Agriculture, Solar, and the AgriSolar Clearinghouse: A Win-Win for the Farm Bill

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What is Agrisolar?

• Agrisolar is the co-location of agriculture and solar within the landscape.

• Solar developments will cover over 3 million acres in 10 years.
  • If these lands become energy-only production it will impact farms, habitat, soil health, and communities.

• There is tremendous opportunity for low-impact solar development that is complementary with sustainable agriculture, known as AgriSolar.

• It includes solar co-located with crops, grazing, beekeeping, pollinator habitat, aquaculture, dairies, and crop processing.

• In addition to photovoltaics, it also includes concentrated solar.

• Other terms include: agrivoltaics, dual-use, co-location, agri-pv
With Agrisolar, You Harvest the Sun Twice.

• Once with the solar panel and again with crops, forage, honey, and habitat.
• It can help you get the most productivity out of your land, while also supporting the crops, community, and ecosystem around it.
• When designed and managed with best practices, AgriSolar can:
  • Diversify farm revenue,
  • Increase rural energy independence,
  • Decrease crop irrigation by half in heat-stressed areas,
  • Increase solar panel efficiency,
  • Promote grazing as vegetation management,
  • Increase soil organic matter and carbon accrual,
  • Improve ecosystem health and support native species,
  • Triple local pollinators like bees, butterflies, birds, and bats.
Federal Program That Support AgriSolar

► U.S. Department of Energy Solar Energy Technology’s Office:
  • AgriSolar Clearinghouse
  • Innovative Solar Practices Integrated with Rural Economies and Ecosystems (InSPIRE)
  • Foundational Agrivoltaic Research for Megawatt Scale (FARMS) projects

► USDA Partnerships for Climate-Smart Commodities
  • University of Texas Rio Grande Valley: Validating Agrivoltaic Technology with Underserved Agricultural Producers (NCAT/AgriSolar Clearinghouse is a partner)
  • University of Arizona Climate Smart Food
  • Low Carbon Beef

► REAP
► Hopefully more soon!
Welcome to the AgriSolar Clearinghouse

Funding ends May 2024
AgriSolar Clearinghouse Features

- Information Library
- Original Media
  - Best practices
  - Short film series
- Technical assistance pieces
- Fact sheets
- Case studies and atlas
- Financial assistance state-by-state map
- Podcast serial
- Media Hub
- Individualized Technical Assistance
- Education
  - Webinars
  - Self-paced tutorials
  - In-person and virtual presentations
- User Forum
- Events
- Field Trips and Farm to Table Events
Policy Approaches for Dual-Use and Agrisolar Practices

Recent Publications

Introduction

The AgriSolar Policy Guide was designed to facilitate policy learning and innovation in the United States. By collating existing initiatives and key provisions, this guide serves as a resource for regulatory, land use planners, decision makers, and others who are interested in state of the art agrisolar policy. The AgriSolar Clearinghouse is Imperial towards policy; the intention of this guide is not to advocate for certain initiatives, but to provide a central platform for education and engagement. The goal of this guide is to support policy innovation for better co-location.

The policy initiatives included in this guide were selected to feature a full suite of state-level and a sampling of county-level regulatory strategies across different types of agrisolar practices (crops, grazing, and pollinator habitats). These policy initiatives showcase a range of approaches to drive innovation in farmland solar, including market mechanisms, scaling systems, mandates, and voluntary programs.

Despite the diversity of approaches, one common goal persists across all initiatives; to promote the expansion of renewable energy in a manner that mitigates impacts to farmland. To that end,

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Abstraction

This guide serves as an introduction to the solar industry, relative to agrisolar development in the United States, community programs, and solar ownership or lease opportunities for homes, farms, and ranches. The guide will touch on single-user systems in the 5kW – 30kW range, medium-scale solar projects in the 50kW and larger range, and utility-scale solar sites that are larger than 1MW. Utility and community solar power generation involves complex ownership structures where the solar site, solar power generating area, and power distribution network may be owned by different entities.

From 2016 to 2020, the cost of utility-scale photovoltaic (PV) systems decreased by 82%, driven mainly by lower hardware costs, and PV module prices dropped 85% (Feldman, 2021). Solar power accounted for 1% of all power generated in the U.S. in 2019—increasing to nearly 5% in 2022—and for 50% of new electric capacity added to the grid (SEA, 2022). Large or utility-scale solar installations account for most of this increased solar generation.
Win-Win

► AgriSolar can be a win-win on the ground
► On farms
► For climate, energy, and the economy
► Agrisolar/agrivoltaics is a win-win for the Farm Bill
► The AgriSolar Clearinghouse can help
Thank You

Environmental and Energy Study Institute (EESI)
U.S. Department of Energy Solar Energy Technologies Office
USDA
NCAT
AgriSolar Clearinghouse team, partners, and community

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We’re stronger together