

4.6 VISUAL AND AESTHETIC RESOURCES

Written Comment 4SS:

Section 6.0 of the DEIS, titled "IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES," a mere one page, fails to discuss all the resources that would be lost as a result of this project. Because this discussion should play an important role in determining whether project benefits outweigh project impacts, additional resources that would be diminished or lost must be considered. Chief among these is the loss of the aesthetic amenities associated with the "Enchanted Mountain" horizon, which is the dominant visual resource from most unobstructed points in the Village, the St. Bonaventure University campus, our neighbors in the City of Olean, and those who reside in the Town along the Four Mile Creek valley, Chipmonk, Knapps Creek and the Rock City area, and all points in the southern portion of the town within a line of sight to wind turbines in the project area.

Response to Written Comment 4SS:

An "irreversible commitment of resources" occurs when, once committed to the proposed Project components, the resource would continue to be committed throughout the life of the Proposed Project. An "irretrievable commitment of resources" refers to those resources that, once used, consumed, destroyed or degraded during construction, operation, or decommissioning of the proposed Project components, would cause the resource to be unavailable for use by future generations. Aesthetic amenities associated with the Enchanted Mountain horizon do not fall under irreversible or irretrievable resources. While the commenter argues that the enchanted mountains horizon is a visual resource, it is not a tangible resource that is committed to the proposed Project

The following comments are all related to general concerns regarding visual impacts:

Written Comment 27A:

I have been a resident of Allegany for 13 years and currently live with my wife and 5 children on the West Branch Road. I am hard pressed to think of a worse legacy the planning board could allow in our community. Monstrously large wind turbines that overwhelm every view from my property and those of my neighbors are a cruel proposition for us. The level of anger and frustration that this proposed project has brought to our family is difficult to put into words.

Oral Comment 18A:

I live on Lippert Hollow. I was born here and will present the future of Allegany. I am proud to live here. Surrounded by the beauty of the hills and the trees. I hope to raise a family here some

day. And I hope that they will be able to view the beauty and the beauty that I've been able to appreciate. It is also my hope that for many generations to come they will be all able to view this beauty and I hope that we can preserve it. Thank you.

Oral Comment 21A:

I live in Humphrey. I'd like to add my voice to those opposed to the wind mill project in Allegany for several reasons. I think this area is beautiful just the way it is. It would be a travesty to mar the scenic beauty of the rolling hills with huge wind turbines. For decades to come our Enchanted Mountains will no longer have the lovely vistas that we enjoy everyday and which draw thousands of visitors and their spending money to this area every year.

Oral Comment 23D:

One other thing I'd like to talk about just briefly is the visual impact pictures that EverPower gave us. And just in reference to that, a couple weeks ago I was going up Route 77 going up to the Town of Sheldon and I saw a wind tower, the first wind tower as I was driving up through there. And I thought that's pretty close. I wonder how far it is away it is. I punched in my mileage ticker on my truck. And I went about just a little bit over four miles before I was beside that wind turbine sitting very close to the road. So these things are huge. And the pictures – the pictures really that they give us in trying to describe what these. The pictures provided by Everpower make these monsters look like stick drawings printed by a printer low on ink. –

Oral Comment 25E:

The visual impact of wind turbines on the viewscape of Olean and Allegany does not justify the installation of a wind farm in this area. This, the scarring of the beautiful hills, is not worth the town board and the planning board to reject the request for a wind farm installation here. Thank you.

Oral Comment 31A:

I live up on Chipmonk. My wife at the beginning of the meeting gave you a photograph. I would just like to tell you that photograph is from my back porch. That is what we wake up to every morning. This is what we like to do and see. And I'm just telling you if any of the town board or the planning board would like to come up on my deck and look at the view and talk, go for. Thank you.

Oral Comment 33B:

Since I came 12 years ago, I have been involved in the hospital recruiting program so they ask me to come and meet with incoming physicians, nurses people that they're trying to get to the

hospital. Because I have five children here and we love it. We absolutely love this area. But we love it for the beauty and the landscape. This will totally destroy it. And when we bring people in, you know, it's hard to get people to come in, physicians to come to New York State because of the tax base that we have here. But then you have small little Olean. Allegany and Olean, these rural communities. Sometimes we need to convince these people and our landscape does that. If I can count the number of people that have decided to stay based on the beauty of our land, and as Mr. Napoleon pointed out, in all of our brochures that we hand out, it talks about the Enchanted Mountains. The landscape here is what convinced a lot of these people to stay. You know what, we have Buffalo, Rochester, Pittsburgh, many cities that these people can travel to, but they don't have the views and all the stuff that this small community and the beauty that we have here. All right. Thank you.

Oral Comment 35B:

Roscoe, Texas is the home of the largest wind farm in the world, 627 turbines. The landscape and transmission of powers in areas like this is far more efficient than in our area. Why were chosen? Because it's convenient to the lines and this is not a good reason to destroy our Enchanted Mountains. Why is EverPower knocking at our door? Because it's a competitive business for the land. And grant moneys even with our high infrastructure that will be required for this farm, EverPower can still generate profits through federal grants. At whose expense? Our expense. And a significant permanent negative visual impact on our region that is not consistent with our mission.

Response to Written Comments 13A, 21A, 27A, and Oral Comments 18A, 21A, 23D, 25E, 31A, 33B, and 35B:

Comments noted. The DEIS has identified visual impacts as unavoidable Project impacts. But without additional information regarding specific visual impact questions or concerns, a detailed response to these comments cannot be provided. Visual issues have been thoroughly analyzed in the DEIS, particularly Section 3.5 and DEIS Appendix K, and in this FEIS, both Section 4.0, Responsiveness Summary, and FEIS Appendix E, Technical Memorandum on Visual Analysis.

