

## SECTION 1 DEVELOPMENT DESCRIPTION

### A. Introduction

Hartland Solar Facility, LLC (Applicant), a wholly owned subsidiary of Teichos Energy, LLC. (Teichos Energy), proposes to construct the Hartland Solar Project (Project), a utility-scale solar energy facility located in the Town of Hartland, Somerset County, Maine (Figure 1-1). *[Note: Strobos Solar LLC, is a holding company for land control before using a project SPV. It will also be referenced in early project development documents and is wholly owned by Teichos Energy, LLC].* The proposed Project includes solar arrays, supporting infrastructure roads, central inverters and transformers, a 34.5 kilovolt (kV) collection system (Collector), collector and interconnection substations, a 1F15 kV generation tie (Gen-Tie) transmission line, and a maintenance building. These will be located on approximately 1,130 acres (Project Area) (Table 1-1) within an 8,000-acre private ownership, currently managed as a working forest south of Route 151 along the privately owned Burrill Woods Road. The Project will have a rated nameplate capacity of approximately 140 megawatts alternating current (MWac). Power from the Project will be transmitted to a new Central Maine Power (CMP) interconnection substation/point of interconnection (POI) located east of the Project, adjacent to the existing CMP 115 kV line Section 82 (Athens – Hartland).

Table 1-1 Proposed Project Area.

Project Area Description	Area (square feet)	Area (acres)
Fenced Array and Substation Areas	43,080,840	989
Total Clearing Outside Fenced Areas*	5,445,000	125
Gen-Tie Safety Zone Clearing	696,960	16
<b>Total</b>	<b>49,222,800</b>	<b>1,130</b>

\*Excludes clearing for Gen-Tie safety zone clearing

The Project Area primarily consists of mixed (coniferous and deciduous) forest managed for commercial timber production. Topography within the arrays, Gen-Tie and substation areas generally consist of elevations between 400 and 450 feet above sea level. A substantial road network, primarily consisting of gravel logging roads currently exists within the Project Area. The Applicant will use existing roads to the extent practicable to minimize Project impacts. Approximately 8.7 miles of existing access roads will be used in their existing condition to provide construction and maintenance access to the Project. Additionally, approximately 5.5 miles of new 12-foot-wide secondary roads will be constructed to provide access to the solar arrays, and 0.4 miles of a new 20-foot wide secondary will be constructed to provide access to the new CMP substation.

In addition to the new secondary access roads the project will include: approximately 340,000 solar panels; up to 187 paired central inverters/transformers mounted on skids or pads; a series of overhead and underground 34.5 kV electrical Collector connecting the solar arrays to a new collection substation adjacent to Burrill Woods Road; a new maintenance building located adjacent to the collection substation; an approximately 2.5 mile Gen-Tie 115 kV transmission line between the collection substation and a new interconnection substation located adjacent to the existing CMP 115 kV line Section 82 (Athens – Hartland) transmission line. A 7-foot-tall wildlife-compliant perimeter fence will surround the segments of solar arrays.

The power from each solar array will be collected in approximately 7.8 miles of underground 34.5 kV electrical collector lines. The underground electrical collector lines will be buried in trenches generally located within roadways. Below grade boxes will be installed as needed (typically every 1,500 feet) to splice collector cables and

will be installed immediately adjacent to roadways. Boxes will be sited to avoid natural resource locations. Overhead collector lines will be installed on wood utility poles in some areas where practicable. Power from the Collector will be transmitted to the proposed collection substation to “step up” the voltage from 34.5 kV to 115 kV and transmit it, via the 115 kV Gen-Tie to the new interconnection substation. The cleared rights-of-way (ROW) width for the Gen-Tie is approximately 100 feet. The existing CMP 115 kV line Section 82 (Athens – Hartland) transmission line has sufficient capacity to accept power from the Project without substantial upgrades.

This application has been completed in accordance with the State of Maine Department of Environmental Protection (MDEP) Site Location of Development Act (Site Law) Permit Application requirements as outlined in Maine Revised Statutes (M.R.S.) Title 38, §§ 481-490<sup>1</sup>, and the Natural Resources Protection Act (NRPA) Title 38 M.R.S. §§ 480-A – 480-BB<sup>2</sup>.

The Applicant is seeking approval under NRPA to permanently convert 119,693 square feet of forested wetlands to scrub-shrub and wet meadow wetlands to mitigate shading impacts (30,400 square feet) and manage the utility line safety zone under the Gen-Tie (89,293 square feet). A Permit-by-Rule Notification is also being submitted pursuant to Maine Chapter 305 Rules § 9 for an overhead utility crossing of four streams. The results of environmental field surveys conducted on the site have been used to influence and inform the design of the Project to avoid and minimize impacts to wetlands and natural resources. Wetland impacts are further discussed in Section 7 (Wetlands, Watercourses, Wildlife and Fisheries). The Project design and construction plan also minimizes potential impacts to rare, threatened, or endangered (RTE) plants or animals. RTE species are further discussed in Section 9 (Unusual Natural Areas).

The proposed Project can be seen on a set of drawings, the first of which is titled “Overall Existing Conditions Plan,” prepared by Tetra Tech, Inc. (Tetra Tech) and dated December 15, 2023 (Exhibit 1-1).

## B. Construction Plan

The Applicant is committed to construction of the Project in a manner that minimizes environmental impacts and in compliance with regulatory requirements, agency recommendations, and best management practices (BMPs). The Applicant’s owners have extensive experience constructing utility-scale solar and wind energy facilities, with numerous projects currently in operation (see Section 4 for more details).

Prior to the start of construction, an environmental monitor will be employed by the Applicant. The environmental monitor will advise the construction team on avoiding disturbance to water resources and other natural resources within the Project Area during construction. The environmental monitor may be a qualified Professional Wetland Scientist, who also is a Certified Professional in Erosion and Sediment Control; or someone with demonstrated experience as an environmental monitor on construction sites.

Prior to initiating earthwork activities, resource areas will be flagged and/or fenced for protection and erosion and sediment control measures will be installed in accordance with regulatory requirements and BMPs. The array area with forested cover will be cleared of trees, stumping, and grubbing where necessary, and earthwork to upgrade and build the secondary access roads will commence. The Gen-Tie and overhead Collector ROWs will be cleared of trees without stumping or grubbing except where necessary for access. The array areas will be accessed via the Burrill Woods Road and the network of existing logging roads originating from Route 151. Once site preparation is completed, the Collector, Gen-Tie, and solar racking systems will be installed. Panel racking will be installed using ground screws or pilings. Panels and ancillary equipment will be delivered to the site and temporarily staged within construction laydown areas identified on the civil site plans provided in Exhibit 1-1. Substation and maintenance building construction will likely occur concurrently with other work on site. The substation and maintenance building

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<sup>1</sup> Maine Department of Environmental Protection (MDEP), Site Location of Development Act, 38 M.R.S. §§481-490, Permit Application. Bureau of Land and Water Quality. Revised October 2015.

<sup>2</sup> MDEP. Natural Resources Protection Act (NRPA). Title 38 M.R.S. §§480-A et seq. 2007.

sites will be prepared to provide sub-grade or final grade for foundation construction. Once foundations are constructed, structural steel will be installed to support the substation. Other control buildings, as needed, within the fenced substation yard(s) will either be constructed on site or prefabricated and delivered. If necessary, the substation will be energized for back feeding the site collection system and the solar arrays for final testing and commissioning.

Construction of the Project is anticipated to take approximately 1 year. The proposed construction schedule for the Project is provided below in Table 1-1.

Below is a list of approaches that may be implemented during construction to prevent soil disturbance, limit impacts to wetlands, and provide the construction team with the tools they need to effectively build this Project while staying within the requirements of the permits received:

- Clearing may occur during the winter under frozen conditions to reduce the amount of soil disturbance that could occur from construction equipment.
- Construction mats will be used as needed to reduce soil disturbance.
- Low ground pressure tracked construction equipment will be used as needed in unusually wet areas to prevent rutting and minimize soil disturbance; and
- BMPs for erosion and sediment control will be implemented, including possible stoppage or delay of work for rain events, regularly checks of erosion control barriers, and proactively adjusting erosion and sediment controls throughout construction.

