

Market Appeal

The Market Appeal contest helps give direction and focus to the teams as they consider their design and construction choices. It requires teams to designate a customer for their house and to incorporate features that would make their home appealing to residents within that demographic.

The contest is scored by a jury who assigns points based on the livability, marketability, and buildability of the home. Livability asks: Is the design functional and convenient? Is the control system intuitive? Does the house meet the unique needs of the target customer? Marketability assesses the qualities that give the home market value, such as curb appeal, interior design, and attractive sustainable features. Buildability takes a more practical look at the home, asking whether or not the home could be built based on the construction drawings and material availability. The judges review construction drawings, the market appeal narrative, and the house itself once the competition begins. While Market Appeal may at first seem to be related exclusively to the Public Relations subteam, the Construction, Interiors, Exteriors, Architecture, and Control Systems teams all play an important role in achieving high marks in this category.

For the 2013 competition, the SCU team chose to design their house for “a retired couple looking to downsize into an affordable and sustainable home.” Their target location of Mountain View, CA, is a wealthy and sunny city in the Bay Area that is welcoming to new technologies.

The layout of the house fits well with the intended customer. The home is highly accessible, with ramps and wide hallways situated in an open floorplan. However, one might argue that the emphasis on accessibility was dictated by contest rules, not the target audience. The home has to accommodate large numbers of visitors during the competition, including those

with disabilities. It is certainly ethical to make sure the home can be enjoyed by all visitors, but this does not necessarily reflect a conscious ethical decision by the team members.

The house incorporates many low-maintenance features to allow the target client to enjoy the living experience without worrying about repair. The siding and decking are weatherproof and the landscaping requires limited care to maintain. The team chose exterior materials and plants that would thrive in the dry and mild climate of Northern California. The solar panels will require cleaning; however, it is likely that the target couple would be willing to pay for that service. These features would be positive additions to any home, but the team is specifically marketing them as benefits to new retirees.

It is a similar case with the control system. The control system is completely student-designed with an eye towards an intuitive design. It can be controlled by a tablet computer within the house and a smartphone away from the house. The team emphasizes that features such as large icons and real-time energy dashboards will aid in the ease of control of the home. While an app-controlled house is innovative and appealing in Silicon Valley, the majority of retirees today do not own smartphones. The team makes an assumption that the Bay Area location will help lend enthusiasm to a high-tech design, but for the older generation, a simple push-button panel in the house might have sufficed equally well.

The Market Appeal category did not pose any major design challenges for the team. In Mountain View, solar energy is readily abundant in a city with over 300 days of sunshine per year. A retired couple looking to downsize would not have a need for extra space or expensive features, but their presumably wealthy background would allow for the latest technological innovation to be incorporated into the home without worrying about scaling it to be more feasible for a lower-income market. The home shows that solar technology can feasibly and

attractively power a home at a relatively low cost, but it fails to expand solar energy's reach where it has not already been established. The Solar Decathlon is an excellent showcase of student innovation, but as the other teams market their homes towards similarly wealthy and technologically savvy clients, it falls short of making solar power a reality for all people.

The Santa Clara team has done well in emphasizing features that make the Radiant House an economical, efficient, and elegant model of sustainable living for a newly retired couple. Perhaps with the current price of solar technologies, it is more practical to market the home towards a clientele who is willing and able to pay a premium for aesthetic sustainability. At this point, it might be more ethical to design a fully efficient house for those who can afford it rather than make a low-cost home that fails to meet the homeowner's needs.

Thankfully, efforts like Missy's engagement of the local community and the various outreach efforts organized by the team are helping expand solar power's potential beyond the most obvious places. Through their extra work in spreading the word about solar power and gaining feedback about ways to make it more accessible, the team is helping increase the market appeal of solar energy, beyond the reach of the competition.