Written Comment 7E:

Rock City has been a destination for hundred of years. I will be very sad to see such a landmark desecrated by mankind. It will no longer be the magnificent view of nature but a view spoiled by industrial turbines.

Response to Written Comment 7E:

The Visual Impact Assessment (VIA) conducted for this Project and included in Appendix K of the DEIS, identified Rock City Park as a visual resource, and prepared a simulation from this location (see VIA Figure 20: Viewpoint 146). Specific to this viewpoint, the VIA provides the following discussion:

Existing View

Viewpoint 146 is an east-facing open overlook in Rock City Park in the Town of Allegany. It is located in the Forest LSZ, and is approximately 2.0 miles from the nearest turbine that would be visible in the view. The foreground of this view is occupied by a large slab of rock that forms the base of the view. Textured, colorful forest vegetation rises behind the rough gray stone, creating a V-shaped viewing frame. A deep valley drops away in the mid-ground, and the viewer looks across it to the colorful, forested plateau that stretches as far as the eye can see. A broad expanse of blue sky completes the range of color and texture in this highly scenic view.

Proposed Project

With the proposed Project in place, nine turbines are fully or partially visible in this view. The turbines' vertical line contrasts with the horizontal landform, and their scale contrasts with the existing vegetation in the background, due in part to the fall color which distinguishes individual trees. They also present appreciable contrast with land use and viewer activity in this park setting. The effect of the turbines is to foreshorten this deep view considerably, giving it a finite spatial quality. The stacking and alternating heights of the turbines also creates a degree of visual clutter. The scenic character of the existing view resides in its continuity and extent, and this is altered by the turbines, which are now framed as focal points in the center of the view. However, the scale of the turbines does not present a strong contrast to the foreground vegetation, and they may be seen as an element of interest to some viewers.

Please also note the following, which is provided in the Cultural Resources Technical Memorandum in Appendix D of this FEIS:

Rock City Park is a privately owned recreational park. The park features a 0.75-mile-long hiking trail through natural geological formations and provides opportunities for scenic views of the surrounding region. The park charges fees for admission and is open daily between May and October. Rock City Park has been a recreational attraction since 1890. During the early-twentieth century, the property was accessible via a trolley from Olean and formerly included a hotel, dance pavilion, and

amusement park. None of these amenities area still extant on the property (JMA 2010b:Appendix II; Rock City Park 2010). The visual impact assessment included in the HARS concludes that the Project will have a significant visual impact on Rock City Park:

[Rock City Park] is a privately owned recreational park (open to the public with paid admission) with attractions that include scenic views; views toward [the] Project from within the property in some locations will be screened by vegetation but in other locations will likely include [the] Project (significant effect) (JMA 2010b:26).

In summary, the previous analyses conducted for the Project concluded that the Project will result in a visual impact on Rock City Park. However, from most locations within the property the rock formations themselves and vegetation completely obstruct and/or screen views toward the Project site. Viewpoint 146 was the only viewpoint identified during EDR's site visit that provided an open view of the Project. Viewpoint 146 was selected for preparation of a visual simulation in the VIA to demonstrate the "worst case" view of the Project from within the property. However, the primary recreational experience at the property is hiking within and viewing the rock formations located on the property, which will not be affected by the Project.

The following comments are all related to concerns regarding Project visibility and appearance from Hawthorne Lane:

Written Comment 13L:

I believe our neighborhood has been completely overlooked. Hawthorn Lane would experience adverse visual impacts from this project and is not represented at all from any of the vantage points in the photos. Viewpoints 71 through 76, while taken from nearby on the West Branch Rd., do not come close to representing our neighborhood. Viewpoints 79 through 83, taken from the Four Mile, and Viewpoint 150, taken from the corner of the Four Mile and Lippert Hollow, are as close as any photos come to having been taken in our area. All of these photos were taken approximately 400 feet lower than our homes.

According to the VIA (page 93), Viewpoint 146 (Rock City Park) and Viewpoint 79 (Four Mile Rd.) rated the two highest scores for "appreciable overall visual contrast". Hawthorn Lane is, in essence, a combination of these two Viewpoints.

Written Comment 13M:

Hawthorn Lane currently has eighteen residences, with a combined total assessed value of \$4,708,900 (average value of \$261,605). There are still several lots available for future builds. For Everpower to have submitted a Visual Impact Assessment that gave no consideration to our area is totally irresponsible. I have not yet studied the homes below us on the Four Mile, which are of similar structure and value. They may be impacted as well, if not by immediate view, then by value.

Written Comment 13N:

On behalf of the residents on Hawthorn Lane, I am asking that the Planning Board require Everpower to:

Update the VIA to include photos taken from Hawthorne Lane. These photos should be taken at "house level", and not from "street level", as there is a significant difference in the two. I am sure permission can be gained from current residents. Or, we can provide quality digital photos, if that would help.

Once these photos are taken, we would like to see a simulation made showing the turbines, as was done for other areas.

Written Comment 13T:

I have attached a photo [identified as written comment 21A] taken from our front porch showing the project area. Some of you have had the opportunity to view this for yourselves, some have not yet. You are each invited to see the project area from this vantage point, and we hope you will take the time to do so.

