1 Executive Summary

1.1 Introduction and Project Description

This Draft Environmental Impact Statement (DEIS) describes the potential impacts and mitigation associated with the construction and operation of the proposed Ripley-Westfield Wind Farm (the Project). The Project will be located in the Towns of Ripley and Westfield, Chautauqua County, New York, and will produce approximately up to 125 megawatts (MW) of power from a renewable resource. The Project will consist of the following:

- The completed Project would depend on the turbine size and model, and would include between 54 (Siemens 2.3-MW) and 61 (Repower 2.0-MW) turbines. To conservatively estimate the maximum possible impact of Project construction, the DEIS evaluates impacts of a greater number (61) of the larger (Siemens 2.3 MW) turbine model. Of the 61 sites (the Preferred Layout), 30 WTGs are located in Ripley and 31 are located in Westfield;

- Construction of approximately 7.6 miles of Project access roads in the town of Ripley and approximately 8.5 miles of Project access roads in the town of Westfield along corridors with gravel surfaces no more than 36 feet wide. These roads would allow vehicles to access each WTG site during construction of the Wind Farm. After construction, the same corridors would be reduced to no more than 20 feet wide (16-foot road with 2-foot shoulders on either side) to allow access for operation and maintenance (O&M);

- Construction of a buried electrical collection system (ECS), predominantly collocated with Project access roads and existing rights of way (ROWs), that would interconnect each WTG to a Project substation. Throughout this DEIS impacts reported from the buried electrical collection system will include only those portions of the collection system not collocated with access roads or existing ROWs;

- Construction of a substation with one or more transformers that would increase the voltage of the electricity generated by the Wind Farm to the voltage of the Niagara Mohawk transmission line located within the Project Area in the town of Ripley;

- Construction of an O&M building that would contain management offices for Wind Farm personnel;

- Construction of a temporary construction laydown area where equipment and materials would be located during the construction of the Wind Farm; and

- Construction, off-site, of a temporary concrete batch plant and installation of one permanent meteorological tower.

1.2 Project Alternatives

During Project design, Ripley-Westfield Wind LLC considered alternative Project sizes, turbine technologies, Project location, and road and interconnect designs; an Alternative Layout that is evaluated in the DEIS; and a no-build alternative.

The Alternative Layout consists of 79 General Electric (GE) 1.5-MW xle WTGs. While the overall Project Area would be the same for the Preferred and Alternative Layout, the total roadway and collection line distances associated with the Alternative Layout are greater than the Preferred Layout.

The Project Site was selected through a systematic process that considered:

- Location of wind resources in New York State (NYS);

- Availability of existing roads and utility interconnections with adequate capacity in proximity to the locations with the most promising wind resources;

- Availability of land with landowners willing to sign lease option agreements for their property;

- Presence or absence of environmental constraints, including visual impacts, impacts on wetlands and streams, and important wildlife habitat; and

- Presence or absence of land use constraints including zoning and building restrictions and landowner restrictions.

1.3 Potential Project Impacts and Mitigation

Resource-specific impacts that may potentially be associated with the Project were evaluated during the DEIS process. Existing conditions were evaluated relative to critical environmental resources, communication signals, traffic and transportation, land use, socioeconomics, and cultural resources. When potential impacts were identified, every effort was made to avoid them through modifications to the Project design. When impacts could not be avoided, they were minimized to the extent practicable and mitigation strategies were developed, if necessary. Potential impacts were evaluated with respect to the following resource/receptor areas:

Wetlands

Project facilities were sited to minimize or avoid wetland impacts to the greatest extent practicable; however, some limited disturbance to wetlands will occur.

Under the Preferred Layout, construction of the Project will result in the temporary disturbance of 2.84 acres of wetlands, of which approximately 0.20 acres will be permanently impacted by placement of fill. Additionally, Project operation will result in the permanent conversion of 0.67 acres of state jurisdictional forested wetland to shrub/scrub or emergent wetland due to periodic removal of woody vegetation adjacent to access roads and within collection system corridors.

Under the Alternative Layout, construction of the Project will result in the temporary disturbance of 4.50 acres of wetlands, of which approximately 0.62 acres will be permanently impacted by placement of fill. Additionally, Project operation will result in the permanent conversion of 1.88 acres of state jurisdictional forested wetland to shrub/scrub or emergent wetland due to periodic removal of woody vegetation adjacent to access roads and within collection system corridors.

