High Bridge Wind Project

Case No. 18-F-0262

1001.20 Exhibit 20

Cultural Resources

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EXHIBIT 20 CULTURAL RESOURCES

The Applicant has consulted with the New York State Office of Parks, Recreation and Historic Preservation/State Historic Preservation Office (NYSOPRHP/SHPO) to develop the scope and methodology for cultural resources studies for the High Bridge Wind Project (the Facility).[1] To date, formal consultation with NYSOPRHP/SHPO has included initiating Facility review and consultation through NYSOPRHP/SHPO's Cultural Resources Information System (CRIS) website,[2] submission of technical reports/work plans, and completion of follow-up cultural resource surveys.

Cultural resources studies typically define an Area of Potential Effect (APE), which defines the potential impacts and appropriate study area for a given project. Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) prepared the project-specific cultural resources studies for the High Bridge Wind Project, which included an APE for Direct Effects, defined as those areas where soil disturbance (or direct physical impacts) is proposed to occur during construction. The APE for Indirect Effects includes those areas where the Facility may result in indirect effects on historic resources, such as visual or auditory effects. These potential effects, and the studies undertaken to evaluate the Facility's potential effects on cultural resources, are described in greater detail below.

(a) Archaeological Resources

(1) Summary of Impacts and Avoidance Measures

To identify potential archaeological sites within the Facility Site, the Applicant completed a summary Phase IB archaeological survey in accordance with the Phase IA Archaeological Survey[3] (EDR, 2019a; Appendix 20-A), which was reviewed and approved by the NYSOPRHP/SHPO (Herter, 2019). To support the Applicant's Article 10 Application, a Phase IB Archaeological Survey Summary Report[4] has been prepared (EDR, 2019b; Appendix 20-B). Consistent with the procedure/schedule established by NYSOPRHP/SHPO, a more-detailed Phase IB archaeological survey report is currently being prepared and will be submitted to NYSOPRHP/SHPO at a later date.

[1] As defined throughout this Application, the Facility refers to all components of the proposed 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.

[2] NYSOPRHP's Cultural Resources Information System is accessible at: https://parks.ny.gov/shpo/online-tools/.

[3] This report was submitted to the NYSOPRHP/SHPO in April 2019. Per Section 14.09 of the New York State Historic Preservation Act, archaeological site location information is considered sensitive and should therefore be treated as confidential: "… Information on archaeological sites that may be damaged by unauthorized investigators if their location be generally known may be withheld from the public at the discretion of the commissioner in consultation with the commissioner of Education, and will be released, where appropriate, in a format approved by such commissioners" (also summarized within NYSDOT, 2015). Therefore, the Phase IA Archaeological Survey is a confidential report.

[4] Submitted to the NYSOPRHP in August 2019. The results of the Phase IB survey are summarized herein.

The Phase IB archaeological survey identified a total of four archaeological resources (Pre-Contact Isolates 1-3 and the W. Doolittle Historic-Period Site) and 35 stone features in 10 discrete locations (Stone Feature Loci 1-10). The archaeological resources and stone features identified during the Phase IB survey are summarized in Table 20-1 below. None of the archaeological sites identified during the Phase IB survey are anticipated to be determined eligible for inclusion on the State/National Register of Historic Places (S/NRHP).

The locations of stone features have been shared with the Applicant and their design engineers. The Facility design team is currently assessing the feasibility of avoiding impacts to all stone features located within the APE for Direct Effects (see Table 20-1). The Applicant will continue to consult with NYSOPRHP/SHPO to determine if additional avoidance measures are warranted. Because no archaeological sites or stone features recommended as potentially eligible for the S/NRHP are anticipated to be impacted by the Facility, no Phase II investigations are planned.

The mapped locations of all potentially significant (i.e., S/NRHP-eligible or unevaluated) archaeological sites and stone features within approximately 200 feet (61 meters) of proposed Facility-related impacts will be identified as "Environmentally Sensitive Areas," or similar, on Facility construction maps and marked in the field by construction fencing with signs that restrict access. These areas will be regarded as off-limits but will not be identified as archaeological sites in order to protect the resources via discretion and confidentiality. These measures should be adequate to avoid impacts to archaeological resources.

