SETO FY 2019 FUNDING OPPORTUNITY – OVERVIEW WEBINAR

Here is the transcript of the overview webinar for the Solar Energy Technologies Office FY2019 Funding Opportunity Announcement. View the webinar here with the password Setofoa2019: https://doe.webex.com/mw3300/mywebex/nbrshared.do. See more about this FOA, including the slides that accompany this webinar, at the EERE Exchange site: https://eere-exchange.energy.gov/#FoaId45eda43a-e826-4481-ae7a-cc6e8ed4fdae.

(Instructions to mute phone and introductions of speakers.)

(Disclaimer that the webinar is being recorded.)

The purpose of the webinar today is to give an introduction to our office and to the funding opportunity and some of the basics you'll need to apply. We will pause several times for questions. We'll take the set of questions, as many we can and can answer, and we'll record all of the questions, provide written answers to all of them following this meeting. So if you don't get an answer to your question during the discussion today, we will get that posted. And again, please, everyone, mute your phones. Thank-you.

So welcome. Again, we'll be discussing our FY'19 funding opportunity announcement, which went live last week. We strongly encouraged all of you to carefully read the funding opportunity announcement itself. It goes by (FOA) DE-FOA-0002064. We're going to summarize the FOA here today; we're not going to discuss anything new that's not in the FOA document itself, so there won't be – you know, we try very carefully here to give a very fair and open system here, so there won't be any disadvantages to folks who weren't able to hear the webinar today. But we will be recording it so that folks can listen to it at a later date.

(Next slide)

This is the first of a series of webinars we're going to have about our FOA. This is a very large funding opportunity – it's $130 million, 80 projects. (Please, if you're joining the meeting, mute your phones. We can hear background noise.) So we will have tomorrow our webinar on the photovoltaics topic of the FOA, so more details on those specific topics, as well as our systems integration topics tomorrow. On Thursday we'll have our concentrating solar-thermal power and innovations in manufacturing webinars. And the "Balance of Systems Soft Costs" webinar will be on Friday.

(More instruction to mute phones, repeating of information.)

What we're going to focus on is the information you need to know for the first step in the funding application process, which is filing what is called a letter of intent. It's not an actual letter; it's actually a form that you will fill out in the application system, EERE Exchange. And then the short concept paper describing your idea. That's the first step in the process. When we get to the full application stage, for longer proposals, we will have another webinar that goes into more detail needed for that part of the process.

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So I'll open by giving just a little more detail about our office. What we do is fund early-stage research and development of solar technologies while also focusing on how they integrate into the grid, and contribute to grid reliability, resilience, and security.

We uses competitive solicitations to fund projects, to addresses critical research areas, related to lowering solar electricity costs, easing grid integration, and enhancing the use and storage of solar energy.

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We fund more than 300 projects that are active right now across the country – 47 states plus D.C. at the moment. We have funded projects in all 50 states in recent years. Right now, we have about 40 percent of our projects that are based at national laboratories, 25 percent at universities, and 35 percent of our projects that are at businesses and nonprofits, including state and local governments. However, those percentages are not policy statements; they're subject to change with each funding opportunity as we award the most meritorious proposals.

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The topic areas for our funding opportunity are broken into five topics. First is our Photovoltaics topic area. This is focused on improving the performance, the reliability, and the efficiency, and decreasing the manufacturing costs of photovoltaic technologies. Next is our Concentrating Solar-Thermal Power, so this is technology that uses meters to focus sunlight converted to heat, which can then be stored and used later to provide solar energy on demand. We have our Systems Integration topic, which looks at how solar energy integrates into the grid. So the challenges related to the integration of variable energy, as well as focusing on opportunities that solar energy can provide for resilience and reliability and other grid services in a distribution system. Our Balance of Systems Soft Costs topics focus on – is there a non-hardware cost of solar? So these are permitting, inspections, customer acquisition, financing. And so we have funding specifically focused on those, which, especially for residential and commercial solar energy systems are the largest costs of installing solar. And last we have our Technology to Market Hardware Incubator topic, which is funding for U.S. businesses developing prototypes in innovative solar technologies.

