SOLAR DECATHLON 2009

Request for Proposals

Amendment No. 2

RFP Issue Date: October 12, 2007
Amendment No. 2 Issued November 27, 2007
Proposal Due date: December 7, 2007 4pm (Mountain Time)

This amendment to the Request for Proposals (RFP) is being issued to provide answers to the questions received on or before the November 14, 2007 deadline.

Solar Decathlon 2009 Questions

1. Q. The RFP states that the house is nominally 700 sq ft. Has the house size changed or can it still occupy an 800 sq ft solar footprint?

   A. The 800 sq ft footprint still applies. However, shading devices will now be excluded from the footprint measurement. In the past, shading devices had counted toward the footprint.

2. Q. If water tanks are used to store heat, can they be outside of the solar footprint? The rules and regulations indicate this is not allowed but it seemed like some teams in the 2007 competition may have done that.

   A. In the 2007 competition, all thermal storage tanks counted toward the footprint. The 2009 rules will likely be modified to allow shaded thermal storage tanks to be located outside of the footprint.

3. Q. Is acceptance considered limited to only one team per country? (sent from a Canadian organization)

   A. There is not an explicit limitation, but page 7 of the RFP, Attachment A Evaluation and Selection Process, Evaluation Criteria for Selection, lists geographic diversity in the “other considerations”.

4. Q. Can we follow the health and safety codes from our home country in regard to construction of the house itself? For example, how much safety training is required for our builders? (sent from a Canadian organization)

A. Local health and safety codes may apply on the construction site at your school, but Solar Decathlon safety officials have jurisdiction on the National Mall site.

5. Q. Please clarify by specifying what can be considered as "labor" and "other direct costs" because when the cost for "construction materials" is excluded from "other direct costs", we are not sure how to interpret the "other direct costs".

   A. Labor may contain faculty and student time/pay for this project. Other direct costs may vary from team to team, but can include such items as computer lab time, safety training for team members, or outside professional time to review a design. The largest item proposed by most teams under other direct costs is the transportation of the house to Washington DC for the competition.

6. Q. Would student stipends and faculty/staff time be considered as "labor" cost?

   A. Yes, this may be considered as labor costs.

7. Q. Would tuition for hiring students be covered?

   A. Tuition costs/waivers granted under the schools normal practice and procedures will be considered under this solicitation, but supporting documents must be provided.

8. Q. Would project research or administration cost (e.g., buy books and reference data/materials, blank CDs, etc) be covered?

   A. NREL will consider these items however as general guidance, it is best to include only items that will be consumed during the project, or do not have residual value at the end of the project.

9. Q. What type of travel would be covered?

   A. NREL has covered the teams' travel (airfare, lodging, per diem) to the Solar Decathlon competition in Washington DC. NREL will also consider travel to attend any meetings/workshops directly connected to this competition.

10. Q. The call for proposals for the 2009 competition includes a requirement of providing economic analysis to show that the levelized energy cost in 2015 will achieve a certain level.

    a. Q. Is the stated "$0.10/kwh" in 2015 dollars?

    b. Q. On page 1 of Attachment E, it is stated that "A full financial cash-flow model shall be used to take into account all parameters that differ from those of a conventional house." What type of structures/facilities can be

considered as “conventional”? Does the word refer to something conventional in 2007 (when the proposal is developed), or 2009, or 2015?

c. Q. We competed in 2005. Can we use the existing solar house as a “conventional” house and see if an improved house can help us achieve the target LEC?

d. Q. Existing literature suggests two ways of calculating LEC, i.e., an absolute value represented by the division of total life cost and the energy output, and a relative value calculated based on savings from a baseline. Which approach would you recommend? Based on Question 10.b, it seems that you recommend the second approach. Is this correct?

e. Q. Literature also suggests that LEC calculations can be debatable due to the use of many assumptions in calculations. Without a general framework in the RFP for guiding the calculation process, proposals from different schools are likely to use different assumptions, data and methods. What are the evaluation criteria for this particular subject, which can be consistently applied to all schools?

f. Q. Would you consider providing some general guidelines for the calculation process of LEC to be used by competing teams?

A. The economic analysis component of the 2007 competition has been eliminated for 2009.

11. Q. The Solar Decathlon website specifically states that the energy used for all contests should come from PVs.

a. Q. Therefore, is it to our advantage to reduce the energy consumption of the house using passive cooling strategies to the extent of being a main focus?

b. Q. Similarly, should the energy needed to heat the water for the Hot Water Contest come exclusively from PV or could it be supplemented by means of solar collectors?

A. Please disregard this information on the Web site. The rules state that “the only source of energy with which houses shall operate and tasks shall be performed is global solar radiation received by the house without artificial external augmentation.” Therefore, energy collection is not limited to PV.

12. Q. Should all material pass strict codes and regulations (e.g. fire resistance) and in what extent could we lose points in the event of a code violation?

    A. Compliance with the Solar Decathlon Building Code is a prerequisite for participation in the competition. For your reference, the 2007 SD Building Code is located in the 2007 Rules and Regulations.

13. Q. Concerning the temperature and humidity tests performed during the competition, are there any special considerations such as closed doors and windows, blinds closed, etc?

    A. Please refer to Item #3 on page 125 of the PDF file of the 2007 Rules and Regulations, which states that "house configurations that could affect the outcome of contests and that were not seen by the Jury during their tours are prohibited during Contest Week."

14. Q. Is it standard protocol for schematic designs to be submitted as part of the initial proposals?

    A. An explanation of the design approach and vision is sufficient. Design Development documents are not required until late spring or early summer of 2008.

15. Q. How much work do you expect proposers to do on the conceptual design? Are you expecting drawings, renderings, product selection, and an actual design product? Or do you want us to explain our approach and vision without actually starting the conceptual design?

    A. See the answer to Question #14.

16. Q. The information on levelized energy cost (LEC) appears no more detailed than two years ago. We did not see any information about this item while touring the 20 houses that competed this year. How much emphasis was placed on this during the 2005 decathlon? Under which of the 10 contests is it considered?

    A. See the answer to Question #10.

17. Q. What products, materials, practices, or techniques must be commercially available within the house's construction?

    A. Please refer to Regulations 12.2 and 12.5 in the 2007 Rules and Regulations, which state that photovoltaic cells and batteries must be commercially available. The commercial availability requirement does not apply to any other house component.

18. Q. Are the inclusion of Photo Voltaic cells in the house's energy production scheme required?

    A. No, but alternative methods for energy generation must be approved by the rules officials and Solar Decathlon building official.

19. Q. Should we plan for a battery system and a grid tied system within our proposal? It could matter when it comes to a cost /benefit analysis of storing hot water as an energy "battery".

    A. Please refer to RFP Amendment #1.