In the event that unanticipated archaeological resources or stone features are encountered during construction, the Facility's Unanticipated Discovery Protocol (UDP) will include provisions to stop all work in the vicinity of the archaeological finds or stone features until those resources can be evaluated and documented by an archaeologist. With the adoption of these measures, additional avoidance measures currently being assessed, and continued consultation with the NYSOPRHP/SHPO, the proposed Facility is not anticipated to affect any potentially significant archaeological resources or stone features.

(2) Phase IA Cultural Resources Study

The Phase IA Archaeological Survey (EDR, 2019a; Appendix 20-A) was submitted through the CRIS website on April 30, 2019, approved by NYSOPRHP/SHPO on May 10, 2019 (Herter, 2019), and is summarized below. The purpose of the Phase IA archaeological resources survey was to:

1) Define the Facility's APE relative to archaeological resources (i.e., direct effects) based on the anticipated area of disturbance for Facility components;

2) Determine whether previously identified archaeological resources are located in the APE for Direct Effects; and,
3) Propose a methodology to identify archaeological resources within the APE for Direct Effects, evaluate their eligibility for the S/NRHP, and assess the potential effect of the Facility on those resources.

The Phase IA report was prepared by professionals who satisfy the qualification criteria per the Secretary of the Interior's Standards for archaeology (36 CFR Part 61) and in accordance with applicable portions of NYSOPRHP/SHPO's *Phase I Archaeological Report Format Requirements* (NYSOPRHP, 2005).

Relative to the potential for archaeological sites to be located in vicinity of the Facility, the results of the Phase IA archaeological resources survey for the proposed Facility can be summarized as follows:

- Twenty-three previously recorded archaeological sites occur within 1 mile (1.6 km) of the Facility Site. One of these sites partially overlaps with Facility Site but is not within the APE for Direct Effects.
- Based on topography, setting, soil, and proximity to water sources, as well as the presence of previously recorded archaeological sites within or near the Facility Site, there is a potential for pre-contact archaeological resources to be located within portions of the Facility Site.
- There is also a potential for historic-period (i.e., nineteenth and/or twentieth century) archaeological resources to be located within the Facility Site. This potential is generally considered to be low throughout the Facility Site, except in areas located near the former locations of structures identified on historical maps. Archaeological resources associated with these sites could include foundations, structural remains, artifact scatters, and/or other features.

In addition, the Phase IA Archaeological Survey (EDR, 2019a) proposed a methodology to conduct a Phase IB archaeological survey for the Facility, which was reviewed and approved by the NYSOPRHP/SHPO (Herter, 2019). These methods, which are consistent with 16 NYCRR § 1001.20 and the *SHPO Wind Guidelines*, are described in detail in in Section 4 of the Phase IA Archeological Survey (EDR, 2019a: pages 30-39). The results of the Phase IB archaeological survey are described below.

(3) Phase IB Cultural Resources Study

The Applicant conducted a Phase IB archaeological survey to identify archaeological sites within the Facility Site. The Phase IB survey and the Phase IB Archaeological Survey Summary Report (Appendix 20-B) were completed under the supervision of Registered Professional Archaeologists (RPA) in a manner consistent with the New York Archaeological Council (NYAC) *Standards for Cultural Resource Investigations and Curation of Archaeological Collections in New York State* (the *NYAC Standards*) (NYAC, 1994). Consistent with the procedure/schedule

established by NYSOPRHP/SHPO, a more-detailed Phase IB archaeological survey report is currently being prepared and will be submitted at a later date. This report is being prepared in accordance with NYSOPRHP/SHPO's *Phase I Archaeological Report Format Requirements* (NYSOPRHP, 2005).

The scope and methodology for the Phase IB archaeological survey was proposed in the Phase IA Archaeological Survey (EDR, 2019a; Appendix 20-A). The *New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work* (the *SHPO Wind Guidelines*; NYSOPRHP, 2006) suggest the following the approach detailed in *Archaeological Investigations in the Upper Susquehanna Valley, New York State* (Funk, 1993) in the design of archaeological surveys for wind projects. The approach involves identification of broad environmental zones with local habitat (or landscape class) subdivisions. The archaeological survey subsequently includes intensive sampling of selected areas within each of the identified landscape classes, rather than undertaking an even distribution of sampling throughout the APE for Direct Effects. Following this approach, EDR used Geographic Information System (GIS) software to identify landscape classes within the Facility Site and proposed an archaeological sampling strategy.