Response to Written Comments 13L, 13M, 13N, and 13T:

Photos taken from viewpoints in the vicinity of Hawthorn Lane document views within the forested, low-density residential, and open/agricultural landscape similarity zones (LSZ) that will be available to residences and local travelers within 1.5-2.5 miles of the proposed Project. However, the commenter is correct that most of these views are from valley locations and inferior viewer position relative to the Project. They are thus different than the views that will be available from the more elevated viewer locations on Hawthorn Lane. Consequently, EDR obtained photos from seven publicly accessible viewpoints on Hawthorn Lane on September 1, 2010 and selected a view from a small pull-off along the road (Viewpoint 3A) to develop a supplemental simulation (see Technical Memorandum in FEIS Appendix E for existing views and supplemental simulation

from Hawthorn Lane). This view was selected because it is completely unobstructed and thus presents “worst case” Project visibility from a public vantage point in this area. As illustrated in the simulation, with the Proposed Project in place, a total of eight turbines can be seen along the forested ridgetop that forms a portion of the horizon in this view. Significant portions of three of these turbines are screened by the ridge and its forest vegetation, while the remaining visible turbines are largely unscreened. All other project turbines are fully screened by an intervening ridge that rises on the right hand side of the view. The same three registered landscape architects who served on the rating panel for the original VIA evaluated this simulation, and contrast was scored as moderate (average = 2.2 on a scale from 0 to 4). The rating panel also noted the following:

The turbines' color, line, texture, and scale present moderate to appreciable contrast with the landform, vegetation, and sky in this view. The turbines also add a new man-made feature to what is currently a largely natural landscape. However, the panel also noted that the turbine's white color minimizes contrast with the sky, they are well absorbed by the forested landscape, and their spacing reflects the rolling character of the landform. Although the turbines are clearly noticeable, they are not perceived as a distraction and are in keeping with the existing rural character of the view.

In regard to taking a photo from “house level” or from private property, it is standard VIA practice to limit evaluation to publicly accessible vantage points. However, as illustrated in the photo from Viewpoint 3A on Hawthorn Lane, the selected roadside view is at or above the second story level of many of the houses on Hawthorn Lane. The selected viewpoint on Hawthorn Lane is representative of the most open views that will be available to area residents from their homes, yards, and road frontage.

In regard to potential impacts on property values, see FEIS Section 4.10.

Written Comment 130:

Some of the photos used were taken from questionable viewpoints. I cannot believe that Viewpoint 5, representing the view from the Scenic Vista along Route 16, truly represents the real impact of this project from this vantage point. My multiple visits to this Viewpoint indicate that this photo appears to have been taken from the far left of the parking lot. Given the very short distance to Rock City Park, it is more reasonable to assume that the same turbines visible in Viewpoint 20 would be seen at Viewpoint 5. The more I study the maps and photos, the less believable their conclusion becomes. From the VIA, *“With the Proposed project in place, the majority of the turbines are screen by foreground trees on the left side of the overlook. However, one turbine is fully visible, and a*

second is partially screened at the left edge of the view.” Only one, maybe two, turbines visible from the scenic vista? This conclusion is flawed and should be revisited, and I ask you to please have Everpower do this viewpoint over.

Response to Written Comment 13O:

The photo was actually taken from the far right side of the overlook to provide maximum visibility of the proposed turbines. Field review indicated that only one balloon was visible from the overlook, and could only be seen from the far right side. Review of the camera alignment for this simulation confirmed that only one proposed turbine (Turbine 1E) will be clearly visible from this viewpoint. Two or three additional turbines (Turbines 2E and 3E) may be visible through the foreground trees (immediately left of Turbine 1E) under “leaf-off” conditions (see Attachment C of Technical Memorandum in FEIS Appendix E).

Written Comment 13Q:

It would seem to me that there should be certain examples where photos were taken in a “straight line” to show the same set of turbines from different distances. For example, if one began with Viewpoint 184 (Constitution Avenue, near Wayne St.) and then went to St. Bonaventure, and then went on to the River Rd. or Four Mile Rd. and then to the West Branch, these successive photos would serve as different reference points for the viewer. (This would be similar to View DD in Figure 9 in the VIA.) Perhaps the first photo should even be further back than the view from the Viewpoint 184, which the report indicates is 5.2 miles away from the nearest turbine. Just how far away are the turbines in this Viewpoint visible?

Response to Written Comment 13Q:

As stated in the VIA, one of the criteria used in the selection of viewpoints for development of simulations is showing the proposed Project from a variety of distances and directions. The sequential “straight line” views the commenter requests have been provided along several alignments. Simulations from Viewpoints 68, 48, and 43 show views at different distances along the alignment of Chipmonk Road. Viewpoints 54 and 43 show views from 3.3 miles and 1.0 mile, respectively, along a southwest alignment. Viewpoints 184 and 79 are also on a straight southwest alignment from the City of Olean to the Project site. Turbines visible from Viewpoint 184 are up to 5.8 miles from this viewpoint.

Written Comment 13R:

The DEIS VIA (section 4.1 and 4.2, and Figure 8) considers the Project Visibility of blade tips and of FAA warning lights, but there is no analysis of the visual impact of the towers themselves. I believe this section of the DEIS needs to be updated to include this information as well.

