



# SunShot Prize

## RACE TO 7-DAY SOLAR

### OFFICIAL RULES

### COMPETITION TIMELINE

|                                                   |                                    |
|---------------------------------------------------|------------------------------------|
| <i>Release of Official Rules</i>                  | <i>Wednesday, March 4, 2015</i>    |
| <i>Letter of Intent Due (Optional)</i>            | <i>Thursday, April 2, 2015</i>     |
| <i>Initial Registration Due (Optional)</i>        | <i>Monday, May 24, 2015</i>        |
| <i>Entrance Application Due</i>                   | <i>Wednesday, July 22, 2015</i>    |
| <i>Announcement of Teams</i>                      | <i>Tuesday, September 22, 2015</i> |
| <i>Performance Period Begins</i>                  | <i>Tuesday, September 22, 2015</i> |
| <i>First Progress Report Due</i>                  | <i>Tuesday, January 19, 2016</i>   |
| <i>Second Progress Report Due</i>                 | <i>Monday, March 21, 2016</i>      |
| <i>Announcement of Change Champions</i>           | <i>Friday, April 29, 2016</i>      |
| <i>Performance Period Ends</i>                    | <i>Friday, March 17, 2017</i>      |
| <i>Performance Application Due</i>                | <i>Friday, April 28, 2017</i>      |
| <i>Announcements of Competition Prize Winners</i> | <i>Monday, June 26, 2017</i>       |

*All submissions are due no later than 11:59 PM ET*

*DOE reserves the right to modify any submission period or due date at any time for any reason*

### QUESTIONS

Official email: [sunshot.prize@ee.doe.gov](mailto:sunshot.prize@ee.doe.gov)

Official website: [eere.energy.gov/solar/sunshot/prize.html](http://eere.energy.gov/solar/sunshot/prize.html)

**February 27, 2015**

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# 1. INTRODUCTION

The U.S. solar market has already realized 60% of the U.S. Department of Energy's (DOE) SunShot Initiative<sup>1</sup> price targets for 2020. Since SunShot's inception in 2011, the average price per kWh for a utility-scale solar photovoltaic (PV) project has dropped from about \$0.21 to \$0.11 per kilowatt-hour, driven in large part by reductions in hardware prices, a significant step forward. However, despite unprecedented deployment levels in the past few years that resulted in 15 GW of cumulative solar electric capacity, solar system prices remain high because of inefficient business transactions such as financing, permitting, and grid integration. As an example, in 2013 64% of the price that residential PV customers paid was contributed to soft costs<sup>2</sup>. Measured in time and money, these transaction costs<sup>3</sup> (soft costs) represent the greatest barrier for rapid deployment, economic growth and job creation in solar.

For most Americans the going solar experience is a long and arduous transaction due to inefficient processes and complex administrative obstacles. Customers may wait as long as 180 days for permitting, installation, inspection, and grid interconnection before they can flip the switch and generate electricity from a small residential solar system. Every one day cut from this inefficient process would translate to \$4 million of electricity generation at the expected 2015 deployment levels.<sup>4</sup> The SunShot Prize competition specifically targets reducing those soft costs to unlock the tremendous potential of solar in a thriving new U.S. energy economy.

## 2. THE GOAL

The \$10 million *SunShot Prize: Race to 7-Day Solar* challenges the ingenuity of America's communities and businesses to make installing solar energy systems in the U.S. faster, easier, and cheaper. The goal is to reduce by 75% the total time required to permit, install, inspect, and grid-interconnect solar PV systems while increasing process certainty and enriching the going- solar experience. Contestants will work towards reducing this permit-to-plug-in time from current durations to a swift seven days (small systems) or seven weeks (large systems). DOE designed this competition to motivate communities, local jurisdictions, solar installers and utility companies to collaborate towards one goal of improving the going solar experience.

DOE will run two contests in this competition for 18 months: one targeted at small solar systems (1 - 100 kW) and another targeted at large solar systems (101-1,000 kW),

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<sup>1</sup> Launched in 2011, SunShot is a collaborative national effort that seeks to make unsubsidized solar energy cost-competitive with other forms of electricity by the end of the decade, by supporting the efforts of communities private companies, national labs, non-profits, academia, and local governments.

<sup>2</sup> <http://energy.gov/eere/articles/help-solve-solar-s-big-challenge>

<sup>3</sup> In economics, transaction costs are often divided into three broad categories: (i) Search and information costs (e.g. finding prices/products), (ii) Bargaining costs (e.g. acceptable contracts), and (iii) Policing and enforcement costs (e.g. permits).

<sup>4</sup> Calculations based on 8.8GW expected deployment level for 2015, assuming 4.5hours of electricity generation a day at \$0.10 per kWh.

hereafter known as the “Small System Contest” and the “Large System Contest,” respectively. DOE will award prizes based on several metrics that measure process certainty and the reduction of permit-to-plug-in time, hereinafter “Total Time.”<sup>5</sup> These metrics evaluate how many systems are installed in set durations of time (Repeatability). They also assess the average time and variability (Time Performance) of installing systems. Finally, one metric evaluates how successful contestants are in applying their solutions widely across the U.S. (Replicability). See [Section 7. Evaluation Criteria & Judging](#) for more details.

DOE envisions solar developers, local jurisdictions, communities, and utility companies forming teams to pursue the goals of this competition. No one entity can achieve the goal of improving the going solar customer experience single-handedly; close coordination among communities, cities, installers, customers, and utility companies is critical. With this prize competition DOE hopes to create the right conditions and opportunities for collaboration among all stakeholders. See [Section 6. Contestant Eligibility](#) for more details.

### 3. THE PRIZES

DOE will grant cash prizes to winners according to the following table (with time periods relative to the official start of the competition):

| Prize Category            | Change Prizes                                              | Grand Prizes                                                             |                                                                          |
|---------------------------|------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Total Winners</b>      | Up to 20 winners                                           | Two winners of the Small System Contest                                  | Two winners of the Large System Contest                                  |
| <b>Cash Awards</b>        | Up to total \$100,000 each                                 | 1 <sup>st</sup> Place: \$3,000,000<br>2 <sup>nd</sup> Place: \$1,000,000 | 1 <sup>st</sup> Place: \$3,000,000<br>2 <sup>nd</sup> Place: \$1,000,000 |
| <b>Award Distribution</b> | Tranches: \$25,000, \$25,000, \$50,000 in months 8, 12, 14 | One award at competition’s end                                           | One award at competition’s end                                           |

DOE offers four Grand Prizes, two targeted at small systems (1 - 100 kW), and another two targeted at large systems (101 - 1,000 kW). The first place grand prize for the Small System Contest will be \$3 million and the second place grand prize will be \$1 million. Similarly, the first place grand prize for the Large System Contest will be \$3 million and the second place grand prize will be \$1 million. Another set of prizes will be available for up to 20 entrants who opt-in to seek in-progress rewards while taking steps towards achieving the goals of the Small or Large System Contests. These prizes will be for a total of \$2 million, up to \$100,000 per successful entrant, and known hereinafter as “Change Prizes.” Change prizes are optional. Contestants interested in pursuing Grand Prizes directly and without qualifying for Change Prizes do not participate in this part of the competition. Contestants may compete in and win both the Small and Large

<sup>5</sup> Total Time in this competition is defined as the continuous number of days required to permit, install, inspect, and grid-interconnect a solar PV system. The full definition can be found in [Section 4. Eligible Deployments](#).

System Grand Prizes. However, a contestant can only receive Change Prizes for either the Large System or Small System Change competition.

### **Grand Prizes for Small System Contest**

Two winners of the Small System Prize will receive a total of \$4 million. The winners will successfully install and connect to the U.S. grid a minimum total of 10 MW of qualifying PV solar energy generation equipment during the performance period of 18 months. For installations to count towards the minimum total of 10 MW they must satisfy the following qualifying requirements:

- A project's PV system size must be between 1 kW and 100 kW.
- Permitting, installation, inspection, and grid interconnection should have started and ended during the set 18-month performance period.
- 85% of all the contestant's projects in the contestant's selected jurisdictions (in terms of capacity measured in MW) that started and ended in the set 18-month performance period should have a project's Total Time of 56 days or less.
- No restrictions on mounting method, deployment location, or business model, provided that PV systems are co-located in the same service area of the customers' utility company.
- Additional specifications detailed in [Section 4. Eligible Deployments](#).

### **Grand Prizes for Large System Contest**

Two winners of the Large System contest will receive a total of \$4 million. The winners will successfully install and connect to the U.S. grid a minimum total of 15 MW of solar during the performance period of 18-months. For installations to count towards the minimum total of 15 MW they must satisfy the following qualifying requirements:

- A project's PV system size must be between 101 kW and 1000 kW.
- Permitting, installation, inspection, and grid interconnection should have started and ended during the set 18-month performance period.
- 85% of all the contestant's projects in the contestant's selected jurisdictions (in terms of capacity measured in MW) that started and ended in the set 18-month performance period should have a project's Total Time of 98 days or less.
- No restrictions on mounting method, deployment location or business model, provided that PV systems are co-located in the same service area of the customers' utility company.
- Additional specifications detailed in [Section 4. Eligible Deployments](#).

Winners will be determined based on total points accrued by each contestant in a point rubric consisting of five metrics covering three criteria. These criteria measure repeatability, time performance, and replicability. Details are described in Subsection [C. Evaluation of performance application](#) of Section [7. Evaluation Criteria and Judging](#).

### **Change Prizes**

Change prizes are designed to support contestants in their pursuit of winning either the Small System Contest or the Large System Contest. Even if contestants are attempting to win both the Small System Contest and the Large System Contest, they are only eligible to receive a Change prize for one contest. They may apply for both a Small and

Large System Change prize and DOE will choose the stronger application. These Change prizes reward contestants for taking meaningful steps towards satisfying the qualifying requirements of the Small System Contest or the Large System Contest. Up to 20 entrants may each win up to \$100,000 in Change Prizes provided in three consecutive tranches according to the following:

- *Seed Round*: \$25,000 will be given to teams that submit applications and receive the top 20 scores according to the criteria of Section 7 [A. Evaluation of Entrance Application](#). Detailed requirements for a full application are provided in Section 8. [Submission & Eligibility Requirements](#). Only teams receiving this initial tranche will be eligible for receiving remaining tranches.
- *Progress Round I*: \$25,000 will be awarded to the teams who successfully reach 10% of the minimum total deployment qualifying requirement (i.e. 1 MW for Small System Contest or 1.5 MW for Large System Contest) within the specified time and meet the evaluation criteria outlined in Subsection [B. Evaluation of performance progress report](#) of Section [7. Evaluation Criteria and Judging](#).
- *Progress Round II*: \$50,000 will be awarded to the teams who successfully reach 30% of the minimum total deployment qualifying requirement (i.e. 3 MW for Small System Contest or 4.5 MW for Large System Contest) within the specified time and meet the evaluation criteria outlined in Subsection [B. Evaluation of performance progress report](#) of Section [7. Evaluation Criteria and Judging](#).

Winners of the Change Prizes who receive the full \$100,000 will be designated as Change Champions of the SunShot Prize. Note that one contestant may win a total \$6,100,000 (i.e. \$100,000 Change Prize and \$3,000,000 1<sup>st</sup> place Grand Prizes in both contests). Finally, contestants who do not win a Change Prize are still eligible to pursue the competition to win Grand Prizes.

DOE reserves the right to suspend, cancel, extend, or curtail the SunShot Prize competition as required or determined appropriate by DOE officials. Nothing within this document or in any documents supporting the SunShot Prize competition shall be construed as obligating DOE or any other Federal agency or instrumentality to any expenditure of appropriated funds, or any obligation or expenditure of funds in excess of or in advance of available appropriations.