The Facility's APE for Direct Effects is a conservative representation of those areas where soil disturbance may occur during construction of the Facility and is currently estimated at 278.2 acres.[5] The anticipated APE for Direct Effects was calculated based on the following conservative soil disturbance assumptions:

- **Wind Turbines:** In order to create a workspace for turbine assembly and erection, up to a 225-foot (69-m) radius around each proposed wind turbine site will be submitted to temporary topsoil stripping and grading. This will result in soil disturbance of up to approximately 3.7 acres (1.5 ha) per turbine.
- **Access Roads:** The width of temporary soil disturbance is anticipated to be 60 feet (18 m).
- **Collection Lines:** The width of temporary soil disturbance is anticipated to be 60 feet (18 m) for collection line construction.
- **Overhead Transmission Line:** The Facility is proposed to include a short section of overhead transmission line. This component, which will only include two poles, will not result in any disturbance as it will be located within the collection and POI substations.
- **Collection Substation:** The Facility will require one collection substation, the construction of which is anticipated to disturb up to 2.1 acres (0.8 ha).
- **POI Substation:** The Facility will require one POI substation, the construction of which is anticipated to disturb up to 2.1 acres (0.8 ha).

[5] At the time the Phase IA Archaeological Survey (EDR, 2019a) was submitted to the NYSOPRHP/SHPO, the anticipated APE for Direct Effects was estimated at 277.6 acres.

- **Permanent Met Tower:** The Facility will require two permanent met towers, the construction of which is anticipated to disturb up to 1 acre (0.4 ha).
- **O&M Facility:** The Facility will require one O&M facility, the construction of which is anticipated to disturb up to 3 acres (1.2 ha).
- **Laydown/Staging Area:** The Facility will require one temporary laydown/staging area, the construction of which is anticipated to disturb up to 10 acres (4 ha).

The Phase IB archaeological survey fieldwork was conducted within the APE for Direct Effects between March and June 2019 in accordance with the Phase IA research design previously reviewed and approved by NYSOPRHP/SHPO (EDR, 2019a; Herter, 2019). The locations of areas selected for intensive archaeological sampling within the APE for Direct Effects were determined in the field using professional judgment under the direction of an RPA. Two areas were prioritized during the selection process for shovel testing: (1) areas where proposed Facility components are located in proximity to structures depicted on historical maps; and (2) areas deemed to have high sensitivity for pre-contact Native American archaeological material. Within the 278.2-acre APE for Direct Effects, 73.4 acres have slopes greater than 12-15% and were not tested (per SHPO guidelines). This results in a final 204.8-acre testable area within the APE for Direct Effects. The Phase IB archaeological survey performed in 2019 involved a pedestrian surface survey of 21.7 acres and shovel testing of 212.5 acres within and adjacent to the APE for Direct Effects (i.e., 1,508 shovel tests) for a total of 234.2 tested acres. This represents a 114.1% level of effort over the 205.3 acres that were proposed to be tested.

In addition, the entire Facility layout was subjected to a pedestrian reconnaissance survey to identify stone features[6] and potential rockshelter sites[7], which totaled 902 acres. Therefore, the amount of archaeological survey fieldwork conducted for the Facility significantly exceeds the level of effort necessary to survey the APE for Direct Effects (per the *SHPO Wind Guidelines* [NYSOPRHP, 2006]).

As summarized below in Table 20-1 and further described in the Phase IB Archaeological Survey Summary Report (EDR, 2019b; Appendix 20-B), the survey resulted in the identification of four archaeological resources, consisting of three pre-contact isolates and one historic-period archaeological site. Thirty-five stone features in 10 discrete locations were also identified. A total of 53 historic-period and three pre-contact artifacts were collected during the survey.

[6] For the purposes of this exhibit, these are defined as a type of cultural feature constructed from stacking, piling, aligning, modifying, moving, or otherwise altering one or more stones into various configurations including groupings (piled or stacked concentrations of stones of variable size and shape), mounds, rows, walls, chambers, niches, effigies, etc. These features, if constructed by Native Americans, are considered ceremonial, sacred, or otherwise significant.
[7] For the purposes of this exhibit, these are defined a rock overhangs that have the potential to be have been utilized by Native Americans for shelter.

Table 20-1. Summary of Archaeological Resources and Stone Features Identified During the Phase IB Survey.