**Table 1-2 Proposed Construction Schedule.**

<b>Task</b>	<b>Timeframe*</b>
Mobilization (Layout & Staking)	1-2 Weeks
Site Clearing (PV Array, Gen-Tie and Substations)	4 Months
Foundation & Racking	10 Months
Module Install	10 Months
Electrical Collection System	10 Months
Substation	12 Months
Gen-Tie	3 Months
Testing & Commissioning	2 Months
Begin Commercial Operation	1-2 Weeks

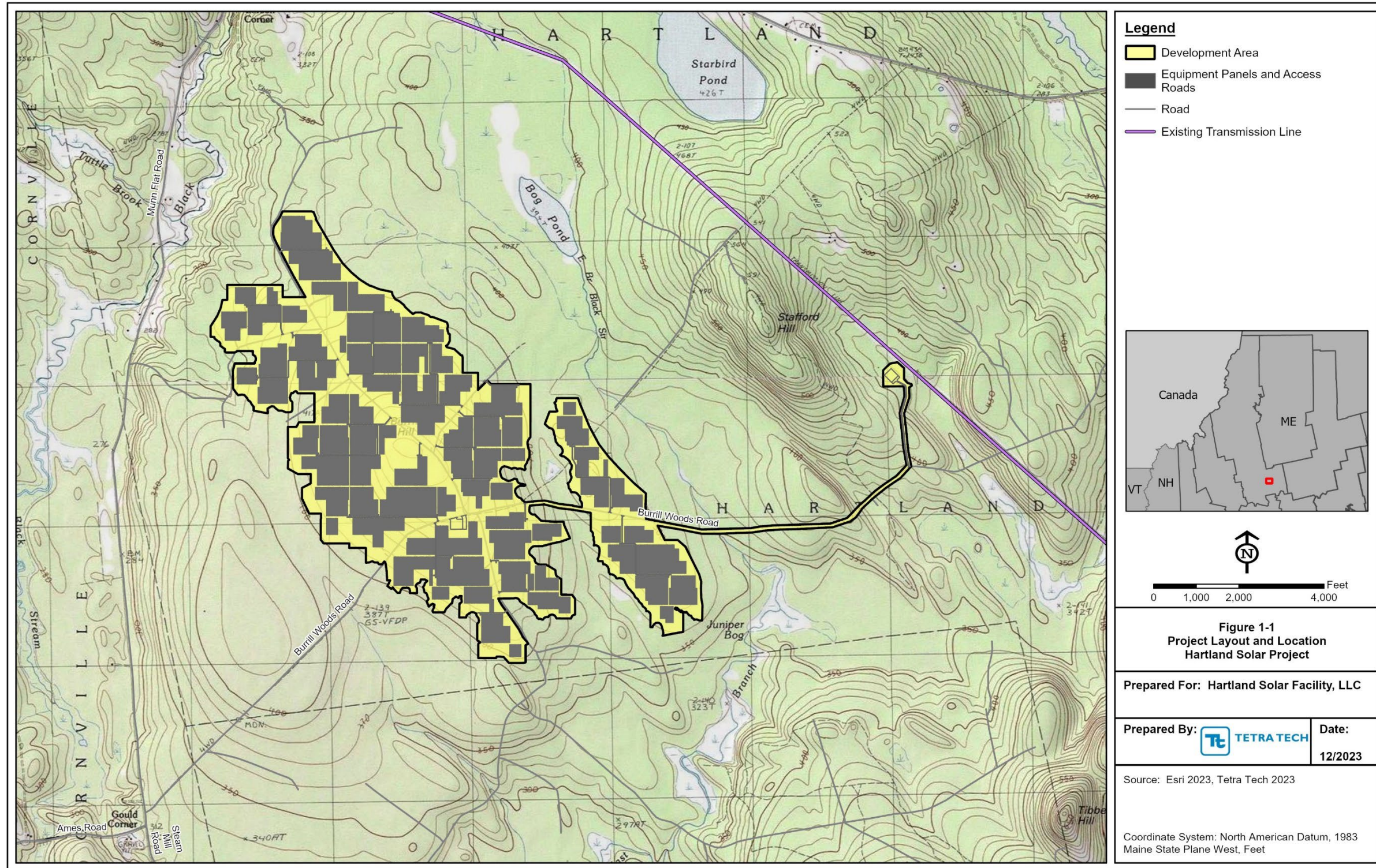
\*Task timeframes may overlap; the sum of the timeframes does not reflect the total construction timeline

### Figures

- Figure 1-1 Project Layout and Location

### Exhibits

- Exhibit 1-1 Civil Engineering Plan Set



Not for Construction

Figure 1-1 Project Layout and Location.