

Request for Proposals

Cybersecurity Advisory Team for State Solar (CATSS) Project Tools

Solicitation Number: NASEO-2021-RFP-004

Released: Thursday, October 14, 2021
Responses Due: Thursday, October 28, 2021
(Late proposals will not be accepted)

National Association of State Energy Officials
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Note on applicants' eligibility: All applicants must meet the U.S. Department of Energy Mandatory Requirements and Standard Provisions.

I. Introduction and Background

The Cybersecurity Advisory Team for State Solar (CATSS) is a project implemented by the National Association of State Energy Officials (NASEO) and the National Association of Regulatory Utility Commissioners (NARUC) to mitigate cybersecurity risks and consequences in solar energy developments. With support from the United States Department of Energy (DOE) Solar Energy Technologies Office (SETO), the project leverages state, federal, and private-sector expertise on cybersecurity, grid, and photovoltaic (PV) technologies to identify model solar-cybersecurity programs and actions for states to take in partnership with utilities and the solar industry.

The rapid growth and importance of solar energy has elevated the critical need among state-level decision makers to evaluate the potential cybersecurity implications of solar deployment and work with federal and private sector stakeholders to mitigate those risks. Newer two-way communication technologies and remote grid support are revolutionizing how the grid operates, but also result in a system more exposed to cyber vulnerabilities. NASEO and NARUC seek to proactively address cyber threats in all energy areas, including solar infrastructure whose expansion will be critical to meeting states' economic development, environmental, and energy goals.

The project uses a state-led advisory group and dialogue with solar and cybersecurity experts to advance education, tools, and access to technical assistance. The project seeks to develop actionable solar cybersecurity strategies and roadmaps, as well as create stronger public-private partnerships and intra- and interstate cooperation for greater consumer and utility solar cybersecurity.

In the first year of the project, NASEO and NARUC undertook an analysis of the needs of their members to further solar cybersecurity and developed a roadmap outlining potential tools that could support State Energy Offices and Public Utility Commissions. The next stage of the project will focus on three primary goals:

Phase 1: Develop educational tools and resources for State Energy Offices and Public Utility Commissions to build foundational knowledge of PV infrastructure and its potential cybersecurity risks to inform their decision-making about relevant policies and programs in the future.

Phase 2: Provide tools and resources for states to use to delve deeper into stakeholder roles and responsibilities for solar cybersecurity as well as understanding objectives and consequences of potential solar cybersecurity risks and mitigative actions. These tools and resources will be designed for states to use independently of the CATSS project.

Phase 3: Develop additional tools to provide states with policy examples that could be included in their unique and respective policies or programs.

II. Objectives

In support of this project, NASEO seeks a *Subcontractor* to research, draft, revise, finalize, and publish tools and resources for State Energy Offices and Public Utility Commissions in each of the three phases.

III. Approach

The *Subcontractor* will work with staff from NASEO and NARUC to develop the tools outlined in the tasks below. All tools must be written for non-technical audiences within governors' offices, Public Utility Commissions, and State Energy Offices. The *Subcontractor* can leverage existing tools if appropriate. The *Subcontractor* shall not have the right to reproduce, utilize portions of, or publish the material developed under the subcontract without NASEO's express written permission. While tools relate to several phases, the tools and resources may be produced in a different order or simultaneously.

Digital Design and Development

The *Subcontractor* will ensure that the final product is useable in both a digital and physical/printed format. Where appropriate the *Subcontractor* will develop graphics and visuals.

IV. Statement of Work, Timeline, and Expected Deliverables

It is envisioned that the *Subcontractor's* contributions to this project will be initiated in November 2021 and conclude in August 2022. The *Subcontractor* will be responsible for the following tasks and deliverables:

Task 1: Standards Quick Guide (Phase 1)

The *Subcontractor* will develop a guide on relevant standards developed or in development for solar cybersecurity. This should include relevant standards from the Institute of Electrical and Electronics Engineers (IEEE)(such as IEEE P2800, IEEE 1547-2018, and IEEE 2030.5-2018) and others (e.g., UL, ISA/IEC) and any other relevant standards the *Subcontractor* identifies. In the guide, the *Subcontractor* will describe the standards' relevance, how the standards have been developed/are developed and adopted, and the roles of states and state agencies in the process (in particular State Energy Offices and Public Utility Commissions).

Task 2: Engineering and System Overview (Phase 1)

The *Subcontractor* will develop a simple schematic for State Energy Offices and Public Utility Commissions that explains the physical and cyber components of PV systems and interdependencies with other types of DERs, batteries, EVs, distribution grid points of interconnection, two-way communication pathways, etc., and that identifies the physical and virtual risks and points of vulnerability for various stakeholders. The schematic could also include a visualization of points of risk and highlight authorities.

Task 3: Risk Ownership Framework (Phase 1)

The *Subcontractor* will develop an overview of information needed for states to assess and determine the cybersecurity risk for solar installations, and potential solutions for which entities might be—in whole or in part—responsible for mitigating those risks. This includes information that states would integrate into such a risk ownership framework, such as existing risk allocation, examples from other, similar risk assessments, metrics used to prioritize risks, discussion questions on risk associated with solar and outlining who “owns” that risk, and information on the different risk perspectives (state, utility, federal government, PV developers, PV owners, etc.).

Task 4: Consequence Forecasting (Phase 2)

The *Subcontractor* will develop risk scenarios for solar cybersecurity reflecting a variety of assumptions pertaining to levels of installed solar generation during the next decade and different ownership

structures, aimed at highlighting potential consequences of inadequate cyber provisions for PV solar systems, and determine state objectives to alleviate the outlined risk. The guidance should outline the consequences and how a breach might affect each stakeholder (e.g., utility, aggregator, consumer) and provide an understanding of PV vulnerabilities and attack types.

