Baron Winds Project

Case No. 15-F-0122

1001.25 Exhibit 25

Effect on Transportation

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EXHIBIT 25 EFFECT ON TRANSPORTATION

(a) Conceptual Site Plan

For the purposes of this Application, the preliminary design drawings prepared in association with Exhibit 11 serve as the conceptual site plan, and those drawings identify access road locations and widths, and the number of turbines to be accessed per road as well as other access roads associated with staging yards, the operation and maintenance (O&M) site, batch plant and substation/switchyard locations. The Transportation Effect and Route Evaluation Study, which is included as Appendix HHH, establishes a Transportation Study Area and identifies public road constraints (e.g., inadequate turning radii/intersections and road widths) and anticipated haul routes. The study also was used to inform the preliminary design drawings through identification of haul routes and associated access to turbines. Maps of haul routes are provided in Appendix I of the Transportation Effect and Route Evaluation Study.

(b) Description of the Pre-construction Characteristics of Roads in the Area

The Transportation Study (Appendix HHH) includes an extensive analysis of existing traffic conditions in the vicinity of the Facility Area. Data on traffic volumes, accident frequency, school bus routes, emergency service responder information, load-restricted bridges/culverts, and roadway permits are presented in Section 2.0 of Appendix HHH, and summarized below.

(1) Traffic Volume and Accident Data

Traffic volume data along proposed approach and departure routes for the Facility were obtained from the New York State Department of Transportation (NYSDOT) Traffic Data Online Viewer as well as updated County and Local Road listings from the NYSDOT Highway Data Services website. Most of the county roads and all of the state roads had available traffic volume data. The data consist of some segments with total Annual Average Daily Traffic (AADT) and other segments showing AADT for each direction of travel. Most of the local town roads do not have traffic volume data, so estimated volumes, based on the surrounding traffic counts, were added to these roadways. Appendix B of the Transportation Study includes a table that summarizes existing traffic volume data in the vicinity of the Facility Site.

Accident data were acquired through a Freedom of Information Law (FOIL) request to the NYSDOT Regional Office in Hornell, as well as the NYSDOT Accident Location Information System (ALIS). The data included information for State Route 21, six county routes, and seven local town roads that are proposed for use during construction of the Facility. Accident data from the ALIS dated from September 2013 to August 2016 showed that the segment study area of State Route 21 had the most accidents at 91 for the three-year study period, while County Route 54 and six of the seven town roads had the least amount of accidents at one within the same study period. State Route 21, near the Derevees Road intersection, had one Priority Investigation Location (PIL) within the 13-mile segment between I-390 and Conderman Road. The accident data did not show any Safety Deficient Locations (SDLs) on State Route 21, nor did the data show any SDLs or PILs on the county roads.

Based on the existing accident data and AADT for the roadway segments, the annual Accident Rates can be established and compared to the New York Statewide Average Rate which is 2.81 accidents/million vehicle miles (acc/mvm) for 2-lane Rural Arterials (segment and juncture accidents). State Route 21 (from Davis Road to CR 54) and County Route 54 fall below the Statewide Average, while State Route 21 (from I-390 to Davis Road), County Route 50, County Route 55, County Route 70, County Route 92, and County Route 121 are above the Statewide Average. The high accident rate along State Route 21 (from I-390 to Davis Road) is due to the high number of animal-related accidents, which accounted for 50% of the accident total. The higher accident rates for the five county roads may be attributed to having lower AADT for their segments. At this time, there is no accident rate data available for the seven town roads. Appendix C of the Transportation Study includes a table summarizing the accident rates in the vicinity of the Facility Site. The final haul routes ultimately will be defined in coordination with the Balance of Plant (BOP) contractor and turbine manufacturer.

(2) School District Bus Routes

The Applicant reviewed school district routes for those districts that serve the Facility Site. To obtain school bus route information, a request was sent to the Arkport, Avoca, Hornell City, and Wayland-Cohocton school districts asking for identification of school bus routes, number of buses, and pickup/dropoff times along the possible haul roads needed for delivery trucks and construction vehicles. All four school districts responded back with the requested information. The buses in each district operate between 6:30 am and 8:30 am, and between 2:30 pm and 4:30 pm. The information received shows that State Route 21 will have up to three school buses in the morning and afternoon while all county roads and 11 out of 35 town roads will have one or two school buses during the same periods. Appendix D of the Transportation Study includes a table detailing existing school bus routes along the proposed transportation route. For each length of road along the possible haul route, the table provides information on the associated school district, the number of buses, and the times of day the buses operate.

(3) Emergency Service Providers

In order to acquire information pertaining to emergency service responders, a request with maps showing the locations of emergency service provider stations and suggested emergency response routes to the Facility was sent to all of the emergency responders within and around the Facility vicinity (Cohocton, Fremont, Howard, Perkinsville, South Dansville, Wallace, and Wayland volunteer fire departments, Cohocton Valley Ambulance Service, Avoca Hose Co. Ambulance Corps, Hornell City Ambulance, SpringWay Ambulance Service, Bath Volunteer Ambulance Corps, Steuben County Sheriff, Cohocton Town Police and New York State Police). Accessible hospitals in the Facility vicinity were identified through consultations with volunteer fire departments and ambulance services. The request asked for verification of the routes that they would take to the Facility when responding to a possible emergency.

Responses to the request for information have been received from the Cohocton, Howard, Perkinsville, South Dansville, Wallace, and Wayland volunteer fire departments, Cohocton Valley and Avoca Hose Co. ambulance services, Cohocton Police, and New York State Police. These responses and other research indicate that ambulance services are provided as follows. The SpringWay Ambulance Service provides ambulance service for the Perkinsville and Wayland Fire District. The Cohocton Fire Department provides ambulance service under the Cohocton Valley Ambulance Service for its fire district. The Wallace and Howard Fire Departments contract with the Avoca Hose Co. Ambulance Corps for their fire districts. The Howard Fire Department also contracts with the Fremont Fire Department for ambulance service. The volunteer fire departments with ambulance services will transport patients to the Ira Davenport Memorial Hospital in Bath and/or Noyes Memorial Hospital in Dansville. The fire chief at the Howard Fire Department mentioned that the Fremont Fire Department and the Hornell City Ambulance Service may provide ambulance service to parts of the South Dansville Fire District and possibly transport patients to St. James Mercy Hospital in Hornell, but this information has not been confirmed. Maps depicting the locations of emergency service provider stations (police, fire, ambulance, and hospitals) as well as the potential emergency routes for all local emergency responders are provided in Appendix E of the Transportation Study. These maps are also included as Figure 25-1 to this Application.

Additionally, to date, the Applicant has consulted with the following emergency service providers:

- Town of Cohocton Police Department,
- New York State Police (Wayland, North Hornell, and Bath stations),
- Steuben County Sheriff,
- Bath Volunteer Ambulance and Cohocton Valley Ambulance Services,
- Avoca Hose Co. Ambulance Corps,

- Wayland, Wallace, South Dansville, Perkinsville, Howard, Fremont, and Cohocton Volunteer Fire Departments.

During these consultations, the Applicant educated fire departments about the Facility, the Article 10 process, and how EverPower typically interacts with fire and emergency service providers during construction and operation. The Applicant has stated at all open houses that a fire and emergency training and communication plan will be developed as part of the Article 10 Application. Based on consultations to date, the fire departments had no major questions and did not raise any issues. The Applicant indicated that it would have employees trained in emergency situations including uptower evacuation and that it could provide training to fire and emergency personnel on the evacuation if desired. The Applicant also indicated that fire and emergency personnel would not be liable for not being able to get to a portion of the tower that cannot be easily accessed. The Facility's Emergency Action Plan was sent to all the fire departments listed above on September 29, 2017.

A map of all emergency service provider locations and routes will be posted in the Facility's O&M building (and provided to the emergency service providers) and all turbines will have a unique 911 ID/address.

(4) Available Load Bearing and Structural Rating Information for Bridges and Roadways

With regard to load-restricted bridges and culverts, existing bridge posting data were acquired from the R-Posted Bridge and Posted Bridge listing for Steuben County dated March 15, 2017 at the NYSDOT Posted Bridges online website. Posted bridges have a specific weight limit in tons that is posted on a sign and R-Posted bridges do not have the capacity to accommodate most vehicles over legal weights, but can safely carry vehicles with legal weights. According to the NYSDOT's Highway Data Services, three bridges are located in the project area, but none are classified as Posted or R-Posted. These bridges are not located along any currently proposed potential construction routes.

At the start of the potential regional destination routes, there are five interstate bridges (I-390 NB/SB over NY 21, I-390 NB/SB over CR121 and CR70 over I-86/NY 17) that will not be subject to loads because of interstate off ramp locations. Construction vehicles will exit the interstate at the off-ramps prior to crossing these bridges. If there are any changes to the potential construction routes in the future that direct traffic over these bridges between ramps, they will be checked for adequacy with respect to loading along with horizontal width and vertical height restrictions during the Special Hauling Permit Application process with NYSDOT.

A map of existing bridges, as well as a table of bridge rating information including the HS ratings, condition ratings, sufficiency ratings and bridge inspection dates for bridges along the potential haul routes and within the project area are provided in Appendix J of the Transportation Study. Additionally, roadway restrictions and deficient intersection radius locations were observed in the field and researched from NYSDOT resources. A table of potential roadway restrictions along the potential haul route is provided in Appendix G of the Transportation Study.

