

KONE ReSolve with Unity Drive™ Control System

Faster and more efficient, while using 45% less energy



PROJECT

Emily Morgan Hotel
San Antonio, Texas
800.824.6674
emilymorganhotel.com

OWNER

Westmont Hospitality
Group

MARKET SEGMENT

Hospitality

TIMELINE

May 2007 –
November 2007

CONSULTANT

Lerch Bates

PRODUCT SOLUTION

ReSolve with
Unity Drive™
Control System



“The energy savings this product delivers is a windfall for us. It wasn’t on our radar. We were used to paying our electric bill and were interested in an upgrade to improve service and reliability. KONE showed us we could have more.”

William P. Brendel, *General Manager, Emily Morgan Hotel*

the savings

ANNUAL ENERGY COST

MG	\$6,765
ReSolve	\$4,245
ANNUAL ENERGY SAVINGS	\$2,520

the challenge

- Replace the control systems of 3 elevators in an 81-year-old historic building
- Provide a solution that is cost effective and addresses today’s environmental issues and rising energy costs
- Improve elevator response and travel time for guests
- Verify past/current power usage and costs
- Calculate future savings for the hotel’s vertical transportation system
- Conduct work with minimal interference to hotel guests

the KONE solution

- Install high-tech ReSolve with Unity Drive Control System
- Replace control system, MG drive and wiring while reusing the existing hoisting machine to avoid costly construction expenses
- Provide guests with an efficient, faster and safer ride
- Deliver billable energy savings of up to 45% per elevator
- Provide Emily Morgan Hotel with the distinction of being the first building in North America with an elevator using new, highly efficient power control technology

"I am comforted in knowing we will have elevator service for the foreseeable future that costs less and is more reliable. I am very happy with KONE's service."

William P. Brendel, General Manager, Emily Morgan Hotel



KONE Inc.
One KONE Court
Moline, Illinois 61265

In Canada
80 Horner Avenue
Toronto, Ontario M8Z 4X8

1-800-956-KONE (5663)

For the latest in product information and interactive design tools, visit us at www.kone.com.

the client's situation

The Emily Morgan, a privately owned, 177-room, luxury boutique hotel in the heart of San Antonio, Texas, and a stone's throw away from the Alamo, is housed in a historic building built in 1926. Its mission is clear: to "provide each guest with an outrageous service experience." Although outrageous service to most people means impeccably clean rooms, friendly and efficient staff, luxurious bedding and bathrobes, and fabulous food and drink, there also is an expectation that travel time between the hotel's 14 floors be fast, efficient and safe.

When Emily Morgan's management team decided its elevator system needed an upgrade, it didn't want to lose the ambiance its historic elevators brought to the hotel, nor could it afford to undergo a major construction project that would inconvenience guests. The main objective was to improve the elevator's efficiency in how it responded to calls from hotel guests and provide a smooth, efficient transport to their destination.

The hotel had experienced several severe service failures in recent months because of the difficulty in finding parts and a responsive repair service for the antiquated system. When it began to impact the customers' experiences, management focused on a reliability solution. KONE project manager Mike Lewis received the hotel's bid specifications and knew he could guarantee his product would deliver efficient and reliable service. "But through new technology, I also knew KONE could offer the hotel a substantial energy savings per elevator," he said. With that, a decision was made by Hotel General Manager Bill Brendel. In addition to having a modern and reliable elevator system, the Emily Morgan Hotel would have the distinction of being the first building in North America with an elevator using this new, efficient power control technology.

the KONE achievement

KONE had the perfect solution for the 81-year-old hotel building in its ReResolve with Unity Drive Control System. The recently introduced product includes KONE's LCE Logic Control and the new Quattro DC Drive, a joint KONE and Magnetek design effort. The control system offers optimized call dispatching for reduced wait times. The drive system provides efficient power consumption and efficient power regeneration. That means the system puts energy back to the power grid at times based on the distance and direction the elevator travels as well as its load weight. Another advantage of the ReResolve with Unity Drive Control System is that it can be installed in the existing machine room and it's possible to reuse the existing gearless hoisting machine.

"Providing an efficient control system was what GM Bill Brendel wanted," Lewis said. "But we also promised a reduction in energy use and as part of our installation process we conducted two studies to back up our claims where the old and the new systems were analyzed and compared." The engineering study controlled an elevator, putting it through a defined set of operations while power and energy analyzer equipment recorded the data. The day-to-day study lasted 38 days and monitored use of the elevators by hotel patrons. Power and energy data was collected, along with the number of motor starts and electrical demand-usage.

The study showed that the new KONE control system consumed 78% less volt-amp-hours (Vah), and watt-hours (Wh) were reduced 40%. That means less demand on the utility and a lower utility bill. Peak demand for power also was reduced by 31%, and energy regeneration was increased by 283%. These savings qualified the hotel for an energy rebate of \$16,865 from the local utility CPS Energy.

the bottom line

KONE's ReResolve with Unity Drive Control System provides optimized call dispatching for reduced wait times and efficient power control technology, which delivers energy savings to the customer. When modernizing an existing building, an upgrade in performance and reliability can be delivered with remarkable energy savings. At KONE, it's part of the package.

*KONE's product solutions provide innovation, performance and sustainability. **Logical Solutions** now and for the future.*



KONE Inc. reserves the right to alter design and specifications without prior notice. ReResolve with Unity Drive™ Control System is a registered trademark of KONE Inc.

©2007 KONE Inc.

ENERGY USE STUDY

