

High Bridge Wind Project

Case No. 18-F-0262

1001.3 Exhibit 3

Location of Facilities

EXHIBIT 3 LOCATION OF FACILITIES

(a) Topographic Maps

Figure 3-1 shows the location of the components of the major electric generation and interconnection facilities associated with the proposed High Bridge Wind Project, including the wind turbines, access roads, electrical collection lines, the collection substation (which includes battery storage), the point of interconnection (POI) substation, the overhead transmission line (non-Article VII), permanent meteorological towers, the operation and maintenance (O&M) facility, the concrete batch plant (if used), and laydown area. These components, collectively referred to as the “Facility,” are mapped on U.S. Geological Survey (USGS) 1:24,000 topographic quadrangles printed at full-scale via topographic tile cache base map server. This map service combines the most current data (Boundaries, Elevation, Geographic Names, Hydrography, Land Cover, Structures, Transportation, and other themes) that make up the National Map (USGS, 2017). The National Map is a collaborative effort between the USGS and other federal, state, and local partners to improve and deliver topographic information for the United States (USGS, 2018). The USGS Topo Map Service is designed to provide a seamless view of the data in a geographic information system (GIS) accessible format and depicts information consistent with the USGS 7.5-minute (1:24,000) quadrangle topographic maps at large scales (USGS, 2017).

(1) Proposed Major Electric Generating Facility Locations

For the purposes of this Article 10 Application, the Facility Site is defined as those parcels currently under or being pursued for lease (or other real property agreement) by the Applicant for the location of all Facility components. Figure 3-1 depicts the location of all Facility components within the Facility Site displayed at a scale of 1:24,000, including:

- Wind turbines
- Access roads
- Electrical collection lines¹
- Collection substation²
- POI substation
- Overhead transmission line (non-Article VII)³
- Permanent meteorological tower(s)
- O&M facility⁴
- Concrete batch plant⁵
- Laydown area⁵

¹Electrical collection lines will be buried to the maximum extent practicable.

² Battery storage will be housed within the footprint of the collection substation.

³ Approximately 200 feet of overhead transmission line will connect the collection and POI substations.

⁴ This includes ancillary features such as a maintenance shed, parking lot, etc.

⁵ The batch concrete plant (if used) and laydown area will be collocated with the O&M building.

Figure 3-2 separately depicts the collection substation, POI substation, the overhead transmission line, and the incoming collection line. As depicted in Figure 3-2, the Facility's collection substation will be constructed adjacent to the POI substation. Permanent stormwater features (e.g., large detention basins) will be utilized during operation of the Facility. See the Stormwater Pollution Prevention Plan (SWPPP) (Appendix 21-D) for a full discussion of these features and where they will be located.

(2) Interconnection Location

All Facility components, including the interconnection facilities, will be located within the defined Facility Site and therefore are mapped in Figures 3-1 and 3-2, as indicated in Exhibit 3(a)(1). There are no municipal interconnections (i.e., potable water mains, wastewater conveyances, etc.) within the Facility Site. The closest municipal interconnection is the Mt. Upton Water District, which is located 0.31 miles east of the Facility Site (see Exhibit 23(a)(2)).

(3) Location of Ancillary Features

Based on all studies and analyses conducted to date, the only known off-site ancillary features associated with the Facility are temporary public road improvements, which are depicted in Figure 3-3.

(4) Location of Article VII Transmission Lines Not Subject to Article 10

The Facility does not include any components (i.e., transmission lines) that are regulated under Article VII of the New York Public Service Law. As a result, this section is not applicable to the Facility.

(5) Study Area

The Facility has been the subject of numerous studies in support of this Article 10 Application. A single, universal study area has not been utilized for all studies/analyses. Rather, the various studies have applied resource-specific study areas, which are described briefly below along with a reference to the exhibit in which more information concerning the study area is provided, as applicable.