Name	Description	Potential Impacts	Avoidance Measures
Pre-Contact Isolate 1	Pre-Contact Isolate	Within current layout	None[1]
Pre-Contact Isolate 2	Pre-Contact Isolate	Within current layout	None[1]
Pre-Contact Isolate 3	Pre-Contact Isolate	None	None[1]
W. Doolittle Historic-Period Site	Foundation and Well	Within current layout	None[1]
Stone Feature Locus 1	Four features	None	None
Stone Feature Locus 2	One feature	None	None
Stone Feature Locus 3	One feature	None	None
Stone Feature Locus 4	Fifteen features	None	None
Stone Feature Locus 5	One feature	None	None
Stone Feature Locus 6	One feature	None	None
Stone Feature Locus 7	One feature	None	None
Stone Feature Locus 8	Seven features	One feature within current layout	If possible, impacts to all features will be avoided
Stone Feature Locus 9	One feature	Within current layout	If possible, impacts to feature will be avoided
Stone Feature Locus 10	Three features	None	None

[1] Not anticipated to be determined S/NRHP-eligible.

The Applicant is evaluating the feasibility of Facility design measures to avoid impacts to Stone Feature Loci 8 and 9. The Applicant will continue to consult with NYSOPRHP/SHPO to determine if additional avoidance measures are warranted. Except for these stone feature loci, no archaeological sites or stone features recommended as potentially S/NRHP-eligible will be impacted by the Facility. Therefore, no Phase II site investigations are anticipated to be necessary.

(4) Phase II Study

As described above, the Applicant has avoided and/or is continuing to assess measures to avoid the locations of all stone features (as well as other sensitive environmental locations, such as wetlands). The Applicant will continue to consult with NYSOPRHP/SHPO to determine if additional site avoidance measures are warranted. Because no archaeological sites or stone features recommended as potentially S/NRHP-eligible will be impacted by the Facility, no Phase II site investigations are anticipated to be necessary.

It should be noted that Phase II investigations are not warranted for archaeological sites that do not meet the criteria for listing on the S/NRHP. Although unevaluated sites have not been formally investigated and evaluated with regard to the S/NRHP, they are being treated as potentially eligible for the purposes of site avoidance. However, if necessary, Phase II studies would be designed to obtain detailed information on the integrity, limits, structure, function, and cultural/historic context of an archaeological site or stone feature, as feasible, sufficient to evaluate its potential eligibility for listing on the S/NRHP.

(5) Archaeological Material Recovered During Cultural Resources Studies

As previously noted, a total of 53 historic-period and three pre-contact artifacts were collected during the Phase IB archaeological survey from the ground surface and from shovel tests. These collected artifacts were cleaned, catalogued, inventoried and curated in a manner consistent with professional standards, such as the *NYAC Standards* (NYAC, 1994). When the artifacts were collected in the field, archaeologists recorded standard provenience information and collected each artifact in sealed plastic bags per standard archaeological field practices. All recovered materials were washed, dried, and cataloged per standard archaeological laboratory procedures. Following processing and analysis, artifacts were curated in 4-mil polyethylene bags. Recovered artifacts were described to a level of detail sufficient to prepare an artifact inventory for inclusion in the future complete Phase IB archaeological survey report, which will include descriptions of each artifact's material, temporal or cultural/chronological associations (when possible to ascertain), style, and function. Complete photographic documentation of all collected artifacts was not conducted. The Applicant understands that all artifacts are the property of the landowner from which they were recovered. If appropriate, the consultant may identify local repositories (such as local historical societies or archaeological museums) for disposition of recovered artifacts.

(6) Unanticipated Discovery Protocol

A UDP is included as Appendix 20-C of this Application. The UDP identifies the actions to be taken in the unexpected event that resources of cultural, historical, or archaeological importance are encountered during Facility construction. The plan includes a provision for work stoppage upon the discovery of stone features or possible archaeological or human remains. Evaluation of such discoveries, if warranted, will be conducted by a professional archaeologist, qualified according to the *NYAC Standards* (NYAC, 1994)

(b) Historic Resources

Historically significant resources are defined herein to include buildings, districts, objects, structures, and/or sites that have been listed on the S/NRHP, as well as those properties that NYSOPRHP/SHPO has formally determined are eligible for listing on the S/NRHP.