Within the Facility Area, there are numerous small and large culverts along the potential haul routes. Based on the site evaluation, approximately 40% of these culverts have less than 2 feet of coverage over them. It is assumed that any culvert with less than 2 feet of cover may be susceptible to damage from transportation of heavy loads during construction. The large culverts along the potential haul routes are assigned a condition rating from NYSDOT and Steuben County visual inspections. The culvert inspections do not include load ratings or sufficiency ratings, which are normally available for bridges only. These locations will be further analyzed during final engineering to determine if improvements are necessary prior to using the routes for deliveries of construction materials. Any necessary improvements as well as restoration of damaged culverts will be addressed in Road Use Agreements[1] with local municipalities. Appendix J of the Transportation Study includes a table of culvert locations.

In addition, the Applicant has corresponded with local highway supervisors and followed up with meetings. Such consultations will continue throughout the Article 10 process and prior to construction. Town highway supervisors provided information on the type, thickness, widths, and restrictions of roads within the towns. Additional information in responses from town highway supervisors have confirmed that there is no documented information of the conditions of town road culverts and all bridges on town roads are under the jurisdiction of the County. Consultations with the Towns of Avoca, Cohocton, Dansville, Fremont, and Wayland Highway Superintendents occurred by phone and email.

(5) Traffic Volume Counts

The Facility is not in a congested urbanized area. As a result, twenty-four-hour traffic counts are not applicable and are not included in the Application.

[1] For purposes of this Exhibit, the term "Road Use Agreement" (RUA) is intended to refer to proposed agreements with the municipalities regarding the use and restoration of local roads. As discussed below, these agreements will be included either in the Host Community Agreement (HCA) or in a separate RUA. A sample RUA is included as Appendix III to this Application.

(c) Facility Trip Generation Characteristics

(1) Number, Frequency, and Timing of Vehicle Trip

The construction of each wind turbine will require the use of approximately 11 oversize/overweight (OS/OW) trucks. For the purposes of impact calculations, it is assumed that up to 76 wind turbines will be constructed. The exact construction vehicles have not yet been determined; however, it is known that the transportation of turbine components and associated construction material involves numerous conventional and specialized transportation vehicles. A summary of the types of construction vehicles that will be used to transport the turbine components and construction materials/equipment is provided below.

Wind Turbine Equipment

- Blade Sections – Blades are transported on trailers with one blade per vehicle. Blades typically control the length of the design vehicle, and the radius of the curve along the travel route to the site. Specialized transport vehicles are designed with articulating (manual or self-steering) rear axles to allow maneuverability through the curves.
- Tower Sections – Typically transported in three to four sections depending on the supplier. Towers generally control the height and width of the design vehicle dimensions.
- Nacelle – The turbine and related elements are typically the heaviest component transported.
- Hub and Nose Cone – Typically transported with one or more of the same element on a vehicle. These elements are not critical elements related to design vehicle dimensions.
- Escort Vehicles – Typically a car or pick-up truck.

Construction Equipment and Materials

- Gravel trucks with capacity of approximately 10 cubic yards (cy) per truck and estimated gross weight of 75,000 pounds (lbs.) for access road construction. Currently, the total length of the access roads is approximately 114,000 feet long (21.6 miles) and a minimum of 16-feet wide, with gravel 12 inches deep.
- For assembly of the wind towers, cranes are transported in sections utilizing up to 16 trucks producing numerous trips to the site. Assembled cranes may be crawled between tower sites or disassembled to travel along the local roads to the next site.
- Concrete trucks for construction of turbine foundations and transformer pads with a capacity of approximately 10 cy per truck and an estimated gross weight of 96,000 lbs. The total amount of concrete required at each turbine location will range from 500 tons to 900 tons depending on model and size of turbine selected.

- Variety of conventional semi-trailers for delivery of reinforcing steel (two per turbine foundation) and small substation components and interconnection facility material.
- Variety of conventional vehicles carrying water, fuels or chemicals for construction of the Facility.

Trucks and cars for transporting construction workers, small equipment, and tools are not included in the above list because they are not significant in regard to traffic volumes and damage to the roads.

The following table represents an order-of-magnitude estimate of the total number of loaded truck trips entering the Facility Site associated with construction of the towers.

Table 25-1. Estimated Total Number of Loaded Truck Trips Required for Facility Construction

Component/Truck Type	Assumption	Trips
Blades	One blade per truck	456
Towers	4 tower sections per turbine	608
Nacelle and Hub	2 truck trips per turbine	304
Road Construction	Gravel trucks 10 cubic yards per truck, plus other construction equipment	13,516
Crane	Several trips per access point depending on the degree of disassembly	304
Concrete	250 to 450 cubic yards per foundation, 10 cubic yards per truck. Assume 40 trips per tower.	6,080
Total Heavy Vehicle Trips		21,268

Note: trips represent a total number of entering and exiting (2 way) project area heavy vehicles. In addition, there will be 152 conventional semi-truck trips associated with delivering reinforcing steel to the turbine sites.

While OS/OW vehicles are traveling within the Facility area and delivery route roadways, the existing traffic may experience minor delays as escort vehicles and/or flag persons stop traffic to allow the safe passage of the OS/OW vehicles. Maps of the four access routes can be found in Appendix I of the Transportation Study. A table of construction vehicle routes/volumes for each construction phase contained in Exhibit I is reproduced below.

Table 25-2. Construction Vehicle Volumes

Construction Routes	Gravel (Cubic Yards)	Gravel Truck Volume	Concrete Mix (Cubic Yards)	Concrete Truck Volume	Number of Turbines per Access Route	Turbine Delivery Flatbed Truck Volume	Crane Volume
Access Route #1	6,101	611	2,400	240	6	54	12
Access Route #2	17,471	1,748	8,400	840	21	189	42
Access Route #3	29,367	2,937	12,400	1,240	31	279	62
Access Route #4	14,618	1,462	7,200	720	18	162	36
Volume Totals		6,758		3,040	76	684	152

(2) Approach and Departure Routes for Trucks Carrying Water, Fuels, or Chemicals

During Facility construction, all trucks carrying water, fuels, or chemicals will utilize the same haul routes used by other construction vehicles/component delivery haulers.

(3) Cut and Fill Activity

Based on the Preliminary Design Drawings prepared in association with Exhibit 11, it is estimated that approximately 297,250 cubic yards of material will be excavated for Facility construction. Additionally, approximately 149,990 cubic yards of fill material (of which 121,361 cubic yards will be gravel) will be utilized for construction of the Facility. With the exception of gravel, fill material will be derived from excavated material, and no fill will need to be imported for construction of the Facility. Furthermore, it will not be necessary for materials to be removed from the Facility Site. Stockpiled soils along the construction corridors will be used in site restoration, and all such materials will be re-graded to approximate pre-construction contours. See Exhibit 11 for the Preliminary Design Drawings and Exhibit 21 for additional information on cut and fill activity.

(4) Conceptual Haul Routes and Approach and Departure Routes for Workers and Employees

Final haul routes cannot be determined until the turbine manufacturer has been selected. Therefore, the final haul routes will be provided to the Siting Board prior to Facility construction. When evaluating viable transportation routes for delivery of turbine components and construction materials/equipment to the Facility locations, several items were considered. These items are:

- The roadway characteristics and condition

- The number of bridges along a designated route
- The condition of the bridges and culverts that are along the route
- The number of intersections needing turning movements
- Roadways with minimal sharp curves to avoid additional mitigation and/or safety issues
- Various potential restrictions such as narrow bridges, low overhead clearances and impacts from small intersection radii affecting the turning movements.

Based on this assessment, the following are recommended routes to the various Facility locations:

Access Route #1 – To Wind Turbine Sites T3, T5, T2/T7/T18/T13: Use Exit 3 off ramp from I-390 (SB). Turn right onto NY 21 and travel southbound within the Town of Wayland. Turn left onto Quanz Road, then right onto Old Route 15, then right onto CR 92. Travel southbound on CR 92, then turn left onto Emo Road. Travel eastbound on Emo Road, turn left for Turbine Site T3, continue further, turn left for Turbine Site T5, continue a little further on Emo Road and turn right for Turbine Sites T2/T7/T18/T13. See Appendix A of the Transportation Study for the map of access route locations.

Other routes evaluated for running off of NY 21, south of Quanz Road, to reach these sites were studied. On NY 21, there are three large concrete box culverts located between Quanz Road and CR 50/CR 92. Two of the three culverts were built in 1926 and have culvert ratings of 4.3 and 4.5 with short spans that are similar to bridges. It is unknown whether these lower rated large culvert structures can accommodate the turbine delivery truck loads. The preferred Access Route #1 (Quanz Road/Old Route 15/CR 92 to Emo Road) does not have any bridges or large culverts.

