

**Commonwealth of Massachusetts**  
**Executive Office of Energy and Environmental Affairs**  
**DEPARTMENT OF ENERGY RESOURCES**  
**DEPARTMENT OF AGRICULTURAL RESOURCES**

**PRE-DETERMINATION FORM**

**DESIGN ELIGIBILITY AND FARM PLAN FOR AN AGRICULTURAL SOLAR TARIFF  
GENERATION UNIT UNDER THE SOLAR MASSACHUSETTS RENEWABLE  
TARGET (SMART) PROGRAM**

**Purpose**

This pre-determination form is required for all solar PV units in advance of submitting a Statement of Qualification Application to the MA Department of Energy Resources (“Department”) for qualification of an Agricultural Solar Tariff Generation Unit (“ASTGU”) under the SMART program. The form is provided to demonstrate conformance with the provisions required for ASTGUs in 225 CMR 20.06(1)(d) and in the *Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units*.

The UMass Amherst Clean Energy Extension advises farmers and project developers to assist in the completion of this form and to provide the required collaboration with UMass Center for Agricultural, Food and the Environment, in advising the farm plan. In preparing your ASTGU pre-determination form, it is recommended that you review the information and fact sheets available on the UMass Clean Energy Extension (CEE) website (<https://ag.umass.edu/clean-energy/current-initiatives/solar-pv-agriculture>) and contact the Extension with any questions regarding this information. Before submitting your final pre-determination form to the Department, submit a draft version of the form to CEE, at [energyextension@umass.edu](mailto:energyextension@umass.edu). CEE will review the document with Agricultural Extension staff, and provide a letter to the applicant with any recommendations or comments regarding the proposed within about 10 days. Following CEE review, applicants seeking to be eligible as an ASTGU must submit the ASTGU pre-determination form, including the letter from CEE, to [doer.smart@mass.gov](mailto:doer.smart@mass.gov).

This form is used by the Department and the MA Department of Agricultural Resources (“MDAR”) to determine 1) that the farm site is eligible to host an ASTGU, 2) that the solar array and racking design conform with the requirements of an ASTGU, 3) that the farm plan is appropriately integrated with the shading profile determined by the required Shading Tool analysis, and demonstrates that an applicable range of productive agriculture can be maintained throughout the land covered by the array; and 4) that the farmer agrees to file annual reports on agricultural production and changes in the farm plan throughout the period of receiving the SMART tariff.

**Pre-Determination Request Type**

- Project meets the design criteria set forth for Agricultural Solar Tariff Generation Units in the *Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units*, and the attached design materials demonstrate compliance.
  
- Project seeks a waiver to the design criteria set forth for Agricultural Solar Tariff Generation Units in the *Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units*.

**A. BASIC FARM INFORMATION**

Farm Contact Person Name: \_\_\_\_\_  Farm Owner  Farm Operator

Farm Name: \_\_\_\_\_

Legal Structure:  Sole Proprietor  LLC  Corporation  
 Partnership  Other \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Street Address (if different): \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact E-mail: \_\_\_\_\_

Check all that apply:  Solar facility owner  Landowner  Applicant

Current Type of Operation (Check all that apply):

Vegetables  Fruit  Livestock  Poultry

Nursery  Other \_\_\_\_\_

Total Acreage in Production: \_\_\_\_\_

Estimated Annual Sales:  Less than \$5,000  \$5,000-\$24,999  \$25,000-\$249,999  
 \$250,000-\$499,999  \$500,000 or more

Are any major modifications to the farm business expected in the next 5 years?  Yes  No

(Check all that apply.)

