address concerns. Arkwright Summit representatives are available at our offices in nearby Fredonia, which is open during regular business hours as well as nights and weekends by appointment.	
207	Keller, Carol and Fred	4/7/08	Will the aesthetics of country living, which is a major reason why most of us moved here, be maintained?	Aesthetics is a subjective concept. Reasonable people can disagree on what is considered beautiful or pleasing to look at. Appendix F of the DEIS, Appendix E of the SEIS, and Appendix J of the SEIS2 provided visual simulations of the Project for public review.	2.5 - Aesthetic & Visual Resources
208	Keller, Carol and Fred	4/7/08	Will the town assist each of us to gain mitigation for loss of quality of life, which might occur?	See response to Comment 113 and Appendix I of the SEIS for information regarding economic benefits to the Town from the Project.	2.9 - Socioeconomic s
209	McAvoy, Angela	4/30/08	[In support of the project.]	Comment noted.	
210	McVaugh, Jonathan	4/24/08	[In support of the project.]	Comment noted.	
211	McVaugh, Nancy	4/22/08	[In support of the project.]	Comment noted.	
212	Mingle, Ray	4/22/08	[In support of the project.]	Comment noted.	
213	Phillips, Wendy	4/22/08	[Letter about acid rain in support of the project.]	Comment noted.	
214	Piwowarski, Tom	4/14/08	To begin, I'd like to go on record as an opponent to the project. I'm not against wind energy - I'm against this particular scheme and its inherent exploitation of the valuable higher altitude properties in the township as well as the duping of those residents who own property upon which the proposed turbines will be erected. The real issue is whether enough money can cause an individual or family to become blind to the visual devastation of our exquisite countryside.	Comment noted. See response to comment 113.	2.5 - Aesthetic & Visual Resources
215	Piwowarski, Tom	4/14/08	Installations of turbines will not reduce our reliance on fossil fuels. Even with the 100 or so proposed turbines built the rated capacity is estimated at 190MW's (megawatts) per year. Since the rated capacity is a rather quixotic calculation (based on a perfect world scenario) a more reasonable figure, once the whimsicality of the actual wind is accounted for, might be around 60MW. In NY State this is equivalent to just 3 minutes of demand in a year containing 525,000 minutes! Working backwards from this figure it would require over 17 million turbines in the state alone to provide the annual demand.	A recently published US Department of Energy study states that "[w]ind energy reduces reliance on foreign energy sources from politically unstable regions". The report goes on to cite wind power as part of a comprehensive solution, "[u]sing wind energy increases security and stability by diversifying the national electricity portfolio". The report also concludes that even small contributions can have a large effect, "[e]ven small reductions in the amount of energy available or changes in the price of fuel can cause large economic disruptions across the nation". Conversely, small increases in the amount of energy available would "reduce the	1.0 - Description of Proposed Action

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				<p>nation's energy vulnerability" (US Department of Energy, May 2008).</p> <p>Additionally, the proposed Project includes 44 possible turbine sites (reduced from 47 in the DEIS), not 100 as cited in this comment. Discussion of the purpose and need for the Project, such as meeting the State of New York's renewable energy goal and reducing emissions, is provided in Section 1.4 of the DEIS, SEIS, and SEIS2.</p>	
216	Piwowski, Tom	4/14/08	Wind power is not reliable energy either simply because wind never blows at a constant rate. There may be days on end of calm conditions or of extreme winds either of which condition contribute 0% energy to the grid. And because wind does not reliably blow it is difficult to manage and it actually strains the grid. By the way, when wind energy is piped back into the grid it is done so not because it efficiently flows there but because there is a mandate requiring it.	The Utility Wind Integration Group (UWIG) summary of available studies on the reliability of wind generation states that, "[T]here is evidence that, with new equipment designs and proper plant engineering, system stability can actually be improved by the addition of wind generation" (UWIG, 2006).	1.0 - Description of Proposed Action
217	Piwowski, Tom	4/14/08	A note on property value. Consider two identical properties each with a view of the distant hills, a hardwood forest, roaming stock, a vista of clouds illuminated by a fiery Sun at dusk. Now imagine the other property with the same imagery but with the addition of whirling rotors mounted on a turbine somewhere in the scene, a rhythmic slicing of air and a flickering shadow across your face. If you were seriously considering real estate in the area, then honestly, which one would you opt to buy?	See response to Comment 113.	2.5 - Aesthetic & Visual Resources
218	Piwowski, Tom	4/14/08	There are more issues that concern us all such as turbine/blade noise; disturbances in bird migrations; unprecedented bat kills; the claim that wind power reduces global warming as well as foreign oil dependence; possible aquifer disruption and the promise of local jobs.	<p>For a complete updated noise and sound assessment, see Appendix N of the SEIS2.</p> <p>For a complete updated discussion of avian and bat issues in the Project see Appendix H to the SEIS2 and Section 2.3 of the SEIS2</p> <p>In regards to global warming, according to the US Department of Energy, "[w]ind power is one of the potential supply-side solutions to the climate change problem". (US Department of Energy, May 2008). The Department of Energy also cites wind energy's potential to avoid air pollution and reduce greenhouse gas emission associated with traditional power generation. In addition, many non-profit groups like the Audubon Society have stated that, "significant expansion of renewable energy sources such as wind power is needed to reduce pollution from fossil fuels and address global warming" (Daulton, Congressional Testimony on the Benefits of Wind Power, May 2007).</p> <p>In regards to foreign oil dependence, please see response to Comment 215.</p> <p>In regards to groundwater, please see response to Comment 203.</p> <p>For a complete discussion of the positive economic effects of the proposed Project, please see Section 2.9 of the DEIS and Appendix I of the SEIS.</p>	
219	Potter, Jim	4/27/08	[In support of the project.] ...will need careful oversight to ensure that the property owners, towns and most importantly our local environment's best interests are maintained.	Comment noted.	
220	Rudolph, Jim	4/24/08	The security and economy of our country are in need of our NOT relying on foreign oil. It is time for us to find an alternative energy source.	Comment noted.	1.0 - Description of Proposed Action
221	Szydlo, David	4/22/08	[In support of the project.]	Comment noted.	
222	Askin, Kerry	4/30/08	Comments expressing difficulty accessing the DEIS, hard copy and online.	This comment was discussed at the public hearing and several possible explanations, including internet pop-up blockers, were offered. None of these technical issues were brought to the attention of the Applicant before the hearing. Upon hearing of the technical difficulties in accessing the DEIS online, the Town Board moved to extend the comment period and the applicant agreed to that extension. In addition to being online, a print	

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				copy of the DEIS was available at the Arkwright Summit offices in Fredonia during regular business hours, at the Fredonia Library, and through the Town Clerk by appointment.	
223	Booth, Elizabeth		One area of concern I have, and I think Cathy made mention of this, too, is I don't think Horizon at this point has the land leases locked up for the transmission lines and that's an important part of this document and I think I'd like to know that they have decided where it's going to go and what the specific impact may be to that region of our Town before we move ahead with this.	See response to Comment 148.	1.0 - Description of Proposed Action
224	Booth, Elizabeth		Another area is property values. The DEIS bases the opinions that there will be no adverse effects on property values on the information from a report, the Renewable Energy Policy Project Report, which I feel is really not applicable to our Town and I'll give you a couple of reasons why. One is that the information is somewhat outdated. It does not analyze the modern wind information. Most of the information they use is from the 1990s. None of projects reviewed in this report have a project area with the number of people, homes and property parcels that we have here in Arkwright. Another is that the report looks at a five-mile range when analyzing property values. Now, our friends down in Fredonia -- and I kind of care what happens down there - - but I'm much more interested in what happens here in Arkwright and I'd like to know that the reports that they're looking at, the information that we have to look and our Town Board has to look at, is specific to our particular area. Another is that the second report is a report that was created by a college graduate student that looked at the Fenner project, another smaller project in New York. And, again, some of these same issues applied. So not surprisingly, the DEIS neglected to include any of reports which are readily available that show that there are and could be some negative impacts on property values from larger wind installations in areas like ours where we've got a highly-parcelized project area.	See response to Comment 113.	2.9 - Socioeconomic s
225	Booth, Elizabeth		Another area of concern is population and housing. I had a question about the statements in that the project will provide 10 to 15 full-time jobs. I think we should get more information about those jobs. What will those jobs entail? Will these jobs be in the Town of Arkwright and what sort of wages would they pay?	See response to Comment 150.	2.9 - Socioeconomic s
226	Booth, Elizabeth		Regarding visual impact and noise, the DEIS analysis of alternatives is deficient regarding visual impact and noise, and this is specific to the mitigation issues. It states that mitigation of visual impact and noise issues will be accomplished by offering neighbor agreements to neighboring landowners located in the project area within -- or in or outside the project area, within 2,500 feet of a wind turbine. I believe that SEQRA requires the DEIS to provide a sufficient account of alternatives to the project including alternative sighting strategies for turbines. So in other words, if a turbine is anticipated to have a really significant effect on a neighbor, that needs to be looked at. Maybe that turbine needs to be moved. The DEIS does not provide a meaningful account of what these alternatives might be and I think that that should be included.	A complete alternatives analysis, as required by SEQR is available in Section 4.0 of the DEIS, SEIS, and SEIS2.	2.5 - Aesthetic & Visual Resources 2.7 - Sound
227	Booth, Elizabeth		It also does not provide landowners and interested parties with sufficient detailed information regarding the sightings of turbines in relationship to neighboring properties. I would like to see Horizon provide a detailed map of where each turbine is planned in relation to the surrounding dwelling. And you can kind of see it here, but you can't really tell where the dwellings are on a map like this. I think that's important. I've looked at other DEIS maps from other projects from other companies that include where the turbine will be, where the dwelling is, and then a circle around that that shows the setback so that people can really get a clearer indication of what the setbacks are in relation to a turbine that might be near them and where the property lines are.	See response to Comment 126.	1.0 - Description of the Proposed Action
228	Booth, Elizabeth	4/30/08	Another concern I have is that it was just difficult to get the information. I was happy to hear that you addressed that early on in this conversation, although I don't believe 10 additional days is really enough. I think that there are still quite a few people that have not really had the chance. While I'm always happy to hear impassioned reviews about wind energy, I think that what we really need to look at is what is in this document. We really need to understand this and I don't think people have had sufficient access. I would like to suggest 30 days of	See response to Comment 222.	

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			additional comment period and also that we make this information available at a public library, or maybe multiple public libraries, where people could go during regular hours and have a chance to really look at this information without having to sit at Janice's.		
229	Bretl, Fred		Comments expressing support for project in general and expressing concern that project has divided community into those for and those against the project.	Comment noted.	
230	Bretl, Fred		Visually speaking, the Draft Environmental Impact Statement addressed, generally, the project pretty well but it did not address the overhead transmission lines adequately and I feel that needs to be done. There was not one pictorial depicting the overhead transmission lines. And in my touring of other wind farms, I had seen that the transmission lines were rather hideous looking, so it's going to be in our faces. The Town is going to be dissected with access roads, which will be maintained throughout the wintertime.	See response to Comment 159. The updated SVRA provided as Appendix E to the SEIS and SVRA2 as Appendix J to the SEIS2 included visual simulations of the proposed transmission line. Arkwright Summit will work to use materials and configurations that are similar to existing infrastructure. Arkwright Summit recommends that if visits to other wind farms are made, the wind farms operated by the Applicant's parent company, Horizon Wind Energy, are visited.	2.5 - Aesthetic and Visual Resources
231	Bretl, Fred		It will have impact on possibly wintertime activities from snowmobilers, which has an economic impact, and I don't know how that will be addressed with the lease agreements and the existing snowmobile trails and the clubs that are maintaining them at this time.	See response to comment 156.	2.11 - Community Facilities and Services
232	Bretl, Fred		I have other concerns in the Draft Environmental Impact Statement regarding biological resources. I, too, am concerned about the Sharp-shinned Hawk and the Eastern Meadowlark and things of that -- all the birds and the brown bats and all those animal species that are impacted.	Comment noted. A discussion regarding potential impacts to avian, bat, and other species is provided in Section 2.3 of the DEIS, SEIS, and SEIS2.	2.3 - Biological, Terrestrial, and Aquatic Ecology
233	Bretl, Fred		But vegetatively, there's tree species that were not mentioned as a dominant tree species, and I understand that. It was my own shortcoming when I addressed it in my e-mail. I inaccurately depicted the Black Cherry as a dominant tree species, which it is not, but it is a valued tree species and I was just wondering why that is not references into the impact because it -- the project will clearcut some forested lands and that would be a major concern.	See response to Comment 120.	2.3 - Biological, Terrestrial, and Aquatic Ecology
234	Bretl, Fred		Another concern of mine was the possibility of a hazardous material spill at the work sites and I feel that there's a good chance that there could be a problem with hazardous materials at the site. For instance, if the hydraulic fluids or fuels were to be spilled, there is reference in the Environmental Impact Statement about mitigating plans to address that, but the plans are not specific. They're just referenced that by the time we do this, there will be a plan in place to address it and I'm concerned about that and I would hope that those overseeing this project will be proactive in that regards.	See response to Comment 169. A SPCC Plan will be developed and implemented for the Project.	2.10 - Public Safety
235	Fairbanks, Doug		[In support of the Project.]	Comment noted	
236	Fairbanks, Katie		[In support of the Project.]	Comment noted.	
237	Fruehauf, Paul		Comments expressing opposition to project and expressing concern about changes to community character and impacts on property values. Concern that property values "can diminish to 80 percent."	See responses to comments 113.	2.9 - Socioeconomic s
238	Holland, Dorothy		The first is I cannot understand why our windfall of \$640,000 per year, which was quoted in Spree magazine this month, was negotiated. How did we come to that figure? Who was in charge of that figure? Given Attorney Spitzer and our Town Supervisor, who is an attorney, I can't understand such a little figure compared to other townships, so that is something I would like a response to at some point.	The fiscal impact study describing the revenue to the Town and community from the Project was provided in Appendix I to the SEIS. The study estimates that the construction phase will create direct and indirect revenues totaling approximately \$1.1 million and that the total annual impact of the Project during operation is approximately \$2.4 million. The Applicant is currently still discussing the PILOT agreement with the Chautauqua County IDA.	2.9 - Socioeconomic s
239	Holland, Dorothy		The second thing I need a response to is under the subject of mitigation, and I think the mitigation is not dealt with in this document because it's not objectively defined so one thing I think all of us town's people need mitigated is the possibility of our taxes going up. As fewer people move into this town because of the turbines, and those of use who have property, our value falls, those who are left are going to be paying more and more taxes. So if some kind of formula can be worked out so that as our taxes probably do go up, there can be mitigation to offset that for us individual property owners, I think that would be useful for the entire town. And the entire Board does represent all of us town's folk, not just the people who have leases with turbines.	See response to Comment 113 regarding property values and responses to Comments 192 and 204 regarding taxes.	2.9 - Socioeconomic s
240	Holland, Dorothy		The second thing that needs to be mitigated according to this document is sound. There will be sound problems, especially in hilltop residences, so I think there needs to	See response to Comment 12.	2.7 - Sound

No.	Commenter	Date	Comment	Response	Section
			be an objectively defined mitigation for those individuals who are affected. What third party is going to analyze the sound? How much will be mitigated either in terms of relocating the house to not a hill but down lower or building something partially sunken into the ground, sub-ground level, partial housing for sleeping? So that's my second point.		
241	Holland, Dorothy		The third is the possibility of mitigating the fact that we will not be able to keep our windows open if we live close to the turbines, probably 3,000 feet or under, away from the turbines. And when the dust of the project is going on, too, it will be pretty nearly impossible from what I've read to keep your windows open during the summer so how will that problem be mitigated?	During operation of the Project, there is no increase in dust expected due to the Project. During construction, as stated in Section 2.4.3.1 of the DEIS, a Dust Control Plan will be developed and implemented to minimize the amount of dust generated by construction activities. In accordance with this plan, the extent of exposed/disturbed areas at the Project Site at any one time will be minimized and restored/stabilized as soon as possible. Construction traffic will observe a controlled speed to minimize creation of dusty conditions. An environmental inspector will identify dust problems and report them to the construction manager and contractor. Water or other dust-suppression substances approved by local, state, and federal regulations will be used to control dust along public roads, as well as Project access roads as needed throughout the duration of construction activities. Additional dust control measures are noted in Section 2.4.3.1 of the DEIS.	2.4 - Climate and Air Quality
242	Holland, Dorothy		This Town's planning board, I believe, operated with due diligence and presented our Town with a huge project, talking about the different things that we as a town should be careful of, such as setbacks, and that's already been well-documented. So when the Town Board's due diligence project was sort of pushed aside and our Town Board decided on different setbacks, I think we need to answer the question, who determined those setbacks and why? Why did our Town Planning Board come up with such a different setback than our Town Board, so I think that needs an answer.	The Town of Arkwright Local Law 2 of 2007 has been in effect since 2007, which establishes multiple setbacks and standards for wind turbines. The details are requirements of this law are summarized in Section 2.13 of the DEIS.	1.0 - Description of the Proposed Action
243	Holland, Dorothy		And I also wonder, does the new Town Board assume the same responsibilities as the old Town Board with regards to signing their name to this project and acting as the lead agency? Given that this is \$100 million dollar-plus project, I cannot truthfully understand how town's people can be the lead agency for such a huge project and I'm worried about us as a town what legal responsibility do we have. Can we be sued? Can our Town Board be sued? Will it bankrupt our town if somebody comes in and says this has ruined my business or this is ruining this or that. I think we need answers and mitigation in case this Town can be held liable for some of the damages done. I think due diligence, mitigation, and the Town Board acting as lead agencies are the final comments I want to leave everyone with and expect some comment back.	Please refer to comment 191	1.0 - Description of the Proposed Action
244	Jackson, Cathy [Is this Lois. C Jackson?? The Lois Jackson comments above were the only written Jackson comments and were sent via email from "Chris and Cathy Jackson at chrisj@netsync.net" but the email was signed "Lois C. Jackson." We should make sure we have the right name for the Jackson in the written comments and here]		My first concern is the TV reception analysis and measurement reports, Section 5. There was a one-day study done January 8th. This was on a clear day. From that study, it states right in here, this being the case, some off-air TV issues are expected due to the installation of the wind turbines. Okay. So this says right now we're going to have problems with our TV reception. What are we going to do about it? There are seven different solutions in here. There's nothing that we're doing about it. I think this is something that we should take action on before we vote yea.	As discussed in Section 5 of Appendix K2 of the DEIS, if there are areas reportedly experiencing degraded off-air TV reception after the project is constructed, investigations may be necessary to determine whether the degradation is due to the presence of the wind turbines. The study provides a baseline for analysis that shows signal strength and channels received prior to the Project and concluded that existing television reception in most of the Project Area has low signal strength because of the distance to the major transmission points and hilly terrain. Changes in television reception can be reported using the Complaint Resolution Procedure outlined in Appendix L of the DEIS. Possible mitigation options in the event that the change is found to be attributable to the project are outlined in Section 5 of Appendix K2 of the DEIS.	2.12 - Communication Facilities
245	Jackson, Cathy		Another thing, the broadcast. As I look at the map, I see some problems here because in this section, it says: For the full and medium power FM station, a separation distance of 2.5 miles should be maintained so that the station can maintain normal operation and coverage. It doesn't look to me like any of these are 2.5 miles away from the Tri-Christian radio station. This is a direct quote from here. If anybody wants to see it, you're welcome to see it.	The 2.5 mile figure refers to the horizontal range of the signal and does not represent an absolute setback. Antennae height is also an important component of anticipating potential impacts. The antennae for the Tri-Valley Christian Broadcasting tower is over 1000 feet tall, significantly taller than the approximately 410-foot tall turbines. Due to the substantial height difference, the broadcast of the	2.12 - Communication Facilities

No.	Commenter	Date	Comment	Response	Section
				communications tower will not be affected over its range by the presence of wind turbines. For listeners in the immediate area with a turbine between them and the tower, the signal is expected to be strong at that distance and effects are not likely.	
246	Jackson, Cathy		Next concern, property value analysis. A person's home is usually one of their major sources of savings. This can be well-documented by people. There was one study done. In any of my Master's courses in Research that I've taken, usually, things are recommended that you have a triangulated research and that's with three studies, especially, we're talking about a person's home here. With this study, it did not include any homes within one quarter of a mile. You know, I think that this is a real target area. A lot of homes are going to be within one quarter of a mile. If you're for this, what is a study going to hurt? If you're against this? Okay. You know, but I think this is one thing that we should all agree on, that we need a little bit more looking into about our home values. Let's be safe. I mean we're playing with our life savings here for some people.	See response to Comment 113. Furthermore, the Hoen study included homes within ¾ of a mile with the closest transaction 0.27 miles away from the nearest facility and 22 homes overall inside of 1 mile. Setbacks and the rural character of the farms studied indicate homes are generally within ¼ mile when the owner has opted to lease land for that purpose to a developer. The Hoen study reviewed sales transactions at 280 single family homes within and around the Fenner Wind Farm and found no evidence that wind turbines create an adverse effect on property values.	2.9 - Socioeconomic s
247	Jackson, Cathy		Another thing that I had a problem with your report is it says in here: We have interviewed local real estate brokers, appraisers, and town assessors regarding specific transactions and the anticipated effect of the project on the area. Well, guess what? The only person they talked to listed in their references is Mr. Norton. I didn't know that he's an assessor, an appraiser, a real estate broker, and so on. That's the only local person listed. And it gives a list of who he spoke with. Okay. This is the only person. This needs more looking into. This needs to be cleared up.	The property values study in Appendix J of the DEIS utilized interviews with several local property experts, including assessors and real estate brokers with experience in places where wind farms exist, as cited under the "Parties Interviewed" section of the references for the study. Furthermore, the study evaluated the available transactional data of property sales specific to the Project Area. See also response to Comment 113.	2.9 - Socioeconomic s
248	Jackson, Cathy		In here also, it gives, according to the U.S. census, that our homes in this area -- it gives a pretty low value of them. In the information I found, it says that a home, the median is \$145,000 and that we have a decrease in our sales in this area of 6.4 percent, so my information that I pulled off of several websites is totally contradictory to the information found in your report. I think it needs a little bit more looking into because this is something very important.	<p>The Commenter did not provide a specific citation for the median value data for comparison and verification. However, the median value referenced is of the scale for the median value for the entire State of New York. Local median housing values are more appropriate for the property values analysis to evaluate local trends specific to the Project Area.</p> <p>As shown in Table 2.9-2 of the DEIS, the median housing value for the State of New York is \$148,700, while the median housing value for Chautauqua County is \$64,000 and for the Town of Arkwright is \$65,000 (U.S. Census Bureau 2000). The U.S. Census data is consistent with data from the New York Office of Real Property Services, which provides median arm's length residential sale prices for Chautauqua County between \$69,000 and \$70,000 from 2006 through 2008. (http://www.orps.state.ny.us/sales/resmedian.cfm).</p> <p>It is also important to note that the median statistic is not the same as the average statistic. The median reported by the U.S. Census Bureau and the NYSORPS represents the middle value when all values are listed in ascending order. The average represents the total value of all sales divided by the number of sales, which can be influenced by outliers to produce a number that may be higher or lower than the median. The property values analysis in Appendix J to the DEIS calculated average value, not the median value, of single family residential homes of approximately \$127,000 for the Towns of Arkwright and Pomfret and approximately \$103,000 for Chautauqua County.</p> <p>See also response to Comment 113 for further discussion regarding property values.</p>	2.9 - Socioeconomic s
249	Jackson, Cathy		Another problem I have is that none of these plans are definite. Any of these plans can change. Yesterday evening there were people out trying to get more contracts signed because they don't know where these transmission lines are going to be going. Now, how can we comment on something that we don't even know what's going on with? So I mean I would like to know the final plans so that I can make final comments that are	The purpose of the DEIS was to provide the preliminary project design and impacts for agency and public review and comment. The SEIS presented a revised layout and the FEIS presents a further updated layout that has been refined based on environmental and engineering constraints. The parcels included in the WOZ and site plans will be provided to the	1.0 - Description of the Proposed Action

