

# Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS)



**None of the information presented here is legally binding. The content included in this presentation is intended only to summarize the contents of funding opportunity DE-FOA-0000861. Any content within this presentation that appears discrepant from the FOA language is superseded by the FOA language. All Applicants are strongly encouraged to carefully read the FOA guidelines and adhere to them. Neither the U.S. Department of Energy (DOE) nor the employees associated with DOE working on this presentation shall be held liable for errors committed by applicants based on potentially incorrect or inaccurate information presented herein.**

# Agenda

---

- 1) PREDICTS Introduction
- 2) Concept Paper
- 3) Full Application
- 4) Review Process
- 5) Frequently asked Questions

# PREDICTS Overview

- Two Separate and Distinct Topic Areas
  - Based on the use of physics-based identification and testing of degradation and failure modes for products used for Solar Electricity Production (electricity to the grid)

<b>Total Amount to Be Awarded</b>	\$5,000,000
<b>Anticipated Awards</b>	2-5 Awards Anticipated
<b>Types of Funding Agreements</b>	Cooperative Agreements
<b>Period of Performance</b>	Up to 3 Years (36 Months)
<b>Cost Share Requirement</b>	20% Cost Share, No Waivers

# Topic I: CSP and PV Components Reliability Models

The objective of this FOA topic is to evaluate the degradation and failure mechanisms of CSP and PV collection and conversion components, then use data to create predictive models.

- Physics- and Chemistry-based, statistically relevant testing techniques to examine Intrinsic Failures
- Model to be validated by third party
- Teams can include manufacturers, but not required
  - DOE encourages teams to include members from industries outside solar who have expertise in degradation and failure testing, analysis and modeling.
- Section I.B for Technical Areas of Interest
  - Non-exhaustive, non-exclusive

## **Topic 2: Microinverter and Microconverter Reliability Standards**

The scope of this topic area includes the collaborative development and initial implementation of industry standard tests for microinverter and microconverter reliability in stand-alone and module-integrated configurations.

- Extensive laboratory and field testing should be incorporated to validate the tests and test protocols
- Vendor- and technology-neutral
- Teams including manufacturers
- Standards implementation and industry acceptance

# Program Structure and Cost Share

## Both Topic Areas

- Federal awards up to \$750,000 / year from DOE (\$2.25M / 3 years)
- All projects must include at least 20% non-Federal cost share

Formula: Federal share (\$) divided by Federal share (%) = Total Project Cost

Example: \$1,000,000 divided by 80% = \$1,250,000

Formula: Total Project Cost (\$) minus Federal share (\$) = Non-federal share (\$)

Example: \$1,250,000 minus \$1,000,000 = \$250,000

Formula: Non-federal share (\$) divided by Total Project Cost (\$) = Non-federal share (%)

Example: \$250,000 divided by \$1,250,000 = 20%

# Concept Paper



# Concept Paper Deadline

---

Submit Concept Paper in EERE Exchange by  
**12 PM (Noon) ET, March 22,  
2013**

We strongly encourage you to submit  
1-2 days prior to avoid any potential  
technical glitches with EERE Exchange

# Purpose

-EERE makes an independent assessment of each Concept Paper based on the criteria in Section V.B.2 of the FOA. EERE will encourage a subset of Applicants to submit Full Applications. Other Applicants will be discouraged from submitting a Full Application. A “discouraged” notification does not bar an applicant from submitting a Full Application.

-By discouraging the submission of a Full Application, EERE intends to convey its lack of programmatic interest in the proposed project in an effort to save the Applicant the time and expense of preparing an application that is unlikely to be selected for award negotiations.