Business Legal Structure  Operation Type  Expansion  Diversification

Retirement  Sale  Subdivision  Other \_\_\_\_\_

**SOLAR FACILITY OWNER CONTACT INFORMATION**

**(IF DIFFERENT FROM ABOVE)**

Name: \_\_\_\_\_ Business (if applicable): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Street Address (if different): \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact E-mail: \_\_\_\_\_

Check all that apply:  Landowner  Applicant

**LANDOWNER CONTACT INFORMATION**

**(IF DIFFERENT FROM ABOVE)**

Name: \_\_\_\_\_ Business (if applicable): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Street Address (if different): \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact E-mail: \_\_\_\_\_

Check all that apply:  Applicant

**APPLICANT CONTACT INFORMATION**

**(IF DIFFERENT FROM ABOVE)**

Name: \_\_\_\_\_ Business (if applicable): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Street Address (if different): \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact E-mail: \_\_\_\_\_

**B. SITE INFORMATION**

Street Address: \_\_\_\_\_ Approximate Latitude/Longitude: \_\_\_\_\_  
Assessors Map/Plat Number: \_\_\_\_\_ Parcel/Lot Number \_\_\_\_\_

Total Acreage: \_\_\_\_\_

Land Status: For qualifying under 61A, please provide proof of either current or previous enrollment; attach the proof to this application per below.

- currently enrolled in Chapter 61A
- enrolled in Chapter 61A in previous 5 years
- Important Agricultural Farmland: *Please attach MassGIS OLIVER map showing important farmland soils*

Will the project be implemented on APR-restricted land?  Yes  No

If yes, please list: Name on APR restriction: \_\_\_\_\_ Year APR recorded: \_\_\_\_\_

Will the project be implemented on land restricted by an Agricultural Covenant under the Farm Viability Enhancement Program?  Yes  No

**Note: Please label and provide the following REQUIRED ATTACHMENTS as part of APPENDIX A: REQUIRED ATTACHMENTS, defined and found at the end of this application.**

REQUIRED ATTACHMENTS for this section –

- Property map
- Soils map, if applicable
- Map of APR-restricted area, if applicable
- 61A current or previous enrollment documentation
- CEE Letter for DOER.SMART submission

### C. EXCEPTION REQUEST

Please check off the design criteria requirement(s) the Applicant is seeking an exception from:

- Panel Height Requirements
- Maximum Direct Sunlight Reduction Requirements
- Growing Season/ Time of Day Considerations
- Other
- N/A

The Department recognizes the variety and, in some cases, the uniqueness of farming operations where some of the ASTGU system design parameters may not be required to achieve the objectives of the ASTGU. To address these such specific cases, an applicant may request that the Department, in consultation with MDAR, issue an exception from any of the system design parameters, for an ASTGU in Section 3b) above. All exception requests should be submitted to DOER.SMART@mass.gov. In no case will an exception be approved by the Department if it is contrary to the intent of the regulations.

An exception request shall include the following:

i. An Alternative Plan that:

1. details how the applicant will integrate the ASTGU into their farming operation;
2. demonstrates that the Alternative Plan does not result in a diminishment in the agricultural production capacity of the land; and
3. demonstrates that the primary use of the land is for agricultural or horticultural production, as defined by M.G. L. c. 61A.

ii. Justification and Substantiation An applicant must provide justification as to why an the alternative ASTGU design is necessary for the proposed agricultural operations on the relevant parcel of land.

iii. Additional Documentation An applicant must provide documentation for each specific aspect of the system design parameters set forth below for which the ASTGU is requesting an exception:

1. Panel Height Requirements: Provide documentation demonstrating how the proposed design will allow for the variety and flexibility of a variety of potential farming operations at the farm throughout the entire SMART tariff term.

2. Maximum Direct Sunlight Reduction Requirements

- a. demonstrate how the proposed dual-use design will provide equal or greater total agricultural yields than if both the agricultural crop and solar array were grown and installed separately, utilizing the same amount of total land area for the comparison;

b. demonstrate how each square foot of land will be used for agriculture production; and c. demonstrate how the design will be able to accommodate a variety of potential agricultural products throughout the SMART tariff term.

3. Growing Season/Time of Day Considerations: Provide documentation on how the time of season and time of day data in the system design parameters is not relevant to the farming practice and operation, currently, and for the term of the SMART Tariff.

4. Other: For all other requirements for which an exception is being sought, please describe the exception(s) requested, why the proposed alternatives require an exception, and how these alternatives will meet the intent of the ASTGU requirements in the SMART Regulation and Guideline.

