

SOLAR DECATHLON 2011

Request for Proposals

Amendment No. 1

RFP Issue Date: August 18, 2009

Amendment No. 1 Issued November 3, 2009

Proposal Due date: November 17, 2009 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 October 22, 2009 deadline.

Solar Decathlon 2011 Questions

1. Q. Communication seems to be very important. Do you only mean external communication activities, or is it also necessary to involve in the project a group of students with a background in communications?
A. The involvement of communications students has been beneficial to past teams that have integrally involved such students in the project.
2. Q. A technical question: We'd like to understand how the metering of energy performance will work during the SD 2011 (duration, time period, weather conditions etc.).
A. Please review Rule 8-6 ("Village Grid"), Rule 8-7 ("Net Metering Rules"), and Contest 10 ("Net Metering") in the SD2009 Rules for more information about metering.
3. Q. We are curious if the 2009 rules regarding battery storage will remain the same for the 2011 competition. Additionally, are super-capacitors allowed?
A. It is unlikely that Rule 8-4 ("Batteries") in the SD2009 Rules will change for SD2011, in which case, ultracapacitors will not be allowed.
4. Q. Team officers as outlined in the Team Rules--should these assignments be designated for the RFP? And if so, can/should these be faculty, staff, or students, or are these mostly intended to be students?
A. The names of team officers required by Rule 3-2 in the SD2009 Rules need not be listed in the proposal. All team officers, except for "Faculty Advisor," should be students.
5. Q. The Team Rules--does the engineer who "approves" the plans have to stamp them?
A. The "stamping" and the "approval" of the structural drawings and calculations are synonymous.
6. Q. Would we be allowed to generate any energy off things like a (commercially available technology) piezo-electric floor when people walk through the building? Built-in exercise equipment?
A. These types of energy generation devices are prohibited by Rule 8-2 in the SD2009 Rules.

7. Q. Understanding that the PV chips, mech. equipment, and appliances have to be on the market items, would we be able to showcase any new technologies for subsidiary components, such as some OLED that our faculty have developed?
- A. Only PV technology is required to be commercially available (see Rule 8-1 in the SD2009 Rules). Non-PV technology need not be commercially available but must pass the SD inspectors' safety reviews.
8. Q. Would it be OK to showcase some new (pre-market) PV technologies so long as they are not part of the metering, perhaps even as part of our communications display?
- A. "Pre-market" PV technologies are not permitted. All PV technologies used on a team's site shall be commercially available.
9. Q. I understand from visiting the SD 2009 houses that the toilets are never used, are they still required to be fully plumbed?
- A. Aside from the capped end of the water-closet flange (required by Section 9-2 of the SD2009 Building Code), toilets should be fully plumbed.
10. Q. Is it required to be affiliated with an Architecture program from an institution, or can we merely utilize local green architecture firms?
- A. The proposed approach violates the spirit of the competition but does not violate a specific competition rule. However, though all projects should be designed by a student-led team, the involvement of faculty and professionals in appropriate advisory roles is encouraged.
11. Q. In rule 9 of the rules for solar decathlon, there are statements about how water storage needs to be shaded. Does this also apply to water supply?
- A. Yes, the shading rules also apply to the water supply tank. Please see Rule 8-3 and Rule 9-1c in the SD2009 Rules for more information.
12. Q. Our College is regulated by VOSHA, which meets or exceeds OSHA requirements. As we read the Implementation Guide for 10 CFR Part 851 (Worker Safety and Health Program), we find that our standard health and safety training methods are acceptable (per 3.1.2, Exclusions). Is this interpretation correct?
- A. Exclusions in 3.1.2 of the Implementation Guide are for overall applicability of 10 CFR 851. It does not address subject specific elements such as training.
- The expectation for health and safety training methods is that team members involved with specific activities be trained to recognize the associated hazards and how to control those hazards. Some training is driven by OSHA (e.g. fork lift training), some is good practice (e.g. tool safety), and other is driven by DOE requirements (e.g. NFPA 70E). You will define your training plan/method in the Health and Safety Plan that you submit.
13. Q. In "Rules" under "Team officers," it says that license is required for the structural engineer. Is this a PE license? Or is it okay for a generally accepted/reputable Danish structural engineer to approve the house's structural system? If not – should we find one ourselves, or are you going to refer someone for us?
- A. If the Danish structural engineer is considered to be a "qualified, licensed design professional" in Denmark, then it is generally acceptable for this engineer to stamp the structural drawings and calculations. However, we do require that the engineer communicate with and submit a list of qualifications to the SD Building Official prior to beginning work on the project.

14. Q. Is it okay to use other universities as sparring partners, without them being an actual part of the team, and with that not mentioned in the description of it?
- A. The question is unclear. However, I will speculate that you are asking whether it is acceptable, for example, to present your design ideas to another university for critique, in which case the answer is yes.
15. Q. Some of the members on our team are ending their education in January 2010. Is it still okay for them to be a part of the competition afterwards?
- A. These team members will not be eligible to be Decathletes (see “Decathlete” definition in Section I of the SD2009 Rules), but may participate as non-Decathlete team members (see “Team Member” definition in Section I of the SD2009 Rules).
16. Q. Have the solar PV and thermal capacity caps been determined? Knowing these caps will allow us to develop a more accurate budget.
- A. The organizers plan to establish the solar capacity limit in late 2009. However, for the purpose of developing a budget, assume a maximum total solar capacity limit of approximately 10 kW, where the solar thermal capacity portion of the total solar capacity limit is multiplied by 0.25. For example, a 9 kW PV system and a 4 kW solar thermal system would be counted as a 10 kW total solar capacity system because $9 \text{ kW} + 0.25 * 4 \text{ kW} = 10 \text{ kW}$.