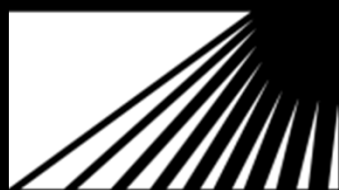


Solar Utility Networks: Replicable Innovations in Solar Energy (SUNRISE)



SunShot
U.S. Department of Energy

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-0000865. Any content within this presentation that appears discrepant from the FOA language is superseded by the FOA language.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.

The language of the SUNRISE FOA is available at:

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

Search for DE-FOA-0000865 and “Apply” from that Exchange site.

Agenda

- 1) SUNRISE Introduction
 - a) Topic A
 - b) Topic B
- 2) Mandatory Concept Papers
- 3) Full Application
- 4) Review Process
- 5) Frequently Asked Questions

SUNRISE – Purpose of this funding

The Solar Utility Networks: Replicable Innovations in Solar Energy (SUNRISE) Funding Opportunity Announcement (FOA) has been released by the U.S. Department of Energy (DOE) to solicit applications for two (2) topic areas:

Topic A - Development long-term strategic plans that integrate high levels of renewable energy generation, and ensure reliable real-time power systems operations under high renewable penetration.

Topic B - Provide technical assistance for capacity-building activities regarding utility-scale photovoltaic planning and installation.

The two (2) FOA topics are intended to support two types of entities:

- those that are **experienced in solar PV** resource management, interconnection, and deployment; and,
- those that have **little to no experience in solar PV** deployment, management and interconnection.

SUNRISE: Topic A-1

Utility Planning

- Topic A-1: The goal of this topic is to enable utilities to create strategic and sustainable long-term plans that identify pathways for utilities to operate reliably and profitably with high penetrations of solar.
- Applicants responding to this FOA topic should clearly outline the strategic plan development process; describe and justify the detailed analyses and studies needed for plan development; show that the plan developed will be comprehensive and consider all pertinent factors that can impact the utility business plans and operations; provide clear description and detail on how solar generation (both central and distributed) will be considered in the planning process; explain how specific actions will be developed as part of the plan; and most importantly, show a clear, demonstrable and justifiable pathway and timetable to implement those actions.
- The deliverables from this activity will include the detailed methodology, inputs and results of all analyses performed, the strategic plan developed as a result, and the specific actions that will be implemented along with a timeline and process for implementation.

SUNRISE: Topic A-2

Utility Operations

- Topic A-2: The goal of Topic A-2 is to assist utilities in **enabling their power system operators to become familiar with the various issues that could arise under high penetration of renewables** (especially solar), test ways to handle them, and using these results develop and incorporate specific processes and tools into the mainstream utility power system operations to handle high penetrations of renewables.
- Applicants responding to this topic should clearly **outline the process for assessing the potential levels of penetration of renewables** (especially solar) at various locations within a utility's service territory, **describe the various needs for simulating and operator exposure to high penetration of renewables**, explain the **hardware and software needed** to test the operation of the power system under realistic and spatially and temporally accurate renewable penetration scenarios, describe the **process of developing and a clear plan and timetable** for incorporating methodologies to operate the power system in real-time with high renewable penetration under various system conditions, and the **process for disseminating the lessons learned** to the broader stakeholder community

