



## AMERICAN FARMLAND TRUST SMART SOLAR – CONNECTICUT FARMER SURVEY

In order to more effectively advance smart solar in Connecticut, American Farmland Trust (AFT) believes the interests, priorities, needs, and concerns of farmers and farm landowners need to be heard and shared with decision makers. By completing this important (10-15 minute) survey, **you will directly inform AFT's Smart Solar strategy and influence policies to expand solar capacity in Connecticut while benefitting farmers and minimizing displacement of agriculture on the state's best farmland.** To guide smarter solar practices and preserve farmland as the state accelerates renewable energy development in rural areas, this survey will capture three sections of information: 1) Demographics; 2) Opinions about solar on farmland in general; 3) Personal perspectives about solar on your farm. The answers you provide will be kept anonymous and only shared in aggregate, so please share your honest feedback and opinions on all questions.

AFT will award **\$100 Visa gift cards** to random participants, one for every 25 surveys completed.

**Thank you in advance for completing this important survey - the deadline is 12:00 am E.T., July 15th, 2022. Your feedback will provide valuable information to guide smart solar policy and best practices in the state of Connecticut!**

*This survey is also being distributed by Connecticut Farm Bureau Association, UConn Cooperative Extension, Connecticut Resource Conservation and Development, Connecticut Land Conservation Council, Working Lands Alliance, and others. If you have already taken the survey, thank you! You do not need to take it again.*

## SECTION 1 – GENERAL DEMOGRAPHIC INFORMATION

1. Please choose the option that best describes your role in the farm operation:
  - a. I am the landowner
  - b. I am the owner-operator
  - c. I am the spouse of the owner-operator
  - d. I am the farm-renter (tenant farmer)
  - e. I am the farm manager
  - f. I am an employee
  - g. I am NOT directly engaged in a farm operation (*SKIPS TO DISQUALIFICATION PAGE*)
  - h. Other (please describe): \_\_\_\_
  
2. Gender: How do you identify?
  - a. Female
  - b. Male
  - c. Prefer not to say
  - d. Prefer to self-describe: \_\_\_\_
  
3. In which county/counties is your farm located? (Please check all that apply)
  - a. Fairfield
  - b. Hartford
  - c. Litchfield
  - d. Middlesex
  - e. New Haven
  - f. New London
  - g. Tolland
  - h. Windham
  
4. Which of the following do you primarily grow or raise on your farm? (Please check all that apply)
  - a. Vegetables
  - b. Fruit/orchard
  - c. Flowers/herbs
  - d. Christmas trees
  - e. Hemp
  - f. Wine grapes
  - g. Tobacco
  - h. Hay
  - i. Corn
  - j. Wheat
  - k. Dairy
  - l. Beef
  - m. Poultry
  - n. Nursery operation
  - o. Other (please describe): \_\_\_\_
  
5. How many total acres, on average, were a part of the farm operation over the past 3 years?
  - a. \_\_\_\_

6. Of those total acres, approximately how many are:
  - a. Owned: \_\_\_\_
  - b. Rented: \_\_\_\_
  - c. Actively farmed: \_\_\_\_
  - d. Non-crop land: \_\_\_\_
  - e. Woodlot: \_\_\_\_
  
7. In 2021, what was the approximate gross revenue from farm sales?
  - a. Less than \$2,500
  - b. \$2,500-\$4,999
  - c. \$5,000-\$9,999
  - d. \$10,000-\$24,999
  - e. \$25,000-\$49,999
  - f. \$50,000-\$99,999
  - g. \$100,000-\$249,999
  - h. \$250,000-\$499,999
  - i. \$500,000 or more
  - j. Other: \_\_\_\_
  
8. Please select your age from the ranges below.
  - a. <35
  - b. 35-44
  - c. 45-54
  - d. 55-64
  - e. 65-75
  - f. >75
  
9. Is there an identified successor working on the farm?
  - a. Yes
  - b. No
  - c. I don't know
  - d. Other (please describe): \_\_\_\_
  
10. If you'd like to be included in the drawing for a **\$100 Visa gift cards**, please provide your contact information:
  - a. Full name: \_\_\_\_
  - b. Phone number: \_\_\_\_
  - c. Email: \_\_\_\_
  - d. Confirm email: \_\_\_\_

## SECTION 2 – SOLAR ON CONNECTICUT FARMLAND

The following questions will ask about your opinions regarding ground-mounted solar development on farmland in Connecticut. This survey will ask only about solar projects hosted on farms that generate electricity for **off-farm consumption** (off-farm solar projects generate income through lease payments rather than directly off-setting personal or farm business energy consumption).

*These projects may be known as utility scale solar, community solar, transmission or large scale solar. Generally, these projects in Connecticut are 5-20+ MW in total capacity. Based on an industry average of 7.5 acres/MWac, such projects can be 35 – 150+ acres.*

11. In general, do you support siting solar projects on farmland in Connecticut?

- a. Yes
- b. No
- c. It depends. Please describe: \_\_\_\_

12. Connecticut recently committed to a goal of 100% Renewable Energy by 2040, which will involve doubling the state's capacity of solar generation. The Solar Energy Industry Association projects that Connecticut will install 1,021 MW of solar in the next 5 years, including ground-mounted as well as rooftop solar projects.

**What impact do you think this land use change will have on the continued viability of farming in Connecticut?**

- a. Very negative impact
- b. Mostly negative impact
- c. Neutral or mixed impact
- d. Mostly positive impact
- e. Very positive impact
- f. I don't know enough to comment
- g. Other: \_\_\_\_

13. When it comes to solar development on farmland in Connecticut, please indicate your level of concern with the following potential impacts:

	Not at all concerned	Somewhat concerned	Very concerned
Impacts on farm renters (tenant farmers)			
Impacts on the local community			
Impacts on land prices and land access			
Impacts on local agricultural services and supply chains			
Impacts on farm productivity			
Impacts on farmland preservation			
Impacts on soil quality			
Please describe your concern briefly:			

14. Which of the following actions by solar developers or landowners would help alleviate some or all of your concerns? (Please check all that apply)

- a. Developer permanently protects other farmland in the community
- b. Developer pays a mitigation fee based on the quality or quantity of the farmland being impacted

- c. Developer designs project to allow for continued farming activity under and around solar panels (e.g., agricultural dual-use solar, “agrivoltaics”)
- d. Developer contributes property tax revenue or tax agreement
- e. Developer is liable for returning land back to a farmable state after decommissioning
- f. Landowner has to compensate farm renter for their loss of land access
- g. Landowner has to maintain land access to farm renter for continued production under and around solar panels
- h. None of the above
- i. Other (please describe): \_\_\_\_

15. Please indicate your level of support or opposition for the following factors related to solar development on farmland in Connecticut:

	Strongly oppose	Oppose	Neutral	Support	Strongly support
The solar project generates additional revenue for the landowner					
The solar project generates additional revenue for the farm operator					
The power generated is sold to the electric grid ( <i>off-farm</i> consumption)					
The power generated is used to satisfy the host farm energy demands ( <i>on-farm</i> consumption)					
The solar project serves a dual-purpose by incorporating food crops or forage for livestock (e.g. sheep) under and around the panels					
Native shrubs, flowers, and grasses are planted around the solar panels to create a pollinator habitat					
The solar project occupies at least 30 acres of farmland (~4-5MW of solar)					
The solar project occupies more than 25% of the farm’s acreage					

16. Please indicate whether you think solar developers should be allowed to site solar projects to generate electricity for **off-farm consumption** on the following farmland types throughout Connecticut:

	Never	Sometimes	Always
Most productive farmland (USDA Prime & Soils of Statewide Importance)			
Farmland with slight limitations			
Farmland with moderate limitations			
Marginal or least productive (non-prime) farmland			
Farm-owned forested land			
Land not suitable for pasture or cultivated use			
Actively farmed land, regardless of soil type			
Underutilized farmland, regardless of soil type			
Any farmland			

17. Please comment on your response to the previous question: \_\_\_\_

18. What impact do you think climate change and extreme weather events are likely to have on your farm in the foreseeable future?

