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U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

SOLAR ENERGY TECHNOLOGIES OFFICE

Solar Energy Technologies Office Fiscal Year 2021 Photovoltaics and Concentrating Solar Power Funding Program

DE-FOA-0002378

FOA Webinar

April 12, 2021

energy.gov/solar-office

Solar Energy Technologies Office 2021 Photovoltaics and Concentrating Solar Power Funding Program

Welcome!

- This webinar will provide an overview of the Department of Energy's Solar Energy Technologies Office (SETO) and our recently announced 2021 Funding Program for Photovoltaics and Concentrating Solar Power

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement (FOA) **DE-FOA-0002378** and adhere to the stated submission requirements.

- This presentation summarizes the contents of FOA. No new information on the FOA will be discussed in this webinar. There are no particular advantages or disadvantages to the application evaluation process with respect to participating on the webinar today. Your participation is completely voluntary.

- If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document and applicants should rely on the FOA language and seek clarification from EERE by submitting questions to **PV.CSP.FOA@ee.doe.gov**

- Please use the chat feature of the WebEx to ask questions or direct questions to **PV.CSP.FOA@ee.doe.gov**. SETO will post answers to FOA-related questions on Exchange so everyone has equal access to the answers.

Solar Energy Technologies Office 2021 Photovoltaics and Concentrating Solar Power Funding Program

Anticipated Schedule:

FOA Issue Date:	3/25/2021
Informational Webinar	4/12/2021
Informational Webinar	4/19/2021
Submission Deadline for Letter of Intent:	4/26/2021
Submission Deadline for Concept Papers (Topic Areas 1-4):	4/27/2021
Submission Deadline for Full Applications:	6/24/2021
Submission Deadline for Replies to Reviewer Comments (Topic Areas 1-4):	7/27/2021
Expected Date for EERE Selection Notifications:	9/24/2021
Expected Timeframe for Award Negotiations:	Sep 2021 – Jan 2022

All Submission Deadlines are at 5:00 p.m. ET on date listed.

Agenda

1) FOA Description
2) Topic Areas/Technical Areas of Interest
3) Teaming List
4) Diversity, Equity, and Inclusion
5) Award Information
6) Statement of Substantial Involvement
7) Cost Sharing
8) FOA Timeline
9) Concept Papers
10) Full Applications
11) Merit Review and Selection Process
12) Registration Requirements

FOA Description

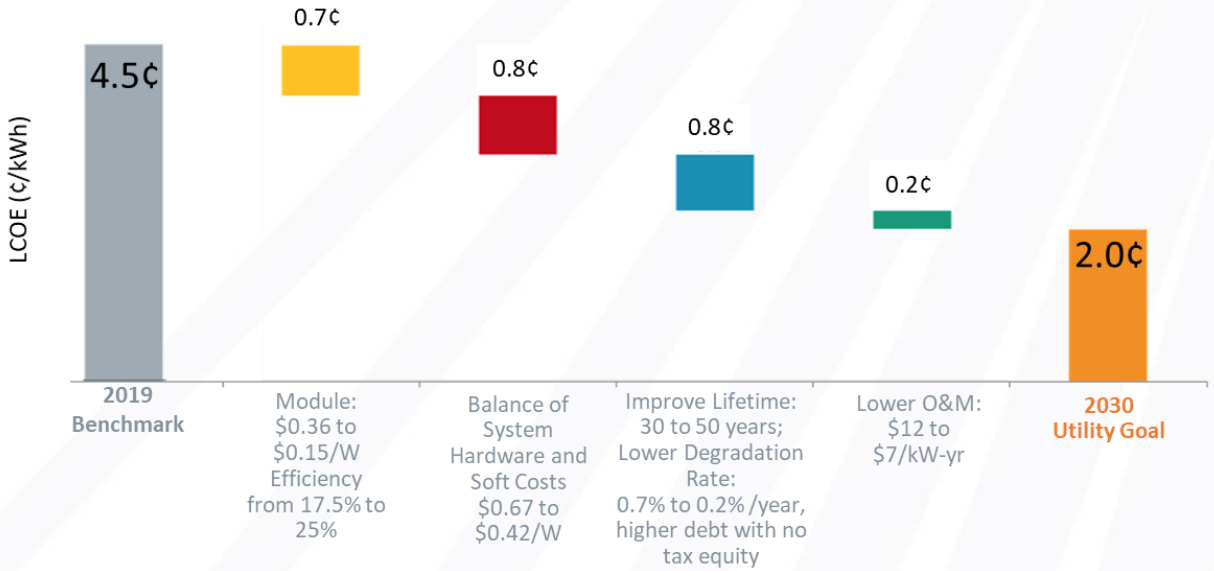
This funding opportunity announcement (FOA) is being issued by the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Solar Energy Technologies Office (SETO) to invest in innovative research and development (R&D) that will drive down costs and develop next-generation technologies ready for commercialization.

The office supports solar energy research, development, demonstration, and technical assistance in five areas—photovoltaics (PV); concentrating solar-thermal power (CSP); systems integration; manufacturing and competitiveness; and soft costs—to improve the affordability, reliability, and domestic benefit of solar technologies on the electric grid.

Building a clean and equitable energy economy and addressing the climate crisis is a top priority of the Biden Administration. This FOA will advance the Biden Administration's goals to achieve carbon pollution-free electricity by 2035 and to "deliver an equitable, clean energy future, and put the United States on a path to achieve net-zero emissions, economy-wide, by no later than 2050" to the benefit of all Americans. The Department of Energy is committed to pushing the frontiers of science and engineering, catalyzing clean energy jobs through research, development, demonstration, and deployment, and ensuring environmental justice and inclusion of underserved communities.

Topic 1: 50-Year Service Life PV Systems (PV50)

This topic will support research projects to address PV balance of systems challenges with the goal of increasing useful system life to 50 years while lowering the cost of energy. The aim is to improve PV system components such as inverters, connectors, cables, racks, and trackers through data analysis, sensor development for data gathering, characterization, component hardware improvements, more efficient Operations and Maintenance (O&M) schedules, and increased durability.



The Figure above shows that a significant Levelized Cost of Electricity (LCOE) reduction of 40% ($0.018/kWh) can be achieved by addressing system-level costs.

Topic 1: 50-Year Service Life PV Systems (PV50)

This area of interest includes the mechanical and electrical structures and mechanisms of the PV plant on the DC side of the inverter, on-site metrology, and data subsystems. SETO is especially looking for technologies that address utility and commercial-industrial systems, because these systems are more likely to see value from a 50-year useful life. The desired outcomes are cost-effective, system-wide solutions that address multiple BoS challenges.

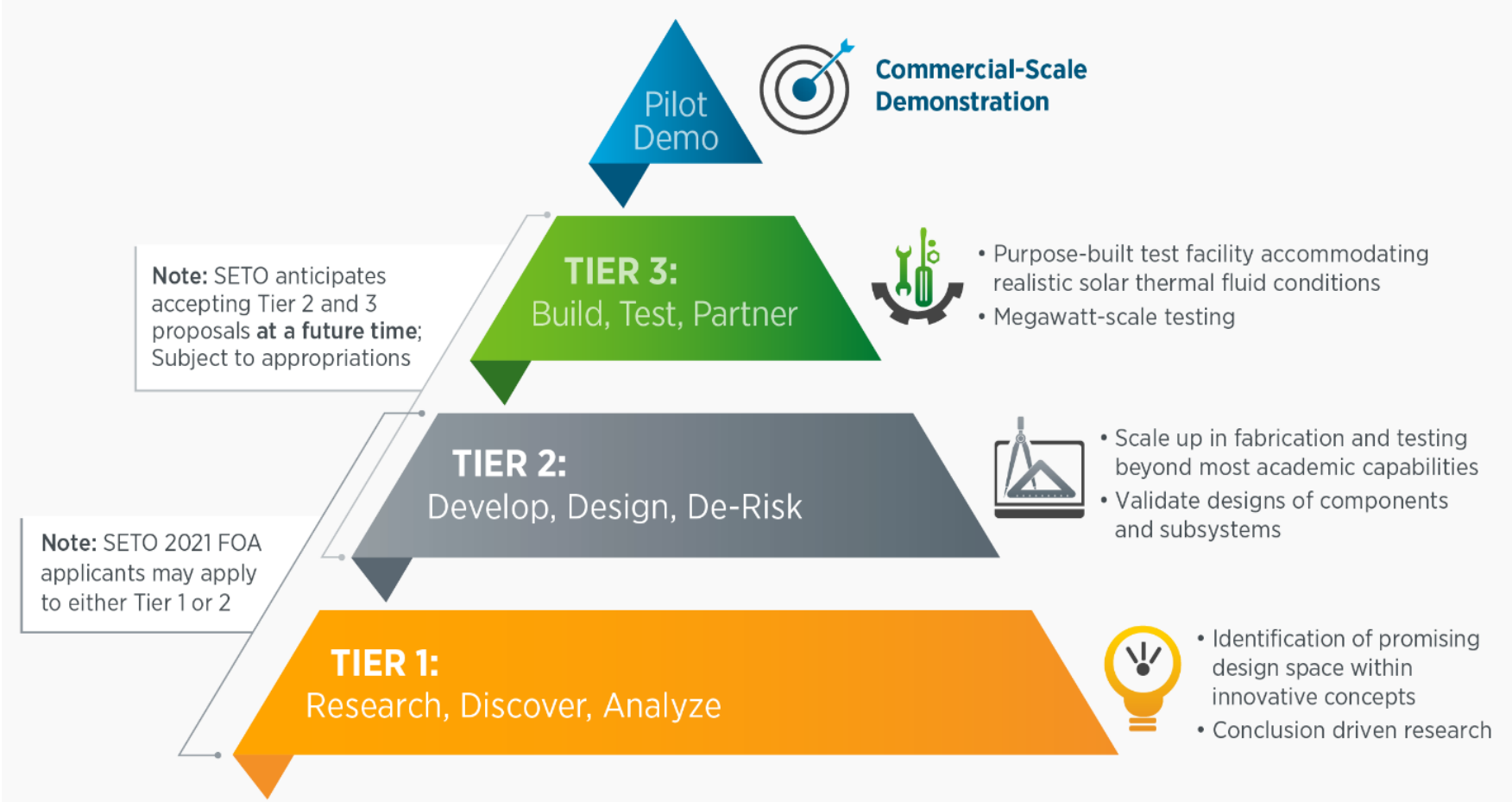
Successful applications to this topic will aim for a 50-year system service life and identify the impact of proposed BoS hardware advances. Applicants must justify their proposed approach using data analysis, financial analysis, fielded deployment studies, published or original accelerated life studies, and fielded concept demonstrations. Applicants must also consider the path to commercial viability and justify that the proposed solution can provide a cost-competitive PV BoS technology.