**D. SOLAR ARRAY DESIGN**

Please provide the following information regarding the solar array design:

Nameplate capacity AC (in MW): \_\_\_\_\_ (Note: 1 MW=1000 kW)

Expected annual generation (in MWh): \_\_\_\_\_ (Note: 1 MWh=1000 kWh)

Acreage of farmland over which array is to be installed: \_\_\_\_\_

Nameplate capacity DC (in MW): \_\_\_\_\_

System type:  Fixed  Tracking  Other \_\_\_\_\_

Height of lowest panel edge (in feet): \_\_\_\_\_

Height of lowest elevated horizontal mounting (in feet): \_\_\_\_\_

Type of mounting structure and proposed materials (mono poles, I-Beams, racking, etc.): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Description of materials and process to be used for ground penetration: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of panels: \_\_\_\_\_

Capacity per panel: \_\_\_\_\_

Panel dimensions: \_\_\_\_\_

Panel spacing: \_\_\_\_\_

Number of rows: \_\_\_\_\_

Distance between row mounting columns: \_\_\_\_\_

For fixed systems horizontal tip-to-tip distance between top of panel in row in front and bottom of panel in the row behind \_\_\_\_\_

For tracking systems distance between panels tip-to-tip in the horizontal position: \_\_\_\_\_

*If you wish to provide additional descriptive information regarding the solar array design, you may include this information below, or in a typed attachment labeled "Solar Array Design."*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Note: Please label and provide the following REQUIRED ATTACHMENTS as part of APPENDIX A: REQUIRED ATTACHMENTS, defined and found at the end of this application.**

REQUIRED ATTACHMENTS for this section.

The following system drawings:

- A site plan (as viewed from above) of the impacted farmland with clear depiction of the layout of all array modules, including dimensions of the overall array, each module, and all applicable spacing.
- A design drawing (from the side) of a representative module with dimensions showing panel tilt and elevations from ground.
- A design drawing of the mounting structure with details showing dimensions and all materials of the ground penetrations.
- Panel Specification sheet



## **E. SHADING ANALYSIS**

An ASTGU must demonstrate it is in compliance with the 50% maximum shading allowance through the use of the ASTGU Shading Analysis Tool provided by the Department. This shading analysis should be completed prior to the completion of this pre-determination form.

Provide all solar array design and layout information and input data used by the Shading Analysis Tool to conduct the shading analysis for the project.

Provide all output in the form of a screenshot from the Shading Analysis Tool, including a site map to clearly demonstrate the simulated percent of shading over the simulated growing season of all farmland impacted by the array. The map should be discernable down to at least a per square foot scale.

**Note: Please label and provide the following REQUIRED ATTACHMENTS as part of APPENDIX A: REQUIRED ATTACHMENTS, defined and found at the end of this application.**

REQUIRED ATTACHMENTS for this section

- Shading Tool Screenshot
- SMART Tool Export Spreadsheet

**F. AGRICULTURAL PLAN FOR DUAL-USE AREA**

Planned agricultural use, Year 1. Check all that apply.

- Vegetable, fruit, grains, for human consumption
- Hay
- Livestock production
- Poultry production
- Horticulture
- Floriculture
- Aquaculture
- Other, please describe: \_\_\_\_\_

Please fill out the Crop Table for horticulture, flowers, vegetable, fruit, grain, and hay crops. Complete one line for each crop to be grown under the solar array, including the area to be planted within the array, and expected productivity using specific units (e.g., lbs./acre, quarts per row). Fill out one Crop Narrative for each crop, detailing anticipated crop management (planting, irrigation, soil amendments, harvesting) and equipment to be used.

Please fill out the Grazing Table for livestock and poultry production. Complete one line for each type of livestock or poultry to be raised under the solar array, including the area to be grazed within the array, and expected productivity using specific units (e.g. lbs of milk per year). Please also fill out the Grazing Narrative, detailing anticipated pasture and animal management and equipment to be used.

For all agricultural uses, please fill out the Farm Equipment Table. Complete one line for each farm vehicle to be used within the solar array.