- 5-mile Study Area – The area within a 5-mile radius of Facility components. Various land use characteristics (e.g., zoning, land use classifications, and existing utilities) were characterized within this study area.
- Area of Potential Effect (APE) for Direct Effects (see Exhibit 20 for additional detail) – The area containing all proposed soil disturbance potentially associated with Facility construction and operation. Direct effects on archaeological resources were analyzed within this area.
- Area of Potential Effect (APE) for Indirect Effects (see Exhibit 20 for additional detail) – The area within a 5-mile radius of proposed turbines and within the potential viewshed (based on topography) of the Facility. Indirect effects on cultural resources (e.g., visual and auditory effects) were analyzed within this area.⁶
- Bird and Bat Survey Area (see Exhibit 22 for additional detail) – A variety of surveys were implemented to support bird and bat studies. The specifics are study dependent. Transects were utilized for spring breeding bird surveys, radius plots were utilized for raptor migration surveys and eagle use surveys.
- Communications Study Area (see Exhibit 26 for additional detail) – The baseline study area is the area within a 2-mile radius of Facility components. This baseline study area was used to assess the potential impact of the Facility on communications and was extended as necessary for some communication types (e.g., radio, television, microwave, radar, etc.) as required by 16 NYCRR § 1001.26.
- Environmental Justice Study Area (see Exhibit 28 for additional detail) – The area within a 0.5-mile radius of Facility components (consistent with the criteria set forth in 6 NYCRR § 487.4), the potential impact of the Facility on environmental justice (EJ) communities was assessed within this study area.
- Historic Resources Study Area - The area within 5 miles of the Facility Site and including the municipal boundaries of the City of Norwich in Chenango County and the Village of Sidney in Delaware County. The Facility's potential effect on historic resources were studied within this area.
- Noise Study Area (see Exhibit 19 for additional detail) – The area within a 1-mile radius of proposed turbine locations and substations. The potential for noise impacts resulting from the construction and operation of the proposed Facility was assessed within this study area.
- Route Evaluation Study Area (see Exhibit 25 for additional detail) – All proposed transportation routes, beginning where these routes exit major interstates or state highways and ending at Facility access roads. Transportation impacts resulting from the construction and operation of the proposed Facility were assessed within this study area.

⁶ Note: Indirect effects on cultural resources (e.g., visual and auditory effects) for those areas within the City of Norwich and the Village of Sidney that are within the potential viewshed (based on topography) of the Facility were also assessed.

- Shadow Flicker Study Area (see Exhibits 15 and 24 for additional detail)– The area within a 10-rotor-diameter (i.e., 5,184-foot) radius of proposed turbine locations. The potential for impacts resulting from shadow flicker was assessed within this study area.
- Visual Study Area (see Exhibit 24 for additional detail) – The area within a 10-mile radius of Facility components. The potential for visual impacts resulting from the construction and operation of the proposed Facility was assessed within this area.
- Water Well Study Area (see Exhibits 21 and 23 for additional detail) – The area within a 1-mile radius of the Facility Site, for publicly available groundwater well data; and the area within a 500-foot radius of the Facility Site and within a 0.5-mile radius of blasting locations, for groundwater well data not publicly available (e.g., groundwater wells identified through water well surveys, non-public data received directly from government agencies).
- Wetland Study Area (see Exhibit 22 and 23 for additional detail) – All areas in the Facility Site within 500 feet of areas to be disturbed by construction. Wetlands and streams were delineated within this area per the three-parameter methodology described in the U.S. Army Corps of Engineers (USACE) *Wetland Delineation Manual* (Environmental Laboratory, 1987), and further described by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: North Central and Northeastern Region* (USACE, 2012). Vernal pools were also identified within this area.

(b) Municipal Boundary Maps

Figure 3-3 depicts the location of the proposed Facility, the Facility Site, and the location of temporary road improvements in relation to village, town, county, and school district boundaries. These locational relationships are described in Exhibit 3(c). Consistent with the discussion in that section, the mapping does not depict alternative locations. The latitude, longitude, and ground surface elevation of all proposed turbines are detailed in Table 3-1 below.