Topic Area 2: SOLAR R&R (Scalable Outputs for Leveraging Advanced Research on Receivers and Reactors)

This topic solicits projects to advance novel solar thermal receivers and solar thermal reactors that will enable new applications for concentrating solar power (CSP) systems, including higher-temperature power towers for high-efficiency power cycles, solar reactors for thermochemical production of fuels and chemicals, or other solar process heat applications. This topic describes a tiered project structure and set of risk-retirement objectives to transition novel concepts to 1-5 megawatts thermal (MW_{th})-scale testing, with sufficient supporting information to enable commercial adoption and operation.

- **Direct solar reactors**, where concentrated sunlight drives a chemical reaction without an intervening heat transfer medium (HTM);
- **Indirect solar reactors**, where the solar energy is used to power a reactor that is separated from the receiver but connected via a CSP-relevant HTM; or
- **Solar receivers**, where concentrated sunlight provides energy at the appropriate conditions, particularly at temperatures appropriate for thermal energy storage for dispatchable electricity production.

Topic Area 2: SOLAR R&R



Topic Area 3: Pumped Thermal Energy Storage (PTES)

Projects in this topic area will advance PTES technologies that are able to use electricity to charge thermal energy storage, either as standalone systems or integrated with CSP plants. In particular, this topic area seeks to increase the Technology Readiness Level and Manufacturing Readiness Level of key PTES components, such as compressors and heat exchangers, to meet technoeconomic requirements for thermal energy storage.

Possible PTES Configurations

A. PTES using ideal gases like argon, possibly with hot and cold storage;

B. PTES using real fluids like sCO_2, using existing or new hot stores, with or without a cold store;

C. PTES using real fluids for subcritical or transcritical cycles.

Both stand-alone PTES and PTES integration with CSP plants is of interest

Development Needs:

- High Temperature Compressor
  - At least 565°C output
  - >85% efficiency
  - < 100 $/kW$_e$ compression
- High Temperature Heat exchanger
  - >92% effectiveness
  - < 150 $/kW$_{th}$ capital cost
- Recuperators
  - Effectiveness > 92%
  - Cost < 200 $/kW$_e$ output
- Heat Rejection
  - Effectiveness > 92%
  - Total cost < 100 $/kW$_e$
- Thermal Energy Storage
  - Energetic efficiency, ≥ 99%
  - Exergetic efficiency ≥ 95%
  - Capital cost ≤ 15 $/kWh$_{th}$

TOPIC AREA 3: Pumped Thermal Energy Storage (PTES)

- Overall PTES system targets defined in the FOA
- Key Metrics include
  - Charging cycle efficiency
  - Discharging cycle efficiency
  - A combined Round Trip Efficiency
  - The Levelized Cost of Storage
- Applicant are expected to describe target storage markets and metrics; focus on component development
- Standalone PTES overall system goals and component development targets should use the suggested metrics and equations
- Integration with existing CSP plants should describe how the proposed components will improve CSP plant value

Topic Area 4a: CSP PERFORM - Process Enhancement and Refinement for Operations, Reliability, and Maintenance

This topic area focuses on improving the reliability and productivity of existing CSP technologies, based on lessons learned from the current 7 GW global CSP fleet.