SUNRISE: Topic B

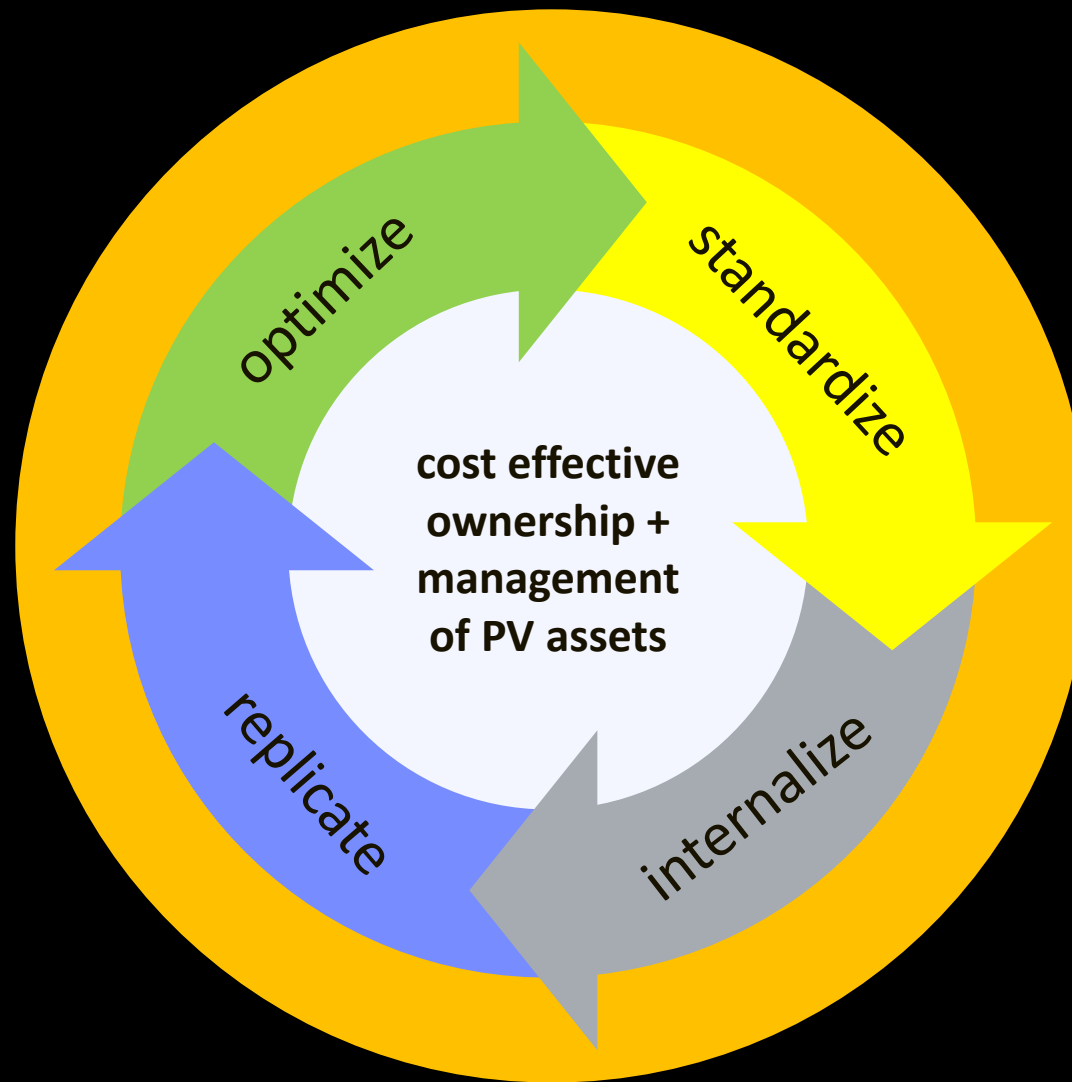
Utility Solar Deployment Technical Assistance

- Strategic Goal:
 - Cost effective ownership and management of utility scale PV assets by optimizing standardized solutions and best practices in at least three of four non-hardware balance of system cost areas (“soft costs”)
- Funded Activities: Technical assistance for
 - Developing and refining technical designs, creating standardized models in at least three of the four targeted soft costs.
 - Adapting and validating these designs, models and best practices
 - Institutionalizing expertise and replicating among communities of practice
- Expected Outcomes:
 - Practical utility PV field manuals and expert communities of practice
 - (If possible) Utility scale PV projects, developed as an owned asset

SUNRISE: Topic B

Utility Solar Deployment Technical Assistance

Practical PV
Utility Field
Manuals



Expert
Communities
of Practice

Program Structure and Cost Share: Topic A

- TOPIC A (Parts 1 and 2)
 - 1) Federal awards up to \$500K total from DOE (1-2 yrs)
 - 2) All projects must include a 50% non-Federal cost share

Topic Area Number	Topic Area	Anticipated Maximum Award Size for Any One Individual Award (Fed Share)	Anticipated Minimum Award Size for Any One Individual Award (Fed Share)	Anticipated Award Size (Fed Share)	Approximate Total Federal Funding Available for All Awards
A-1	Utility Planning	\$500,000	\$200,000	\$400,000	\$4,000,000 to \$6,000,000
A-2	Utility Operations	\$500,000	\$200,000	\$400,000	
B	Utility Solar Deployment Technical Assistance	\$4,000,000	\$500,000	\$1,500,000	\$6,000,000

Program Structure and Cost Share: Topic B

TOPIC B

- 1) Federal awards of \$500k - 1.5M /yr (\$4.0M max/4 yrs)
- 2) All projects must include a 25% non-Federal cost share

Topic Area Number	Topic Area	Anticipated Maximum Award Size for Any One Individual Award (Fed Share)	Anticipated Minimum Award Size for Any One Individual Award (Fed Share)	Anticipated Award Size (Fed Share)	Approximate Total Federal Funding Available for All Awards
A-1	Utility Planning	\$500,000	\$200,000	\$400,000	\$4,000,000 to \$6,000,000
A-2	Utility Operations	\$500,000	\$200,000	\$400,000	
B	Utility Solar Deployment Technical Assistance	\$4,000,000	\$500,000	\$1,500,000	\$6,000,000

DOE award ceiling amount set by total planned deployment size in Topic B



Total Size of Planned PV Deployments	Award Ceiling
1.5 MW up to 2 MW	\$250,000
3.5 MW up to 5 MW	\$500,000
6.5 MW up to 7 MW	\$1,000,000
8 MW to 10 MW	\$1,500,000
20 MW and higher	Up to \$4,000,000

Cost Share Calculations

Equations:

Total Project Costs = Nonfederal Share + Federal Share

$$\text{Cost Share} = \frac{\text{Nonfederal Share}}{\text{Total Project Costs}} \times 100\%$$

Example:

A project with a requested \$2,175,000 in Federal funds with four tasks requiring different Non-federal cost share percentages.

Task	Proposed Federal Share	Required Federal Share %	Non-federal Cost Share %	Non-federal Share	Task Total
Task 1 (Topic B)	\$ 1,200,000	75%	25%	\$ 400,000	\$ 1,600,000
Task 2 (Topic A-1)	\$ 250,000	50%	50%	\$ 250,000	\$ 500,000
Task 3 (Topic A-2)	\$ 125,000	50%	50%	\$ 125,000	\$ 250,000
Task 4 (Topic B)	\$ 600,000	75%	25%	\$ 200,000	\$ 800,000
Proposed Federal Share	\$ 2,175,000			\$ 975,000	\$ 3,150,000

Calculations:

Task 1
 \$1,200,000 divided by 75% =
 \$1,600,000 (Task 1 Cost)
 Task 1 Cost minus federal share =
 Non-federal share
 \$1,600,000 - \$1,200,000 = **\$400,000**
(Non-federal share)

Task 2
 \$250,000 divided by 50% =
 \$500,000 (Task 2 Cost)
 Task 2 Cost minus federal share =
 Non-federal share
 \$500,000 - \$250,000 = **\$250,000**
(Non-federal share)

Mandatory Concept Papers Both Topic A and Topic B

10 pp max ^{LC3}

See Requirements in the FOA, Section IV.D.2 page 38

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LC3

Project Description is limited to 10 pages. 2 page addendum is permitted.

Crawford, Lalida, 3/7/2013

Concept Paper Deadline

Applicants must submit a Concept Paper in EERE Exchange by

5 PM ET on March 20, 2013

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

Concept Paper Purpose

The Concept Paper facilitates the timely review of applications by providing preliminary application information to SunShot

Concept Paper Overview

- Concept Papers frame a potential approach only.
- Only applicants that submit a compliant Concept Paper are eligible to submit a Full Application
- Concept Papers are not required to list all final organizational team members, but the Principal Investigator (PI) or lead Applicant must be firm.
- (*Topic B*) Total size of the proposed PV system that the Applicant intends to deploy, as stated in the Concept Paper, may be a good faith estimate.

Full Application

Application Deadline

Submit Application in EERE Exchange by

5 PM ET, May 1, 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 as stated
- If an Applicant wishes to apply to multiple sections of SUNRISE (Topic A-1, A-2, and/or Topic B), Applicants may submit ONE inclusive application utilizing the sum of total LC4 page limits for A&B, as necessary.
- Triple check entries in Exchange
 - Submissions could be deemed non-compliant due to an incorrect entry and then could not be reviewed
- Make sure you hit the “Submit” button
 - If Applicants correct an already entered Application, it will "unsubmit." Make sure if you enter new materials that you again hit the submit button.

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LC4

may need clarification, so can applicant submit a 40 page strategy narrative if it applies to both Topics? If so, we may need to mod FOA to clarify.

Crawford, Lalida, 3/7/2013

Application Format and Page Limits, A & B

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

Section	Notes
Technical Volume (Project Narrative)	PDF, 35 pages max for all sections combined
Topic Title Page (0.5 p. max) Technical Approach (1 p. max) Tasks (1 p. max) Strategy Narrative (20 pp max) Technical Milestones & Deliverables (7 pp. max)	Budget Summary (Topic B only) (2 pp max) Participating Organizations (1 p max) Prior Collaboration/Rationale (1 p. max) Management Plan (1 p. max) Multi-Investigator Projects (2 pp. max)
Technical Volume Supplementary Documents	PDF
1) Individual Letters of Commitment 2) Current and Pending Sources of Support	
Project Summary	1 page max
Statement of Project Objectives	5 pages max
Project Management Plan	Excel Sheet
Resume Files	Each resume is limited to 3 pages max
Summary Slide	PowerPoint, 1 page max
SF424	No page limit
SF424A	Excel, necessary for Applicant and all sub recipients performing > \$100,000 or 50% of the total work effort
Budget Justification, PMC 123.1	Necessary for all sub recipients, no page limit
Intellectual Property Strategy	No page limit
Waiver Request	Foreign entities and/or work if applicable (Topic A only)
Disclosure of Lobbying Activities	SF-LLL form