For those wetland impacts that cannot be avoided, mitigation will be completed as a condition of wetland disturbance permits that will be required prior to construction. Consistent with United States Army Corps of Engineers (USACE) and NYSDEC guidance, wetland impacts will be offset through wetland creation and/or enhancement of previously existing wetlands and the mitigation area will be hydrologically connected to waters of the United States. Ripley-Westfield Wind LLC has provided a Conceptual Wetland Mitigation Plan (see Appendix I) that takes into account the permanent and temporary loss of wetland functions and values provided by the impacted wetlands. A final mitigation plan will be developed in conjunction with NYSDEC and the USACE as part of the permitting process.

Upland Vegetation

Project construction activities will require minimal clearing of existing upland vegetation (forested, shrub/scrub, and herbaceous vegetation). Secondary effects may include increased soil mobilization and erosion, which may result in the localized reduction of available wildlife habitat. These potential impacts are most likely to occur in conjunction with the construction of the access roads and the collection system since the WTG sites, substation, the O&M building, and the temporary concrete batch plant will be located on relatively level ground. Construction also will result in a localized reduction in the amount of available forest habitat. Habitat fragmentation resulting from construction activities will be minimized by utilizing existing corridors to the extent practicable (e.g., existing farm and logging roads). The existing mosaic of land uses within the region, including agricultural resources and early successional stages of forest land, indicate that disturbance is a common occurrence in this landscape.

Similar impacts to resources are expected for both alternatives (Preferred and Alternative Layout). However, impacts will be lessened with adoption of the Preferred Layout. The Preferred Layout requires fewer Project facilities; therefore, disturbances will be reduced. The greatest difference in the two alternatives is found in the permanent impacts on upland vegetation resulting from ongoing

maintenance of the WTG sites, electrical collection system, and access road ROWs during facility operations.

As a greater number of WTGs is proposed under the Alternative Layout, there is a greater number of associated access roads and collection lines. Vegetation will be permanently removed from the location of the turbine pedestal, turbine crane pad, and 20-foot wide permanent access road (calculated based on a 16-foot width with 2-foot shoulders on either side of the road).

Under both alternatives, vegetation will be permanently removed for construction and operation of the O&M building and the substation. The permanent meteorological tower will occupy a small footprint in an open area and will require the removal of minimal vegetation for construction and installation of a concrete base. The remainder of the Project footprint will be allowed to naturally revegetate, although it will be subject to periodic removal of woody vegetation to maintain an herbaceous or shrub/scrub state, especially adjacent to access roads and within collection system corridors. The degree of impact is dependent on the type and amount of vegetation to be cleared, the rate of revegetation, and the frequency of maintenance (clearing/mowing) during Project operation.

Wildlife

No significant impacts to wildlife species are expected as a result of construction or operation of the Project. Most wildlife species are not expected to experience significant direct impacts as a result of construction of the Project and are expected to avoid the Project Site during the active construction period.

Most species present within the Project Area are expected to avoid areas during active construction periods. No impacts on threatened and endangered non-bird animal or plant species are expected as a result of construction or operation of the Project. Indirect impacts on wildlife will occur as a result of habitat alteration. The indirect loss of habitat will be minimal as compared to available habitat in the Project Area. Impacts on wildlife will be minimized through the implementation of best management practices (BMPs) to stabilize the ground surface and allow for successful revegetation following construction of the Project.

There are a number of species of local significance in the study area. Direct impacts to white-tailed deer and black bear as a result of construction of the Project will be temporary and limited to discouraging use of the areas where construction occurs. Although the Project will result in the removal of forested habitat, the clearing required for construction and operation of Project facilities will result in new understory growth and additional herbaceous and shrub/scrub habitats. Depending on species composition of the regrowth, these habitats could provide new foraging areas for both deer and bear. The Project is not likely to impact deer wintering concentration areas. Construction of the Project is not expected to significantly affect black bears. Beech nuts are an important source of food for black bears during the fall as they are preparing to hibernate. The low percentage of impacts to the beech-maple mesic forest will leave enough food available for the

bear population during the fall. While the underground collection line will cross four designated trout streams, the impacts to these streams (approximately 188 linear feet) are temporary. Stream bed and banks will be restored to preconstruction contours; there will be no permanent impacts to trout streams.

Construction of access roads and the underground collection system will impact wetlands (2.64 acres of temporary impacts and 0.20 acres of permanent impacts for the Preferred Layout; 3.88 acres of temporary impacts and 0.62 acres of permanent impacts for the Alternative Layout) that may provide habitat for herpetofauna (amphibian and reptile species; see Section 3.5, Wetlands, for additional discussion on wetland impacts). The Applicant will work closely with NYSDEC to minimize and/or avoid impacts to wetland communities that provide habitat to herpetofauna species. Measures such as perimeter sediment and erosion controls will be used to protect standing bodies of water, wetlands and streams, and other potential herpetofauna habitat during construction.

The operational impacts to habitat are expected to be consistent with activities and conditions that regularly occur throughout the Project Area, such as ground disturbance, mowing of vegetation, access road use associated with farming activities, and tree removal and access road use associated with logging activities. It is anticipated that wildlife in the Project Area is accustomed to disturbance of this nature and will either relocate to other adjacent suitable habitat, or adapt to post-construction site conditions. Conditions of available habitat will improve after construction is complete and areas are allowed to naturally revegetate.

Birds and Bats

No significant adverse impacts on migratory bird populations including raptors, passerines, and waterbirds are expected as a result of construction of the Project. While it is possible that the avian fatality rate could exceed the rates at other sites in NYS, the number of avian fatalities could still be less than other projects (e.g., Maple Ridge) because there would be fewer turbines installed and fewer collisions overall. There is a low risk of any substantial negative impact on habitat through loss, degradation, or displacement of breeding birds. No significant adverse impacts on breeding birds are anticipated from operation of the Project.

With implementation of monitoring activities, no significant adverse impacts from construction on threatened or endangered species are anticipated. Based on consultation with the USFWS, the Bald Eagle was identified as occurring in Chautauqua County, which although no longer protected under the Endangered Species Act (ESA) is federally protected under the Bald and Golden Eagle Protection Act. The NHP did not identify any threatened or endangered species within the Project Area but did identify four state-listed bird species within 10 miles of the Project Area. Pied-billed Grebe, Least Bittern, Bald Eagle, and Sedge Wren, all of which are state-listed threatened species (Salerno 2008). During field surveys one state-endangered species (Golden Eagle), two state-threatened species (Bald Eagle and Northern Harrier), and eight state species of special concern (Common Loon, Osprey, Sharp-shinned Hawk, Cooper's Hawk, Northern Goshawk, Red-shouldered

Hawk, Common Nighthawk, and Horned Lark) were observed in the Project Area; most in low numbers or as migrants. Only limited use of the Project Area is anticipated by endangered, threatened, and special concern bird species; therefore, the overall risk to threatened and endangered bird species from operation of the Project is considered low.

While Bald Eagles do not nest in the Project Area, there are three nests within several miles of the Project Area. Nesting Bald Eagles are sensitive to a variety of human activities but not all eagle pairs react to human activities the same way. The variability may be related to a number of factors, including visibility, duration, noise, extent of the area affected by the activity, prior experiences with humans, and tolerance of the individual nesting pair (USFWS 2007b). The USFWS recommendations for avoiding nest site disturbances include, 1) keeping a distance buffer between the activity and the nest, 2) maintaining a landscape buffer (forested or natural areas) between the activity and around nest trees, and 3) avoiding disruptive activities during the breeding season (USFWS 2007b). Under the activity-specific guidelines, construction of a wind farm is interpreted to be a Category B activity (i.e., building construction of three or more stories). As the construction activity is not anticipated to be visible from any of the nest sites and there is no similar activity (building construction) within one mile of the nest, the recommended minimum buffer is 660 feet (1/8 mile) (USFWS 2007b).

Since the nearest Bald Eagle nest (2007) is beyond the limits of the Project Area and is approximately 1 mile away from the closest turbine, no significant adverse impacts from construction activities on Bald Eagles are anticipated. With respect to operational impact, there is no suitable habitat for breeding of bald or Golden Eagles in the Project Area and there are no active nests in NYS (McGowan and Corwin 2008). The potential for direct mortality or injury, harassment, displacement, or habitat impacts are low.

There is a potential for indirect impacts on bats as a result of habitat alteration or loss in association with construction of the Project; however, these impacts are not expected to have a significant adverse effect on bat populations. Potential construction impacts on habitat, including possible loss of roost trees, could be caused by ground disturbance and tree removal activities that are also associated with farming and logging activities that are common to the area. It is anticipated that bats in the Project Area would return to temporarily disturbed areas upon completion of construction activity. It is unlikely that Indiana Bats would be found residing or migrating in the Project Area, and, therefore, any potential impacts are considered remote. The Eastern Small-footed Myotis, a bat species of special concern, was not identified in the Project Area and is not expected to be present. Therefore, potential impacts to this species are considered remote.

