Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only
EEA#: 15938
MEPA Analyst: Alex Steysky

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: **Applied Golf Photovoltaic Power System**		
Street Address: **191 West Pomeroy Lane**		
Municipality: **Amherst**	Watershed: **Connecticut River**	
Universal Transverse Mercator Coordinates: **18T 703616.84E, 4690554.70N**	Latitude: **42.340727** Longitude: **-72.528427**	
Estimated commencement date: **Spring 2019**	Estimated completion date: **Fall 2019 (six months)**	
Project Type: **PV Solar Energy Facility**	Status of project design: **75** %complete	
Proponent: **Direct Energy Solar**		
Street Address: **7484 Candlewood Road, Suite T-W**		
Municipality: **Hanover**	State: **MD**	Zip Code: **21076**
Name of Contact Person: **Alex Patterson**		
Firm/Agency: **ESS Group, Inc.**	Street Address: **10 Hemingway Drive**	
Municipality: **East Providence**	State: **RI**	Zip Code: **02915**
Phone: **401-330-1233**	Fax: **401-434-8158**	E-mail: **apatterson@essgroup.com**

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
☐Yes ☒No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting: **N/A**

a Single EIR? (see 301 CMR 11.06(8))	☐Yes ☐No
a Special Review Procedure? (see 301CMR 11.09)	☐Yes ☐No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐Yes ☐No
a Phase I Waiver? (see 301 CMR 11.11)	☐Yes ☐No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?
301 CMR 11.03(2)(b)(2): Greater than two acres of disturbance of designated priority habitat that results in a take of a state-listed species
301 CMR 11.03(3)(b)(1)(f): Alteration of one half or more acres of any other wetlands

Which State Agency Permits will the project require?
MESA Conservation and Management Permit.

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:
N/A

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	150 acres		
New acres of land altered		24.5 acres	
Acres of impervious area		N/A	
Square feet of new bordering vegetated wetlands alteration		N/A	
Square feet of new other wetland alteration		165,685 sf	
Acres of new non-water dependent use of tidelands or waterways		N/A	
STRUCTURES			
Gross square footage	N/A	16.4 acres	16.4 acres
Number of housing units	N/A	N/A	N/A
Maximum height (feet)	N/A	8 feet	8 feet
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
WASTEWATER			
Water Use (Gallons per day)	N/A	N/A	N/A
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment (GPD)	N/A	N/A	N/A
Length of water mains (miles)	N/A	N/A	N/A
Length of sewer mains (miles)	N/A	N/A	N/A

Has this project been filed with MEPA before?
☐ Yes (EEA #_____) ☒ No

Has any project on this site been filed with MEPA before?
☐ Yes (EEA #_____) ☒ No

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

The subject property is an approximately 150-acre parcel located north of West Pomeroy Lane, west of West Street (MA-116), and east of the Hadley town line in southwestern Amherst (Assessor's Plat 19D, Lot 10). Most of the property is zoned Flood-Prone Conservancy (FPC), with smaller portions zoned Neighborhood Residence (R-N) and Outlying Residence (R-O). The property is occupied by the existing 18-hole Hickory Ridge Golf Club and associated buildings, cart paths, and asphalt parking lot. Accordingly, the site is comprised primarily of managed turf with scattered trees and other ornamental plantings. A narrow band of unmaintained vegetation is present along the banks of the Fort River, a perennial tributary to the Connecticut River which flows in a westerly directly through the center of the property. A series of existing bridges provides access to the portion of the property located north of the Fort River. Plum Brook, a perennial tributary to the Fort River, is located in the south-central portion of the property. Surrounding land use is primarily residential, with some agricultural uses present in neighboring Hadley.

The topography of the site generally slopes downhill from both the northern and southern property lines toward the Fort River at the center of the site. Contours range from a high elevation of approximately 158 feet above sea level at the northern and southern property lines to a low of approximately 138 feet at the Fort River in the center of the site. Topography at the site was confirmed using 2015 LiDAR terrain data available from MassGIS.

Several wetland resource areas under the jurisdiction of the Massachusetts Wetlands Protection Act (WPA) and the Amherst Wetland Protection Bylaw are present in and around the project site. Wetland resource areas at the project site were delineated by ESS during the 2018 growing season. Most wetland features at the project site are associated with the Fort River, including the Fort River itself, perennial and intermittent tributaries to the Fort River, and bordering vegetated wetlands associated with the river and its tributaries. As perennial streams, the Fort River and Plum Brook have an associated 200-foot Riverfront Area. All regulated wetlands at the site, including the Fort River, its tributaries, and bordering vegetated wetlands, have an associated 100-foot buffer zone under the WPA and an associated 30-foot no work zone under the Amherst Wetland Protection Bylaw.

The project is partially located within Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife as identified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP). A review of the Massachusetts Historical Commission (MHC) online Massachusetts Cultural Resource Information System (MACRIS) confirms that the property is not located in a National or Local Historic District and that no historical or archaeological resources have been identified on the property. No other unique or important natural, historic, or scenic features have been identified at the project site.

According to the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), the primary soil map units at the property are Boxford silt loam, Pollux fine sandy loam, Pootatuck fine sandy loam, Rippowam fine sandy loam, and Suncook loamy fine sand.

