

Agricultural Stewardship Association
Standards for Dual Use Solar Installations

November 24, 2020

The following standards guide the review process for solar installation requests under the authority of the Agricultural Stewardship Association (ASA). The purpose of these standards is to outline the factors that will be considered during project evaluation for ground-mounted commercial solar installations, as well as summarize required conditions for approval. ASA recognizes that with appropriate siting, design, construction, and operational practices, solar installations can be beneficial to soil health, water quality, climate mitigation and agricultural viability.

Background

ASA protects working farms and forests, connects people to the land, and promotes a vibrant future for agriculture and forestry in the region. Protecting our community’s agricultural and forestry land resource values, as well as their use and utility, is a focus of any project approval on conserved land. Through conservation easements, ASA works to prevent property use that significantly impairs or interferes with long-term agricultural viability as well as open space values in some of ASA’s earlier easements.

Additionally, climate change is causing increased farming challenges with erratic weather and severity of events (periods of drought or prolonged wetness; frost and budding imbalance in the spring; hail and heavy rains), increases in invasive pests and pathogens and heat-stress on animals. Long-term conservation efforts to retain farm viability and land conservation therefore need to factor changing environmental conditions. Many farmers find they need a stabilizing income source to weather lower prices, sudden market changes, rising costs or crop/produce/livestock productivity losses. Well-designed dual-use solar installations, also known as “compatible solar”, provides a farmer the opportunity to reduce energy costs on the farm and, if so desired, incorporate solar at a scale that can provide a reliable source of income while also continuing agricultural productivity within the solar project area.

ASA strongly supports dual-use solar where appropriate and possible within the terms of the specific conservation easement document. Dual-use solar installations are projects that combine agricultural production with solar electricity production, providing ecological, agricultural, and energy benefits. Types of dual-use solar projects can include, but are not limited to, animal grazing, crop production and pollinator-friendly habitat.

Standards for Conceptual, and Final, Approval

Farms subject to an ASA conservation easement must ensure that proposed solar installations, including leases and related agreements and contracts, are compatible with the terms of the specific conservation easement. Each project and conserved farmland parcel will be evaluated independently and shall be designed to protect farmland from permanent development, protect farmland access on the site, and allow for continued agricultural use of the property. Upon receiving an inquiry, ASA will request draft plans in order to consider granting conceptual approval and allowing project planning and design to continue. Conceptual approval does not guarantee final approval. A full written proposal with detailed

project plans and leases/agreements, and additional information as requested, is required before a formal and final determination is made.

The following conditions are necessary to meet ASA easement goals and reflect the good-faith partnership between the farmer, solar developer, and ASA.

1. Compatible Solar Site Design and Installation

Agriculturally compatible, dual-use, solar site design and installation prioritizes farm viability, soil health, and water quality. All design and installation work complies with the terms of the conservation easement.

1. The installation **siting** should prioritize by first considering installation within a designated building envelope. Secondly, farmland and agricultural production should be prioritized by avoiding or minimizing impact on highly productive land. Site on previously disturbed or marginal farmland before considering active statewide important or prime farmland. Develop a dual-use project when possible, allowing for simultaneous electric and agricultural production.
2. The **design and management** of the acres involved in the solar installation shall allow for full and continuous access and usability (underneath, between, and around the structures) for agricultural activities during the solar lease period, and reflect a long-term farm lease.
3. The **solar design and installation** shall avoid disturbance of natural Resource Protection Areas (or if none, wetlands and riparian areas), as designated by the conservation easement and are in compliance with New York State Department of Agriculture and Markets agricultural practices. Construction debris shall be removed and any land disturbed shall be restored to prior soil profiles and seeded to match desired farming practices.
4. **Roads for solar installation and maintenance** must be designed to allow for dual-use by farm equipment; those that aren't used for farming operations either within the solar operation or on the property shall be restored to agricultural use during decommissioning.
5. **Landing areas for temporary equipment storage** shall be designed to minimize loss of statewide or prime soils when possible; these areas can be repurposed for other agricultural use buildings, including but not limited to storage sheds, bee yards, wood processing areas, or barns, after the solar installation.
6. **Site preparation and soil disturbance** shall follow low-impact site preparation guidelines¹. Soil removal other than removal of topsoil for roads or storage areas (including energy or equipment storage), is not permitted. Soil removed for this purpose shall be redistributed on site and planted to avoid soil erosion. Water bars and culverts shall be designed to allow for continued farm use and equipment during the duration of the lease; minimization of water run-off during the installation and lifespan of the project will be addressed.
7. Perimeter **fencing** should allow for agricultural activities, especially farm animal usage within the solar installation; more permeable traditional farm-friendly fencing, such as welded wire sheep fencing, is preferable to fencing options such as chain link.

