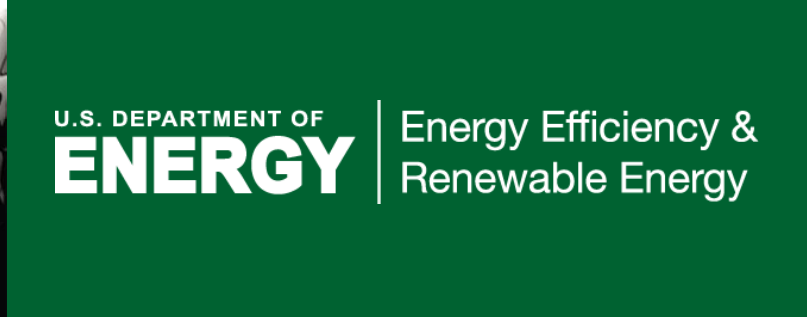


Welcome

This webinar is being recorded and will be published on the EERE Program Information Center website

- If you do not wish to have your voice recorded please do not speak during the call
- If you do not wish to have your image recorded, please turn off your camera or participate by phone
- If you speak during the call or use a video connection, you are presumed to consent to recording and use of your voice or image

Please mute your phones and we'll begin momentarily



Fiscal Year 2022 Solar Manufacturing Incubator Funding Opportunity Announcement

Email questions to:
solar.incubator@ee.doe.gov

FOA Webinar
DE-FOA-0002609
August 3, 2022

Notice

- NO NEW INFORMATION OTHER THAN THAT PROVIDED IN THE FOA WILL BE DISCUSSED IN THE 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.

Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE-FOA-0002609 (“FOA”) and adhere to the stated submission requirements.
- This presentation summarizes the contents of FOA. 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 by submitting a question to solar.incubator@ee.doe.gov.

DE-FOA-0002609 Fiscal Year 2022 Solar Manufacturing Incubator Funding Opportunity Announcement

Anticipated Schedule:

FOA Issue Date:	7/14/2022
Submission Deadline for Letter of Intent:	9/16/2022
Submission Deadline for Full Applications:	10/3/2022
Submission Deadline for Replies to Reviewer Comments:	11/10/2022
Expected Date for EERE Selection Notifications:	1/31/2023
Expected Timeframe for Award Negotiations:	5/1/2023

Agenda

- 1) FOA Description
- 2) Topic Areas/Technical Areas of Interest
- 3) Award Information
- 4) Statement of Substantial Involvement
- 5) Cost Sharing
- 6) FOA Timeline
- 7) Letter of Intent
- 8) Full Applications
- 9) Merit Review and Selection Process
- 10) Pre-selection Interviews
- 11) Registration Requirements

FOA Description

This funding opportunity announcement (FOA) is issued by the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Solar Energy Technologies Office (SETO). This funding program seeks to invest in innovative research and development (R&D) as well as research, development, and demonstration (RD&D) projects that enable continued cost reductions, while developing next-generation solar technologies and boosting American solar manufacturing, especially in cadmium telluride (CdTe) photovoltaics. These projects will support the scaling of affordable solar generation and facilitate secure, reliable integration of solar electricity into the nation's energy grid to ultimately benefit the U.S. economy.