Agricultural Lands

The Project was designed to minimize impacts to agricultural land. Potential permanent impacts of the Project on agricultural lands include the loss, by conversion to non-agricultural uses, of prime farmland soils or soils of statewide im-

portance. Under both alternatives, some agricultural resources will be temporarily impacted by construction activities and some will be permanently impacted.

Under the Preferred Layout, 48.92 acres of prime farmland soils, soils of statewide importance, or prime farmland, if drained, will be permanently impacted. Under the Alternative Layout, 60.80 acres of prime farmland soils, soils of statewide importance, or prime farmland, if drained, will be permanently impacted by the Alternative Layout. Other impacts, such as subsoil/topsoil mixing, erosion and sedimentation, introduction of stones and rocks into surface soils, and compaction, may affect the long-term productivity of agricultural resources at the Project Site. These impacts will be minimized through mitigation measures including development and implementation of BMPs and a Stormwater Pollution Prevention Plan (SWPPP). Impacts to agricultural lands will be minimized by restricting Project equipment to the construction ROW. Overall the Project should benefit the agricultural landowners who have elected to have Project facilities located on their land. The minimal loss of productive agricultural land will be offset by the financial benefits the landowners will obtain from payments they will receive from the Developer for their participation in the Project.

Turbines located on active farms were sited, to the extent practicable, according to the New York State Department of Agriculture and Markets (NYSDAM) siting recommendations and guidelines. Input from the landowners was also considered to avoid or minimize impacts to current and future farm operations. To the extent practicable, roads and interconnects were located on the edge of agricultural land to minimize impact on agricultural operations. Underground collection lines located away from access roadways will be buried at an appropriate depth to further minimize impacts to farming practices.

Visual Resources

Based on an evaluation of the aesthetic resources, land uses, potential users and their activities, and visual simulations, it is apparent that the Project will change the visible landscape of the region and create a distinct visual aspect. The turbines will be unique and prominent visible features of the landscape from many locations. Federal Aviation Administration (FAA)-required lighting on the turbines will be visible from many viewpoints within the Project Area. Shadows from the turbines will fall on some residences.

To minimize visual impacts, towers will be tubular style to minimize textural contrast; white or off-white, as per FAA guidelines; and where specifications permit, will have non-specular paint to minimize reflected glare. Turbines will maintain a minimum setback from residential structures. Such separation of uses assures maximum screening benefit of existing woodland vegetation, where such exists, and minimizes the potential extended duration shadow flicker on nearby residences. For those residences where shadow flicker is anticipated to exceed the established threshold of 30 hours, the Developer will further investigate the specific conditions at the property (including orientation of the structure, location of windows, and vegetation) prior to completion of the SEQR process. For these

residences, if specific conditions at the property are not anticipated to result in a reduced number of shadow flicker hours, the Developer will explore temporary curtailment of WTG operation during high shadow hours of the day as the primary mitigation measure. Where fewer than 30 annual hours of shadow flicker are anticipated annually, the Developer will work with residents on a case by case basis where shadow hours are perceived by the resident as an actual annoyance. After construction, the Complaint Resolution process will be the primary means for residents to notify the Developer of issues with shadow flicker. Other mitigation options will include window shades, awnings and/or strategically placed vegetation.

Sound

Noise from construction activities associated with the Project is likely to temporarily constitute an unavoidable impact at some homes in the Project Area. Because construction activities will move from place to place around the Project Site, it is unlikely that there will be significant construction noise impacts at any single receptor for an extended period of time. Construction activities will generally occur between the hours of 7:00 a.m. and 7:00 p.m. in order to minimize and avoid unnecessary impacts to the community from construction noise.

The predicted sound pressure levels indicate that Project operation noise will likely be audible at homes in the vicinity of the Project. Based on the percentage of time that the worst-case wind speeds (those resulting in a 6dBA or greater sound differential) could occur, the Preferred and Alternative layouts are expected to comply with the NYSDEC guidance for the majority of the time (88% to 93.4% of the time). Wind speed data shows that wind speeds resulting in a 6dBA or greater sound differential will be experienced between 6.6% and 12% of the time, depending on the alternative and the season. There are instances in which the layouts will not comply with the Town of Westfield's zoning ordinance noise limit of 50 dBA applicable at the property lines of adjacent land parcels in both Ripley and Westfield. The Project will not comply with the Town guidance at the boundaries of six non-participating parcels under the Preferred Layout; and four non-participating parcels under the Alternative Layout.