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We have cost targets that focus a lot of the work for our office. And these are the cost targets for our photovoltaics technologies across the three major sectors: residential, commercial and utility-scale. We have 2020 cost targets of 10, 8 and 6 cents for the different sectors. And we've recently set 2030 cost targets to halve costs again over the next decade. And these cost targets are what we use as we evaluate research proposals that are aiming to improve performance and reduce costs. The solar technologies, what we're looking for, those proposals that enable us to get to these aggressive cost targets. These cost targets are particularly important because getting to the 2030 targets will enable roughly double the solar energy deployment as what we would expect from the 2020 goals. They will contribute to later energy affordability for all Americans, as well.

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For our concentrating solar thermal program, it's cost targets for two different configurations: a peaker configuration, which has less than six hours of storage, and baseload configuration for 12 or more hours of storage. We're looking at concentrating solar thermal technologies that are focused on integration of storage because of the ability of these technologies to be available when power is needed most. 2017 costs for these systems were roughly double our 2030 targets, so we're looking, again, to be funding technologies and innovations that can allow for aggressive cost reductions to make CSP technologies competitive with other generation sources.

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A major focus for our office is how solar energy integrates with a modernizing grid. This image sort of encapsulates the considerations, from the overlays of the growing importance of security, increasing use of communications and an evolving energy marketplace for the grid. And we're looking at solar and solar's ability both as a large-scale generator with other technologies, as well as how solar integrates with a distribution system where it can contribute to two-way power flow, it can be a source of power on microgrids, and it can integrate with other distributed-energy sources.

(Next slide – back to agenda slide with second item highlighted, FOA Overview)

So I'll pause here to see if we have any questions. I believe I didn't get a chance to mention: If you have questions, please type them into the chat box, and we'll attempt to answer as many of these as we can. Typing them into the chat box ensures that we can accurately record these questions, as we'll also be providing written replies to all questions that are sent, that will be visible to all applicants, people who attended the FOA as well as others. If there are any questions on our office and overall structure, I'm happy to take those.

We have one question coming up: Does cost per kilowatt hour include an amoritization of hard costs? Our costs per kilowatt hour are the lifecycle, the levelized costs of electricity, so it includes all of the costs that are incurred over the lifetime of the system, as well as accounting for the financing costs and the costs of the (inaudible) over time. It does include the performance of the system over time, as well.

Another question: What's the difference between LCOE goals and the actual current values? The values today across the different – for PV, are shown here *(back to costs slide)*. The 2017 costs are in green and our targets for 2030 are in yellow. If I understand the question correctly, what that means is a factor of two to three costs that are needed. And the reason why we set these targets and goals is that this enables us to focus on the areas that have the most potential impact on cost reduction.

We have a question on solar integration and whether this looks at generation, hybridization with other technologies. This is not the focus area in our current funding opportunity. Those kinds of applications would probably be, for CFP would fall under like a CFP funding opportunity call, and for PV would fall into the systems integration topic – in general or in the future, but that's not a focal, a focus here.

I'll take one more question and then we'll get answers to the others, so the next one: What project length is assumed for our LCOE calculations? We assume 50 years for the utility-scale systems, and 30 years for residential and commercial, for our default scenarios. But we look at a range of scenarios to get to these cost targets, in which the lifetime is something that can vary.

Alright. So we'll get the rest of the questions and we'll answer them offline. And feel free to continue to type in questions during the rest of the webinar, and we'll get answers to those.

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So providing an overview of our FOA, we have $130 million, for roughly 80 projects. It spans across the five topic areas I introduced earlier that are listed again here. One is Photovoltaics Research and Development. Second is Concentrating Solar-Thermal Power, or CSP, Research and Development. Third is our Soft Costs Reduction. Fourth is our Hardware Incubator, and fifth is Advanced Solar Systems Integration Technologies.