¹ See InSPIRE, Low-Impact Solar Development Basics. July 20, 2018. Vegetation may also include grazing or crop production in addition to pollinator species. <https://openei.org/wiki/InSPIRE/Basics>

8. **Gates shall** be constructed and installed to allow for animals and farm equipment (including tractors, mowers, trucks and livestock trailers, to pass from one section of the solar array to the next, as well as enter through any perimeter fencing.
9. **Storage for equipment**, animal shelter, or feed shall be discussed as part of the initial design and reflected in the solar lease with the landowner; the solar installation should view farming as a co-usage of the site.
10. **Seeding the solar installation area** with the desired cover crop/grazing mix should be done, once the project has certainty of advancing, to reduce soil impacts during construction, promote soil health, minimize runoff, and support farm productivity. **Ground cover** shall be selected to allow for rotational grazing, pollinators, and/or pasturing depending on the desired use; the project is designed to provide for deep-rooted perennial grasses that will sequester carbon unless designed as a vegetable/cropping co-use.
11. **The Limits of Disturbance (LOD)** (that area which is designated to be part of the solar installation, and fenced accordingly), will be designed on a topo and aerial map, and will include any mapped/delineated wetlands, streams, farm roads and agricultural structures within 200 feet of the designed Limits of Disturbance area. The map(s) will include the conservation easement areas, including Resource Protection Areas if included in the easement. Additional areas of impact, including access roads onto the property shall be delineated and a plan shall be included as to the restoration of any areas impacted by site design and/or construction, or decommissioning.
12. Consideration of **screening** from public view, using plantings or other vegetative buffer, to the level deemed appropriate by the easement, the landowner, and the community approval process.

2. Bonding.

1. The project company shall provide adequate bonding to cover any damages associated with the farm or farm viability during the lifetime, or decommissioning, of the solar installation. They shall also hold ASA harmless.

3. Farmer access / Management of the land.

1. The Project Company shall provide an enforceable lease to the farmer/landowner allowing for year-round access to the lands covered by the solar installation. The lease shall clarify that the landowner/farmer is permitted to farm or sub-lease the land to another qualified farmer. Mowing plans undertaken by the project company, if the farmer does not have the land under active agriculture, should be in accordance with best practices for soil health, water quality, and continued agriculture at the point in which the landowner wishes to utilize the land.

4. Oversight of Installation: “Environmental Project Manager”

The Project Company (or its contractor) may be required to hire or designate an “Environmental Project Manager” (EPM) approved by ASA to oversee the construction, restoration and follow-up monitoring in agricultural areas. ASA permanent or seasonal staff may be hired for this task. The EPM shall be an individual with an understanding of normal agriculture practices (such as cultivation, crop rotation, nutrient management, drainage (subsurface and/or surface), chemical application, agricultural

equipment operation, fencing, soils, plant identification, etc.) and able to identify how the project may affect the site and the applicable agricultural practices as well as the conservation easement. The EPM should also have experience with or understanding of the use of a soil penetrometer for compaction testing and record keeping.

The EPM may serve dual inspection roles associated with other Project permits and/or construction duties, if the agricultural workload allows. The EPM should be available to provide site-specific agricultural information as necessary for project development through field review and direct contact with both the affected farm operators and ASA. The EPM should maintain regular contact with appropriate onsite project construction supervision and inspectors throughout the construction phase. The EPM should maintain regular contact with the affected farm operator(s) and ASA concerning agricultural land impacted, compliance with the conservation easement, and management matters pertinent to the agricultural operations and the site-specific implementation of agricultural resource mitigation measures. The EPM will serve as the agricultural point of contact and will be available for consultation and/or on-site whenever construction or restoration work that causes ground disturbance is occurring on agricultural land. The EPM shall notify ASA of Project activity and inspections will be scheduled in a manner that avoids delays of work. ASA requires the opportunity to review and will approve the proposed EPM based on qualifications or capacities.

5. Decommissioning and/or Repurposing

ASA requires notice from the Project Company six months prior to decommissioning/repurposing of the solar installation. If/when all or a portion of the operation of the solar facility is permanently discontinued, the Project Company shall clarify with the farmer/landowner what, if any, structures or equipment he/she wishes to retain as part of the farming operation. Prior to decommissioning or repurposing, the Project Company shall provide the farmer at least 60 days to remove any equipment or improvements in the way of such activities. Thereafter, the Project Company shall remove all above ground structures (including panels, racking, signage, equipment pad, security fencing, gates, lighting, energy storage and hookup) and underground utilities if less than 48- inches deep. All concrete piers, footers, or other supports must be removed to a minimum depth of 48-inches below the soil surface pursuant to NYSDAM guidelines.