## 4. ELIGIBLE DEPLOYMENTS

The following table describes definitions, terms, and specifications for eligible deployments in this competition. DOE may rely on subject-matter experts and third-party auditors to verify whether a team complied with these specifications. As a condition of competing each team must agree to provide DOE in a timely fashion, upon request, some or all the documents/materials outlined in Appendix D.

|                                     | <b>DEPLOYMENT REQUIREMENTS AND RELATED TERMS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
|                                     | <b>Small System Contest</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Large System Contest</b> |
| <b>Individual System Size</b>       | 1 - 100 kilowatts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 101 - 1000 kilowatts        |
| <b>Deployment Scale</b>             | Minimum 10 megawatts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minimum 15 megawatts        |
| <b>Total Time</b>                   | The total number of continuous calendar days starting with the date of an application to permit or to grid-interconnect, whichever is earlier, and ending with the effective date of grid interconnection or effective date of credit for a PV system/subscription on a customer utility bill for applicable installations (e.g. shared/community solar generation)                                                                                                                                                                                                                                       |                             |
| <b>Eligible System</b>              | <p>A completed system is defined as a distribution-grid-connected, rooftop-mounted or ground-mounted, PV installation with a new interconnection to the electricity grid and a valid interconnection agreement granted by a local electric utility.</p> <p>Systems eligible to be counted towards the required Deployment Scale are all systems installed during the Performance Period and completed in team selected jurisdictions within the allowed Maximum Total Time Period, in Eligible Location(s), and while meeting Rule 85% (all defined in this table).</p>                                   |                             |
| <b>Performance Period</b>           | Month 08 to Month 26 of this competition, also known as the 18-month performance period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |
| <b>Eligible Location(s)</b>         | Any county or county-equivalents (e.g., cities, parishes, boroughs) within the United States of America or its Territories.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |
| <b>Maximum Total Time Duration</b>  | 56 days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 98 days                     |
| <b>Rule 85%</b>                     | 85% of total capacity in MW of eligible systems population in team selected jurisdictions has to be completed in time durations not exceeding the Maximum Total Time Duration                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |
| <b>Installation Type</b>            | No restriction on mounting type (e.g. rooftop mount, ground mount)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |
| <b>System Customers /Off-takers</b> | <p>Any U.S. legally acceptable contracting or ownership structure for PV systems (e.g. on-site host owned, third-party owned systems, shared/community solar, virtually-net-metered systems, utility-owned or operated systems) excluding subscriptions in green power programs run by utilities or any third-party organization. System off-takers and subscribers have to be co-located in the same geographical service area of their utility company.</p> <p>A shared or community solar system requires at least two off-takers or subscribers that have two separate utility bills or accounts.</p> |                             |
| <b>Permitting and Inspection</b>    | Each installation must meet all applicable local, State, and Federal statutes, laws, regulations and ordinances regarding proper installation and inspection procedures (including, but not limited to, building codes, electrical codes, and fire codes).                                                                                                                                                                                                                                                                                                                                                |                             |
| <b>Interconnection</b>              | Each installation must follow utility-specific rules and regulations for connecting to the electric utility distribution system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |

|                                             |                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Safety &amp; Certification</b>   | All installed system components shall be certified according to UL1703 or IEC61730 standards or other comparable standards. This includes, but is not limited to, PV modules, panels, mounting systems, AC modules, and charge controllers.                                                                                                                                               |
| <b>Warranties</b>                           | All installations must have an output manufacturer(s) warranty of at least 10 years for PV panels and invertors. 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 5 years. |
| <b>Operations and Maintenance Contracts</b> | Every third-party owned system must be covered under an operations and maintenance agreement for the duration of the customer's/off-taker's agreement.                                                                                                                                                                                                                                    |
| <b>Insurance</b>                            | Installations should be covered under construction insurance packages required by local authorities such as general liability insurance, construction liability insurance, auto insurance, marine cargo insurance, and workers compensation.                                                                                                                                              |

## 5. HOW TO ENTER

In order to compete in the SunShot Prize competition:

- Complete the steps shown in the table below.
- Submit the required materials throughout the challenge by using one active account on the “Funding Opportunity Exchange” website for DOE’s Energy Efficiency & Renewable Energy (EERE) office, hereinafter referred to as “EERE Exchange.”
  - To create an account on “EERE Exchange”, go to <https://eere-exchange.energy.gov> and click the “Register” link.
  - Select FOA Number “DE-FOA-000766”
- Visit <http://eere.energy.gov/solar/sunshot/prize.html> for more information and updates.

| Step No. | Action(s)                                                                                                                                                                                                                                            | Start Month | End Month |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|
| 0        | • Submit a letter of intent to compete (optional)                                                                                                                                                                                                    | 00          | 02        |
| 1        | • Submit an initial team registration (optional)                                                                                                                                                                                                     | 02          | 04        |
| 2        | • Submit the official entrance application with an option to opt-in to the \$100,000 Change Prize rewards and process                                                                                                                                | 04          | 06        |
| 3        | • Judges evaluate applications of teams that opted-in for the \$100,000 Change Prize and select up to 20 teams<br>• DOE announces all teams, including up to 20 Change Prize candidates and grants each candidate \$25,000 to support plan execution | 06          | 08        |
| 4        | • Performance period begins<br>• Execute plan and accumulate points for Grand Prize contests<br>• Submit a progress report on deployments (per contest) for Change                                                                                   | 08          | 12        |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
|   | Prize candidates only. This is optional for all other teams. <ul style="list-style-type: none"> <li>• A candidate's progress report (<i>Progress Round I</i>) has to show at least 10% of the required deployment at-scale size (i.e. 1 MW for Small System Contest and 1.5 MW for Large System Contest) to receive the \$25,000 tranche</li> </ul>                                                                                                                                                                                                                                                           |    |    |
| 5 | <ul style="list-style-type: none"> <li>• Performance period continues</li> <li>• Continue to execute plan and accumulate points</li> <li>• Submit a progress report on deployments (per contest) for Change Prize candidates only. This is optional for all other teams.</li> <li>• A candidate's progress report (<i>Progress Round II</i>) has to show 30% completion of the required minimum deployment target (per contest) to receive the \$50,000 tranche</li> <li>• DOE announces the winning candidates for the Change Prize that will be designated Change Champions of the SunShot Prize</li> </ul> | 12 | 14 |
| 6 | <ul style="list-style-type: none"> <li>• Continue to execute plan and accumulate points for the Grand Prize for your chosen contest (Small or Large System Contest)</li> <li>• Submit performance application for the Grand Prize for your chosen contest</li> </ul>                                                                                                                                                                                                                                                                                                                                          | 14 | 27 |
| 7 | <ul style="list-style-type: none"> <li>• DOE will evaluate performance applications and announce Grand Prize winners</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 27 | 30 |

## 6. CONTESTANT ELIGIBILITY

The SunShot Prize is open only to: (a) citizens or permanent residents of the United States; and (b) private or non-federal public entities, such as townships, corporations or other organizations that are incorporated in and maintain a primary place of business in the United States. DOE employees, employees of sponsoring organizations, and members of their immediate family (spouses, children, siblings, parents), and persons living in the same household as such persons, whether or not related, are not eligible to participate in this competition. Federal entities and Federal employees, acting within the scope of their employment, are also not eligible to participate in any portion of this competition. Submissions can be from an individual or a team (Team). Teams must meet these qualifying requirements:

- A. A team must have a single legal entity representing the entire team. This entity shall be designated the Team Lead. The Team Lead is responsible for providing and meeting all submission and evaluation requirements.<sup>6</sup> The Team Lead shall be a private or publicly traded company or an institution of higher education, an association, or other nonprofit organization, that maintains a primary place of business in the U.S.; or an individual (whether participating as a single individual or leading a group) who shall be a U.S. citizen. Local governments, State governments, townships, municipalities, authorities, or any other organization with substantial interest or control by a local or State authority may also be designated as a Team

<sup>6</sup> Details are described in Section [7. Submission & Eligibility Requirements](#)

Lead. The Team Lead must have a valid DUNS number<sup>7</sup> at the time of the official entrance application. The Team Lead must meet the following criteria:

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
- B. Any entity that has substantial active involvement on the team's Prize performance must be included as a team member. Examples of entities that may be part of a team include, but are not limited to, solar developers, installers, local and State governments (e.g. counties, cities), electric utilities, code officials, municipal planners, financial institutions, higher education institutions, nonprofit groups, trade associations, and other nonprofit organizations.
- C. Each team member must be either: (1) a legal entity established pursuant to U.S. Federal or State laws, with operations in the U.S. or its Territories or; (2) a foreign legal entity having an officially recognized place of business in the U.S. or its Territories.
- D. In accordance with 15 U.S.C. § 3719(i), the Team Lead shall provide proof of general liability insurance of \$1 million per incident and a \$5 million umbrella policy for claims by a third party for death, bodily injury, or property damage or loss resulting from an activity carried out in connection with the competition, with the Federal Government named as an additional insured under the Team Lead's insurance policy. Additionally, registered participants must agree to indemnify the Federal Government against third party claims for damages arising from or related to competition activities and for damage or loss to Government property resulting from such an activity.
- E. The Team Lead and all team members must agree to assume any and all risks related to the SunShot Prize and waive all claims against the Federal Government and related entities, except in cases of willful misconduct, for any injury, death, damage, or loss of personal property, revenue or profits, whether direct, indirect, or consequential, arising from their participation in the competition, whether the injury, death, damage, or loss arises through negligence or otherwise.
- F. The Team Lead shall submit all required documentation and evidence in English and all accounting figures shall be in U.S. dollars. Submissions may be reviewed, evaluated, and audited by independent third parties, subject to professional standards of confidentiality.
- G. As a condition of participation teams agree to provide DOE, upon request, documentation to credibly support any performance claims associated with the performance metrics in this contest. If contestants fail to provide adequate documentation, DOE may exclude such unsubstantiated claims or may disqualify the team from the competition. Anyone who makes any materially false, fictitious, or

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<sup>7</sup> Obtain a Dun & Bradstreet Data Universal Numbering System (DUNS) number (including a plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>.

fraudulent statement or representation; may be fined and imprisoned for up to 5 years under 18 USC 1001.

- H. A team shall have a Teaming Agreement (Agreement) signed by an authorized official or representative of each team member that adequately describes the relationship between the team members, the roles and responsibilities of the team members, and the duration of the Agreement. Additionally, the Agreement shall describe dispute and conflict resolution amongst the team members (including disputes related to participation), allocation of prize award amount(s) to team members, confidential or proprietary information between team members, and how and when the Agreement is subject to termination.
- I. The Team Lead acting on behalf of all team members agrees to sign Certificate of Eligibility to confirm unconditional agreement with all terms and conditions of this competition including all the items included in this section.

## **7. EVALUATION CRITERIA & JUDGING**

### **A. Evaluation of Entrance Application**

Any potential contestant interested in pursuing the Small System Contest or the Large System Contest is required to submit a full entrance application as described in [Section 8. Submission & Eligibility Requirements](#). Applicants can choose not to opt-in to the \$100,000 Change Prize process of this competition. In this case, their applications will not be evaluated by a DOE-selected jury of judges. These teams can start their deployments and accumulate points for pursuing the Grand Prizes directly and without any mandatory progress reporting. Applicants that choose to receive Change Prizes will be subject to the evaluation process described in this subsection.

Teams' official entrance application will be evaluated by a jury of judges to select up to total 20 candidates for the Change Prizes who are pursuing the Small System Contest or the Large System Contest or both. Evaluation is determined by three criteria, each consisting of five questions with equal point values. Each judge will assign points based on her agreement level with an affirmative "Yes" answer to each question in each criterion. The final score is determined as the average total points assigned by at least three judges. The point score per agreement level with an affirmative "Yes" answer for each criterion is described in [Appendix A](#).

The three criteria for evaluating entrance application, with their relative weights, are as follows:

#### **CRITERIA #1: PROCESS INNOVATION & STRATEGY** **(MAX 300/1000)**

- The proposal is highly aligned with the competition goals, deployment eligibility requirements, and time specifications.

