



University of California, Merced
Facilities Management
5200 Lake Road
Merced, CA 95343

May 11, 2012

Dear AAASHE STARS Reviewers:

The UC Merced energy performance target program is a market-leading program that has a documented track record of delivering energy efficiency in new construction with buildings that consume 35-50% less than would be required by current energy code. This approach is unique because it does not rely solely on energy performance with respect to code, but sets energy budgets and requires that design team perform energy modeling to confirm that a building design does not exceed its budget. Code-based approaches do not address significant energy loads on University campuses (such as laboratory ventilation), do not deal well with peak demands, and cannot be easily carried through as an operational target for the building. The energy performance target approach allows for more accurate consideration of total building energy use and generates models that can be used to evaluate design alternatives. I am not aware of any other program that is consistently delivering such deep levels of energy efficiency in new commercial (university) buildings.

I encourage you to consult the papers and peer-reviewed case studies below that directly relate to the energy performance target approach:

Brown, K. 2002. "Setting Enhanced Performance Targets for a New University Campus: Benchmarks vs. Energy Standards as a Reference?" *Proceedings of the 2002 ACEEE Summer Study of Energy Efficiency in Buildings*. 4:29-40. Washington, D.C.: American Council for an Energy-Efficient Economy.

K. Brown, A. Daly, J. Elliott, and C. Higgins. 2010. "Hitting the Whole Target: Setting and Achieving Goals for Deep Efficiency Buildings." *Proceedings of the 2010 ACEEE Summer Study of Energy Efficiency in Buildings*. Washington, D.C.: American Council for an Energy-Efficient Economy.

NBI. 2009a. "Measured Performance Case Study: Classroom and Office Building, UC Merced." Available online: http://uc-ciee.org/downloads/Case_Study_UCM-COB_d7_ML.pdf.

NBI. 2009b. "Measured Performance Case Study: Science and Engineering I, UC Merced." Available online: http://uc-ciee.org/downloads/Case_Study_UCM-SE1-R_d2_ML.pdf.

Elliott, J., and Brown, K. 2010. Not Too Fast, Not Too Slow: A Sustainable University Campus Community Sets an Achievable Trajectory Toward Zero Net Energy" *Proceedings of the 2010 ACEEE Summer Study of Energy Efficiency in Buildings*. Washington, D.C.: American Council for an Energy-Efficient Economy.

Please feel free to contact me for any reason to discuss this approach further (john.elliott@alumni.stanford.edu).

Sincerely,

A handwritten signature in blue ink, appearing to read "John Elliott".

John Elliott
Director, Energy and Sustainability