# Concept Paper Overview

---

- Only applicants that submitted a compliant Concept Paper are eligible to submit a Full Application
- The Concept Paper must contain a list of Potential Reviewer Conflicts of Interest

# Full Application

# Application Deadline

---

Submit Application in EERE Exchange by

**12 PM (Noon) ET, April 29, 2013**

We strongly encourage you to submit  
1-2 days prior to avoid any potential  
technical glitches with EERE Exchange

# Key Points

---

- Follow the formatting criteria and page lengths stated in the FOA
- Triple check entries in Exchange
  - Submissions could be deemed non-compliant due to an incorrect entry and cannot be reviewed
- Make sure you hit the submit button
  - Any changes made after you hit submit will unsubmit your application and you will need to hit the submit button again

# Format and Page Limits

Extra material will be REDACTED OR REMOVED and will NOT be provided to reviewers

Section	Notes
<b>Project Narrative</b>	PDF, 21.5 pages max for all sections combined
Technical Topic Area Strategy Project Milestones and Timeline Budget Summary	Participating Organizations Prior Collaboration Multi-Investigator Projects
<b>Summary for Public Release</b>	1 page max
<b>Statement of Project Objectives</b>	8 pages max
<b>Project Management Plan</b>	Excel Sheet
<b>Qualifications, Experience, and Capabilities</b>	Each resume is limited to 2 pages max
<b>Summary Slide</b>	PowerPoint, 1 page max
<b>Model Dissemination Plan (Topic 1)</b> <b>Standards Implementation Plan (Topic 2)</b>	PDF, 2 page max.
<b>Letters of Commitment</b>	Signed letters of cost share commitment, if applicable
<b>SF424</b>	SF-LLL, if applicable
<b>SF424A</b>	Excel, necessary for all sub recipients performing > \$100,000 or 50% of the total work effort
<b>Budget Justification, PMC 123.1</b>	Necessary for all sub recipients
<b>Waiver Request</b>	Foreign entities and/or work, if applicable

# Milestones Go/ No-Go Criteria

---

- The projects will have three budget periods of 12 months each. At the end of each budget period, DOE will make a go/no-go decision (as described in Section II.D)
- Milestones and Go / No-Go Criteria will be carefully evaluated by the Reviewers
- Milestone should be quantifiable
- **Reports are NOT acceptable milestones**



# Criteria Weighting for Full Applications

Topic I	
Overall Scientific and Technical Merit	40%
Team Experience, Qualifications, and Capabilities	25%
Statement of Project Objectives and Project Management Plan	25%
Impact of the Project and Dissemination Plan	10%

# Selection Criteria – Part I

## **Overall Scientific and Technical Merit (40%)**

- Degree to which proposed project addresses a lifetime and reliability issue, of an industry relevant component, sub-system or material(s), which is critical to solar energy production
- Degree to which the proposed project utilizes prior knowledge, both in and outside the solar energy industry, to accomplish its goals
- Adequacy of the proposed project plan in reaching the proposed outcomes
- Adequacy of the proposed baseline to which test sample responses will be compared
- Likelihood that the proposed project will be able to identify the root causes of the degradation/failure mechanism for the chosen system
- Likelihood that the proposed project can deliver a physics based model
- Degree to which the applicant proposes to use statistically relevant research methods to explore the finite physics of their chosen problem
- Demonstration of a sound technical approach to accomplish the proposed tasks and objectives
- Accuracy of the description of the current understanding of the component failure mechanism(s) proposed
- Adequacy of the discussion of the risks and challenges the proposed research will face, and the ability of the proposed application to overcome the scientific and technical obstacles/risks to achieve the research objectives

# Selection Criteria – Part II

## **Team Experience, Qualifications, and Capabilities (25%)**

- Quality of the proposed interaction among team members including the plan for communication and execution of collaboration
- Capability of the proposing organizations to conduct integrated research and adequacy of the proposed research facilities and resources to support the achievement of the proposed project objectives
- Degree to which applicant demonstrates relevant expertise in the field through preliminary studies, research, demonstrated innovations, and strong publication or IP development in the relevant field of study that may be pertinent to the proposed research
- Diversity and the ability of the planned collaborations to form a synergistic effort
- The ability to integrate and balance the technical strengths of each participant to produce a cohesive research program
- Degree to which the Applicant Team's resources are appropriately allocated to successfully complete the proposed work
- Extent to which the Applicant has demonstrated capabilities in managing multi-disciplinary teams for supporting a high likelihood of the project's success
- Adequacy of the equipment already available for this project, the location, and pertinent capabilities of each

# Selection Criteria – Part III

## Statement of Project Objectives and Project Management Plan (25%)

- Technical relevance and importance of the proposed milestones and of the plan to reach them as described in the Statement of Project Objectives (SOPO)
- The ability of the proposed milestones and go/no-go criteria to track the progression of the tasks using quantified metrics
- Quality and completeness of the description of each activity necessary to complete the scope of work
- Degree to which the proposed milestones represent a systematic approach to achieving the ultimate goals
- Likelihood that the proposed short-term, medium-term, and long-term goals will accomplish the FOA objectives
- Degree to which the proposed work schedule is sufficiently stated, timely, and achievable

# Selection Criteria – Part IV

## *Impact of the Project and Dissemination Plan(10%)*

- Commitment of the applicant to publish results
- The quality of the plan to make the model developed available to the public
- Plan for the dissemination of the model and resulting research
- Degree to which the likely results of the collaboration will have a significant impact upon the solar research community or to the U.S. solar industry
- Degree to which the likely results of the collaboration will support the goals of the SunShot Initiative

# Criteria Weighting for Full Applications

<b>Topic 2</b>	
<b>Overall Scientific and Technical Merit</b>	<b>30%</b>
<b>Project Impact and Standards Implementation Plan</b>	<b>30%</b>
<b>Team Experience, Qualifications, and Capabilities</b>	<b>20%</b>
<b>Statement of Project Objectives and Project Management Plan</b>	<b>20%</b>

# Selection Criteria – Part I

## **Overall Scientific and Technical Merit (30%)**

- Degree to which proposed project addresses lifetime and reliability issues which are critical to solar microinverters and microconverters
- Degree to which the proposed project utilizes prior knowledge, both from the solar energy industry and from other industries, to accomplish its goals
- Adequacy of the proposed project plan in reaching the proposed outcomes
- Likelihood that the proposed project will be able to accurately identify, investigate, and prioritize the relevant failure mechanisms for microinverters and microconverters
- Likelihood that the proposed project can deliver standard reliability tests which accurately and precisely predict microinverter and microconverter lifetimes and failure rates
- Demonstration of a sound technical approach to accomplish the proposed tasks and objectives
- Accuracy of the description of the current understanding of the dominant failure mechanisms for microinverters and microconverters
- Adequacy of the discussion of the risks and challenges the proposed research and development will face, and the ability of the proposed application to overcome the scientific and technical obstacles/risks to achieve the project objectives

# Selection Criteria – Part II

## *Project Impact and Standards Implementation Plan (30%)*

- Likelihood of the proposed project to achieve implementation of the developed reliability tests as a formal standard, industry standard, or other impactful mechanism
- Plan for the dissemination of the developed tests and associated research
- Degree to which the likely results of the collaboration will have a significant impact upon the solar research community or to the U.S. solar industry
- Degree to which the likely results of the collaboration will support the goals of the SunShot Initiative



# Selection Criteria – Part III

## **Team Experience, Qualifications, and Capabilities (20%)**

- Degree to which the Applicant Team demonstrates the ability to develop vendor-neutral and technology-neutral standard reliability tests
- Degree to which the Applicant Team demonstrates broad industry support and active participation
- Quality of the proposed interaction among team members including the plan for communication and collaboration
- Capability of the proposing organizations to conduct integrated research and adequacy of the proposed research facilities and resources to support the achievement of the proposed project objectives
- Degree to which applicant demonstrates expertise in the field through preliminary studies, research, demonstrated innovations, and strong publication or IP development in the relevant field of study that may be pertinent to the proposed research
- Diversity and the ability of the planned collaborations to form a synergistic effort
- The ability to integrate and balance the technical strengths of each participant to produce a cohesive research program
- Degree to which the Applicant Team's resources are appropriately allocated to successfully complete the proposed work
- Extent to which the Lead Organization's Principal Investigator has demonstrated capabilities in managing multi-disciplinary teams for supporting a high likelihood of the project's success
- Adequacy of the equipment already available for this project, the location, and pertinent capabilities of each.