Table 3-1. Latitude, Longitude, and Elevation of All Proposed Turbines.

Turbine Name	Latitude	Longitude	Elevation (feet)
101	42° 26' 50"N	75° 29' 52"W	1784
102	42° 26' 32"N	75° 29' 21"W	1843
103	42° 26' 16"N	75° 28' 30"W	1766
104	42° 26' 47"N	75° 28' 12"W	1822
105	42° 27' 26"N	75° 28' 24"W	1858
106	42° 26' 59"N	75° 27' 45"W	1922
112	42° 27' 50"N	75° 26' 13"W	1704
113	42° 27' 43"N	75° 25' 43"W	1624
115	42° 26' 58"N	75° 25' 45"W	1764

Turbine Name	Latitude	Longitude	Elevation (feet)
117	42° 26' 51"N	75° 25' 6"W	1583
118	42° 26' 45"N	75° 24' 33"W	1425
120	42° 26' 10"N	75° 25' 17"W	1845
121	42° 26' 2"N	75° 24' 34"W	1717
122	42° 26' 7"N	75° 27' 29"W	1786
123	42° 26' 26"N	75° 27' 25"W	1803
124	42° 26' 38"N	75° 26' 56"W	1706
126	42° 25' 7"N	75° 24' 50"W	1806
127	42° 25' 12"N	75° 24' 26"W	1663
128	42° 25' 2"N	75° 24' 7"W	1722
129	42° 24' 52"N	75° 24' 50"W	1714
130	42° 24' 58"N	75° 25' 11"W	1685
131	42° 24' 42"N	75° 25' 7"W	1604
133	42° 24' 33"N	75° 24' 51"W	1563
134	42° 24' 7"N	75° 25' 2"W	1419
135	42° 23' 53"N	75° 25' 6"W	1404

(c) Description of Proposed Facility Locations

The Facility Site is in Chenango County within the Town of Guilford. The Facility Site is also located within the Bainbridge-Guilford Central School District and the Gilbertsville-Mount Upton Central School District (USCB, 2016). See Table 3-2 for a summary of the number of Facility turbines that are proposed within each of these jurisdictions. The Applicant is not aware of any other applicable municipal boundaries, taxing jurisdictions, or designated neighborhoods or designated community districts with jurisdiction intersecting the Facility Site.

Table 3-2. Number of Turbines by Municipal Boundary and Taxing Jurisdiction

Municipal Boundary/Taxing Jurisdiction		Number of Turbines
County	Chenango	25
Town	Guilford	25
School District	Bainbridge-Guilford Central School District	8
	Gilbertsville-Mount Upton Central School District	17

Note, existing disturbances will be utilized wherever practicable in siting Facility components. For example, linear Facility components (e.g., access roads, electrical collection lines) will be sited on or adjacent to existing logging roads, farming roads, and other access roads in many locations. See Exhibit 12(c) for a full discussion of how the Applicant will avoid interference with existing utility systems.

With respect to reasonable and available alternative location sites, note that the Applicant, as a private facility applicant, does not have (and does not anticipate having) eminent domain authority. See Exhibit 9 provides a discussion of alternative and the process by which the proposed Facility Site was selected.

REFERENCES

NYS GIS Program Office (NYSGPO). 2018. *NYS Civil Boundaries* [shapefile]. Available at: <http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=927>. (Downloaded April 19, 2018). Released April 2018.

United States Census Bureau (USCB). 2016. *Unified School Districts* [shapefile]. Available at: <ftp://ftp2.census.gov/geo/tiger/TIGER2016/> (Downloaded July 26, 2017). Released August 19, 2016.

United States Geological Survey (USGS). 2017. *The National Map: USGS Topo (Map Server)*. Available at: <https://basemap.nationalmap.gov/arcgis/rest/services/USGSTopo/MapServer>. (Accessed April 2018).

USGS. 2018. *The National Map: Introduction to The National Map*. Available at: <https://nationalmap.gov/about.html>. (Accessed April 2018).