



Exhibit 9: Cultural Resources

Cider Solar Farm
Towns of Oakfield and Elba
Genesee County, New York

Matter No. 21-01108

EXHIBIT 9: CULTURAL RESOURCES

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Abbreviations

APE	Area of Potential Effect
CRIS	Cultural Resources Information System
NYAC	New York Archaeological Council
NYSM	New York State Museum
NYSOPRHP	New York State Office of Parks, Recreation and Historic Preservation
PIA	Project Impact Area
RPA	Registered Professional Archaeologist
SHPO	State Historic Preservation Office
S/NRHP	New York State/National Register of Historic Places
SOW	Scope-of-Work
STP	Shovel Test Pit
ZVI	Zone of Visual Impact

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Glossary of Terms

Applicant	Hecate Energy Cider Solar LLC
Project	Refers to the proposed Cider Solar Farm, an up to 500-megawatt utility scale solar project that will be comprised of photovoltaic panels, inverters, access driveways, electrical collection lines, point of interconnection/substation, construction staging areas, fencing and plantings, located on private land in the towns of Elba and Oakfield, Genesee County, New York.
Project Area	Refers to the Project Site and surrounding/adjacent land totaling approximately 7,518 acres.
Project Footprint	Refers to the limit of temporary and permanent disturbance within the Project Site caused by the construction and operation of all components of the Project totaling approximately 2,452 acres.
Project Impact Area	Geographic area or areas within which the proposed undertaking may cause any change, beneficial or adverse, in the character or use of an identified archaeological site, historic resource or cultural property (Chapter XVIII, Title 19 of NYCRR § 900-1.2(bk)).
Project Site	Refers to those privately owned parcels under option to lease, purchase, easement or other real property interests with the Applicant in which all Project components will be sited totaling approximately 4,650 acres.

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The content of Exhibit 9 is provided in conformance with Chapter XVIII, Title 19 of the New York Codes, Rules, and Regulations § 900-2.10, as follows.

a) Archaeological and Cultural Resources

1) Impact Avoidance and Minimization

Panamerican Consultants Inc. (Panamerican) was contracted by the Applicant to conduct a Phase I Archaeological Resources Investigation for the Project, which is proposed on an approximately 4,650-acre area in the towns of Oakfield and Elba, Genesee County, New York (the Project Site). Panamerican initiated consultation with the State Historic Preservation Office/New York State Office of Parks, Recreation and Historic Preservation (SHPO/NYSOPRHP) via CRIS on May 26, 2020. The SHPO/NYSOPRHP responded on June 2, 2020, recommending a Phase IA investigation. A Phase IA archaeological investigation was conducted, and the report was submitted to the NYSOPRHP on August 24, 2020 (Appendix 9-A: *Phase 1A Cultural Resources Investigation for the Hecate Energy - Cider Solar Project*) and submitted to Office of Renewable Energy Siting on October 15, 2020.

The SHPO/NYSOPRHP had concurred with the recommendations of Panamerican's Phase 1A archaeology investigation that a Phase IB archaeological survey was warranted (September 24, 2020). The SHPO recommended that a Phase IB Scope-of-Work (SOW) be developed and was submitted to NYSOPRHP on December 16, 2020. Upon review, SHPO/NYSOPRHP requested revisions and additions to the SOW. The revised SOW was approved by NYSOPRHP and provided documentation to indigenous Nations on April 14, 2021. The Phase IB field investigation was conducted between December 14, 2020, and March 22, 2021.

A summary of field investigation results is presented in Table 3.1 of Appendix 9-B: *Phase IB Archaeological Investigation for the Hecate Energy Cider Solar Project*.

The maximum total construction Project Impact Area (PIA) of soil disturbance for the Project includes approximately 124.5 acres (50.4 hectares) (Area of Potential Effect [APE] of soil disturbance). The construction PIA will be smaller and encompassed within the limits of disturbance of the Project of the Phase IA investigation (See the Phase IA Cultural Resources Investigation Appendix 9-A of this Application). The Project will involve the installation of photovoltaic panels arrayed primarily in fields on tracking structures and include buried electrical collection cables, inverters, access drives, a gen-tie line and a point of interconnection station adjacent to an existing substation, fencing, and temporary laydown areas for equipment staging during construction.