- **CSP Plant Modeling and Data Sets**
  Improve predicted performance. Public plant data sets available for R&D
- **Salt Tank Design**
  Validate and publish known solutions
- **Operations Training**
  Establish practices to reduce O&M costs and improve plan yield
- **Plant Automation and Controls**
  Standardize control schemes unique to CSP systems
- **Standards and Specifications**
  Evaluate, validate and establish best of designs and practices

Diverse Project Team assuring cost and risk balanced over entire lifecycle value

Benefits CSP industry at large (not plant specific)

Metrics show improvement from industry baselines such as:

- Reduced marginal (operating) costs, return on investment or payback period
- Increased Plant efficiency, plant availability, reduced startup times
- Improved ease of deployment, market versatility, or bankability
- Lower barriers to the deployment of CSP in the United States.

Mehos, Mark, et al. *Concentrating Solar-Thermal Power (CSP) Best Practices Study.* NREL, NREL/TP-5500-75763, 2020.

Topic Area 4b: CSP REFORM (Research in Equipment For Optimized and Reliable Machinery)

This topic area will develop components and equipment with new technologies and materials for commercial CSP systems.

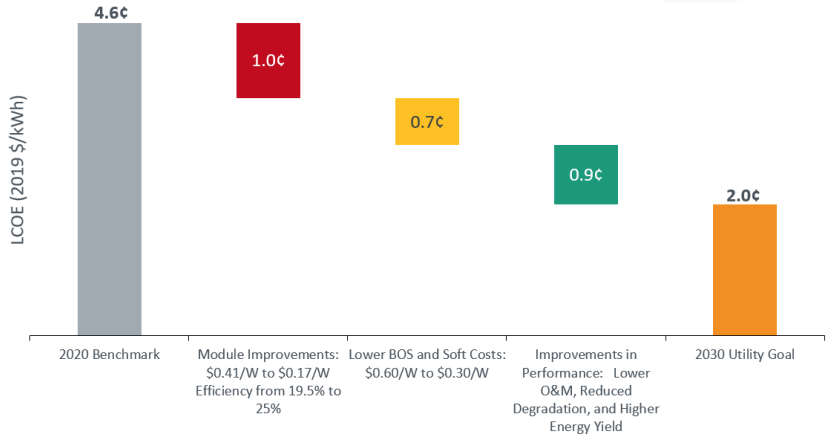
- **TES System Improvement**
  - Hot Tank using low-cost construction
  - Increased reliability
  - Downcomer energy recovery
  - Adapting systems for solid media TES
- **Steam Generator System Reliability**
  - Novel Heat Exchanger designs
  - Cost reduction for steam generator using 3D printing
  - Thermal transient stress tolerant systems
- **Tower Design and Construction**
  - Reduce construction time and cost
  - Reduced material lattice designs

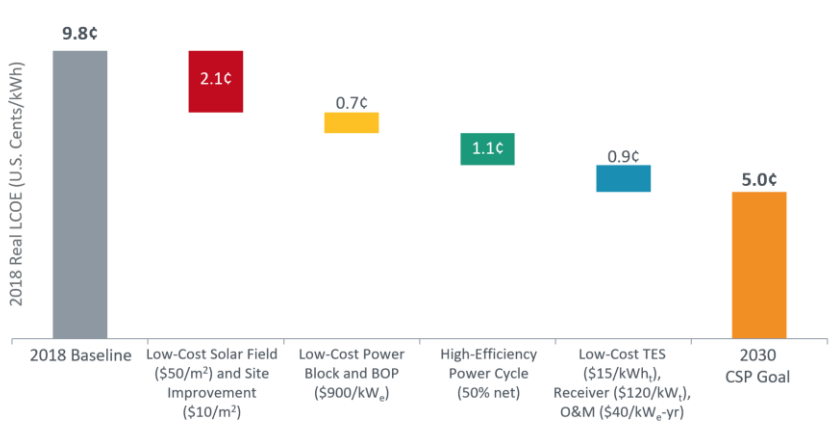
Topic 5a: SIPS PV; Topic 5b: SIPS CSP (Small Innovative Projects in Solar)

Summary

SIPS will focus on innovative and novel ideas in PV or CSP that are riskier than research ideas based on established technologies.
All applications must describe the following:
1. The **current understanding** of the novel science, technology, concept, or component
2. How successful research would change the state of the art and how it could **impact key technoeconomic metrics**
3. What **new** scientific or engineering **understanding of the technology**, concept, or component will result from the project
4. The **next appropriate research** or development effort if the project is fully successful—for example, a prototype at a specific scale, component integration, a specified testing plan, or commercial integration

New principal investigators, especially early-career researchers who have never applied or have been awarded in SETO portfolio, are encouraged to apply





Topic 5a: SIPS: PV
Available Federal Funds: $300,000 per project
Period of Performance: 12 Months