- a. Very negative impact
- b. Negative impact
- c. No impact
- d. Positive impact
- e. Very positive impact
- f. I don't know
- g. Other (please describe): \_\_\_\_

19. Please comment on your response to the previous question: \_\_\_\_

### SECTION 3 – SOLAR ON YOUR FARM

The following questions will ask you about your experience with and perspectives about solar development on your farm. With the exception of the first question, this survey will ask only about solar arrays hosted on farms that generate electricity for **off-farm consumption**.

20. Do you generate solar energy on your farm property for on-farm consumption?
- No
  - I don't know
  - Yes. The generating capacity (kW) of the solar array is: \_\_\_\_
21. Which of the following considerations apply to hosting a solar project on your farm to generate electricity for **off-farm consumption**? (Please check all that apply)
- I have or would only consider siting solar on my least productive farmland
  - I have or would site solar panels on marginal fields
  - I have or would transition a portion of my productive fields into solar
  - I have or would transition all of my fields out of production and into solar
  - I have or would continue to farm under and around the solar panels
  - My answer depends on how much developers are paying to site on my land
  - I am not interested in hosting solar panels on my farm under any circumstances
  - Other (please describe): \_\_\_\_
22. How has solar development impacted your ability to rent land? (Please check all that apply)
- I don't rent farmland (own only)
  - No impact even though I rent farmland
  - I have lost access to land I used to rent
    - IF CHECKED, SKIP to page with following prompt:*  
If you have lost access to land you used to rent because of solar development, may we contact you to learn more about this situation?  
**Yes.** Please provide your contact information (Full name, email address, phone number)  
**No**  
Written comment about this situation (optional): \_\_\_\_
  - It is making land more expensive to rent
  - It is making land for rent more scarce
  - Other (please describe): \_\_\_\_
23. Are you leasing farmland to a solar developer to generate electricity for **off-farm consumption**?
- Yes, for a project in operation (*SKIP TO QUESTION 24*)
  - Yes, for a potential project (in design, permitting, or construction) (*SKIP TO QUESTION 24*)
  - No, but interested (*SKIP TO QUESTION 29*)
  - No, and NOT interested (*SKIP TO QUESTION 29*)

24. How many acres are, or might be, leased to the solar developer? (And what percentage of your farmland?)

- a. Acres: \_\_\_\_
- b. Percentage of farmland: \_\_\_\_

25. Please choose one of the following to describe the solar array (to be) hosted on the farm:

- a. This project is for distributed generation (community solar) involving only my farm (e.g. up to 4-5 MW)
- b. This project is for large, transmission scale solar involving one or several other farms (e.g. 20-100+ MW)
- c. I'm not sure
- d. Other (please describe): \_\_\_\_

26. What is the motivation for leasing land to a solar developer? (Please check all that apply)

- a. To provide supplementary income
- b. To support my ability to continue operating
- c. To maximize the land by continuing to farm under and around solar panels
- d. To leverage the solar infrastructure as shelter for livestock or shade for crops
- e. To enhance our public image
- f. To bring economic development opportunity to my community
- g. To pass the farm to the next generation
- h. To utilize the land another way if I can't find a successor to continue farming
- i. Other (please describe): \_\_\_\_

27. Would you be willing to engage in any of the following activities in order to keep farming on the solar project site? **(Please indicate the likelihood of your engagement with the following activities)**

	No	Possibly	Yes
Grazing sheep under and around solar panels			
Raising other livestock (e.g. cattle, poultry) under and around solar panels			
Growing food crops under and around solar panels			
Navigating tractors and farm equipment under and around solar panels			
Committing to permanently protecting farmland after the life of the solar project			
Other (please describe):			

