RESRFP23-1 Appendix 2. Smart Solar Siting Scorecard

Table of Contents

List of Tables

List of Exhibits

RESRFP23-1 Smart Solar Siting Scorecard

Introduction

The New York State Energy Research and Development Authority (NYSERDA) is requiring all Proposers under RESRFP23-1 (RFP) to submit a complete Smart Solar Siting Scorecard (Scorecard) for **each solar Bid Facility**. NYSERDA will consider information contained within the completed Scorecards in the RFP scoring and evaluation process and will use it to better understand the underlying siting conditions for solar Bid Facilities included within Step Two Bid Proposals. Proposers to RESRFP23-1 that receive more points on their submitted and verified Scorecard, and that pledge to develop the Bid Facility in harmony with other State objectives as demonstrated through the Scorecard, will be evaluated more favorably.[1] ***NYSERDA reserves the right to make the submitted Scorecards and associated Workbooks available to the public.***

The Scorecard addresses multiple solar siting considerations and site management practices from the perspective of agricultural, environmental, and climate interests. NYSERDA intends that the Scorecard will provide criteria for developers to consider in siting projects, and include within project design, operations and maintenance, and decommissioning plans to encourage a balanced approach between renewable energy siting and other New York State policies, goals, and objectives.

The Scorecard is designed to encourage the development of renewable energy projects that proactively commit to comprehensive community engagement and minimize impacts on lands with high-quality soils, forests, and pertinent competing land uses. NYSERDA encourages Proposers to include Co-Utilization initiatives in the planning and development of renewable energy projects. The Scorecard sets forth 1) avoidance thresholds for certain natural resources and land use activities, 2) strategies to minimize project impacts to agricultural and environmental resources, and 3) strategies to provide community benefits and collaborate with the community.

Directions

All Proposers of solar facilities to RESRFP23-1 will be required to populate and submit 'Exhibit 1. Smart Solar Siting Scorecard Workbook' (Workbook) as part of their Step Two Bid Proposal submission. The following instructions describe how to properly populate the Workbook using the Scorecard as a guide.

1. Proposers should first estimate the solar project's proposed Facility Area.[2] Enter the number of acres in cell C4 the Workbook. Then, using the resources and guidance provided in the endnotes on page 8 of the Scorecard, in the Workbook, populate cells C5 through C11 according to the adjacent description boxes in Column B. The Avoidance Points in cells C15 and C16 for Agricultural and Forested Lands Protection will auto populate based on the acreages entered.

2. Next, the appropriate Strategy List (S.1 or S.2) based upon the outcome of the *Agriculture Avoidance Flow Chart* in Part 1 of the *Agricultural Protection* section will become highlighted in yellow. Proposers shall review this Strategies List and determine which optional strategies the project will implement to minimize the project's impact on agricultural lands. Strategies marked with an "M" are mandatory for the Proposer to incorporate should the Bid Proposal be awarded an REC Agreement through this RFP. Mandatory strategies have no Scorecard points associated

with them. In the Workbook, mandatory strategy checklists are provided in rows 29 through 51 as a reminder and should not be edited.

Please Note: Bid Facilities that avoid Agricultural Lands as defined in Part 1 of the *Agricultural Lands Protection* section will achieve a higher number of points.

Optional strategies that include a point value may be selected to earn the number of points indicated. However, the Proposer is expected to be committed to implementing any optional strategies that are selected in the submitted Scorecard. No partial points will be awarded for Strategy #'s 18 through 40. Proposers should check the optional strategies included in their project plans or design and calculate the total points earned in the Workbook. Optional strategy checklists are provided in rows 54 through 91 of the Workbook. Strategies may be relevant to only the Facility Area or may include additional land controlled by the developer. Smart solar projects will include as many applicable Scorecard strategies as possible in their final project plans and design, therefore achieving a higher number of points.

To encourage and allow for multiple types of Co-Utilization, the Scorecard prorates points earned for each Co-Utilization type (*Pollinators and Ecosystem Services, Livestock and Livestock Products*, and *Crop(s) Production*) based on the scale of each Co-Utilization type incorporated into the project. If Co-Utilization is incorporated into project design and operational plans, then the Proposer shall commence and maintain the respective Co-Utilization initiatives for a minimum of 5 years. Such Co-Utilization initiatives must commence within 3 years of commercial operation of the Bid Facility. Annual Co-Utilization activity summaries must be prepared and made available to interested Potential Community Intervenors for the life of the activity. If the Co-Utilization initiative is no longer operational after the 5-year period, then the final activity summary must document the basis for the termination of the Co-Utilization activity. Proposers should refer to **Table 2**: Prorating Points for Multiple Co-Utilization Types" on page 16 of this document to calculate the points earned for Co-Utilization. Enter the values from **Table 2** to their respective cells in rows 95 through 97 of the Workbook. If the Proposer does not plan to implement any Co-Utilization strategies to Project siting and designs, enter a value of zero for cells C95, C96, and C97.

Additional points are awarded to projects that incorporate Co-Utilization on more than 80% of the Facility Area. To earn these additional points, *Pollinators and Ecosystem Services* cannot be the only type of Co-Utilization initiative. The project must also include either *Livestock and Livestock Products* and/or *Crop(s) Production*. Proposers should refer to **Table 3**: Points for Maximizing Co-Utilization"**Error! Reference source not found.** on page 16 of this document to calculate the points earned for maximizing Co-Utilization. Enter the number of acres from **Table 3** to cell C103 in the Workbook.

3. Next, using the Scorecard's Part 1 *Forested Lands Avoidance Flow Chart* located in the *Forested Lands Protection* section, if cell E109 has a value less than 1%, no further action is necessary in this Section of the Workbook. Please skip direction # 4 below and proceed to direction # 5. However, if the value of cell E109 is greater than 1%, proceed to direction # 4.