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So what I'll do now is I'll introduce each one of these topics in a little more detail. So the first topic, the Photovoltaics Research Collaboration. This is funding anticipated to be about $24 million. This topic will support applied research collaborative teams from multiple institutions and/or companies who are working together to address some of the critical research challenges for PV, things that limit the performance, the cost, the reliability. So areas of interest here include:

- Materials, Interfaces, and High-Efficiency Cell Development
- Advanced Photovoltaic Manufacturing Science and Technology
- System Optimization for Increased Energy Yield and Lower Operations and Maintenance Costs
- Perovskite Module Manufacturing and Long-Term Durability
- Low-Cost Substrates for Single-Crystal High-Efficiency Cells
- PV System Recycling and End-of-Life Management

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The other topic in the Photovoltaic Research and Development topic area is called Small Innovative Projects in Solar, or SIPS. This is funding for small high-risk, early-stage projects to seed new ideas for continued research. So we're looking for very targeted projects that can produce significant results within one year, and if successful would open up the potential for further research toward making dramatic progress toward a solar LCOE of $0.03 per kWh by 2030.

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Our second topic area, Concentrating Solar-Thermal Power Research and Development, has three subtopics. The first is Firm Thermal Energy Storage. And this is looking to expand the dispatchability and availability of CSP plants and their value to grid operators, by increasing their availability during periods when there is not as much sunlight. Among the things they're looking for are:

- Long-term TES systems that can store energy for weekly or seasonal dispatch
- Pumped heat electricity storage and concepts that enable charging of TES via off-peak grid electricity, so charge not just from sunlight
- Commercializing TES through projects that have a near-term market adoption

Second subtopic area, Materials and Manufacturing. Looking at new materials or manufacturing methods that can reduce the cost of manufacturing CSP components, encourage commercialization of new CSP technologies, and support the development of an agile, U.S.-based CSP manufacturing sector.

The third topic, Autonomous CSP Collector Field. These are looking for projects and technologies that can enable the solar field (mirrors that collect the sunlight and transmit) to operate without any human input, to reduce costs and maximize the efficiency of collecting sunlight.

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Our third topic are Balance of Systems Soft Costs Reduction. And this has four subtopics. The first is Collaborative Partnerships to Address Regulatory Burdens. This topic area is looking at collaborative teams including multiple jurisdictions as well as private-sector and other partners who can develop comprehensive, sustainable solutions, scalable solutions, that enable new and developing solar markets to tackle financing and permitting issues and to implement best practices and lessons learned. The particular areas of interest are:

- Rooftop solar and solar-plus-energy-storage permitting, inspection and interconnection challenges
- Large-scale ground-mounted solar PV and CSP siting, permitting, and environmental impact
- An early look at addressing solar cybersecurity challenges through strategic plans, road maps, best practices, and other decision-making tools
- Other soft cost drivers for challenging market segments and opportunities to leverage public-private partnerships

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Next subtopic, Data Collection Methods to Assess Avian Impacts. Here we're looking to fund the development and validation of innovative methods or technologies that can reduce the cost of collecting and sharing data necessary for assessing avian-solar interactions or mitigation strategies at utility-scale PV and/or CSP plants.

Next is Increasing Solar Affordability through Innovative Solar Finance. Financing costs can be up to half the costs of generating solar electricity, and in some cases can be prohibitive to accessing solar at all. This topic is supporting stakeholder and analytical approaches that can expand increase solar access by developing new financing tools and/or mechanisms for local financial institutions to help them deploy their capital toward solar energy projects in their communities.

Last subtopic in our soft costs area is Rapid Solar Software Development. And this is the topic that is going to provide seed funding needed to research, develop, and validate new software products or tools that address critical challenges associated with solar soft costs for residential, commercial, and industrial solar-energy customers.

