Supporting Statement
DOE Solar Decathlon Impact Evaluation Surveys
OMB Control No. 1910-New

This supporting statement provides additional information regarding the Department of Energy's (DOE's) Office of Energy Efficiency and Renewable Energy (EERE) request for processing of the proposed information collection, Solar Decathlon Impact Evaluation Surveys.

A. Justification

1. **Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the information collection.**

The information collected by this information collection is required for the effective administration, program monitoring and evaluation, and for measuring attainment of DOE's program goals as required by, the Department of Energy Organization Act of 1977 (U.S. Code Title 42 Section 5815(b)); the Government Performance and Results Act (GPRA) (U.S. Code Title 31 Section 1115(a)); Executive order 13450, November 13, 2007; the Office of Management and Budget's (OMB's) Program Assessment Rating Tool (PART); and Memo, Peter R. Orszag, Director, Office of Management and Budget, "Increased Emphasis on Program Evaluations," October 7, 2009.

2. **Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection**

DOE's mission requires it to promote America's energy security through reliable, clean, and affordable energy and to enable this mission through sound management. One of the Department's contributions to this mission is the Solar Decathlon Program. The Solar Decathlon program sponsors a biannual competition (called the Solar Decathlon) among universities and colleges to design, build, and demonstrate energy-efficient residences that use solar energy to supply their own electricity and heating energy, and that therefore can operate independently of other sources of energy. Such homes are sometimes known as zero-energy homes. The competing school's students design, build, and demonstrate the homes.

The Solar Decathlon Program's goals support DOE's mission several ways. These include,

a. Educating the student participants—the "decathletes"—about the benefits of energy efficiency, renewable energy and "green" building construction and operation in general;
b. Raising awareness among the general public about renewable energy and energy efficiency and how solar energy technologies can reduce energy use; and
c. Demonstrating to the public the energy-saving potential and attractive design of zero-energy homes.

DOE’s Office of Energy Efficiency and Renewable Energy (EERE) has conducted Solar Decathlons on the National Mall in Washington, D.C. in 2002, 2005, 2007, and 2009. EERE estimates that the Solar Decathlon has drawn, on average, 100,000 visitors each year.

EERE has not performed a formal impact evaluation of any of the Solar Decathlons to estimate how well they are achieving its goals. This information collection will (1) provide EERE with statistical estimates of the impact of the Solar Decathlons on homeowner visitors to a Solar Decathlon and on homeowners who are aware of the Solar Decathlon but never visited one, (2) provide information on the effect of the Solar Decathlon on the students that participate in one, and (3) support DOE’s policy of enabling its mission through sound management.

The four Solar Decathlons have received extensive media coverage in the Washington D.C. and other areas both from television and print media. The evaluation design for homeowners recognizes that households that have not visited a Solar Decathlon but that have seen or read about it may have been influenced by the media to invest in energy-efficient technologies or residential solar-energy systems. Therefore, within the non-visitor population a series of questions will be asked regarding awareness of the Solar Decathlon to identify “aware” non-visitors. In all, three homeowner groups are of interest for the purposes of this evaluation:

a. Homeowner households that visited one or more Solar Decathlons (Intervention Group A)
b. Homeowner households that are aware of the Solar Decathlon but have never visited one (Intervention Group B)
c. Homeowner households that are not aware of the Solar Decathlon (comparison Group C).

Table A1 summarizes the populations and the collections sought by this Information Collection Request (ICR):

Table A1: The Populations and Related Collections Covered by This ICR

<table>
<tr><th>Population</th><th>Collection</th><th>Statistical Measurements?</th></tr>
<tr><td>1. Homeowners who visited a Solar Decathlon (Group A)</td><td rowspan="3">Telephone survey with separate tracks for visitors and non-visitor homeowner population</td><td>Yes</td></tr>
<tr><td>2. Homeowners who are aware of the Solar Decathlon but did not visit one (Group B)</td><td>Yes</td></tr>
<tr><td>3. Homeowners who did not visit a Solar Decathlon and are not aware of it (Group C)</td><td>Yes</td></tr>
<tr><td>4. Former students who did not participate in a Solar Decathlon, but who majored in a discipline typical of the decathletes’ majors</td><td>Telephone survey</td><td>Yes</td></tr>
<tr><td>5. Former decathletes</td><td>Online Web survey</td><td>No</td></tr>
</table>

This table shows that three of the homeowner information collections will be statistical. The fourth survey for non-decathlete former students will be statistical for reasons to be discussed in Part B. The fifth collection will not be statistical. Part B of this ICR covers the first four of these collections. The next section discusses the fifth collection.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Table A1 showed that the information collection will use two methods of collection. A computer-assisted-telephone-interviewing (CATI) process will be used to collect information from homeowner-visitors and non-visitors to the Solar Decathlon and from former college students who were enrolled in a major in one of the disciplines usually required to design a Solar Decathlon entry, but who did not participate in a Solar Decathlon. An online survey will be used to collect information from actual participants in the Solar Decathlon (decathletes).