- The proposal is innovative, feasible and executable within the prescribed performance period.
- The proposal implements sustainable and enduring innovation that can be applied without pivoting on policy or regulatory changes at state, local or federal level.
- The proposed innovation and strategy are not temporary and will lead to breaking time barriers described in this competition.
- The proposed innovation has a high degree of replicability in a significant number of U.S. solar markets.

**CRITERIA #2: TEAM & EXECUTION PLAN**  
**(MAX 300/1000)**

- Roles and responsibilities of team members reflect a highly organized and well-thought-out process to maximize the project success and achieve the goals of this competition.
- The collective capabilities, experiences, and resources of team members play a key role in the project's success.
- The plan demonstrates that the team understands all the activities involved in the project at a highly detailed level.
- The activities are planned and organized efficiently to ensure successful outcomes in line with this competition's goals.
- The plan includes mechanism and performance indicators to mitigate execution risks and contingencies.

**CRITERIA #3: FEASIBILITY & RESOURCES**  
**(MAX 400/1000)**

- The plan is economically feasible within the prescribed performance period for the SunShot Prize competition.
- The plan is operationally feasible within the prescribed performance period for the SunShot Prize competition.
- The plan demonstrates a clear understanding of market challenges, technical obstacles, associated costs, risks, and resources needed for successful execution.
- The project has secured dedicated resources and commitments from key stakeholders, partners, and supporters in order to successfully execute the plan within the prescribed performance period.
- The plan uses existing resources and capabilities efficiently to achieve plan goals while mitigating risks.

**B. Evaluation of Performance Progress Reports (Change Prize Only)**

Change Prizes candidate teams will submit deployment progress reports due to DOE as described in Sections [5. How to Enter](#) and [Important Dates](#). Evaluation is determined by progress criteria which consist of five questions. Each judge will assign points based on her agreement level with an affirmative “Yes” answer to each one of these questions. The final score is determined as the average total points assigned by at least three judges. The point score per agreement level with an affirmative “Yes” answer for each

question is described in [Appendix B](#). To receive the allocated cash tranches, a candidate is required to score at least 700 points according to the following criteria:

**CRITERIA: DEPLOYMENT PROGRESS (Progress Round I and Round II)**  
**(MAX 1000 points)**

- **C1:** The Team has fully deployed the required minimum per round: (400 points)
  - *Progress Round I:* Minimum 1 MW of eligible systems (Small System Contest) or 1.5 MW of eligible systems (Large System Contest).
  - *Progress Round II:* Minimum 3 MW of eligible systems (Small System Contest) or 4.5 MW of eligible systems (Large System Contest).
- **C2:** The Team composition, roles and responsibilities continue to reflect a highly coordinated and organized team. (100 points)
- **C3:** The Team has actively engaged an adequate number of key stakeholders, partners, and supporters to guarantee project success. (100 points)
- **C4:** The Team's progress confirms that their plan continues to be operationally and economically feasible within the prescribed performance period for the SunShot Prize competition. (200 points)
- **C5:** Executed and planned activities demonstrate that the Team will continue to pursue the goals of the SunShot Prize in the upcoming months. (200 points)

**C. Evaluation of Performance Application**

In determining winners of the Grand Prizes, a candidate's performance will be evaluated based on five metrics scored independently per contest (i.e. Small System and Large System Contest). The same criteria will apply per contest, but each contest will be scored independently. For each contest, the two teams with the highest two total points, above 2,250 points at the end of the competition win the first place and second place prizes. If no teams score above 2,250 points no Grand Prizes will be awarded. In the event of two or more teams receiving top equal scores for first place or second place prizes in either Contest, the allocated total prize award will be split equally and distributed evenly among the winners with tying scores.

The criteria for performance application, with their relative point scores, are as follows:

**CRITERIA #1: REPEATABILITY**  
**(MAX 1250/3000)**

The repeatability criteria measure a team's ability to complete PV systems in set time durations repeatedly. Shorter time durations translate to higher points. The closer a system's Total Time to a 7-day time duration, the higher the points are for the Small System Contest. Similarly, the closer a system's Total Time to a 7-week time duration, the higher the points are for the Large System Contest. Durations of Total Time that exceed 7-day (Small System Contest) or 7-week (Large System Contest) are set in increments of seven days. Consequently, systems with longer Total Time durations get discounted accordingly. Systems with time durations exceeding the Maximum Total Time duration allowed (e.g. 56 days for Small System Contest) will not be considered.

The following table shows the applied discounts factors per time period for both contests:

| Total Time - Small System Contest |      |         |         |         |         |         |         |         |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|
| Periods<br>(in days)              | 0-7  | 8-14    | 15 – 21 | 22 – 28 | 29 – 35 | 36 – 42 | 43 – 49 | 50 – 56 |
| Discount<br>Factor                | 0%   | 9%      | 17%     | 25%     | 32%     | 38%     | 44%     | 49%     |
| Total Time - Large System Contest |      |         |         |         |         |         |         |         |
| Periods<br>(in days)              | 0-49 | 50 – 56 | 57 – 63 | 64 - 70 | 71 – 77 | 78 - 84 | 85 – 91 | 92 – 98 |
| Discount<br>Factor                | 0%   | 9%      | 17%     | 25%     | 32%     | 38%     | 44%     | 49%     |

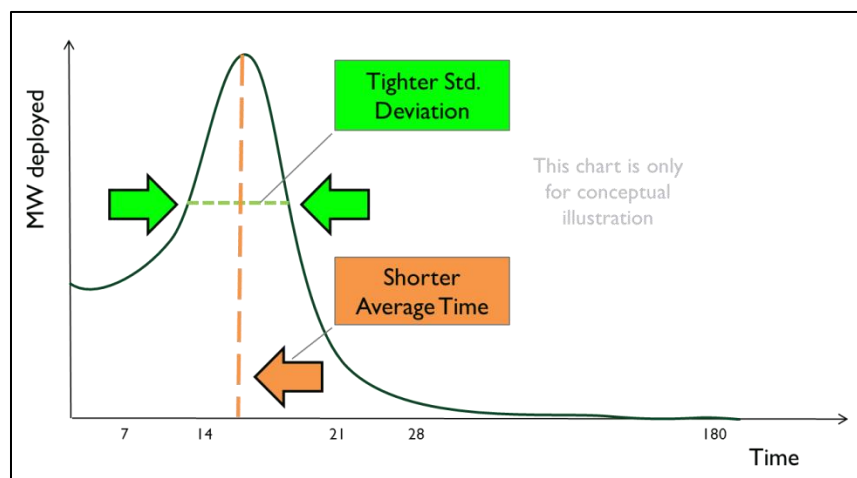
A team will earn points according to two metrics whose calculated values are then converted to points according to lookup tables provided in Appendix C.

- Metric #1 - Time-adjusted capacity (Max 250 points):** To calculate the value of this metric in MW, the generation capacity for all eligible systems with the same Total Time period are added after applying the corresponding discount factors. For example, in the Small System Contest, if a team deployed total 5 MW of systems with Total Time period of 7 days or less and another total 5 MW of systems with Total Time period exceeding 7 days but less than 15 days, then value of this team's Time-adjusted deployments is  $5 + (1 - 0.09) 5 = 9.55$  MW.
- Metric #2 - Normalized time-adjusted capacity (Max 1000 points):** This metric measures the ratio of the Time-adjusted Capacity to a team's total capacity (all PV systems started and completed during the 18-month performance period). To calculate the value of this metric, divide the time-adjusted capacity (in MW) by the total capacity (in MW). A value closer to 100% means that the majority of systems have Total Time durations close to 7 days (Small System Contest) or 7 weeks (Large System Contest). This metric is different from Metric #1 because a team can compensate for the effect of discounting and receive high value for Metric #1 (Time-adjusted capacity) simply by increasing the number of systems deployed in longer time durations. The normalized time-adjusted capacity metric counter for such strategies because it will discount according to relative portions. For example, in the Small System Contest, if a team deployed total 15 MW of systems with 3 MW in 0-7 day Total Time durations, 5 MW in 8-14 day Total Time durations, and 7 MW in 43-49 Total Time durations, this team's time-adjusted capacity will be  $3 + (1 - 0.09) 5 + (1 - 0.44) 7 = 11.50$  MW. However, this team's normalized time-adjusted capacity value is 77%.

## CRITERIA #2: TIME PERFORMANCE (MAX 1250/3000)

The time performance criteria measure a team's ability to consistently reduce the Total Time for PV system and increase the certainty of going solar. Denser high portions of systems completed in short time durations translate to higher points. The time performance criteria combine a measurement of Total Time expected value with a

measurement of variance. These metrics correspond in general terms to average time and time standard deviation (see figure below for conceptual illustration). The closer a system's Total Time to a 7-day time duration the higher the points are for the Small System Contest. Similarly, the closer a system's Total Time to a 7-week time duration the higher the points are for the Large System Contest. Durations of Total Time that exceed 7-day (Small System Contest) or 7-week (Large System Contest) are set in increments of seven days. A team will earn points according to two metrics whose calculated values are then converted to points according to lookup tables provided in Appendix C.



- Metric #3 - Expected Value of Total Time (Max 250 points):** For each Total Time period, a value in days is assigned which equals to the longest number of days in this Total Time period. For example, the assigned time value for a Total Time period of 0-7 days is 7 and for a period of 8-14, it is 14 (see table below for all assigned values). To calculate the expected value of Total Time in days, time values are added after weighing each with a ratio of total capacity of systems with the same Total Time period to the team's total capacity deployed (all PV systems started and completed during the 18-month performance period). For example, in the Small System Contest, a team deployed total 15 MW of systems with 3 MW in 0-7 day Total Time durations, 5 MW in 8-14 day durations, and 7 MW in 43-49 day durations. This team's Expected Value of Total Time is  $7 (3/15) + 14 (5/15) + 49 (7/15) = 28.93$  days. The highest points are granted to the lowest expected value of Total Time. This value is seven days for Small System Contest and 49 days (7 weeks) for Large System Contest.

| Total Time - Small System Contest |      |         |         |         |         |         |         |         |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|
| Periods (in days)                 | 0-7  | 8-14    | 15 – 21 | 22 – 28 | 29 – 35 | 36 – 42 | 43 – 49 | 50 – 56 |
| Time Value                        | 7    | 14      | 21      | 28      | 35      | 42      | 49      | 56      |
| Total Time - Large System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)                 | 0-49 | 50 – 56 | 57 – 63 | 64 - 70 | 71 – 77 | 78 - 84 | 85 – 91 | 92 – 98 |
| Time Value                        | 49   | 56      | 63      | 70      | 77      | 84      | 91      | 98      |

- Metric #4 - Total Time Variability (Max 1000 points):** This metric calculates the standard deviation of time values assigned to Total Time periods according to the distribution of deployment ratios (i.e. total capacity of systems with the same Total Time period to the team's total capacity deployed). The standard deviation is calculated as the square root of variance. To calculate variance, the squared difference between time values and the expected value of Total Time are added after weighing each with a ratio of total capacity of systems with the same Total Time period to the team's total capacity deployed (all PV systems started and completed during the 18-month performance period). For example, in the Small System Contest, a team deployed total 15 MW of systems with 3MW in 0-7 day Total Time durations, 5MW in 8-14 day durations, and 7 MW in 43-49 day durations. This team's Expected Value of Total Time equals 28.83 days. The variance is calculated  $(7-28.83)^2 \times (3/15) + (14-28.83)^2 \times (5/15) + (49-28.83)^2 \times (7/15) = 358.47 \text{ day}^2$ . The square root of 358.47 is 18.93. The total time variability for this team is therefore 18.93 days. The highest points are granted to the lowest Total Time variability.

### CRITERION #3: REPLICABILITY (MAX 500/3000)

Replicability measures a team's ability to apply their innovation for time reduction and increased process certainty across wide geographical areas in the U.S. Because permitting, inspection, and grid interconnection can vary even in one county across different local authorities having jurisdiction (AHJs), these jurisdictions are considered the basic unit for a geographic boundary. A team will earn points according to one metric whose calculated value is then converted to points according to lookup tables provided in Appendix C.