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Our forth area is our Innovations in Manufacturing: Hardware Incubator topic. This is a topic area that we have run many years in the past. And this is a topic where eligibility is restricted to for-profit companies who are developing early-stage product ideas that have both a clear pathway to reducing solar electricity costs and have the potential for rapid commercialization. There's going to be a focus on innovative and impactful technologies that support a strong U.S. manufacturing sector and supply chain for solar.

Ideal applicants will have an existing early-stage prototype and through the stage of the project can advance to a manufacturing and commercially relevant prototype where all the research they do will prove all functionality using pre-commercial manufacturing techniques. We're looking for applicants who are well positioned to attract follow-on investment in the transition to becoming self-supporting.

Areas of Interest include:
- Advanced solar system integration technologies
- Concentrating solar-thermal power technologies or components
- PV technologies that improve the reliability, performance, and manufacturability
- Technologies or hardware solutions that can reduce the balance-of-system cost of a PV system

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Our last topic area is Advanced Solar Systems Integration Technologies. These are focused on developing technologies to better integrate solar energy onto the nation's grid and focus on how distributed generation can provide additional value to system operators while increasing the coordination and control of power electronics technologies.

This has three subtopics. The first, Adaptive Distribution Protection. This topic will support research, development, as well as demonstration of adaptive protection solutions for distribution power systems with large amounts of PV and other distributed energy resources (DER) connected to the grid.

Second topic area, Grid Services from Behind-the-Meter Solar and Other DER. This topic supports research, development, and validation of grid services that can be produced by behind-the-meter solar co-located with other DER. We're looking at innovative approaches for smart control and optimization technologies.

Last, Advanced PV Controls and Cybersecurity. These projects will focus on enhancing the visibility and control of PV inverters and sensors, while improving the security of those devices from cyberattack. Areas of interest here include:
- Innovative and scalable methods to integrate data from PV inverters and sensors into utility information systems
- Advanced controls for grid-forming inverters, which are looking to establish system frequency and voltage
- Cybersecurity capabilities for solar technology

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We have criteria for what applications would be deemed nonresponsive. So if we get applications that are deemed nonresponsive, these will not be reviewed or considered for an award. It's described in the FOA, but if:
- It falls outside the technical parameters specified in Section I.A or I.B of the FOA
- It's not based on sound scientific principles
- Or if they're areas that are listed within each topic area not being of interest

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One thing that is new for us this year that we're doing is providing the opportunity to be listed on a Teaming Partner List. Many of our topics here would be benefited from large collaborative teams, and so we're providing this option to help people find team partners as it's helpful. So on EERE Exchange, which is where our FOA is posted, you can see the Teaming Partner List. If you would like to be included on this list should submit the following information to SETO.FOA@ee.doe.gov. That should include:

- Organization name, contact name, contact address, contact email, and contact phone number
- Organization type, area of technical expertise, topic area, and a brief description of capabilities

We will take this information and publish it. And we'll update the Teaming List at least every week. This is really meant to be a service for listing yourself as a partner or finding the partners. This is not any endorsement. We are not evaluating any of the entities. We're simply posting the information that is supplied to us. But we hope this can be a resource for people who are looking for new partners.

(Next slide – agenda with Award Information highlighted)

And with that, I will pause here and we'll see if we can take a few of the questions that have come in. Feel free to submit others during this time.

Alright, so one of the questions here is: How many SIPS projects will be funded? We anticipate 9 to 12 projects in general. Each of our funding areas and topic areas has an anticipated funding amount and number of projects associated with it. These are anticipated numbers; they're not guaranteed these are exact numbers. But these are the best we have at this time.

Yea, and again there's a comment from someone looking for collaborators, so hopefully our teaming list can fulfill that. … Go ahead, Michael.

