# Star of Energy Efficiency Award
# LACCD Nomination Form

Educating 200,000 students each year through its nine campuses, the Los Angeles Community College District (LACCD) has made post-secondary education a reality for millions of Southern California residents. Several years ago, after receiving more than $2.2 billion in bond funding, the LACCD Board of Trustees (BOT) saw the opportunity to accomplish a simple objective: develop what would become one of the largest public sector sustainable building efforts in the U.S. Today, with an additional $3.5 billion in bond funding, the policy includes an aggressive construction and renovation effort at each of the District's nine campuses and a renewable energy plan that is poised to make each campus and the District carbon-neutral and, ultimately, energy independent.

The District's Sustainable Building Program calls for all new bond-funded buildings to meet or exceed the Leadership in Energy and Environmental Design (LEED™) criteria for certification, minimizing long-term, negative impacts on the environment through:

- The conservation of natural resources through the environmentally sound selection of building materials, landscaping, and water-smart plumbing systems;
- Maximizing the use of renewable resources, such as photovoltaic (PV) systems, geothermal energy and wind energy;
- Increasing energy efficiency by upgrading equipment and incorporating state-of-the-art heating and cooling systems in building design;
- Providing improved interior air-quality and lighting;
- Exceeding California's Green Energy requirements by a minimum of 20 percent;
- Encouraging environmental education by design;
- Establishing a goal to provide a climate-neutral campus that would reduce the carbon footprint of buildings built using bond funds; and
- Developing a plan to produce enough electricity to make its nine campuses energy independent using renewable energy sources.

The District has already seen progress on its plans to generate electricity through renewable energy. On Earth Day 2008, East Los Angeles College (ELAC) and LACCD officials gathered at the Monterey Park, CA campus to commemorate the completion of the college's new 1.2 megawatt photovoltaic farm (PV). The PV farm is comprised of 5,952 solar panels installed atop seven large-scale carports providing shaded space for 530 vehicles. The solar project and generators occupy three acres and have a life expectancy of at least 40 years. The electricity generated by the solar panels will satisfy approximately 45 percent of the college's energy needs. Energy produced that is not needed by the college will either go back to the grid or be put into centralized storage.

ELAC's solar farm works in conjunction with the new Central Utility Plant, which saves energy by drawing power from the grid at night when demand is lower and the prices are cheaper. The ELAC PV Farm will also act as a living model for students, allowing them to study the panels and electrical equipment to learn more about their design, construction, chemistry and physics. This will prepare them for the "green collar" jobs of the 21st Century.

Additionally, the Campus Energy Optimization Program (CEOP) is designed to reduce load and increase energy delivery reliability during time-of-use daytime peak periods, (i.e. Time Dependent Valuation). The 1.2 MW Photovoltaic Array (PV) is the first phase in the CEOP, soon to be followed by an ice thermal energy storage system (TES) at the new Central Utility Plant and a campus-wide Demand Side Management (DSM) initiative at the building level. The combination of solar self-generation (PV shifting load to night time "off-peak" [TES] and load management [DSM]) will ensure the campus not only complies with, but exceeds, the expectations of Title 24 Energy Performance Standards adopted by the California Energy Commission.

The District plans to use fuel cells, thermal storage and other alternative energy technologies to provide energy to meet the day and evening needs of the colleges. The District is moving forward on an urban wind generation system, initially planning to install an array of one-kilowatt units, with more planned over time. These units will capture wind currents sweeping between and over campus buildings. The LACCD also is exploring geothermal heat exchange systems, which rely on the stability of underground temperatures to heat buildings in the winter and direct hot air into the relatively cooler ground in the summer.

The LACCD's innovative programs and services have been a catalyst for change and success for more than 3 million students over more than 70 years. Thanks to its innovative, award-winning sustainability policy, which is focused on achieving a cleaner, healthier environment by adopting nationally recognized standards and guidelines, the District has set a high standard for all public agencies to follow.