No.	Commenter	Date	Comment	Response	Section
			educated, not just hypothesis, because I think that a project of this magnitude should be based on factual information.	Town as part of the updated SUP and building permits submittal in accordance with Town regulations.	
250	Jackson, Cathy		There's what, turbines according to the Observer. 640,000 per year. Pomfret is getting an awful lot more than that, folks.	See response to Comment 238.	2.9 - Socioeconomic s
251	Jackson, Cathy		Another problem is your complaint resolution. In there, you provided the phone number. Nothing can be done for five days possibly? I think we need to look at that and make it a little bit more, you know, user friendly. We're having problems with the Internet website but if there's an 800 number, five days for a farmer without water, that could be a problem. Five days for a football fan, you know, with no TV, that might be a problem for some of you. To me, it wouldn't bother me, you know. If it's a Super Bowl, boy, I wouldn't like to be in Mr. Norton's shoes on that day.	The Applicant is committed to a strong complaint resolution process and active community engagement. The 800 number connects directly to construction and operations personnel. The 5-day window refers to complaints issued to the Town instead of Project personnel and allows the Town 5 days to notify the Applicant.	3.0 - UNAVOIDABLE ADVERSE IMPACTS
252	Jackson, Cathy		Another problem I saw, Exhibit 11, the blasting schedule. In there, quote unquote, we don't know if there's a need for -- there's no specifics about a blasting schedule. Well, that tells me you need further geological studies. But then if I go back to your EIS, it says, yes, that there will be bedrock and the blasting will have to occur. Blasting isn't just something mild.	See response to Comment 138.	2.1 – Geology, Topography and Soils
253	Jackson, Cathy		The project description, there's so many variations that I was able to pick out in just the 50 percent that I went. Some of it includes overhead lines, 4.7 miles, where previously it was stated 3.3 miles. Perhaps this could be due to the fact that we don't have anything permanent about the overhead lines. In electrical collection and interconnection systems, there's 21 miles of underground cable and 3.3 miles of overhead lines. There's a lot of really inconsistent figures, if you go through this. Let's get these inconsistencies ironed up so we know what we're talking about, please.	See responses to Comments 133 and 148. Also, the project description and associated mileage of overhead lines was updated in the SEIS, and SEIS2 based on the revised layout due to engineering and environmental constraints.	1.0 - Description of the Proposed Action
254	Jackson, Cathy		The storage yard, the location of the storage yard is not disclosed. Shouldn't that be included? Isn't that going to be a major part? I mean to store these great big huge parts, that's going to be a pretty major storage yard. Where is it going to be at? Why isn't it there?	As described in Section 1.6.1 of the SEIS2, The storage yard/laydown yard will be located in an agricultural field adjacent to State Route 83. The staging area is no longer co-located with the proposed O&M facility (As described in the SEIS). The storage yard will be approximately 6.7 acres in area.	1.0 - Description of the Proposed Action
255	Jackson, Cathy		The total acreage, 5,927 acres, that's quite a large figure. There's different variations in that. There's variations as far as it being woodland and open land, also. Okay. I do have the specific numbers. If you would like them, I would be happy to provide you with them.	As described in Section 1.0 of the SEIS2, the total acreage of the Project Site is now 3,883 acres. For a breakdown of land use and vegetation cover within the Project Site, please refer to sections 2.1, 2.2, and 2.3 of the SEIS2.	1.0 - Description of the Proposed Action
256	Jackson, Cathy		The National Register, it says no, there's no National Register, nothing historic about our town. Doesn't the marker next to my house count as something? Isn't that supposed to be in some historic site or something? The marker in Nany's yard, what's that in, Roger? [Mr. Cardot response: The first Town ordinance]...Number 13, Recreation Areas. It's marked no. It should be yes because of State land. We're real close to a recreation area. That's going to be right beside it. I disagree with that.	There are two New York State Museum Historic Markers in Arkwright. One marks the first oil well in town and the second marks the first cheese factory in Chautauqua County. The markers read as follows: FIRST OIL WELL IN ARKWRIGHT WAS ERECTED ON THIS SITE ABOUT 1840 Location: ON CO. RD. ABOUT 2 MIS. S. OF FORESTVILLE FIRST CHEESE FACTORY IN CHAUTAUQUA COUNTY ERECTED HERE IN 1861 BY ASAHEL BURNHAM Location: ON CO. RD. AT GRISWOLD These markers show a recognition by the NY State Museum that the sites are of local importance. Since no above ground remains were visible from the public right-of-way, these sites were not included in the Historic Architectural Resources Investigation. The locations of these historic sites may contain archeological data and are potentially eligible to the National Register of Historic Places under Criterion D. However, since they are outside the APE for archeology, they were not investigated. SPHINX does not indicate that any previous determination on the eligibility of these sites has been made.	2.6 - Historical, Cultural, and Archaeological Resources

No.	Commenter	Date	Comment	Response	Section
				Arkwright Summit submitted the Historical Architectural Resources Investigation (included as Appendix G to the SEIS) to the SHPO for review. As a result of the survey of above ground resources, 10 properties in the Town of Arkwright have been determined eligible for the National Register of Historic Places by the SHPO. (Letter from SHPO March 9, 2009, Appendix C to the SEIS2).	
257	Jackson, Cathy		Zoning Classifications. We're really looking at agriculture. What percents are these, so we have some factual information as far as the different classifications for the zoning, please?	One hundred percent of the Project is within the zones allowed in compliance with local laws. According to Town of Arkwright Local Law 2 of 2007, §656, wind energy facilities are allowed in the AR1 district and in the T District along the eastern boundary of Arkwright upon issuance of a Special Use Permit and Wind Overlay Zone. According to Pomfret Zoning Regulations, Section 404.B and Pomfret Local Law 3 of 2007, §647-G, uses related to utilities and wind energy are allowed in the AR1 district upon the issuance of a permit.	2.13 - Land Use and Zoning
258	Jackson, Cathy		So as a concerned citizen of Arkwright, I would urge you to wait until you get some definite plans and some factual information. Let's get all of these little bits and pieces wrapped up because if we're going to do this, let's do it right.	Comment noted	
259	Keller, Carol		My question is Arkwright has -- we have a shallow -- or a spring, and we're going to be surrounded by -- literally surrounded by wind mills. My question is we have well water, which is no good, and each well we dig is going to be sulfur. With all the blasting around us and since -- I guess the water in Arkwright is shallow water, is this going to affect everybody's water?	See response to Comment 203.	2.2 - Water Resources
260	McAvoy, Angela		[In support of the Project.]	Comment noted.	
261	McAvoy, Debra		[In support of the Project.]	Comment noted.	
262	Phillips, Wendy		[In support of the Project.]	Comment noted.	
263	Potter, Jim		[In support of the Project.]	Comment noted.	
264	Szydlo, David		[In support of the Project.]	Comment noted.	
265	Wilcox, Larry		[In support of the Project.]	Comment noted.	

Arkwright Summit Wind Project FEIS Appendix F Responses to Comments Received on the SEIS

