

Villanova Wind Construction Sequencing

Nature of the Construction Activities

The construction of the community wind project in Villanova, NY will be similar in many ways to a typical construction project. Tree clearing, site grading, erosion and sediment control measures will all be typical to any construction project in New York. Additionally, utility work associated with the project will be conducted to local utility standards. The unique feature of this project is the installation and wiring of the wind turbine. The community wind project in Villanova will consist of three wind turbines. Associated developments for access and interconnection of the project include a gravel access road, laydown areas, a crane pad, and utility pole mounted interconnection equipment. The following section of this document identifies the phases and durations expected for construction of the Villanova community wind project.

Construction Sequencing

The sequence of major activities is expected to be as follows:

- **Preconstruction** – A building permit will be applied for with the local Building Department. Any conditions of the projects Special Permit that are required to be addressed prior to construction will be submitted to the town during this phase. Additionally, this time will be used to survey and inventory the turbine delivery route. This will document the existing conditions of the roadway to allow for remediation/repair as needed upon completion of construction.
- **Site Mobilization and Environmental Controls** - Prior to any earth disturbances, erosion control measures will be installed on site. These will initially consist primarily of silt fence and silt sock, which not only serve as erosion control measures, but also denote limits of work as well as wetland features. Wetlands will also be re-flagged as needed and limits of work will be established in order to protect environmental resources.
- **Tree Clearing** - The site will be cleared of trees as outlined in the site construction plans, beginning with the access road area. A temporary logging access will be installed in the location of the proposed access road. This will provide access to the main turbine area while tree clearing continues. Tree clearing is expected to be complete within the first month of construction.
- **Access road construction** - The proposed access road will be installed once the area has been cleared of trees and stumps. There will be access roads off of South Hill Road as well as Route 83.
- **Site earthwork** - Once the site has been cleared of trees, earthwork will commence. The turbine area will be leveled as needed to provide the slopes and grades shown on the construction plans. Additionally, road grading and stormwater features will be shaped and

installed early in the project construction. This phase is estimated to take approximately 1 month.

- **Foundation Work and conduit installation** - As the final grades of the turbine area and road are completed the excavation and concrete work for the turbine foundation will begin. Rebar work, construction of the foundation forms, and concrete placement will likely partially overlap with the previous phase and last approximately 1 month.
- **Delivery and Installation of Turbine** - Upon completion of civil site work, the turbine delivery will commence. Components will be delivered, including delivery of the primary crane to be utilized for construction. With the crane completed and turbine components delivered, the actual installation of the turbine will begin. The turbine assembly is anticipated to be performed in 1 month.
- **Electrical wiring including Installation of transformers and inverters** - As electrical equipment is installed, the various electrical connections and wiring will be pulled. This includes utility poles and associated interconnection equipment. This phase will be the final significant construction on site.
- **Final site seeding and stabilization** - Throughout construction, the site will be stabilized to ensure no sediment is transported offsite. Upon completion of major site work, the site will be seeded with the permanent seed mix, as designated on the site plans.

Commissioning

Upon completion of the sequencing listed above, which is anticipated to take approximately 6 months in total, the project will reach mechanical completion. Significant construction activities will cease, and the site will begin the commissioning phase. During this period, a limited number of personnel will be on site, with the purpose of testing and commissioning equipment. Final project completion will be obtained once all equipment is commissioned, and Permission To Operate (PTO) is obtained from the utility. Upon final completion, the site will be unmanned, with personnel on site only for routine operation and maintenance.

Compliance Testing and Final Road Inspection & Remediation

Upon commissioning of the turbine, regular operation will begin. During the initial operation of the turbine, any conditions or compliance testing required will be performed. At this time, any special conditions or post-construction monitoring or reporting as required in the Special Use Permit will be completed. Additionally, at this stage, construction traffic will have ceased, and so a final road inspection will be performed to identify areas that may have been damaged during turbine component delivery. The final phase will be remediation of any road damage, as outlined in the project's Road Use Agreement.