Transportation

Traffic associated with the construction of the Project will consist of delivery vehicles for turbine components, materials associated with turbine site construction and assembly, and personal vehicles for workers. Delivery vehicles will range in size from oversized load tractor-trailers (used to deliver tower sections, turbine nacelle, rotor blades, and cranes) to smaller vehicles, such as dump trucks, concrete trucks, fuel delivery trucks, mechanics vans, and pickup trucks. Personnel vehicles will consist of automobiles and light trucks. Some improvements to local roads (i.e., culvert support and tree clearings) and expansion and/or modification of 11 intersections will be required to facilitate the turning radii and bearing weight of oversize/overweight vehicles. Other intersection and road improvements would be created during the construction of access roads. Oversized construction vehicles could cause minor delays, but these are unlikely to be signifi-

cant, given the relatively low traffic volume. For the Preferred Layout (61 WTGs), 1,464 individual truck trips would be generated for component delivery and 1,896 individual truck trips would be generated for the Alternative Layout (79 WTGs). For the Preferred Layout, 2,471 inbound concrete truck trips would be expected and for the Alternative Layout 3,200 inbound concrete truck trips would be expected for the WTGs.

Construction vehicle traffic of construction personnel and non-restricted loads will generally be limited to the hours of 6:00 a.m. to 7:00 p.m. Ripley-Westfield Wind LLC will enter into road-use agreements with the Towns that will designate approved construction transportation routes and commit the cost of both improvements and repairs to these routes to the Developer.

Socioeconomics

Project construction is not expected to have a long-term impact on housing and population in the region. A review of property value reports for wind farms in similar areas indicate there is no influence on property values attributed to wind farm construction. Average sale prices have, on the whole, increased, indicating that the existence of wind farms has not diminished real property values.

Construction of the Project will create an increase in local economic activity, including purchases of thousands of room-nights at local motels/hotels, automotive fuel, meals, and other items. The Project will extensively utilize and support providers of local services, suppliers, and area manufacturers during construction and operation of the Project.

Ripley-Westfield Wind anticipates entering into a payment-in-lieu-of-taxes (PILOT) agreement for the Project with Chautauqua County Industrial Development Agency (CCIDA), as well as Host Community Agreements under which annual payments will be made to the Towns of Ripley and Westfield. These payments will result in a significant increase in local revenue for the taxing authorities.

Cultural Resources

No prehistoric or historic archaeological sites were identified during the site investigations in the Project Area; as such, no archaeological resources will be impacted by construction or operation of the Project in the Project Area. Based on a database review conducted for the desktop survey for the proposed concrete batch plant, one previously identified archeologically sensitive area is located partially within the 200-acre parcel proposed for the concrete batch plant. Eight additional previously identified archeologically sensitive areas are located outside of the 200-acre parcel, but within the 1-mile buffer area. When the actual location of the proposed concrete batch plant footprint has been determined, an archaeological survey would be conducted for the archaeological Area of Potential Effect (APE) of the proposed concrete batch plant. In the event of an unanticipated discovery of archaeological resources during construction, the Developer will stop work

immediately in the vicinity of the find and contact the New York State Historic Preservation Office (NYSHPO).

The Project will not directly impact architectural resources (i.e., demolition of any National Register Eligible [NRE] buildings). While there is some potential for visual and noise impacts to structures potentially eligible for the National Register of Historic Places (NRHP) due to construction activities, it is unlikely that these impacts will be significant due to their temporary nature. Operation of the proposed concrete batch plant may have indirect temporary impacts on previously identified historic architectural resources but it is not expected to result in any permanent direct or indirect impacts to any architectural resources, including NRE properties, which have been or would be identified within the 1-mile buffer area around the parcel.

The proposed Project will be within view of 17 visual resources of Statewide Significance. Of these, 16 are properties listed on the NRHP. Considering that most of these properties are not open to the general public, and the listed historic significance is not associated with the cultural sensitivity of the setting (e.g., the listed historic significance of the property is associated with a person, event, and or architecture/engineering), the aesthetic significance of the Project on these resources is diminished.

The Project may be visible from two of the National Register of Historic Districts in the village of Westfield. Based on field observation, most ground level views in the direction of the Project within this district are substantially screened by mature street trees, site landscaping, and residential and commercial structures.

The proposed Project will be visible from a portion of the Seaway Trail Scenic Byway. Of the approximately 10.5 miles of the Seaway Trail traversing the Project study area, the high point of one or more turbines will be visible from approximately 8 miles. For much of this 8-mile stretch, visibility will include the upper portion of the tower, nacelle, and rotor of multiple turbines at background distances of 3 miles or more.

1.4 Cumulative Impacts

An analysis was conducted to determine whether the potential cumulative impacts that may arise from interactions between the impacts of the Project and the impacts of one other proposed wind power project in the area are significant. The construction of multiple wind power projects will result in localized impacts to wildlife, wetlands, agricultural lands and forest lands; however, neither the individual Project impacts nor the cumulative impact from other proposed projects are expected to be significant. Other proposed projects analyzed for potential cumulative impacts include Horizon's Arkwright Summit and Pomfret wind farms in the neighboring towns of Arkwright and Pomfret in Chautauqua County; Noble's Ball Hill Windpark in the towns of Villenova and Hanover; and Pattern's State Line I Project, adjacent to the Ripley-Westfield Wind Farm. Short-term, cumulative impacts on transportation may occur if the Projects are constructed during the

same time period; however, these impacts are expected to be temporary. The potential for long-term cumulative visual impacts are also possible. Cumulatively, construction and operation of the wind power projects will have significant long-term beneficial effects on the use and conservation of energy resources.

1.5 Project Benefits

The Project will generate electricity, using no fuels or water and with zero emissions or waste discharge, and provide it to the New York Independent System Operator (NYISO) grid using wind, a renewable resource. The Project will have capacity sufficient to generate approximately 125 MW of power that will help to meet New York State's Renewable Portfolio Standard (RPS) and fill the need for a more diverse national energy portfolio that would include a higher percentage of energy generated while utilizing renewable resources.

Local economic benefits of the Project will include:

- Temporary construction employment;
- Permanent operations and maintenance employment;
- Increased commerce in the towns and county due to spending by Project employees, suppliers, and local merchants;
- An increased flow of revenue to the county, Towns, and school districts through PILOT payments, and increased flow of revenue to the Towns through host community payments. While the detailed terms of both of these agreements remain to be negotiated, the significant terms agreeable to the Developer have been proposed to the Towns and the county. A summary of these significant terms is contained in Section 3.13 of this DEIS;
- Revenue to landowners resulting from the payments of royalties in accordance with lease agreements; and
- Increased economic diversification.

These benefits would not materially interfere with the continued use of the land for agricultural and recreational activities.

Construction of the Project will result in the direct employment of approximately 141 people, including electrical workers, crane operators, equipment operators, carpenters, iron workers, riggers, laborers, and other construction workers (with a total estimated payroll and benefits of $8.25 million), and create approximately 105 additional indirect and induced jobs countywide (with a total estimated payroll and benefits of $13.3 million). Construction contractors would likely hire a significant percentage of the construction workers from the local community. Personnel trained in specific procedures associated with wind turbine construction

will likely be transferred from other wind projects and temporarily reside in the area during the construction phase of the Project.

During plant operations the Project will employ approximately six to eight workers including skilled operators, management, and administrative personnel, with a total estimated payroll and benefits of approximately $1.0 million. Operation of the Project is estimated to create 30 more direct, indirect, and induced jobs countywide (with a total estimated payroll and benefits of $1.5 million).

The Project will utilize local services, suppliers, and area manufacturers during both construction and operation to the extent that they are available.

The Project will spend a total of approximately $20.5 million countywide during construction on equipment, materials, labor, and other development costs. Total economic benefits during construction based on those purchases are estimated at $34.8 million. This total includes payrolls, supplies, materials, hotel stays, meals, and other multiplier effects. During operation, the Project will spend an estimated $1.4 million annually on labor and materials and services, exclusive of PILOT and host community agreement payments and exclusive of landowner payments. Total annual economic benefits during operation are estimated at about $5.8 million, through employment, purchase of supplies and materials, wind farm Option Agreements, PILOT and host community payments, and economic multiplier effects. Total countywide economic benefits, based upon regional multipliers applied to direct Project expenditures in original capital investment and ongoing operational expense, are estimated to be about $720 million over 20 years.