No.	Commenter	Date	Comment	Horizon Response	Section
S-1	CRA	3/24/09	SEIS Section 1 1. Although the Project consists of 44 turbines at a capacity of 1.8 MW each, the applicant states that the Project will have a total nameplate capacity between 79.2 and 79.8 MW. Please clarify the reason for the range of nameplate capacity.	The language “depending on the specific wind turbine used” was added to the end of this sentence in Section 1 of the final SEIS to clarify the reason for the range in nameplate capacity. The Project as proposed in the SEIS2 will have a nameplate capacity of 78.4 MW.	1.0 - Description of the Proposed Action
S-2	CRA	3/24/09	SEIS Section 1 2. Section 1.0, No. 4: The revised Project Site is given as 5,961 acres of leased, privately-owned land in the Towns of Arkwright (5,879 acres) and Pomfret (82 acres) as compared to the DEIS Project Site, which consists of 5,930 acres. Please provide the distribution between the two Towns as presented in the DEIS.	The requested information was provided in the final SEIS to read: “The revised Project Site encompasses 5,964 acres of leased privately owned land in the Towns of Arkwright (5,879 acres) and Pomfret (85 acres), as compared to the DEIS Project Site, which consisted of 5,930 acres (5,830 acres in Arkwright and 100 acres in Pomfret).” Per the layout presented in the SEIS2, the revised Project Site has been reduced to 3,883 acres of leased privately owned land in the Towns of Arkwright (3768.8 acres) and Pomfret (114.2 acres)	1.0 - Description of the Proposed Action
S-3	CRA	3/24/09	SEIS Section 1 3. Section 1.5.2: This Section states that the primary proposed laydown yard and the O&M facility are currently located on approximately 8.3 acres and 8.7 acres of land, respectively. As written, the values provided are unclear if they reference the size of the leased property, the area of disturbance, or otherwise. The applicant should clarify.	Language was added to the final SEIS to clarify that the acreages refer to the sizes of parcels on which the facilities will be located.	1.0 - Description of the Proposed Action
S-4	CRA	3/24/09	SEIS Section 1 4. Section 1.5.5: In this Section, the applicant makes the statements that “Approximately 17.9 miles of underground power collection lines will be installed, with the majority placed within the 15.5 miles of Project access road corridors. Buried collection lines located outside of access road corridors will comprise 8.2 miles of the total 17.9-mile collection system.” According to these statements, 9.7 miles of the buried lines are located within the road corridors. For clarification purposes, this quantity should be stated as well.	This statement in Section 1.5.5 of the draft SEIS was revised to read: “Approximately 17.9 miles of underground power collection lines will be installed, with 9.7 miles placed within the 15.5 miles of Project access road corridors” in the final SEIS. For the layout presented in the SEIS2, The total distance of proposed underground collection lines has remained approximately the same; 21 miles (in the DEIS), to 17.9 miles (in the SEIS), to 18 miles (in the SEIS2). Approximately 9.5 miles of underground collection lines will be placed within the 12.4 miles of Project access road corridors.	1.0 - Description of the Proposed Action
S-5	CRA	3/24/09	SEIS Section 1 5. Section 1.5.5: Reference the acreage of the switchgear facility in the second paragraph.	The acreage was referenced with a statement that reads “The Project will also require a one-acre switchgear facility near the proposal O&M building that will convert the underground power collection system to an overhead line.”	1.0 - Description of the Proposed Action
S-6	CRA	3/24/09	SEIS Section 1 6. Figure 1.1-3 (Proposed Substation Layout) shows a proposed 24-foot access road going west into the Town of Pomfret. The overall Project Layout provided in Figure 1.1-2 does not show an access road. Also, was this road considered in the disturbance quantities?	Due to changes in the Project layout since the preparation of the SEIS, the location of the proposed substation has moved to the north side of Webster Road, and an additional access road will no longer be necessary.	1.0 - Description of the Proposed Action
S-7	CRA	3/24/09	SEIS Section 1 7. In responses to comments #94 and #105 on the DEIS tracking log, submitted by the NYSDEPS, the applicant indicated it would perform additional investigation and study of the proposed overhead lines in the Project. This information was to be expanded upon in the SEIS. CRA could not locate additional discussion of overhead lines within the SEIS information provided.	The section was revised for the final SEIS to note that “The currently proposed overhead electrical line route is the result of consultation with area landowners to minimize impacts on current land uses, field investigations of sensitive natural resources (particularly wetlands, water resources, and cultural resources) and a field based constructability review performed by the Applicant’s engineering team.” See also response to Comment 94. The full constructability review will be performed prior to construction.	1.0 - Description of the Proposed Action
S-8	CRA	3/24/09	SEIS Section 2 1. On page 2-4, under Geological Formations, the applicant states that the NYSDEC identified four borrow pits (two active) in the Project Area but no location or map is provided. Please locate these borrow pits in relation to the Project.	Figure 2.1-4 (Gas Wells and Mines) submitted with the final SEIS shows the location of the two reclaimed and the two active borrow pits. Figure 7 of the SEIS2 provides updated locations of gas wells and mines within the Project vicinity.	2.1 – Geology, Topography and Soils
S-9	CRA	3/24/09	SEIS Section 2 2. Throughout this Section, when referencing the post construction avian and bat monitoring, note that the monitoring plan is being reviewed by NYSDEC and will be incorporated into the FEIS. Also, in accordance with discussions between CRA and the applicant, agency correspondence supporting this statement shall be included in the SEIS.	See response to Comment 26. As stated in Section 2.3 of the SEIS2, the development of a post-construction monitoring plan in consultation with USFWS and the NYSDEC is ongoing.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-10	CRA	3/24/09	SEIS Section 2 3. Table 2.1-5: It is unclear how overhead lines, given	Table 2.1-5 (Approximate Area of Soil Disturbance) was revised for the final SEIS to	2.1 – Geology, Topography

No.	Commenter	Date	Comment	Horizon Response	Section
			the permanent placement of poles and ROW maintenance throughout life of facility can result in no permanent impacts. Applicant should provide rationale, or adjust numbers as necessary.	indicate <1 acre of soil disturbance, rather than zero acres. An explanatory note was also added to the table that stated, "Once construction is completed, permanent soil disturbance impacts within the overhead power collection lines will be limited to the fill associated with each pole structure. ...The area within the utility right-of-way that is temporarily cleared to accommodate construction will be allowed to revegetate except where pole placement occurs but permanent removal of soils will not occur. Other permanent impacts will be limited to the removal of mature trees or other woody vegetation within the ROW for maintenance of future vegetative height to allow for safe operation of the electric line."	and Soils
S-11	CRA	3/24/09	SEIS Section 2 4. Section 2.2.2.1: It is unclear how the project will temporarily impact 2.61 acres of "forested wetlands," and only permanently impact 0.04 acres of the same. Applicant should state how they plan to restore forested wetlands to their previous function and value. Additional discussion may be necessary or this value may need to be revised to represent a permanent impact. If the forested wetlands may be converted to another wetland type, further discussion must be included.	The following clarification was added in Section 2.2.2.2 regarding permanent impacts to forested wetlands: "As stated in the DEIS, the conversion of forested wetlands to non-forested wetlands constitutes a permanent change in wetland vegetation composition under NYSDEC regulations. While this conversion from one cover class to another does not constitute a net loss of wetlands, it may alter the structure and function of these wetland habitats. As such, the construction of the Project will result in the conversion of 2.57 acres of forested wetlands to non-forested wetland cover classes." Section 2.2.3 of the DEIS provided discussion regarding wetland mitigation and restoration. Final measures will be discussed with USACE and NYSDEC as part of the wetlands Joint Application process. Section 2.2 of the SEIS2 provides updated wetlands impacts, and as discussed above, conversion of forested wetlands is considered to be a permanent impact.	2.2 - Water Resources
S-12	CRA	3/24/09	SEIS Section 2 5. Table 2.3-1: It is unclear what would constitute a "woody wetland." If the applicant is referring to "forested wetland" used in other sections, than consistent terms must be used. Otherwise, an explanation of this term shall be provided. Also, Table 2.3-5 states that "woody wetlands" will experience temporary impacts of 0.12 acres. Comment #4 reflects a statement that 2.62 acres of temporary impacts will occur in "forested wetlands." Applicant should clarify. It is noted that Horizon states at the bottom of the table that wetland impacts were estimated; however a difference of 2.5 acres is substantial. This should be clarified and adjusted as necessary, and should reflect the wetland delineation numbers, and not those obtained from NLCD 2001.	The SEIS was revised to include an explanatory note in Table 2.3-5. The note stated, "Affected acreages, including wetlands, are from NLCD 2001 coverages and thus are estimated. More detailed wetland impact calculations based on field-based wetland delineations conducted in 2008 are provided in Section 2.2. The temporary forested wetland impact calculation of 2.61 acres presented in Section 2.2.2.2 is a more accurate indication of the anticipated impacts to forested wetlands." Section 2.2 of the SEIS2 provides updated impacts to wetlands.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-13	CRA	3/24/09	SEIS Section 2 6. In Section 2.3.1.4, the applicant makes the following statement about the small footed bats: "While little is known about this species roosting habits, they appear to use rocky outcrops or talus slopes for roosting during the summer breeding season and forage in forested areas or along forest edges." Although "little is known" about the roosting habitats, the applicant makes a statement about the habitat utilized for roosting. The applicant should provide a reference for the statement or modify it.	This language was modified in Section 2.3.1.4 of the draft SEIS. No known summer or winter habitat exists in the project area.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-14	CRA	3/24/09	SEIS Section 2 7. Section 2.3.1.4: Threatened and Endangered Species – Comment #30 on the DEIS tracking log concerned short-eared owls. While there is additional discussion in the SEIS text about short-eared owls, the discussion is still somewhat vague, and doesn't fully address CRA's request for additional information. One could conclude, based on the short-eared owl discussion in this section, that more favorable owl habitat will result due to the construction of the project and the elimination of 400+ acres of forest. (See CRA's response/request to Comment #30: CRA requests that literature citations and regional data be referenced to support the response. Provide documentation that supports that short-eared owls are unlikely to occur, and that they are seldom found in post-construction monitoring. While CRA understands that they are a rare species, several factors in their life history may make them more susceptible to impact, such as their display flights, low hunting behavior	See response to Comment 30. Section 2.3.1.4 of the SEIS provided further discussion on the short-eared owl and referenced literature and regional data to support the conclusion that short-eared owl use of the Project Site is not expected to be high due to the lack of suitable habitat.	2.3 - Biological, Terrestrial, and Aquatic Ecology

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			(similar to a northern harrier) cyclic populations (apparently in response to cyclic prey populations) and the habitat attraction to the turbine areas by their prey species.)		
S-15	CRA	3/24/09	SEIS Section 2 8. Section 2.3.1.4: Threatened and Endangered Species – Comment #31 on the DEIS tracking log concerned eastern small-footed myotis. The SEIS small-footed myotis discussion never answers the questions about whether this species can be distinguished by the AnaBat survey programs. The opposite of the applicant's conclusion is possible based on their discussion (i.e.; the AnaBat surveys were unable to confirm the presence or the absence of this species.) If the AnaBat recordings were definitive enough to distinguish the eastern small-footed myotis, please submit details on the exact program used to distinguish different myotis species. Was suitable habitat observed in the study area?	Further discussion was added to Section 2.3.1.4 to clarify that generally, it is difficult to distinguish small-footed myotis calls from other Myotids due to the level of overlap and plasticity of calls. A conservative approach is adopted due to the high level of variability in calls and high probability of misidentification. Additional discussion regarding habitat for the small-footed myotis was also added. Small-footed bats typically occur in mixed deciduous forest habitats in mountainous or rugged areas that are characterized by the presence of rocky outcrops or talus slopes and rock fields. During the winter it generally hibernates in caves, but secretly in small groups in crevices and fissures and not communally in large clusters, like other Myotids, and as a result can go unnoticed. No known summer or winter habitat exists in the Project Area. See also response to Comment 31.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-16	CRA	3/24/09	SEIS Section 2 9. Section 2.3.1.5: The applicant states that no heron activity was observed during the study periods. Applicant should re-state what the study periods were, and confirm, using appropriate references, that their study period was appropriate for capture of any heron activity.	The requested information was added to Section 2.3.1.5 of the SEIS.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-17	CRA	3/24/09	SEIS Section 2 10. Section 2.3.1.5: Other Sensitive Wildlife Resources – Comment #33 on the DEIS tracking log requested that the discussion be expanded in the SEIS. There is some slightly expanded discussion in the SEIS; however, additional information should include an assessment of whether migratory movements, both seasonal and daily, and population dispersals could include the Project area. The extent and dynamics of these movements and the affects of the Project should be discussed.	See response to Comment 33. Section 2.3.1.5 of the SEIS provided further discussion of the Dunkirk Harbor and Wheeler's Gulf IBAs.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-18	CRA	3/24/09	SEIS Section 2 11. Section 2.3.2.1 Potential Impacts – Construction – Comment #35 on the DEIS tracking log: While CRA agrees with the SEIS assessment of forest impacts, more information is needed to better quantify and qualify the potential impacts/affects. (See CRA's response/request to Comment #35: This item should be further discussed and quantified. Are there interior forest habitats that will be lost or are the current conditions very fragmented? Based on home range and other factors, how many species and individuals would potentially be impacted? Despite the note that impacts will be predominantly on forest edges, it is recommended that this information be quantified for the SEIS.)	See response to Comment 35.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-19	CRA	3/24/09	SEIS Section 2 12. Under Section 2.3.1.5, the applicant explains in some detail the investigation and communication with landowner and NYSDEC to establish that the blue heron rookery previously identified is abandoned. In Section 2.3.2.2, the applicant states that the location and status of the rookery could not be confirmed. These sections are contradictory, and it appears that Section 2.3.2.2 should be updated to reflect the findings of Section 2.3.1.5.	Section 2.3.2.2 was updated to reflect the findings of Section 2.3.1.5 to note that the previously identified great blue heron rookery near the site has been abandoned.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-20	CRA	3/24/09	SEIS Section 2 13. Section 2.3.3.2 states NYSDEC Draft Guidelines for wind power project studies will be used. Applicant should confirm that the NYSDEC guidelines remain draft, or, if they are final (or otherwise), make appropriate reference. Also, in response to NYSDEC Comment #40 on the DEIS tracking log, CRA requested the applicant provide details on post construction vegetation management and how it will avoid impact to or benefit wildlife. This has apparently not been addressed.	See response to Comment 40.	2.3 - Biological, Terrestrial, and Aquatic Ecology
S-21	CRA	3/24/09	SEIS Section 2 14. Section 2.6.1.1 states that Phase II archaeological investigations will be required at one site and will be developed with OPRHP. Also, SHPO comments on the Phase I are still pending. The applicant shall state when this information will be made available (i.e., FEIS).	This statement was revised to read "Phase II archaeological investigations to determine the site's eligibility or potential eligibility for listing in the NRHP may be developed if requested by the OPRHP." Comments from the SHPO on the Phase IB report and follow-up consultation are provided in Appendix B of the FEIS. A Phase II study is not currently anticipated based on	2.6 - Historical, Cultural, and Archaeological Resources