Topic Areas/Technical Areas of Interest

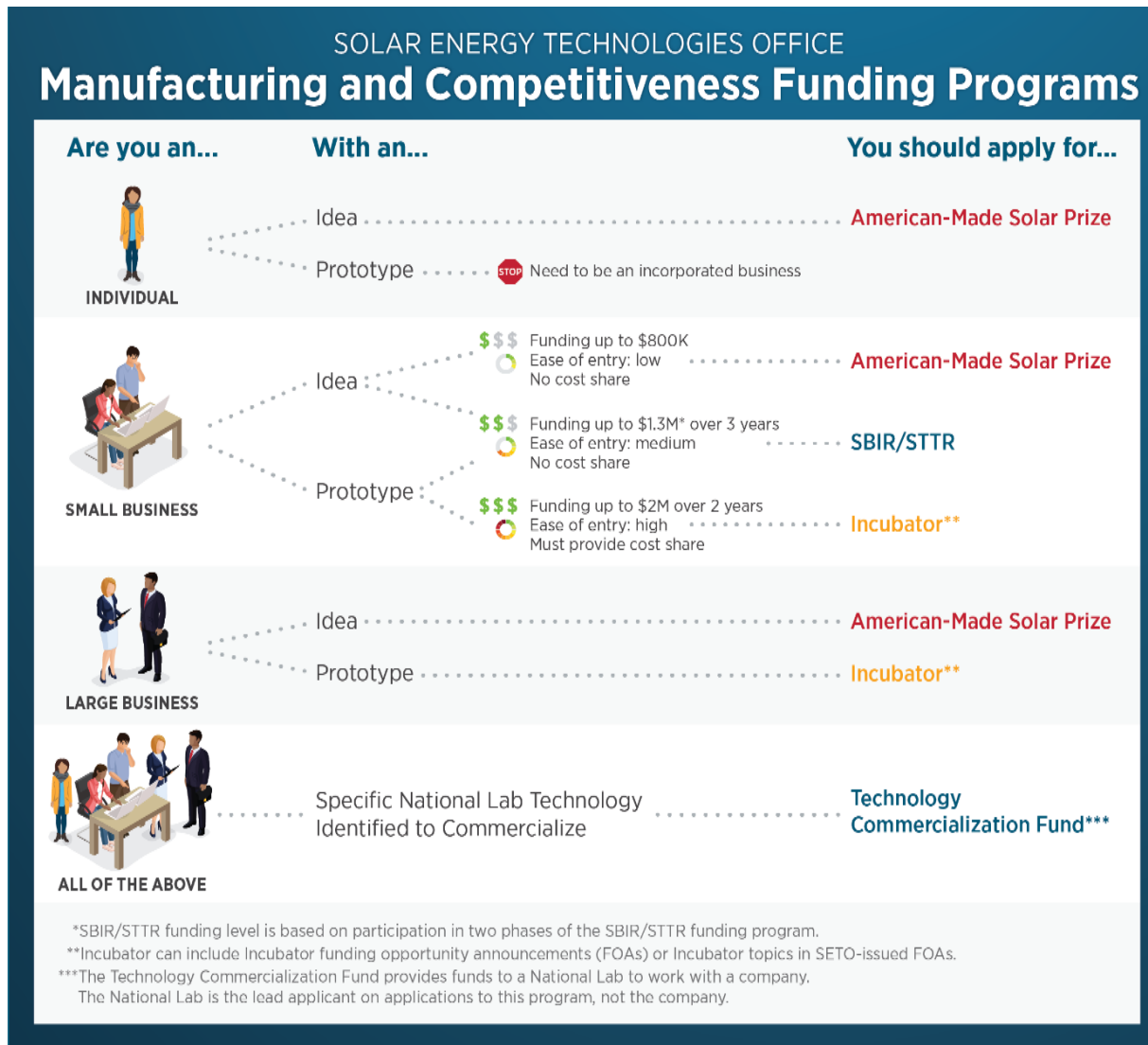
Topic Area 1: Product Development supports R&D activities with the goal to de-risk new technologies and manufacturing processes across the solar value chain and bring them to a commercially relevant prototype stage, while developing and validating a realistic pathway to commercial success.

Topic Area 2: Demonstration of Cadmium Telluride Photovoltaic Technologies supports RD&D activities with the goal to conduct pilot-scale testing and demonstration of products or solutions that can substantively increase the domestic manufacturing of cadmium telluride photovoltaics.

In both Topic Areas, SETO funding should help retire technical, business, and market risks of solar hardware to validate pathways to commercial success through customer engagement and trials. Successful awardees will be well positioned to attract follow-on private investment, grow their businesses, generate revenue, and create jobs.

See Section I.B for areas of interest, guidelines, and other details.

Other SETO Commercialization Programs



Applicant Education Services

- Services provided by third party contractors to the National Renewable Energy Laboratory
- Participation is not mandatory and will have no impact on the evaluation of your application by the Department of Energy.



Yan Yan

yan@adventures.com



Thomas Jensen

tjensen@entrepreneurfutures.org



Amanda Buchanan

Amanda.buchanan635@gmail.com

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., violates the law of thermodynamics).
- Focus exclusively on HVAC or water heating applications;
- Propose development of concentrated PV or solar spectrum splitting technologies involving more than two absorbing layers or any non-planar solar splitting technology;
- Propose development of technologies with very low possibility of being manufactured domestically at a competitive cost (e.g., PV modules based on copper indium gallium selenide (CIGS), copper zinc tin sulfide (CZTS), III-V elements such as GaAs, or amorphous silicon thin films; technologies assuming incorporation of functional materials such as quantum dots or luminescent solar concentrators etc.);

Non-Responsive Applications (continued)

- Propose technologies to improve the shade tolerance of PV modules or improve maximum power-point tracking as a main emphasis;
- Propose solar technologies for space applications, wearables, consumer electronics, or Internet of Things (IoT) applications;
- Focused on new inverter and power conversion topologies without including or incorporating silicon carbide or gallium nitride based chips;
- Discuss business plans without clear validation of market assumptions. Competitive approaches in the same market segment should be discussed in the application;
- Propose to develop undifferentiated products, incremental advances, or duplicative products;
- Propose projects lacking substantial impact from federal funds. Federal funds are intended to enable projects in this topic area to sufficiently retire risk for follow-on investment or catalyze development. Projects that have sufficient monies and resources to be executed without federal funds are not of interest; and
- Propose development of ideas or technologies that have already received federal support for the same technology at the same technology readiness level.

Award Information

Total Amount to be Awarded	Approximately \$27M*
Average Award Amount	EERE anticipates making awards that range from \$0.5M to \$10M.
Types of Funding Agreements	<ul style="list-style-type: none">• Cooperative Agreements
Period of Performance	12 to 36 months
Cost Share Requirement	20-50% of Total Project Costs

*Subject to the availability of appropriated funds

Statement of Substantial Involvement

EERE has substantial involvement in work performed under 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 that the Go/No Go decision point.
- EERE participates in major project decision-making processes.

Cost Sharing Requirements

The cost share must be at least 20% of the total allowable costs (i.e., the sum of the government share, including FFRDC costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project) for research and development projects and 50% of the total allowable costs for demonstration and commercial application projects and must come from non-federal sources unless otherwise allowed by law. (See 2 CFR 200.306 and 2 CFR 910.130 for the applicable cost sharing requirements for all Federal Financial Assistance Awards.) Please see the table below for the required minimum cost share for each FOA Topic Area.

Topic Area	Minimum Awardee Cost Share
1	20%
2	50%

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.
- These principles must be used in determining whether specific project costs are allowable.
- The regulations associated with what is allowable as cost share are specific to the type of organization that is receiving funds under the grant or cooperative agreement.
- 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&rqn=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)
- In-Kind Contributions
 - Can include, but are not limited to: the donation of space or use of equipment.