Describe the proposed project and its programmatic and physical elements:

The Applicant proposes to construct a 5.24± MW direct current (DC) ground-mounted photovoltaic (PV) solar energy facility. To avoid wetlands at the site, the facility has been divided into a western array and an eastern array. Proposed electrical equipment will include 115 SolarEdge 33KUS inverters, 17 new utility poles, and an equipment pad that will hold the transformer and main electrical gear. A six-foot high chain link fence will surround the solar arrays with a minimum clearance of ten feet between the fence and the panels to allow for interior access. The approximately 15,000 individual solar modules will occupy a footprint of approximately 16.4 acres within the approximately 22.8-acre fenced area. The limits of disturbance (LOD) including site access, utility poles, and laydown areas covers approximately 24.5 acres. Access to the western

array will be provided via a 15-foot wide, approximately 1,130-foot long crushed stone driveway from West Pomeroy Lane. Access to the eastern array will be provided via a 15-foot wide, approximately 1,530-foot long crushed stone driveway from the existing facility parking lot on West Pomeroy Lane. Both access driveways will cross the Fort River via existing bridges, and the eastern access driveway will also cross Plum Brook via an existing culverted crossing. No new crossings or improvements or modifications to existing crossings are needed to accommodate the vehicles and equipment needed for facility installation.

NOTE: The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

No Action Alternative

Under the no action alternative, the proposed project would not be built, and 5.24± MW of clean, renewable solar energy would not be added to the electrical grid. In the short term, the alterations of the project site associated with the installation of the solar modules, access roads, and utility lines would not occur, and the site would remain in its existing condition. Operation of the existing golf course would cease under all alternatives, including the no action alterative. Following cessation of golf course operations, the property would likely be proposed for some other type of development. Other potential forms of development for the property, including residential or commercial development, would entail a greater extent and magnitude of environmental impacts which would not occur if the proposed project were installed. Potential impacts associated with more intensive development of the property may include air and water pollution, generation of sewage and refuse, traffic impacts, additional impervious surfaces in the watershed, light and noise pollution, increased energy consumption, and additional demands on municipal and emergency services.

Larger Project Footprint

Under the larger project footprint alternative, the proposed project would be installed in a manner similar to that under the preferred alternative, and would provide an additional 5.24± MW of clean, renewable solar energy would be added to the electrical grid. This alternative differs from the preferred alternative in that the spacing between the solar module rows is larger, which in turn increases the total solar array footprint from 22.5 acres under the preferred alternative to 28.9 acres under this alternative. This increase in the overall size of the solar array footprint would mean that approximately 3.6 acres of the Riverfront Area associated with the Fort River would be altered, and the array footprint would include an additional 3.7 acres of the Bordering Land Subject to Flooding (BLSF) resource area. The alignment of the proposed access roads and utility lines would be the same as under the preferred alternative.

Preferred Alternative

Under the preferred alternative, the proposed project would be installed as proposed, including the approximately 22.5-acre solar array footprint, two facility access roads, and utility lines. Under the preferred alternative, an additional 5.24± MW of clean, renewable solar energy would be added to the electrical grid. This alternative differs from the larger project footprint alternative in that the spacing between the proposed solar module rows has been reduced, which allows for the same number of modules to be installed in a smaller array footprint. This reduction in the overall project footprint allows for the siting of the solar arrays entirely outside of the Riverfront Area associated with the Fort River, and reduces the overall project footprint within the BLSF resource area. Environmental impacts associated with the preferred alternative are minimal, and the solar array footprints have been sited to entirely avoid the Inland Bank, Land under Water (LUW), Bordering Vegetated Wetlands (BVW), Riverfront Area, and 100-foot buffer zone associated with wetlands on the property. Facility access roads and utility lines will entirely avoid the Inland Bank, LUW, and BVW resource areas on the property, and have been sited to minimize impacts to the Riverfront Area and 100-foot

buffer zone.

NOTE: *The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative: **The proposed project has been sited to avoid wetland resource areas to the greatest extent practicable, and no work will occur within the Inland Bank, LUW, or BVW resource areas. Indirect impacts to these and other resource areas at the project site will be avoided or minimized through the use of erosion and sedimentation controls during project installation. Proposed soil erosion and sediment controls include temporary and permanent stabilization, stabilized construction entrance, and silt fence and silt sock placement. Laydown areas are proposed within the existing asphalt parking area. Silt fence and silt sock placement is proposed on the downgradient side of the laydown areas and where work will occur in the vicinity of wetland or streams for sediment control. Hazardous waste generation is not proposed and pollution prevention measures will be taken. The Applicant is in the process of preparing a Wood Turtle Habitat Management Plan which will be included in the MESA filing for the proposed project.**

If the project is proposed to be constructed in phases, please describe each phas **Installation of the project is expected to take approximately six months and is expected to begin in th spring of 2019. Work associated with the proposed project is expected to occur in the following orde though some tasks may occur simultaneously or in a different order based on the contractor's mear and methods:**

- **Mobilization and site access**
- **Installation of erosion and sediment controls**
- **Installation of construction access**
- **Incidental vegetation removal, as needed**
- **Turf removal**
- **Minor grading, as needed**
- **Installation of facility access driveways**
- **Utility pole installation and electrical interconnection**
- **Facility fence installation**
- **Solar module and electrical infrastructure installation**
- **Facility testing and commissioning**
- **Seeding and site stabilization**
- **Removal of erosion and sediment controls**

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

☐Yes (Specify_____)

☒No

if yes, does the ACEC have an approved Resource Management Plan? ___ Yes ___ No;

If yes, describe how the project complies with this plan.

_____

Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes ___ No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC

_____

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm)

☒Yes (Specify **PH 2064 and EH 1359**) ☐No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: