



SunShot Prize:

America's Most Affordable Rooftop Solar

Draft Competition Requirements

Initial Announcement	June 13, 2012
Submission Deadline for Questions & Comments to Sunshot.Prize@ee.doe.gov	5 PM ET, July 13, 2012
Expected Release of Prize Rules (Registration Open)	9 AM ET, August 1, 2012
Submission for Prize Opens	5 PM ET, December 31, 2012
Registration to Compete Closes	5 PM ET, October 31, 2014
Pre-Submission Approvals Close	5 PM ET, November 30, 2014
Submission for Prize Ends	5 PM ET, December 31, 2014
Expected Date for Announcing Prize Winners	August 1 -November 14 , 2015

6/8/2012

Contents

I. INTRODUCTION	3
II. THE PRIZE	3
III. PRIZE ELIGIBILITY.....	4
IV. INSTALLATION SPECIFICATIONS.....	5
V. EVALUATION OF SUBMISSIONS	7
A. Evaluation Review Committee.....	7
B. Submission Requirements	7
C. How to Submit Entries	12
D. Timestamp	12
E. Evaluation Process	12
F. Selection & Awards	13
VI. QUESTIONS/COMMENTS.....	13

I. INTRODUCTION

The U.S. Department of Energy SunShot Initiative aims to make subsidy-free solar energy cost-competitive with other forms of energy by the end of the decade. SunShot drives American innovation in manufacturing, engineering, and business through a series of programs designed to spark and promote market solutions to solar energy development and clean energy growth.

The \$10 million SunShot Prize: America's Most Affordable Rooftop Solar challenges the ingenuity of America's businesses and communities to make it faster, easier, and cheaper to install rooftop solar energy systems. Successful competitors will domestically deploy at least 5,000 new rooftop photovoltaic (PV) installations at an average pre-subsidy sales price of \$2 per watt before January 1, 2015. Winners will break a significant price barrier, considered to be unachievable a decade ago. Winners will prove that they can repeatedly achieve a \$2 per watt install price using innovative, verifiable processes and business practices.

Achieving \$2 per watt fully installed solar energy systems will significantly impact competitive clean energy development on the national electricity market. Sustainable, scalable business models and regulatory practices will provide transferrable lessons that can be applied nationwide to hasten the transition to affordable clean energy in a post-subsidy market.

II. THE PRIZE

The SunShot Prize is a cash award for the first three teams that deploy small-scale (1–15 kilowatt) rooftop PV systems (residential, commercial, public) with an installed sale price not exceeding three dollars per watt (\$3/W) and averaging two dollars per watt (\$2/W) for all installations deployed during a continuous duration from the time of registration for the prize until December 31, 2014.¹

The first three teams to submit eligible, qualified, winning entries will be awarded prizes based on the order in which their submissions are received:

Prize Winner	Cash Award
First Team	\$7 million
Second Team	\$2 million
Third Team	\$1 million

The first entrant² to successfully achieve the target sale price and meet all challenge requirements will receive \$7 million in cash and rights to publicly call themselves the SunShot

¹ For this prize, the watt is defined as the nameplate DC peak power rating. Teams may apply federal, state, local, and other incentives to their projects. However, these incentives cannot be used to achieve the \$2/W target price.

² Submission with earliest timestamp as specified in Section V. EVALUATION OF SUBMISSIONS (D. Timestamp).

Prize Winner of America's Most Affordable Rooftop Solar. The second and third entrants will receive \$2 million and \$1 million in cash, respectively, and be designated SunShot Prize Finalists.

DOE reserves the right to close the contest after three (3) successful entries have been received or for other reasons identified by DOE.

Cash prizes are based on the availability of funding from future appropriations and private funding contributions as authorized by the legislation, subject to the availability of appropriated funds, as provided by the America COMPETES Act reauthorized in 2010. Nothing contained herein shall be construed to obligate the U.S. Department of Energy (DOE) to any expenditure or obligation of funds in excess or in advance of appropriations in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

III. PRIZE ELIGIBILITY

Teams must meet the technical performance specifications and submission evaluation³ and each of the following qualifying requirements:

- A. A team shall install at least 5,000 small-scale distribution-grid connected, rooftop-mounted PV systems, ranging between 1 kW and 15 kW, in any of the 50 U.S. states and/or territories and in any jurisdiction.
- B. Eligible installations for Prize submission must be deployed after the team has registered as a competitor with DOE and must be installed in any time-continuous duration between August 1, 2012, and December 31, 2014. Installations completed prior to August 1, 2012, will not qualify. Eligible systems are defined as all installations (i.e. the full population of installations) deployed by the competing team or its partners or affiliates during a continuous installation period.
- C. A team must have a single legal entity representing the entire team. This entity shall be designated the Team Lead. A team may consist of one legal entity or a consortium of entities. The entity representing the team—the Team Lead—is responsible for providing and meeting all submission and evaluation requirements.⁴ Example entities that may be part of a team include, but are not limited to, solar installers, local and state governments, solar manufacturers, electric utilities, code officials, municipal planners, nonprofit groups, financial institutions, institutions of higher education, associations, or other non-profit organizations.
- D. The Team Lead shall be an Eligible Entity as defined below. The Team Lead shall be an incorporated private or publicly traded company or a institution of higher education, an association, or other non-profit organization that maintains a primary place of business in the U.S.; or an individual (whether participating as a single individual or leading a

³ Discussed in Sections IV. TECHNICAL SPECIFICATIONS and V. EVALUATION OF SUBMISSIONS.

⁴ Discussed in Section V. EVALUATION OF SUBMISSIONS.

group) who shall be a U.S. citizen. The Team Lead must be an Eligible Entity with a valid DUNS number. An Eligible Entity means a legal entity that:

1. Is validly existing, duly organized, and in good standing in the jurisdiction of its organization
2. Can receive payments that are legally made from the U.S. in U.S. dollars
3. Has a bank account into which funds can be legally deposited from the U.S. in U.S. dollars
4. Has insurance, self-insurance, or other risk management means as required by law and determined by DOE, in its sole discretion, to be adequate to protect against potential claims, losses, and damages arising from Team’s participation in the SunShot Prize.

Local governments, state governments, townships, municipalities, authorities or any other organization with substantial interest or control by a local or state authority may participate as team member but such an entity cannot be a Team Lead.

- E. The Team Lead shall submit all required documentation and evidence in English and all accounting figures shall be in U.S. dollars. Submissions will be reviewed, evaluated, and audited by independent third parties, subject to professional standards of confidentiality.

IV. INSTALLATION SPECIFICATIONS

The performance criteria detailed below seek to ensure that the winning team and finalists implement scalable, sustainable, and transferable practices. DOE methodology for verifying performance criteria via comprehensive subject-matter experts and third-party audits is described in section V. EVALUATION OF SUBMISSIONS.

Table 1 – INSTALLATION REQUIREMENTS	
Number of Installations	Minimum five thousand small scale (minimum one kilowatt and maximum fifteen kilowatts) grid-connected photovoltaic systems. The total power is not specified, but it is estimated that these installations total approximately 25 megawatts.
Eligible Systems	Eligible systems are defined as all installations (i.e. the full population of installations) deployed by the competing team or its partners or affiliates during the installation duration.
Price Ceiling (Sales Price to Consumer)	The maximum sales price per watt for a participating system shall not exceed three dollars. For a solar lease or a third-party owned system, the base value of all calculations for incentives shall not exceed three dollars per watt (\$3/W).

Average Price	The average install price, for all participating systems , must be less than or equal to two dollars per watt , including all hardware and non-hardware fees such as permitting, interconnection, inspection, installation labor, financing, and contracting but not including subsidies and incentives. For solar leases or third-party owned systems, the base values of all calculations for incentives shall average no more than two dollars per watt (\$2/W). In this case, the discount rate used for calculating a base value as net present value of future cash flows should not exceed 10%.
Installation Duration	Eligible systems are installed in a continuous period between August 1, 2012, and December 31, 2014.
Rooftop Systems	Eligible systems must be installed on rooftops of businesses, residences, or public facilities.
Profits	Operating profit (earnings before interest and tax, EBIT) from all participating installations must meet a minimum 5% margin. For solar leases or third-party owned systems where power generation revenues have not been realized, pro forma financial statements may be submitted. In this case, a system’s present value, discounted at the lessee’s weighted average cost of capital (WACC), may be considered to calculate revenues. The WACC as a discount rate should not exceed 10%.
System Owner Subsidies	The system owner may take any federal, state, local, or other subsidies (including the Investment Tax Credit and Modified Accelerated Cost Recovery System). The recognized average install price is the pre-subsidy price. For solar leases or third-party owned systems, the fair market value (FMV) price reported to authorities must be less than or equal to \$3/W and average \$2/W or less. System owners will provide certified filings, including amendments, of all tax/subsidy/rebate incentives (federal, state, local, utility, other) clearly stating the pre-subsidy price.
Permitting and Inspection	Each of the installations must meet all local, state, and federal ordinances regarding proper installation and inspection procedures (including, but not limited to, building codes, electrical codes, and fire codes).
Interconnection	Each installation must follow rules and regulations for connecting to the electric utility distribution system.
Performance Guarantees	Pre-installation system design is required and must include estimated system performance, including peak power.
Product Safety &	All installed PV system components shall be UL certified according to UL1703 and IEC61730 standards. This includes, but is not limited to, PV

Certification	modules, panels, mounting systems, AC modules, and charge controllers.
Warranty Periods	All installations must have an output manufacturer(s) warranty of at least 20 years. All installations must have a total system workmanship warranty that covers the installation of solar panels, inverters, racking, patented roof protection systems, roof penetrations, electrical and mechanical parts, and wiring for the duration of at least 10 years. All installations must have at least a 1-year installer warranty.
Operations and Maintenance Contracts	All installations must contain industry-standard O&M terms.
Transaction Time Limit	Participating installations shall be fully operational after a team's registration to compete for the SunShot Prize but no later than December 31, 2014. All installations shall begin after August 1, 2012. Systems installed prior to this date are not eligible.
Sustainability Approach	Teams must demonstrate the sustainability of the business model to deploy solar in subsidy-free U.S. markets. Future installations must prove feasible without tax/subsidy/rebate incentives (federal, state, local, and other) at a price point of not more than \$3/W. A team's ability to optimize resources and realize cost-savings will be significant to determine the SunShot Prize Winner and Finalists.

V. EVALUATION OF SUBMISSIONS

A. Evaluation Review Committee

The America COMPETES Act of 2010 requires DOE to establish an Evaluation Review Committee (ERC) composed of federal and non-federal subject matter experts, including third-party organizations, to review entries submitted under this competition and determine whether performance data successfully meet the Prize specifications detailed in this document.

The ERC will review all eligibility qualifications and installation specifications for submissions. The ERC is composed of subject matter experts from DOE, National Renewable Energy Laboratory or elsewhere in the public sector, and experts from the private sector, who collectively are knowledgeable of the solar industry, engineering, and business including finance, accounting, and marketing.

B. Submission Requirements

Step 1: Registration. Prospective entrants must register to compete for the SunShot Prize. Registration opens 9 AM ET, August 1, 2012 and closes at 5 PM ET on October 31, 2014. Registration details will be posted online at eere.energy.gov/solar/sunshot/prize.html. At a minimum, the following information will be required:

- Names and full contact information of the Team Lead and team member organizations
- Anticipated location, number, and timeframe for eligible installations
- Confirmation that the prospective entrant has read and agrees to the SunShot Prize rules
- Anticipated submission date
- Concept Paper. This document explains, in three pages or less, how the team intends to satisfy the SunShot Prize requirements, including a business model and concept of operation. It also shows a model cost structure and base calculations.
- Opting to keep registration status confidential up to 90 days.

Registration is mandatory and will end at 5 PM ET on October 31, 2014. All SunShot Prize contenders must register prior to final submission which ends at 5 PM ET on December 31, 2014. Registration allows DOE sufficient preparation time to evaluate submissions in a timely fashion. Teams may elect to keep their registration status confidential for 90 days. In this case, DOE will not disclose or release, for 90 calendar days, any public information about team's registration and expressed intent to compete in the SunShot Prize. Alternatively, DOE will have unlimited rights to disclose and release information about a team's registration. In this case DOE may coordinate joint or unilateral public announcements regarding registrations to compete for the SunShot Prize.

Step 2: Pre-Submission Approval. Following registration, DOE will evaluate the entrant registration, especially the submitted proposed Concept Paper. DOE, within 30 calendar days, will approve or disqualify the proposed approach in a formal written correspondence. DOE's approval decision, a Pre-submission Approval Letter, confirms that the entrant's proposed approach qualifies and does not violate the SunShot Prize conditions and requirements. The Pre-Submission Approval Letter allows the entrant to continue with the remaining entry processes detailed below. If a registered team does not submit a Concept Paper as part of the registration, then the entrant registration will be incomplete. DOE will send a disqualifying confirmation letter in this case. The entrant subsequently may submit a Concept Paper to complete registration. If a registered team submits a Concept Paper as part of the registration but does not receive a decision correspondence or a Pre-submission Approval Letter within 30 calendar days following registration, the entrant may contact DOE to request an official decision letter. DOE will respond with a decision letter within an expected 10 calendar days. If an entrant receives a disqualifying letter from DOE, the entrant may submit another Concept Paper without a new registration. If a registered entrant does not receive a Pre-Submission Approval Letter before 5 PM ET, November 30, 2014, then the entrant may not submit to compete in the SunShot Prize.

Step 3: Full Submission. Prospective entrants with Pre-Submission Approval Letters may submit full applications on or after 5 PM ET, December 31, 2012. In order to be considered a complete submission, the following must be included with each entry:

1. **Pre-Submission Approval Letter.** A copy of the received Pre-Submission Approval Letter has to be provided. A registered entrant will receive a decision letter from DOE to approve or disqualify business approach as proposed in the last submitted Concept Paper within 30 working days and not exceeding 45 days following submission. It is the responsibility of registered entrant to obtain a decision letter from DOE as soon as possible. A registered team without a Pre-Submission Approval Letter may not submit to compete in the SunShot Prize. A submission without Pre-Submission Approval Letter will automatically disqualify without a written notice by the Department of Energy.
2. **Data Release Form.** In evaluating submissions, DOE may share information/data with a limited number of organizations to examine installation quality, audit an entrant’s financial and business records, visit deployed installations, evaluate business sustainability, or perform any other examination required to determine eligibility for the Prize. Entrants must sign and submit the Data Release Form (Attachment 1) to be eligible.

All non-federal parties (including, but not limited to, Evaluation Review Committee (ERC) members, subject matter experts, and independent examiners) requiring product information for the purposes of this competition must sign conflict of interest and non-disclosure agreements prior to receiving entry information. Entrants must clearly mark all data in their entry package considered to be patentable, trade secret, or proprietary.

3. **Certification of Eligibility.** The entrant must provide a certification that the eligibility requirements detailed in Section III. PRIZE ELIGIBILITY are fully met. Entrants must do so by completing the Certification of Eligibility (Attachment 2). The attachment includes a statement that submitted systems constitute the full population of all installations deployed by the entire team, including team members, partners, and affiliates, during the installation duration specified in this document.
4. **Team Submission Portfolio.** Entrants must submit an informational document that , at a minimum, clearly provides the following records in order to be considered eligible for the prize:

Team Submission Portfolio	Required Information/Document
Team Profile	<ul style="list-style-type: none"> • Project narrative • Project approach and methods • Project merits (business, engineering, operations) • Project’s market impact • Team composition including partners/affiliates • Biographies for corporate officers

	<ul style="list-style-type: none"> • Biographies for management teams • Organizational charts
Installations Profile (must include every installation)	<ul style="list-style-type: none"> • Number and rated capacity rooftop installs • Installations per State and County • Installations zone distribution (residential, commercial, public) <p><i>For every single installation include:</i></p> <ul style="list-style-type: none"> • Total installed price • System rated capacity • System components • System component price breakdown • Footing details • Roof framing plan • Elevations • Electrical plans • Street address of installation location • System owner/Host customer • Customer acquisition channel • Installation/lease contract or purchase order • Photographs of installation • Solar installation permit (e.g., building, electrical) • Installation task order with dates and personnel • Install date • Interconnection date • Solar contractor/installer (if different) • Building inspection date and report • Utility inspection date and report • System owner satisfaction survey results (if any)
Hardware & Equipment (include price breakdown for every system component)	<ul style="list-style-type: none"> • List of specialized installation equipment/tools (if any) • Nameplate power (kW, peak DC) module manufacture(s) • Module model number(s) • Model description: power rating, technology • Module quantity • Inverter manufacturer(s) • Inverter model(s) • Inverter quantity • Racking hardware • Mounts • Flashing • Conduits and wiring
Labor & Operations	<ul style="list-style-type: none"> • Narrative of operations • Staff qualifications • Staff directory • Installation team composition(s)

	<ul style="list-style-type: none"> • Installation team labor costs • All labor costs (rate in \$/hr and man-hours)
Permits & Certifications	<ul style="list-style-type: none"> • Solar installer license(s) • Industry certification/awards (if any) <p><i>For every installation include:</i></p> <ul style="list-style-type: none"> • Permits (electrical, mechanical, fire, other) • Permitting application forms • Module warranty • Inverter warranty • Performance guarantee • System (installation) certification with local authority • System (installation) registration with local authority
Design & Deployment Plans (Planned versus Actual)	<ul style="list-style-type: none"> • Project baseline plans to deploy all installations including dates, deadlines, milestones, resources breakdown, and cost breakdown • Actual project plans to deploy all installations including dates, deadlines, milestones, resources breakdown, and cost breakdown
Partnerships, Agreements, and Ownership Structures	<ul style="list-style-type: none"> • Operation and maintenance contracts • Interconnection agreements • Industry partnerships or agreements (foreign or domestic) • Supplier(s) agreements or joint ventures (foreign or domestic) • Shareholder ownership structure including tax equity investors, special purposes funds or vehicles (foreign or domestic) • All stock purchase agreements (common or preferred), if any
Manufactures & Suppliers	<ul style="list-style-type: none"> • Seller company or companies • Solar contractor(s) • Contractor license number(s)
Financial & Accounting Records for 2012, 2013, 2014⁵	<ul style="list-style-type: none"> • Accounting books to include all financial transactions⁶ • Financial statements⁷ • Bank(s)/creditor(s) agreements and statements • Evidence of all financial transactions in general ledgers (i.e., invoices, purchase orders, payment receipts, checks, direct deposits, etc.) • All debt instruments or agreements (short-term, long-term, convertible, corporate bonds, IOUs)

⁵ 2014 financial and accounting records may not be required if a team completes its submission in 2013.

⁶ Teams may use Sage Peachtree or Intuit Quickbooks or any other equivalent software.

⁷ All financial statements should be prepared using GAAP (Generally Accepted Accounting Principles).

Taxes & Incentives	<ul style="list-style-type: none"> • Federal and state tax returns for 2012, 2013⁸ • Received or anticipated investment tax credits, rebates, discounts, SRECs (solar renewable energy certificates), or other
-------------------------------	---

C. How to Submit Entries

Teams are limited to one entry for the SunShot Prize. A complete entry submission that includes all items listed in Section V. EVALUATION OF SUBMISSIONS, B, Step 2, must be submitted online at eere.energy.gov/solar/sunshot/prize.html. The time of DOE receipt of a submission will be noted via a timestamp through the website.

Electronic copies of the completed *Data Release* form and *Certification of Eligibility* form may be sent by email to SunShot.Prize@ee.doe.gov.

D. Timestamp

Entries will be time-stamped when a complete entry submission is received via online submission. DOE will conduct a compliance review to ensure all information was sufficiently submitted. If DOE determines material is missing from an entry submission, the submitting Team Lead will be notified of missing information within 10 business days of receipt of the entry submission. A timestamp will be given once the missing information is received by DOE as part of a complete submission. All requirements listed in Section V. EVALUATION OF SUBMISSIONS, B must be fully satisfied for the entry to be considered complete.

Entries from multiple, different entrants will be evaluated for completeness in the order in which they are received. If, after DOE determines an entry is complete, a portion of the submitted installations do not meet specified requirements or a portion of records conflict with any of the requirements, DOE will notify the entrant. Entrants may submit revisions within 10 business days of DOE notification to retain the original timestamp. If the revision takes longer than 10 business days, the revised entry will receive a new timestamp upon receipt of the revised product and supporting information. Entrants may use the above described process for revising a submission only one time. Revised entries that still do not meet all requirements will be disqualified.

E. Evaluation Process

The evaluation process will determine the SunShot Prize Winner and Finalists in meeting requirements and satisfying the examiners’ evaluation, which will focus on installations feasibility in subsidy-free U.S. markets, scope, quality of installations, business model sustainability, and industry impact.

⁸ Tax return may not be required if team’s submission precedes tax filing deadline for 2013.

The first team to satisfy all Prize qualifying criteria will receive the first prize. The ERC will determine the final assessment for each team after completing the evaluation process.

The evaluation process consists of the following assessments:

1. **Submission Review.** In this the review examiners will determine:
 - a. Application completeness
 - b. Challenge qualification
 - c. Accuracy and authenticity of all submitted records
2. **Field Assessment.** Examiners will review evidence of installation qualification and compliance with challenge requirements. Examiners may conduct random on-site visits of approximately 10% of the total population of installations submitted by an entrant. To expedite on-site assessments, competing teams may submit customer/system owner testimonies. Examiners will assess the scope (number) and quality of installations and compliance with installation requirements.
3. **Financial & Accounting Assessment.** Examiners will perform a complete audit to determine financial propriety of submissions. Auditors will review all financial transactions, accounting procedures, internal controls, financial terms, and financial reporting systems. All team members, by being included on a team, are subject to full disclosure for the auditing process and shall not withhold any information that auditors deem necessary to complete audits.
4. **Business Sustainability.** Examiners will conduct sensitivity analyses to determine business model viability and sustainability with expected market volatility in post incentive-based U.S. Markets.

The exact approach and methodology for assessing business sustainability and financial and accounting audits are currently under review. To guarantee full transparency, the final approved approach and methodology is expected to be released to the public by December 31, 2012.

F. Selection & Awards

Advised by an independent auditing firm, the Evaluation Review Committee (ERC) will determine and name the SunShot Prize Winner and two Finalists in 2015.

VI. QUESTIONS/COMMENTS

Questions and comments regarding this competition, its requirements, technical specifications, or evaluation procedures can be submitted to SunShot.Prize@ee.doe.gov or online at eere.energy.gov/solar/sunshot/prize.html.

Attachment 1
Data Release Form

(Signed form must accompany complete entry package)

The entrant hereby accepts release of all technical performance and commercial manufacturing information provided in the entry package or gained through product testing, as necessary, to each of the following:

- The Evaluation Review Committee (ERC)
- Installation sites for on-site and field assessments
- Other independent technical experts on a need-to-know basis

Signature

Date

Print Name of Responsible Signatory

Name:

Title:

Phone:

Email:

Attachment 2

Certification of Eligibility Form

(Signed form must accompany complete entry package)

The undersigned hereby certifies that the entrant meets the eligibility requirements from Section III. The undersigned also hereby certifies the submitted systems constitute the full population, not a sample, of all installations deployed by its team, its partners, or affiliates during the allowable installation period.

Signature

Date

Print Name of Responsible Signatory

Name:

Title:

Phone:

Email: