

U.S. Department of Energy Solar Decathlon®

Alumni Mentor and Technical Advisor Program Guide

Competition Overview

The Solar Decathlon Design Challenge is an annual collegiate competition where interdisciplinary teams create sustainable, high-performance building designs that address real-world issues such as existing building retrofits, community impacts, affordability, and resilience. Teams collaborate on a residential or commercial design project for one or two academic semesters, with the competition cycle running from October to April each year. Design Challenge students attend the Competition Event each April, held both virtually and in person at the National Renewable Energy Laboratory (NREL) in Golden, Colorado.

Alumni Mentors and Technical Advisors Overview

There are three mentorship opportunities for buildings industry professionals and Solar Decathlon alumni to connect with current Decathletes.

I. Alumni Mentors

The Mentor Program pairs Solar Decathlon alumni with student teams participating in the Design Challenge. Mentors provide one-on-one support to a team throughout the competition period, which may include review and feedback on project direction, deliverables, and presentations. **Solar Decathlon alumni from any year and challenge type can become a mentor.**

II. Technical Advisors

Any industry professional, regardless of previous Solar Decathlon experience, can volunteer to be a Technical Advisor on specific topics. Technical Advisors provide limited, one-on-one support to multiple teams for questions in a specific technical topic area. Technical Advisors are available to all teams, and teams will request support directly. Technical Advisors are needed for architecture, mechanical engineering, energy modeling, renewables integration, building enclosure, cost analysis, life-cycle analysis, and more. Serving as a Technical Advisor is expected to be a lesser time commitment than serving as an Alumni Mentor.

III. IBPSA-USA Performance Modeling Support

Teams can contact solardecathlon@IBPSA.us to be matched with a professional from the [International Building Performance Simulation Association - USA](#) (IBPSA-USA). IBPSA-USA professionals support students specifically with building performance modeling (such as: energy modeling, thermal comfort analysis, daylighting, peak load analysis, load flexibility, passive survivability).

Alumni Mentor Expectations

- Mentors are expected to be a resource for the competition period from October to April. Mentors provide up to 15 hours of support during this time.
 - Many teams participate over just one semester from January to April.
- Support may include technical or nontechnical review and feedback on project direction, deliverables, and presentations.
- Mentors cannot complete any project work for the team.
- Mentors will work with only one student team.
- Students are expected to lead the relationship with the mentor by scheduling meetings and keeping their mentor apprised of project progress and outcomes. Students are also expected to provide adequate lead time for reviews.

Alumni Mentor Tips

- Share tips, lessons learned, and wisdom from your past Solar Decathlon experience.
- What do you wish you knew as a student competitor? What went well? What could have been improved?
 - How did you divide responsibilities within your team?
 - How did your team engage with industry?
 - How did you present a compelling story about your project to jurors?
- Familiarize yourself with the official Competition Rules, including deliverable requirements.
- Set clear expectations around your time commitment and communication style.

Technical Advisor Expectations

- Technical Advisor contact information will be shared with students.
- Technical Advisors are willing to respond to specific email requests from teams and provide technical assistance on an as-needed basis during the competition cycle from October to April.
- Technical Advisor support is not expected to exceed 5 hours throughout the competition.
- Technical Advisors cannot complete any project work for the team.

Technical Advisor Tips

- Provide the Solar Decathlon organizers with information about your technical expertise to share with teams.
- Help students explore their technical question and learn from your response versus solving an issue for them. Point students to technically sound resources they may not have considered before trying to answer their question.
- If you do not have time or capacity to answer a student question, please email the organizers at SDdesign@nrel.gov.

Contact: Reach out to the Solar Decathlon Organizers at SDdesign@nrel.gov with questions.