

## Request for Stakeholder Comments: Approved Vendor Manual

JANUARY 26, 2021

This document outlines proposed updates to the Illinois Solar for All (ILSFA) Approved Vendor Manual. The Program Administrator is planning to publish the next iteration of the Approved Vendor Manual to provide several clarifications and ensure ILSFA guidelines remain consistent with the Revised Long-Term Renewable Resources Procurement Plan. The Program Administrator is also proposing a series of more involved updates to the System Requirements section (Section 10) of the Approved Vendor Manual and is seeking stakeholder feedback to inform these updates.

The proposed Section 10 updates are motivated by the desire to ensure all ILSFA solar arrays produce the maximum benefit for participants. To align with ILSFA program goals and optimize the allocation of program funds, the Program Administrator is working to ensure that awarded projects are productive to the greatest extent possible. The Program Administrator is proposing new language requiring minimized shading and optimal azimuth placement throughout Section 10 to achieve this goal and has provided a redline version of the proposed language below. For reference, the current version of the Approved Vendor Manual can be found [here](#).

Specific questions on which feedback is sought are found below. Commenters need not respond to each question and should not feel limited by these questions in providing feedback. Comments are welcome from both stakeholders in ILSFA as well as from other interested parties.

In general, responses will be made public and published on the ILSFA website ([IllinoisSFA.com](http://IllinoisSFA.com)). However, should a commenter seek to designate any portion of its response as confidential, that commenter should provide both public and redacted versions. Independent of that designation, if the Illinois Power Agency (the Agency) or the Program Administrator determines that a response contains confidential information that should not be disclosed, it reserves the right to provide its own redactions.

**Responses are due by February 26, 2021 and should be sent to [comments@IllinoisSFA.com](mailto:comments@IllinoisSFA.com).**

**Proposed changes to Section 10 (System Requirements) of the [Approved Vendor Manual](#) include:**

- 10.3 System Location
  - o All PV systems must be entirely located in Illinois and interconnected to the distribution-level electrical grid of an Illinois investor-owned utility or Illinois electric cooperative or municipal electric system. Off-grid systems are not eligible for the ILSFA program. PV systems must be built at the location specified in the Part I application and must remain at the approved location for the duration of the 15-year contract and may not be relocated. ILSFA system designs must minimize shading and placement modules and arrays in low yield locations.
- 10.4 System Design and Production

- In order to maximize the benefit to low-income participants and limit the installation of north-facing<sup>1</sup> and heavily shaded arrays, Approved Vendors shall ensure that all PV arrays achieve a Specific Yield (kWh AC/kWp DC) of 1,000 or greater for each array within the total system.
  - 10.~~11.10~~ Shading Study
    - A shading study shall be completed for all projects. This can be an onsite shading study performed using shading study software or by a person with experience performing such studies.
    - To use the standard capacity factor or the PVWatts estimated production, a system must meet the minimal shading criterion as follows:
    - No obstruction is closer than a distance (D) of twice the height (H) it extends above the PV array. All obstructions that project above the point on the array that is closest to the obstruction shall meet this criterion for the array to be considered minimally shaded. Any obstruction located north of all points on the array need not be considered as shading obstructions. Obstructions that are subject to this criterion include:
      - Any vent, chimney, architectural feature, mechanical equipment, or other obstruction that is on the roof or any other part of the building
      - Any part of the neighboring terrain
      - Any tree that is mature at the time of installation of the PV system
      - Any tree that is planted on the building lot or neighboring lots or planned to be planted as part of landscaping for the building (the expected shading shall be based on the mature height of the tree)
      - Any existing neighboring building or structure
      - Any planned neighboring building or structure that is known to the applicant or building owner
      - Any telephone or other utility pole that is closer than 30 feet from the nearest point of the array
    - Systems which utilize the Alternate Capacity Factor must minimize shading and have Specific Yield (kWh AC/kWp DC) which are equal or greater than 1,000 kWh AC/kWp DC for each array in the total system.
- 10.~~12.11~~ REC Quantity Calculation (Note, only the portions of this section with redline edits have been included; the full section can be referenced [here](#).)
  - 2. Applicants can also use an alternative capacity factor, which may be larger than the standard or PVWatts capacity factor, if such a selection was obtained using a custom software tool designed to calculate such capacity factors or calculated by a professional engineer. Approved Vendors can always choose a number lower than the standard, PVWatts, or alternative capacity factor if they determine it is appropriate. Any arrays 1) with an azimuth greater than 270 or less than 90, 2) with a tilt of greater than 80 degrees, or 3) that do not meet the minimal shading criterion may not use the standard

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<sup>1</sup> Between 270 and 90 degrees on compass bearings.

capacity factors or the PVWatts estimate and must use an alternative capacity factor. Applicants are discouraged from submitting systems where modules are at northerly azimuth (greater than 270 or less than 90) unless the tilt is equal to or less than 10 degrees. Applicants are also discouraged from submitting projects that are heavily shaded. Applicants are also prohibited from submitting partial systems; Section 10.16 of this manual contains more information about partial systems.

- 4. The Program Administrator will evaluate systems using non-standard technologies such as bifacial panels or seasonally adjusted tilt on a case-by-case basis. The Program Administrator will also evaluate designs with heavy shading and suboptimal azimuth placement as defined as projects that fall below a Specific Yield (kWh AC/kWp DC) of 1,000 kWh AC/kWp DC on a case-by-case basis.

**The Program Administrator is seeking the following feedback regarding these proposed changes:**

1. Do the proposed changes advance the intended goal of promoting optimal solar array performance?
2. Do you have specific recommendations as to how to better adjust these guidelines to promote optimal solar array design and performance?
3. Will the proposed changes significantly limit potential project submissions compared to previous ILSFA program years?
4. For arrays with a tilt greater than 10 degrees, are having a northerly azimuth greater than 270 or less than 90 appropriate limits for best practice to maximize participant benefit and program expenditures? Alternatively, what would be an acceptable azimuth range for roofs not perfectly aligned on a north/south axis?
5. Is the 1,000 kWh AC/kWp DC standard appropriate statewide, or should it be different in northern Illinois versus southern Illinois?