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				avoidance of identified cultural resources.	
S-22	CRA	3/24/09	SEIS Section 2 15. Throughout this Section, the Noise Impact Assessment (NIA) in Appendix H is referenced as the NIA, and also as the Environmental Sound Survey and Noise Impact Statement. The table of contents in Section 1 refers to it as the Environmental Sound Survey and Noise Impact Assessment. Please use consistent titles and names for all Appendices.	The title "Sound Survey and Noise Impact Assessment" was used throughout the document.	2.7 - Sound
S-23	CRA	3/24/09	SEIS Section 2 16. In Section 2.7.1.4.2, the applicant quotes the NYSDEC guidelines for significant noise, with a footnote from the SEIS author added as follows: "where the most sensitive receptors are present." This addition may be construed as modifying the intent of the statement if NYSDEC did not make that distinction. The term "the most sensitive receptors" has not been defined.	The footnote indicated that the italic font, not the language, was added by the author. Both the italic font and footnote were removed to avoid confusion.	2.7 - Sound
S-24	CRA	3/24/09	SEIS Section 2 17. Section 2.12: The table of contents for the SEIS stated that this Section would cover the following: "This section will provide an updated analysis of the revised layout in comparison to existing microwave beam baths and AM/FM and television signal pathways." Yet, in the SEIS, both AM/FM and television subsections state that these impacts are discussed in the DEIS. Since additional analysis was identified for these issues, why was no additional information provided?	A map showing the microwave beam baths in relation to the revised turbine layout was provided as Figure 2.12-1 and shows the revised layout in conformance with setbacks from the WCFZ. AM/FM and television impacts did not change from the DEIS and SEIS as a result of the revised layout and as such, were not discussed further in the SEIS. Sections 2.12 of the SEIS2 provides an updated discussion of potential impacts to communication facilities. Additional communications studies (AM/FM Radio, Microwave Analysis, Off-Air TV analysis) were prepared in support of the SEIS2 and are included as Appendix Q.	2.12 - Communication Facilities
S-25	CRA	3/24/09	SEIS Section 2 18. Section 2.5.2.2.7 – This section refers to "two receptors that will be theoretically affected more than 30 hours per year. These receptors are likely to have project visibility." Based upon CRA's understanding of Appendix E, there appear to be four (4) receptors with more than 30 hours of theoretical shadow flicker exposure. However, only two of the four are non participants. The text should be revised to reflect these changes, and the status of the four receptors should be clarified (participants vs. non participants).	Table 8 of Appendix E to the SEIS included a column that indicated whether receptors were project participants or non participants. An updated shadow flicker report has been prepared and included as Appendix K to the SEIS2. The discussion in the updated shadow flicker analysis and in Section 2.5 of the SEIS2 includes the details requested in the comment.	2.5 - Aesthetic and Visual Resources
S-26	CRA	3/24/09	SEIS Section 3 1. Section 3.3: Correct the acronym "NY DEC" to read "NYSDEC."	The correction was made for the final SEIS.	
S-27	CRA	3/24/09	SEIS Section 3 2. This Section is acceptable for public review and comment.	Comment noted.	
S-28	CRA	3/24/09	SEIS Section 4 1. This Section is acceptable for public review and comment.	Comment noted.	
S-29	CRA	3/24/09	SEIS Section 5 1. No supplemental information was provided for this Section.	Comment noted.	
S-30	CRA	3/24/09	SEIS Section 6 1. No supplemental information was provided for this Section.	Comment noted.	
S-31	CRA	3/24/09	SEIS Section 7 1. This section is acceptable for public review and comment.	Comment noted.	
S-32	CRA	3/24/09	SEIS Section 7 2. CRA notes that Horizon has based much of its discussion on Cumulative Impacts and Benefits on a cumulative evaluation performed for the proposed Noble Ball Hill Wind Farm in the towns of Villenova and Hanover. This evaluation currently exists on a Noble website as a read-only document.	Comment noted.	7.0 - CUMULATIVE IMPACTS AND BENEFITS
S-33	CRA	3/24/09	SEIS Section 8 1. No supplemental information was provided for this Section.	Comment noted.	
S-34	CRA	3/24/09	Appendix B 1. The report discusses the impacts due to blasting, but states that impacts are unlikely due to factors such as setbacks. There are also statements indicating the blasting is unlikely due to the relatively soft nature of the shale bedrock in the region. However, in the event that blasting is determined to be necessary, the Applicant should state that it will conduct pre and post blasting surveys and will prepare a blasting plan.	See response to Comment 138. Arkwright Summit performed geotechnical analyses that are summarized in Section 2.1 of the SEIS2. If blasting is required, a separate blasting plan will be submitted to the Town Board. The Draft Geotechnical Investigation Report included as Appendix D of the SEIS2 indicates that it is unlikely that turbine foundations will be set into bedrock. The Applicant has determined that blasting of near surface exposed rock and	

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				<p>rock removal may be required for construction of the Project in some locations. Blasting may be necessary when bedrock is encountered at depths less than 10 feet below ground surface and in those instances when the bedrock is not rippable with an excavator or cannot be broken by pneumatic hammer. According to the geotechnical report, bedrock (shale) was encountered at a depth of exactly 10 feet at one of the potential turbine locations. While the report also stated that the upper few feet of shale bedrock is likely rippable, the results of the investigation suggest it is possible that blasting may be required in some locations.</p> <p>Although not anticipated, in the event that blasting is necessary, the procedure shall consist of implementing line control to full depth and then the use of controlled blasting techniques in one or more benches to create minimum breakage outside the line control but create maximum rock fragmentation within the target area. There should be no significant blasting-related impacts on wells, foundations, etc., given that there are no permanent residences within 1,200 feet of proposed turbines. Consequently, potential impacts on the groundwater aquifer, water supply wells, and natural gas wells are not anticipated. Prior to blasting, the applicable regulatory concerns/requirements shall be met. The procedures that are anticipated to be implemented in association with any necessary blasting are summarized in SEIS2 Appendix A: Preliminary Blasting Plan.</p>	
S-35	CRA	3/24/09	Appendix B 2. In Table 2, the total surface areas of disturbed soil for the collection systems (overhead and underground) are indicated as having no permanent impacts. Clearing of trees and maintenance of vegetation for overhead lines are typically considered permanent impacts. In addition, how does the construction of the O&M building result in no temporary impact?	See response to Comment S-10. Table 2 of Appendix B to the SEIS was a reproduction of Table 2.1.5 in the SEIS text, Section 2.1.2.2.1, which was revised to clarify zero permanent impacts to soils from the underground collection system and less than 1 acre of impacts from the overhead collection system.	
S-36	CRA	3/24/09	Appendix B 3. In Section 5.1, the report indicates that absorption pads and media shall be kept in a staging area. The report (or related section of the SEIS text) should clarify that this "staging area(s)" will be in close proximity to the work sites to ensure a quick response to potential spills.	The requested language was added to this section to note that "these staging areas will be located in close proximity to work sites and the laydown yard to ensure quick response to potential spills."	
S-37	CRA	3/24/09	Appendix C This report is generally well written and is acceptable for public review and comment. CRA offers the following comments.	Comment noted.	
S-38	CRA	3/24/09	Appendix C 1. Page 2-1: The report states that a Jurisdictional Determination (JD) may be requested from the Corps of Engineers. Please explain the current status of the JD request and if a JD is not requested then explain the Project's reasons for not obtaining a JD.	See response to Comment 23.	
S-39	CRA	3/24/09	Appendix C 2. Page 2-2: Preapplication meetings were conducted with both the Corps and NYSDEC, however details of these meetings are not discussed in the report. It would be useful to summarize the discussions of these meetings or to include meeting minutes in an appendix.	See response to Comment 23. Meeting notes were provided in Appendix J of the FEIS.	
S-40	CRA	3/24/09	Appendix C 3. Pages 2-2 and 5-1: Did the NYSDEC conduct a JD? If not, what was their purpose for the September 10, 2008 field meeting? Was the NYSDEC informed that WL46 exceeds 12.4 acres and therefore may fall under the NYSDEC's regulation? If so, what was NYSDEC's decision on WL46?	See response to Comment 23. Updated information regarding the wetland delineation and agency review is provided in Appendix E and Section 2.2 of the SEIS2.	
S-41			Appendix C 4. Page 4-1: The Corps and NYSDEC delineation manuals contain various methodologies (Routine and Comprehensive Determinations); the report should specify the exact method(s) that were employed.	The requested information was added to Appendix C of the SEIS to clarify that the field teams used established delineation procedures as outlined in the USACE Wetland Delineation Manual (Environmental Laboratory 1987) for the routine method with onsite inspection and the NYSDEC Freshwater Wetlands Delineation Manual (1995) for the routine delineation procedure. The specific procedures used to evaluate the soils, vegetation, and hydrology at each potential wetland location is described is	