Access Route #2 – To Wind Turbine Sites T72/T61, T83, T81/T86, T78/T75/T64, T89/T91/T66/T62, T35/T40, T79/T87/T76/T68, T45 and T69/T65: Use Exit 3 off ramp from I-390 (SB). Turn right onto NY 21 and travel southbound within the Town of Wayland. Turn left onto Quanz Road, then right onto Old Route 15, then right onto CR 92. Proceed southbound on CR 92, past the Emo Road intersection, continue to the NY 21 intersection, then turn left onto NY 21. Continue to proceed southbound on NY 21, turn right onto Derevees Road, proceed westbound on Derevees Road (entering the Town of Dansville). At the Wagner Road intersection, turn left and proceed southbound on Wagner Road, turn left on Holmes Road. Proceed eastbound on Holmes Road, turn right for Turbine Sites T72 and T61, continue further down Holmes Road, turn left for Turbine Site T83, continue further eastbound on Holmes Road (entering the Town of Fremont), turn left for Turbine Sites T86 and T81. Still on Holmes Road, continue eastbound from the T86/T81 Turbine Site access road to the Babcock Road intersection, turn right. Travel southbound on Babcock Road, turn left for Turbine Sites T78/T75/T64, continue further down Babcock Road, turn right for Turbine Sites T89/T91/T66/T62. For Sites T35/T40, continue southbound on Wagner

Road from the Holmes Road intersection, run right onto Mack School Road, then left onto Neu Road. Travel southbound on Neu Road, turn left for Turbine Sites T35 and T40. For Sites T79/T87/T76/T68, T45, and T69/T65, at Wagner Road and Mack School Road intersection, proceed eastbound on Mack School Road (entering the Town of Fremont), then right onto NY 21. Travel southbound on NY 21, then turn left onto Conderman Road. Proceed southbound on Conderman Road, turn left for Turbine Sites T79/T87/T76/T68, continue further down Conderman Road, past the Canfield Road intersection, turn left for Turbine Site T45. For turbine sites T69 and T65, travel southbound on Conderman Road from the NY 21 intersection, turn left onto Canfield Road, travel eastbound on Canfield Road, then turn right for the turbine sites. See Appendix A of the Transportation Study for the Map of Access Route Locations.

Other routes were investigated under Access Route #2 to reach the turbine sites. Using NY 21, between Quanz Road and CR 92/CR50 was considered, but was not viable due to the reasons mentioned under Access Route #1. Additional routes along NY 21, south of Derevees Road were studied for the turbine site locations under Access Route #2. The Babcock Road (north intersection) route was considered, but the roadway was narrow with a steep grade, large trees and a barn near the road edge, and steep side slopes. Because additional mitigation, such as widening the roadway and removing the trees and barn, could be necessary to ensure safe traveling through this steep roadway, this route from NY 21 was not a viable candidate. Continuing down NY 21, the Babcock Road (south intersection) route was considered, but at the intersection, a large radius will be needed for the NY 21 southbound turn onto the Babcock Road northbound direction, which will require a large easement. The removal of an existing house close to the potential turning radius may be part of the mitigation, so this route from NY 21 was not considered viable.

Also on NY 21, there is a bridge (BIN 1016400) located just south of Derevees Road. It is unknown whether this bridge structure can accommodate the turbine delivery truck loads. Another route to consider is using the same directions from NY 21 to Quanz Road/Old Route 15/CR 92 and back to NY 21, then proceeding straight past the NY 21 intersection to CR 50. Continue on CR 50 in a southwesterly direction until the Stone Hill Road intersection, turn left onto Stone Hill Road. Proceed eastbound on Stone Hill Road until the Wagner Road intersection, turn right onto Wagner Road and follow the same directions as discussed under the preferred access route to the turbine sites. This route is considered as an alternate route.

Access Route #3 – To Wind Turbine Sites T9/T1/T11/T4/T15, T8/T19/T43, T52/T60, T47, T44/T59/T74, T55/T53, T88/T46, T49/T34/T26/T22, T14/T28/T21/T33/T24/T29, T37/T6/T17: Use Exit 2 off ramp from I-390 (SB). Turn right onto CR 121, then left onto Lake Hollow Road within the Town of Cohocton. Travel southbound on Lake Hollow Road, continue straight, road becomes Potter Hill Road, turn left at the Wager Road intersection.

Travel southbound on Wager Road for a short distance, turn left onto Walters Road, proceed eastbound on Walters Road, turn left for Turbine Sites T9/T1/T11/T4/T15, continue further down Walters Road at the dead end for Turbine Sites T8/T19/T43. Continue southbound on Wager Road from the Walters Road intersection, turn left for Turbine Sites T52 and T60. Travel further down Wager Road, turn right onto Brown Hill Road, continue westbound on Brown Hill Road (entering Town of Wayland) to the Rex Road intersection, turn right. Proceed northbound on Rex Road, turn right for Turbine site T47, go a little further, turn left for Turbine Sites T44/T59/T74. For Sites T55/T53, continue westbound on Brown Hill Road from the Rex Road intersection, continue straight, road becomes Davis Road after the New Galen Road intersection, turn left for Turbine Sites T55/T53. For the remaining turbine sites, continue westbound on Brown Hill Road from the Rex Road intersection, turn right onto New Galen Road. Travel northbound on New Galen Road, turn left for Turbine Sites T88 and T46, continue northbound on New Galen Road, turn right onto Dye Road, then left onto Campbell Road. Travel northbound on Campbell Road, turn right for Turbine Sites T49/T34/T26/T22, continue further along Campbell Road, turn left for Turbine Sites T14/T28/T21/T33/T24/T29, turn right for Turbine Sites T37/T6/T17. See Appendix A for the Map of Access Route Locations.

The CR 121/South Church Road/Dye Road route was considered, but there would be some mitigation to the narrow spur road at the South Church and CR 121 intersection that would possibly impact the park-like setting with a large Loon Lake community sign in the “island area” of the intersection. Also, CR 121 is a higher volume county road which passes through the southern part of the Loon Lake hamlet, possibly raising some safety issues with the increase in construction traffic. For these reasons, this route was discarded as a viable alternative route.

Potter Hill Road, between Campbell Road and Wager Road, was considered as another route to access the turbine sites on Campbell Road and New Galen Road, but this gravel road is heavily worn with rain damage, narrow at a culvert location, and steep with winding curves at two locations (houses present at end of steep slope and sharp curve areas), possibly presenting a safety hazard to drivers and residents along this portion of the roadway. Although the hazards could potentially be reduced by repairing the roadway and widening at the culvert location, these mitigation measures would not address the safety hazard at the steep slope and winding curve areas. The portion of Potter Hill Road, between Campbell Road and Wager Road, was therefore discarded as a viable alternative route.

Access Route #4 – To Wind Turbine Sites T67/T92, T93, T77, T85, T73, T82, T80, T84/T51, T42, T32, T70/T71/T63/T90, T50 and T38: Use Exit 35 off ramp from I-86/NY 17 (WB). Turn right onto CR 70 and travel northbound within the Town of Howard, until the Avery Road intersection, turn left onto Avery Road. Traveling on Avery Road westbound, road becomes Jobs Corners Road (entering the Town of Fremont), turn left onto CR 55 and travel southbound, bear right onto Tuttle Road, turn right for Turbine Site T67 and T92. For the other sites, starting at the Jobs Corners Road/CR 54 and CR 55 intersection, proceed westbound on CR 54, turn right for Turbine Site T93, continue westbound on CR 54, past the Jones Road and Rose Road intersections, turn right for Turbine Site T77. From the Rose Road intersection with CR 54, proceed southbound on Rose Road, turn right for Turbine Site T85, continue traveling southbound on Rose Road, turn left for Turbine Site T73, staying on Rose Road, then a right for Turbine Site T82 and further down, another right for Turbine Site T80. Continuing on Rose Road southbound, turn right onto Back Street, then left for Turbine Sites T84 and T51. Staying on Back Street, continue westbound from the access road for T84/T51, turn left for Turbine Site T42, continue further along Back Street, past the Dutch Road intersection, turn right for Turbine Site T32. At the Back Street and Dutch Road intersection, proceed northbound on Dutch Road, turn right for Turbine Site T70/T71/T63/T90. Back at the Rose Road and Back Street intersection, continue southbound on Rose Road, turn right onto Van Keuren Road, proceed westbound on Van Keuren Road, turn right for Turbine Site T50, proceed further to the dead end, continue straight for Turbine Site T38.

Another route was considered from the I-86/NY 17 Exit 35 interchange. Using the Exit 35 off ramp from I-86/NY 17 (EB), turn right onto CR 70, proceed southbound to CR 70A intersection, turn right onto CR 70A. Continue on CR 70A, bear right at the Starr Hill Road intersection, proceed in a northerly direction to the CR 55 intersection, turn right onto CR 55. Proceed northbound on CR 55, travel on the CR 55 Bridge over I-86/NY 17 to the CR 54/Jobs Corners Road intersection and follow the same directions as discussed under the preferred access route to the turbine sites. This route was deemed not feasible due to a bridge (CR 55 over I-86/NY 17) along the route that may not support the overwidth/overweight vehicles. In addition, the route has two extra turns involving additional mitigation (one intersection would involve removing a church and a public library). Due to the unfeasibility of this route, CR 70A was not included in the local road review.

Any workers and employees in regular vehicles (pick-up truck size and smaller) will access the construction site and worker parking areas through use of whichever public road route is most logical and efficient for the respective individual/vehicle. Employees and workers accessing the site with heavy haul/construction equipment (i.e., dump trucks or larger), or anything that exceeds the posted weight limits on public roads, will follow the final haul routes.

(d) Traffic and Transportation Impacts

(1) Levels of Service along Linear Segments of Highway

A capacity analysis was performed using Synchro software and HCS (Highway Capacity Software) to estimate the construction route Level of Service during the construction phase. HCS is the preferred software used for linear sections. Therefore, the results discussed in this Exhibit are based on the HCS to get a more accurate Level of Service. It was conservatively assumed that all the turbine sites had the same start and completion date, worked 12 hour days, six days a week, four weeks per month for a duration of seven months. The analysis showed that there was very little increase from the Existing Peak Hour Volume compared to the Future Construction Phase Peak Hour Volume. Thus, the Future Construction Phase Level of Service is the same as the Existing Level of Service. Access Route #1, #2, #3, #4 via State Route 21, CR54, 55, 70, 92, 121, and various town roads had a Level of Service "A" (Existing and Future). As the existing traffic volumes are low, local traffic flow should not be significantly impacted by construction traffic or turbine delivery. As mentioned previously, local traffic may experience minor delays due to slow moving construction vehicles and increased traffic related to the construction activities. To minimize any delays to local traffic during the construction phase, the Applicant will coordinate with the State, County, and local municipalities to respond to any locations that may experience any traffic flow or capacity issues. Appendix B of the Transportation Study includes a table summarizing the Level of Service information described above.

(2) Route Evaluation Study

The Applicant's consultant drove all potential arrival and departure routes for the Facility to identify road conditions and potential obstacles to delivery of turbine components during construction (e.g., road width, turning radii, overhead clearance, presence of culverts, presence of steep slopes, etc.). Section 3.0 and Appendix F of the Transportation Study details the field evaluation of the potential delivery and construction vehicle haul routes to and within the Facility area that was conducted between November 30, 2016 and December 14, 2016. The condition of the roads was evaluated by visual inspection and rated with an excellent/good/fair/poor designation. The visual pavement condition ratings were based on the criteria from the NYSDOT 2014 Pavement Report under the section "Pavement Condition Measures" on page 4. Additionally, roadside features, bridge and roadway horizontal/vertical restrictions, bridge/culvert locations, and possible restricted intersection radii locations were also included in the evaluation.

Generally, State Route 21, between I-390 to Conderman Road, provides 12-foot lanes with shoulders that vary in width from 4 feet to 6 feet. At some culvert locations, the shoulder width is reduced to 2 to 3 feet. Based on record plans from NYSDOT pavement thickness (including existing concrete and asphalt) is a minimum of 11 inches. The roadway terrain is rolling, with winding alignment at the southern portion of the segment. Currently, there is no load posting of this state highway, so it is assumed that this highway is adequate to handle the heavy loads.

County roads CR 50, CR 54, CR 55. CR 70, CR 92, and CR 121 have travel lanes that vary from 10 feet to 11 feet wide and shoulders that vary from 2 feet to 10 feet wide. The roadway terrain is considered mostly rolling with some roads having roadside hazards such as steep banks and ditches, some non-standard guide rail, trees close to the roadway, low tree branches, and low speed curves. Requests for information (e-mail and verbal) pertaining to these roads were sent to the Steuben County Department of Public Words Engineer. The County responded in December 2016 by providing information on posted bridges, posted roads, condition ratings for bridge and large culverts and other roadway information, including traffic volumes, pavement thickness, widths, utilities, and construction history. There are no bridges located on the county roads identified as potential haul routes. County Route CR 6, which is within the project area, but is not being considered as a haul route, has bridges with both good and not good condition ratings. Pavement thickness ranges from 4 inches (portion of CR 70) to over 9 inches (portions of CR 50, CR 54, and CR 92) of asphalt concrete.

The various town roads along the evaluation routes have roadway surfaces that are either asphalt, oil and stone, or gravel. The travel lane widths in a two-lane section ranged from 8 feet to 10 feet, with some roads consisting of only a 10, 11, 12 or 14-foot single lane. The shoulder widths vary from 1 feet to 8 feet along these roads. The shoulder material may be asphalt, gravel, or grass. The terrain for these roads are considered rolling with some flat areas. There are numerous roads with roadside hazards that are similar to the county roads, along with low speed curves. Email responses and conversations with the Town Highway Supervisors have indicated that their paved town highways are asphalt over subbase material. On average, an existing oil and stone road may have a 3 inch or less asphalt thickness over gravel, while an asphalt road may have a thickness of 3 to 4 inches of asphalt over gravel subbase. Gravel roads may have a material thickness of 5 to 6 inches. The Town of Howard Highway Supervisor mentioned that depending on the time of year, their gravel roads may be posted for weight restrictions due to the condition of the road. Based on the information received form the highway supervisors, the town roads are 20 feet in width or less, have very little pavement built up or are gravel and are most likely to require some sort of stabilization to support the vehicle loads during construction. The email responses from the Town Highway Supervisors confirmed that there is no documented information on the conditions of town road culverts and that all bridges on town roads are under the jurisdiction of the County.

State roads and county roads will be utilized as much as possible for construction traffic within the Facility area, using town roads as the last point of access to the wind turbine locations. According to the 2015 Pavement Data

Report for New York State Highways, the portion of State Route 21 from I-390 to Conderman Road has a condition rating of 6 (with 10 as the highest possible rating). Steuben County has a roadway rating system under which each roadway is assigned a Structural Class (1, 2, or 3) to determine what type of Road Use Agreement is needed. Structural Class 1 indicates the roadway foundation is of high quality and the pavement surface is rated Good to Excellent. Structural Class 2 defines the roadway foundation as high quality, but the pavement surface is rated Fair to Good. Structural Class 3 indicates the roadway foundation is of poor to marginal quality and the pavement surface is rated Fair to Good. It was assumed that the towns do not have a rating system for their roads. As a result, a project roadway condition rating is needed to determine the best routes to the Facility. Town roads were ranked by C&S Engineers during field evaluations on pavement appearance/surface and pavement thickness.

The following is a more descriptive evaluation, including visual pavement ratings and other road condition information relating to each state, county, and town road being considered and/or projected to be used as a haul road, construction vehicle route or providing access to a potential facility location. See Appendix F of the Transportation Study for the Table of Roadway Field Evaluation showing a condensed version of the field evaluation. See Appendix L of the Transportation Study for Roadway Rating Photos.

State Route NY 21, I-390 to Conderman Road – The length of this segment is 10.7 miles. The asphalt pavement condition ranges from Fair between Derevees road and Conderman Road to Good between 1-390 and Derevees Road. The speed limit for this segment is generally 55 miles per hour (mph) with a speed reduction to 45 mph between CR 55 and CR 6 in the hamlet of Haskinville. The travel lanes are 12 feet and shoulder widths range from 4 to 6 feet. Most bridges and large culverts along this route have conforming bridge/culvert rails. On two culverts between Quanz Road and Emo Road, the shoulders narrow down to 2 to 3 feet. The I-390 NB and SB bridges over NY 21 just south of Wayland, have minimum vertical clearances on NY 21 of 14’-1” and 13’-9” respectively. The total horizontal clearance under each of the I-390 bridges is 64 feet. The minimum width between any bridge/culvert rails along this route is 29 feet at a location just south of Ellinger Road. Two out of five of the large culverts along this route were constructed in 1926 and have condition ratings in the lower 4 range. A condition rating of 3 indicates serious deterioration or not functioning as originally designed. Referring to all of the culverts, a few have either shallow cover or deep cover with the majority having between 2 feet and 6 feet of fill under the roadway/over the culvert. There are no traffic signals along this segment of NY 21.

County Route CR 50, NY 21 to Stone Hill Road - The length of this segment is 4.3 miles. The asphalt pavement condition for this road is considered Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 10 feet and shoulder widths are 4 feet. The speed limit is 55 mph. The minimum width between any culvert rails along this route is 28 feet at a location just south of Day Road. Most of the culverts have 3 feet or less of cover under the roadway/over the culvert. Low overhead wires are present at a few locations. Steep drainage ditches exist on both sides of the roadway. Also, there are multiple lower speed curves along this roadway.

County Route CR 54, Conderman Road to CR 55 - The length of this segment is 2 miles. The asphalt pavement along this road is in Good condition. Steuben County rated this roadway as Structural Class 1. The travel lanes are 10 feet and shoulder widths are 4 feet. The speed limit is 55 mph. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Steep drainage ditches exist on both sides of the roadway.

County Route CR 55, NY 21 to Stewart Road/I-86 & NY17 Bridge – The length of this segment is 3.5 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 11 feet and shoulder widths vary from 2 feet to 6 feet. The speed limit is 55 mph. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Some steep slope areas exist at a few locations along the roadway. Also, there is one lower speed curve along this roadway with an advisory posted of 30 mph.

County Route CR 70, I-86/NY 17 Interchange to Avoca Town Line - The length of this segment is 2.7 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 2. The travel lanes are 11 feet and shoulder widths vary from 4 feet to 6 feet. The speed limit is 55 mph. The CR 70 bridge over I-86 EB and WB just north of CR 70A, has a minimum vertical clearance of 16 feet 8 inches and a maximum vertical clearance of 20 feet 10 inches on I-86. The horizontal clearance for each direction on I-86 under the CR 70 bridge is approximately 58 feet. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Also, there are multiple lower speed curves along this roadway.

County Route CR 92, Old State Route 15 to NY 21 - The length of this segment is 4.0 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 10 feet and shoulder width is 3 feet. The speed limit for this segment is generally 55 mph with a speed reduction to 35 mph between Antler Inn Road and NY 21 in the hamlet of Loon Lake. Most of the culverts have 3 feet or more of cover under the roadway/over the culvert. Low overhead wires are present at numerous locations. Steep drainage ditches exist on both sides of the roadway at a few locations. Also, there are multiple lower speed curves along this roadway.

County Route CR 121, I-390/NY 15 Interchange to NY 21 - The length of this segment is 3.5 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 11 feet and shoulder width is 4 feet. The speed limit is 55 mph. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Low overhead wires are present at numerous locations. The I-390 NB and SB bridges over CR 121 just west of Cohocton, have minimum vertical clearances on CR 121 of 14'-3" and 14'-0" respectively. The total horizontal clearance under each of the I-390 bridges is 58 feet. Steep drainage ditches exist on both sides of the roadway at multiple locations. Also, there are multiple lower speed curves along this roadway, one advisory posted at 10 mph near South Church Street.