Topic 5b: SIPS: CSP
Available Federal Funds: $400,000 per project
Period of Performance: 18 Months

Topic 5: SIPS. Process Differences

Due to the unique structure of the SIPS topic, the following items deviate from Topics 1-4:

- Unique submission location in eere-Exchange.energy.gov at:
  - DE-TA5-0002378
- No required concept paper (letter of intent still required)
- Reduced technical volume size (5 pages of content, see section IV.E.i for more details)
- No U.S. Manufacturing Plan requirement

Items that fully align with other topics:

- Full Application Submission deadline
- All other application documents listed in section IV.E.i of the FOA

Non-Responsive Applications

The following types of applications will be deemed nonresponsive and will not be reviewed or considered for an award:

- Applications that fall outside the technical parameters specified in Section I.A or I.B of the FOA
- Applications for proposed technologies that are not based on sound scientific principles (e.g., violate the law of thermodynamics).

Teaming Partner List

- To facilitate the formation of new project teams for this FOA, a Teaming Partner List is available at https://eere-exchange.energy.gov
- Any organization that would like to be included on this list should submit the following information to PV.CSP.FOA@ee.doe.gov:
  - Organization Name, Contact Name, Contact Address, Contact Email, Contact Phone, Organization Type, Area of Technical Expertise, and Brief Description of Capabilities
- By submitting this information, you consent to the publication of the above-referenced information
- By facilitating this Teaming Partner List, EERE does not endorse or otherwise evaluate the qualifications of the entities that self-identify themselves for placement on the Teaming Partner List

Diversity, Equity, and Inclusion (DEI)

- It is the policy of the Biden Administration that:
  - [T]he Federal Government should pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our Government.
- As part of this whole of government approach, this FOA seeks to encourage the participation of underserved communities and underrepresented groups.
- Applicants are highly encouraged to include individuals from groups historically underrepresented in STEM on their project teams. Additionally, applicants are required to submit a DEI plan that describes the actions the applicant will take to foster a welcoming and inclusive environment, support people from underrepresented groups in STEM, advance equity, and encourage the inclusion of individuals from these groups in the project; and the extent the project activities will be located in or benefit underserved communities (see Section IV.E.xiv of the FOA).
- The plan should include specific, measurable, assignable, realistic and time-related (SMART) milestones supported by metrics to measure the success of the proposed actions. This plan will be evaluated as part of the technical review process.

Award Information

Total Amount to be Awarded	Approximately $39.5 million*
Average Award Amount	EERE anticipates making awards that range from $300,000 to $5 million
Types of Funding Agreements	• Cooperative Agreements** • Grants • Technology Investment Agreements • Work Authorizations • Interagency Agreements
Period of Performance	12 to 36 months
Cost Share Requirement	20-50% of total project costs

* Subject to the availability of appropriated funds

** Although all of the above funding types are available, EERE generally will fund cooperative agreements

Statement of Substantial Involvement

EERE has substantial involvement in work performed under cooperative agreement awards made following this FOA. EERE does not limit its involvement to the administrative requirements of the award. Instead, EERE has substantial involvement in the direction and redirection of the technical aspects of the project as a whole. Substantial involvement includes, but is not limited to, the following:

- EERE shares responsibility with the Recipient for the management, control, direction, and performance of the Project.
- EERE may intervene in the conduct or performance of work under this award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
- EERE may redirect or discontinue funding the Project based on the outcome of EERE's evaluation of the Project at the Go/No-Go decision points.
- EERE participates in major project decision-making processes.

Cost Sharing Requirements

Cost share must be at least 20% of the total allowable costs for projects (or project activities) in research and development and education and outreach and 50% of the total allowable costs for demonstration projects (or project activities) and must come from non-federal sources unless otherwise allowed by law.

Topic Area Number	Topic Area Title	Cost Share Requirement
1	50-Year Service Life PV Systems **(PV-50)**	20%, 50%
2	Scalable Outputs for Leveraging Advanced Research on Receivers & Reactors **(SOLAR R&R)**	20%, 50%
3	Pumped Thermal Energy Storage **(PTES)**	20%, 50%
4a	Process Enhancement and Refinement For Operations, Reliability, and Maintenance **(CSP PERFORM)**	20%, 50%
4b	Research in Equipment For Optimized and Reliable Machinery **(CSP REFORM)**	20%, 50%
5a	Small Innovative Projects in Solar **(SIPS) – PV**	20%
5b	Small Innovative Projects in Solar **(SIPS) – CSP**	20%

Cost Share Contributions

- Contributions must be:
  - Specified in the project budget
  - Verifiable from the Prime Recipient's records
  - Necessary and reasonable for proper and efficient accomplishment of the project
- If you are selected for award negotiations, every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred
- Please note, vendors/contractors may NOT provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.

