



MIDWESTERN SOLAR INITIATIVE

INDIANA


American Farmland Trust
SAVING THE LAND THAT SUSTAINS US

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In the last year there has been a noticeable increase in the development of commercial and utility scale solar in the Midwest. The rapid expansion creates opportunities for farmers and landowners, but also poses threats to farmland. Indiana must find a way to produce more renewable energy while protecting farmland and serving rural communities. To better understand farmer engagement

with solar development, AFT conducted a survey and in-person interviews with landowners and operators throughout the Midwest. In these conversations, participants described various benefits and drawbacks of solar energy deployment. This summary identifies the most important issues that participants raised, alongside AFT's research to inform Indiana's renewable energy strategy.

CURRENT PICTURE

Indiana has a voluntary clean energy standard. That means public utilities may opt in to provide up to 10% clean energy on the grid by 2025. "Clean energy" in Indiana includes solar, wind, geothermal, organic biomass, and more. Local government is prohibited from unreasonably restricting the use of solar energy systems. The Department of Agriculture is required to promote diversified farming operations and specialty crops. This is a great opportunity for "dual use" or "agrivoltaic" solar installations.



BENEFITS

Income for Farmers and Landowners

In Indiana, there are unique situations where a landowner and a solar developer work together on a renewable facility. The developer typically leases the land from the owner at a rate average of between \$800-\$1,200 per acre for a term of between 20-30 years. Grazing of animals or organic crops can be utilized as additional revenue to the landowner.

Clean energy credits are generated at the rate of one credit per MW of energy produced by clean energy generation or reduced by energy efficiency initiatives. Indiana offers net metering for net metered solar arrays based on installation date. Those installed on or before 2017 receive full retail credit for excess electricity production until 2047.

After Jan. 1, 2018, they will be eligible for full retail credit until 2032. And after July 1, 2022, only 1.5% of each utilities' summer peak load will be eligible for net metering contracts.

Tax incentives

New utility-scale solar facilities with a nameplate capacity of 5,000 kW or more may apply for designation as a "High Impact Business."

Easements

Indiana permits solar easements, which function like other easements to permit sunlight to pass across a neighboring property to reach the dominant property.

DRAWBACKS

Loss of open space and farmland

The greatest and most frequently mentioned concern for participants is the impact of solar installations on farmland and open space: “Quality farmland is a finite resource. Taking this land out of production is in the worst interest for future generations and will remove less carbon from the atmosphere than if it was left in farmland. Solar panels should primarily be located on rooftops and on poor-quality, unproductive land.”

Difficulty accessing land

53% of respondents indicated that solar development impacted their ability to rent land currently (losing rented land because of solar development) or in the future (development making land scarcer and/or more expensive). “As the successor to this farm, solar projects in my county very negatively affect my future farming career by permanently removing land from agriculture, which in turn creates higher rental rates and inflated land sale prices.”

Decommissioning

Another major concern revolved around “decommissioning,” or removing solar arrays once their life span has ended. Participants were not convinced that land under panels can be returned to farming after an array is deconstructed.

They also held concerns about the recycling of panel materials, wanting assurance that environmental harm would be minimized during decommissioning and in the event of panels damaged by weather incidents.

Protecting rural communities

Participants were concerned that rural communities would be exploited by solar energy development. “Big out-of-state energy conglomerates proposing new energy development projects never ends up well for the communities slated for the project. It’s always an extractive-based model.”



VISION

Participants indicated they'd be willing to lease ground for solar panels on their land that will generate electricity for off-farm use if the conditions addressed their concerns and provided added benefits for their operation and community.

Prioritize solar siting on rooftops, brownfields, and marginal lands instead of prime farmland

Locations other than productive farmland should be prioritized for solar siting — such as marginal land, unproductive land, rooftops, and parking lots.

Require farmland protection strategies

Participants said their concerns around productive farmland loss could be alleviated if solar developers were required to permanently protect other farmland in the community, and/or pay a mitigation fee per-acre based on the quality of the farmland impacted.

Require best practices for construction and decommissioning

The construction and removal of solar arrays should minimize environmental and agricultural harm and allow for production on the land after the project.

Advance agrivoltaics

When solar is sited on farmland, participants supported “agrivoltaics.” In these systems, panels are raised higher off the ground and spaced wider apart to allow primary agricultural activities (such as animal grazing and crop/vegetable production) to continue alongside energy production on that farmland. Agrivoltaics can provide consistent and diversified income for farmers, shade and water retention for continued agricultural production, and the opportunity to conserve farmland for carbon sequestration and the next generation of producers.

Embrace an equitable, ethical, and inclusive process for solar development

- 1.** Communities where solar arrays are sited must have input in the development process.
- 2.** There should be a special a focus on promoting equity for communities that are primarily BI-POC through the ownership of community solar projects.
- 3.** Small-scale farms should have equal opportunity at beneficial solar contracts at scales that work for their land and operation.

How threatened is your state's agricultural land? What is your state doing to protect it? What can each state learn from other states? A series of webinars hosted by the National Agricultural Land Network address these questions and more.

WATCH THE WEBINARS:

farmland.org/farms-under-threat-state-based-webinars