Required Documents – Full Application

- SF-424 Application for Federal Assistance
- Statement of Project Objectives
- Statement of Project Objectives Instructions
- Project Management Plan (PMP)
- Project Management Plan (PMP) Instructions
- Budget Justification (PMC 123.1)
- Budget Information (SF-424A)
- Summary Slide
- SF-LLL Disclosure of Lobbying Activities

Milestones Go/ No-Go Criteria

- Topic A projects will have two budget periods of 12 months each.
- Topic B projects will have four 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, p. 30)
- Proposed Milestones and Go / No-Go Criteria will be carefully evaluated by the Reviewers
- Milestones should be quantifiable
- **Reports alone are NOT acceptable milestones**

Criteria Weighting for Full Applications

Topic A

Quality and Adequacy of the Project Management Plan	25%
Overall Technical Merit	50%
Qualifications, Experience, and Capabilities	25%

Criteria Weighting for Full Applications

Topic B

Deployment Strategy & Impact	20%
Quality & Cost of Planned Solar Deployments	25%
Standardization Scope & Institutionalization Levels	25%
Qualifications, Resources, and Capabilities	15%
Management Plan, Timetables, and Deliverables	15%

Review Process

- At least 3 reviewers will review each application
- Expected release of reviewer comments to applicants:
early June, 2013
- Expected dates of pre-selection conference calls and presentations (OPTIONAL): mid-June
- **EERE anticipates notifying Applicants selected for award by the end of June 2013 and making awards by August 2013**

Frequently Asked Questions

All questions must be submitted to **SUNRISE@go.doe.gov**

and answers will be provided on EERE Exchange at:

<https://eere-exchange.energy.gov/FAQ.aspx?Foald=9e8defc6-c525-4f17-87d8-0f4083a01eef>

Q&A: Posted on EERE Exchange

Question: Must applicants be electric utilities?

Answer: No. As outlined in Section III (Eligibility Information) of the FOA, electric utilities are not the only eligible applicants. However, Topics A and B support activities most commonly performed by electric utilities. It is important to consult the Merit Review criteria in Section V (Application Review Information) in light of details provided in pages 17 through 23 of the FOA in order to make sure that the proposed project is in line with the overall FOA goals and objectives.

Question: Are applicants required to include technical milestones, deliverables, or both in the 10-page Project Description Narrative of the concept paper?

Answer: Content requirements for the Concept paper start on page 37 of the FOA. As outlined in the FOA, DOE will evaluate a Concept Paper based on the Concept Paper criteria which includes the extent to which an applicant defines technical milestones and deliverables clearly.

Q&A: Posted on EERE Exchange

Question: What does DOE mean by the term "Technical Assistance" in Topic B? What activities will DOE fund?

Answer: Details are provided in pages 20 through 23 of the FOA. Applicants should focus on at least three of the four Action Areas described in the FOA and deliver the outcomes described by for Topic B. To allow technical assistance beneficiaries and providers a great deal of flexibility in realizing desired goals, Topic B of this FOA sets measurable goals and targets but it does not require a specific approach. It is important to consult the Merit Review criteria in Section V (Application Review Information) in light of provided details in order to make sure that the proposed project is in line with the overall FOA goals and objectives.

Q&A: Posted on EERE Exchange

Question: In *Topic B*, must applicants propose a single PV project of the sizes stipulated, or may a "project" be an aggregate of several smaller PV arrays? And may these PV generation projects be interconnected or can they be distributed generation, or a combination?

Answer: *Topic B* applicants may plan an aggregation of smaller arrays to reach the total Project size stipulated for different Technical Assistance award levels, and propose this aggregation as one "project." All aggregated smaller projects must be completed according to the overall "Project" completion date. PV resources may be grid interconnected, distributed, or both (if a combination of smaller arrays is proposed).

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LC5

I am not sure that this Q&A is posted on eXCHANGE. Need to post before webinar.

Crawford, Lalida, 3/7/2013



SUNRISE@go.doe.gov

energy.gov/sunshot

Monday, March 11th 2013

This webinar has ended.

The slides and script for the webinar will be available through the
SUNRISE FOA listing in EERE Exchange.