Allowable Cost Share

- Cost Share must be allowable and must be verifiable upon submission of the Full Application
- Refer to the following applicable Federal cost principles:

Entity	Cost Principles
For-profit entities	FAR Part 31 *http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/fardfars/far/31.htm*
All other non-federal entities	2 CFR Part 200 Subpart E - Cost Principles *https://www.ecfr.gov/cgi-bin/text-idx?node=2:1.1.2.2.1.5&rgn=div6*

Allowable Cost Share

- Cash Contributions
  - May be provided by the Prime Recipient, Subrecipients, or a Third Party (may not be provided by vendors/contractors)
  - Can include but are not limited to: personnel costs, fringe costs, supply and equipment costs, indirect costs and other direct costs.

- In-Kind Contributions
  - Can include but are not limited to: the donation of volunteer time or the donation of space or use of equipment.

Unallowable Cost Share

The Prime Recipient may **NOT** use the following sources to meet its cost share obligations including, but not limited to:

- Revenues or royalties from the prospective operation of an activity beyond the project period
- Proceeds from the prospective sale of an asset of an activity
- Federal funding or property
- Expenditures reimbursed under a separate Federal Technology Office
- The same cash or in-kind contributions for more than one project or program
- Vendor/contractor contributions

Cost Share Payment

- Recipients must provide documentation of the cost share contribution, incrementally over the life of the award
- The cumulative cost share percentage provided on each invoice must reflect, at a minimum, the cost sharing percentage negotiated
- In limited circumstances, and where it is in the government's interest, the EERE Contracting Officer may approve a request by the Prime Recipient to meet its cost share requirements on a less frequent basis, such as monthly or quarterly. See Section III.B.6 of the FOA.

FOA Timeline

All Submission Deadlines are at 5:00 p.m. ET on date listed

Applicants are strongly encouraged to submit FOA application documents at least 48 hours in advance of the submission deadline.

Expected Timeframe for Award Negotiations: September 2021 – January 2022

Required Letters of Intent

- Letters of Intent ("LOIs") are REQUIRED in order to be eligible to submit a Concept Paper and Full Application
- To be considered:
  - The LOI must comply with the content and form requirements of Section IV.C of the FOA, and
  - The applicant must enter all required information and click the "Create Submission" button in the EERE Funding Opportunity Exchange by the deadline stated in the FOA.
- The LOIs should not contain any proprietary or sensitive business information
- EERE will not provide notification of eligibility for Letters of Intent

Concept Papers

- Applicants to Topic Areas 5a and 5b (SIPS) do not need to submit a Concept Paper
- Applicants to Topic Areas 1-4 must submit a Concept Paper
  - Each Concept Paper must be limited to a single concept or technology
- Section IV.D of the FOA states what information a Concept Paper should include and the page limits.
  - Failure to include the required content could result in the Concept Paper receiving a “discouraged” determination or the Concept Paper could be found to be ineligible.
- Concept Papers must be submitted by 4/27/2021, 5 p.m. ET, through the EERE Funding Opportunity Exchange
- EERE provides applicants with: (1) an “encouraged” or “discouraged” notification, and (2) the reviewer comments

Concept Paper Review

Concept Paper Criterion: Overall FOA Responsiveness and Viability of the Project (Weight: 100%)

This criterion involves consideration of the following factors:

- The applicant clearly describes the proposed technology, describes how the technology is unique and innovative, and how the technology will advance the current state of the art;
- The applicant has identified risks and challenges, including possible mitigation strategies, and has shown the impact that EERE funding and the proposed project would have on the relevant field and application;
- The applicant has the qualifications, experience, capabilities and other resources necessary to complete the proposed project; and
- The proposed work, if successfully accomplished, would clearly meet the objectives as stated in the FOA.

Full Applications

The Full Application includes:

- **Technical Volume**: The key technical submission - info relating to the technical content, project team members, etc.
- **SF-424 Application for Federal Assistance:** The formal application signed by the authorized representative of the applicant.
- **SF-424A Budget & Budget Justification Workbook:** a detailed budget and spend plan for the project.
- **Summary for Public Release**
- **Summary Slide**
- **Administrative Documents:** E.g., U.S. Manufacturing Plan; FFRDC Authorization (if applicable); Disclosure of Lobbying Activities; Diversity, Equity, and Inclusion Plan, etc.