For more information, see the Cost Share Appendix A in the FOA

Unallowable Cost Share

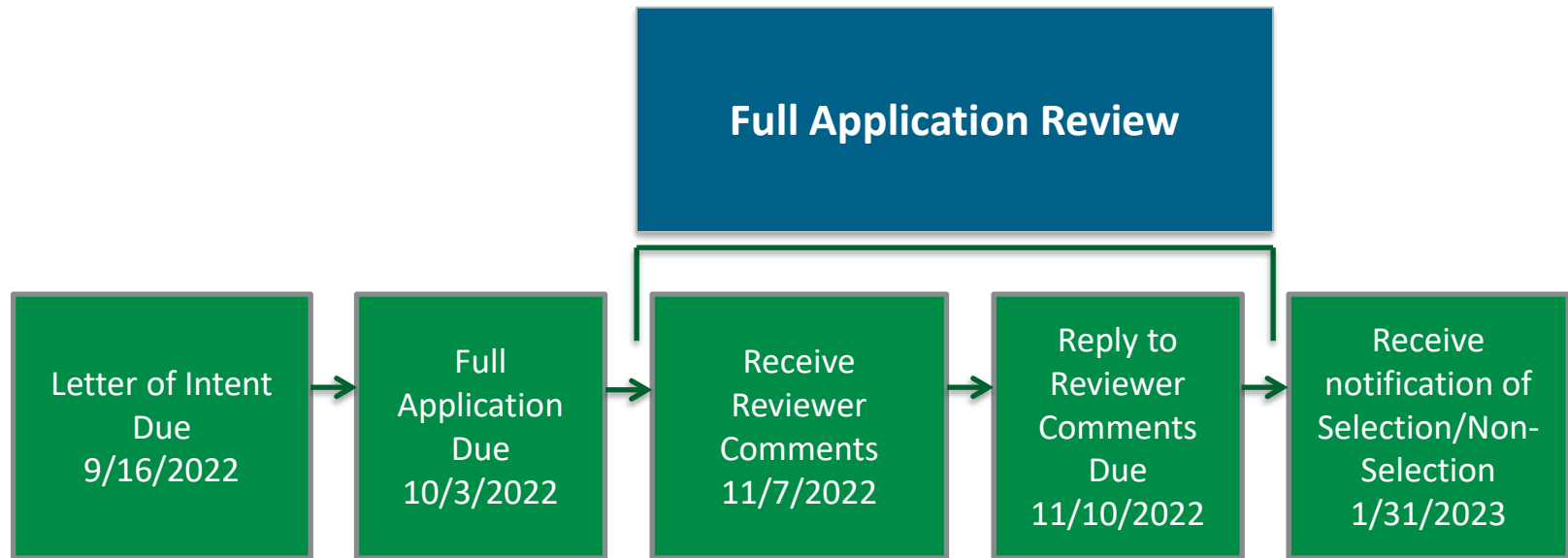
The Prime Recipient may **NOT** use the following sources to meet its cost share obligations including, but not limited to:

- 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



EERE anticipates making awards by 5/1/2023

Required Letters of Intent

- Letters of Intent (“LOIs”) are REQUIRED in order to be eligible to submit a 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 EERE eXCHANGE by the deadline stated in the FOA.
- The LOIs should not contain any proprietary or sensitive business information
- EERE will provide notification of eligibility for Letters of Intent

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:** a detailed budget and spend plan for the project, including subrecipient budget (if applicable).
- **Summary for Public Release**
- **Summary Slide**
- **Diversity Equity and Inclusion Plan**
- **Letters of Commitment**
- **Resumes**
- **Administrative Documents:** FFRDC Work Proposal and Authorization (if applicable), Disclosure of Lobbying Activities (SF-LLL), Foreign Work Waver(s) (if applicable), and Current and Pending Support.

Full Applications: Technical Volume Content

Technical Volume: the key technical component of the Full Application

Content of Technical Volume	Suggested % of Technical Volume
Cover Page	
Project Overview	10%
Technical Description, Innovation and Impact	30%
Workplan and Market Transformation Plan	40%
Technical Qualifications and Resources	20%

Full Application Eligibility Requirements

- Applicants must submit a Full Application by 10/3/2022
- Full Applications are eligible for review if:
 - The Applicant is an eligible entity Section III.A of FOA;
 - The Applicant submitted a required Letter of Intent by 9/16/2022;
 - The Cost Share requirement is satisfied Section III.B of FOA;
 - The Full Application is compliant Section III.C of FOA;
 - The proposed project is responsive to the FOA Section III.D of FOA; and
 - The Full Application meets any other eligibility requirements listed in Section III of the FOA.

Who is Eligible to Apply?

This FOA has restricted eligibility requirements to the following entities:

Only for-profit entities are eligible to apply for funding as a Prime Recipient. An eligibility restriction is considered necessary for this Funding Opportunity because EERE believes that for-profit entities are the most likely entities to achieve the objectives required under this program, as they are the only entities with the capacity to rapidly commercialize new technologies related to innovations in manufacturing. The for-profit business designated as the Prime Recipient must incur over 50% of costs under the project, as measured by the Total Project Cost. Expenditures incurred for personnel, fringe, travel, supplies, equipment, vendors, other direct costs, and indirect costs by the Prime Recipient count towards the Prime Recipient's expenditure under the award. However, costs associated to subrecipients and funding associated to a DOE/NNSA FFRDC do not count towards the Prime Recipient's expenditure under the award.

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. See Section III.A.iii for requirements applicable to foreign entities applying under this FOA.

Eligible to apply as a subrecipient:

1. U.S. citizens and lawful U.S. permanent residents
2. Educational institutions
3. Nonprofits
4. State, local, and tribal government entities
5. DOE/NNSA FFRDCs
6. Non-DOE/NNSA FFRDCs
7. Federal agencies and instrumentalities (other than DOE)
8. Incorporated Consortia

Multiple Applications

An entity may submit more than one Full Application to this FOA, provided that each application describes a unique, scientifically distinct project.

Merit Review and Selection Process (Full Applications)

- The Merit Review process includes 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

Criteria	Topic Area 1 Weighting	Topic Area 2 Weighting
Criterion 1: Technical Merit, Innovation, and Impact	40%	20%
Criterion 2: Project Research and Market Transformation Plan	25%	35%
Criterion 3: Team and Resources	25%	35%
Criterion 4: Diversity, Equity, and Inclusion	10%	10%

See Section V.A.i for all details

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 11/10/2022 5:00pm ET and submitted through EERE 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

The Selection Official may consider the following program policy factors in making his/her selection decisions:

- 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, or group of projects, represent a desired geographic distribution (considering past awards and current applications);
- The degree to which the proposed project incorporates diversity, equity, and inclusion elements, including but not limited to team members from Minority Serving Institutions (e.g. Historically Black Colleges and Universities (HBCUs)/Other Minority Institutions), Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or members within underserved communities.
- The degree to which the proposed project avoids duplication/overlap with other publicly or privately funded work.
- The degree to which the proposed project supports complementary efforts or projects, which, when taken together, will best achieve the research goals and objectives.
- 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.

See Section V.C.i

Registration Requirements

- To apply to this FOA, Applicants must submit application materials through EERE eXCHANGE:
 - Beginning in July 2022*, eXCHANGE will be updated to integrate with [Login.gov](https://login.gov). As of Aug. 5, 2022*, applicants must have a Login.gov account to access [EERE eXCHANGE](#). Please ensure that the email address associated with Login.gov matches the email address associated with your eXCHANGE account. For more information, refer to the eXCHANGE Multi-Factor Authentication (MFA) Quick Guide in the [Manuals section](#) in eXCHANGE.
- Obtain a “control number” at least 24 hours before the first submission deadline.
- Although not required to submit an Application, the following registrations must be complete to received an award under this FOA:

Registration Requirement	Website
SAM	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

*Date subject to change

Means of Submission

- Letters of Intent, Full Applications, and Replies to Reviewer Comments must be submitted through EERE eXCHANGE at <https://eere-eXCHANGE.energy.gov>
 - EERE will not review or consider applications submitted through other means
- The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found at <https://eere-eXCHANGE.energy.gov/Manuals.aspx>

Key Submission Points

- Check entries in EERE 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 EERE 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 eXCHANGE page at each step, which contains the application's Control Number

Applicant Points-of-Contact

- Applicants must designate primary and backup points-of-contact in EERE 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 solar.incubator@ee.doe.gov
 - All Q&As related to this FOA will be posted on EERE eXCHANGE
 - You must select this specific FOA Number in order to view the Q&As
 - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A has already been posted on the website
- Problems logging into EERE eXCHANGE or uploading and submitting application documents with EERE eXCHANGE?
Email EERE-eXCHANGESupport@hq.doe.gov.
 - Include FOA name and number in subject line