



CALSTRS HEADQUARTERS

West Sacramento, CA

California teachers teach sustainability by example.

In 2005, California State Teachers Retirement System (CalSTRS) launched the design of their new headquarters building with aggressive energy efficiency and sustainability goals. Since then, the landmark building has received LEED Gold® under the LEED® for New Construction™ rating system and LEED® Platinum under the LEED® for Existing Buildings: O&M rating system.

NORESCO has aided in the achievement of both LEED certifications, providing LEED certification consulting, energy and daylight modeling, fundamental and enhanced commissioning, re-commissioning, and measurement and verification.

After the building's occupancy, NORESKO performed measurement and verification services in conjunction with LEED for Existing Buildings: O&M certification services. The 18-story building, which houses offices, meeting rooms, a fitness center, a cafeteria, and a parking garage, was projected to achieve an annual energy cost savings of 19 percent compared to the baseline design.

NORESCO's measurement and verification found the verified annual energy cost savings to be 17 percent compared to the verified baseline design with a square foot savings of \$0.50/ft². The majority of these savings were comprised of savings in lighting and cooling. The difference in anticipated versus actual savings percentage was found to be caused by unregulated loads including the data center and parking garage lighting.

Natural gas savings also increased significantly from expected, decreasing from an anticipated 13 percent increase in cost over a baseline building to a savings of 26 percent.

NORESCO's engineers also re-commissioned the building, identifying seven energy conservation measures representing an additional 12% annual energy savings.

Certification

- ▶ LEED Platinum®
LEED® for Existing Buildings: Operations and Maintenance™ v2009
- ▶ LEED Gold®
LEED® for New Construction™ v2.1
- ▶ ENERGY STAR®
2011

Services

- ▶ Measurement & verification
- ▶ Re-commissioning
- ▶ LEED certification consulting
- ▶ Energy and daylighting modeling
- ▶ Fundamental and enhanced commissioning

Environmental Impact

- ▶ 17% verified annual energy savings (ASHRAE 90.2-2001)
- ▶ Achieved points for LEED EAc1, EAc3 and EAc5

Services for this project were provided by Architectural Energy Corporation (AEC), which is now part of NORESKO.

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