

ASTGU ANNUAL REPORT

PURPOSE

This Annual Report form is required to be completed and submitted annually for all projects with the MA Department of Energy Resources (DOER) which received qualification as an Agricultural Solar Tariff Generation Unit (ASTGU) under the SMART program. The form is provided to demonstrate conformance with the general provisions required for ASTGUs in 225 CMR 20.00; in particular pertaining to Section 20.06(1)(d) therein as well as associated ASTGU Guidelines; and specifically pertaining to annual reporting requirements.

The completed form will be reviewed by DOER and the MA Department of Agricultural Resources (MDAR) to determine that the farm is in conformance with all ASTGU provisions in general under the SMART Program, although more specifically to the annual production requirements.

BASIC FARM INFORMATION

Farm Contact Person Name: Nathaniel Tassinari Farm Owner Farm Operator

Farm Name: __Reddy Fox Farm (The homestead)

Legal Structure: Sole Proprietor LLC Corporation
 Partnership Other _____

Mailing Address: __21 Bogan Road Monson, MA
01057_____

Street Address (if different): _____

Contact Phone: 413-455-8660_____ Contact E-mail: Nathaniel.tassinari@gmail.com;

Check all that apply: Solar facility owner Landowner Applicant

Current Type of ASTGU Farm Operation (Check all that apply):

Vegetables Fruit Livestock Poultry Hay
 Nursery Other _____

Total Acreage in ASTGU Farm Production: _1.1 Acres_____

Gross Annual Revenue for ASTGU Farm Production: Total \$ 250_____

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 _____

BASIC SOLAR PROJECT INFORMATION

Solar System Company Owner: ___Million Little Sunbeams, LLC_____

Solar System Company Address: _____21 Bogan Rd, Monson, MA 01057_____

Solar Company Contact Person/email/tel#: Nathaniel Tassinari,
mail@millionlittlesunbeams.com, 413-455-8660

ASTGU Project Start-Up/History Information:

Date ASTGU Approved by DOER: 02/25/2019

Date Solar Portion of ASTGU Project Commenced Construction: 09/19/2019

Date Solar Portion of ASTGU Project was Completed & Operational: 06/30/2020

Date Original Agricultural Portion of the ASTGU Project Commenced: 09/30/2020

Date Original Agricultural ASTGU Portion of Project Harvested/Sowed Products: 05/30/2020

How many complete years, that is both solar and agricultural production, has the ASTGU been in operation? 2

SOLAR ARRAY DESIGN – PLEASE PROVIDE AS-BUILT SYSTEM INFORMATION

Please provide the following information regarding the solar array design:

Nameplate capacity AC (in MW): .2488MW (Note: 1 MW=1000 kW)

Expected annual generation AC (MWh): .386753MWH (Note: 1 MWh=1000 kWh)

Acreage of farmland over which array is to be installed: 1.1

System type: Fixed Tracking Other _____

Height of lowest panel edge (in feet): 10

Height of lowest elevated horizontal mounting (in feet): 10

Type of mounting (mono poles, racking, etc.): I-beams with racking,

Description of materials and process to be used for ground penetration: driven beams into ground

Number of panels, capacity per panel, and panel spacing: : 694, Longi Bifacial 360, 16 ft between edges of panels

If you wish to provide additional descriptive information regarding the solar array design, including any system changes since original completion, you may include this information below, or in a typed attachment labeled "Solar Array Design."

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 the Crop Table results following this section for horticulture, flowers, vegetable, fruit, grain, and hay crops for your present year of operation. Fill out one Crop Narrative for each crop, detailing anticipated crop management (planting, irrigation, soil amendments, harvesting) and equipment to be used. **Crop Table – Current Season** follows this section. Also, please also fill out a **Crop Table – Next Season** and corresponding narrative at the end of this section with your best information available.

Please fill out the Grazing Table results following this section for livestock and poultry production for your present year of operation. Please also fill out the Grazing Narrative, detailing anticipated pasture and animal management and equipment to be used. **Grazing Table – Current Season** follows the Crop Table section. Also please fill out a **Grazing Table – Next Season** and corresponding narrative at the end of this section with your best information available.

Additional comments regarding agricultural production for Year 1:

How did the Agricultural Production perform versus expectations? Please explain why/why not if you can: _____ Over the past two years it has been difficult to differentiate hay production within the solar array area and outside. Yields appear to be similar but bailing hay is not an exact science. I have agreed to work with UMASS who is performing a study on the yield from outside the array to inside the array. I should be able to provide better information starting in 2023. _____

Did you plant the crops/graze the animals as you originally intended when your Pre-Determination Application was approved? If not please explain. – Yes, Hay production has been performed as anticipated. No changes.

