

Case Study

This project participated in Designed for Comfort: **EFFICIENT AFFORDABLE HOUSING** during program year 2002, with funding from Southern California Edison.

Project name: Flanders Pointe Apartments

Owner: Tustin Affordable Housing Corporation

Developer: Steadfast Companies

Location: Orange County, California

Energy Analysis: Heschong Mahone Group, Inc.



Project Base Case: Affordable multifamily building (2-story, 82 units), 57,572-square-foot built in the 1960s with single-pane windows, heating and cooling systems, and no roof or attic insulation.

Benefits: The owner received a \$28,000 incentive to offset the cost of energy efficiency upgrades. Forty units were eligible for cash incentives; the owner paid for upgrading the remaining units. Designed for Comfort staff recommended these measures: attic insulation (R-30); domestic hot water pipe insulation; air conditioner tune-up; exterior solar window shades; and a central boiler demand controller (paid by another energy efficiency program).

Title 24 Results: After upgrades, energy efficiency was calculated to be approximately 37% greater than existing conditions.

Cost: The total cost of these upgrades was approximately equal to the \$700 per dwelling unit incentive that the owner received. Net cost to the owner for the upgrades to those 40 units? Zero!

Energy Savings: Total building energy savings is approximately 34,000 kWh per year. Total building cost savings is approximately \$47,591 per year. The upgrades are projected to reduce each tenant's utility bills by approximately \$580 annually.

Cost Savings Associated with Energy Upgrades, Flanders Pointe Apartments Example					
	Energy Savings KWh/sqft/yr	Cost Savings \$/sqft/yr	Total Building Energy Savings KWh/yr	Total Building Cost Savings \$/yr	Cost Savings for each tenant \$/yr
Space Heating	0.03	\$0.00	1,910	\$267	\$3
Space Cooling	5.88	\$0.88	338,025	\$47,324	\$577
Total	5.91	\$0.89	339,935	\$47,591	\$580