Response to Written Comment 13R:

The viewshed analysis component of the VIA (provided as Appendix K of the DEIS) references potential visibility of turbine blade tips and FAA warning lights because these are the tallest visible elements of the Project that could be seen under daytime and nighttime conditions, respectively. As indicated in Section 4.1.1 of the VIA, the viewshed analysis represents a “worse case” assessment that defines the maximum area from which any portion of any turbines within the completed Project could potentially be seen within the 10-mile radius study area. This is an assessment of potential visibility, not Project appearance or visual impact. Visual impact of the Project is determined through the development and evaluation of visual simulations of the proposed turbines from representative viewpoints within the study area (see Section 4.2 of the VIA). These simulations show all components of the turbines (blades, nacelle and tower) that will be visible from each of the selected viewpoints. Evaluations of these simulations in Sections 5.2 and 5.3 of the VIA present findings regarding the contrast of the turbines with the existing landscape setting in each of these views.

The following comments are related to panoramic views of the Project.**Written Comment 13S:**

Additionally, according to the DEIS, *“It should be noted that the photos from some viewpoints do not include all of the proposed turbines that may be visible from that location. In accordance with accepted industry practice, only those turbines visible within the frame of a 50 mm photo are shown (to accurately represent human perception of spatial relationships and scale). However, from one viewpoint (Viewpoint 43) a panoramic simulation was prepared to illustrate a full view of the Project in a setting where all visible turbines could not be included in a 50 mm photograph.”* This may be an industry standard, but it is misleading to the viewer of these photos, especially if they have not read this one sentence in the report. This should be foot-noted with every photo simulation.

Written Comment 54D:

Viewpoint 79 (Figure 19): The applicant did not address the comment that the potential for turbine visibility would appear to increase significantly with a change in angle of viewer.

Written Comment 57B:

Several of the visual simulations, such as the one from Interstate 86, only seem to show either the east side or west side of the Project when it is obvious that both sides would be visible from that location. Further simulations should be done to show the total Project, without obstructions, at those locations.

Response to Written Comment 13S, 54D and 57B:

Only from Viewpoints 39, 43, and 79 would 50 millimeter (mm) photos not include all turbines that may be visible from these viewpoints. Using a wide angle photo to show more turbines in these foreground and near mid-ground views would misrepresent the normal field of view and perceived height of the turbines relative to other features of the landscape. This is explained in the VIA, Appendix K of the DEIS, Section 4.2.2 and illustrated in Figure 7 of the VIA. The inclusion of a panoramic simulation from Viewpoint 43 provides a representation of the more expansive view that will be available in some foreground and near mid-ground locations. Attachment C of the Technical Memorandum in FEIS Appendix E includes camera alignments that show the additional turbines that would be visible from Viewpoints 39 and 79.

It is acknowledged that different viewer orientation from viewpoint 79 would include additional turbines. However, the photo utilized in this simulation shows the closest, most unobscured turbines that would be visible from this viewpoint. An additional six turbines could be seen by turning to the left, but two of these would be significantly screened, and the foreground has lower scenic quality than the selected view (see Attachment C of Technical Memorandum in FEIS Appendix E).

The following comments are related to concerns regarding shadow flicker:**Written Comment 16D:**

First is that since my home is located at the base of a hill to its north, the only view is of the southern sky where the proposed wind array is to be built. Therefore, the view from my home will be completely dominated by the proposed wind array. I built with a view of the south sky to maximize daily sunshine and I fear that at some times of day and year the sun will shine through the blade circle and cast flickering shadows into my home, affecting people and pets inside.

Written Comment 46D:

How will you mitigate the shadow flicker that we will experience twice a day since they will be on both sides of our home?

Response to Written Comments 16D and 46D:

As indicated in the Shadow Flicker Analysis (DEIS Appendix L), there are no homes on West Branch Road calculated to experience shadow flicker in excess of 6 hours 23 minutes per year, which is based on a conservative assessment (i.e., the screening effect of adjacent trees, structures, etc. was not taken into account). This amount of shadow flicker over the course of a given calendar year is not considered a significant annoyance (the typical threshold of significance is 30 hours per year).

Based on the information provided in Figure 4 of the DEIS (Wind Turbine Setback Distances), Comment 46D was provided by an individual that lives south of the intersection of Chipmonk Road and Flatstone Road. Based on the Projected Shadow Flicker Contours map provided as Attachment B to the *Shadow Flicker Report*, all receptors identified south of the intersection of Chipmonk Road and Flatstone Road are labeled as receptors 8254, 8255, 8256, 8259, 8603, 8604, 8608, 8609, 8610, 8611, 8612, and 8613. As indicated in Attachment D of the *Shadow Flicker Report* (WindPRO data), shadow flicker modeling predicts that all of these receptors will experience 0:00 hours of shadow flicker per year.

The following comments are related to concerns regarding lighting and nighttime visibility:**Written Comment 16E:**

At night, some or all of the wind towers in the array will have beacon lights to warn air traffic of their presence. I expect these lights to be distracting during all after dark times, but especially so when the lights reflect off frequency occurring cloud cover. One of the most important aspects of living in a calm, natural environment is the enjoyment of looking at the stars on a clear, dark night. Warning beacon lights will end this asset essentially forever.

Written Comment 54FF:

- Discussion of nighttime visibility is inadequate; provide more details on extent of nighttime visibility and which areas would be affected.
- VIA, pg 99 states that “the feasibility of upwardly-directed lighting fixtures, or light shields, should be explored to minimize nighttime visual impacts on nearby residents.” Discuss the reduction in visibility that would be expected from use of such fixtures. Explain why such fixtures are not proposed as part of project design.

- Discuss the height of FAA lighting in relationship to the elevation of surrounding homes and how elevation will affect visibility. Are there homes/structures that would be at a similar or higher elevation?

Response to Written Comment 16E and 54 FF:

FAA determinations for each of the 29 proposed turbines are included in FEIS Appendix F, and indicates that 14 of the 29 turbines will require aviation-warning lights. The potential impacts of these lights are discussed in Section 3.5.2 of the DEIS.

The extent of potential nighttime visibility within the 10-mile radius study area was evaluated in the viewshed analysis of FAA lights on the turbines. As stated in the VIA, because an approved FAA lighting plan was not available at the time, this analysis conservatively assumed that all turbines would be equipped with FAA obstruction warning lights (when in reality only 14 will be). Based on the conservative, quantitative analysis presented in the VIA, it was determined that the FAA warning lights should be screened from view by forest vegetation and/or topography in nearly 95% of the 5-mile radius study area and over 96% of the 10-mile radius study area. The red flashing lights on the turbines could have a nighttime visual impact on certain viewers, and night lighting could be somewhat distracting and have an adverse effect on rural residents that currently experience dark nighttime skies. However, it should be noted that nighttime visibility/visual impact will be reduced on this Project due to the abundance of steep, forested ridges within the study area that screen the Project from valley locations where most people live, and the concentration of residences in villages, hamlets, and along highways where existing lights already compromise dark skies and compete for the viewer's attention.

Upwardly directed fixtures or light shields would minimize the visibility/intensity of the FAA warning lights only on ground level viewers; the impact concern is mainly with viewers at residences with raised elevations. For these viewers, the nighttime lighting presents an unavoidable impact if the Project is approved. However, in the proposed Project layout, the nearest residence is located over 2500 feet from any turbine. In addition, based on the fact that only approximately 5% of the 5-mile radius study area and less than 4% of the 10-mile radius study area will have potential visibility of the FAA warning lights (based on a conservative analysis), and the fact that most residences live in valley areas that will be screened by intervening topography and vegetation, significant adverse impacts are not anticipated and further mitigation is not proposed.

The proposed turbines have a base elevation of 2,268 to 2,418 feet above mean sea level (amsl). The proposed FAA obstruction warning lights will be located approximately 328 feet above this ground elevation. The highest ground elevation within the 10-mile radius study area is 2,430 feet amsl. Therefore all residences within this area are below the height of the proposed FAA lights. Because these lights are designed to provide warning to aircraft at or above the height of the turbines, the intensity of these beacons is focused above the horizon. Thus, the intensity of lighting experienced by residences within the study area will be limited even when direct views of the lighted turbines are available.

Written Comment 54E:

Although the responses indicate that the following comment from Memo-016 addressed, the discussion location was not identified or located. The comment is as follows: "Figure 8, Sheets 1 to 4: The topography-based viewshed indicates a large area where turbines may be visible. Upon inclusion of vegetation, the visible turbine area shrinks significantly. However, the field survey using balloons demonstrates flaws in the vegetation viewshed, as areas where the balloons were visible, are not shown as potential areas on Figure 8. The applicant shall discuss this discrepancy."

Response to Written Comment 54E:

As indicated in Section 4.1.1 of the VIA, the vegetation viewshed analysis is based on the USGS Digital Elevation Model (DEM) and the USGS National Land Cover Dataset (NLCD), with an assumed tree height of 40 feet. The results of the analysis are thus contingent upon the accuracy of the input data and assumptions used in the analysis. To the extent that the NLCD shows forest cover where none currently exists, or that the tree height in a particular location is less than 40 feet, areas indicated as "screened from view" in the viewshed analysis could actually have potential views of the proposed turbines. However, it should be noted that because the vegetation viewshed analysis does not consider the screening provided by structures and isolated trees, and because field review suggested that average tree height in forested areas is typically in excess of 40 feet, the vegetation viewshed likely overstates potential project visibility within the study area. It is also worth noting that the base of the balloons were raised to the height of the proposed turbine blade tips. Therefore the balloons themselves were above the blade tip height, and their visibility could actually be greater than turbine visibility in certain locations.

Written Comment 54AA:

Appendix K, Section 2.2.2, p. 5 regarding buried transmission line states that visual impact was not assessed because selected location uses existing logging/forest roads and tree clearing will be minimized, therefore, the visual impact of the line will be limited. However, Kevin Sheen at April 12,

2010 Planning Board meeting stated that the location of the line was still under study. Also, most of the transmission line does not appear to be located in an area of existing logging/forest roads; it crosses Four Mile and Two Mile roads. The precise route should be identified; the width of the permanent cleared area should be specified; and the visual impact of the route should be addressed.

Response to Written Comment 54AA:

The Applicant retained the services of an environmental consultant and a local forester to assess the terrain associated with the buried transmission line. Over a period of approximately 1.5 years numerous site visits were conducted to locate the proposed transmission line in areas of existing disturbance, such as logging roads, ATV trails and/or farm lanes (See Appendix J of this FEIS for photos of existing disturbance along the 115 kV route). As depicted on Figure 1 (Project Site) of this FEIS, the proposed route has a sinuous nature as a result of following the landform/topography, and correspondingly following existing forest roads and/or other disturbances. The visual impact from the construction and operation of the buried transmission line will be reduced based on the proposed layout. First, the amount of linear tree clearing and grading will be greatly reduced by using these existing disturbances. Second, much of the proposed transmission line was routed along ridge tops where the effects of associated forest clearing will not be as visible to the majority of viewers that drive and reside within nearby valleys.

Regarding visibility at road crossings, the 115 kV line is proposed to cross Four Mile Road at a location with open meadow and wetlands associated with Four Mile Creek to the west and a forested steep slope to the east. Whether driving north or south on Four Mile Road, the majority of the viewing experience is of the open meadow and wetland areas to the west. The Applicant is proposing to install the 115 kV line through use of directional bore technology in this location, in order to avoid impacts to Four Mile Creek and the floodplain wetlands. Therefore, clearing impacts adjacent to the west side of road will not occur. Forest clearing will be necessary east of Four Mile Road as there are no existing forest roads at this location. Therefore, a linear path (up to 100 feet in width, as indicated in Table 1 of the DEIS) will be cleared to the top of the ridge where the buried transmission line will again be routed along forest roads. Since the road is located at the base of this slope, and because the cleared path will be perpendicular to the road, the visual impact of this activity will be minimal road users will only have temporary, fleeting views to this clearing. In addition, because the 115 kV line will be buried, the cleared area will not be maintained and will immediately begin to re-vegetate.

The terrain along and adjacent to Two Mile Road, at the 115 kV line crossing, is similar to that of Four Mile Road. There is a forested ridge with open meadow and wetlands bounding Two Mile Road to the west and a steep slope with forest and open meadow to the east. The proposed 115 kV line route will descend the ridge to the west along a logging road on the edge of a pine plantation, and bore under Two Mile Creek and associated floodplain wetlands. A site visit conducted with the landowner in September 2010 resulted in placing the 115 kV line entirely within an existing logging road/disturbed area on this parcel (east of Two Mile Road). After the buried transmission line crosses Two Mile Road from the west, the route follows a field along a forest edge on the east side of the road, and as it approaches the top of the ridge it will enter a forest that will require clearing until it reaches an existing road/disturbance at the ridge top. Potential visual impact associated with this clearing is anticipated to be very minimal the limited clearing necessary, the fact that clearing will be perpendicular to the road, and the cleared area will be allowed to immediately re-vegetate.

Written Comment 54BB:

Appendix K, Section 2.2.4, p. 6, states: "Once final design and location of the meteorological towers have been determined, a supplemental analysis of the visibility and visual impact of these towers will be prepared and provided as an addendum to this report." This analysis should be provided (also see comment above in "Project Description.")

Response to Written Comment 54BB:

A meteorological (met) tower location and design have now been prepared for the Project. The tower will be a 100 meter (328 foot) tall free-standing lattice steel structure located approximately 1,000 feet southwest of proposed turbine 5E. Review of the original and supplemental simulations prepared for the Project revealed that open views of the met. tower will only be available in the view from Viewpoint 175 on the St. Bonaventure University campus. As this simulation shows, although visible as a fine vertical line along the ridgeline, the met. tower has minimal visual impact relative to the new turbines that appear in this view (see Attachment B of the Technical Memorandum in FEIS Appendix E).

The met. tower will also be visible from Viewpoints 79 and 9A, but outside the 50 mm field of view included in the simulations from these viewpoints. The met. tower is shown in the camera alignment from Viewpoint 79 included as Figure 5 in Attachment C. Consistent with the simulation from Viewpoint 175, this image suggests that the met. tower will be a relatively minor visual element of the Project in comparison to the proposed turbines.

Written Comment 54CC:

Landscape similarity zones (LSZ): Chipmonk, Nichols Run and Four Mile Roads are categorized as both Zone 2 and Zone 4, but the assigned views (enclosed versus open, respectively) are different for the zones. Explain why these roads were classified under both zones and discuss differences between those zones.

Response to Written Comment 54CC:

Chipmonk, Nichols Run, and Four Mile Roads were determined to fall within several LSZ's, including Forest, Low Density Residential, and Open/Agricultural (Zones 1, 2, and 4, respectively). This reflects the fact that visual character along these roads is variable. Areas that conform with the descriptions of each of these LSZs (see descriptions in Section 3.2 of the VIA) are found in various locations along each of these roads.

Written Comment 54DD:

Visually Sensitive Receptors: Figure 6 in VIA appears to omit the National Register-listed property located at 520 Ho-Sta-geh Road in Allegany (while showing National Register-listed sites in City of Olean). This site is mentioned in the text and shown on Table 11.

Response to Written Comment 54DD:

The site at 520 Ho-Sta-geh Road in Allegany was only added to the National Register in 2009, after initial sensitive site mapping for the study area had been collected, after completed. It has subsequently been added to the revised Figure 6 included in Attachment C of the Technical Memorandum in FEIS Appendix E.

Written Comment 54EE:

- Balloon locations should be shown on one of the figures, since the DEIS only states that they are 'near' certain turbines.
- Photographs were taken during fall, so they show the "leaf on" visibility. Discuss how visibility will change in the "leaf off" condition. It appears that more turbines would be visible at some viewpoints in the "leaf off" condition, e.g. Figure 18, Viewpoint 68; Figure 11, Viewpoint 5; Figure 20, Viewpoint 146; Figure 21, Viewpoint 177; etc.
- The vegetative viewshed analysis (DEIS p. 115) indicates that the base vegetation layer was created using the 2000 USGS National Land Cover Dataset. Analyze and explain the effects of any clearing of land that occurred between 2000 and 2010, for example, in the Four Mile Road/Hawthorne Lane area.

- Viewpoint 5, Figure 11: Identify by number which turbines are visible in this simulation.