Full Applications: Technical Volume Content

Topic Area Number	Topic Area Title	Page Limit
1-4	All Other Topics	15
5a, 5b	SIPS – PV, SIPS – CSP	5

Content of Technical Volume	Suggested % of Technical Volume
Cover Page	
Project Overview	10%
Technical Description, Innovation and Impact	30%
Summary Statement of Project Objectives	40%
Technical Qualifications and Resources	20%
Appendices	Letters of commitment, 1-page resumes, References

Full Application Eligibility Requirements

- Applicants must submit a Full Application by 6/24/2021
- Full Applications are eligible for review if:
  - The Applicant is an eligible entity (Section III.A of FOA);
  - The Applicant submitted an eligible Concept Paper;
  - The Cost Share requirement is satisfied (Section III.B of FOA);
  - The Full Application is compliant (Section III.C of FOA); and
  - The proposed project is responsive to the FOA (Section III.D of FOA)
  - The Full Application meets any other eligibility requirements listed in Section III of the FOA.

Who is Eligible to Apply?

Eligible Applicants for this FOA include:

1. U.S. citizens and lawful U.S. permanent residents
2. For-profit entities
3. Educational institutions
4. Nonprofits
5. State, local, and tribal government entities
6. DOE/National Nuclear Security Administration (NNSA)/Federally Funded Research and Development Centers (FFRDCs)

Eligibility Restrictions:

- **Topic Area 1**: National Labs/FFRDCs cannot be prime recipients. The scope of work performed by the prime recipient must represent the majority of the work performed (51% or more), as measured by the total project costs.

Note:

- The scope of work performed by the prime recipient shall not be less than the scope of work performed by the subrecipients who are ineligible to be prime applicants, as measured by the total project costs.
- Nonprofit organizations described in Section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995, are not eligible to apply for funding.
- Prime Recipients must be incorporated (or otherwise formed) under the laws of a State or territory of the United States and have a physical location for business operations in the United States.
- For more detail about eligible applicants, please see Section III.A of the FOA

Multiple Applications

- **All Topic Areas:** An entity may submit more than one Concept Paper and Full Application to this FOA, provided that each application describes a unique, scientifically distinct project and provided that an eligible Concept Paper was submitted for each Full Application.

Merit Review and Selection Process (Full Applications)

- The Merit Review process consists of multiple phases that each include an eligibility review and a thorough technical review
- Rigorous technical reviews are conducted by reviewers that are experts in the subject matter of the FOA
- Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors, to make the selection decisions

Technical Merit Review Criteria

Criterion 1: Innovation and Impact (45%)

- The project is innovative and impactful, assuming the stated outcomes can be achieved as written. The project is differentiated with respect to existing commercial products, solutions, or technologies. If successful, the project is scalable to have a broader impact and maintained at a sufficiently large scale after project completion. If and as applicable, the project offers broad and open access to its major data and software code products.

Technical Merit Review Criteria

Criterion 2: Quality and Likelihood of Completion of Stated Goals (30%)

- The application demonstrates an understanding and appreciation of project risks and challenges the proposed work will face and incorporates reasonable assumptions related to the execution of the project (i.e. market size, customer participation, costs, speed of proposed scale-up or adoption). The information included for the project is validated through customer trials, data from prior work, report references, technical baselines established, etc. The stated goals of the project are SMART (Specific, Measurable, Achievable, Relevant, and Timely) and likely to be accomplished within the scope of this project. The proposed budget is reasonable to achieve the objectives proposed.

Technical Merit Review Criteria

Criterion 3: Capability and Resources of the Applicant/Project Team (15%)

- The team is well qualified and has the capability and resources necessary to successfully complete the project. The team (including proposed subrecipients) have the training and experience to achieve the final results on time and to specification. The project team is fully assembled and committed to the project (verified through letters of support) and has a demonstrated record of successful past performance.

Technical Merit Review Criteria

Criterion 4: Diversity, Equity, and Inclusion (10%)

- This criterion involves consideration of the quality and manner in which the measures incorporate diversity, equity and inclusion goals in the project; and the extent to which the project benefits underserved communities.

Replies to Reviewer Comments

- EERE provides applicants with reviewer comments
- Applicants are not required to submit a Reply - it is optional
- To be considered by EERE, a Reply must be submitted by 7/27/2021, 5 p.m. ET and submitted through the EERE Funding Opportunity Exchange
- Content and form requirements:

Section	Page Limit	Description
Text	2 pages max	Applicants may respond to one or more reviewer comments or supplement their Full Application.
Optional	1 page max	Applicants may use this page however they wish; text, graphs, charts, or other data to respond to reviewer comments or supplement their Full Application are acceptable.