The following online and e-mail methods will be used to invite decathletes to participate in their survey:

a. By e-mail for those for whom we have e-mail addresses.

b. By placement of an invitation and link to the survey on the Solar Decathlon's Facebook wall.

c. By placement of an invitation and link to the survey with the Solar Decathlon Alumni Association Web site and Facebook wall.

We will not place a quota on the number of valid completed collections we receive from the former decathletes.

4. Describe efforts to identify duplication.

The Websites of the organizations known to have an interest in energy-program performance and renewable energy were searched for surveys similar to those proposed. These included EERE's online Publications and Products Library, the National Renewable Energy Laboratory, the California Measurement Advisory Committee (CALMAC) online library of evaluation studies, the Consortium for Energy Efficiency's Market Assessment and Program Evaluation Clearinghouse (MAPE). No comparable surveys or survey results were found that might be used in lieu of the surveys proposed for this evaluation. The Solar Decathlon Program has conducted no prior information collections on performance measures for the Solar Decathlon.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

This information collection will not impact small businesses or other entities.

6. **Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

In keeping with the provisions of GRPA and PART and OMB's "Performance and Management" in "Analytical Perspectives for the Federal Government's FY 2011 Budget,"[1] this information collection will assist EERE and the Solar Decathlon Program assess the benefits of the Program and whether adjustments may enhance its value. Without this collection, the performance and management information needed by EERE and the Solar Decathlon will not be available, and modifications to the program will not be based on formally gathered performance information from its target audiences.

No technical or legal obstacles exist to reducing burden.

7. **Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines. (a) requiring respondents to report information to the agency more often than quarterly; (b) requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it; (c) requiring respondents to submit more than an original and two copies of any document; (d) requiring respondents to retain records, other than health, medical government contract, grant-in-aid, or tax records, for more than three years; (e) in connection with a statistical survey, that is not designed to product valid and reliable results that can be generalized to the universe of study; (f) requiring the use of statistical data classification that has not been reviewed and approved by OMB; (g) that includes a pledge of confidentially that is not supported by authority established in stature of regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; (h) requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

a. The collections requested by this ICR do not require respondents to report information more than one time.

b. The collections requested by this ICR do not require respondents to prepare a written response in fewer than 30 days after receipt of it.

c. The collections requested by this ICR do not require respondents to submit any copies of any document.

d. The collections requested by this ICR do not require respondents to retain records for more than three years.

e. The collections requested by this ICR do not contain a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study.

[1] www.whitehouse.gov/omb/budget/Analytical_Perspectives.

f. The proposed collections do not require the use of statistical data classification that has not been reviewed and approved by OMB.

g. No authority requires that the data collected by this ICR be kept confidential and such a pledge will not be given; however, it is accepted practice that data identifying specific respondents to voluntary surveys be limited to those directly involved in the data analysis. DOE will contract with private, independent contractors for data collection and program evaluation. The contracts between DOE and the private, independent survey and evaluation contractors will expressly require that the individual responses not be shared with DOE. All individual respondent responses will be retained by the private, independent evaluation and survey contractors.

   The individual respondents will be advised in the introduction to the surveys that any answers they provide (1) will not be identified to them personally in any report, (2) will not be shared with DOE, and (3) will be combined with the responses of other respondents before producing the reported results.

h. The collections requested by this ICR do not require respondents to submit proprietary trade secrets, or other confidential information.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5CFR 320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken in response to the comments. Specifically address comments received on cost and hour burden. Describe efforts to consult with persons outside DOE to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or report.

The Department published a 60-day Federal Register Notice and Request for Comments concerning this collection in the Federal Register on July 7, 2010, Volume 75, number 129, and page number 39008. The notice described the collection and invited interested parties to submit comments or recommendations regarding the collection. EERE received no comments or recommendations on this proposed data collection.