Please Note: The remainder of the Forested Lands avoidance evaluation, as described in boxes B2 to B9 in the *Forested Lands Avoidance Flow Chart,* will be conducted by NYSERDA based on the sources referenced in Part 1. NYSERDA will assign the avoidance points achieved based on the outcome of the evaluation. The red-outlined boxes indicate the number of points a project can be awarded in Part 1 for the *Forested Lands Protection* section.

Bid Facilities that avoid Forested Lands as defined in Part 1 of the *Forested Lands Protection* section will achieve a higher number of points.

4. If the percentage of the Facility Area that contains Forested Lands is greater than or equal to one percent, use Strategy List (S.1) to complete the checklist of strategies the project will implement to minimize the project's impact to Forested Lands. Strategies marked with an "M" are mandatory for the Proposer to incorporate should the Bid Proposal be awarded an REC Agreement through this RFP. Mandatory strategies have no Scorecard points associated with them. In the Workbook, mandatory strategy checklists are provided in rows 115 through 122.

   Optional strategies that include a point value may be selected to earn the number of points indicated. However, the Proposer is expected to be committed to implementing any optional strategies that are selected in the submitted Scorecard. No partial points will be awarded for Strategy #'s 47 through 50. Proposers should check the optional strategies included in their project plans or design and calculate the total points earned in the Workbook. Optional strategy checklists are provided in rows 125 through 131 of the Workbook. Strategies may be relevant to only the Facility Area or may include additional land controlled by the developer. Smart solar projects will include as many applicable Scorecard strategies as possible in their final project plans and design, therefore achieving a higher number of points.

5. Next, proceed to the *Community Benefits and Collaboration* section starting on row 134 of the Workbook. Strategies marked with an "M" are mandatory for the Proposer to incorporate should the Bid Proposal be awarded an REC Agreement through this RFP. Mandatory strategies have no Scorecard points associated with them. No partial points will be awarded for Strategy #'s 54 through 58. In the Workbook, mandatory strategy checklists are provided in rows 134 through 138.

   Proposers can earn additional points by selecting strategies to complete from the *Community Benefits and Collaboration* section. Proposers should check the optional strategies included in their project plans or design and calculate the total points earned in the Workbook. Optional strategy checklists are provided in rows 139 through 146 of the Workbook.

6. Proposers can earn additional points by proposing bona fide innovative practices or designs to be implemented that provide complimentary co-benefits or minimize impacts to agricultural and environmental assets, as described in the *Extra Credit: Innovation* section. In row 150 of the Workbook, list what innovative practices or designs are proposed for the project and describe how they further minimize impacts or provide complimentary co-benefits. Up to five points will be assigned by NYSERDA if the proposed innovative practices or designs are accepted as meeting the spirit of the *Innovation* category. Therefore, there is no need for the Proposer to enter any values in the 'Points' column.

7. The strategy tables found in Part 2 of each section indicate the project phase that would be applicable for each strategy. 'PreC' indicates that the strategy applies to the pre-construction phase. 'Const' indicates that the strategy applies to the construction phase. 'PostC' indicates that the strategy applies to the post-construction phase. As is the nature of these strategies, some apply to multiple phases of a project.
8. Proposers should reference 'Exhibit 2: Acronyms and Definitions' for a glossary of key terms. Agriculture-specific terms are defined by Agriculture and Markets Law unless otherwise noted.
9. Proposers should reference the resources included in the endnotes of each section for technical guidance related to implementing strategies. Additional helpful resources are provided in 'Exhibit 3: Smart Solar Siting Scorecard Resources.'

[1] Proposers of Solar facilities will be required to complete and submit the Appendix 2. RESRFP23-1 Smart Solar Siting Scorecard, which will allow NYSERDA to score Bid Proposals based on the Bid Facilities expected impacts to active agricultural land, Mineral Soil Groups 1 through 4 (MSG 1-4), forested land, and additional measures.

[2] Unless otherwise noted, the Facility Area is defined in the Definitions section of RESRF23-1.

Table 1: Scorecard Breakdown of Points by Category

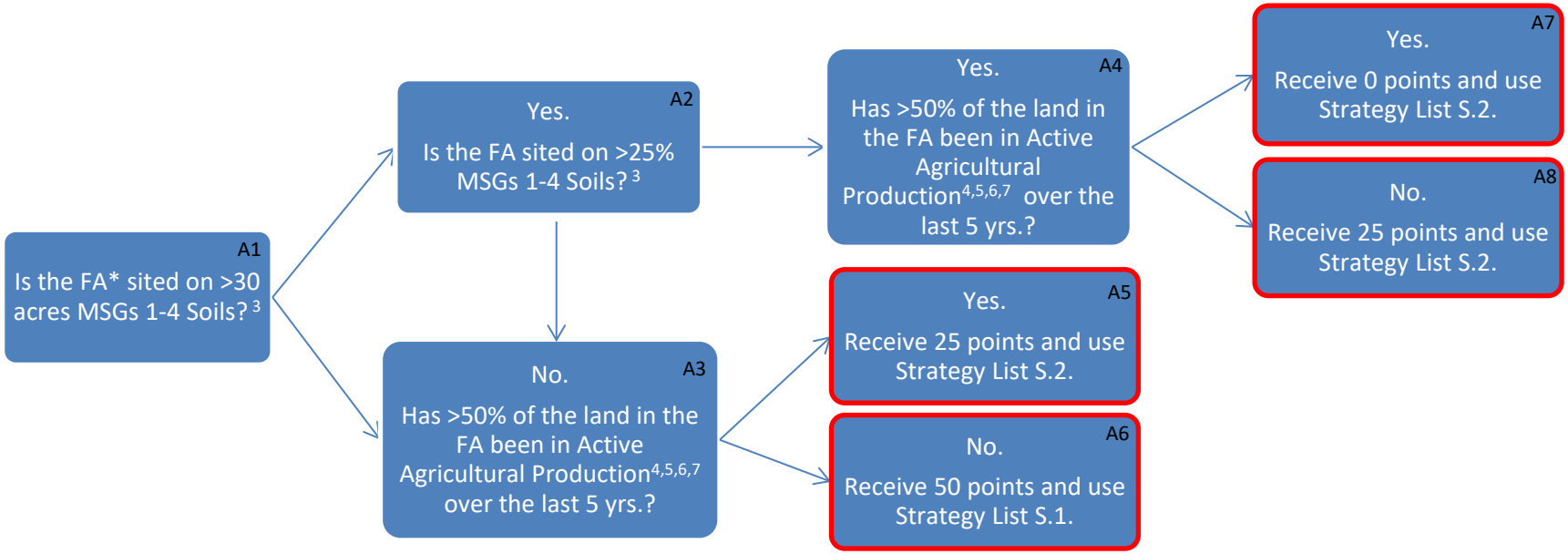
Scorecard Section	Number of Points Available		Total
	Avoidance	**Minimization**	
Agricultural Protection	50	45	**95**
Forested Lands Protection	35	10	**35***
Community Benefits & Collaboration	25		**25**
Extra Credit: Innovation	5		**5**
TOTAL POINTS AVAILABLE			**160**

*Maximum of 35 points available

Agricultural Protection

Part 1 – Agriculture Avoidance Flow Chart

Avoid locating the solar project Facility Area on agricultural land to prevent impacts to resources or activities of concern.



*__FA__ = Facility Area

[3] **MSGs 1-4 Soils** = Mineral Soil Groups 1-4 as identified in the 2023 New York State Agricultural Land Classification issued by NYSAGM for the applicable county. A pdf can be downloaded with this link: https://agriculture.ny.gov/system/files/documents/2023/01/masterlistofagriculturalsoils.pdf. NYSERDA Interactive Map of Mineral Soil Groups 1 through 4 is available as an interactive map and as tabular data for download at https://data.ny.gov/Energy-Environment/NYSERDA-2023-Soils-Data-for-use-in-the-Large-Scale/dayw-t2bj and www.nyserda.ny.gov/ces/rfp.

[4] **Active Agricultural Production** = Total number of acres of Cultivated Crops, Hay Land, and Pasture in the FA at any time in last five years.

[5] **USGS National Land Cover Database (NLCD)** https://www.usgs.gov/centers/eros/science/national-land-cover-database?qt-science_center_objects=0#qt-science_center_objects and can be viewed through the MRLC Viewer at https://www.mrlc.gov/viewer/.

[6] **Cultivated Crops** = The land used for raising crops assessed using, at minimum, the two most recent available updates to the National Land Cover Database (NLCD) datasets (Data Source 2019 & 2021 NLCD, Relevant Data Layer: 2019 & 2021 Map: cultivated crops), supplemented by additional information and/or resources.

[7] **Pasture/Hay Land** = The land where animals fed on the grass and the land where grass was grown to be made into hay assessed using, at minimum, the two most recent available updates to the National Land Cover Database (NLCD) datasets (Data Source 2019 & 2021 NLCD, Relevant Data Layer: 2019 & 2021 Map: pasture/hay), supplemented by additional information and/or resources.

Part 2 – Agriculture Strategy List Options

Design solar project to *minimize* impacts to natural and agricultural resources during all phases of the project.

Strategy List Options Based Upon Outcome of Avoidance Flow Chart in Part 1

- S.1 – No Threshold Exceedances
- S.2 – Exceeds MSGs 1-4 Threshold, Exceeds Active Agricultural Production Threshold, or Exceeds MSGs 1-4 Threshold AND Active Agricultural Production Threshold

Note: M = Mandatory; 0 points awarded for strategy
1,2, 3 or 4 = Number of points awarded for strategy

MANDATORY MINIMIZATION STRATEGIES

Land Use and Operations

Soil Conservation

ID#	*S.1*	*S.2*	*Strategy*	*Project Phase* [8]
1	M	M	Develop an Agricultural Plan, consistent with the New York State Department of Agriculture and Markets Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands[9] to the maximum extent practicable, to avoid, minimize, and mitigate agricultural impacts to active agricultural lands within NYS Agricultural Land Classified MSGs 1-4.	PreC
2	M	M	To establish a benchmark for restoration activities, before any topsoil is stripped, conduct compaction tests[9, 10] and soil sampling for pH, percent organic material, cation exchange capacity, Carbon (C), Nitrogen (N), Phosphorus/Phosphate (P), and Potassium/Potash (K).[10, 11, 12]	PreC
3	M	M	Stockpile all topsoil disturbed during construction or modification of the solar project. Upon completion of disturbance, return topsoil to the site, and restore the surface.[9]	Const
4	M	M	If topsoil is removed permanently from any impacted areas, spread topsoil evenly in adjacent agricultural areas within the project limits of disturbance, without significantly altering the hydrology of the area. [9]	Const
5	M	M	In all agricultural lands immediately returning to agricultural use, where the topsoil was stripped, conduct soil decompaction prior to topsoil replacement.[9]	Const
6	M	M	Revegetate restored soil areas consistent with best management practices applicable to the land and soil type to optimize soil health and prevent soil erosion.	Const
7	M	M	Respect existing site topography by strategically locating stormwater runoff storage and recharge lines within vegetated drainage reserve areas.[13]	PreC
	0	**0**	**Subtotal**	

Project Landscaping and Infrastructure

ID#	S.1	S.2	Strategy	Project Phase
8	M	M	Construct access roads with materials appropriate for the site and designed to minimize impervious surfaces, maintain original surface drainage patterns, and minimize soil compaction.	PreC, Const
9	M	M	Outside the security fence, where feasible, use existing roads or locate roads along the edge of agricultural fields, in areas next to hedgerows and field boundaries, and so that the roads do not fragment existing fields. Alternatively, show a plan signed off by the landowner approving the location of roads.	PreC, Const
10	M	M	Outside the security fence, where feasible (considering, for example, bedrock), bury all underground electric conduits and direct buried conductors on lands in active cultivated crop production or hay land within MSGs 1-4 to a minimum depth of 48 inches; at this depth they can be left in place during decommissioning, with landowner approval, avoiding the need to disturb the soil. In areas where the depth of soil over bedrock is less than 48 inches, bury the electric conductors below the bedrock surface if friable/rippable, or as near as possible to the bedrock surface. [9]	PreC, Const
11	M	M	Where necessary, locate structures for overhead collection lines along the edge of agricultural fields, in areas next to hedgerows and field boundaries, and so that the roads do not fragment existing fields.	PreC, Const
	0	**0**	**Subtotal**	

Monitoring, Maintenance, and Operations

ID#	S.1	S.2	Strategy	Project Phase
12	M	M	For projects which exceed 50 acres of Active Agricultural Production within the Facility Area, appoint environmental monitor(s) with understanding of agricultural practices to oversee the construction, restoration, and follow-up monitoring of agricultural and environmental commitments. [9]	Const
13	M	M	On agricultural land needing restoration because of ground disturbance, postpone any restoration practices until favorable (workable, relatively dry) topsoil/subsoil conditions exist. [9]	PostC
14	M	M	Considering the understanding that arrays are proposed to be temporary impacts to agricultural lands, develop a Decommissioning and Site Restoration Plan in compliance with NYSDAM Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands. [9]	PreC
15	-	M	Include within the Decommissioning and Site Restoration Plan how to remediate soil and vegetation to return the impacted agricultural land to its original state prior to construction, pending landowner agreement.[9]	PreC
	0	**0**	**Subtotal**	

Co-Utilization

General

ID#	*S.1*	*S.2*	*Strategy*	*Project Phase*
16	M	M	Prior to submitting the Bid Facility's permit application, conduct a site evaluation and engage landowners/farmers associated with the Facility Area to assess feasibility and land suitability for Co-Utilization.	PreC
17	M	M	If Co-Utilization is incorporated in project design and operational plans, then commence and maintain the respective *Pollinator and Ecosystem Services*, *Livestock and Livestock Products*, and/or *Crop(s) Production* initiatives for a minimum of 5 years. Such Co-Utilization initiatives must commence within 3 years of commercial operation of the Bid Facility. Annual Co-Utilization activity summaries must be prepared and made available to interested Potential Community Intervenors for the life of the initiative. If the Co-Utilization initiative is no longer operational after the 5-year period, then the final initiative summary must document the basis for the termination of the Co-Utilization initiative. *	PostC
	0	**0**	**Subtotal**	

[8] **PreC** = Pre-construction; **Const** = During construction; **PostC** = Post-construction.

[9] New York State Department of Agriculture and Markets Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands (Revision October 18, 2019)

[10] Comprehensive Assessment of Soil Health – The Cornell Framework, Edition 3.2, Cornell University, p.41

[11] Cornell Nutrient Analysis Laboratory Directions for Soil Sample Collection

[12] Cornell University Cooperative Extension – Guidance on Soil Testing

[13] New York State Standards and Specifications for Erosion and Sediment Control

OPTIONAL MINIMIZATION STRATEGIES

Land Use and Operations

Soil Conservation

ID#	S.1	S.2	Strategy	Project Phase
18	1	2	Within the security fence, conduct compaction tests[9, 10] and soil sampling for pH, percent organic material, cation exchange capacity, Carbon (C), Nitrogen (N), Phosphorus/Phosphate (P), and Potassium/Potash (K)[11, 12, 133] every five (5) years while operational to measure changes in soil quality over the duration of the project. Develop an approach to ensure that every five years the results are made available to the public (e.g., by posting the results on the Project's Website or via a Newsletter).	PostC
19	1	1	Install and maintain culverts and/or waterbars to maintain or improve site specific natural drainage patterns.	Const
20	1	1	Improve on-site hydrology through the construction of green infrastructure like bioswales, where appropriate for existing site topography or changes to site topography.	Const
	3	**4**	**Subtotal**	

Project Landscaping and Infrastructure

ID#	S.1	S.2	Strategy	Project Phase
21	2	2	Within the security fence, locate and design roads to minimize the overall disturbance of the land and to limit soil compaction.	Const
22	2	2	Within the security fence, where feasible (considering, for example, bedrock), bury all underground electric conduits on lands in Active Agricultural Production or MSGs 1-4 to a minimum depth of 48 inches; at this depth, with landowner approval, the conduits can be left in place during decommissioning, avoiding the need to disturb the soil. [9]	Const
23	2	2	Include site-adjacent and/or local farmers (including renting farmers as applicable) in the design process during the development and construction phase of the solar project through commercial operation in order to minimize impact to existing farm operations.	PreC
	6	**6**	**Subtotal**	

Monitoring, Maintenance, and Operations

ID#	S.1	S.2	Strategy	Project Phase
24	3	3	For projects with 1-acre to 50-acres of Active Agricultural Production within the Facility Area, appoint environmental monitor(s) with understanding of agricultural practices to oversee the construction, restoration, and follow- up monitoring of agricultural and environmental commitments. [9]	Const, PostC
25	3	3	Following restoration, provide a monitoring and remediation period of three complete growing seasons following the date upon which the desired crop is planted, or revegetation activity completed. On-site monitoring shall be conducted seasonally at least three times during the growing season (Spring, Summer, Fall). Monitoring is limited to the restored agricultural area. [9]	PostC
26	2	2	Use integrated pest management practices to refrain from/limit pesticide use (including herbicides) for long-term operation and site maintenance. [14, 15]	PostC
27	2	-	Include within the Decommissioning and Site Restoration Plan how to remediate soil and vegetation to return the impacted agricultural land to its original state prior to construction, pending landowner agreement. [9]	PreC
	10	**8**	**Subtotal**	

Co-Utilization

Pollinators and Ecosystem Services

ID#	S.1	S.2	Strategy	Project Phase
28	2	2	Conduct a pre-planting site assessment to assess conditions that can impact pollinators and plant survival (e.g., soil condition and nearby pesticide activities), and identify existing native plant species on site. Develop a vegetation management plan for seeding and maintaining 100% of the Facility Area (that is not a part of on-site grazing, crop production initiatives, or other incompatible uses such as impervious surfaces or wetlands), with pollinator-friendly vegetation.[15, 16] The vegetation management plan should be compatible with native ecology indicated by seed mix selection with native species and a high diversity of species type[15]. Minimize the introduction and spread of invasive species by including industry best management practices for invasive species control in the vegetation management plan. The plan should include a mowing schedule unless it is being co-implemented with grazing (See strategy ID #32).	PreC
	2	**2**	**Subtotal**	

Livestock and Livestock Products

ID#	S.1	S.2	Strategy	Project Phase
29	1	1	Seed the fenced project area with a diverse mix of perennial grasses, forbs, and legumes that are grazing compatible.[17, 18]	Const
30	1	1	When incorporating pollinator-friendly and grazing dual-uses together, review all plants for toxicity to grazers using a regional university livestock toxicity plant list (e.g., Cornell University, Ohio State University)[19, 20] or consult with an agronomist specializing in grazing and select accordingly, formalizing this review in a strategic grazing management plan.	PreC
31	1	1	Design and construct the solar array and infrastructure to be compatible with the class(es) of livestock to be included (e.g., consider wire protection and control, interior/exterior fencing specifications, water and auxiliary power availability, solar panel racking height, and reinforced racking system based on livestock class).	PreC
32	1	1	Develop a project-specific strategic grazing management plan (20-year duration) for the class(es) of livestock intended for the solar project that includes animal stocking rate and density, forage availability, vegetation height requirements pre/post grazing, acreage to be grazed, duration of seasonal grazing, and ongoing management considerations[21] based on environmental conditions and water supply.	PreC
33	1	1	In the strategic grazing management plan, map the available freshwater resources potentially available for use by graziers and identify types and classes of water, including rights and supplies at the site and a high-level estimate of their functionality and accessibility.[21, 22, 23]	PreC
34	1	1	In the strategic grazing management plan, incorporate specific upfront and ongoing benchmarks for grazing managers, including forage testing protocols and estimated rotation periods.	PreC
35	1	1	Install livestock-appropriate gates, openings, and interior fencing as necessary to rotate and concentrate the herd/flock and for livestock handling.	Const
36	1	1	If livestock management is intended to be year-round or accommodate other uses, such as a dairy function, include in project design support structures such as intended barns, run in sheds, and feed storage.	PreC
37	1	1	Conduct site assessment for on-site and off-site conditions that can impact apiary production. If appropriate, establish an apiary farm operation by including an appropriate number of managed bee boxes for development of apiary products following beekeeping best management practices.[15, 24]	PreC, PostC
	9	**9**	**Subtotal**	

Crop(s) Production

ID#	S.1	S.2	Strategy	Project Phase
38	2	2	Within the design, consider spacing/tilt between solar panels to achieve a productive mix of energy generation and crop production, while considering impacts on resources or activities of concern (see Part 1).	PreC
39	3	3	Design and construct the solar Bid Facility considering compatibility with the associated farm operator's farm activities and related equipment planned to be used on the site appropriate for the selected crop production.	PreC
40	3	4	Incorporate into the design and management of the Facility Area, the use of regenerative farming practices (e.g., planting cover crops[17,18], eliminating or decreasing tillage, etc.) to improve soil health and maximize carbon sequestration at the site.	PreC
	8	**9**	**Subtotal**	

[14] EPA Integrated Pest Management (IPM) Principles

[15] New York State Department of Agriculture and Markets NYS Utility Corridor Pollinator Habitat Guidelines

[16] New York State Department of Environmental Conservation and NYS Department of Agriculture and Markets – New York State Pollinator Protection Plan (June 24, 2016)

[17] Cornell University – Cover Crop Guide for New York Growers (2023)

[18] Northeast Cover Crops Council – Decision Tools (2023)

[19] Cornell College of Agriculture and Life Sciences Department of Animal Sciences - Plants Poisonous to Livestock (2018)

[20] J.M. Luginbuhl, Poisonous Plants to Livestock, Ohio State University College of Food, Agricultural, and Environmental Sciences

[21] United States Department of Agriculture and Natural Resources Conservation Service – Conservation Practice Standard, Prescribed Grazing, Code 528 (March 2017)

[22] United States Department of Agriculture and Natural Resources Conservation Service – Pasture Resources (n.d.)

[23] United States Department of Agriculture and Natural Resources Conservation Service – Pasture Condition Score Sheet (January 2020)

[24] Honey Bee Health Coalition – Best Management Practices for Hive Health (January 1, 2019)

Table 2: Prorating Points for Multiple Co-Utilization Types

Co-Utilization Type	Acres of FA with Co-Utilization Type [I]	FA Acres	Calculated Percentage Amount		Strategy Points Earned [II]		Total Points Earned
Pollinators & Ecosystem Services	____ Acres	____ Acres	___%	x	____	=	__
Livestock and Livestock Products	____ Acres	____ Acres	___%	x	____	=	__
Crop(s) Production	____ Acres	____ Acres	___%		____		Points will be assigned by NYSERDA [III]

Note: NYSERDA will add any points earned for Crop(s) Production to the TOTAL.

Table 3: Points for Maximizing Co-Utilization [IV]

Total Acres of FA with one or more Co-Utilization Activity	FA Acres	Calculated Percentage Amount	Threshold		Total Points Earned [V]
____ Acres	____ Acres	___%	If TOTAL % > 80%, 7 Points Earned	=	___

I Acres of Facility Area (FA) with Co-Utilization should align with the Bid Facility site plan submitted in accordance with the RESRFP23-1 Site Control minimum threshold requirement, Section 4.3.7.

II Include points earned from Subtotal for each Co-utilization Subsection above.

III NYSERDA will evaluate the current land use categories (e.g., NLCD categories Cultivated Crops and Pasture/Hay Land, MSGs 1-4) in the FA and the Crop Production plan and scale for each Bid and then assign points. Projects that commit to more extensive crop production Co-Utilization relative to the current acres of crop production will receive greater points for the crop production Co-Utilization strategy. Points will also be relative to percentage of other Bid Submissions % of Crop Production being proposed.

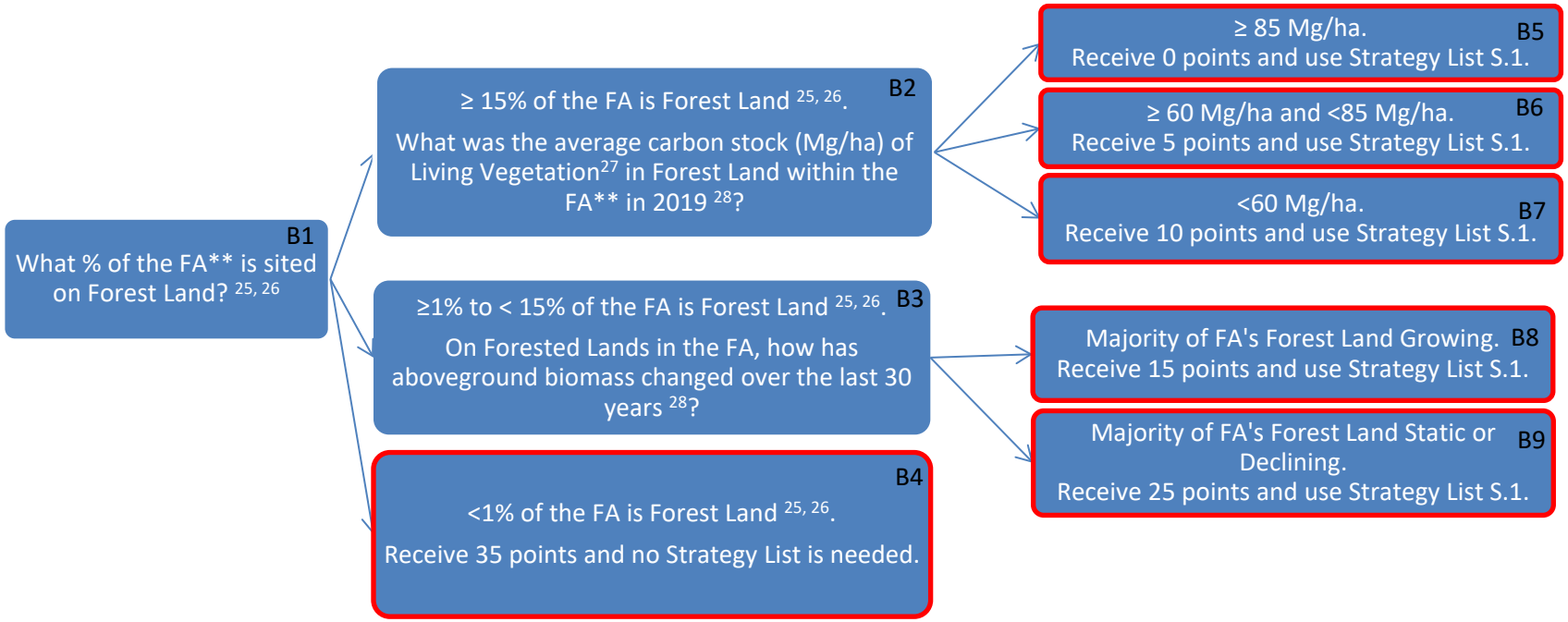
IV Only complete this section if the project includes *Livestock and Livestock Products* and/or *Crop(s) Production*. *Pollinators and Ecosystem Services* Co-Utilization cannot be the only type of Co-Utilization initiative but can be included in the percentage total. If an acre includes more than one type of Co-Utilization, it should only be included once in calculating the total acres. If Co-Utilization is incorporated in project design and operational plans, then commence and maintain the respective *Pollinator and Ecosystem Services*, *Livestock and Livestock Products*, and/or *Crop(s) Production* initiatives for a minimum of 5 years. Such Co-Utilization initiatives must commence within 3 years of commercial operation of the Bid Facility. Annual Co-Utilization initiative summaries must be prepared and made available to interested Potential Community Intervenors for the life of the initiative. If the Co-Utilization initiative is no longer operational after the 5-year period, then the final activity summary must document the basis for the termination of the Co-Utilization initiative (see ID# 17 above).

V NYSERDA will evaluate the scale and mix of Co-Utilization initiatives and reserves the right to decrease points earned if a project does not demonstrate a genuine effort to meet the goal of maximizing Co-Utilization on the site.

Forested Lands Protection

***Part 1 – Forested Lands Avoidance Flow Chart**

Avoid locating the solar project Facility Area on forested land to prevent impacts to resources or activities of concern.



*The avoidance evaluation for boxes B2-B9 will be conducted by NYSERDA based on the sources indicated in the Forested Lands Avoidance Flow Chart.

**__FA__ = Facility Area

[25] **Forest Land** = Areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover assessed using, at minimum, the two most recent available updates to the National Land Cover Database (NLCD) datasets (Data Source 2019 & 2021 NLCD, Relevant Data Layer: 2019 & 2021 Map Deciduous Forest, Evergreen Forest, and Mixed Forest). If the 2021 Data Source shows a decrease in Forest Land and the clearing occurred under the site control of the developer, then the 2019 Data Source should be used to calculate box B1.

[26] USGS National Land Cover Database (NLCD): https://www.usgs.gov/centers/eros/science/national-land-cover-database?qt-science_center_objects=0#qt-science_center_objects and can be viewed through the MRLC Viewer at https://www.mrlc.gov/viewer/.

[27] **Living Vegetation** = Estimated sum of carbon stored in aboveground & belowground biomass of woody vegetation, in milligrams per hectare.

[28] New York Forest Carbon Assessment Summary Report: https://www.esf.edu/cafri-ny/documents/cafri-report-2023.pdf.