(1) A Complete Historic Resources Survey

<u>Area of Potential Effect Relative to Aboveground Historic Resources</u>

The Facility will have no physical impact on aboveground historic resources (i.e., no historic structures will be damaged or removed) during construction or operation of the Facility. The Facility's potential effect on a given historic property would be a change in the property's visual and auditory setting resulting from the introduction of

wind turbines or other Facility components. Therefore, the APE for Indirect Effects on historic resources includes those areas where Facility components will be visible or audible. To ensure that potential visual effects on visually sensitive historic resources are adequately considered, NYSOPRHP/SHPO has requested as part of ongoing consultation for the Facility that a Historic Resources Study Area be established for assessing indirect (visual/auditory) effects of the Facility.

Per the requirements set forth in set forth in 16 NYCRR § 1000.2(ar), an appropriate study area for considering visual effects of major electrical generating facilities on historic properties is the area within five miles of the Facility. In addition, as requested in review correspondence from the New York State Department of Public Service (NYSDPS), the Historic Resources Study Area was expanded sufficiently to address the Cities of Norwich and Sidney in assessing visual effects on historic resources (NYSDPS, 2019), as described below.[8]

Phase IA Historic Resources Survey

On October 10, 2018, EDR and the Applicant met with NYSOPRHP staff for a preliminary discussion of the scope of historic resources and archaeological studies for the Facility. The Applicant agreed to initiate consultation with the NYSOPRHP through the CRIS website and submit technical reports outlining the scope and methodology for cultural resources studies for the Facility in early 2019.

The Preliminary Scoping Statement (PSS) for the Facility was submitted to NYSDPS on January 24, 2019. On February 19, 2019, comments were received from NYSDPS staff in response to the PSS, in which the agency recommended that "the 5-mile [S]tudy [A]rea be expanded sufficiently to address the Cities of Norwich and Sidney in assessing visual effects on historic resources (NYSDPS, 2019)." In accordance with this request, the Applicant developed a Historic Resources Study Area, which is defined as 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 definition of the APE for Indirect Effects,[9] was also updated to include those areas within the City of Norwich and the Village of Sidney within the potential viewshed of the Facility (based on topography). The Historic Resources Study Area and APE for Indirect Effects are depicted in Figures 3 and 4 of the Phase IA Historic Resources Survey[10] (EDR, 2019c; Appendix 20-D) and Figures 2, 3, and 4 of the Historic Resources Survey Report (EDR, 2019d; Appendix 20-E).[11]

[8] Note, the Historic Resources Study Area differs from the Visual Study Area discussed in Exhibit 24. For purposes of assessing the visual impacts of the turbines generally, the Visual Study Area was defined as all areas within 10 miles of the Facility (see Exhibit 24).
[9] The APE for Indirect Effects is similar in its spatial characteristics to the Historic Resources Study Area, differing only in that it only excludes those areas within 5 miles of the Facility Site that are not within the viewshed of the Facility, based on topography.
[10] The Phase IA Historic Resources Survey was submitted through the CRIS website on April 17, 2019.
[11] The Facility, as described in the Phase IA Historic Resources Survey, originally included up to 33 turbines, 673 feet tall. Following the submission of the Phase IA Historic Resources Survey, the Facility layout was updated to include up to 25 turbines, 671 feet tall. The

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The purpose of the Phase IA Historic Resources Survey was to define the Facility's APE for Indirect Effects, determine whether previously identified historic resources are located in the APE for Indirect Effects, propose a methodology to survey historic resources within the APE for Indirect Effects, and evaluate their eligibility for the S/NRHP. On April 23, 2019, NYSOPRHP provided a response via the CRIS website concurring with the Phase IA Historic Resources Survey conclusions and recommendations (Czernecki, 2019).

Historic Resources Survey

The Applicant conducted a historic resources survey for the Facility in the spring of 2019 in accordance with the methodology described in the Phase IA Historic Resources Survey (EDR, 2019c; Appendix 20-D). The results of this survey are presented in the Historic Resources Survey Report (Appendix 20-E) The historic resources survey included review of previous similar studies within the Historic Resources Study Area, consultation with NYSOPRHP/SHPO, research and consultation with local historical societies and archives, site visits to identify and evaluate potential historic resources within the study area, and supplemental research on specific historic properties, as necessary. All historic resources fieldwork was conducted by qualified architectural historians who meet the Secretary of Interior's Standards for Historic Preservation Projects (36 CFR Part 61).