- Metric #5 - Diversity of jurisdictions (Max 500 points):** This metric evaluates whether PV system deployments are concentrated in a small number of jurisdictions or widely spread. A jurisdiction share of deployments is calculated as the total capacity of eligible systems deployed in this jurisdiction relative to all systems deployed by the team during the 18-month performance period. These shares, when squared and added, give a value between 0% and 100% that measures geographic concentration. 100% corresponds to having all deployments in one jurisdiction and 0% is equivalent to having deployments in an infinite number of jurisdictions. The

diversity of jurisdiction is calculated by subtracting the team's geographic concentration value from 100%. For example, if a team completed a total of 10 MW, with 2 MW in jurisdiction A, 4 MW in jurisdiction B, and 4 MW in jurisdiction C, then the diversity of jurisdiction value is:  $1 - [(2/10)^2 + (4/10)^2 + (4/10)^2] = 64\%$ .

In summary the following table provides details about the formulae used for calculating evaluation metrics for the Grand Prizes.

| Criteria         | Metric                                     | Points | Short Description                                                                                                                                                |
|------------------|--------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Repeatability    | Time-adjusted capacity                     | 250    | Team's total eligible installed capacity (in MWs) adjusted based on the different Total Time periods. Details: Appendix C – Metric #1                            |
|                  | Normalized time-adjusted capacity          | 1000   | Time-adjusted deployments normalized by team's total eligible installed capacity. Details: Appendix C – Metric #2                                                |
| Time Performance | Total Time expected value (scale-adjusted) | 250    | Time is measured as the average of Total Time weighted by total capacity (measured in MWs) installed in set time periods. Details: Appendix C – Metric #3        |
|                  | Total Time variability (scale-adjusted)    | 1000   | Variability is measured as a standard deviation of Total Time weighted by total capacity (in MWs) installed in set time periods. Details: Appendix C – Metric #4 |
| Replicability    | Diversity of jurisdictions                 | 500    | Geographic spread of local jurisdictions weighted by eligible installed capacity (in MWs). Details: Appendix C – Metric #5                                       |

## D. Judges

Section 105 of Public Law 111-358, the America COMPETES Reauthorization Act of 2010, amended the Stevenson-Wydler Technology Innovation Act of 1980, 15 USC 3701 et seq., by adding a new section 24, which generally authorizes Federal agencies to award prizes competitively to stimulate innovation that has the potential to advance the mission of the respective agency. Among other things, section 24 requires DOE to appoint qualified judges to select the winner of the competition. DOE will establish a qualified panel of experts selected by DOE at its sole discretion. The judging panel will be composed of Federal and non-Federal subject matter experts, including third-party organizations, to review submissions according to the described evaluation criteria. Judges may not (A) have personal or financial interests in, or be an employee, officer, director, or agent of any entity that is a registered participant in a contest; or (B) have a

familial or financial relationship with an individual who is a registered participant. The decisions of the judges for the contests will be announced in accordance with the dates noted in the Important Dates section of these rules. Under section 24, the Federal Advisory Committee act shall not apply to the DOE selected judging panel.

## **8. SUBMISSION & TEAM ELIGIBILITY REQUIREMENTS**

Submissions have to meet the following requirements:

- No DOE logo - submission(s) must not use DOE's logo or official seal and must not claim DOE endorsement.
- Each submission must be original, the work of the contestant, and must not infringe, misappropriate or otherwise violate any intellectual property rights, privacy rights, or any other rights of any person or entity.
- It is an express condition of submission and eligibility that each contestant warrants and represents that the contestant's submission is solely owned by the contestant, that the submission is wholly original with the contestant, and that no other party has any ownership rights or ownership interest in the submission.
- Each contestant further represents and warrants to DOE and the other sponsors that the submission, and any use thereof by DOE or the other sponsors (or any of their respective partners, subsidiaries and affiliates), shall not: (i) be defamatory or libelous in any manner toward any person, (ii) constitute or result in any misappropriation or other violation of any person's publicity rights or right of privacy, or (iii) infringe, misappropriate or otherwise violate any intellectual property rights, proprietary rights, privacy rights, moral rights or any other rights of any person or entity.
- A contestant may contract with a third party for technical assistance to create the submission, provided the submission is solely the contestant's work product and the result of the contestant's work and the contestant owns all rights to it.
- Each submission must be in English. All accounting figures must be in U.S. dollars.
- Electronic files in Microsoft Word (MS) should be saved in a .docx, .doc or .pdf extension; MS Excel Spreadsheet files should be saved in an .xls or .xlsx file extension; Adobe files should be saved in a .pdf file extension; and compressed files should be saved in a .zip file extension.
- Submissions will not be accepted if they contain any matter that, in the sole discretion of DOE, is indecent, obscene, defamatory, libelous, in bad taste, or demonstrates a lack of respect for public morals or conduct.
- If DOE, or the Judges, in their discretion, find any submission to be unacceptable,

then such submission shall be deemed disqualified.

- **Deadline(s)** – A submission must be available by the end date noted in the "Important Dates" section of these rules.
- **Submission items** - The submission items are shown in the table below. All items listed below except the Letter of Intent and Initial Team Registration are required. Failure to provide the required content as specified and before the set deadlines may render the applicant ineligible for any cash prizes in both categories (Change or Grand Prizes) and contests of this competition.

| <b>Letter of Intent (Optional)</b>          |                                | <b>04/02/2015</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Submission Item(s)</b>                   | <b>Format &amp; Limitation</b> | <b>Required Information/content</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Letter of Intent                            | 1-page MS Word file            | <ul style="list-style-type: none"> <li>• Project title and the track of interest (e.g. Small System Contest)</li> <li>• Project abstract not exceeding 100 words in length</li> <li>• A short statement expressing intent to compete</li> <li>• Name and contact information of the candidate Team Lead and key member organizations (telephone number, email address, website)</li> <li>• Links to publically accessible online resumes for top three key personnel or principals</li> </ul>                      |
| <b>Initial Team Registration (Optional)</b> |                                | <b>05/24/2015</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Team Composition                            | 1-datasheet MS Excel file      | <p>The datasheet should include the following information, when applicable, for the designated Team Lead and every participating team, partners, and supporters, provided in a short narrative :</p> <ul style="list-style-type: none"> <li>• Name and contact information (telephone number email address, website)</li> <li>• Top 5 capabilities and resources</li> <li>• Top 5 roles and responsibilities</li> <li>• Installation types of interest</li> <li>• Areas of key interest for deployments</li> </ul> |
| Project Concept Paper                       | 3-page MS Word file            | <ul style="list-style-type: none"> <li>• Project title and the track of interest (e.g. Small System Contest)</li> <li>• A narrative describing how the team intends to meet deployment eligibility and demonstrate sustainable and enduring innovation.</li> <li>• The narrative should include a brief analysis of the technical and economic feasibility of the proposed approach, its impact and replicability.</li> </ul>                                                                                      |
| Work Plan                                   | 1-page MS Word file            | <ul style="list-style-type: none"> <li>• A high-level work plan describing goals, milestones, activities, deliverables, and timeline.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |

| <b>Entrance application</b> |                                | <b>07/22/2015</b>                                                                                                             |
|-----------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Submission Item(s)</b>   | <b>Format &amp; Limitation</b> | <b>Required Information/content</b>                                                                                           |
| Official Team Composition   | 1-datasheet                    | The datasheet should include the following information, when applicable, for the designated Team Lead and every participating |

|                               |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | MS Excel file       | <p>team, partners, and supporters, provided in a short narrative :</p> <ul style="list-style-type: none"> <li>• Name and contact information (telephone number, email address, website)</li> <li>• Key capabilities and resources</li> <li>• Key roles and responsibilities</li> <li>• Installation types and business models</li> <li>• Jurisdictions of potential deployments</li> <li>• Commitments and resources dedicated to the project</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Project technical description | 3-page MS word file | <ul style="list-style-type: none"> <li>• Relevance and Outcomes: Detailed description of the proposed process-innovation and implementation strategy. The proposal relevance and alignment with meeting the goals and deployment eligibility of this competition. Clearly specify the expected outcomes of the project.</li> <li>• Feasibility: Demonstrate the technical, operational and economic feasibility of the proposed process-innovation including dedicated resources and capability needed for realizing the anticipated performance targets.</li> <li>• Enduring Impact: Describe the current state of the art in the applicable field, the advantages of proposed process-innovation, its replicability, and the overall impacts.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Work plan                     | 7-page MS word file | <ul style="list-style-type: none"> <li>• The work plan should contain a concise detailed description of the activities to be conducted over the performance period. Appropriate milestones should be incorporated into the task and subtask structure. Each task and subtask should have a technical details section, as appropriate, to discuss how the work will be done, anticipated problems or uncertainties, and any further clarification, such as why a specific approach is being taken.</li> <li>• Milestones: Provide appropriate SMART<sup>8</sup> milestones throughout the project to demonstrate success, where success is defined as a verifiable well-defined technical achievement. Show the means by which the milestone will be verified.</li> <li>• Schedule &amp; Deliverables: Provide a detailed schedule for the entire project, including task and subtask durations, milestones, deliverables and key decision points.</li> <li>• Project Management: Provide a proposed management plan with details that cover: <ul style="list-style-type: none"> <li>• Team organization and members' roles and responsibilities.</li> <li>• Interdependencies among team members and among key partners or stakeholders</li> <li>• The technical and management aspects (e.g. processes, systems and practices)</li> <li>• Change management, risk management and mitigation</li> </ul> </li> </ul> |

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<sup>8</sup> Specific, Measurable, Achievable, Relevant, and Timely (SMART)

|                                         |                     |                                                                                                                                                                                                                         |
|-----------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         |                     | <ul style="list-style-type: none"> <li>• Communication and coordination management</li> </ul>                                                                                                                           |
| Budget Summary                          | 1-page MS word file | A summary budget sheet showing a high level description of cost categories and estimated costs for a successful project execution. This information will only be used to evaluate the proposal's merits.                |
| Certification of Contestant Eligibility | 1-page PDF file     | A statement confirming the Team Lead and its members unconditionally agree to all the terms and conditions of this competition.                                                                                         |
| Project Summary for Public Release      | 1-page MS word file | A short description of the project, goals, team members, partners, and key stakeholders to share with the public. Top five key personnel or principals may provide links to their publically accessible online resumes. |

| Progress Report Submission(s) |                           | Round I                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 01/19/2016 |
|-------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                               |                           | Round II                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 03/21/2016 |
| Submission Item(s)            | Format & Limitation       | Required Information/content                                                                                                                                                                                                                                                                                                                                                                                                                               |            |
| Deployment Work Sheet         | 1-datasheet MS Excel file | <ul style="list-style-type: none"> <li>• The datasheet showing the details of completed eligible deployments. The datasheet should also include planned installations and expected Total Time periods and completion dates. The information provided should be sufficient to enable validation of permits issued by a local Authority Having Jurisdiction (AHJ) and interconnection agreements/bill credits granted by a local utility company.</li> </ul> |            |
| Progress Report               | 3-page MS word file       | <ul style="list-style-type: none"> <li>• A summarized narrative status update of project execution and plan to include completed and planned tasks, milestones, activities, and deliverables. Provide a section to discuss team organization, management plan and project risks.</li> </ul>                                                                                                                                                                |            |

| Performance Application        |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 04/28/2017 |
|--------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Submission Item(s)             | Format & Limitation       | Required Information/content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |
| Complete Deployment Work Sheet | 2-datasheet MS Excel file | <p>The first datasheet should show the applicant team's point scores as determined by the scoring criteria described in Section 7. Evaluation Criteria &amp; Judging.</p> <p>The second datasheet should show details of all completed eligible deployments. The information provided should be sufficient enough to allow for an independent validation or authentication by DOE or by a third-party auditor at DOE' discretion (permits issued by a local Authority Having Jurisdiction (AHJ) and interconnection agreements/bill credits granted by a local utility company can be cross referenced and verified from existing public records).</p> |            |
| Supporting Documents           | 1-zipped file             | The file should be organized in a number of folders providing a sample of the records/documents listed in Appendix D.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
| Final Report                   | 1-page MS word file       | A detailed summary describing the project's successes, challenges, market impact, and other relevant information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |
| Affidavit of Authenticity      | 1-page PDF file           | A publically notarized affidavit signed by the Team Lead confirming that all submitted records and information are true and accurate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |

## **9. ADDITIONAL TERMS & CONDITIONS**

### **COMPETITION SUBJECT TO APPLICABLE LAW**

All contests in this prize competition are subject to all applicable federal laws and regulations. Participation constitutes each Participant's full and unconditional agreement to these Official Rules and administrative decisions, which are final and binding in all matters related to the contest. Eligibility for a prize award is contingent upon fulfilling all requirements set forth herein. This notice is not an obligation of funds; the final award of prizes is contingent upon the availability of appropriations.