(Switch speakers)

For this question about cost share for budget 3: When you submit an application, you should assume that all cost-share and budget degree will be 50 percent, but for R&D activities that are not demonstration activities that are occurring in budget 3, we will allow you to cost-share those at 80 percent. DOE 20 percent. Recipients that are at 50/50. And then we'll come up with a – if you are selected for negotiations being award, we will come up with a blended cost-share, 50-percent cost-share for the demonstration activities and the 80/20 for the research and development activities.

(Switch speakers)

Thanks, Michael. We had a very specific question about a project. We're not going to be able to give answers to those kinds of questions that are really specific to what the proposal might look like, unfortunately.

A question if the SIPS projects are limited to PV or do they also include CSP. In this funding opportunity, SIPS projects are just for PV. Last year we were open to both. This year, just PV.

Someone has a problem with the EERE Exchange website. We will follow up with you, because the information should be posted there. So we'll take a look at that. But everything should be posted on the site for the past week.

(Attendees / presenters speaking, with a lot of feedback, for a few minutes; instruction to mute phones)

(Switch speakers)

Alright, hopefully that resolved the issue with the echo. OK, that seems much better. Again, apologies for the …

OK, actually, that looks like it may have solved the issue, so again, moving forward to the second phase of the presentation here. And again, we apologize for the delay, since audio-visual things can be complicated. OK, so next part of the presentation is we're going to be talking about award information.

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EERE expects to make approximately $130 million of federal funding available for new awards under this FOA. The average award amount is anticipated to range from $200,000 to $5 million. You can see more information about the different award amounts and expectations on this slide here.

We intend to fund mostly cooperative agreements under this FOA, but may also fund grants, work authorizations, and interagency agreements. It's important to know that cooperative agreements include substantial involvement, and we will discuss that next.

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EERE has substantial involvement in work performed under awards made following this FOA. We do not limit our involvement to the administrative requirements. Instead, We have 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:

- We share responsibility with the recipient for the management, control, direction, and performance of the project.
- We may intervene in the conduct or performance of work under this award for programmatic reasons.
- We may redirect or discontinue funding the project based on the outcome of EERE's evaluation of the project at the Go/No Go decision point.
- We participate in major project decision-making processes.

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Next I'll talk about cost-sharing requirements. We heard a little bit about that earlier from our legal counsel, but this slide summarizes our expectations around cost share for this FOA. So 20 percent of the total allowable costs for R&D projects and 50 percent of the total allowable costs for demonstration and commercial application projects, which must come from non-federal sources unless otherwise allowed.

The following table illustrates what we anticipate for the cost share. R&D projects without demonstration will have a 20-percent cost share in budget periods 1, 2 and 3. R&D projects with demonstration in budget period 3 will have a 20-percent cost share in budget periods 1 and 2, and 50-percent cost share in budget period 3.

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Next I'll talk about the FOA timeline. EERE's full Application, Evaluation and Selection Process is shown here, with the associated dates and deadlines for each phase of the process. We will next discuss some of these steps in more detail.

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First, Letters of Intent. Letters of intent ("LOIs") are REQUIRED to be submitted in EERE Exchange by May 7 in order to be eligible to submit a concept paper and full application.

- The LOI must comply with the content and form requirements of Section IV.B.1 of the FOA.
- The applicant must enter all required information and click the "Create Submission" button in EERE Exchange by the deadline stated in the FOA. So again, to point out, the letters of intent are not an actual letter, but you must instead go into the EERE Exchange system, create the letter of intent, and submit the letter of intent in Exchange by the deadline which is, again, May 7.
- You should not contain any proprietary or sensitive business information in the LOI.

And we will not provide notification of acceptance for letters of intent.

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Next – Concept Papers, due May 14.

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All applicants 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 relevant page limits. Failure to include the required content could result in the concept paper receiving a "discouraged" determination.