Part 2 – Forested Lands Strategy List Options

Design solar project to minimize impacts to natural and forest resources during all phases of the project.

Strategy List Option Based Upon Outcome of Avoidance Flow Chart in Part 1

S.1 – Applies to all projects except those that have <1% of the Facility Area on Forest Lands (box B4)

Note: M = Mandatory; 0 points awarded for strategy
1, 2, or 5 = Number of points awarded for strategy

MANDATORY MINIMIZATION STRATEGIES

Carbon Storage, Wildlife, and Wildlife Habitat

ID#	*S.1*	*Strategy*	*Project Phase*
41	M	Minimize the impact to carbon currently stored in and around the site by avoiding the disturbance of soil, downed trees, woody debris, and other vegetation to the maximum extent possible.	Const
42	M	Avoid damaging residual trees and seedlings in and around the site to the maximum extent possible.	Const
43	M	Include within the Decommissioning and Site Restoration Plan how to remediate soil and vegetation to return the impacted Forest to its original state prior to construction, pending landowner agreement.	PreC
44	M	Throughout the siting and development process of the project instruct the engineering team to evaluate and to incrementally minimize tree cutting outside the fence and considering the types of trees and forest[29] to be removed or impacted by construction, minimizing impact to Mature Forests, except when required as part of mitigation for protection of federal or State threatened or endangered species.	PreC
45	M	Maintain natural passageways for wildlife by designing the Facility Area to limit forest fragmentation and maintain forest connectivity.	PreC
	0	**Subtotal**	

Soils

ID#	*S.1*	*Strategy*	*Project Phase*
46	M	Restore and maintain land underneath solar panels with vegetation compatible with native ecology indicated by seed mix selection with native species to achieve ground cover sufficient to control erosion and stormwater runoff.[30]	Const
	0	**Subtotal**	

OPTIONAL MINIMIZATION STRATEGIES

Carbon Storage, Wildlife, and Wildlife Habitat

ID#	*S.1*	*Strategy*	*Project Phase*
47	5	Plant and replace trees and/or conduct Forest Restoration adjacent to the Facility Area or on alternative local site(s). To receive points, tree plantings and Forest Restoration activities must: 1) occur on a site that is comparable to the impacted Forest portion of the Facility Area, 2) be the same number of acres as the acreage of Forest area impacted by the solar project, 3) be implemented within the first calendar year after the project achieves commercial operation. In addition, tree planting and associated maintenance activities must: 1) be guided by a forester or natural resource professional, 2) use tree species that are adapted to the planting site and are consistent in character to the Forest impacted by Facility Area development and surrounding natural Forests, 3) include at least 500 trees per acre[31], and 4) maintain at least 65% survival after 10 years[32] 5) follow standards listed in DEC's Planting and maintenance guidance[33] and DEC's Regenerate NY program[34], including protection from deer browse. Forest Restoration activities must: 1) be guided by a DEC Cooperating Forester[35,] or a forester as defined by the Regenerate NY program, and 2) meet the standards and specifications defined by the Regenerate NY program. When selecting potential Forest Restoration area(s): 1) consider the land use history to enhance the success rate of the tree plantings (i.e., past herbicide use, soil properties, etc.), and 2) consider the existing agricultural/environmental resources to minimize additional impacts to natural resources and land use activities of concern.	PostC
	5	**Subtotal**	

Soils

ID#	*S.1*	*Strategy*	*Project Phase*
48	2	Follow NYS Forestry Best Management Practices [36] when removing trees. Avoid removing trees when soils are wet to minimize soil disturbance and erosion. In particular, follow these Best Management Practices when removing trees outside the security fence.	Const
49	2	Ensure utilization of wood removed during development for durable, long-lasting wood products such as lumber.[37, 38]	Const
50	1	In Forests containing State jurisdictional stream(s), preserve existing forested areas by designing a 50' no-cut buffer along the State jurisdictional stream(s) border to prevent erosion and improve water filtration.	PreC, Const
	5	**Subtotal**	

[29] New York State Department of Environmental Conservation – Cooperating Forester Program (November 2022)
[30] New York State Department of Environmental Conservation – NYS Standards and Specifications for Erosion and Sediment Control (Blue Book) (November 2016)
[31] New York State Department of Environmental Conservation – 480a Forest Tax Law
[32] United States Department of Agriculture Natural Resource Conservation Service Tree/Shrub Site Preparation (Ac.) (490) Conservation Practice Standard (October 2020)
[33] New York State Department of Environmental Conservation – Planting and Caring for Your Seedlings
[34] New York State Department of Environmental Conservation – Regenerate New York Forestry Cost Share Program
[35] New York State Department of Environmental Conservation – Cooperating Forester Program (November 2022)
[36] New York State Forestry – Voluntary Best Management Practices for Water Quality, BMP Field Guide (2018 Edition)
[37] New York State Department of Environmental Conservation – Timber Harvesting
[38] New York State Department of Environmental Conservation – Selling Your Forest Products

Community Benefits and Collaboration

MANDATORY MINIMIZATION STRATEGIES

ID#	*M*	*Strategy*	*Project Phase*
51	M	Create a publicly available Community Engagement Plan[39] (CEP) that presents the overall public engagement, education, and collaboration efforts planned. This plan should explain how the public will be engaged, educated, and collaborated with on the project, including its benefits (e.g., solar, Co-Utilization) and minimization practices (e.g., farmland, wildlife, wetlands,). This plan must align with the nine Community Engagement Plan requirements under RFP No. RESRFP23-1 Section 4.3.8 and must include the following components at a minimum: • Project Proposal Information, Situation Analysis, and Community Context. • Significance, Principles, and Values. • Established Community Partnership(s). • Outreach Strategy and Plan. • Engagement Strategy and Plan. • Educational Programming Strategy and Plan.	PreC
52	M	Make the site's applicable management plan(s) (e.g., vegetation management plan, agricultural Co-Utilization plan, screening and landscaping plan, decommissioning plan, Community Engagement[39] etc.) accessible and known to the public. Final plans should be made available within 30 days of completion, but drafts should be posted when appropriate. Plans should be updated and maintained when applicable for the life of the Bid Facility. <u>Make the plans accessible and known to the public by completing **ALL** of the following mechanisms:</u> • Make the plans easily accessible on a Project Website. • Share the plans through outreach, such as through Newsletters, social media, flyers, advertisements, etc. • Ask other groups, such as local agencies and community-based organizations, to share plans through their own outreach, such as through their Newsletters, social media, events, etc.	PostC
53	M	To the extent feasible, project is consistent with local (municipal/county) planning efforts (e.g., economic development, climate change mitigation, agricultural and environmental protection).	PreC
	0	**Subtotal**	

