

Nevada Clean Energy Fund (NCEF)  
Nevada Solar for All Program  
RFI No. 241023

**Request for Information (RFI): Third-Party Owned (TPO) Solar PV on  
Residential and Commercial Buildings**

**DATE:** 10/23/2024

**SUBJECT:** Request for Information (RFI) - 241023

**DESCRIPTION:** The Nevada Clean Energy Fund (NCEF) is exploring third-party owned (TPO) implementation strategies to support, expand, and streamline efforts to deploy solar photovoltaics (PV) systems in Nevada. Understanding the benefits and most prominent challenges for property owners, tenants, and other stakeholders is essential for developing resources and solutions to promote solar installations in this market. Areas of key interest center on overcoming technical, economic, administrative, and legal barriers and pursuing opportunities to reduce costs of capital, lower operational risks, protect consumers, and increase efficient market activities.

**BACKGROUND:** The Nevada Clean Energy Fund (NCEF)—Nevada’s nonprofit green bank—is using a \$156 million grant award from the U.S. Environmental Protection Agency to establish financial and technical assistance under its Nevada Solar for All (NSFA) program. NSFA will enable low-income and disadvantaged communities in Nevada to implement and benefit from solar energy. NSFA will administer statewide financial assistance programs for single-family homeowners, affordable housing properties, and residential-serving community solar that enable equitable access to solar in Nevada. The program will conduct targeted outreach, education, technical assistance, and workforce development in rural, urban, suburban, Tribal, and persistent poverty communities. NSFA will catalyze market transformation and impact for low-income solar in Nevada over the long-term by spurring regulatory change, building a sustainable and diverse solar workforce, and leveraging private capital.

**PURPOSE:** NCEF seeks to identify strategies for the installation, operations, and maintenance of solar projects of up to 5 MWdc using lease and/or Power Purchase Agreement (PPA) structures offered by third parties. This RFI solicits feedback from industry (particularly building owners), solar third party ownership providers, academia, research laboratories, government agencies, and other stakeholders on issues related to effective use of lease or PPA structures to catalyze solar installation on residential and commercial buildings. NCEF is specifically interested in information on practical, industry-driven, financially enduring, and self-sustaining strategies that facilitate solar deployment for buildings and that comply with the requirements of [EPA’s Solar for All program](#).

**DISCLAIMER AND IMPORTANT NOTES:** This RFI is not a Funding Opportunity Announcement (FOA); therefore, NCEF is not accepting applications at this time. NCEF may issue a FOA in the future based on or related to the content and responses to this RFI; however, NCEF may also elect not to issue a FOA. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if NCEF chooses to issue a FOA regarding the subject matter. Final details,

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including the anticipated award size, quantity, and timing of NCEF funded awards, will be subject to relevant appropriations and direction.

Any information obtained as a result of this RFI is intended to be used by NCEF on a non-attribution basis for planning and strategy development. This RFI does not constitute a formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. NCEF will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. NCEF will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that NCEF is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind NCEF to any further actions related to this topic.

**PROPRIETARY INFORMATION:** Because information received in response to this RFI may be used to structure future programs and FOAs and/or otherwise be made available to the public, **respondents are strongly advised to NOT include any information in their responses that might be considered business sensitive, proprietary, or otherwise confidential.** If, however, a respondent chooses to submit business sensitive, proprietary, or otherwise confidential information, it must be clearly and conspicuously marked as such in the response, as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act (FOIA) or otherwise. NCEF is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose.

If your response contains confidential, proprietary, or privileged information, you must include a cover sheet marked as follows identifying the specific pages containing confidential, proprietary, or privileged information:

**Notice of Restriction on Disclosure and Use of Data:**

Pages [list applicable pages] of this response may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for the purposes described in this RFI No. 2410223. NCEF may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

In addition, (1) the header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: “Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure” and (2) every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

**EVALUATION AND ADMINISTRATION BY NCEF AND NON-NCEF PERSONNEL:**

NCEF employees are subject to the non-disclosure policy requirements. NCEF may also seek the advice of qualified non-NCEF personnel. The respondents, by submitting their response, consent to NCEF providing their response to non-NCEF parties. Non-NCEF parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given access. Submissions may be reviewed by support contractors and private consultants.