### **TEAM MEMBERS RESTRICTIONS**

Contestants that identify themselves as Team Leads in the Entrance Application cannot become members of other teams during the contest. Other team members can be added throughout the competition, however, once an entity may only join one team. Team members may not switch teams during the contest.

### **RESOLUTION OF DISPUTES**

The Department of Energy is solely responsible for administrative decisions, which are final and binding in all matters related to this prize competition.

In the event of a dispute as to any registration, the authorized account holder of the email address used to register with EERE Exchange will be deemed to be the contestant's Team Lead. The "authorized account holder" is the natural person or legal entity assigned an email address by an Internet access provider, online service provider or other organization responsible for assigning email addresses for the domain associated with the submitted address.

### **GRAND PRIZE TIE**

In the event of two or more teams receiving top equal scores for first place or second place prizes in either Contest, the allocated total prize award will be split equally and distributed evenly among the winners with tying scores.

### **PUBLICITY**

The winners of these prizes (collectively, "Winners") will be featured on the DOE website. Except where prohibited, participation in the competition constitutes each winner's consent to DOE's and its agents' use of each winner's name, likeness, photograph, voice, opinions, and/or hometown and state information for promotional purposes through any form of media, worldwide, without further permission, payment or consideration.

## **LIABILITY AND INSURANCE**

Any and all information provided by or obtained from the Federal Government is without any warranty or representation whatsoever, including but not limited to its suitability for any particular purpose. Upon registration, all participants agree to assume and, thereby, have assumed any and all risks of injury or loss in connection with or in any way arising from participation in this competition, development of any application or the use of any application by the participants or any third-party. Upon registration, except in the case of willful misconduct, all participants agree to and, thereby, do waive and release any and all claims or causes of action against the Federal Government and its officers, employees and agents for any and all injury and damage of any nature whatsoever (whether existing or thereafter arising, whether direct, indirect, or consequential and whether foreseeable or not), arising from their participation in this competition, whether the claim or cause of action arises under contract or tort. Upon registration, all participants agree to and, thereby, shall indemnify and hold harmless the Federal Government and its officers, employees and agents for any and all injury and damage of any nature whatsoever (whether existing or thereafter arising, whether direct, indirect, or consequential and whether foreseeable or not), including but not limited to any damage that may result from a virus, malware, etc., to Government computer systems or data, or to the systems or data of end-users of the software and/or application(s) which results, in whole or in part, from the fault, negligence, or wrongful act or omission of the participants or participants' officers, employees or agents.

## **STANDARD DISCLAIMER**

The following disclaimer is mandatory for applications deployed on non-DOE information systems. This standard disclaimer shall be incorporated into the software in such a way that individuals must read and accept its conditions before initial use (NOTE: The standard disclaimer must appear in all capital letters):

THE MATERIAL EMBODIED IN THIS SOFTWARE IS PROVIDED TO YOU "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED, OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE UNITED STATES DEPARTMENT OF ENERGY OR THE UNITED STATES GOVERNMENT BE LIABLE TO YOU OR ANYONE ELSE FOR ANY DIRECT, SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION, LOSS OF PROFIT, LOSS OF USE, SAVINGS OR REVENUE, OR THE CLAIMS OF THIRD PARTIES, WHETHER OR NOT DOE OR THE U.S. GOVERNMENT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE POSSESSION, USE, OR PERFORMANCE OF THIS SOFTWARE.

## **RECORDS RETENTION AND FOIA**

All materials submitted to DOE as part of a submission become DOE records and cannot be returned. Any confidential commercial information contained in a submission should be designated at the time of submission. Submitters will be notified of any Freedom of Information Act requests for their submissions in accordance with 29 C.F.R. § 70.26.

## **PRIVACY**

If you choose to provide DOE with personal information by registering or filling out the submission form through the competition website, that information is used to respond to you in matters regarding your submission and/or the competition only - unless you choose to receive updates or notifications about other contests from DOE on an opt-in basis. Information is not collected for commercial marketing.

## **GENERAL CONDITIONS**

DOE reserves the right to cancel, suspend, and/or modify this prize competition, or any part of it, if any fraud, technical failures, or any other factor beyond DOE's reasonable control impairs the integrity or proper functioning of this prize competition, as determined by DOE in its sole discretion. DOE is not responsible for, nor is it required to count, incomplete, late, misdirected, damaged, unlawful, or illicit votes, including those secured through payment or achieved through automated means.

**ALL DECISIONS BY DOE ARE FINAL AND BINDING IN ALL MATTERS  
RELATED TO THIS PRIZE COMPETITION**

## APPENDIX A – SCORING OF ENTRANCE APPLICATION

### Applicants that opted-in to receive Change Prizes only

Each entrance application, whose applicant opts-in for receiving Change Prizes, will be evaluated and scored by a panel of at least three judges. Using the information submitted only, each judge will evaluate an application by independently answering each question in each criterion (as shown in Section A. Evaluation of Entrance Application). The answer to each question is an affirmative “Yes” with a level of agreement reflecting the judge’s subjective opinion. A judge either agrees or disagrees that the answer is “Yes” with varying degrees in between shown below:

| Agreement Level with “Yes” | Interpretive Meaning                                                                                                 | Points per Question |             |             |
|----------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------|-------------|-------------|
|                            |                                                                                                                      | Criteria #1         | Criteria #2 | Criteria #3 |
| Very Strongly Agree        | There is sufficient information to make me <b>believe the answer to this question is “Yes” with negligible doubt</b> | 60                  | 60          | 80          |
| Strongly Agree             | There is sufficient information to make me <b>believe the answer is “Yes” but few weaknesses make me doubtful</b>    | 48                  | 48          | 64          |
| Agree                      | There is information to make me <b>believe the answer is “Yes” but key weaknesses make me highly doubtful</b>        | 36                  | 36          | 48          |
| Disagree                   | There information to make me believe <b>the answer should be “No” but key strengths make me hopeful</b>              | 24                  | 24          | 32          |
| Strong Disagree            | There is sufficient information to make me <b>believe the answer to this question should be “No”</b>                 | 12                  | 12          | 16          |
| Very Strongly Disagree     | There is sufficient information to make <b>believe the answer to this question is “No” with little doubt</b>         | 0                   | 0           | 0           |

For each application, a judge will answer a total of 15 questions - five questions in each one of the three criteria - to determine a point score out of a maximum 1000 points. For example, after reviewing application X, judge A chose “Agree” as answers to the five questions in Criteria #1 except for one question where judge A chose “Disagree.” The point score assigned by judge A for Criteria #1 and for this application will be 168, calculated as  $4 \times 36 + 1 \times 24 = 168$ . Points for Criteria #2 and Criteria #3 are calculated in the same way. Points for the three criteria are then added to determine the total point score per judge. Finally, for each application, judges will assign a consensus point value per criteria and determine the final point score. Under section 24, the Federal Advisory Committee act shall not apply to the DOE selected judging panel for prize competitions.

## APPENDIX B – SCORING OF PERFORMANCE PROGRESS REPORTS

### Candidates that qualify for tranche rewards of Change Prizes Only

Each candidate team that received the Seed Round tranche of Change Prizes and eligible to subsequent trenches (i.e. Progress Round I & II) will be evaluated and scored by a panel of at least three judges. Using the information submitted only, each judge will independently evaluate the submission by answering each question (as shown in Section B. Evaluation of Performance Progress Reports (Change Prize Only) A. Evaluation of Entrance Application. The answer to C1 is either “Yes” or “No” which will yield 400 points or 0 points respectively. The answer to other questions is an affirmative “Yes” with a level of agreement reflecting the judge’s subjective opinion. A judge either agrees or disagrees that the answer is “Yes” with varying degrees in between shown below:

| Agreement Level with “Yes” | Interpretive Meaning                                                                                                 | Points per Question |         |
|----------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------|---------|
|                            |                                                                                                                      | C2 & C3             | C4 & C5 |
| Very Strongly Agree        | There is sufficient information to make me <b>believe the answer to this question is “Yes” with negligible doubt</b> | 100                 | 200     |
| Strongly Agree             | There is sufficient information to make me <b>believe the answer is “Yes” but few weaknesses make me doubtful</b>    | 80                  | 160     |
| Agree                      | There is information to make me <b>believe the answer is “Yes” but key weaknesses make me highly doubtful</b>        | 60                  | 120     |
| Disagree                   | There information to make me believe <b>the answer should be “No” but key strengths make me hopeful</b>              | 40                  | 80      |
| Strong Disagree            | There is sufficient information to make me <b>believe the answer to this question should be “No”</b>                 | 20                  | 40      |
| Very Strongly Disagree     | There is sufficient information to make <b>believe the answer to this question is “No” with little doubt</b>         | 0                   | 0       |

For each submission, a judge will answer a total of 5 questions to determine a point score out of a maximum 1000 points. To give an example, assume after reviewing submission X, judge A’s answer for C1 was “Yes.” Assume also that Judge A’s choices were “Agree” as answers to the remaining questions except for C5 where the choice was “Disagree.” The point score assigned by judge A for this submission is 720, calculated as 400 + 60 + 60 + 120 + 80 = 720. Finally, for each submission, judges will assign a consensus point score and determine the final point score. Under section 24, the Federal Advisory Committee act shall not apply to the DOE selected judging panel for prize competitions.

## APPENDIX C – SCORING OF PERFORMANCE APPLICATIONS

### Criteria #1 – Repeatability

Metric #1 - Time-adjusted capacity

Maximum 250 points

The time-adjusted capacity is calculated using the following equation:

$$I = \sum_{t=0}^7 \frac{S_t}{(1.1)^t}$$

$S_t$  = Sum of installed capacity (in MW) with a Total Time duration that falls within the allowed period corresponding to  $t$  as shown in the following table for each contest:

|                      |      |         |         |         |         |         |         |         |
|----------------------|------|---------|---------|---------|---------|---------|---------|---------|
| $t =$                | 0    | 1       | 2       | 3       | 4       | 5       | 6       | 7       |
| Small System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)    | 0-7  | 8-14    | 15 – 21 | 22 – 28 | 29 – 35 | 36 – 42 | 43 – 49 | 50 – 56 |
| Large System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)    | 0-49 | 50 - 56 | 57 – 63 | 64 - 70 | 71 – 77 | 78 - 84 | 85 – 91 | 92 – 98 |

Points accrued for the calculated value of  $I$  are given in the following tables for Small System Contest and Large System Contest:

| Small System Contest | Value ≥ (MW) | Points | Value ≥ (MW) | Points | Value ≥ (MW) | Points | Value ≥ (MW) | Points | Value ≥ (MW) | Points |
|----------------------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|
| 1                    | 15           | 250    | 13.5         | 200    | 12           | 150    | 10.5         | 100    | 9            | 50     |
| 2                    | 14.925       | 248    | 13.425       | 198    | 11.925       | 148    | 10.425       | 98     | 8.925        | 48     |
| 3                    | 14.85        | 245    | 13.35        | 195    | 11.85        | 145    | 10.35        | 95     | 8.85         | 45     |
| 4                    | 14.775       | 243    | 13.275       | 193    | 11.775       | 143    | 10.275       | 93     | 8.775        | 43     |
| 5                    | 14.7         | 240    | 13.2         | 190    | 11.7         | 140    | 10.2         | 90     | 8.7          | 40     |
| 6                    | 14.625       | 238    | 13.125       | 188    | 11.625       | 138    | 10.125       | 88     | 8.625        | 38     |
| 7                    | 14.55        | 235    | 13.05        | 185    | 11.55        | 135    | 10.05        | 85     | 8.55         | 35     |
| 8                    | 14.475       | 233    | 12.975       | 183    | 11.475       | 133    | 9.975        | 83     | 8.475        | 33     |
| 9                    | 14.4         | 230    | 12.9         | 180    | 11.4         | 130    | 9.9          | 80     | 8.4          | 30     |
| 10                   | 14.325       | 228    | 12.825       | 178    | 11.325       | 128    | 9.825        | 78     | 8.325        | 28     |
| 11                   | 14.25        | 225    | 12.75        | 175    | 11.25        | 125    | 9.75         | 75     | 8.25         | 25     |
| 12                   | 14.175       | 223    | 12.675       | 173    | 11.175       | 123    | 9.675        | 73     | 8.175        | 23     |
| 13                   | 14.1         | 220    | 12.6         | 170    | 11.1         | 120    | 9.6          | 70     | 8.1          | 20     |
| 14                   | 14.025       | 218    | 12.525       | 168    | 11.025       | 118    | 9.525        | 68     | 8.025        | 18     |
| 15                   | 13.95        | 215    | 12.45        | 165    | 10.95        | 115    | 9.45         | 65     | 7.95         | 15     |
| 16                   | 13.875       | 213    | 12.375       | 163    | 10.875       | 113    | 9.375        | 63     | 7.875        | 13     |
| 17                   | 13.8         | 210    | 12.3         | 160    | 10.8         | 110    | 9.3          | 60     | 7.8          | 10     |
| 18                   | 13.725       | 208    | 12.225       | 158    | 10.725       | 108    | 9.225        | 58     | 7.725        | 8      |
| 19                   | 13.65        | 205    | 12.15        | 155    | 10.65        | 105    | 9.15         | 55     | 7.65         | 5      |
| 20                   | 13.575       | 203    | 12.075       | 153    | 10.575       | 103    | 9.075        | 53     | 7.575        | 3      |

| Large System Contest | Value ≥ (MW) | Points | Value ≥ (MW) | Points | Value ≥ (MW) | Points | Value ≥ (MW) | Points | Value ≥ (MW) | Points |
|----------------------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|
| 1                    | 22.500       | 250    | 20.250       | 200    | 18.000       | 150    | 15.750       | 100    | 13.500       | 50     |
| 2                    | 22.388       | 248    | 20.138       | 198    | 17.888       | 148    | 15.638       | 98     | 13.387       | 48     |
| 3                    | 22.275       | 245    | 20.025       | 195    | 17.775       | 145    | 15.525       | 95     | 13.275       | 45     |
| 4                    | 22.163       | 243    | 19.913       | 193    | 17.663       | 143    | 15.413       | 93     | 13.162       | 43     |
| 5                    | 22.050       | 240    | 19.800       | 190    | 17.550       | 140    | 15.300       | 90     | 13.050       | 40     |
| 6                    | 21.938       | 238    | 19.688       | 188    | 17.438       | 138    | 15.188       | 88     | 12.937       | 38     |
| 7                    | 21.825       | 235    | 19.575       | 185    | 17.325       | 135    | 15.075       | 85     | 12.825       | 35     |
| 8                    | 21.713       | 233    | 19.463       | 183    | 17.213       | 133    | 14.963       | 83     | 12.712       | 33     |
| 9                    | 21.600       | 230    | 19.350       | 180    | 17.100       | 130    | 14.850       | 80     | 12.600       | 30     |
| 10                   | 21.488       | 228    | 19.238       | 178    | 16.988       | 128    | 14.738       | 78     | 12.487       | 28     |
| 11                   | 21.375       | 225    | 19.125       | 175    | 16.875       | 125    | 14.625       | 75     | 12.375       | 25     |
| 12                   | 21.263       | 223    | 19.013       | 173    | 16.763       | 123    | 14.512       | 73     | 12.262       | 23     |
| 13                   | 21.150       | 220    | 18.900       | 170    | 16.650       | 120    | 14.400       | 70     | 12.150       | 20     |
| 14                   | 21.038       | 218    | 18.788       | 168    | 16.538       | 118    | 14.287       | 68     | 12.037       | 18     |
| 15                   | 20.925       | 215    | 18.675       | 165    | 16.425       | 115    | 14.175       | 65     | 11.925       | 15     |
| 16                   | 20.813       | 213    | 18.563       | 163    | 16.313       | 113    | 14.062       | 63     | 11.812       | 13     |
| 17                   | 20.700       | 210    | 18.450       | 160    | 16.200       | 110    | 13.950       | 60     | 11.700       | 10     |
| 18                   | 20.588       | 208    | 18.338       | 158    | 16.088       | 108    | 13.837       | 58     | 11.587       | 8      |
| 19                   | 20.475       | 205    | 18.225       | 155    | 15.975       | 105    | 13.725       | 55     | 11.475       | 5      |
| 20                   | 20.363       | 203    | 18.113       | 153    | 15.863       | 103    | 13.612       | 53     | 11.362       | 3      |

## Metric #2 – Normalized time-adjusted capacity Maximum 1000 points

The normalized time-adjusted capacity  $I^*$  equals  $I$  divided by a team's total eligible installed capacity  $S$  during the 18-month performance period.

$$I^* = \frac{1}{S^*} \times \sum_{t=0}^7 \frac{S_t}{(1.1)^t}$$

$S^*$  = Sum of all installed capacity (in MW) during the observed performance period with any eligible Total Time duration, and  $S_t$  = Sum of installed capacity (in MW) with a Total Time duration that falls within the allowed period corresponding to  $t$  as shown in the following table for each contest:

| $t =$                | 0    | 1       | 2       | 3       | 4       | 5       | 6       | 7       |
|----------------------|------|---------|---------|---------|---------|---------|---------|---------|
| Small System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)    | 0-7  | 8-14    | 15 – 21 | 22 – 28 | 29 – 35 | 36 – 42 | 43 – 49 | 50 – 56 |
| Large System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)    | 0-49 | 50 - 56 | 57 – 63 | 64 - 70 | 71 – 77 | 78 - 84 | 85 – 91 | 92 – 98 |

Points accrued for the calculated value of  $I^*$  are given in the following table for both contests:

| No. | Value ≥<br>(%) | Points | Value ≥<br>(%) | Points | Value ≥<br>(%) | Points | Value ≥<br>(%) | Points | Value ≥<br>(%) | Points |
|-----|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| 1   | 100            | 1000   | 80             | 800    | 60             | 600    | 40             | 400    | 20             | 200    |
| 2   | 99             | 990    | 79             | 790    | 59             | 590    | 39             | 390    | 19.5           | 190    |
| 3   | 98             | 980    | 78             | 780    | 58             | 580    | 38             | 380    | 19             | 180    |
| 4   | 97             | 970    | 77             | 770    | 57             | 570    | 37             | 370    | 18.5           | 170    |
| 5   | 96             | 960    | 76             | 760    | 56             | 560    | 36             | 360    | 18             | 160    |
| 6   | 95             | 950    | 75             | 750    | 55             | 550    | 35             | 350    | 17.5           | 150    |
| 7   | 94             | 940    | 74             | 740    | 54             | 540    | 34             | 340    | 17             | 140    |
| 8   | 93             | 930    | 73             | 730    | 53             | 530    | 33             | 330    | 16.5           | 130    |
| 9   | 92             | 920    | 72             | 720    | 52             | 520    | 32             | 320    | 16             | 120    |
| 10  | 91             | 910    | 71             | 710    | 51             | 510    | 31             | 310    | 15.5           | 110    |
| 11  | 90             | 900    | 70             | 700    | 50             | 500    | 30             | 300    | 15             | 100    |
| 12  | 89             | 890    | 69             | 690    | 49             | 490    | 29             | 290    | 14.5           | 90     |
| 13  | 88             | 880    | 68             | 680    | 48             | 480    | 28             | 280    | 14             | 80     |
| 14  | 87             | 870    | 67             | 670    | 47             | 470    | 27             | 270    | 13.5           | 70     |
| 15  | 86             | 860    | 66             | 660    | 46             | 460    | 26             | 260    | 13             | 60     |
| 16  | 85             | 850    | 65             | 650    | 45             | 450    | 25             | 250    | 12.5           | 50     |
| 17  | 84             | 840    | 64             | 640    | 44             | 440    | 24             | 240    | 12             | 40     |
| 18  | 83             | 830    | 63             | 630    | 43             | 430    | 23             | 230    | 11.5           | 30     |
| 19  | 82             | 820    | 62             | 620    | 42             | 420    | 22             | 220    | 11             | 20     |
| 20  | 81             | 810    | 61             | 610    | 41             | 410    | 21             | 210    | 10.5           | 10     |

## Criteria #2 – Time Performance

Metric #3 – Expected value of Total Time

Maximum 250 points

Metric #4 – Total Time variability

Maximum 1000 points

The Expected value of Total Time,  $D$ , and the Total Time Variability,  $V$ , are calculated using the following equations:

$$D = \frac{1}{S} \times \sum_{t=0}^7 S_t (7^x + 7t)$$

$$V = \sqrt{V^2}, \text{ where } V^2 = \frac{1}{S} \times \sum_{t=0}^7 S_t [D - (7^x + 7t)]^2$$

Where  $x = 1$  for Small System Contest,  $x = 2$  for Large System Contest and  $S = \sum_{t=0}^7 S_t$

$S_t$  = Sum of installed capacity (in MW) with a Total Time duration (period) that falls within the allowed period corresponding to  $t$  as shown in the following table for each contest:

| $t =$                | 0    | 1       | 2       | 3       | 4       | 5       | 6       | 7       |
|----------------------|------|---------|---------|---------|---------|---------|---------|---------|
| Small System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)    | 0-7  | 8-14    | 15 – 21 | 22 – 28 | 29 – 35 | 36 – 42 | 43 – 49 | 50 – 56 |
| Large System Contest |      |         |         |         |         |         |         |         |
| Periods (in days)    | 0-49 | 50 - 56 | 57 – 63 | 64 - 70 | 71 – 77 | 78 - 84 | 85 – 91 | 92 – 98 |

Points accrued for the calculated value of  $D$  and  $V$  are given in the following tables for Small System Contest and Large System Contest:

### Small System Contest - Points for $D$

| Small System Contest | Value ≤ (days) | Points | Value ≤ (days) | Points | Value ≤ (days) | Points | Value ≤ (days) | Points | Value ≤ (days) | Points |
|----------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| 1                    | 7.00           | 250    | 14.00          | 200    | 21.00          | 150    | 28.00          | 100    | 35.00          | 50     |
| 2                    | 7.35           | 248    | 14.35          | 198    | 21.35          | 147.5  | 28.35          | 98     | 35.35          | 48     |
| 3                    | 7.70           | 245    | 14.70          | 195    | 21.70          | 145    | 28.70          | 95     | 35.70          | 45     |
| 4                    | 8.05           | 243    | 15.05          | 193    | 22.05          | 142.5  | 29.05          | 93     | 36.05          | 43     |
| 5                    | 8.40           | 240    | 15.40          | 190    | 22.40          | 140    | 29.40          | 90     | 36.40          | 40     |
| 6                    | 8.75           | 238    | 15.75          | 188    | 22.75          | 137.5  | 29.75          | 88     | 36.75          | 38     |
| 7                    | 9.10           | 235    | 16.10          | 185    | 23.10          | 135    | 30.10          | 85     | 37.10          | 35     |
| 8                    | 9.45           | 233    | 16.45          | 183    | 23.45          | 132.5  | 30.45          | 83     | 37.45          | 33     |
| 9                    | 9.80           | 230    | 16.80          | 180    | 23.80          | 130    | 30.80          | 80     | 37.80          | 30     |
| 10                   | 10.15          | 228    | 17.15          | 178    | 24.15          | 127.5  | 31.15          | 78     | 38.15          | 28     |
| 11                   | 10.50          | 225    | 17.50          | 175    | 24.50          | 125    | 31.50          | 75     | 38.50          | 25     |
| 12                   | 10.85          | 223    | 17.85          | 173    | 24.85          | 122.5  | 31.85          | 73     | 38.85          | 23     |
| 13                   | 11.20          | 220    | 18.20          | 170    | 25.20          | 120    | 32.20          | 70     | 39.20          | 20     |

|    |       |            |       |            |       |              |       |           |       |           |
|----|-------|------------|-------|------------|-------|--------------|-------|-----------|-------|-----------|
| 14 | 11.55 | <b>218</b> | 18.55 | <b>168</b> | 25.55 | <b>117.5</b> | 32.55 | <b>68</b> | 39.55 | <b>18</b> |
| 15 | 11.90 | <b>215</b> | 18.90 | <b>165</b> | 25.90 | <b>115</b>   | 32.90 | <b>65</b> | 39.90 | <b>15</b> |
| 16 | 12.25 | <b>213</b> | 19.25 | <b>163</b> | 26.25 | <b>112.5</b> | 33.25 | <b>63</b> | 40.25 | <b>13</b> |
| 17 | 12.60 | <b>210</b> | 19.60 | <b>160</b> | 26.60 | <b>110</b>   | 33.60 | <b>60</b> | 40.60 | <b>10</b> |
| 18 | 12.95 | <b>208</b> | 19.95 | <b>158</b> | 26.95 | <b>107.5</b> | 33.95 | <b>58</b> | 40.95 | <b>8</b>  |
| 19 | 13.30 | <b>205</b> | 20.30 | <b>155</b> | 27.30 | <b>105</b>   | 34.30 | <b>55</b> | 41.30 | <b>5</b>  |
| 20 | 13.65 | <b>203</b> | 20.65 | <b>153</b> | 27.65 | <b>102.5</b> | 34.65 | <b>53</b> | 41.65 | <b>3</b>  |

### Large System Contest - Points for D

| Large System Contest | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points    |
|----------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|-----------|
| 1                    | 49             | <b>250</b> | 56             | <b>200</b> | 63             | <b>150</b> | 70             | <b>100</b> | 77             | <b>50</b> |
| 2                    | 49.35          | <b>248</b> | 56.35          | <b>198</b> | 63.35          | <b>148</b> | 70.35          | <b>98</b>  | 77.35          | <b>48</b> |
| 3                    | 49.7           | <b>245</b> | 56.7           | <b>195</b> | 63.7           | <b>145</b> | 70.7           | <b>95</b>  | 77.7           | <b>45</b> |
| 4                    | 50.05          | <b>243</b> | 57.05          | <b>193</b> | 64.05          | <b>143</b> | 71.05          | <b>93</b>  | 78.05          | <b>43</b> |
| 5                    | 50.4           | <b>240</b> | 57.4           | <b>190</b> | 64.4           | <b>140</b> | 71.4           | <b>90</b>  | 78.4           | <b>40</b> |
| 6                    | 50.75          | <b>238</b> | 57.75          | <b>188</b> | 64.75          | <b>138</b> | 71.75          | <b>88</b>  | 78.75          | <b>38</b> |
| 7                    | 51.1           | <b>235</b> | 58.1           | <b>185</b> | 65.1           | <b>135</b> | 72.1           | <b>85</b>  | 79.1           | <b>35</b> |
| 8                    | 51.45          | <b>233</b> | 58.45          | <b>183</b> | 65.45          | <b>133</b> | 72.45          | <b>83</b>  | 79.45          | <b>33</b> |
| 9                    | 51.8           | <b>230</b> | 58.8           | <b>180</b> | 65.8           | <b>130</b> | 72.8           | <b>80</b>  | 79.8           | <b>30</b> |
| 10                   | 52.15          | <b>228</b> | 59.15          | <b>178</b> | 66.15          | <b>128</b> | 73.15          | <b>78</b>  | 80.15          | <b>28</b> |
| 11                   | 52.5           | <b>225</b> | 59.5           | <b>175</b> | 66.5           | <b>125</b> | 73.5           | <b>75</b>  | 80.5           | <b>25</b> |
| 12                   | 52.85          | <b>223</b> | 59.85          | <b>173</b> | 66.85          | <b>123</b> | 73.85          | <b>73</b>  | 80.85          | <b>23</b> |
| 13                   | 53.2           | <b>220</b> | 60.2           | <b>170</b> | 67.2           | <b>120</b> | 74.2           | <b>70</b>  | 81.2           | <b>20</b> |
| 14                   | 53.55          | <b>218</b> | 60.55          | <b>168</b> | 67.55          | <b>118</b> | 74.55          | <b>68</b>  | 81.55          | <b>18</b> |
| 15                   | 53.9           | <b>215</b> | 60.9           | <b>165</b> | 67.9           | <b>115</b> | 74.9           | <b>65</b>  | 81.9           | <b>15</b> |
| 16                   | 54.25          | <b>213</b> | 61.25          | <b>163</b> | 68.25          | <b>113</b> | 75.25          | <b>63</b>  | 82.25          | <b>13</b> |
| 17                   | 54.6           | <b>210</b> | 61.6           | <b>160</b> | 68.6           | <b>110</b> | 75.6           | <b>60</b>  | 82.6           | <b>10</b> |
| 18                   | 54.95          | <b>208</b> | 61.95          | <b>158</b> | 68.95          | <b>108</b> | 75.95          | <b>58</b>  | 82.95          | <b>8</b>  |
| 19                   | 55.3           | <b>205</b> | 62.3           | <b>155</b> | 69.3           | <b>105</b> | 76.3           | <b>55</b>  | 83.3           | <b>5</b>  |
| 20                   | 55.65          | <b>203</b> | 62.65          | <b>153</b> | 69.65          | <b>103</b> | 76.65          | <b>53</b>  | 83.65          | <b>3</b>  |

### Small System Contest - Points for V

| Small System Contest | Value ≤ (days) | Points      | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points     |
|----------------------|----------------|-------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| 1                    | 2              | <b>1000</b> | 5              | <b>800</b> | 12             | <b>600</b> | 19             | <b>400</b> | 26             | <b>200</b> |
| 2                    | 2.15           | <b>990</b>  | 5.35           | <b>790</b> | 12.35          | <b>590</b> | 19.35          | <b>390</b> | 26.35          | <b>190</b> |
| 3                    | 2.3            | <b>980</b>  | 5.7            | <b>780</b> | 12.7           | <b>580</b> | 19.7           | <b>380</b> | 26.7           | <b>180</b> |
| 4                    | 2.45           | <b>970</b>  | 6.05           | <b>770</b> | 13.05          | <b>570</b> | 20.05          | <b>370</b> | 27.05          | <b>170</b> |
| 5                    | 2.6            | <b>960</b>  | 6.4            | <b>760</b> | 13.4           | <b>560</b> | 20.4           | <b>360</b> | 27.4           | <b>160</b> |
| 6                    | 2.75           | <b>950</b>  | 6.75           | <b>750</b> | 13.75          | <b>550</b> | 20.75          | <b>350</b> | 27.75          | <b>150</b> |
| 7                    | 2.9            | <b>940</b>  | 7.1            | <b>740</b> | 14.1           | <b>540</b> | 21.1           | <b>340</b> | 28.1           | <b>140</b> |
| 8                    | 3.05           | <b>930</b>  | 7.45           | <b>730</b> | 14.45          | <b>530</b> | 21.45          | <b>330</b> | 28.45          | <b>130</b> |
| 9                    | 3.2            | <b>920</b>  | 7.8            | <b>720</b> | 14.8           | <b>520</b> | 21.8           | <b>320</b> | 28.8           | <b>120</b> |
| 10                   | 3.35           | <b>910</b>  | 8.15           | <b>710</b> | 15.15          | <b>510</b> | 22.15          | <b>310</b> | 29.15          | <b>110</b> |
| 11                   | 3.5            | <b>900</b>  | 8.5            | <b>700</b> | 15.5           | <b>500</b> | 22.5           | <b>300</b> | 29.5           | <b>100</b> |
| 12                   | 3.65           | <b>890</b>  | 8.85           | <b>690</b> | 15.85          | <b>490</b> | 22.85          | <b>290</b> | 29.85          | <b>90</b>  |
| 13                   | 3.8            | <b>880</b>  | 9.2            | <b>680</b> | 16.2           | <b>480</b> | 23.2           | <b>280</b> | 30.2           | <b>80</b>  |
| 14                   | 3.95           | <b>870</b>  | 9.55           | <b>670</b> | 16.55          | <b>470</b> | 23.55          | <b>270</b> | 30.55          | <b>70</b>  |
| 15                   | 4.1            | <b>860</b>  | 9.9            | <b>660</b> | 16.9           | <b>460</b> | 23.9           | <b>260</b> | 30.9           | <b>60</b>  |
| 16                   | 4.25           | <b>850</b>  | 10.25          | <b>650</b> | 17.25          | <b>450</b> | 24.25          | <b>250</b> | 31.25          | <b>50</b>  |
| 17                   | 4.4            | <b>840</b>  | 10.6           | <b>640</b> | 17.6           | <b>440</b> | 24.6           | <b>240</b> | 31.6           | <b>40</b>  |

|    |      |            |       |            |       |            |       |            |       |           |
|----|------|------------|-------|------------|-------|------------|-------|------------|-------|-----------|
| 18 | 4.55 | <b>830</b> | 10.95 | <b>630</b> | 17.95 | <b>430</b> | 24.95 | <b>230</b> | 31.95 | <b>30</b> |
| 19 | 4.7  | <b>820</b> | 11.3  | <b>620</b> | 18.3  | <b>420</b> | 25.3  | <b>220</b> | 32.3  | <b>20</b> |
| 20 | 4.85 | <b>810</b> | 11.65 | <b>610</b> | 18.65 | <b>410</b> | 25.65 | <b>210</b> | 32.65 | <b>10</b> |

### *Large System Contest - Points for V*

| Large System Contest | Value ≤ (days) | Points      | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points     | Value ≤ (days) | Points     |
|----------------------|----------------|-------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| 1                    | 21             | <b>1000</b> | 28             | <b>800</b> | 35             | <b>600</b> | 42             | <b>400</b> | 49             | <b>200</b> |
| 2                    | 21.35          | <b>990</b>  | 28.35          | <b>790</b> | 35.35          | <b>590</b> | 42.35          | <b>390</b> | 49.35          | <b>190</b> |
| 3                    | 21.7           | <b>980</b>  | 28.7           | <b>780</b> | 35.7           | <b>580</b> | 42.7           | <b>380</b> | 49.7           | <b>180</b> |
| 4                    | 22.05          | <b>970</b>  | 29.05          | <b>770</b> | 36.05          | <b>570</b> | 43.05          | <b>370</b> | 50.05          | <b>170</b> |
| 5                    | 22.4           | <b>960</b>  | 29.4           | <b>760</b> | 36.4           | <b>560</b> | 43.4           | <b>360</b> | 50.4           | <b>160</b> |
| 6                    | 22.75          | <b>950</b>  | 29.75          | <b>750</b> | 36.75          | <b>550</b> | 43.75          | <b>350</b> | 50.75          | <b>150</b> |
| 7                    | 23.1           | <b>940</b>  | 30.1           | <b>740</b> | 37.1           | <b>540</b> | 44.1           | <b>340</b> | 51.1           | <b>140</b> |
| 8                    | 23.45          | <b>930</b>  | 30.45          | <b>730</b> | 37.45          | <b>530</b> | 44.45          | <b>330</b> | 51.45          | <b>130</b> |
| 9                    | 23.8           | <b>920</b>  | 30.8           | <b>720</b> | 37.8           | <b>520</b> | 44.8           | <b>320</b> | 51.8           | <b>120</b> |
| 10                   | 24.15          | <b>910</b>  | 31.15          | <b>710</b> | 38.15          | <b>510</b> | 45.15          | <b>310</b> | 52.15          | <b>110</b> |
| 11                   | 24.5           | <b>900</b>  | 31.5           | <b>700</b> | 38.5           | <b>500</b> | 45.5           | <b>300</b> | 52.5           | <b>100</b> |
| 12                   | 24.85          | <b>890</b>  | 31.85          | <b>690</b> | 38.85          | <b>490</b> | 45.85          | <b>290</b> | 52.85          | <b>90</b>  |
| 13                   | 25.2           | <b>880</b>  | 32.2           | <b>680</b> | 39.2           | <b>480</b> | 46.2           | <b>280</b> | 53.2           | <b>80</b>  |
| 14                   | 25.55          | <b>870</b>  | 32.55          | <b>670</b> | 39.55          | <b>470</b> | 46.55          | <b>270</b> | 53.55          | <b>70</b>  |
| 15                   | 25.9           | <b>860</b>  | 32.9           | <b>660</b> | 39.9           | <b>460</b> | 46.9           | <b>260</b> | 53.9           | <b>60</b>  |
| 16                   | 26.25          | <b>850</b>  | 33.25          | <b>650</b> | 40.25          | <b>450</b> | 47.25          | <b>250</b> | 54.25          | <b>50</b>  |
| 17                   | 26.6           | <b>840</b>  | 33.6           | <b>640</b> | 40.6           | <b>440</b> | 47.6           | <b>240</b> | 54.6           | <b>40</b>  |
| 18                   | 26.95          | <b>830</b>  | 33.95          | <b>630</b> | 40.95          | <b>430</b> | 47.95          | <b>230</b> | 54.95          | <b>30</b>  |
| 19                   | 27.3           | <b>820</b>  | 34.3           | <b>620</b> | 41.3           | <b>420</b> | 48.3           | <b>220</b> | 55.3           | <b>20</b>  |
| 20                   | 27.65          | <b>810</b>  | 34.65          | <b>610</b> | 41.65          | <b>410</b> | 48.65          | <b>210</b> | 55.65          | <b>10</b>  |

### Criterion #3 – Replicability

Metric #5 – Diversity of jurisdictions

Maximum 500 points

The size-adjusted jurisdiction diversity performance  $G$  is calculated using the following equations:

$$G = 1 - \sum_{i=1}^N \left( \frac{H_i}{H} \right)^2$$

$$H = \sum_{i=1}^N H_i$$

$N$  = Total number of jurisdictions where PV systems were installed during the 18-month performance period with Total Time durations that do not exceed 56 days for Small System Contest and 98 days for Large System Contest.

$H_i$  = Installed capacity (in MW) in jurisdiction  $i$  during the 18-month performance period with Total Time durations that do not exceed 56 days for the Small System Contest and 98 days for the Large System Contest.

Points accrued for the calculated value of  $G$  are given in the following tables for Small System Contest and Large System Contest:

| Small System Contest | Value ≥ (%) | Points | Value ≥ (%) | Points | Value ≥ (%) | Points | Value ≥ (%) | Points | Value ≥ (%) | Points |
|----------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| 1                    | 90          | 500    | 70          | 400    | 50          | 300    | 30          | 200    | 10.0        | 100    |
| 2                    | 89          | 495    | 69          | 395    | 49          | 295    | 29          | 195    | 9.5         | 95     |
| 3                    | 88          | 490    | 68          | 390    | 48          | 290    | 28          | 190    | 9.0         | 90     |
| 4                    | 87          | 485    | 67          | 385    | 47          | 285    | 27          | 185    | 8.5         | 85     |
| 5                    | 86          | 480    | 66          | 380    | 46          | 280    | 26          | 180    | 8.0         | 80     |
| 6                    | 85          | 475    | 65          | 375    | 45          | 275    | 25          | 175    | 7.5         | 75     |
| 7                    | 84          | 470    | 64          | 370    | 44          | 270    | 24          | 170    | 7.0         | 70     |
| 8                    | 83          | 465    | 63          | 365    | 43          | 265    | 23          | 165    | 6.5         | 65     |
| 9                    | 82          | 460    | 62          | 360    | 42          | 260    | 22          | 160    | 6.0         | 60     |
| 10                   | 81          | 455    | 61          | 355    | 41          | 255    | 21          | 155    | 5.5         | 55     |
| 11                   | 80          | 450    | 60          | 350    | 40          | 250    | 20          | 150    | 5.0         | 50     |
| 12                   | 79          | 445    | 59          | 345    | 39          | 245    | 19          | 145    | 4.5         | 45     |
| 13                   | 78          | 440    | 58          | 340    | 38          | 240    | 18          | 140    | 4.0         | 40     |
| 14                   | 77          | 435    | 57          | 335    | 37          | 235    | 17          | 135    | 3.5         | 35     |
| 15                   | 76          | 430    | 56          | 330    | 36          | 230    | 16          | 130    | 3.0         | 30     |
| 16                   | 75          | 425    | 55          | 325    | 35          | 225    | 15          | 125    | 2.5         | 25     |
| 17                   | 74          | 420    | 54          | 320    | 34          | 220    | 14          | 120    | 2.0         | 20     |
| 18                   | 73          | 415    | 53          | 315    | 33          | 215    | 13          | 115    | 1.5         | 15     |
| 19                   | 72          | 410    | 52          | 310    | 32          | 210    | 12          | 110    | 1.0         | 10     |
| 20                   | 71          | 405    | 51          | 305    | 31          | 205    | 11          | 105    | 0.0         | 0      |

| Large System Contest | Value ≥ (%) | Points | Value ≥ (%) | Points | Value ≥ (%) | Points | Value ≥ (%) | Points | Value ≥ (%) | Points |
|----------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| 1                    | 70          | 500    | 50          | 400    | 30.00       | 300    | 20.00       | 200    | 15.00       | 100    |
| 2                    | 69          | 495    | 49          | 395    | 29.50       | 295    | 19.75       | 195    | 14.25       | 95     |
| 3                    | 68          | 490    | 48          | 390    | 29.00       | 290    | 19.50       | 190    | 13.50       | 90     |
| 4                    | 67          | 485    | 47          | 385    | 28.50       | 285    | 19.25       | 185    | 12.75       | 85     |
| 5                    | 66          | 480    | 46          | 380    | 28.00       | 280    | 19.00       | 180    | 12.00       | 80     |
| 6                    | 65          | 475    | 45          | 375    | 27.50       | 275    | 18.75       | 175    | 11.25       | 75     |
| 7                    | 64          | 470    | 44          | 370    | 27.00       | 270    | 18.50       | 170    | 10.50       | 70     |
| 8                    | 63          | 465    | 43          | 365    | 26.50       | 265    | 18.25       | 165    | 9.75        | 65     |
| 9                    | 62          | 460    | 42          | 360    | 26.00       | 260    | 18.00       | 160    | 9.00        | 60     |
| 10                   | 61          | 455    | 41          | 355    | 25.50       | 255    | 17.75       | 155    | 8.00        | 55     |
| 11                   | 60          | 450    | 40          | 350    | 25.00       | 250    | 17.50       | 150    | 7.50        | 50     |
| 12                   | 59          | 445    | 39          | 345    | 24.50       | 245    | 17.25       | 145    | 6.75        | 45     |
| 13                   | 58          | 440    | 38          | 340    | 24.00       | 240    | 17.00       | 140    | 6.00        | 40     |
| 14                   | 57          | 435    | 37          | 335    | 23.50       | 235    | 16.75       | 135    | 5.25        | 35     |
| 15                   | 56          | 430    | 36          | 330    | 23.00       | 230    | 16.50       | 130    | 4.50        | 30     |
| 16                   | 55          | 425    | 35          | 325    | 22.50       | 225    | 16.25       | 125    | 3.75        | 25     |
| 17                   | 54          | 420    | 34          | 320    | 22.00       | 220    | 16.00       | 120    | 3.00        | 20     |
| 18                   | 53          | 415    | 33          | 315    | 21.50       | 215    | 15.75       | 115    | 2.25        | 15     |
| 19                   | 52          | 410    | 32          | 310    | 21.00       | 210    | 15.50       | 110    | 1.50        | 10     |
| 20                   | 51          | 405    | 31          | 305    | 20.50       | 205    | 15.25       | 105    | 0.00        | 0      |

## APPENDIX D – REQUIRED DOCUMENTS FOR PERFORMANCE VERIFICATION

**Audits of performance:** As part of this competition auditing procedure, every team must make available to DOE-selected auditors and examiners the following documents and materials. The audit may require supplementary materials to evaluate. Refusal to produce these documents or any supplemental documents may result in disqualification.

| <b>MANDATORY DATA LIST</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Installations Profile</b>        | <p><i><b>Proof for every installation, including documents that prove:</b></i></p> <ul style="list-style-type: none"> <li>• System rated capacity</li> <li>• System components</li> <li>• Footing details</li> <li>• Roof framing plan</li> <li>• Elevations</li> <li>• Electrical plans</li> <li>• Street address of installation location</li> <li>• System owner/host customer</li> <li>• Installation/lease contract or purchase order</li> <li>• Photographs of installation</li> <li>• Solar installation permit (e.g., building, electrical)</li> <li>• Installation task order with dates and personnel</li> <li>• Install date</li> <li>• Interconnection date</li> <li>• Solar contractor/installer (if different)</li> <li>• Building inspection date and report and copy of all signed permits</li> <li>• Utility inspection date and report and copy of interconnection letter</li> <li>• System total output in kWh since completed installation</li> </ul> |
| <b>Hardware &amp; Equipment</b>     | <ul style="list-style-type: none"> <li>• List of specialized installation equipment/tools (if any)</li> <li>• Nameplate power (kW, peak DC)</li> <li>• Module manufacture(s)</li> <li>• Module model number(s)</li> <li>• Model description: power rating, technology</li> <li>• Module quantity</li> <li>• Inverter manufacturer(s)</li> <li>• Inverter model(s)</li> <li>• Inverter quantity</li> <li>• Racking hardware</li> <li>• Other hardware (e.g., mounts, flashing, conduits, and wiring)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Permits &amp; Certifications</b> | <p><i><b>For every installation include:</b></i></p> <ul style="list-style-type: none"> <li>• Permits (electrical, mechanical, fire, other)</li> <li>• Permitting application forms</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                                                     |                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                     | <ul style="list-style-type: none"> <li>• Module warranty</li> <li>• Inverter warranty</li> <li>• Performance guarantee</li> <li>• System (installation) certification with local authority</li> <li>• System (installation) registration with local authority</li> </ul>                                                           |
| <b>Design &amp; Deployment Plans (planned versus actual)</b>        | <ul style="list-style-type: none"> <li>• Project baseline plans to deploy all installations including dates, deadlines, milestones, resources breakdown, and cost breakdown</li> <li>• Actual project plans to deploy all installations including dates, deadlines, milestones, resources breakdown, and cost breakdown</li> </ul> |
| <b>Partnerships, Agreements, and Ownership Structures</b>           | <ul style="list-style-type: none"> <li>• Operation and maintenance contracts (if any)</li> <li>• Industry partnerships or agreements (foreign or domestic)</li> <li>• Supplier(s) agreements or joint ventures (foreign or domestic)</li> </ul>                                                                                    |
| <b>Financial &amp; Accounting Records<sup>9</sup> for 2015-2016</b> | <ul style="list-style-type: none"> <li>• Accounting books to include all financial transactions<sup>10</sup></li> <li>• Financial statements<sup>11</sup></li> <li>• Evidence of all financial transactions in general ledgers (i.e., invoices, purchase orders, payment receipts, checks, direct deposits, etc.)</li> </ul>       |

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<sup>9</sup> For applicable years

<sup>10</sup> Teams may use Sage Peachtree or Intuit QuickBooks or any other equivalent software.

<sup>11</sup> All financial statements should be prepared using GAAP (Generally Accepted Accounting Principles).