# Selection Criteria – Part IV

## Statement of Project Objectives and Project Management Plan (20%)

- Technical relevance and importance of the proposed milestones and of the plan to reach them as described in the Statement of Project Objectives (SOPO)
- The ability of the proposed milestones and go/no-go criteria to track the progression of the tasks using quantified metrics
- Quality and completeness of the description of each activity necessary to complete the scope of work
- Degree to which the proposed milestones represent a systematic approach to achieving the ultimate goals
- Likelihood that the proposed short-, medium- and long-term goals will accomplish the FOA objectives
- Degree to which the proposed work schedule is sufficiently stated, timely, and achievable

# Review Process

---

- Concept Paper review and down select
- Full Application Expert Review
- Expected release of reviewer comments to applicants  
May 30, 2013
- Expected optional submission deadline for reviewer comment replies: 12 PM (Noon) ET, June 4, 2013
  - Single PDF Document, 2 pages of text max, 1 page of images max
- Reviewers and DOE discuss applications
- Pre-selection clarification calls and presentations  
June 14-26, 2013

# Replies to Reviewer Comments

- Applicants will have the option to have a brief opportunity (3 business days) to review these comments and prepare a short Reply to Reviewer Comments
- 2 pages of text max, 1 page of images max
- Expected release of reviewer comments to applicants:  
May 30, 2013
- It is anticipated that the deadline for the Reply to Reviewer Comments will be 12 pm (Noon) EST on June 4, 2013.

# Frequently Asked Questions

All questions must be submitted to [PREDICTS@go.doe.gov](mailto:PREDICTS@go.doe.gov)

and answers will be provided on EERE Exchange at:

<https://eere-exchange.energy.gov/FAQ.aspx?Foald=ce62cf47-5f1a-4e79-9886-2b83eda9506d>

# Answers posted on EERE Exchange

**Question:** I am unsure how PREDICTS is defining a microconverter. Specifically, would development and initial implementation of industry standard tests for DC-DC power maximizers (that are applied at the module level) be eligible for award? Would be interesting considering the similar market segments that microinverters and DC-DC power maximizers compete in.

**Answer:** DC-DC converters applied at the module level are within the scope of the award (see Sections I.B.1 “Areas of Programmatic Interest” and I.B.2 “Areas NOT of Programmatic Interest”). Please note also that the FOA objectives are to perform test development and implementation for both microinverters and microconverters.

# Answers Poste on EERE Exchange

Question: Can an Applicant submit more than one application to this FOA?

Answer: As stated in Amendment 001 of the FOA, Applicants may submit more than one application to this FOA, provided that each application describes a unique project and each application has a different Principle Investigator (PI). No individual may participate as a PI or co-PI on more than one application. An individual may be included in an application as a participant even if they are listed as a PI on another application. If an applicant submits more than one Concept Paper or Full Application with the same PI or co-PI, DOE will only consider the last timely submission for evaluation. Any other submissions received listing the same PI or co-PI will be considered noncompliant and not eligible for further consideration.



[PREDICTS@go.doe.gov](mailto:PREDICTS@go.doe.gov)

[energy.gov/sunshot](http://energy.gov/sunshot)

March 6, 2013



**Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS)**

**Funding Opportunity Announcement (FOA) Number: DE-FOA-0000861**

**Webinar script 3/6/2013**

Slide #1

Hello and thank you for attending the PREDICTS – Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar, Webinar. During this webinar, I will provide a brief overview of this funding opportunity and review process, but please bear in mind that the content included in the webinar is only intended to summarize the contents of the funding opportunity announcement (FOA).

2

Therefore, please note that any content within this presentation that appears discrepant from the FOA language is superseded by the FOA language. All Applicants are strongly encouraged to carefully read the FOA guidelines and adhere to them. Neither the U.S. Department of Energy (DOE) nor the employees associated with DOE working on this presentation shall be held liable for errors committed by applicants based on potentially incorrect or inaccurate information presented herein.

3

OK, Now I'll move on to the Agenda for this presentation. To start things off, I will present a one-slide overview on the PREDICTS program followed by a slide on each of the topic areas for this funding opportunity. Again, Applicants should read the funding announcement for more information on the objectives of this funding announcement. I will then briefly go over the application and review process; starting with the mandatory Concept Paper, followed by the Full Application, the review process, and the optional Replies to Reviewer Comments. I will then close the webinar by reviewing several frequently asked questions that have been submitted to the PREDICTS email address.

#### 4

This funding opportunity is broken into two separate and distinct topic areas. Each application should only apply to one of the topic areas. Both topic areas are based on the use of physics to identify and quantify the degradation mechanism associated with the selected component or sub-system.

To accomplish the goals of this funding opportunity, EERE SunShot has made \$5 million dollars in funding available. EERE anticipates 2-4 awards, with a maximum of one award for Topic 2. The number of awards can vary depending on the amount of money requested by the awards selected for negotiation. The funding agreements will take the form of Cooperative Agreements. Cooperative agreements assume substantial involvement from DOE. More on this can be found in Section VI.B.5 of the FOA. Awards can last up to three years and have a minimum required cost share of 20% as noted in 10 CFR 600.30.

#### 5

Topic Area 1 focuses on the components and subsystems of photovoltaic modules and concentrating solar power systems. Applicants should describe how they will use physics- and/or chemistry-based methods for determining the intrinsic degradation and failure modes of their component or sub system of choice. The data gathered in examining the product of choice should then feed the development of a model which will be able to predict the lifetime and failure mode of the given product. The applicant should also propose how they will have a third party validate their model. DOE encourages teams to include members from industries outside solar who have expertise in degradation and failure testing, analysis and modeling. Please refer to the funding opportunity announcement for more information on the objectives of this program.

Please see Section I.B of the funding opportunity announcement for a list of technical areas of interest that is non-exhaustive and non-exclusive.

#### 6

Topic Area 2 focuses on the creation of standard testing techniques for microinverters and microconverters. Applicants should describe how they will go about creating the standard tests, validating them against real world degradation and failure modes, and explain how they will implement these tests as industry standards. Emphasis is placed on creating vendor-neutral

tests that will have broad industry buy in. Teams should include manufacturers to ensure industry acceptance and input in the formulation of testing methods.

7

Projects will be funded up to \$750,000 per year for a total of \$2.25M over the course of a three year award. Applicants must contribute at least 20% of the Total Project Costs. There is often a bit of confusion when people calculate cost share, so we've provided the equations below. The Total Project Costs include the Federal and non-Federal contributions. Not providing enough cost share, even due to a miscalculation of cost share, can deem your application non-compliant.

The following example is drawn from Appendix B of the Funding Opportunity Announcement.

The Total Project Cost is equal to the Total Federal Share being requested divided by the percentage of the Federal Share for the project. In this case at least 80%.

Non-federal Cost Share is the Total Project Cost minus the Total Federal Share.

Finally, Non-federal share percentage is the Non-federal share divided by the Total Project Cost.

Please refer to Appendix B for more information on Cost Share.

8

Now I will go over the mandatory Concept Paper

9

Concept papers are due March 22<sup>nd</sup> at Noon Eastern Time, and must be submitted via the EERE exchange website. As stated, we strongly encourage you to submit it 1-2 days prior to the deadline to avoid and/or resolve any issues you may have with EERE exchange. If you have issues EERE Exchange support can be contacted by email at [eere-exchangesupport@hq.doe.gov](mailto:eere-exchangesupport@hq.doe.gov).

10

EERE will make an independent assessment of each Concept Paper based on the criteria in Section V.B.2 of the FOA. EERE will encourage a subset of Applicants to submit Full Applications. Other Applicants will be discouraged from submitting a Full Application. A “discouraged” notification does not bar an applicant from submitting a Full Application. Regardless if the applicant receives an “encouraged” or “discouraged” notification, DOE will review the Full Application so long as it is compliant and fits the FOA objectives. However, by discouraging the submission of a Full Application, EERE intends to convey its lack of programmatic interest in the proposed project in an effort to save the Applicant the time and expense of preparing an application that is unlikely to be selected for award negotiations. Such assessments do not necessarily reflect judgments on the merits of the proposed project. Regardless of the response received from EERE on the Concept Paper, Applicants should continue to submit innovative ideas and concepts to future FOAs.