Additional comments regarding agricultural plan for Year 1: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Do you expect to grow the same crops on the land in years 2 and 3? Briefly describe your crop rotation plan and what you expect to be growing on the land for the next 5 years. Will the same equipment be used? If not, is current array design compatible with future crop management needs and equipment? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SPECIFIC FARM INFORMATION RELATIVE TO THE ASTGU LOCATION**

Please List Specific Crops Grown for the past five years with approximate acreage for the area beneath the newly proposed ASTGU array:

Vegetables: \_\_\_\_\_

Fruits: \_\_\_\_\_

Livestock: \_\_\_\_\_

Poultry: \_\_\_\_\_

Nursery: \_\_\_\_\_

Other: \_\_\_\_\_

**SPECIFIC FARM INFORMATION RELATIVE TO GUIDELINE SECTIONS 4 & 5 FARMLAND COMPLIANCES**

For eligible existing farmland/newly created farmland, please confirm meeting the following items per Sections 4 of the SMART Program Guidelines, revised and effective May 15, 2022.

4) Eligible Existing Farmland/Newly Created Farmland

- a. All land intended to be newly created farmland shall be deemed eligible farmland if it has established agricultural production prior to the date when an application is submitted to the SMART program.

Please describe how the newly created farmland was developed and what and when agricultural production was established.

- b. Fallow farmland, which is defined as open arable land that has not been cultivated or used in agriculture for a period of one to five years preceding the date of application, shall be considered existing farmland.

Please document with an existing site map where any of the proposed ASTGU project utilizes fallow farmland and approximate acreage.

- c. No newly created farmland footprint shall be a result of the clearing or conversion of forest land.

Please document with an existing site map that no newly created farmland was the result of forest clearing or conversion.

- d. Soils tests shall be provided from the UMass Amherst Soils Testing Laboratory or equivalent, demonstrating pH and macronutrients are within optimum ranges for the crops proposed. In general, the pH should not be lower than 6.0 unless it is a specific crop requirement. Please provide soils tests as an attachment in APPENDIX A as noted at the end of this section.

5) For ASTGUs with newly proposed grazing of animals or production of hay projects on land in agricultural production on Important Agricultural Farmland, please confirm meeting the following items per Section 5 of the SMART Program Guidelines, revised and effective May 15, 2022.

Is the proposed project on Important Agricultural Farmland?

If so, is the applicant proposing a new grazing or production of hay operation for the ASTGU project? If yes:

- (1) Demonstrate that the production of hay or grazing of animals will be in combination with concurrent growing of crops comparable to the existing operation for the first five years of the ASTGU operation.
  - (a) For grazing projects, a rotational plan should be included with at least 33% of the ASTGU footprint devoted to comparable crops. Please provide a mapping plan as noted at the end of this section. Please note the comparable crops proposed.
  - (b) For hay projects at least 50% of the ASTGU footprint must be devoted to comparable crops. Please provide a mapping plan as noted at the end of this section. Please note the comparable crops proposed.

Please describe complying meeting 5)(1)(a) and (b) below:

- (2) Projects may propose transitioning to new commodities from crops comparable to the existing operation for above provided the plans include the applicant's previous experience with or a working knowledge of the new commodity, an estimate or other information detailing the market viability for the new product, and provides a comparison of the economic value of the planned commodity relative to current production.

If transitioning to new commodities, please provide required information below.

**Note: Please label and provide the following REQUIRED ATTACHMENTS as part of APPENDIX A: REQUIRED ATTACHMENTS, defined and found at the end of this application.**

REQUIRED ATTACHMENTS for this section

- Please attach a *Crop or grazing diagram overlay on the shading analysis map.*
- Please attach a copy of *Soils Tests.* (if applicable)
- Please attach a mapping plan per 4.)b above (if applicable)
- Please attach a mapping plan per 4.)c above (if applicable)
- Please attach a mapping plan per 5)(1)(a) above (if applicable)
- Please attach a mapping plan per 5)(1)(b) above (if applicable)

FARM EQUIPMENT TABLE

Equipment Type	Equipment Make & Model	Clearance (ft)	Width (ft)	Turning radius (ft)	Purpose(s) for Use within Solar Array

**G. CROP NARRATIVE**

*Please detail anticipated crop management, including approximate **dates** and **equipment** to be used. We recognize management is subject to weather, disease pressure, worker availability, etc. The purpose of this form is to demonstrate the solar array design is compatible with anticipated equipment usage and crop management needs. If you need additional space, please include a typed attachment labeled "Crop Narrative."*