2) Phase IA Cultural Resources Investigation

The Phase IA field reconnaissance was conducted in June 2020 and included field survey and photographic documentation of the setting (e.g., previous disturbances, structures, field conditions). A Phase IA cultural resources investigation is designed to identify and assess sensitivity and potential for locating cultural resources within a project's PIA. The PIA for the Phase IA included parcels comprising approximately 3,500 acres (defined as APE in Appendix 9-A). These resources include archaeological sites (prehistoric and historic) and standing structures or other aboveground features. The Phase IA Report is included in Appendix 9-A.

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Information collected during the Phase IA survey (i.e., background research and field investigation) is used to assess the sensitivity of the project area for the presence of cultural resources. Areas are considered to have low archaeological sensitivity according to the following criteria:

- graded and cut areas through surrounding terrain (e.g., hills or gorges), such as those resulting from road construction
- areas that appear to have large amounts of fill
- areas previously impacted by construction of utilities, drainage ditches, streets or other obvious areas of significant earth movement
- areas including poorly drained soils and wetlands
- areas having slopes greater than 15%

Areas of archaeological potential and high sensitivity are identified based on the following criteria:

- undisturbed areas that are environmentally sensitive with relatively level well-drained soils or in the vicinity of potable water such as springs, streams or creeks (these characteristics typify known site locations in the region)
- known prehistoric or historic site locations within or adjacent to the Project
- historic map-documented structure (MDS) locations identified within or immediately adjacent to the project area

A review of the NYSOPRHP archaeological site and historic structures files through the online Cultural Resources Information System (CRIS) identified 16 precontact archaeological sites within the Project Site and 6 precontact period sites within a 0.5-mile radius of the Project. The Archaeological sites within 0.5 miles of the Project Area are provided in Table 2 of the Phase IA Report. Eleven of the sites also have a historic component to them but they consist of historic scatters, trash dumps, and stray/isolated finds. All but one of the Precontact sites are clustered in the northwest portion of the project area (northwest of the intersection of Lockport Road and Fisher Road). The single site not found among this cluster is a Precontact site that is reported to be approximately 190 feet (58 meters) east of the Project Area. No New York State Museum (NYSM) archaeological sites have been reported within 0.5 miles of the Project Area.

3) Phase IB Archaeological Investigation

The Phase IB investigation implemented the testing strategy described in the SOW, which was developed using the results of the Phase IA investigation as well as a focus on areas of high archaeological sensitivity (i.e., where archaeological sites are most likely to be identified) that were determined using parameters stated by the SHPO in the *Phase IB Archaeological Survey Recommendations/Sensitivity Model Testing Protocol* (SHPO letter dated October 27, 2020). These areas include those that are:

- within 100 meters (328 feet) of permanent water—rivers, streams, wetlands, ponds and lakes, and hydric soils. (Hydric soils are included to account for areas that may not be currently near

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water but were in the past.) The 100-meter cut-off from water is based on data presented by Robert E. Funk in his 1993 Archaeological Investigations in the Upper Susquehanna Valley, New York State;

- on slopes equal to or less than 12%;
- within or near (i.e., less than 100 meters) known archaeological sites. The Project Area is not considered highly sensitive for Native American burial sites or villages as none have been previously reported in the vicinity (see the Phase IA Cultural Resources Investigation for the Hecate Energy Cider Solar Project, Towns of Oakfield and Elba, Genesee County, New York [Hanley and Steinback 2020]). No project components associated with potentially significant soil disturbances are proposed at the locations of previously reported archeological sites. Portions of the PIA where significant soil disturbances could occur and that are within 100 meters of previously reported sites will be investigated using higher intensity sampling (e.g., closer intervals, see methodology discussion below); and
- locations of standing or demolished historic structures.