Response to Written Comment 54EE:

As requested by the commenter, balloon locations have been added to the viewpoint location map (revised Figure 10) included in Attachment C of the Technical Memorandum in FEIS Appendix E.

Although additional turbines could be visible through bare tree branches in some viewpoints selected for development of simulations (e.g., Viewpoint 5), these views were selected specifically because they offered the most open, unobstructed views available in the direction of the proposed Project. Any additional turbines that might be visible under “leaf off” conditions would be at least partially obscured by tree branches and are unlikely to add significant visual contrast beyond that illustrated in the fall simulations. In addition, in EDR’s experience, any increase in visibility during the dormant season is more than offset by the decrease in scenic quality and viewer exposure that typically occurs under dormant season conditions.

As indicated in the VIA and Response to Written Comment 54E, the vegetation viewshed analysis is based on the location of mapped forest vegetation, as indicated by the USGS NLCD, and an assumed 40 foot tree height. Any tree clearing that has occurred since the NLCD was prepared would not be taken into consideration in the viewshed analysis. To the extent that such tree clearing has occurred, additional areas of potential Project visibility could occur within the study area. However, by the same token, additional tree growth that has occurred during that time, or an increase in tree height beyond 40 feet, would reduce the area of potential Project visibility.

See Response to Comment 54E. Turbine 1E is the only turbine fully visible in the simulation from Viewpoint 5 (Figure 11). Turbines 2E and 3E are partially screened by foreground trees immediately to the left of Turbine 1E (see camera alignment from this viewpoint in Attachment C of the Technical Memorandum in FEIS Appendix E).

The following comments are related to Project visibility from Allegany State Park.

Written Comment 55C:

The DEIS, Table 12, (page 118) indicates that 16 viewpoint (VP) photos were taken in Allegany State Park. We did not find these in the DEIS. Please describe where these were taken from and provide the photos to us.

Response to Written Comment 55C:

A supplemental viewpoint location map and photo log showing all sites visited within the park (as part of the original VIA and during supplemental fieldwork) are included in Attachment A of the Technical Memorandum in FEIS Appendix E.

The following comments are related to potential visibility from Allegany State Park:**Written Comment 55D:**

The DEIS (page 117) states, "The cross sections (Appendix K) indicate that views of the turbines will not be available from sites in Allegany State Park..." Yet some of the viewshed analysis information in the Visual Impact Assessment indicates there will be both day and nighttime potential visibility. Because of this conflicting information, we respectfully request that additional study be conducted in Allegany State Park to better define the potential visibility. OPRHP realizes that the topography and vegetation of the region limits potential visibility. Therefore, we have focused our request to only those areas where we believe there may be potential visibility. We would like to request that an existing condition photo and a day and night simulation graphic be provided to us for the following eight locations:

- The intersection of ASP 2 and ASP 3 at the Bradford toll booth on the southern border of Allegany State Park
- At the top of the Stone Observation Tower
- At the top of the Summit Fire tower located on the Ridge Run Trail in the Art Roscoe Ski Area at the following coordinates:
NAD 1983, UTM Zone 18N; 194042.7, 4670358.072
Lat/Long: 42.1256 N, 78.7013 W
- On the Leonard Run Loop in the Art Roscoe Ski Touring Area at the following coordinates:
NAD 1983 UTM Zone 18N; 195708.458, 4669246.376
Decimal Degrees: 42.116N, 78.681 W
- On the Leonard Run Loop in the Art Roscoe Ski Touring Area at the following coordinates:
NAD 1983 UTM Zone 18N: 196199.885, 4669094.976
Decimal Degrees: 42.115 N, 78.675 W
- At the Christian Hollow Overlook in the Art Roscoe Ski Touring Area at the following coordinates:
NAD 1987 UTM Zone 18N: 195586.842, 4670671.019
Decimal Degrees: 42.129 N, 78.683 W
- Mt. Irvine – Horse Trail #1
NAD 27

Lat: 42 deg – 04 min – 5.13 sec N

Long: 78 deg – 39 min – 44.44 sec W

- Ridge Run Road

NAD 27

Lat: 42 deg – 01 min – 38.24 sec N

Long: 78 deg – 42 min – 49.89 sec W

Written Comment 57A:

There may be possible negative effects on tourism with views of the Project from Allegany State Park. A visual simulation of the Project should be done from the ridge tops of the eastern facing slope of Allegany State Park located to the west of Route 219.

Response to Written Comments 55D and 57A:

All of the above-referenced sites were visited by EDR during supplemental fieldwork conducted during September 2010. Available views toward the Project site from all of these viewpoints are included in Attachment A of the Technical Memorandum in FEIS Appendix E.

This fieldwork revealed that, due to dense forest cover, open views toward the Project site might only be available from Red Ridge Road near the intersection with Road ASP 2 (Viewpoint 17A) and the Summit Fire Tower on the Ridge Run Trail (Viewpoint 5A). Camera alignments at Viewpoint 17A revealed that the Project will be fully screened by foreground trees, but that partially screened views of the Project were likely to be available from the Fire Tower at Viewpoint 5A (see Attachment C).

The view from the Fire Tower in ASP is the only open view that EDR could find that would allow unscreened views of the Project from the park. At this location, the viewer is at treetop level, and distant blue gray hills are visible through a broken band of foreground trees. According to the rating panel, scenic quality is considered low to medium at this viewpoint due to the close proximity of foreground vegetation that conceals much of the long distance view. This viewpoint is approximately 9.0 miles from the nearest turbine that would be visible in this view.