Crop: \_\_\_\_\_

Planting Plan: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Soil Amendment Plan: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Cultivation Plan: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Irrigation Plan: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Pesticide/Herbicide Plan: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Harvest Plan: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

CROP TABLE

Crop	Area to be planted <i>(Row length and width or acreage, as appropriate)</i>	Planting date(s) <i>(approximate)</i>	Harvest date(s) <i>(approximate)</i>	Expected productivity, in absence of shading	Expected productivity, with shading





GRAZING TABLE

Type(s) of animal to be grazed	Area to be grazed ( <i>acreage</i> )	Grazing pressure (# animals per acre)	Purpose (e.g. meat, dairy, eggs)	Grazing period(s)	Harvest date(s) ( <i>if applicable</i> )	Expected productivity (without solar array)	Expected productivity (with solar array)

**I. Compliance with Requirements of 225 CMR 20.00 and *Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units.***

Please respond to each of the following relevant Regulatory and Guideline requirements to demonstrate compliance with all eligibility requirements for ASTGUs. You may refer to other sections within this document if you feel you have previously appropriately addressed a specific line item.

**Regulations**

**225 CMR 20.06(1)(d) contains the following special provisions pertaining specifically to the eligibility of ASTGUs:**

(d) Special Provisions for Agricultural Solar Tariff Generation Units. In order to qualify as an Agricultural Solar Tariff Generation Unit, a Solar Tariff Generation Unit must submit documentation itemized in 225 CMR 20.06(1)(d) below. All final determinations regarding the eligibility of such facilities will be made by the Department, in consultation with MDAR. A Solar Tariff Generation Unit must also submit satisfactory documentation to the Department as detailed in the Department’s *Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units.*

1. the Solar Tariff Generation Unit will not interfere with the continued use of the land beneath the canopy for agricultural purposes;

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2. the Solar Tariff Generation Unit is designed to optimize a balance between the generation of electricity and the agricultural productive capacity of the soils beneath;

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3. the Solar Tariff Generation Unit is a raised structure allowing for continuous growth of crops underneath the solar photovoltaic modules, with height enough for labor and/or machinery as it relates to tilling, cultivating, soil amendments, harvesting, *etc.* and grazing animals;

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4. crop(s) to be grown to be provided by the farmer or farm agronomist in conjunction with UMass Amherst agricultural extension services, including compatibility with the design of the agricultural solar system for such factors as crop selection, sunlight percentage, *etc.*;

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5. annual reporting to the Department and MDAR of the productivity of the crop(s) and herd, including pounds harvested and/or grazed, herd size growth, success of the crop, potential changes, *etc.*, shall be provided after project implementation and throughout the SMART incentive period;
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6. other system design information, which shall include, but not be limited to:

a. dual-use type, *e.g.*, ground mount racking, pole towers, tracking, *etc.*;

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b. total gross acres of open farmland to be integrated with the project;

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c. type of crop(s) to be grown, including grazing crops;

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d. pounds of crop(s) projected to be grown and harvested, or grazed;

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e. animals to be grazed with herd size(s); and

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f. design drawing including mounting system type (fixed, tracking), panel tilt, panel row spacing, individual panel spacing, for pole towers tower spacing and mounting height, *etc.*

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## **Guidelines**

**Please describe compliance with the Guidelines as follows:**

### b) System Design Parameters

#### i. Panel Height Requirements:

1. For fixed tilt ASTGUs, the minimum height of the lowest panel point shall be eight (8) feet above ground.

2. For tracking ASTGUs, the minimum height of the panel at its horizontal position shall be 10 feet above ground.

#### ii. Maximum Direct Sunlight Reduction Requirements:

All ASTGUs must demonstrate that the maximum sunlight reduction from the

panel shading on every square foot of land directly beneath, behind and in the areas adjacent to and within the ASTGU's design shall not be more than 50% of baseline field conditions as calculated by the SMART Tool.

iii. Compatible Sunlight Needs:

Per SMART Regulations 225 CMR 20.06(1)(d)(4), applicant shall provide documentation that the project's proposed solar design's sunlight amount and sunlight reduction is based upon the compatibility with the proposed agricultural crops and productivity, utilizing best available information as indicators, such as photosynthetic active radiation (PAR) and light saturation data; and qualitative information, e.g., sun-loving, partial sunlight, shade tolerant.

iv. Growing Season/Time of Day Considerations:

The typical growing season shall be March through October, with sunlight hour conditions with maximum 50% sunlight reduction to be between 10AM and 5PM for March and October, and from 9AM to 6PM from April through September.

v. Maximum ASTGU Rated Capacity:

The maximum AC rated capacity of an ASTGU shall be five (5) MW. The maximum DC rating shall be 2:1 DC to AC ratio and shall not exceed 7.5 MW DC.

