

Luxury apartment complex

Los Angeles area, California

CHALLENGE: A luxury apartment complex located in Los Angeles prides itself on enhancing their tenet's living experience. The old elevators were in need of an innovative elevator modernization to provide unequaled ride quality and performance, while significantly reducing energy consumption and operating costs.

SOLUTION: ThyssenKrupp Elevator Americas performed an elevator audit and determined that an equipment upgrade would satisfy the customer's requirement. Therefore, we removed the old geared machine and installed a revolutionary gearless system to improve the elevator's reliability, ride quality, and energy efficiency. The DC (Direct Current) motors were replaced with high-efficiency VVVF (Variable Voltage Variable Frequency) hoist machines with regenerative drives. Existing solid state controllers were upgraded with ThyssenKrupp Elevator's TAC 50-04 microprocessor controllers. The apartment complex was able to realize an 82% reduction in average kW for one complete run, and a 97% reduction in standby power.

Equipment

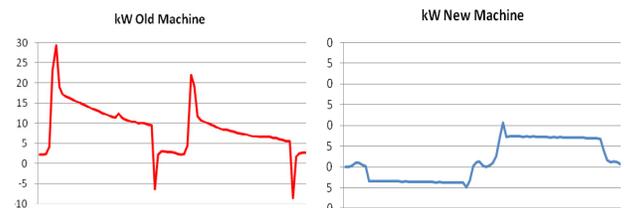
After performing a comprehensive technical-analysis audit of the existing equipment, ThyssenKrupp Elevator recommended the following upgrades.

The new VVVF drive increases energy efficiency by continually controlling the AC motor to vary the torque and speed. Regenerative drives and ThyssenKrupp TAC 50-04 microprocessor controllers were also recommended to improve both dispatching and energy efficiency.

	OLD EQUIPMENT	UPGRADES
Machines	Geared	Gearless
Motors	30 HP AC	23.3 HP AC
Controllers	Solid State	TAC 50-04
Roping	1:1	1:1

Energy Savings

kW Reduction: 82.3%
OLD MACHINE AVG: 8.85 NEW MACHINE AVG: 1.57



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