Avery Road, (Fremont) Town Line to CR 70 - The length of this segment is 1.5 miles. This road has a gravel surface with a condition rating of Fair. The total travel way is 14 feet and shoulder widths are 2 feet. Some potholes and washed out areas exist along this roadway. The road becomes narrower at the tight curve locations and in an area just east of Stewart Road where there are low tree branches and trees near the roadway. The one culvert along this route has at least 8 feet of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to May 1st.

Babcock Road, NY 21 (north) to 1.1 miles south - The length of this segment is 1.1 miles. This road has a gravel surface with a condition rating of Good. The travel lanes are 10 feet and shoulder widths are 3 feet. All of the culverts have 3 feet or less of cover under the roadway/over the culvert. Between NY 21 (North) and Holmes Road, the roadway becomes steep with low tree branches, trees close to the road edge and steep slopes on both sides of the road. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Back Street, Rose Road to Ricks Road - The length of this segment is 1.6 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. At 0.2 miles east of Dutch Road, the roadway narrows down to 14 feet wide with 2 foot shoulders. Some potholes and wearing areas from farm tractors exist along this roadway. There are frequent steep drainage ditches on both sides of the road. Three culverts with 1 foot or more of cover are present along this portion of roadway. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Brasted Road, (Avoca) Town Line to CR 70 - The length of this segment is 0.3 mile. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 3 feet. Low overhead wires are present. There are no culverts along this roadway.

Brown Hill Road, New Galen Road to Wager Road - The length of this segment is 1.1 miles. The asphalt pavement condition for this road is Fair. The travel lanes are 8 to 9 feet and shoulder widths are 4 to 5 feet. There are no pavement markings on this roadway. Steep drainage ditches exist on both sides of the roadway. Low overhead wires exist along this roadway. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert with the exception of two, which have 1 foot or less.

Campbell Road, Oil Well Hollow Road to Dye Road – The length of this segment is 0.7 mile. This road has a gravel surface with a condition rating of Good. The travel lanes are 8 feet and shoulder widths are 5 feet. The road is steep for the first 0.25 miles north of Dye Road. This road becomes narrower at the last 0.2 mile with less gravel and more dirt as a wearing surface. The two culverts along this route have 3 feet or more of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Canfield Road, Conderman Road to CR 55 – The length of this segment is 1.5 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. There is one lower speed curve on a steep grade along this roadway with an advisory posted speed of 20 mph near CR 55. The one culvert along this route has less than 1 foot of cover under the roadway/over the culvert.

Conderman Road, NY 21 to CR 54 - The length of this segment is 1.8 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at NY 21, the road surface is asphalt for 0.7 miles, then gravel to the CR 54 intersection. The travel lanes are 10 feet and shoulder widths are 4 feet. Low tree branches and trees exist near the roadway, south of Canfield Road. The three culverts along this route have 3 feet or less of cover under the roadway/over the culvert. This seasonal use roadway is not maintained south of Canfield Road in the winter, from November 1st to April 1st.

Davis Road, NY 21 to New Galen Road - The length of this segment is 1.3 miles. This road has a gravel surface with a condition rating of Good. The travel lanes are 10 feet and shoulder widths vary from 3 to 4 feet. Low overhead wires are present at one location near NY 21. All of the culverts along this route have 2 feet or more of cover under the roadway/over the culvert. No culvert rail present at culvert location just east of NY 21 and steep slopes exist on the south side of the road along a stream from NY 21 to 0.4 miles east. Low overhanging branches are present up to 0.5 miles, east of NY 21.

Derevees Road, Bronson Road to NY 21 - The length of this segment is 0.9 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at NY 21, the road surface is asphalt for 0.7 miles, then gravel to the Bronson Road intersection. The travel lanes are 10 feet and shoulder widths are 2 feet. There are no pavement markings on this roadway. Low overhead wires are present just west of NY 21. Most of the culverts have less than 1 foot of cover under the roadway/over the culvert with the exception of one large 10 feet concrete box which has 5 feet of cover under the roadway/over the culvert (near Bronson Road). The culvert near Bronson Road has no guide railing.

Dutch Road, CR 54 to Back Street – The length of this segment in 0.9 mile. This road has a gravel surface with a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 4 feet. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Dye Road, South Church Road to Campbell Road – The length of this segment is 0.7 mile. The asphalt pavement condition for this road is Fair. The travel lanes are 9 to 10 feet with shoulder widths of 5 feet. Pavement surface is heavily worn with minor cracking. There are no pavement markings on this roadway. Some steep drainage ditches exist on both sides of the roadway. Low overhead wires are present at one location east of South Church Road. All three culverts have 3 feet or more of cover under the roadway/over the culvert.

Emo Road, NY 21 to (Cohocton) Town Line – The length of this segment is 2.2 miles. This combination asphalt/gravel road has a condition rating of Good. Starting at NY 21, the road surface is asphalt, which is showing some wear at the shoulders, then transitions to gravel at a point 600 feet east of the CR 92 intersection. The travel lanes are 9 to 10 feet and shoulder widths are 5 feet. Low overhead wires are present at one location east of NY 21 and another location just east of CR 92. Of the four culverts along this route, one has 6 feet of cover under the roadway/over the culvert while the other three are unknown. Numerous sharp curves exist along this roadway.

Holmes Road, Wagner Road to Babcock Road - The length of this segment is 1.2 miles. This road has a gravel surface with a condition rating of Poor. A single lane road with 11 feet width and 1 to 4 feet shoulders exist in the Town of Dansville. In the Town of Fremont, the single travel lane is 14 feet and shoulder widths are 3 feet. This road is narrow with frequent potholes and poor drainage. There are low tree branches and trees near the roadway at multiple locations. The one culvert along this route has 8 feet of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Jobs Corners Road, CR 55 to (Howard) Town Line - The length of this segment is 0.6 mile. This road has a gravel surface with a condition rating of Fair. This single lane road is 14 feet wide with shoulder widths of 3 feet. This road becomes narrower at a 36 inch iron pipe culvert location, 0.4 mile east of CR 55. There are low tree branches and trees near the roadway at various locations. There are two culverts along this roadway, one with 6 feet of cover and the other with less than 6 inches of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Jones Road, CR 54 to CR 55 – The length of this segment is 1.1 miles. This combination asphalt/gravel road has a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 2 feet. Starting at CR 54, the road is gravel for 0.4 mile, the transitions to an oil and stone surface. There are no pavement markings on this roadway. There are six culverts on this segment with 4 feet or less of cover under the roadway/over the culvert.

Lake Hollow Road, CR 121 to Potter Hill Road - The length of this segment is 1.2 miles. This asphalt road has a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 2 feet. Some pavement surface areas are worn with moderate raveling. Low overhead wires are present at numerous locations. Steep drainage ditches exist on both sides of the roadway at frequent locations. All five culverts have 2 feet or more of cover under the roadway/over the culvert. Numerous sharp curves exist along this roadway. Low overhanging branches are present just south of CR 121. There are no pavement markings on this roadway.

Lander Road, Walter Kurtz Road to CR 50 - The length of this segment is 1.5 miles. This combination asphalt/gravel road has a condition rating of Fair. Starting at CR 50, the road surface is asphalt which is heavily worn with some potholes and moderate cracking, then transitions to gravel at the Day Road intersection. The gravel portion is worn and eroded from rain. The travel lanes are 10 feet and shoulder widths are 5 feet. There are low wires at approximately 0.3 miles south of Day Road. Three out of four culverts have 10 feet or more of cover under the roadway/over the culvert while the fourth culvert has 1 foot of cover under the roadway/over the culvert. There are no pavement markings present on this roadway. Two sharp curves are located just north of CR 50 and the gravel portion is not maintained in the winter, from December 1st to April 1st.

Mack School Road, NY 21 to Neu Road – The length of this segment is 1.3 miles. This asphalt road has a condition rating of Good. The short asphalt road portion between Wagner Road and Neu Road is in Fair condition. The travel lanes are 10 feet and shoulder widths vary from 2 to 3 feet. Low overhead wires exist at three locations. Most of the culverts have 2 feet or less of cover under the roadway/over the culvert. There are frequent drainage ditches on both sides of the roadway with some being very steep.

Mattoon Road, Skelly Road to Dead End – The length of this segment is 1.1 miles. This gravel road has a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 2 feet. This roadway is narrow with steep ditches on both sides. Low branches are present and there is a bridge (BIN 2216990) that has an inspection rating of 5 as indicated on the Bridge and Large Culvert Rating Table in Appendix J of the Transportation Study. The one culvert along the roadway has unknown cover under the roadway/over the culvert.

Miller Road, CR 70 (south) to CR 70 (north) – The length of this segment is 2.3 miles. This gravel road has a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. There was some significant gravel surface wear on the steep slope sections. There are no culverts on this roadway.

New Galen Road, Dye Road to Davis Road - The length of this segment is 1.3 miles. This asphalt road has a condition rating of Good. The travel lanes are 10 feet and shoulder widths are 6 feet. Minor cracking exists at the centerline. Low overhead wires are present at two locations. Steep drainage ditches exist on both sides of the roadway at some locations. Most of the culverts have 3 feet or less of cover under the roadway/over the culvert. Two sharp curves exist along this roadway. There are no pavement markings on this roadway.

Neu Road, Mack School Road to 0.7 miles south - The length of this segment is 0.7 mile. This road has a gravel surface with a condition rating of Poor. This single lane road is 12 feet wide with shoulder widths of 2 feet. This road becomes narrower at some areas and exhibits frequent potholes and rutting. Steep slopes exist on the west side of the roadway. There are two culverts along this roadway, both with 3 feet or less of cover. This seasonal use roadway is not maintained in the winter, from December 1st to April 1st.