Task 5: Decision Support and Assessment Tools (Phase 3)

The *Subcontractor* will develop decision support and assessment tools, including a PV criticality checklist, solar cybersecurity requirements cost-benefit analysis guidance, and information on Qualified Components List as a potential option. Information will include risk assessment guidance based on the criticality of the DER, costs and benefits of solar cybersecurity measures, and the potential of developing a certified manufacturer or qualified or secure components list that states can reference or require for state procurements or mandate in other resources or authorities.

Task 6: Project Management

Throughout the length of the contract, the *Subcontractor* and NASEO will have bi-weekly calls to track progress and discuss any questions that arise during the tool development process. The *Subcontractor* will also be asked to join periodic calls of the CATSS Advisory Group.

Project Schedule (Estimated)

Task	Estimated Deliverable Date*
Kickoff Meeting	November 15, 2021
Task 1: Standards Quick Guide	January 31, 2022
Task 2: Engineering and System Overview	March 21, 2022
Task 3: Risk Ownership Framework	May 31, 2022
Task 4: Consequence Forecasting Guidance	July 29, 2022
Task 5: Decision Support and Assessment Tools	August 31, 2022
Task 6: Project Management	Bi-weekly Meetings with NASEO and NARUC and Advisory Group Calls as requested

* The deliverable timeline may change depending on timeliness of internal and external review. Final document review by DOE may also delay final deliverable date.

The *Subcontractor* will provide outlines of the tools to be approved before commencing with drafting the tools. Upon completion of the initial draft of each of the tools and resources, the *Subcontractor* will provide a copy to NASEO and NARUC for review and comment. NASEO and NARUC may choose to send the initial draft to select, relevant internal stakeholders. The *Subcontractor* will incorporate feedback and provide a second draft of the playbook to NASEO and NARUC.

For planning purposes, the *Subcontractor* should build three weeks into the deliverables schedule to accommodate internal and external reviews and revisions. More time may be needed to accommodate external reviewers' availability.

NASEO will provide the final draft of each tool to DOE for final document review. That review process can take up to four weeks, which should be reflected in the deliverables schedule.

The *Subcontractor* will not interact directly with DOE and will coordinate with NASEO before they engage with any state and private sector organization in the development of the tools and resources.

V. Period of Performance

This project is estimated to last from November 15, 2021, to August 31, 2022.

VI. Project Budget

This is a competitively bid project; costs should be feasible and prudent. The *Subcontractor* must submit cost proposals by task for the entire Statement of Work. Please use the [EERE Budget Justification](#) as a template.

NASEO may request changes to the proposal if the proposed scope exceeds the available budget.

Compensation: NASEO shall reimburse the *Subcontractor* for completed task deliverables (not to exceed the total approved task milestone cost shown in the final approved budget included in the final contract agreement) once NASEO has received payment from DOE. The *Subcontractor* will submit a monthly invoice and progress report by the tenth of each month of the agreement.

Rejection of Proposals and Incurred Costs

This Request for Proposals (RFP) does not obligate NASEO to award an agreement. All costs incurred in response to this RFP are the responsibility of the respondent.

NASEO reserves the right to reject any or all submitted proposals not in conformance with this RFP, or for other causes. NASEO reserves the right to request new proposals or to cancel all or part of this solicitation.

VII. Contract Requirements

The funds for this work have been provided to NASEO from DOE SETO. The underlying terms and conditions of the cooperative agreement between DOE SETO and NASEO will be provided to the *Subcontractor* and incorporated in the awarded subcontract. All requirements of the DOE contract shall be controlling, including, but not limited to, federal reporting and the propriety and form of expenses and costs. The contract shall be issued following approval from DOE and will become effective when signed and dated by NASEO and the *Subcontractor*.

VIII. Responding to the RFP

Please submit responses to the RFP to Campbell Delahoyde by e-mail at cdelahoyde@naseo.org. **RFP responses are due no later than 5:00 pm ET on Thursday, October 28, 2021.** Please limit the narrative that addresses the proposed approach and treatment of the project tasks and proposed budget to no more than 8 pages in 11pt. font. Responses shall fully address the following:

- Cover letter
- Resumes
- Description of relevant experience, including familiarity with solar PV technologies and policies, relevant state and federal cybersecurity policies and standards, and energy security practices, generally
- Proposed approach and treatment of the tasks and sub-tasks with a view toward expected deliverables

- Proposed Budget by Task Deliverables

Note: Late proposals will not be accepted.

IX. Subcontractor Selection and Required Qualifications

NASEO will select a *Subcontractor* through a competitive selection, which will include consideration of the following:

- Experience working with State Energy Offices or other relevant state agencies.
- Relevant experience working on cybersecurity, and specifically related to Distributed Energy Resources.
- Competitive budget proposal
- Program and policy factors
- Quality of academic and professional experience in relevant field.
- Flexibility of availability.

The NASEO Evaluation Team will use the following criteria in assessing all responses to this RFP:

Technical Experience and Applicant Qualifications (30% of total score)

1. Adequate level of technical knowledge to meet the demands of the project (specifically in cybersecurity and PV).
2. Relevant experience in proposed topics in the energy sector, particularly working with State Energy Offices and other state agencies.
3. Quality of academic and professional experience in relevant field.

Proposed Approach for Implementation (40% of total score)

1. Proposal responds to the outlined topics in the RFP.
2. Existing resources / subcontractor availability to meet needs of flexible deployment.
3. Overall quality and professionalism of the proposal (well written, structured and organized) and materials are provided in the format requested.

Budget (30% of total score)

1. Given the scope, is the estimated cost of the proposal appropriate?
2. Does overall cost reflect an efficient value for the level of effort?
3. Is the level of effort for each task appropriate?