- Concept papers must be submitted by May 14, 2019, through EERE Exchange.
- EERE provides applicants with an "encouraged" or "discouraged" notification and comments from our reviewers about each concept paper submitted.
- Applicants to Topic Area 1.2: SIPS must resubmit their LOI for the concept paper stage in order to be eligible to submit a SIPS application for review.
- Please note that regardless of the date applicants receive the encourage / discourage notifications, the submission deadline for the full application remains the same.

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Next, I'll talk about concept paper review criteria. Concept papers are evaluated based on consideration of the following factor. All subcriteria are of equal weight.

Overall FOA Responsiveness and Viability of the Project (Weight: 100%). This criterion relates to:

- The extent to which the applicant clearly describes the proposed technology, describes how the technology is unique and innovative, how the technology will advance the state-of-the-art
- The applicant has identified risks and challenges, including possible mitigation strategies
- The applicant has shown they have the qualifications, experience, capabilities and other resources necessary to complete the proposed project

– The proposed work, if successfully accomplished, would clearly meet the objectives as stated in the FOA

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Next: Full Applications and SIPS Applications, due July 15.

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Full applications include the following:
- Technical Volume
- SF-424 Application for Federal Assistance
- SF-424A Budget & Budget Justification
- Summary for Public Release
- Summary Slide
- Other administrative documents
- U.S. Manufacturing Plan (except for Topic 1.2 and Topic 3)

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As mentioned, applicants must submit a full application by July 25. Full applications are eligible if they meet the criteria shown on this screen here.

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Next we'll talk about eligibility. Eligible applicants to this FOA include:
- U.S. citizens and lawful permanent residents
- For-profit entities
- Educational institutions
- Nonprofits
- State, local or tribal government entities
- DOE / NNSA / federally funded research and development centers

Eligibility requirements apply to all applicants of this FOA, except the following restrictions:
- Topic 1 Eligibility Restriction: National laboratories are not eligible to apply as prime recipients and may be included only as subrecipients on applications for Topic 1: Photovoltaics Research and Development.
- Topic 4 Eligibility Restriction: Eligibility is restricted to for-profit entities as the prime recipient of the awards under Topic Area 4: Innovations in Manufacturing. This is because we believe that for-profit entities are the most likely entities to achieve the objectives required under this topic.

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Multiple Applications. An entity may submit more than one LOI, concept paper, and full application to this FOA, provided that each application describes a unique, scientifically distinct project and provided that an eligible LOI and concept paper was submitted for each full application.

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Next we'll discuss the merit review and selection process for full applications. The merit review process consists of multiple phases that include an eligibility review and a thorough technical review. We have rigorous technical reviews that are conducted by reviewers that are experts in the subject matter of the FOA. Ultimately, the DOE selection official considers the recommendations of the reviewers, along with program policy factors, to make the selection decision.

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The technical merit review criteria for full applications are shown here.

Criterion 1: Innovation and Impact (50% weight)
The project is innovative and impactful. The project is differentiated with respect to existing commercial products, solutions, or technologies. The project is scalable to have a broader impact.

Criterion 2: Quality and Likelihood of Completion of Stated Goals (30% weight)
The application demonstrates an understanding and appreciation of project risks and challenges associated with the proposed work. The information included for the project is validated through customer trials, data from prior work, reports, 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.

Criterion 3: Capability and Resources of the Applicant / Project Team (20% weight)
The team is qualified and has the capability and resources necessary to successfully complete the project. The team 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 demonstrated a successful track record.

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So we've reviewed those selection criteria, and ultimately, the selection official may consider the merit review recommendation, as well as program policy factors, and the amount of funds available to arrive at selection decisions for the FOA.

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Program policy factors are listed here. These are listed in the FOA, so you can view them in detail by accessing the FOA on EERE Exchange.

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Next, we'll talk about registration requirements.

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To apply to this FOA, applicants must register with and submit application materials through EERE Exchange at this website. You must obtain a "control number" at least 24 hours before the first

submission deadline; you can do that through that website. Although not required to submit an application, the following registrations must also be completed to receive an award under this FOA.

DUNS Number: Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number.

System for Award Management – SAM: Register with the System for Award Management (SAM). Designating an Electronic Business Point of Contact and obtaining a special password to be able to access the system.

FedConnect: Register in FedConnect.

Applicants are also encouraged to register in Grants.gov to receive automatic updates when amendments to this FOA are posted.

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Means of Submission. Letters of intent, concept papers, full applications, and replies to reviewer comments must be submitted through EERE Exchange at this website. EERE will not review or consider applications submitted outside of this website. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found here.

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Key Submission Points. Be sure to check all entries in EERE Exchange. Submissions could be deemed ineligible if they're incorrectly entered. 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 the submit button will unsubmit your application and you will need to hit the submit button again.

For your records, please print out the EERE Exchange confirmation page at each step, and that contains the application's control number.

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Applicant's Points-of-Contact. This is very important. Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate. It is imperative that the applicant / selectee be responsive during the award negotiation phase and they meet negotiation deadlines. Failure to do so may result in the cancellation of further award negotiations and rescission of the selection.

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Finally: Questions about this FOA? Email SETO.FOA@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 Q&As. We will attempt to respond to a question within 3 business days.

Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? Please email this address. Make sure to include the FOA name and number in the subject line.

All questions asked during this presentation will be posted on EERE Exchange.

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That concludes our webinar. We'll now take a few more questions.

(Switch speakers)

Yes, we'll answer a few more questions. We try very hard to give the same opportunities to everyone who's applying to the FOA. So we will record all of the questions that are asked here, provide written responses that are accessible to everyone. That's both for questions that we are able to answer here as well as questions we don't answer during this presentation. And in addition, that's the reason why questions have to all be submitted to the FOA in-box, is again so that everyone has access to the exact same information, to try to create as far an opportunity as we can. So if you have specific contacts in our office, they cannot answer questions about the FOA. You have to submit them to the in-box that was listed here.

OK, so go back to some of the questions: Is there an encouraged for SIPS application, concept paper? The SIPS applications have only one application phase; there is no concept paper or encourage / discourage. The SIPS applications are abbreviated applications, so they are due at the full application stage.

Does rapid solar software development cover software use in utility-scale solar applications, or only residential / commercial? The FOA specifies residential, commercial and industrial. It does not specify utility-scale.

Um, there was a question about, is demonstration required for the Systems Integration topic areas? Demonstration is required for topic areas 5.1 and 5.3. It is encouraged but not required for topic area 5.2.

(Switch speakers)

We will be posting a copy of this presentation. A recording of this presentation will also be available. And we will be posting a transcript of the presentation, as well, all on EERE Exchange.

(Switch speakers)

Diana, go ahead.

(Switch speakers)

OK, regarding the question for topic area 1.1, Photovoltaics Research Collaboration, can a group include international entities? All applicants should refer to the eligibility section in the FOA. Basically, the eligibility for funding under this FOA requires that all prime recipients must be incorporated under the

laws of a state or territory in the United States and have a physical location for business operations in the United States. If a foreign entity applies for funding as a prime recipient, they must designate a subsidiary or affiliated company. However, foreign entities may request a waiver to the requirement to designate a subsidiary as the prime recipient. And that waiver request must be included in the application. There is also a requirement for all work performed under the project to be performed in the United States. However, a waiver for the performance of work requirement may be submitted with the application.

(Switch speakers)

The question on whether FFRDCs can participate in topic 1.2.6: FFRDCs can be partners on the topic; they cannot be the prime applicants.

Alright, well, we will end things here, just before the end of the hour. And again, if you did not get your question answered, if we missed that question going through them here, we will do a more careful look to make sure that we get written answers to all the questions posted. Thank-you all very much for attending and for your interest in the funding opportunity. And again, we'll have webinars later this week specific to the individual topic areas. Please check those out if they're of interest.

Thank-you very much!