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**RFI RESPONSE GUIDELINES:** Responses to this RFI must be submitted electronically to [info@nevadacef.org](mailto:info@nevadacef.org) no later than 5:00pm (PST) on November 25, 2024. Responses must be provided as attachments to an email. It is recommended that attachments with file sizes exceeding 25MB be compressed (i.e., zipped) to ensure message delivery. **Only electronic responses will be accepted.**

Responses should be no more than ten (10) pages, single spaced, 1” margins, 12-point font. Optional questions are provided below as a guide. If responding to the below questions, please identify reference the appropriate question number(s).

NCEF will not respond to individual submissions or publish publicly a compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's address, phone number, and e-mail address.

NCEF will consider requests to meet with organizations that have submitted an RFI response, in-person or virtually, on a case-by-case basis, to discuss the response further. NCEF is under no obligation to meet with any RFI respondents.

## **RFI QUESTIONS:**

### **CATEGORY 1: About the Respondent**

1. Respondent Name:
2. Respondent Email:
3. Respondent Phone Number:
4. Are you open to be contacted by NCEF to discuss this RFI response?
  - a. Yes
  - b. No
5. Please select which of the following describes your profession, role, or interest in third-party owned (TPO) systems:
  - a. Policy maker
  - b. Government official
  - c. Solar developer
  - d. Electric utility
  - e. Commercial real estate building owner, manager, or developer
  - f. Architect

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- g. Engineer
  - h. Consultant
  - i. Building tenant (specify industry e.g. commercial office, retail, restaurant, etc.)
  - j. Other (please specify)
6. Please specify the state(s) where you do the majority of your work or own/operate solar system(s). Indicate “national” if your response applies to more than five states.
7. Have you either participated in or installed a third-party owned solar photovoltaic system on a single-family residence, multi-tenant building, or in another context?
- a. Yes
  - b. No
8. If applicable, which of the following best describes the property type(s) to which your TPO systems pertain? (Feel free to select multiple)
- a. Office
  - b. Retail
  - c. Single Family Residence
  - d. Multifamily Property
  - e. Industrial/Manufacturing
  - f. Warehouse
  - g. Hospitality
  - h. Ground-mounted Solar
  - i. Other (please specify)
9. If applicable, how many TPO systems(s) are you involved with? (Please specify a number)
10. If applicable, of these TPO systems, what is the total capacity in MW?
- a. < 1 MW
  - b. 1 MW – 50MW
  - c. 50 MW – 250 MW
  - d. > 250 MW
  - e. N/A
11. What is the total electricity generation across the total TPO systems indicated to date?
- a.  $\leq$  1,000,000 kWh
  - b. 1,000,001 - 10,000,000 kWh
  - c. 10,000,001-100,000,000 kWh
  - d.  $\geq$  100,000,001 kWh
  - e. Don't know or N/A

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**CATEGORY 2: Third-Party Ownership (TPO) Solar Providers**

12. Please provide reflections on the strategies for achieving the following potential program characteristics:

- a. Davis Bacon and Related Acts (DBRA) compliance
- b. Build America Buy America (BABA) compliance (note: BABA is not required for projects on single-family homes)
- c. TPO option with no money down
- d. Achieving a minimum 20% utility bill savings, net of any costs of participating in the program, starting in Year 1 and extending through at least Year 15 of the project.
- e. Tax incentive monetization (Section 48 tax credit and Modified Accelerated Cost Recovery System (MACRS))
- f. Production guarantees for the term of the contract
- g. Ensuring ongoing system maintenance, even in the case of sale of the solar leases or PPA to other third parties
- h. Ensuring solar system insurance for the term of the contract
- i. Post-installation warranty management
- j. Renewable Energy Certificate (REC) measurement and monetization
- k. Ownership options for customers, including in the event that a customer moves.
- l. Approaches to underwriting for low-income customers, including alternatives to FICO.
- m. Offer additional technologies such as energy storage, EV chargers, and/or energy efficiency services.