28. How might the solar installation impact the viability of your farm over time? (Please check all that apply)

- a. No impact
- b. This will enable the farm to continue operating
- c. This will reduce the farm's productive capacity
- d. The farm will stop producing altogether
- e. I'm not sure
- f. Other (please describe): \_\_\_\_



29. Under what conditions would you be willing to host solar panels on your farmland that will generate electricity **for off-farm consumption**? (Please check all that apply)
- a. If the project provides me supplementary income
  - b. If the project supports my ability to continue operating
  - c. If I can continue farming under and around the solar panels
  - d. If the solar infrastructure can be leveraged as shelter for livestock or shade for crops
  - e. If the projects helps me pass the farm to the next generation
  - f. If the project brings economic development opportunity to my community
  - g. If I can have direct influence on the design and planning process
  - h. I am not interested in leasing land for solar development under any condition
  - i. Other (please describe): \_\_\_\_

30. If you were to consider hosting a solar project on your farmland in the future, would you be willing to engage in any of the following activities in order to keep farming? (**Please indicate the likelihood of your engagement with the following activities**)

	No	Possibly	Yes
Grazing sheep under and around solar panels			
Raising other livestock (e.g. cattle, poultry) under and around solar panels			
Growing food crops under and around solar panels			
Navigating tractors and farm equipment under and around solar panels			
Committing to permanently protecting farmland after the life of the solar project			
Other (please describe):			

31. Would any of the following services or information help you make a decision about leasing land to host solar on your farm at some point in the future? (Please check all that apply)
- a. Legal advice on lease agreements and landowner options
  - b. Information on the agricultural dual use / agrivoltaics option(s) available to continue farming under and around solar panels
  - c. Information on the financial costs and benefits
  - d. Information on the impacts to farmland soils over time
  - e. Information on local, state, and federal policies that impact solar siting on my farmland
  - f. Information about decommissioning and site restoration after project life
  - g. Information about materials, safety, and end of product life (recycling)
  - h. None, I am not interested
  - i. Other (please describe): \_\_\_\_

32. Who have you spoken to about these issues? (Please check all that apply)
- a. No one
  - b. Family member(s)
  - c. Neighbors / Fellow farmers
  - d. Solar developer
  - e. Town officials (Planning Board, Town Board)
  - f. State agencies (e.g. CT DoAg, DEEP)
  - g. CT Green Bank
  - h. Energize CT
  - i. Research center
  - j. Extension services
  - k. Farm associations and assistance programs (e.g. Farm Bureau, CT Resource Conservation and Development)
  - l. Farmland organizations (e.g. AFT)
  - m. Land trusts
  - n. Attorney
  - o. I've done my own research
  - p. Other (please describe): \_\_\_\_
33. Who do you trust the most for information related to these topics? (Please check all that apply)
- a. Family member(s)
  - b. Neighbors / Fellow farmers
  - c. Solar developer
  - d. Town officials (Planning Board, Town Board)
  - e. State agencies (e.g. CT DoAg, DEEP)
  - f. CT Green Bank
  - g. Energize CT
  - h. Research center
  - i. Extension services
  - j. Farm associations and assistance programs (e.g. Farm Bureau, CT Resource Conservation and Development)
  - k. Farmland organizations (e.g. AFT)
  - l. Land trusts
  - m. Attorney
  - n. News and social media
  - o. No one / I do my own research
  - p. Other (please describe): \_\_\_\_
34. Please provide any further comments or opinions about smart solar practices on Connecticut farmland: \_\_\_\_\_

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**THANK YOU!**

American Farmland Trust appreciates your participation and thoughtful responses. We will hold follow up conversations later this year to inform and refine the final products for this project, and also engage in continued policy development and advocacy to maintain and preserve farmland viability in Connecticut. **Your input in these continued efforts is extremely valuable.**

If you are willing to engage in any of these follow up conversations in the future, please provide your name and email below.

Name: \_\_\_\_

Email: \_\_\_\_

Confirm email: \_\_\_\_

**END SURVEY.**