EERE may not provide technical feedback on Concept Papers. Although technical feedback may not be provided, EERE will notify Applicants whether they are encouraged or discouraged from submitting a Full Application.

11

As stated in the FOA, only applicants that submit a compliant concept paper are eligible to submit a full application. Being discouraged at the concept paper phase does not prohibit one from submitting a Full Application. In addition to the Concept Paper, please include a list of potential reviewer conflicts of interest as mentioned in Section IV.D.2. This helps DOE determine the reviewer pool for the Full Applications.

Again, Concept Papers are due March 22<sup>nd</sup> at Noon Eastern Time

12

Now I will discuss the Full Application

13

Full Applications are due April 29th at Noon Eastern Time. As previously stated, and I will reiterate again for emphasis, we strongly encourage you to submit your full application materials 1-2 days prior to the deadline to avoid and/or resolve any issues you may have with EERE exchange. If you have issues EERE Exchange support can be contacted by email at [eere-exchangesupport@hq.doe.gov](mailto:eere-exchangesupport@hq.doe.gov).

14

When constructing an application please ensure that all the submitted materials adhere to the formatting criteria and page lengths stated in the FOA. All pages that are in excess of the stated limits will be redacted or removed and not supplied to the reviewers.

Of course, triple check your entries in Exchange and make sure that you click the submit button.

If you make any changes to your application after it has been submitted, the application becomes un-submitted in Exchange and you must make sure that you resubmit the application again before Noon Eastern Time on April 29<sup>th</sup>.

15

This slide indicates all the documentation required for the Full Application. The primary documents are the Project Narrative, and its subsections, the Statement of Project Objectives, the Qualifications, Experience and Capabilities documents, and the Dissemination and Implementation plans, depending on the topic area of your choice. Please note that each of the fore mentioned documents will be evaluated by the Merit Review Criteria stated in the FOA. All of these documents are critical to the scoring of your Full Application. Please note the page limits for each document. Any material beyond the page limits shown in the FOA will be redacted or removed and will not be considered when reviewing the application. For detailed descriptions of all documents, please refer to the funding opportunity announcement.

16

The Solar program requires applicants to identify key milestones and Go / No-Go criteria when constructing their applications. The proposed milestones should be quantifiable and include metrics that are relevant to achieving the overall project objectives. The milestones and Go / No-Go criteria will be evaluated by the Reviewers and could be further negotiated if an applicant is selected for award negotiations. The milestones that you identify in the application will also be described in your Statement of Project Objectives and the Project Management Plan sections of the application. Please see the funding announcement and the instructions for the Statement of Project Objectives, which includes a sample SOPO template, for more information on selecting milestones.

17

On this slide you will see how the scoring criteria are weighted for Topic 1 applications. All applicants should carefully consider each of the Merit Review Criteria stated in the funding announcement when constructing their application documents. Following this slide, I will go over each of the Merit Review Criteria sections.

18

Overall scientific and technical merit is the highest weighted criterion for Topic 1. I will not go over all the sub-criteria here but please review each of them carefully in the funding opportunity announcement. These sub-criteria will be used by the reviewers to score the application.

19

Team experience, qualifications and capabilities is the next highest weighted criterion. The applicant is expected to clearly show how their team is qualified to accomplish the project goals and work synergistically. Again, please review each of the individual sub-criteria carefully.

20

Weighted the same as the previous merit criterion, the Statement of Project Objectives and Project Management plan will be 25% of the score of a given application. These documents are not part of the Project Narrative but as with all components of the Full Application applicants should be sure to take time and care when constructing these documents.