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				Sections 4.1 through 4.4 of Appendix C to the SEIS.	
S-42	CRA	3/24/09	Appendix C 5. Page 4-2: Soil test pits were dug to 12 inches, but both Corps and NYSDEC delineation manuals require deeper test pits, although both would allow decreased depths due to site conditions (refusal due to rocks and/or bedrock). An explanation of why test pits were only made to 12 inches is requested. A review of the field data sheets do not indicate that any misinterpretation of the soil data occurred due the shallower test pits. However, for the sake of accuracy this issue should be discussed.	The following language was added as Section 4.1 of Appendix C to the SEIS to respond to this comment: "Soils were examined by using a tile spade shovel, or "sharpshooter," to a depth of 41 centimeters (cm) (16 inches) or to point of refusal. Wherever disturbance of the soils, caused by past excavation or fill activity, was evident the soil characterization was performed in adjacent, undisturbed areas within the potential wetland. Soils were characterized at a depth immediately below the A-horizon or at 30 cm (12 inches), whichever was shallower. Soil colors were identified using a Munsell Soil Color Chart (Munsell 2000), and other characteristics such as the presence of mottles and soil texture were recorded. Hydric characteristics such as organic soil layers, gleying, mottling, and oxidized rhizospheres were noted where they occurred. The soils were evaluated within the wetland boundaries. Additional soil samples were taken outside of the wetland boundaries in instances where vegetation and hydrologic indicators were inconclusive."	
S-43	CRA	3/24/09	Appendix C 6. Page 5-1 Table 5-1: It should be noted that several of the column totals were rounded off. For example, the PEM/PSS column adds up to 4.40, not 4.41 as stated.	Table 5-1 of Appendix C to the SEIS was revised to show totals based on the values in the table rather than the rounded values.	
S-44	CRA	3/24/09	Appendix C 7. Page 5-6: Wetland functions and values are described in Section 5.1.3, but it does not appear that individual wetlands were assessed for these functions and values.	Information about the functions and value of each identified and delineated wetland is included in Table 5-2 of the Wetland and Waterbody Delineation Report included as Appendix C of the SDEIS. The Joint Permit Application will also include a cluster detail, which will describe in detail the impacts and the efforts taken by Arkwright Summit to avoid and/or minimize impacts to the extent practicable. See also response to Comment 23 for further information regarding the status of wetland permitting.	
S-45	CRA	3/24/09	Appendix D This Appendix is acceptable for public review and comment.	Comment noted.	
S-46	CRA	3/24/09	Appendix E The VRA reviewed by CRA, as presented as Appendix E of the Supplemental Environmental Impact Statement (SEIS), includes a visual impact assessment, the identification of major and minor sensitive locations, a shadow flicker analysis, and photographic simulations. The SEIS VRA presents the information contained in the DEIS VRA, updated to reflect Project changes since that time. Note that CRA's review also assessed whether or not comments on the DEIS visual analyses have been addressed in the SEIS.	Comment noted.	
S-47	CRA	3/24/09	Appendix E 1. The VRA does not state if there are other wind farms existing, proposed, or under construction in the vicinity of the project. However, CRA notes that in Section 7 of the SEIS, Cumulative Impacts and Benefits, Horizon notes that the Noble Ball Hill Windpark DEIS contained some cumulative visual analyses of the two projects in its VRA. Horizon has stated that it wishes to use the Ball Hill DEIS as a reference for cumulative impacts. CRA finds this acceptable, and has reviewed the two cumulative simulations provided in the Noble DEIS and found them adequate for public review.	Comment noted. See also response to Comment 2.	
S-48	CRA	3/24/09	Appendix E 2. The make, model, and generation capacity of the proposed turbines are never stated, although the maximum number of turbines (44) and total proposed generation capacity (79.8 MW) are. An approximate physical description of the turbines is provided in Section 1.2. Additionally, the footnote in this section implies that the actual make and model of the turbines has yet to be decided. CRA recommends that final turbine specifications be provided in the FEIS. This same recommendation was provided in CRA's response to Horizon's DEIS comment response, #3.	See response to Comment 3.	
S-49	CRA	3/24/09	Appendix E 3. A turbine make and model is presented on page 48 of the VRA for the purposes of the shadow flicker analyses	See response to Comment 4.	

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			and for developing photographic simulation (Vestas V90 turbines with 80-meter hub heights and 90-meter diameter blades). CRA recommends that, until the final choice of turbine is decided, that it be clearly stated in the text that the use of the Vestas V90 unit is purely for development of preliminary photo simulations only. In addition, all photo simulations, viewshed analysis, and flicker calculations presented in the VRA should be labeled as "PRELIMINARY" because they may change once the choice of turbines is finalized. Also, CRA understands that the use of the Suzlon 2.1 MW turbine is under consideration for the Project. In the event that the larger Suzlon turbine is used, please explain what effect it would have on the visual simulations.		
S-50	CRA	3/24/09	Appendix E 4. In response to DEIS comment #5, SEIS VRA Table 8 – Shadow Flicker Summary now includes the three additional columns previously recommended.	Comment noted.	
S-51	CRA	3/24/09	Appendix E 5. Based on shadow flicker concerns identified in correspondence submitted on April 2, 2008 by Councilman Jeffrey N. Dietrich, Town of Arkwright, to Robert Adams, CRA previously recommended that additional mitigation measures should be investigated and potentially made available, including the installation of window awnings, the planting of screening foliage, and the possible relocation of Turbine 22 further west/southwest. Based on the SEIS, it appears that Turbine 22 was relocated, as the total annual hours predicted for this receptor (Receptor #101) was reduced from 26 hours 50 minutes to 20 hours 19 minutes. However, additional reasonable mitigation measures, beyond the use of window shades/awnings, were only briefly addressed for receptors with visibility of the project on a "case-by-case basis" (page 65). A commitment to address complaints pursuant to the complaint resolution procedure could be included in the section.	See response to Comment 176. The Applicant will utilize the Compliant Resolution Procedure provided as Appendix L to the DEIS.	
S-52	CRA	3/24/09	Appendix E 6. CRA previously recommended in DEIS comment #7 that sample charts showing the times of year and lengths of time when shadow flicker may occur should be presented. This has been addressed as Figure 4 of the SEIS for the two receptors with the highest theoretical time impacted by shadow flicker.	Comment noted.	
S-53	CRA	3/24/09	Appendix E 7. In the shadow flicker analysis, it states that four receptors (receptors 114, 136, 164, and 236) may be impacted with 30 hours or more of shadow flicker per year, but does not indicate if none, some, or all of these receptors are participants of the project (page 53). The text reference to Figure 4 does mention "not participating," but the reader is left to associate the receptors from the figure, which does not mention participant status. Table 8 clarifies the status of these two receptors, although it is not obvious based on language and references in the text. Later, in the SEIS VRA summary section (Section 5.0), it is stated that two receptors may be impacted with 30 hours or more of shadow flicker per year, and does state that these two are not participants in the project (page 65). CRA recommends that these non-participant receptors be clearly identified earlier in the shadow flicker analysis, in the text of Section 3.6.	Comment noted.	
S-54	CRA	3/24/09	Appendix E 8. On Figure A1 - Visual simulation locations S3, S14, and S15 are not shown. Please revise the figure.	The figure was revised to show the location of all simulations for both the wind turbines and the transmission line.	
S-55	CRA	3/24/09	Appendix E 9. Visual simulations (photographs) from locations S14 and S15 are not contained in the revised Visual Resource Assessment provided to CRA. Please provide for review.	The simulations from S14 and S15 for the transmission line were provided to CRA for review and were included in the final VRA submitted as Appendix E to the SEIS for public review as Figures A15 and A16.	
S-56	CRA	3/24/09	Appendix E 10. Several visual simulations as described in Table 7 of the VRA do not match the locations shown on Figure A1 (example: Table 7 lists Map ID S9 as Ball Road and Center Road, but in Figure A1, S9 appears to be shown at the intersection of Weaver Road and Center Road). This may indicate that the locations labeled on the visual simulation photographs may not be accurate. Please correct all discrepancies between Table 7, Figure A1, and the actual simulation photographs, and verify that the locations listed on the photographs match the actual locations where they were taken.	The information was verified in the final VRA submitted as Appendix E to the SEIS.	

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S-57	CRA	3/24/09	Appendix F Overall, this Phase 1B Cultural Resources Investigation appears to have been prepared in accordance with the NYSHPO Guidelines for Wind Farm Development Cultural Resources Survey Work and is acceptable for public review.	Comment noted.	
S-58	CRA	3/24/09	Appendix G This Historic Architectural Resources Investigation 5-Mile Ring Study appears to have been prepared in accordance with the NYSHPO Guidelines for Wind Farm Development Cultural Resources Survey Work and is acceptable for public review.	Comment noted.	
S-59	CRA	3/24/09	Appendix H 1. The Noise Impact Assessment (Assessment) included a NYSDEC evaluation of the cumulative future project sound levels plus the pre-existing background sound levels. A + 6 dBA cumulative increase above the existing background sound levels was used as the evaluation threshold between “no significant impact” and a “potentially adverse impact” from the Project. Note that the NYSDEC document, “Assessing and Mitigating Noise Impacts,” February 2001, states: “Increases from 3 – 6 dB may have potential for adverse noise impact only in cases where the most sensitive receptors are present.” CRA recommends that Horizon consider an increase of + 3 dBA, which is noticeable and appreciable to the average human ear. This would provide an evaluation of the most sensitive receptors of the general population who are likely to object to this increase in noise.	Comment noted. CRA reviewed finalized version of Appendix H prior to incorporation into the SEIS.	
S-60	CRA	3/24/09	Appendix H 2. The Typical Leq warm weather assessment that was described in the text as Plot 3 was not based on the worst-case 8 m/s wind speed-induced turbine total sound power level of 106 dBA (see Table 3.3.1). A clear description of why the 8 m/s wind speed was not modeled should be provided in the text. Otherwise, CRA recommends that the worst-case should be evaluated and the related text and discussion updated in the Assessment and in the related SEIS text.	The discussion regarding the use of 6 m/s was added to the Section 3.3 of the Appendix H to the SEIS (pages 28 through 29) and to the SEIS Section 2.7 (page 2-55).	
S-61			Appendix H 3. All transformer equipment and noise spectrum data should be included in the modeled noise scenarios and tonality evaluation. It cannot be assumed that the transformers are insignificant in comparison to the turbines unless it has been evaluated. Transformer noise may be significant due to proximity to residences and the annoyance effect of tonality. Transformer sound power spectrum data should be referenced in the text and a transformer related discussion should be added to the Assessment and related SEIS text.	Further discussion regarding noise from the set up transformer in the substation was added to Section 3.4 (NIA, Appendix H to the SEIS) to explain why the noise impact is expected to be insignificant.	
S-62	CRA	3/24/09	Appendix H 4. The text in Section 3.3 of the Assessment indicates that the Suzlon S88 turbine was used for the worst case design model. It was not clear in the text how many Suzlon turbines were modeled. The number of turbines included in the model should be stated in the Noise Modeling Methodology Section 3.4.	Section 3.4 stated in the second paragraph that 44 turbines were used in the analysis. As such, the results represent the worst-case scenario of potential impacts inclusive of all turbines that may be chosen for the Project.	
S-63	CRA	3/24/09	Appendix H 5. The height of the receiver locations subject of the evaluation should be stated in Section 3.4. A worst-case elevated second story height of approximately 15 feet is recommended. Otherwise, please provide a clear description of the receiver height and the reasons for selecting.	As stated in Section 3.4 of the NIA (Appendix H to the SEIS) and Section 2.7.2.3 of the SEIS, the receptor height was set at a standard elevation of 1.5 m above grade, which correlates with the elevation at which the background sound measurements were taken.	
S-64	CRA	3/24/09	Appendix H 6. Compliance with New York State Department of Transportation (NYSDOT) construction guideline criterion of 80 dBA should be referenced in Section 3.9.	The reference was added to the second to last paragraph of Section 3.9 of the NIA (Appendix H to the SEIS).	
S-65	CRA	3/24/09	Appendix H 7. In Section 3.5 of the NIA, the discussion of the Plot 2 results should expand upon the specific areas in the Town where the Project noise may be “clearly perceived.”	The requested information was added to this paragraph to indicate by street names the locations where the noise may be clearly perceived.	
S-66	CRA	3/24/09	Appendix H 8. Please note that the additional information and/or clarifications requested by these comments on the Appendix H Assessment should be reflected in the associated SEIS text Section 2.7.	Section 2.7 of the SEIS was also updated as necessary based on revisions to the NIA (Appendix H of the SEIS) in response to the comments from CRA.	
S-67	CRA	3/24/09	Appendix I This study is acceptable for public review and comment.	Comment noted.	
S-68	CRA	3/24/09	Appendix I 1. On page 4, last sentence in second paragraph under “Economic Impact,” change “County’s revenue stream”	The language was changed to “community’s revenue stream.”	