Pre-Selection Interviews

- EERE may invite one or more applicants to participate in Pre-Selection Interviews
- All interviews will be conducted in the same format
- EERE will not reimburse applicants for travel and other expenses relating to the Pre-Selection Interviews, nor will these costs be eligible for reimbursement as pre-award costs
- Participation in Pre-Selection Interviews with EERE does not signify that applicants have been selected for award negotiations

Selection Factors

The Selection Official may consider the merit review recommendation, program policy factors, and the amount of funds available in arriving at selections for this FOA

Program Policy Factors (Topic Areas 1-4)

- The degree to which the proposed project, including proposed cost share, optimizes the use of available EERE funding to achieve programmatic objectives;
- The level of industry involvement and demonstrated ability to accelerate commercialization and overcome key market barriers;
- The degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty;
- The degree to which the proposed project exhibits technological or programmatic diversity when compared to the existing DOE project portfolio and other projects selected from the subject FOA;
- Based on the commitments made in the U.S. Manufacturing Plan, the degree to which the proposed project is likely to lead to increased employment and manufacturing in the United States or provide other economic benefit to U.S. taxpayers;
- The degree to which the project improves resilience of critical infrastructure;
- The degree to which the applicant team's drive, knowledge, and diverse experience provide a strong competitive edge and instill confidence that they will meet the objectives of this FOA.

Program Policy Factors (Topic Areas 1-4, cont.)

- The degree to which the proposed project exhibits team member diversity, equity, and inclusion elements, with participants including but not limited to those from Minority Serving Institutions (MSIs) (e.g. Historically Black Colleges and Universities (HBCUs)/Other Minority Institutions (OMIs)), Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or members within underserved communities; and
- The degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications).
- The degree to which the proposed project avoids duplication/overlap with other publicly or privately funded work.
- The degree to which the proposed project enables new and expanding market segments.
- The degree to which the project's solution or strategy will maximize deployment or replication.
- The degree to which the project promotes increased coordination with nongovernmental entities for demonstration of technologies and research applications to facilitate technology transfer.

Program Policy Factors (Topic Area 5)

- The degree to which the proposed project exhibits technological diversity when compared to the existing DOE project portfolio and other projects selected from the subject FOA;
- The degree to which the proposed project, including proposed cost share, optimizes the use of available EERE funding to achieve programmatic objectives;
- The level of industry involvement and demonstrated ability to accelerate commercialization and overcome key market barriers;
- The degree to which the proposed project is likely to lead to increased employment and manufacturing in the United States;
- The degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty

Program Policy Factors (Topic Area 5, cont.)

- The degree to which the proposed project exhibits team member diversity, equity, and inclusion elements, with participants including but not limited to those from Minority Serving Institutions (MSIs) (e.g. Historically Black Colleges and Universities (HBCUs)/Other Minority Institutions (OMIs)), Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or members within underserved communities;
- The degree to which the proposed project collectively represents diverse types and sizes of applicant organizations; and
- The degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications).

Registration Requirements

- To apply to this FOA, Applicants must register with and submit application materials through the EERE Funding Opportunity Exchange: https://eere-exchange.energy.gov/
- Obtain a "control number" at least 24 hours before the first submission deadline at https://eere-exchange.energy.gov/
- Although not required to submit an Application, the following registrations must be complete to receive an award under this FOA:

Registration Requirement	Website
DUNS Number	http://fedgov.dnb.com/webform
SAM	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

Means of Submission

- Letter of Intent, Concept Papers, Full Applications, and Replies to Reviewer Comments must be submitted through the EERE Funding Opportunity Exchange at

  https://eere-exchange.energy.gov/

  EERE will not review or consider applications submitted through other means

- For User Guides and training on how to use the EERE Funding Opportunity Exchange, click the Manuals link on the main page

Key Submission Points

- Check entries in the EERE Funding Opportunity Exchange
  - Submissions could be deemed ineligible due to an incorrect entry
- EERE strongly encourages Applicants to submit 1-2 days prior to the deadline to allow for full upload of application documents and to avoid any potential technical glitches with the EERE Funding Opportunity Exchange
- Make sure you hit the "**Submit**" button
  - Any changes made after you hit submit will un-submit your application and you will need to hit the "Submit" button again
- For your records, print out the EERE Funding Opportunity Exchange Confirmation page at each step, which contains the application's Control Number

Applicant Points-of-Contact

- Applicants must designate a Technical and Business point-of-contact in the EERE Funding Opportunity Exchange with whom EERE will communicate to conduct award negotiations
- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines
  - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection

Questions

- Questions about this FOA? Email PV.CSP.FOA@ee.doe.gov
  - All Q&As related to this FOA will be posted in the EERE Funding Opportunity Exchange
  - To view Q&As, select your FOA from the opportunities page. You will see "FOA Q&A" in the DOCUMENTS section
  - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A is already posted on the website
- Problems logging into or uploading and submitting application documents within the EERE Funding Opportunity Exchange? Email EERE-ExchangeSupport@hq.doe.gov
  - Include FOA name and number in subject line
- All questions asked during this presentation will be posted in the EERE Funding Opportunity Exchange