Historic resources survey fieldwork included systematically walking and/or driving public roads and rights-of-way to photograph and evaluate the S/NRHP-eligibility of previously surveyed structures and properties within the APE. The historic resources survey fieldwork was conducted in May of 2019. When properties that appeared to satisfy S/NRHP-eligibility criteria were identified, the existing conditions of the property were documented by EDR's architectural historians using the ArcGIS Online application software to collect geospatial location data. Photographs of the building(s) (and associated property when necessary) and field notes describing the style, physical characteristics and materials (e.g., number of stories, plan, external siding, roof, foundation, and sash), condition, physical integrity, and other noteworthy characteristics were recorded for each resource. EDR's evaluation of historic resources within the Historic Resources Study Area focused on the physical condition and integrity (with respect to design, materials, feeling, and association) to assess the potential architectural significance of each resource.

All properties included in the historic resources survey were photographed and assessed from public rights-of-way. The condition and integrity of all resources were evaluated based solely on the visible exterior of the structures. No inspections or evaluations requiring access to the interior of buildings, or any portion of private

corresponding changes in the Historic Resources Study Area and APE for Indirect Effects are depicted in Figures 2, 3, and 4 of the Historic Resources Survey Report.

property, were conducted as part of this assessment. Based on consultation with NYSOPRHP/SHPO, buildings that were not sufficiently old (i.e., less than 50 years in age), that lacked architectural integrity, or have been evaluated by EDR's architectural historians as lacking historical or architectural significance were *not* included in or documented during the survey.

Properties inventoried and evaluated as part of the historic resources survey included both previously and newly identified resources. A total of 465 resources were inventoried as part of the historic resources survey:

- 20 S/NRHP-listed properties, including seven historic districts are located within the APE for Indirect Effects: North Broad Street Historic District (90NR00158), Broad Street – Main Street Historic District (aka Chenango County Courthouse District) (90NR00157), Eaton Family Residence/Jewish Center of Norwich (09NR05979), Emmanuel Episcopal Church Complex (09NR06009), US Post Office - Norwich (90NR001560), Norwich Pharmacal Company Warehouse (18NR00076), Methodist Episcopal Church of Norwich (03NR05074), White Store Church & Evergreen Cemetery (94NR00742), Sidney Historic District (13NR06446), Pioneer Cemetery (06NR05685), Guilford Center Presbyterian Church (04NR05223), Guilford Center Cemetery (05NR05453), Jewell Family Homestead (16NR00094), Rockdale Community Church (05NR05452), Gilbertsville Historic District (90NR02194), Gilbertsville Historic District (Boundary Increase) (90NR02196), Gilbertsville Water Works (10NR06184), Rockwells Mills Historic District (10NR06110), Major's Inn and Gilbert Block (90NR02193), and Tianderah (90NR02195). No change is recommended by EDR for the S/NRHP-listed properties or historic districts.
- A total of 242 properties, including five historic districts, are recommended by EDR to be S/NRHP-eligible. Of the five historic districts, one was previously determined by NYSOPRHP to be S/NRHP-eligible (Guilford Historic District [USN 01707.000125]), and four are newly-identified by EDR (North Broad Street Historic District Boundary Expansion [20 contributing properties], Broad Street-Main Street Historic District Boundary Expansion [16 contributing properties], South Broad Street Historic District [19 contributing properties], and the Chenango County Historical Society Complex [3 contributing properties]).
- A total of 181 properties are recommended by EDR to be not S/NRHP-eligible.
- A total of 14 properties were found to be no longer extant.
- Four properties were not accessible or not visible from the public right-of-way, and therefore EDR did not make a recommendation concerning S/NRHP eligibility.
- Two properties (11 South Broad Street [USN 01740.000034] and 7-9 South Broad Street [USN 01740.000347]) were individually depicted in CRIS as previously determined S/NRHP-eligible but were found to be contributing properties to an existing S/NRHP-listed historic district.

- Two properties (2032 State Route 8 [USN 01707.000001] and 58 North Broad Street [USN 01740.000079]) were individually depicted in CRIS without a formal S/NRHP eligibility determination but were found to be contributing properties to S/NRHP-listed historic districts.

In addition, one S/NRHP-listed district, the Oxford Village Historic District (90NR00167) and one district determined by NYSOPRHP to be S/NRHP-eligible, the Hamlet of Riverside Historic District (USN 07722.000161), are located outside of the APE for Indirect (Visual) Effects but within the Historic Resources Study Area, i.e., are within 5 miles of the Facility, but will have no visibility of the Facility (based on topography). These districts have been included in the survey tables and figures in order to provide a comprehensive inventory of historic resources within the Historic Resources Study Area but are not included in the above tabulation of survey results of resources within the APE for Indirect Effects.