As illustrated in daytime simulation prepared from this viewpoint (see Attachment B of the Technical Memorandum in FEIS Appendix E), with the proposed Project in place, only one turbine is clearly visible along the background ridge. At this distance the turbine appears as a slender vertical line that is barely noticeable against the sky. All of the remaining turbines are fully or partially screened by the branches of the foreground trees. The rating panel indicated that

overall Project contrast and visual impact is likely to be insignificant (0.2 on a scale of 0 – 4) at this viewpoint, and also provided the following description/comment:

Although turbine visibility would increase somewhat during the leaf-off season, relatively few visitors would be utilizing the fire tower and experiencing this view during the winter. In addition, the distance of the turbines from the viewer, and the partial screening provided by the foreground tree branches during all seasons, will minimize Project visibility and visual contrast with the landscape. .

Regarding nighttime visibility, with the proposed project in place, five FAA warning lights mounted on the turbine nacelles are visible in the distant background, just above and in the gaps between the tops of the trees in the foreground of the view. The lights and silhouettes of the towers are visible above the ridgeline against the clear, relatively bright sky; however, the tops of the trees in the foreground of the view partially screen the project. The lights on the turbines appear to be approximately the same height and intensity as the existing warning lights on the communication tower at the left side of the view. For both the existing and proposed lights, the effect on the view is minimal due to distance. The landscape in the nighttime view is barely visible and the significant views during the nighttime condition are assumed to be of the night sky. It is also assumed that the fire tower receives little use at night. The FAA warning lights on the distant ridgeline do not create significant contrast with the views of the sky and the visual impact is not considered significant.

The following comments are all related to concerns over Project visibility and appearance from St. Bonaventure University

Oral Comment 3A:

I ask that the visual impact assessment be expanded to include another visual simulation from viewpoint 175 on the university campus directed up the West Branch of Four Mile Creek. While I understand that it is not intended that the simulations be so comprehensive as to capture every visual impact, I believe that this particular impact needs special consideration for three reasons.

First, the view from the university campus has unusual community significance. Not only is the impacted area used heavily everyday, mostly on foot by about 3,000 students, faculty and staff, but the campus is frequently visited by the wider community for recreation, athletic and cultural events.

The view to the southwest is an iconic element to the campus and several buildings have been constructed to take advantage of this particular landscape. Arguably, the visual impact here is one of the most publically significant in the entire region.

Oral Comment 3B:

Second, the admission of viewpoint 175 is compounded by including viewpoint 177 located in the St. Bonaventure Cemetery as a visual simulation. From the cemetery two or three wind turbines are barely visible peeking up over the nearby trees. The public and perhaps the planning board may be lead into assuming that the cemetery view is representative of campus viewpoints. But from the campus there is a direct view of the ridge line and of several turbines from base to tip with partial views of others.

Oral Comment 3C:

Third, in fact I believe that this misconception may have already taken place. When the board met in November 2008 to select viewpoints for simulation, they likely relied on the map, which is included as Figure 10 with the color coding of viewpoint number 175 indicating balloons not visible. While this is strictly true, the balloons in question mark the ends of the road between the turbines and the view from the campus is of the center of the road. I have included for reference in my written material here a recent photograph of this viewpoint oriented in the correct direction for the proposed simulation.

The photograph included on the CD, which accompanies the DEIS, is taken in the wrong direction pointing at the nearby hill which block the view of the nearest balloon. This has been discussed with the developer informally more than one over the past year, but I believe that the importance has not been understood.

Oral Comment 3D:

I recognize that the viewshed map, which is included as figure 8, sheet 2, by careful study of the color coding indicates visibility of eight to 14 turbines from the campus. But I believe that the admission of an appropriate visual simulation with other simulations with less impact included tends to create a false impression of the significance of this particular impact.

Complete consideration of the environmental impact of the proposed project requires another simulation. Thank you for your attention.

Written Comment 13P:

I concur with the comments made by Phil Winger of St. Bonaventure University regarding the visual impact at SBU. The photos taken at SBU do not truly represent what would be seen in a “worst case scenario” at the school. They should be redone properly.

Response to Oral Comments 3A, 3B, 3C, 3D and Written Comment 13P:

EDR took a total of 12 photographs from Viewpoint 175 on the St. Bonaventure University campus, but did not prepare a simulation from this location because none of the three balloons that were raised at selected turbine sites were visible. This did not mean to imply that the Project would not be visible from St. Bonaventure University. In fact, there are a number of locations in the VIA where it is indicated that the Project will likely be visible from the campus (e.g., viewshed, line-of-sight analysis, landscape similarity zone discussion). However, at the request of the commenter, and to avoid any potential misconceptions regarding Project visibility, a supplemental simulation has been prepared from Viewpoint 175 on the St. Bonaventure University campus (see Technical Memorandum attached as FEIS Appendix E). With the proposed project in place, seven turbines appear prominently on the background ridge. The rating panel indicated that overall visual contrast was rated as minimal to moderate (1.7 on a scale of 0 – 4), and also noted the following:

The vertical line, scale, and color (dark due to backlighting) of the turbines present moderate to appreciable contrast with the landform, vegetation, and sky in this view. The turbines could also have an appreciable effect on viewer enjoyment of this view, and present a distraction to spectators viewing athletic events at this location, but this effect is likely to be minor. The turbines are well spaced and grounded to the landform by the existing forest vegetation. They also appear compatible with the activities that will occur in this view, do not add visual clutter to the landscape, and the turbines could actually add an element of interest to this view.