13. If applicable, please describe the following information about TPO solar project(s) in which you are involved.

	Project #1	Project #2	Project #3
a. Did you complete the project? If not, why?			
b. Project size (<200kW, 200-500kW, 500kW-1MW, >1MW)			
c. Project location (city, state)			
c. Project size (<200kW, 200-500kW, 500kW-1MW, >1MW)			
d. Installation type (roof, ground, carport)			
e. Project location type (office, retail, single-family, multifamily, industrial/warehouse, hospitality. If other, please specify)			
f. Project owner (building owner, building tenant, third party, utility)			
g. Incentives received (30% federal tax credit, tax credit bonuses, state rebates, SREC payments etc.)			
h. Project financing (cash purchase, power purchase agreement, lease, loan)			
i. Electricity off taker (building tenant, building common meter or utility through a power purchase agreement)			

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j. Who paid electric bills prior to PV system installation (tenant or building owner)?			
k. If possible, indicate the discount off the average cost of electricity from the utility (\$/kWh or percentage)			
l. Who contractually retains ownership of the associated renewable energy certificates from the solar PV system? (building owner, third-party, utility, or other)?			
m. Are there building lease payments associated with the space in which the PV system is located?			

14. What are the biggest barriers to installing a TPO solar PV system? (Please prioritize the barriers and specify any other barriers not included on this list)
- a. Upfront cost of PV system
  - b. Return on investment
  - c. High transaction costs/cost of capital
  - d. Split incentive between landlord and tenant: e.g., landlord owns PV system and tenant pays electric bills
  - e. Securing financing
  - f. Creditworthiness
  - g. Building has a very low electric bill
  - h. Building has such high electricity consumption that solar wouldn't have an impact
  - i. Inadequate site for solar PV (available roof space or large parking lot)
  - j. Age of roof (the roof needs to be replaced) or structural integrity of roof
  - k. Short length of tenant leases compared to solar PV system life
  - l. Operational or performance risk of PV project
  - m. Indemnification of damage to property
  - n. Unsure of barriers
  - o. Other (please specify)

15. What tools would encourage single-family residences, multi-tenant buildings, or commercial buildings to install TPO solar? (Please prioritize answers and specify any other benefits not included on this list)
- a. Availability of standard solar PV template lease language between building owner and tenants
  - b. Information on solar energy benefits of your system to include the value of the solar PV system in your real estate valuation
  - c. Case studies highlighting what other building owners have done to install solar on their buildings and recoup the economic benefit
  - d. Streamlined processes for going solar; greater access to turnkey systems and contracts
  - e. Other (please specify)

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### **CATEGORY 3: TPO System Site Hosts**

16. Which is the largest financial driver for the decision to go solar:
- Utility bill savings (energy and demand charge savings)
  - Federal income tax credit
  - Income from exporting electricity through a Feed-in Tariff (FiT) or Power Purchase Agreement (PPA)
  - Income by selling SRECs or from other incentives
  - Other (please specify)
15. What was the most difficult aspect of procuring a solar PV installation?
16. If you have installed a TPO solar project, what criteria did you use to select a solar contractor? (Please prioritize)
- Solar PV project price
  - Reputation or project portfolio
  - In-house financing (ability to offer a PPA or lease financing structure)
  - Understanding of local solar PV requirements
  - Relationship with someone within your firm
  - PV system warranty and production guarantee
  - Other (please specify)
18. Did you face any permitting/regulatory barriers? Did the solar contractor take care of all permitting requirements?
19. Who in your organization has approval authority for energy projects? Who among these individuals was the hardest to convince to move the project forward?
20. What lessons learned would you share with other building owners considering installing rooftop solar systems?
21. If you have installed solar on your building, what are the lessons learned from installing rooftop or building integrated solar on your building or your ability to conduct business during installation?
- Did any building components (such as roofing or glazing) need to be replaced or upgraded prior to installation?
  - Do you have a ballasted or penetrating solar PV racking system to attach the panels to the building?
  - Do you have building integrated PV? How was that incorporated into the building shell?
22. Is your system visible to the public? Has it had a positive impact on your business?
23. How does your organization publicize its use of solar energy?

### **CATEGORY 4: Other Considerations**

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24. Would you consider or recommend installing energy storage (aka batteries) in conjunction with solar PV?
25. What metric do you use to financially evaluate the solar PV system?
  - a. Return on Investment (ROI)
  - b. Simple Payback
  - c. Internal Rate of Return (IRR)
  - d. Levelized cost of electricity (LCOE) or lowered energy costs (?)
  - e. Other (please explain)
26. What financial threshold do you seek to achieve? (e.g., payback in years, IRR or ROI in percentage)
27. If you wanted to install solar PV, where would you go for information?
28. If you have any other concerns, feedback, or recommendations regarding implementation of TPO solar systems, please provide more details here.

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