This Information Collection Request is not related to a Notice of Proposed Rulemaking.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

No gifts or other remuneration will be provided to respondents of surveys of the visitors, non-visitors, former students who enrolled in Solar Decathlon-related majors, or the decathletes.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

No assurance of confidentiality based on any statute, regulation, or agency policy will be provided to respondents. In keeping with normal information-collection practice, however, respondents will be advised that any answers they provide will not be identified to them personally in any report, (2) will not be shared with DOE, and (3) will be combined with the responses of other respondents before producing the reported results, and (4) in the case of the CATI surveys the call may be monitored. The market research firms conducting the CATI and online surveys will use their procedures to maintain confidentiality while the data are on their premises.

DOE will contract with private, independent contractors for data collection and program evaluation. The contracts between DOE and the private, independent survey and evaluation contractors will expressly require that the individual responses not be shared with DOE. All individual respondent responses will be retained by the private, independent evaluation and survey contractors.

11. **Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why DOE considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

The information collections contain no questions of a sensitive nature.

12. **Provide estimates of the hour burden of the collection of information. The statement should indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, DOE should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample fewer than 10 potential respondents is desirable.**

The times for eligible respondents to answer questions were established with pretests using a mix of internal and external respondents. No more than nine respondents were interviewed for each survey. Changes to the surveys made subsequent to these pretests resulted in two or three questions being added to individual surveys. The burdens shown in Table A2 are based on these pretests plus one or three minutes, depending on the survey, to account for the additional questions.

Table A2: Respondent Burdens for Each Proposed Survey

Hour Burden for Respondent Populations			
Population Group	Number of Respondents	Average Time Burden	Total Time Burden (hrs)*
Non-visitor homeowners (both groups B & C)	680	10 min.	113
Visitor homeowners	200	12 min.	40
Non-decathlete former college students with Solar-Decathlon-	110	12 min.	22

related majors			
Former decathletes	100	11 min.	18
Total	1090		193

* Total Time Burden (hrs) = Number of Respondents x Average Time Burden (min.) / 60 min. per hr.

The estimate is an average time for a visitor to a Solar Decathlon to complete the homeowner survey. It is based on the pretests of the questionnaire. No respondent will ever answer all of the questions in the questionnaire. For example, if the respondent did not install solar panels, they will skip the questions about the solar panels. If the respondent did install solar panels, they will skip questions about the installation decision process. The pretests also demonstrated that other batteries of questions will be skipped. For example, if they did not install energy-efficient lighting or appliances, they will skip the batteries of questions about these installations.

No respondent time will be needed to search data sources, gather information, or review information. The time burdens are limited to the time necessary to answer the questions.

Respondents will incur no annualized costs for information collections, identifying and using appropriate wage rate categories.

13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information.

The information collection requires no recordkeeping, capital or start-up costs, operation or maintenance costs, or purchase of services or equipment by the respondents. All interviews are voluntary will be conducted with respondents at home; none will be conducted at their place of work. The cost burden for each survey is $0.

14. Provide estimates of annualized cost to the Federal government.

The proposed budget for the contract to conduct this work is $359,000. The cost includes labor required for the analysis and report writing effort. Table A3 summarizes the budget.

Table A3: Cost to the Federal Government of the Requested Collections and Associated Analysis and Reporting

Cost to the Federal Government		
Tasks	Hours	Cost
Prepare OMB materials, complete compendium of related surveys, conduct bids and prepare contract with polling organization, write data analysis plan	629	$113,500
Conduct surveys (professional surveying and sampling services)	N.A.	$172,800
Manage/monitor surveys, analyze data, estimate impacts, write final report	607	$72,700
Total	1,249	$359,000

No equipment will be purchased specifically for this information collection. The professional surveying and sampling organizations proposed on a fixed-price basis; their labor hours were not required. The contractor’s hours and price were built up using its normal procedures for federal government pricing. The Department of Energy is funding this project through Sandia National Laboratories (SNL). SNL’s’ overhead is included in the costs in Table A3.

15. Explain the reasons for any program changes or adjustments reported in Items 13 (or 14) of OMB Form 83-I.

This is a new information collection. There are no changes or adjustments.

16. For collections whose results will be published, outline the plans for tabulation and publication.

The impact evaluation report resulting from these information collections will be published on the publicly available EERE Publications and Products Library Website: http://www1.eere.energy.gov/ba/pba/program_evaluatin/plans_reports.html. Tabulated and analytical results may be published elsewhere as well.

We plan to begin the surveys within four weeks of receipt of OMB approval and have them completed within twelve weeks. We plan to complete the report of results within four months of completing the information collection.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

For the telephone surveys, the OMB approval number and expiration date will be made available to survey respondents who request it. For the online survey of decathletes, the OMB approval number and expiration date will be displayed on the online questionnaire.

18. Explain each exception to the certification statement identified in Item 19 of OMB Form 83-I.

No exceptions are being requested.