21

Finally, there is the impact of the project and the model dissemination plan. As mentioned in the funding opportunity announcement, how the results of the research being done and models being created will be made available is of importance to DOE. This scoring criterion will draw from not only the dissemination plan itself, but the impact of the work as shown in the project narrative.

22

This slide shows the weighting of scoring criteria for Topic Area 2, as with Topic 1, each of these criteria should be carefully considered and addressed by the applicant in their application documentation.

23

As with Topic 1, the overall scientific and technical merit of the proposed project is weighted heavily.

24

Commensurate in weight with the scientific and technical merit is the standards implementation plan. Because the goal of this topic area is the implementation of standard testing for microinverters and micro converters, the applicants plan to implement this in a standard; industry wide manner is of critical importance and should be carefully considered by applicants.

25

Team experience, qualifications and capabilities will also have its own scoring criteria. Topic 2 has an emphasis on constructing teams which will be able to come up with and implement industry standard testing procedures for microinverters and microconverters which will have buy in from industry. The construction of a team to meet these needs will be carefully considered.

26

As with Topic 1 the Statement of Project Objectives and the Project Management Plan will be a scoring criterion. Again, these are separate documents outside the Project Narrative. Care should be taken when constructing these documents.

Again, for both Topic 1 and Topic 2, please carefully consider all merit review criteria and sub criteria when constructing all application materials.

27

I will now quickly go over the review process once an application has been submitted. Submitted applications will be reviewed by at least 3 reviewers, which will provide comments for each application. The applicant will then have a short period of time (the funding announcement states at least 3 business days) to prepare a Reply to Reviewer Comments. The replies are then considered along with the applications when making selections.

A subset of Applicants may then be selected for pre-selection clarification. Selection for clarification does not mean that the Applicant has been selected for an award and is for the purposes of clarifying the application. Applicants may only receive a couple days' notice before such clarifications, which can take the form of written responses to questions, video or conference calls with DOE representatives and/or merit reviewers, in person-meetings, or presentations.

28

As I mentioned before, Applicants will have a brief opportunity to review the reviewer comments and prepare a short Reply to Reviewer Comments. Applicants may elect to respond to one or more Reviewer comments to supplement their Full Application. There is a 2-page limit for text and a 1-page limit for any accompanying figures. We are expecting to release the comments on May 30<sup>th</sup>. This is only an expected date since we cannot be absolutely sure when the comments will be ready for release to the applicants. See Section IV.F of the funding announcement for more information.

29

Questions that have been posed to DOE and have been subsequently addressed can be found at the addressed on this slide. Should you have any questions please address them to the email address shown and DOE will try to answer them within 3 business days.

30

I will now read a sample of questions which have been asked about the FOA.



I am unsure how PREDICTS is defining a microconverter. Specifically, would development and initial implementation of industry standard tests for DC-DC power maximizers (that are applied at the module level) be eligible for award? This would be interesting considering the similar market segments that microinverters and DC-DC power maximizers compete in.

DC-DC converters applied at the module level are within the scope of the award (see Sections I.B.1 “Areas of Programmatic Interest” and I.B.2 “Areas NOT of Programmatic Interest”). Please note also that the FOA objectives are to perform test development and implementation for both microinverters and microconverters.

31

Can an Applicant submit more than one application to this FOA?

As stated in Amendment 001 of the FOA, Applicants may submit more than one application to this FOA, provided that each application describes a unique project and each application has a different Principle Investigator (PI). No individual may participate as a PI or co-PI on more than one application. An individual may be included in an application as a participant even if they are listed as a PI on another application. If an applicant submits more than one Concept Paper or Full Application with the same PI or co-PI, DOE will only consider the last timely submission for evaluation. Any other submissions received listing the same PI or co-PI will be considered noncompliant and not eligible for further consideration.

32

Again, please send all questions to [PREDICTS@go.doe.gov](mailto:PREDICTS@go.doe.gov) and answers will be posted in FAQ section for this funding announcement in EERE exchange.

The script and slides for this webinar will be posted in EERE Exchange shortly in the section for this FOA.

Thank you and have a nice day.