**Note: Please label and provide the following REQUIRED ATTACHMENTS as part of APPENDIX A: REQUIRED ATTACHMENTS, defined and found at the end of this application.**

- Design drawing including mounting system type (fixed, tracking), panel tilt, panel row spacing, individual panel spacing, for pole towers tower spacing and mounting height, *etc.*

**J. SIGNATURES AND ATTESTATIONS**

Prior to submitting the Pre-Determination Form, please read and sign as directed below.

Landowner

I hereby certify that I have personally examined and am familiar with the information submitted herein, and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

\_\_\_\_\_  
Signature of Landowner

\_\_\_\_\_  
Date

Farm Operator and Landowner

I/we hereby certify that the information submitted regarding the current farm conditions and practice and the Agricultural Plan for the Dual-Use Area is accurate and complete to the best of my/our knowledge and intentions, and that I/we have engaged with the University of Massachusetts Amherst Clean Energy Extension and thereby its agricultural extension service to review the Agricultural Plan and its compatibility with the solar array structures and shading. Further, I/we agree, conditional on being provided eligibility to the SMART program as an ASTGU, to submit a report, through a template provided by the University of Massachusetts Clean Energy Extension, annually throughout the duration of the SMART incentive with ASTGU adder, on the operations and productiveness of the solar array and agriculture along with any changes to the Agricultural Plan for the following year. I/we understand that failure to maintain productive agricultural activities and annual reporting may result in the disqualification of the facility as an ASTGU in the SMART program.

\_\_\_\_\_  
Signature of Farm Operator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Landowner

\_\_\_\_\_  
Date

Solar Facility Owner

I hereby certify that the information submitted regarding the Solar Array Description and inputs and outputs of the Shading Analysis is accurate and complete to the best of my/our knowledge and intentions.

\_\_\_\_\_  
Signature of Solar Facility Owner

\_\_\_\_\_  
Date

**APPENDIX A - REQUIRED ATTACHMENTS:**

Please provide all required attachments referenced in this application under this section, labelled as follows:

**A. SITE INFORMATION:**

- A1** - Property map
- A2** - Soils map, if applicable
- A3** - Map of APR/FVEP-restricted area, if applicable
- A4** - 61A current or previous enrollment documentation
- A5** – CEE Letter for DOER.SMART submission

**B. SOLAR ARRAY DESIGN**

The following system drawings:

- B1** - A site plan (as viewed from above) of the impacted farmland with clear depiction of the layout of all array modules, including dimensions of the overall array, each module, and all applicable spacing.
- B2** - A design drawing (from the side) of a representative module with dimensions showing panel tilt and elevations from ground.
- B3** - A design drawing of the mounting structure with details showing dimensions and all materials of the ground penetrations.
- B4** - Panel specification sheet

**C. SHADING ANALYSIS**

- C1** - Shading Tool Screenshot

**D. AGRICULTURAL PLAN FOR DUAL-USE AREA**

- D1** - Please attach a *Crop or grazing diagram overlay on the shading analysis map.*
- D2** - Soils Tests (if applicable)
- D3** - Please attach a mapping plan per 4.)b (if applicable)
- D4** - Please attach a mapping plan per 4.)c (if applicable)
- D5** - Please attach a mapping plan per 5)(1)(a) (if applicable)
- D6** - Please attach a mapping plan per 5)(1)(b) (if applicable)

**E. Compliance with Requirements of 225 CMR 20.00 and Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units.**

- E1** - design drawing including mounting system type (fixed, tracking), panel tilt, panel row spacing, individual panel spacing, for pole towers tower spacing and mounting height, *etc.*