Old Route 15, Quanz Road to CR 92 - The length of this segment is 0.2 mile. This road has an asphalt surface with a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 5 feet. There is frequent minor cracking and deteriorated shoulders along this segment. There are two culverts along this roadway, both with 3 feet or more of cover under the roadway/over the culvert. There are no pavement markings on this roadway.

Parker Road, Mattoon Road to Saxton Road – The length of this segment is 0.8 mile. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 2 feet. Low overhead wires are present at one location west of Saxton Road. The one culvert along this route has 6 inches to 3 feet of cover under the roadway/over the culvert. Roadway grade becomes steep near Skelly Road and the skewed configuration at this intersection makes it difficult to turn from Parker Road. This seasonal use roadway is not maintained in winter, from December 1st to April 1st.

Potter Hill Road, Lake Hollow Road to Campbell Rd - The length of this segment is 2.3 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at Campbell Road, the road surface is gravel, which is heavily worn with rain damage and washboarding, then transitions to asphalt at the Wager Road intersection. The asphalt portion has frequent cracking and holes in the top wearing course. The travel lanes are 8 to 9 feet and shoulder widths are 5 feet. Roadway becomes narrow at a culvert location just east of Campbell Road. Steep slopes and winding curves are frequent along this roadway portion. Houses are present at two outside curve locations between Campbell Road and Wager Road, where the steep roadway ends at a winding curve, putting residents at risk if trucks lose their brakes traveling downhill and going off the roadway at these areas. There are low wires at four locations along this segment of roadway. Grade warning signs are posted at various locations. Most culverts have 3 feet or more of cover under the roadway/over the culvert while one culvert has 1 foot of cover under the roadway/over the culvert and two culverts have unknown cover under the roadway/over the culvert. There are no pavement markings on this roadway.

Quanz Road, NY 21 to Old Route 15 – The length of this segment is 0.9 mile. This road has an asphalt surface with a condition rating of Good. The travel lanes are 9 feet and shoulder widths are 5 feet. Low overhead wires are present at several locations east of NY 21. Steep drainage ditches and shoulders exist on both sides of the roadway. The three culverts have 3 feet or more of cover under the roadway/over the culvert.

Rex Road, Brown Hill Road to 0.5 mile north – The length of this segment is 0.5 mile. This road has a gravel surface with a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 5 feet. The one culvert along this route has 5 feet of cover under the roadway/over the culvert and there are two sharp curves, one with an advisory posted speed of 15 mph. This seasonal use roadway is not maintained in the winter, from November 1st to May 1st.

Rose Road, CR 54 to Tuttle Road - The length of this segment is 1.8 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at CR 54, the road surface is gravel with some potholes present, then transitions to asphalt at 0.2 mile north of the Van Keuren Road intersection. There are no pavement markings present. The travel lanes are 10 feet and shoulder widths are 8 feet. Deep ditches are frequent on both sides of the roadway.

South Church Road, CR 121 to NY 21 - The length of this segment is 1.4 miles. This road has an asphalt surface with a condition rating of Good. The travel lanes are 10 feet and shoulder widths are 5 feet. Pavement is in Poor condition south of Dye Road with heavy cracking. Low overhead wires are present at a few locations. Two culvert locations just east of NY 21 have concrete fascia barrier walls. Four out of five culverts have 2 feet or more of cover under the roadway/over the culvert while the other culvert has less than 1 foot of cover under the roadway/over the culvert. There is one sharp curve present. There are no pavement markings on this roadway.

Saxton Road, Parker Road to CR 70 – The length of this segment is 1.3 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 2 feet. The one culvert along this route has less than 6 inches of cover under the roadway/over the culvert.

Skelly Road, CR 55 to Mattoon Road – The length of this segment is 0.4 mile. This road has a gravel surface with a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 3 feet. There is a combo sharp horizontal, steep vertical curve near the Mattoon Road intersection. The one culvert along this route has 3 feet of cover under the roadway/over the culvert.

Stone Hill Road, Cr 50 to Bronson Road – The length of this segment is 1.8 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 2 feet. Some wearing and rough pavement surface areas exist along this roadway. Three out of four culverts have less than 1 foot cover under the roadway/ over the culvert while the other one has 7 feet of cover under the roadway/over the culvert. Frequent overhanging branches exist west of Wagner Road.

Tuttle Road, CR 55 to Rose Road - The length of this segment is 2.4 miles. This road has a gravel surface with a condition rating of Poor. This single lane road is 12 feet wide with shoulder widths of 5 feet. The road has some potholes and becomes narrower in the forested areas. All culverts have 1 foot or less of cover under the roadway/over the culvert. There are low tree branches and trees near the roadway, south of CR 55.

Van Keuren Road, Rose Road to Dead End - The length of this segment is 0.6 mile. This road has a gravel surface with a condition rating of Good. The travel lanes are 9 feet and shoulder widths are 3 feet.

Wager Road, Potter Hill Road to Brown Hill Road – The length of this segment is 1.1 miles. This road has an asphalt surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. Some steep grades along with winding curves exist along this roadway. Low overhead wires are present at a few locations. All of the culverts have 1 foot or more of cover under the roadway/over the culvert. There are no pavement markings on this roadway.

Wagner Road, Stone Hill Road to Mack Hill road – The length of this segment is 1 mile. This road has a gravel surface with a condition rating of Poor. This single lane road is 14 feet wide with shoulder widths of 2 feet. This road is narrow with frequent potholes. The one culvert along this route has 8 feet of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from December 1st to April 1st.

Walter Kurtz Road, Lander Road to NY 21 - The length of this segment is 2.3 miles. This combination gravel/asphalt road has a condition rating of Good. Starting at Lander Road, the road surface is gravel with minor washboarding present, then transitions to asphalt at 0.4 mile east of the Lander Road intersection. There are no pavement markings present. The gravel section consists of a single travel lane of 12 feet with shoulder widths of 2 feet. The asphalt section has 10 feet travel lanes and 3 to 5 feet shoulder widths. Some sharp curves exist along this roadway. Most culverts have 1 foot or more of cover under the roadway/over the culvert with the exception of one, which has less than 1 foot of cover under the roadway/over the culvert. The gravel portion of the roadway is not maintained in the winter, from November 1st to April 1st.

Walters Road, Wager Road to Dead End - The length of this segment is 1 mile. This road has a gravel surface with a condition rating of Good. This single lane road is 12 feet wide with shoulder widths of 2 feet. This road is narrow with some wearing of the gravel surface and overhanging branches present at various locations. Three out of four culverts have 2 feet or more of cover under the roadway/over the culvert while the other one has 1 foot of cover under the roadway/over the culvert.

Once the Facility is commissioned and construction activities are officially concluded, traffic will be negligible and likely concentrated around the O&M building resulting from Facility employees traveling to and from the O&M building. Some of these personnel will need to visit each turbine location and return to the O&M building. Each turbine typically requires routine maintenance visits once every 3 months, but certain turbines or other Facility improvements may require periods of more frequent service visits should a maintenance issue arise. Such service visits typically involve one to two pick-up trucks. However, because all turbines and associated access road are located on (and accessed from) private land, public road use due to routine maintenance activities will be very limited. If major maintenance is needed, such as maintenance involving a crane, the language in the Road Use Agreement between the Applicant and the host communities will dictate the procedures followed by the Applicant to ensure that any impacts to public roads are avoided or mitigated.

(3) Oversized Deliveries

Existing roadway restrictions (height, width, weight) and deficient intersection radius locations were observed in the field and researched from NYSDOT resources during the preparation of the Transportation Study (Appendix HHH). As previously noted, the Applicant's consultant drove all potentially impacted roads to identify physical restrictions (widths, turning radii, overhead clearance, presence of culverts, road condition, presence of steep slopes, etc.). The results of this review for each road segment identified as part of a possible transportation route are summarized in Section (d)(2) above. In addition, the consultant used aerial imagery in conjunction with street-view maps to analyze 150-foot radius impacts at various intersections along hauling routes. Maps of intersection turning movements on aerial imagery are included in Appendix H of the Transportation Study.

As discussed in the Transportation Report (Attachment A), transportation of the turbine blades will require use of a 155-foot trailer. A number of general concerns relating to the transportation of this and other OS/OW loads were identified during the above-referenced review. Height restrictions such as vertical clearances under bridges at the interchanges of State Route 21/I-390 and County Route 121/I-390 as well as low utility wires along various local roads as described under the roadway evaluation will prevent or make it difficult for OS/OW vehicles to access certain sites. As discussed in Section (d)(2) above, there are some local roads within the Facility area that are narrow with only one lane. Some wind turbine access roads are located along these narrow roads, so it may be necessary to either widen the road or provide traffic control (contractor flag person or local police agency) for the OS/OW delivery vehicles. In addition, tight curves exist on some roadways where additional widening with gravel may be needed to accommodate up to a 150-foot radius turn for the OS/OW delivery vehicles. The large culverts along the potential construction routes appear to have sufficient width to accommodate the OS/OW vehicles, but will need to be checked during the Special Hauling Permit Application process discussed in Exhibit 32 (Table 32-3).

Although there are no weight restrictions along State and County roads, the Town of Howard may have local roads with load postings that are to be determined by the town highway supervisor at the time the road is needed as a haul route.

For the deficient intersections, the path of the 155-foot trailer design vehicle (for turbine blades) using a 150-foot intersection radius was evaluated along with the potential travel routes to the wind turbine sites to identify required temporary intersection improvements. Additional mitigation (tree removal, sign relocation, utility pole/box relocation, culvert pipe extension or new installation, drainage ditch relocation, removal/relocation of other tall objects) may be needed if the turbine blade length extends beyond the rear trailer of the delivery vehicle. See Appendix G of the Transportation Study for the Table of Roadway Restrictions and Table of Intersection Restrictions (along potential access route locations only).

Appendix H of the Transportation Study provides tables of proposed roadway and intersection improvements, a map showing the location of these improvements, and detailed figures showing anticipated intersection turning movements. These figures are also included as Figure 25-2 to this Application. It is worth noting that all improvements identified in this Application will require verification and/or update following Certification when the final turbine supplier is identified.

(4) Increased Accident Risk and Mitigation During Construction Phase

Due to the temporary increase in traffic volumes, existing roadways used for construction access routes have the potential for an increased risk of vehicle accidents. New traffic patterns and delays (new construction vehicle entrances on low volume roads, increased heavy truck traffic on these same roads, and delays at the intersections to allow oversized vehicle turning movements) are other factors that could affect safety. Potential routes that exhibited safety concerns (sharp curves, steep grades, restricted sight distance) were identified in this study and eliminated from consideration as viable routes where feasible. The remaining routes that are recommended for use are considered to be able to safely handle the passage of construction vehicles and be less prone to accidents due to fewer safety concern factors listed above.

The highway with the greatest concentration and frequency of accidents is State Route 21, which is proposed to be utilized as Access Route #2 from CR 92 to Derevees Road. The historical data shows that 82% of the accidents were single vehicle collisions caused by either animal action, snow and ice, drunk driving, or hitting roadside fixed objects. Due to the large size of construction vehicles, animal action and roadside fixed objects are less of a hazard when compared to passenger vehicles. The increase in traffic during construction of the proposed Facility will not exacerbate existing safety deficiencies.

Preventative measures can be implemented to maintain the safety of all road users and reduce the potential risk of accidents during the construction phase of the Facility. OS/OW vehicles delivering turbine components will have certified escorts and/or police escorts when traveling to the construction sites. Daily construction trucks (concrete, gravel, equipment) typically have amber warning lights and/or construction warning signs attached to the back of the trucks conveying “CONSTRUCTION VEHICLE STAY 500 FEET BACK”, “CONSTRUCTION VEHICLE DO NOT FOLLOW”, or “SLOW MOVING VEHICLE” to alert motorists. Construction warning signs such as “CONSTRUCTION VEHICLES ENTERING” can be posted in advance of intersections with turbine site access roads to provide awareness of the potential for construction vehicles entering and exiting these sites. When OS/OW vehicles are traveling in the Facility Area and delivery route roadways, existing traffic may experience minor delays as escort vehicles and/or flag persons stop traffic to allow the safe passage of the OS/OW vehicles. Additional construction signs such as “BE PREPARED TO STOP” and “FLAGGER AHEAD” can be placed in advance of these areas to provide advance warning to motorists.

Some portions of access routes and intersections may be closed short term while turbine vehicles are travelling through, especially roads with narrow pavement or clearance obstructions. If a closure is necessary, an off-site detour (re-routing traffic around the closure) would be implemented during the road/intersection closure to minimize delay to motorists and reduce the potential risk of accidents due to motorists attempting to navigate around the closure themselves. Additional construction signing would be placed along the detour route to guide motorists back to their original destination route. Additional measures can be placed in the contract documents as an Internal Traffic Control Plan for the Facility. These measures can include implementing a reduced speed limit for construction vehicles, establishing procedures for construction vehicles entering and exiting the work zone, placing time restrictions for construction vehicle travel, coordination with local municipalities and the traveling public on traffic pattern changes, and continued inspections along the access routes for any safety deficiencies during the construction phase. The Traffic Control Plan will include copies of the HCAs and/or RUAs with the county and towns where the local roads are being used for delivery and construction vehicle transport routes.

(5) Measures to Mitigate Impacts to Traffic and Transportation

An identification of measures to mitigate traffic and transportation impacts is presented in the Transportation Effect and Route Evaluation Study at Appendix HHH. Along the potential access routes there are three roads (Holmes Road, Neu Road, and Wagner Road) rated "Poor" that are either used as proposed access routes and/or connect with turbine access roads. These poorly rated roads and three other roads rated "Fair" to "Good" (Avery Road, Jobs Corners Road, and Walters Road) are all gravel roads with a single lane width ranging from 10 feet to 14 feet that might need to be widened or require traffic control to accommodate the OS/OW delivery vehicles. However, the final turbine model to be used at the Facility will not be determined until after a certificate has been issued by the Siting Board, which will allow the Applicant to definitely determine which of the 76 turbine locations (and associated access roads) will be constructed and thus which mitigation measures, if any, must be implemented.

The asphalt and gravel roads rated "Fair" to "Good" will be monitored during construction for pot-holing and deterioration of the pavement to ensure they are safe for general construction and local roadway traffic. The volume and weight of both the general construction traffic and turbine delivery (OS/OW) vehicles may cause accelerated distress that could require temporary repair. These temporary repairs/improvements could include repaving with asphalt, adding gravel stone, and/or temporary traffic signs, and may be stipulated as a condition of a RUA with local municipalities.

The existing pavement widths of the county and town roads vary from approximately 12 feet to 22 feet wide. The existing radius of the edge of the pavement at a typical intersection is approximately 25 to 50 feet. It is typical that a radius of approximately 135 feet to 150 feet is necessary to accommodate the wheel paths of permit vehicles, while 150 feet or more may be needed for the load clearance of the vehicles. As a result, the temporary widening of the pavement surface with an aggregate roadway surface will be required to accommodate the trucks turning movements at some locations. Additional mitigation may be needed if the length of a turbine blade extends beyond the outer trailer of the delivery vehicle.

After completion of construction activities, permanent road improvements may be needed to address damage caused by the heavy construction vehicle traffic (especially on any roads that had temporary repairs made during the construction activities). The contractor may be required to repair the roadways to pre-construction conditions using the appropriate treatments such as oil and stone, hot or cold mix asphalt, or additional gravel as a condition per Road Use Agreement. See Appendix H of the Transportation Study for a table of roadway improvements indicating the segment of road that may need temporary and/or permanent improvements and the suggested type of mitigation measure, together with a Map of Roadway/Intersection Improvement Locations.

In addition, the drainage pipes/culverts along the construction routes that have 2 feet or less of cover could potentially be damaged by construction activities causing delays to construction and local traffic. As discussed in Section (d)(2) above, a preliminary assessment of culvert pipes, including the amount of cover under the roadway and over the culvert, was conducted as part of the review of all potentially impacted roadways along the planned routes. In addition, each pipe should be analyzed during final design of the roadway improvements to determine whether the amount of cover over the pipe is adequate and identify any improvements needed to accommodate the construction traffic. Any necessary improvements needed will be addressed in the final RUA with local municipalities.

In regard to bridge and culvert structures, the preferred access routes have been selected to avoid as many deficient bridges and large culverts as possible to prevent additional mitigation. During the Special Hauling Permit application process, the NYSDOT and Steuben County Public Works Department will be required to review and approve all bridges and culverts to be traversed along the access routes in the construction phase.

Furthermore, at various locations along the construction access routes, there may be low overhead wires present that will need to be raised to accommodate the OS/OW delivery vehicles due to their transport material heights. Coordination with the local utility companies will be needed to obtain the necessary permits to raise the wires.

No new traffic control devices are anticipated to be necessary, and no damage to roads due to normal operation of the built Facility are expected to occur. If any damage to local, county, or state roads is caused by operation of the Facility, repairs will be made at the Applicant's expense.

Consistent with the discussion above, construction of the Facility may necessitate road improvements to accommodate OS/OW vehicles. Appendix H of the Transportation Study identifies locations where road improvements will likely be necessary. These improvements will be made at the Applicant's expense prior to the arrival of OS/OW vehicles. Final transportation routing cannot be completed until the final turbine model is selected (post-certification), and ultimately will be designed in consultation with each town's Highway Superintendent to avoid/minimize, to the extent practical, safety issues associated with the use of the approved haul routes, which will confine the heavy truck travel to a few select roads. The Applicant will repair damage done to roads affected by construction within the approved haul route, at no expense to the town, county, or state, thereby restoring the affected roads to be equal to or better than pre-construction conditions. The Applicant anticipates complying with the substantive requirements of the local laws related to road use. Any additional time restrictions for of delivery of Facility components will be addressed in the HCA and/or RUA between the Applicant and towns or during construction based on input from the Town Highway Superintendents.

(6) Road Use and Restoration Agreements

In conjunction with this Application, the Applicant and/or its consultant has had initial meetings with the Highway Superintendents for the following local highway departments for purposes of identifying all anticipated town permits that will be required and discussing RUAs: Howard, Cohocton, Dansville, Fremont, and Wayland. All of the towns have been provided with a copy of the HCA, which contains road use and restoration language. Fremont has its own RUA that the Applicant is reviewing and this RUA may be used in lieu of the road use and restoration language in the HCA for the Town of Fremont.

During these meetings, the Applicant and/or its consultant discussed the proposed Facility, Article 10 process, RUAs and general construction and transportation process when constructing a wind farm. No major road projects or future plans were identified by any of the above entities.

Due to the large dimensions of the wind turbine components and construction cranes, a variety of special hauling permits and RUAs will be required or negotiated. The types of permits required depend on the characteristics of the vehicle and its cargo, number of trips, distance traveled, and duration. The NYSDOT Central Permit Office stipulates that when any vehicle exceeds 16 feet in width, 15'-11" in height, 160 feet in length, or 200,000 points in gross weight, or any combination of those, a Type 1S – Superload Trip Permit is required from NYSDOT. For the Type 1S Permit, the Applicant will also fill out and submit a PERM 12 Form – Special Hauling Pre-Approval Form for a Future Permit. The permit process can be done online for Divisible and Non-Divisible Load Overweight Permits. The NYSDOT website, www.dot.ny.gov/nypermits, outlines the guidelines, types and fees for various special hauling permits. Referring to the website, additional Permit Forms include the Type 1S – Superload Trip Permit such as PERM 39 – Application for Special Hauling Permit, PERM 39-1VC – Vehicle Configuration Attachment, PERM 39-4 – Additional Trailer Attachment (Option 1), PERM 99 – Additional Trailer Attachment (Option 2), PERM 85 – Special Hauling Route Survey. A Special Hauling Customer Guide is available under the PERM 30 form. The Applicant or other responsible party such as the BOP Contractor or turbine supplier will need to set up an account in order to complete the permit process online. Additional information can also be found at www.NYPermits.org. Additionally, Highway Work Permits will be required from the respective municipalities for intersection and roadway improvements within the NYSDOT (PERM 33 Form), county and town rights-of-way.

See the following Table of Roadway Agreements and Permits for a list of state, county, and town requirements. The Applicant is requesting that the Siting Board not preempt these requirements, and allow the state, county and towns to approve the listed road or highway work permits. See Exhibit 32 for additional information.

Table 25-2. Roadway Agreement and Permit Table

Government Agency	Road Use Agreement	Highway Work Permit to Work Within ROW	Highway Utility Permit to Work Within ROW	Traffic Signal Permit to Work Within ROW	Special Haul Permit for Oversized/ Overweight Vehicles	Permit to Exceed Posted Weight Limit Roads	Divisible Load Overweight Permit	Contact Information
Town of Cohocton	Yes	Yes	Yes	No	Yes	Yes	Yes	Highway Superintendent Brian Kuhn, 585-384-5290
Town of Dansville	*	*	*	*	*	*	*	Highway Superintendent Ray W. Acomb, 607-295-7760
Town of Fremont	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Highway Superintendent, Lee A. Pyer 607-324-6349 (cell) 607-281-4614
Town of Howard	Yes	Yes	Yes	No	Yes	Yes	No	Highway Superintendent Anthony Clark, 607-566-2007
Town of Wayland	*	*	*	*	*	*	*	Highway Superintendent,

Government Agency	Road Use Agreement	Highway Work Permit to Work Within ROW	Highway Utility Permit to Work Within ROW	Traffic Signal Permit to Work Within ROW	Special Haul Permit for Oversized/ Overweight Vehicles	Permit to Exceed Posted Weight Limit Roads	Divisible Load Overweight Permit	Contact Information
								Raymond Thielges III, 585-728-5253
Steuben County	Yes	Yes	Yes	No	Yes	Yes	Yes	Public Works Department, Steve Catherman, PE, 607-664-2460, require two road user agreements (before & after use), start process early
NYSDOT	No	Yes	Yes	Yes	Yes	Not Available	Yes	NYSDOT Region 6 Traffic Safety & Mobility, Permit Engineer, Andrew Puleo, 607-324-8517

*The Town Highway Superintendents for the Towns of Dansville and Wayland have been contacted by phone (12/2016) and requests for road user agreement requirements and other transportation information (question form) have been sent to them and the other towns by either fax and/or email correspondence. A second email correspondence was sent out on 3/9/2017 inquiring on the status of the first requests. On 4/20/2017, a third attempt to contact the town highway superintendents by phone was made, but no one answered and a message was left for them to contact the consultant by phone with any information about their roadways for the Transportation Study, but as of this Application, there has been no response from the Towns of Dansville and Wayland. Note that both the Towns of Dansville and Wayland have enacted road preservation laws. See Exhibit 31(b) for details.

Additionally, for the county and towns where the local roads are being used for delivery and construction vehicle transport routes, RUAs with the affected municipalities are anticipated to be signed to memorialize the Applicant's rights and obligations for road use and repair either as a separate agreement or as part of the HCA. A sample RUA is included as Appendix III to the Application.

The Applicant has not entered into any private road use and/or restoration agreements with landowners. The Applicant anticipates that all use of private property adjacent to public roads will be allowed through its standard lease or similar easement agreement with the landowner as opposed to a RUA.

(e) Impact of the Facility on Mass Transit Systems

There are numerous airports and airstrips located within a 20-mile radius from the outside of the wind farm Facility limits. One municipal airport operated by the City of Hornell and another municipal airport operated by the Town of North Dansville are within 3.4 miles and 8.7 miles, respectively, of the outside limits of the wind farm Facility. In addition, a private heliport, DC Helicopters Heliport, is located on Jones Road, just south of the Village of Cohocton, approximately 0.4 mile from the eastern edge of the Facility. The heliport location has a 30 feet by 30 feet square pad for vertical takeoff and landing. There are at least 14 wind turbine locations within 2 miles of this heliport. The closest wind turbine locations are T15, at 0.6 mile, and T4 at 0.8 mile, both located west of the heliport landing pad. The next closest turbine locations are location T43 at 1.0 mile and T19 at 1.2 miles south, T11 at 1.1 miles west, T1 at 1.2 miles and T8 at 1.4 miles southwest.

The Applicant started the process of coordinating with the two municipal airports, Hornell and Dansville, approximately one year ago. A call with the Airport Manager, who manages both airports, was conducted and he indicated that he had no concerns related to the Facility. This conversation was documented in the Public Information Program (PIP) meeting log. See Appendix K of the Transportation Study for a list of nearby airports with contact information and for a map of regional airports.

No rail or bus mass transit systems are expected to be impacted by this Facility.

(f) Federal Aviation Administration (FAA) and Department of Defense (DoD) Review and Correspondence

(1) FAA and DoD Review

The FAA is responsible for air traffic control and for evaluating and issuing determinations on petitions for objects that penetrate the nation's airspace. The Applicant has submitted the proposed facility layout to the FAA so that aeronautical studies of the location of each proposed turbine, and permanent meteorological towers, if needed, can be conducted under the provisions of 49 USC § 44718. The FAA can issue two types of determinations, one that identifies a potential hazard and another that identifies no hazard. A Notice of Presumed Hazard (NPH) will automatically be issued if the proposed structure is over 499 feet. A NPH also will be issued if the FAA identifies a potential hazard to air navigation based on the structure's location and/or height. The NPH is made public prior to a final FAA determination. This notification identifies a potential hazard that must be further studied and/or mitigated in some manner. A Determination of No Hazard (DNH) will be issued if the FAA determines that the planned project will not pose a risk to aviation, including a review of potential aviation impacts to local airports.

On November 3, 2016, the Facility received DNHs for 76 turbine locations from the FAA. The DNHs are valid until May 3, 2018 prior to which one 18-month extension can be filed. In addition, the FAA is one of the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC), which has reviewed the proposed Facility as part of the National Telecommunications and Information Administration (NTIA) review. See Exhibit 26 for additional information regarding NTIA review. The NTIA has reviewed the proposed Facility and no concerns with air traffic control or other federal communication systems were identified. The response letter from NTIA is included in Appendix JJJ, along with recent correspondence from the Applicant.

Lighting of the nacelles will be implemented as per the requirements and determinations of the FAA. Specifications for anticipated turbine lights will be in accordance with the FAA's December 4, 2015 Advisory Circular 70/7460-1L, specifically Chapter 13 (Marking and Lighting Wind Turbines), which requires the use of FAA L-864 aviation lights (Chapter 13 of the FAA Circular is included in Appendix P). Because the DNHs have already been received, which contemplate the use of white paint/synchronized red lights, radar-activated FAA marking lights will not be considered. Radar-activated FAA marking light systems are considerably more expensive than the traditional white paint/synchronized red light marking system. Furthermore, radar-activated lighting is more practical at wind farms with a smaller Facility area to reduce the number of radar locations needed to provide coverage for the Facility.

The DoD, through its Siting Clearinghouse, can either respond informally or formally to a project. Informal consultations may be initiated by a project proponent. Formal consultations may be initiated either by the FAA or project proponent. The submission for the FAA determinations initiates formal consultation. No DoD department raised any issues during the formal FAA review process. Subsequently, the FAA issued DNHs for 76 turbine locations.

As described in Exhibit 26(a)(9) and (11), the Applicant sent a written notification of the proposed Facility to the NTIA on April 3, 2015. Upon receipt of this notification, the NTIA provided plans for the proposed Facility to the federal agencies represented in the IRAC, which include the Department of Homeland Security, U.S. Air Force, U.S. Army, U.S. Navy, U.S. Coast Guard, and Department of Veteran Affairs. The NTIA has review the proposed Facility, and no concerns regarding military or other federal communication systems were identified. The response letter from NTIA is included in Appendix JJJ.

(2) Consultation with Nearby Airports/Heliports

Letters regarding the Facility's development and status have been sent to the Hornell Municipal Airport in accordance with the PIP. A call with the Airport Manager, who manages both the Hornell and Dansville municipal airports, indicated that the Manager had no concerns related to the Facility. See Section (f)(1) above for additional information about communications/correspondence with the FAA and DoD relating to the Facility.

The Applicant is aware of one helicopter business, DC Helicopters, in the vicinity of the Facility. However, the business does not currently run any flights or operations. The Applicant has sent letters/notifications to owner of the company, but has not received any responses with any concerns.