Were the products marketable anticipated? Please explain how the production values (weight/bushels etc) were determined.

All hay produced on the farm is given to my cousins who operate a Dairy farm next door. We estimate that about 2 tons of hay was pulled out of the field. While this was donated – discussions with other farmers indicate that this is worth approximately \$250.

What occurred during the current season that wasn't anticipated? Positive & Negative.

We have needed to purchase a smaller mower, rake and tetter to better fit between the array. While the equipment we were going to use would fit – we found that it doesn't cut close enough to the poles.

What Changes/Modifications do you expect to make to improve on production if needed? No changes anticipated or needed.

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?

No change in plans going forward. We continue to plan to use the fields as hay and to support the family dairy with the yield.

Table A: Crop Production – Current Season					
Crop	Area planted (Row length and width or acreage, as appropriate)	Planting date(s) (approximate)	Harvest date(s) (approximate)	Expected productivity, total pounds harvested with dual use	Actual productivity, pounds, with dual use
Hay	1.1 Acres	N/A	Varies, either 2 or 3x per year	About 2 tons per acre	2 tons

Table A: Crop Production – Next Season					
Crop	Area planted (Row length and width or acreage, as appropriate)	Planting date(s) (approximate)	Harvest date(s) (approximate)	Expected productivity, total pounds harvested without dual use	Expected productivity, total pounds, with dual use

CROP NARRATIVE – Next Season—No changes from current plan.

*Please detail the crop management planned for next season, including approximate **dates** and **equipment** used. The purpose of this form is to provide planned data for the upcoming season regarding compatible 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: _____

GRAZING NARRATIVE – Next Season

*Please detail the next season animal and pasture management, including **dates** and **equipment** used. The purpose of this form is to provide planned data for the upcoming season regarding compatible equipment usage and production needs. If you need additional space, please include a typed attachment labeled “Grazing Narrative.”*

Type(s) of Animals Grazed: _____

Pasture Management Plan: List any anticipated seeding, soil amendment, irrigation, pesticide, mowing, etc., including approximate dates and equipment used.

Animal Management Plan:

For each type of animal grazed, describe management regarding housing/shelter, water source, fencing, movement, disease treatment, harvest, etc. that was carried out within the solar array area. Describe equipment used in these activities.

Describe any modifications to the solar array design that were made in order to reduce the risk of animal damage to the solar array, or risk of electrocution to animals.

Waiver for Decreased Yield

i. Waiver for Decreased Yield

Due to unforeseen circumstances, such as but not limited to weather events, pests, or change in crops, the projected agricultural yield for any given year may be lower than stated in the agricultural plan or previous year's annual report. In these instances, an applicant can request a waiver to the Department for the decreased yields. The applicant must demonstrate to the satisfaction of the Department, and in consultation with MDAR, that a waiver is warranted for good cause. Waiver requests must be submitted by November 1st of the applicable calendar year and sent to DOER.SMART@mass.gov.

ii. Failure to Report

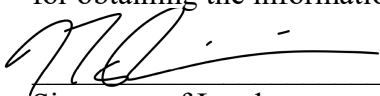
If the ASTGU fails to submit an annual report, the Department may declare the project ineligible for the ASTGU adder for one year. If the annual report is not completed for a second year, then the Department may permanently disqualify the ASTGU from continuing to receive the ASTGU Adder for the remainder of the STGU's tariff term.

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.



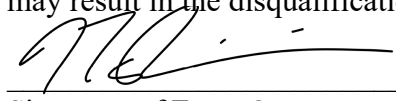
Signature of Landowner

03/08/2023

Date

Farm Operator and Landowner

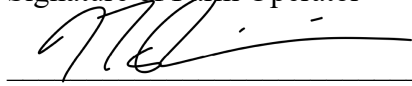
I/we hereby certify that the information submitted regarding the current farm conditions and practice and the Agricultural Plan for the Dual-Use Area is accurate and complete to the best of my/our knowledge and intentions, and that I/we have engaged with the University of Massachusetts Amherst Clean 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

03/08/2023

Date



Signature of Landowner

03/08/2023

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.

A handwritten signature in black ink, consisting of stylized initials and a long horizontal stroke.

Signature of Solar Facility Owner

03/08/2023

Date