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			to "community's revenue stream." This will avoid the misconception that only the County is receiving the PILOT money.		
S-69	CRA	3/24/09	Appendix J Note that Horizon has indicated that agency correspondence that has occurred since the review of the DEIS, as well as SEQRA documentation relevant to the SEIS, will be included in this appendix. No review is anticipated until CRA receives the hard copy of the SEIS.	The Agency Correspondence was provided as Appendix J to the SEIS for CRA and public review. Further correspondence is provided as Appendix B to the FEIS.	
S-70	NYSDEC, Rudyard Edick	6/12/09	Impacts to wetlands are less than in the May 2008 Draft Environmental Impact Statement. The applicant states that the project was designed with the intention to avoid mapped NYSDEC jurisdictional wetlands and states that no delineated wetlands are within 50 meters of NYSDEC mapped wetlands. However, one previously unmapped wetland (referred to as W46) is over 12.4 acres in size and is presumed to fall under DEC jurisdiction. The NYSDEC will be examining this wetland over the summer (current plans are to visit the site in July 2009) in order to determine jurisdiction and discuss possible alternatives to the disturbance. Given that more detail on wetland impacts will be provided in the Article 24 Permit application (if necessary), the DEC will be better able to comment on wetland impacts once in receipt of this application.	Comment noted.	2.2 - Water Resources
S-71	NYSDEC, Rudyard Edick	6/12/09	The NYSDEC policy document, "Assessing and Mitigating Noise Impacts" places stress on reducing impacts above ambient levels. With respect to the sound impact study, the applicant is encouraged to provide further discussion on the choice of monitoring locations for determining ambient levels. Hence, the applicant is strongly encouraged to discuss in detail their choice of placement of monitors for determining ambient levels and any factors that may cause a given location to be influenced towards a less constructive ambient level such as work or hobbies conducted nearby (such as tractor or ATV use), traffic on nearby roads, higher wind levels (due to elevation and exposure), etc. Background or ambient noise levels are, of course, influenced by such factors as road noise and wind, but it is important that the applicant explain the choice of locations with care to show that the results could not be unduly biased towards higher readings.	The information pertaining to sound level measurement locations provided in Section 2.2 of the updated SEIS Appendix H remained largely the same as the previous iteration. As discussed in Section 2.2 of the SEIS Appendix H, background sound level measurement locations were chosen to evenly cover and represent the Project Area. The Project Area is rural in nature and can be characterized as consisting of numerous scattered residences, mainly along the principal roads, interspersed with several farms of various size. Five locations were chosen for summertime measurements and an additional three sites were chosen for winter measurements. The measurement sites were deliberately chosen to see if background levels were uniform or variable over the site area and are located in open fields, wooded areas, near homes, and some in remote areas.	2.7 - Sound
S-72	NYSAg&Mkts, Michael Saviola	5/28/09	According to the SEIS, the overhead electric transmission line now extends approximately 4.0 miles from the western side of the wind farm to the new substation, as compared to 3.3 miles for the similar route previously depicted in the DEIS. A significant portion of the proposed overhead transmission line route traverses agricultural land. Electrical transmission lines installed above ground can create long-term interference with agricultural land uses. The current proposed route along Ball Road in the hay field east of Miller Road, as depicted on figure 1.2 of the SEIS, will require multiple angle structures. Angle structures placed in agricultural fields will result in additional agricultural land taken out of production due to guying wires extending out into agricultural fields and the associated interference with field cropping patterns. Based on observations on other commercial wind farms constructed in New York, the Department recommends that the proposed configuration of the overhead 34.5 kV lines be buried in agricultural fields wherever practicable. This will reduce or eliminate impacts associated with pole structures, angle structures, and associated guying wires impeding upon field cropping patterns. The Department recommends that the Applicant and Lead Agency more fully explore other alternatives to constructing the electric transmission lines overhead in agricultural fields. If the Applicant and Lead Agency determine that transmission lines will be installed above ground, they should be located outside field boundaries wherever possible. When above ground transmission lines must cross farmland, the Project Applicant should minimize agricultural impacts by using taller, un-guyed	The choice of the overhead line location was made to accommodate landowner requests. The site plan signed by the landowner included overhead line location sited in close consultation with landowner. Poles are consistent with existing uses, as there are existing utility poles along the length of Ball Road. The overhead line, as proposed, runs along the edge of fields to the extent possible to be consistent with Ag&Mkts best practices and the request of the landowners. Where angle structures will be needed, care will be taken to avoid guying wires in the field to the extent possible. In addition, as described in Section 2.1.2 of the SEIS2, on June 17, 2015 a review of the Project layout was conducted by Michael Saviola of the NYS Department of Agriculture and Markets (NYS DAM) and Ben Brazell of EDR. The purpose of this site visit was to review the proposed Project layout in the context of agricultural operations. Mr. Saviola suggested minor revisions to the location of the proposed substation, segments of three access roads, and two segments of the route of the proposed Generator Lead Line. The Applicant reviewed these suggested changes relative to identified environmental resources (e.g., wetlands), with the participating landowners, and with their Project engineer. The Applicant incorporated those recommendations requested by NYSDAM that were acceptable to landowners and/or that did not conflict with the locations of wetlands or other potential	2.13 - Land Use and Zoning

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			pole structures which provide longer spanning distance; reduce or eliminate the number of angle structures and shall locate poles on field edges to the fullest extent practicable. If angle structures are required in agricultural fields, the poles should be free standing, un-guyed mono-poles. The line location and pole placements shall be reviewed with the Department and the Environmental Monitor prior to final design.	environmental impacts.	
S-73	NYSAg&Mkts, Michael Saviola	5/28/09	The Department recognizes that proposed project facilities may change prior to the issuance of the FEIS and the Lead Agency adopting its Findings Statement. The Department requests that any changes to the project layout be submitted to Department staff for the purpose conducting additional field review (if necessary) It is requested that the Project Applicant advise the Department and project staff regarding tentative project planning, pre-construction meetings and for contractor site walks of the proposed work areas prior to the commencement of construction activities. The Project Applicant is encouraged to close coordinate with the Department to develop an appropriate schedule for site inspections to assure that the goals of the Department's Guidelines and Standards are being met.	See response to DEIS Comment 86 and 87. As described in the SEIS2, significant changes to the Project layout were made since the preparation of the SEIS. As described above in the response to Comment S-72, on June 17, 2015 a review of the Project layout was conducted by Michael Saviola of the NYS Department of Agriculture and Markets (NYSDAM) and Ben Brazell of EDR. The purpose of this site visit was to review the proposed Project layout in the context of agricultural operations.	3.0 - UNAVOIDABLE ADVERSE IMPACTS
S-74	Chautauqua Co IDA	5/27/09	The CCIDA promotes economic development and employment growth in Chautauqua County ("County") by providing financial incentives to assist businesses who want to locate or expand within the County. In that regard, the CCIDA greatly encouraged by the analysis of the direct and indirect economic and employment benefits the Project will provide within the County, which the SDEIS states as a total annual impact of \$2.4 million and 37 jobs, with direct and indirect revenues totaling approximately \$1.1 million and 203 jobs during construction and \$700,000 of direct and indirect annual wages during Project operation. Also, the CCIDA acknowledges the reduction of certain impacts since the issuance of the DEIS, including impacts to wetlands, agricultural lands, vegetation and wildlife habitat.	Comment noted.	2.9 - Socioeconomics
S-75	Chautauqua Co IDA	5/27/09	Section 1.5 Project Facility Layout and Components The DEIS states that the main step-up transformer will be filled with mineral oil on-site. The FEIS should explain what mineral oil is and whether it could cause impacts to groundwater if released.	Mineral oil is used to insulate the transformers at the substation location. While the final specifications are still under review by the NYISO and National Grid, the transformer will include a containment system that prevents oil from escaping in the unlikely occurrence of a leak. The SPCC Plan included as Appendix F in the SEIS2 describes typical containment measures to prevent impacts to surface and groundwater.	2.10 - Public Safety
S-76	Chautauqua Co IDA	5/27/09	Section 1.6 Project Construction The SDEIS states that Project construction will require installation of approximately 15.8 miles of access roads, with a typical temporary impact width of 54 feet and a permanent impact width of 34 feet. Also, the Project will require the installation of buried utility lines via an open trench. Please provide additional detail in the Final Environmental Impact Statement ("FEIS") regarding restoration of temporarily disturbed areas after these activities to maintain continuity with surrounding vegetation types and wildlife habitats and prevention of invasive species.	Section 1.1 of the SEIS2 provides an updated project description, including a reduction in the length of access roads from the DEIS and SEIS layouts. Restoration and mitigation details are provided in detail in Sections 2.1, 2.2, and 2.3 depending on the resource. An invasive species control plan has been prepared and is included as Appendix I to the SEIS2.	1.0 - Description of the Proposed Action
S-77	Chautauqua Co IDA	5/27/09	The SDEIS provides a very general description of avoidance of drain tiles and gas wells in Section 1.6.1.1. More specific information should be provided in the FEIS on how crossings of drain tiles with Project components will be avoided or minimized, how impacts to gas wells will be minimized and should indicate when a survey of gas well activity will be conducted and how that will influence avoidance or minimization efforts.	See responses to Comments 70, 92, and 97.	1.0 - Description of the Proposed Action
S-78	Chautauqua Co IDA	5/27/09	Section 1.9 Project Cost and Funding Although the SDEIS acknowledges the availability of the Federal production tax credit program, the Applicant may want to consider the availability of several additional funding programs through the American Recovery and Reinvestment Act of 2009 ("Recovery Act"), which prioritizes development of wind energy resources. The Recovery Act provides alternatives to the production tax credit in the form of either an investment tax credit for 30% of the cost of the Project or a grant in lieu of the investment tax credit for 30% of the cost of the Project. The Recovery Act has funded bond and loan programs as well.	The Applicant is pursuing many avenues of funding and is aware of the federal programs offered in the Recovery Act.	1.0 - Description of the Proposed Action
S-79	Chautauqua Co IDA	5/27/09	2.1 Geology, Topography, and Soils	See responses to Comments 92 and 97.	2.1 - Geology,