The complete results of the historic resources survey are listed in Appendix B of the Historic Resources Survey Report (Appendix 20-E). These results include updated recommendations of S/NRHP eligibility for previously identified historic resources, as well as recommendations of eligibility for newly surveyed properties. The locations and photographs of all resources surveyed are depicted on Figure 4 and Appendix C, respectively, of the Historic Resources Survey Report. The locations and proposed boundaries of historic districts recommended by EDR to be S/NRHP-eligible are included with resource tables and representative photographs in Figure 5 of the Historic Resources Survey Report.

The Historic Resources Survey Report was submitted to NYSOPRHP/SHPO via the Cultural Resources Information System (CRIS) website on July 31, 2019. In addition to the documentation provided in this report, narrative descriptions and photographs for each historic property identified in the survey have been entered into NYSOPRHP's on-line CRIS system for review by NYSOPRHP staff, along with a spreadsheet of all properties assessed as part of the survey.

(2) A Summary of the Nature of the Probable Impact of Facility Construction and Operation on any Historic Resources

Construction of the Facility will not require the demolition or physical alteration of any buildings or other potential historic resources. No direct physical impacts to historic architectural resources will occur because of the Facility, and no further historic resource surveys are recommended for the Facility. The Facility's potential effect on a given historic property is limited to a change in the property's visual or auditory setting resulting from the introduction of wind turbines.

As it pertains to historic properties, *setting* is defined as "the physical environment of a historic property" and is one of seven aspects of a property's *integrity*, which refers to the "ability of a property to convey its significance" (NPS, 1990:44-45). The other aspects of integrity include location, design, materials, workmanship, feeling, and association

(NPS, 1990). The potential effect resulting from the introduction of wind turbines into the visual setting for any historic or architecturally significant property is dependent on a number of factors including distance, visual dominance, orientation of views, viewer context and activity, and the types and density of modern features in the existing view (such as buildings/residences, overhead electrical transmission lines, cellular towers, billboards, highways, and silos).

The federal regulations entitled "Protection of Historic Resources" (36 CFR Part 800) include in Section 800.5(2) a discussion of potential adverse effects on historic resources. The following types of effects apply to the Facility:

> "Adverse effects on historic properties include but are not limited to: [items i-iii do not apply]; (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance; (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features; [items vi-vii do not apply]" (CFR, 2004b).

The implementing regulations for New York State Parks, Recreation and Historic Preservation Law, Section 14.09 (9 NYCRR § 428.7) state:

a. In determining whether an undertaking will have an adverse impact on eligible or register property, the commissioner shall consider whether the undertaking is likely to cause:
    1. destruction or alteration of all or part of the property;
    2. isolation or alteration of the property's environment;
    3. introduction of visual, audible or atmospheric elements which are out of character with the property or alter its setting;
    4. neglect of the property resulting in its deterioration or destruction.

It is also of note that according to the NYSDEC Visual Policy, simple visibility of the Facility from any of the viewing locations does not imply detrimental effect to the beauty or structure. The policy specifically states "Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Significant aesthetic effects are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place. Proposed large facilities by themselves should not be a trigger for declaration of significance. Instead, a project by virtue of its siting in a visual proximity to an inventoried resource may lead staff to conclude that there may be a significant impact" (NYSDEC, 2000).

Ongoing consultation with NYSOPRHP/SHPO (and other applicable consulting parties) regarding potential visual and auditory impacts of the Facility on aboveground historic resources will continue throughout the Article 10 process, and NYSOPRHP's/SHPO's evaluation regarding potential effects and/or identification of any required mitigation will be determined as part of the U.S. Army Corps of Engineers' review of the Facility under Section 106 of the National Historic Preservation Act. Section 106 review will be triggered by submission of a Joint Application for Permit, which is anticipated to occur following the submission of the Article 10 Application.

In the Historic Resources Survey Report, the Applicant requested that NYSOPRHP review the results of the historic resources survey and provide determinations of eligibility for the historic properties identified therein. Following receipt of comments from NYSOPRHP, the Applicant anticipates evaluating the potential visual and auditory effects of the Facility on those historic properties determined to be S/NRHP-eligible by NYSOPRHP.