All other portions of the Project are considered to have low sensitivity for the presence of archaeological sites, including areas of previous ground disturbance. The SHPO also stated they have no archaeological concerns with low sensitivity areas and did not recommend Phase IB testing in these locations (SHPO letter dated October 28, 2020). The Phase IB field investigation was conducted between December 14, 2020, and March 22, 2021. The complete Phase IB Archaeological Investigation Report is provided as Appendix 9-B.

The Phase IB total PIA for soil disturbance is 124.5 acres (50.4 hectares) (defined as APE in Appendix 9-B) where construction of Project components, including subsurface collection lines, access roads, inverters, and a substation could result in significant soil disturbance.

In the *Phase IB Archaeological Survey Recommendations/Sensitivity Model Testing Protocol* (October 27, 2020), the SHPO recommended developing an archaeological sensitivity model and testing protocols. The SHPO recommended that Phase IB archaeological testing is warranted for areas of substantial proposed ground disturbance that fall within areas of high archaeological sensitivity. The SHPO listed the following project components and construction activities to likely result in significant soil disturbances:

- Grading and excavation more than 6 inches deep
- Grubbing, tree and stump removal
- Trenches more than 3 feet wide

Ground surface visibility was sufficient to surface inspect a total of 27.29 acres (11 hectares) of the PIA and the remaining portions of the PIA were shovel tested with a total of 1,918 shovel test pits (STPs). None of the shovel tests excavated during the initial subsurface testing were positive with Precontact Period artifacts (n=1,812: 1,675 initial STPs at a 15-meter (50-foot) interval and 137 STPs using a 7.5-meter (25-foot) interval between tests in areas of higher sensitivity). Surface inspection resulted in

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finding 46 Precontact Period Native American artifacts within seven of the investigated Two additional Precontact Period lithic artifacts were found during close-interval shovel testing. Historic and modern artifacts/features were found at one of the investigated parcels.

Two Precontact Period archaeological sites that were found during this investigation were avoided through project redesign. No components that might result in significant soil disturbances are proposed at these site locations.

4) Phase II Site Evaluation Study

In consideration of the New York State Historic Preservation Office's *Guidelines for Solar Facility Development Cultural Resources Survey Work* (Guidelines) issued July 30, 2020, the Project is not considered highly sensitive for Native American burial sites or villages. Construction of Project components such as panel arrays that are proposed at or near the locations of previously reported sites will not significantly disturb soils. With this in consideration, no additional investigation (i.e., Phase II) would be warranted or recommended for locations where archaeological sites were previously reported at the proposed locations of such low-impact solar project components.

5) Unanticipated Discovery Plan

An Unanticipated Discovery Plan is attached as Appendix 9-C of this Application. The Unanticipated Discovery Plan identifies the actions to be taken in the unexpected event that resources of cultural, historical or archaeological importance are encountered during Project construction. The plan includes a provision for work stoppage upon the discovery of possible archaeological or human remains. Evaluation of such discoveries, if warranted, will be conducted by a registered professional archaeologist (RPA), qualified according to the 1994 NYAC Standards.

6) Historic Resources Survey

Panamerican completed a historic resources survey for the Project, included as Appendix 9-D of this Application: *Historic Resources Survey*. Stantec submitted Project information to NYSOPRHP in May 2020, prior to the release of the *Guidelines for Solar Facility Development Cultural Resources Survey Work* (NYSOPRHP 2020). NYSOPRHP initially requested documentation of all buildings/structures/districts within or adjacent to the Project. The Zone of Visual Impact (ZVI) for the Project was later revised to meet the requirements of the new guidelines for solar facility development for a Category 4 type solar farm for solar arrays covering 100 acres or more. The ZVI is defined as the area from which the proposed Project may be visible within a two-mile distance around the outer limits of the proposed solar array. The two-mile radius around the Project comprises approximately 51.98 square miles (13,462.76 ha).

The purpose of the historic resources survey was to assess all buildings/structures 50 years old or older within the ZVI study area to determine potential New York State/National Register of Historic Places (S/NRHP) eligibility of each resource using the National Register Criteria for Evaluation. The historic resources survey also identifies those resources previously determined eligible for inclusion in or already listed in the S/NRHP.

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Panamerican conducted an initial desktop analysis utilizing CRIS and S/NRHP online databases, review of previous cultural resource studies in the study area, historical maps, aerial imagery, secondary historical sources, as well as county and town histories and related online sources and websites to locate previously identified historic resources.

A field investigation survey was conducted in January 2021 and included the following methodology:

- Identification of all properties within the ZVI that were previously determined eligible for inclusion in or are already listed in NYS and S/NRHP using CRIS
- Evaluation of potential S/NRHP-eligibility of architectural resources greater than 50 years old within the ZVI that have not been recently inventoried by previous studies
- Documentation of architectural resources that appear to satisfy NRHP-eligibility criteria via the CRIS Trekker.
- Locate all resources with “Undetermined” NRHP status, if possible, and reevaluate for NRHP eligibility.
- Identification of any NYS and/or National Register-listed property or district of National Historic Landmark within five miles of the Project.

The results of the Historic Resources Survey in the ZVI are summarized below and presented in more detail in Appendix 9-C Section 4.0 and Table 4.1.

- State/National Register of Historic Places (S/NRHP) Listed or Eligible Historic Districts: None
- S/NRHP-Listed individual resources: None
- Previously determined S/NRHP-Eligible individual resources: 20
- Previously inventoried resources recommended S/NRHP-eligible: 1
- Previously inventoried resources recommended Not Eligible for S/NRHP: 4
- Previously inventoried resources recommended as “Undetermined”: 1

No National Historic Landmarks or individual State/National Register of Historic Places (S/NRHP)-listed were identified within five miles of the Project.

7) NYSOPRHP Consultation

Consultation with the NYSOPRHP is summarized below and provided as Appendix E: *New York State Office of Parks, Recreation and Historic Preservation Correspondence*.

- 6/2/20 - SHPO archaeological comments recommending a Phase IA archaeological survey

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- 9/17/20 – email from SHPO to Panamerican Consultants, Inc. (Panamerican) regarding preferred form of communication
- 9/24/20 – letter from SHPO recommending a Phase IB cultural resource investigation
- 9/25-29/20 - email correspondence between Panamerican and SHPO regarding request of shapefiles of CRIS site locations
- 9/30/20- email from Panamerican to SHPO to provide the Project APE and two-mile buffer boundary
- 10/23/20- email correspondence from Panamerican to SHPO regarding testing plan/model for a Phase IB survey and inquiry of Phase IA feedback from the Nations
- 10/27/20- SHPO letter stating concurrence with the Phase IA archaeological report and recommendations for Phase 1B archaeological survey protocol.
- 12/8/20- Meeting invitation with SHPO, ORES, and the Applicant
- 12/16/20- Panamerican submittal of the Phase IB Cultural Resources Investigation SOW for the Project
- 1/11/21- letter from SHPO requesting revisions to the proposed Phase IB Cultural Resources Investigation SOW for the Project
- 1/29/21- Panamerican's submittal of the revised Phase IB Cultural Resources Investigation SOW for the Project
- 1/11/21-2/4/21 email correspondence between SHPO and the Director of the Seneca-Iroquois National Museum Tribal Historic Preservation Office stating concurrence with SHPO's recommendations on the Project's Phase IB SOW
- 4/14/21 SHPO letter to Panamerican review of SOW, concurring with the proposed SOW. OPRHP/SHPO provided the involved Indigenous Nations with a copy of the Phase IB SOW for review and comment
- 5/17/21 email correspondence between Panamerican and SHPO regarding forwarding the Project's Phase IB Report to the Nations
- 5/18/21 letters from Panamerican to the Seneca-Iroquois National Museum, Tonawanda Seneca Nation, and Tuscarora Nation providing a link to access the Project's Phase IB Report

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References

New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) 2020 Guidelines for Solar Facility Development Cultural Resources Survey Work. New York State Office of Parks, Recreation and Historic Prese, Peebles Island

2021 Cultural Resource Information System. Available online at Cultural Resources Information System (CRIS). Available online at <http://cris.parks.ny.gov>.