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			The SDEIS states that 47 natural gas wells are located within the Project Area, with a total of 115 located nearby or adjacent to the Project Area. What are the measures to minimize impacts to underground gas lines and wells? Since the issuance of the DEIS, have the locations of turbines, roads, or underground collection lines been adjusted to minimize risk?		Topography and Soils
S-80	Chautauqua Co IDA	5/27/09	Also, we note that the Applicant appears to have further minimized impacts to agricultural soils since the issuance of the DEIS in accordance with Agricultural Protection Measures, and any permanent use of agricultural soils will not affect the potential use of prime farmland. Also, only 2.1 acres of designated farmlands of statewide significance will be permanently impacted.	Comment noted.	2.13 - Land Use and Zoning
S-81	Chautauqua Co IDA	5/27/09	Lastly, any blasting plan that is developed for construction activities should include measures to reduce any noise or vibration-related impacts to area residents, such as limited hours for blasting.	A Preliminary Blasting Plan has been developed and is included as Appendix A to the SEIS2. The blasting plan includes the details that are requested by the commenter.	2.1 – Geology, Topography and Soils
S-82	Chautauqua Co IDA	5/27/09	2.4 Climate and Air Quality The Project will have a positive impact on air quality and result in a reduction in greenhouse gas emissions by displacing 214 tons/year of NOx, 746 tons/year of SO2, and 195,183 tons of CO2 per year and contributing to achievement of New York's Renewable Portfolio Standard.	Comment noted.	2.4 - Climate and Air Quality
S-83	Chautauqua Co IDA	5/27/09	2.9 Socioeconomics The CCIDA views the socioeconomic impacts of the Project as a benefit to local businesses through improved local infrastructure and local services, as well as a mechanism to attract business through lower local taxes due to the Project's revenue to the County, Towns and school districts. According to the SDEIS, this revenue will amount to \$2.4 million annually, including annual wage changes, annual royalty payments, annual payment-in-lieu of taxes payments, annual community host payments, annual sales tax revenue, and annual fire district payments. This additional revenue and Chautauqua County's role as a center for energy development in New York will further enable the CCIDA to attract sophisticated businesses with highly skilled labor needs. In this regard, the Project's economic impacts will complement and enhance the CCIDA's ability to meet its objectives.	Comment noted.	2.9 - Socioeconomics
S-84	Booth, Elizabeth	5/30/09	I have reviewed Arkwright Summit Wind Farm and find that it does not provide a complete response to significant issues raised by the public. The lack of public discussion of this SDEIS has done a disservice to the people of Arkwright. The SDEIS contains hundreds of pages on new information about this proposed project. Your choice to not have a public hearing about this new information at this critical juncture in the development of this project has deprived the people of Arkwright an important opportunity for public discussion. Thirty days is barely enough time to read this document, and certainly not enough time to investigate any issues of concern.	Much of the information provided in the SDEIS is an update of previously released information and not entirely new information. Therefore, the public comment period of 45 days, as directed by SEQR, is sufficient for review of the document. As with the SEIS, the SEIS2 also builds upon, and provides updates to information that has already been presented in the SEQR record. As directed by SEQR, the public comment period for the SEIS2 lasted a total of 34 days, and was sufficient for review of the document.	
S-85	Booth, Elizabeth	5/30/09	MAP OF TRANSMISSION LINES: The transmission lines shown in the Supplemental DEIS are in a different location than where they were depicted in the DEIS. Using the map included in the Supplemental DEIS, it is very difficult to determine just where the lines are planned, and whose property is included and bordering the power lines. A more detailed map is needed to be made available to the public before the Town Board approves the SDEIS. The map should be one that is easy to read and include clearly defined property lines.	The map included in the SEIS is an aerial photo that accurately characterizes the environmental impact based on review of aerial imagery. While it does not include property ownership is not the purpose of the EIS or the SEQR process. Property lines will be defined in the SUP Application, which will be updated after the completion of the SEQR process. See also response to Comment 249.	1.0 - Description of the Proposed Action
S-86	Booth, Elizabeth	5/30/09	PUBLIC SAFETY & MEDICAL HELICOPTERS: It has been determined at WEC installations across the United States that helicopters should not fly in the area of a "wind farm." If this wind turbine installation is built, it is likely that Star Flight Medical rescue helicopters will not be able to fly in the Arkwright area. This is an important public safety concern, and one that needs to be addressed before the SDEIS is considered complete.	See response to Comment 152.	2.10 - Public Safety
S-87	Booth, Elizabeth	5/30/09	LEVEL OF SPECIFICITY OF THE PROPOSED PROJECT: Preliminary nature of the proposal with turbine locations, access roads, and other aspects of the proposed project continue to be represented in a preliminary form; no final project design and clear scope	Comment noted. The project layout presented in the SEIS2 avoids, minimizes, and/or mitigates environmental impacts to the greatest extent practicable and reflects Project layout changes based on the environmental studies	

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			has been provided. This preliminary design is therefore subject to continuing changes that make the specificity of impacts difficult to evaluate.	included in the DEIS, SEIS, and SEIS2, as well as the public and agency comments received regarding those studies. .	
S-88	Booth, Elizabeth	5/30/09	PROPERTY VALUES: The SDEIS should include the opinions of local property experts, and it does not. It should also include consideration for the cumulative impact of projects in surrounding towns.	See response to Comment 247 regarding local property experts. An updated cumulative impacts discussion was provided in Section 7 of the SEIS, and SEIS2	2.9 - Socioeconomic s
S-89	Booth, Elizabeth	5/30/09	CUMULATIVE IMPACT OF PROJECTS IN SURROUNDING TOWNS: I found no research addressing the cumulative effect of the wind projects planned for surrounding towns. There are seven projects listed in the NYISO Interconnection Queue as of 5/27/09. There are also other projects underway in surrounding towns that are not yet included in this list. Horizon should provide a cumulative impact assessment, addressing factors such as: <ul style="list-style-type: none"> • The number and sensitivity of receptors from which the wind installations are visible together or sequentially. • The duration, frequency and nature of the combined and sequential views. • The relative impact of each individual wind installation with regard to landscape character. • The interrelationship between areas of visual influence, such as the roads from which the developments will be visible. • Cumulative impact on property values. MW PROJECT NAME 79.2 Arkwright Summit 90 Ball Hill Windpark 124.8 Ripley Westfield Wind 124.8 State Line Wind 101.2 Concord Wind 73.5 Pomfret (Horizon project) 124.8 State Line Wind II Total MW planned for Chautauqua County as listed in NYISO: 718.3	See response to Comment 2. A revised cumulative impact analysis was included in Section 7 of the SEIS and SEIS2, and included the projects listed on the NYISO Interconnection Queue. The accompanying discussion assessed potential cumulative sound, visual, and wildlife impacts.	7.0 - CUMULATIVE IMPACTS AND BENEFITS
S-90	Dietrich, Jeffrey	5/28/09	I have reviewed the proposed slight repositioning of turbine #22 and the resulting decrease in hours of flicker on my property, listed as receptor 101. There remains 20+ hours a year of strobe, directly on my home with 26 to 27 hours+, yearly, over the remainder of my yard, which begins immediately upon exiting my home. This is concentrated in later spring and early to mid summer months which is at the height of our outdoor activity and recreation. I consider this mitigation effort an insult.	In the SEIS layout, Turbine 22 was moved in order to reduce and mitigate effects that were identified in the DEIS. This mitigation was done at significant time and effort (new studies, new field work, new wind calculations) to the Applicant. Subsequent to the SEIS, Turbine 22 was shifted approximately 130 feet to the south from its location in the SEIS layout. As described in the SEIS2, no significant noise or shadow flicker adverse impacts are anticipated for the SEIS2 Project layout. See also response to Comment 176.	2.5 - Aesthetic and Visual Resources
S-91	Dietrich, Jeffrey	5/28/09	The turbine will be completely visible from base to blade tip, actually elevated on a hill above my property, with a depression between the unit and my home, which will only increase its negative visual impact, not allowing for any possible screening to lessen the impact visually.	The Applicant is committed to mitigation efforts for impacts. In addition to the neighbor program and the previously discussed movement of the turbine, the applicant has discussed site-specific mitigation efforts with the Commenter. However, discussions regarding screening and other mitigation measures have not been considered acceptable.	2.5 - Aesthetic and Visual Resources
S-92	Dietrich, Jeffrey	5/28/09	With no sound buffer between my home and this unit, vegetative or otherwise, sound will undoubtedly become an issue. I have children in my home, and studies, which have been presented to Horizon and the town several times by citizens, have stated that noises from these units affect both sleep and concentration. As a parent, I have real concerns as to the long-term negative impact on my children.	See response to Comment 177.	2.7 - Sound
S-93	Dietrich, Jeffrey	5/28/09	Another concern is that this unit will be so visibly accessible for a full view inspection, picture, etc, and is one of the towns main highways, which could potentially lead to a high volume of visitors, leading to an infringement on our privacy as my property will be the prime viewing area. The above will have a very negative impact on our health and well being, home environment and property value.	As shown in the Visual Resources Analysis provided as Appendix E to the SEIS and Appendix J to the SEIS2, turbines will be visible from many locations in the town. Any impacts from visitors will likely not be concentrated at the Commenter's home. The Applicant's previous mitigation efforts will also further limit any potential impacts from visitors since the turbine is now more to the north and therefore any direct view of turbine 22 is similarly more to the north and offset from the Commenter's	2.5 - Aesthetic and Visual Resources

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				residence.	
S-94	Dietrich, Jeffrey	5/28/09	As stated in my previous letter, the participating land owner hosting the turbine will not be affected by any of the above visual and auditory alterations to home life to nearly the degree that I am. Visual impact, shadow flicker, and noise will all be lessened by the positioning of the unit in proximity to his home. This in all reality makes us the impact participants and Mr. McAvoy the payee participant.	Comment noted.	2.5 - Aesthetic and Visual Resources
S-95	Dietrich, Jeffrey	5/28/09	<p>To date, I feel my concerns and pleas to alleviate this situation are being belittled with a minimum effort by Horizon to address and mitigate these very real and very serious concerns. I am not aware of any other home in his town that will be affected to the degree that mine will.</p> <p>While I see other turbines on the plans being removed or significantly relocated for technical, geographical, or other purposes to aid the development process, and easing the negative impact on some, I have to question the prudence of leaving turbine #22 virtually untouched. The human impact is going to be great if the plans are realized as written.</p> <p>I am requesting turbine #22 be removed or significantly relocated to mitigate these problems.</p>	See response to Comment 176 and S-21, and S-22.	2.5 - Aesthetic and Visual Resources