To assist in determining the potential effect of the Facility on historic properties, the Applicant will provide an historic resources effects analysis report to NYSOPRHP via the CRIS website. The report will include an analysis of the potential visual and auditory effects of the Facility on properties determined to be S/NRHP-eligible by NYSOPRHP, and on the overall character and setting of the rural landscape, including representative visual simulations, and recommendations for potential mitigation projects, if appropriate. This analysis will facilitate NYSOPRHP's review of the potential effect of the Facility on historic resources as part of the Section 106 consultation described above.

<u>Operational Sound/Vibration Impacts (see Exhibit 19)</u>

The assessment of potential sound-related impacts from the Facility is discussed in detail in Exhibit 19. Potential operational sound/vibration impacts to S/NRHP-eligible historic properties within the Historic Resources Study Area and the APE for Indirect Effects are discussed below. Construction-related sound/vibration impacts are not considered because they will be short-term and temporary in nature. Relevant to sound and vibration impacts to S/NRHP-eligible cultural resources, the implementing regulations for New York State Parks, Recreation and Historic Preservation Law, Section 14.09 (9 NYCRR § 428.7) state:

> In determining whether an undertaking will have an adverse impact on eligible or register property, the commissioner shall consider whether the undertaking is likely to cause:
>
> 1. destruction or alteration of all or part of the property;
> 2. isolation or alteration of the property's environment;
> 3. *introduction of visual, audible or atmospheric elements which are out of character with the property or alter its setting;*

4. neglect of the property resulting in its deterioration or destruction. [emphasis added] (9 NYCRR § 428.7)

In addition, the federal regulations entitled "Protection of Historic Resources" (36 CFR Part 800) include in Section 800.5(2) a discussion of potential adverse effects on historic resources:

> "Adverse effects on historic properties include but are not limited to: . . . (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance; [and] (v) *Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features*. . ." [emphasis added]

The potential effect resulting from the introduction of the sound of wind turbines into the setting for any historic or architecturally significant property is likewise dependent on a number of factors including the proximity of an historic property to a turbine, the perceived disruption to the contributing characteristics of the property, and the presence of existing noise levels from modern technology and machinery that is audible (such as highway traffic, industrial or agricultural activities, airports, railyards, or other sources of noise).

Potential noise and vibration impacts would be greatest at properties in closer in proximity to turbines (i.e. properties closer than 0.5-mile). No properties listed on the S/NRHP are located within 0.5-mile of the nearest turbine; eight properties recommended by the Applicant to be S/NRHP-eligible are located within 0.5-mile of the nearest turbine. The Applicant has sited turbines and related infrastructure in undeveloped areas away from population centers, such as villages and town centers, in order to minimize potential auditory impacts to area residences and historic properties, which are clustered in developed areas within the Historic Resources Study Area. Moreover, because existing ambient noise levels are expected to be slightly higher in these more developed areas (due to increased vehicle traffic and other noises associated with greater population density), any potential noise impacts to historic properties from the proposed turbines and substations would not be expected to be significant.

Based on the above analysis, and that contained in Exhibit 19 of the Article 10 Application, potential noise and/or vibrations caused by the operation of the proposed Facility are not expected to significantly alter the character or setting of S/NRHP-listed and -eligible historic properties within the Historic Resources Study Area. Vibrations are not anticipated to impact any S/NRHP-listed or -eligible properties and noise-related impacts are anticipated to be relatively minimal, due in large part to the Facility's siting in remote rural areas away from areas of higher historic and modern population density. Any elevated noise and vibration levels related to Facility construction will be short-term and

temporary in nature. Therefore, there are no anticipated permanent noise-related adverse impacts to S/NRHP-listed or eligible properties located within the Historic Resources Study Area.

The Applicant anticipates that ongoing consultation with NYSOPRHP/SHPO (and other applicable consulting parties) regarding potential visual and auditory impacts of the Facility on above ground historic resources will continue through the Article 10 process and that NYSOPRHP's/SHPO's evaluation regarding potential effects and/or identification of any required mitigation will be determined as part of the U.S. Army Corps of Engineers review of the Facility under Section 106 of the National Historic Preservation Act. Section 106 review will be triggered by submission of a Joint Application for Permit, which is anticipated to occur following the submission of the Article 10 Application.

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