OPTIONAL MINIMIZATION STRATEGIES

Yes/No Response

ID#	*Yes*	*No*	*Strategy*	*Project Phase*
54	5	0	Engage relevant stakeholders (e.g., farmers, farm agencies, local agricultural businesses[40], County Farm Bureaus, extension services) in the discussion of potential agribusiness and Co-Utilization opportunities where opportunities are explained and stakeholder input on the topic is listened to, collected, and incorporated into project design when feasible. <u>Share information with stakeholders, engage them in discussion, and collect their input by completing at least **ONE** of the following mechanisms:</u> • Host[41] a (or a series of[42]) Public Forum (s) where information about new agribusiness and Co-Utilization opportunities that are compatible with the solar project are shared with the farming community, and participants are then able to offer their input. • Through broad and deep outreach, develop and distribute an accessible Survey that provides information about new agribusiness and Co-Utilization opportunities that are compatible with the solar project and asks for community input, with demonstrable responses from local stakeholders. <u>Share information with stakeholders, engage them in discussion, collect their input, and allow them to co-design the project idea by completing the following mechanism:</u> Host a (or a series of[42]) Design Workshop (s) where information about new agribusiness and Co-Utilization opportunities that are compatible with the solar project are shared with the farming community, and participants are then able to offer their input and co-design what these opportunities would look like <u>Engage specific stakeholders in an updated discussion built off the past engagements and collect their input by completing at least **ONE** of the following mechanisms:</u> • Host a (or a series of[42]) Focus Group(s) with community members that express an interest and a commitment to collaboration to discuss and incorporate their input. • Hold One-on-One Meetings with community members that express an interest and a commitment to collaboration to discuss and incorporate their input.	PreC

55	5	0	Collaborate with relevant stakeholders (e.g., adjacent property owners, Potential Community Intervenors, and local planners) from the community on how to minimize viewshed and other impacts from sensitive resources and adjacent properties by listening and incorporating, when feasible, their feedback and ideas into the preparation of screening, landscaping, and/or Co-Utilization plans. <u>Share information with stakeholders, engage them in discussion, and collect their input by completing at least **ONE** of the following mechanisms:</u> • Conduct a (or series of[42]) Site Walk(s) for adjacent property owners, Potential Community Intervenors, and other interested stakeholders to allow stakeholders to gather information about the viewshed impacts and evaluate possible minimization strategies. • Through broad and deep outreach, share an online Visual Survey to elicit feedback from stakeholders on viewshed impacts and minimization strategies. • Hold a (or series of[42]) Design Workshop(s) to gather feedback on viewshed impacts and to discuss minimization options (this can take place in a formal meeting space, as long as it retains the opportunity to elicit input from the participants).	PreC
56	5	0	Began community engagement and collaboration prior to participation in a NYSERDA Tier 1 procurement by completing at least **TWO** of the engagement mechanisms below. <u>Demonstrate early engagement by completing at least **ONE** of the following mechanisms:</u> • Hold One-on-One Meetings with local officials and adjacent property owners. • Hold a (or series of[422]) Public Forum(s) and/or Design Workshop(s) with interested stakeholders. <u>Demonstrate early engagement by completing at least **ONE** of the following mechanisms:</u> • Make the project public through an accessible Project Website and place flyers around the project in areas that the community regularly interacts with (e.g., supermarkets, schools, libraries, etc.). • Provide at least quarterly Newsletters to the community with updates, and place announcements with updates/ advertisements in media channels that the community regularly interacts with (e.g., the local newspaper, radio station, television, etc.).	PreC

57	5	0	Work with NYSERDA, an organization, and/or a technology/science research-focused group (e.g., at a university, technology firm, cooperative extensions) to involve the site in an ongoing research project about best practices in community-led, community-beneficial solar development (e.g., an Agrivoltaics research project).	PreC, PostC
58	5	0	At least 10% of the Facility Area is sited on developed land (i.e., land that has been modified from its natural state and typically includes physical structures and buildings). Developed land does not include plowed/tilled farmland.	PreC, Const
	25	**0**	**Subtotal**	

Extra Credit: Innovation

Response Optional – Up to five points will be assigned if proposed innovative practices or designs are approved as meeting the spirit of the Innovation category by NYSERDA. In order to qualify, the practice or design must be truly innovative and cannot be part of an existing minimization strategy. The practice or design must also be of a scale, evidenced by the level of administration or cost required to implement the practice or design, worthy of innovation points.

ID#	*EC*	*Strategy*
59	0-5	Describe innovative practices or designs proposed for the project that further minimize impacts or provide complimentary co-benefits in cell E150 of the Innovation Section of the Workbook.

[39] RESRFP23-1 RFP Summary, Section 4.3.8. Project Viability, Operational Flexibility and Peak Coincidence (Community Engagement, pages 56-57).

[40] American Solar Grazing Association – Solar Grazing Map (2023)

[41] The Proposer can host any of the engagement activities individually or with local partner(s) (e.g., local government, stakeholder groups) or support financially or otherwise the engagement activity.

[42] Two or more occurrences of the engagement activity, where each occurrence is offered at a mixture of different dates, times, locations, languages where applicable, formats (in-person, virtual, or both), and/or more that best accommodates the community. A series of engagement activities are encouraged to make engagement more accessible and gather as much community input as possible.