

COURTYARD BY MARRIOTT DOWNTOWN, SAN DIEGO, CALIFORNIA

Energy Savings:

over **500,000** kWh

Estimated Annual Utility Cost Savings:

\$75,255

Total Utility Incentive Rebate:

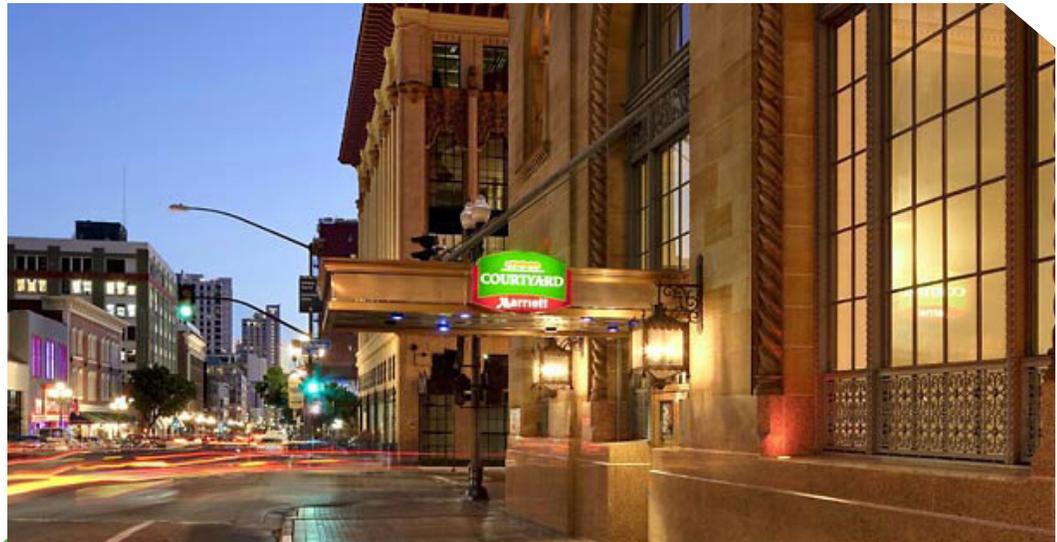
\$56,390

Project Implementation Costs:

\$486,119

Project Simple Payback:

5.7 years



ABOUT COURTYARD

A unique intersection of a bygone era and modern-day comforts, the Courtyard by Marriott San Diego Downtown is a historic city landmark in the downtown landscape of San Diego. Originally built in 1928 as the San Diego Trust & Savings bank, the building was fully repurposed in 1994 as a hotel offering world-class amenities.

The hotel's Italian Romanesque revival architecture offers guests a peek into the past with intricate mosaics, high-vaulted ceilings, and an impressive use of granite, sandstone, and marble throughout the fourteen-story, 182,000-square-foot building. The Courtyard by Marriott San Diego Downtown has 245 guestrooms and 3,800 square feet of meeting space converted from former bank vaults.

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GOALS AND CHALLENGES

The Courtyard by Marriott San Diego Downtown preserves elements of its historic past while simultaneously taking steps to become a forward-facing, environmentally friendly green hotel. As part of their budgeting strategy, the hotel has a standing goal of lowering utility costs at the property whenever possible through the implementation of energy-saving projects. Maintaining the historic feeling of the building poses a special challenge when upgrading to cutting-edge, energy efficient technologies.



As part of their approach to customer service, the Courtyard by Marriott San Diego Downtown wants guests to perceive the hotel as an environmentally friendly, green hotel.

SOLUTIONS AND RESULTS

The comprehensive nature of the hotel's energy efficiency projects led to significant reductions in electricity, gas, and water consumption and is recognized through several awards, including:

1. SDG&E's Energy Star Champion Award (2010)
2. California Hotel & Lodging Association's Stars of Industry: Good Earthkeeping Award (2013)

Of particular note was a lighting initiative to install occupancy sensors and to convert halogen and incandescent lamps to LEDs, reducing energy consumption from guestroom and lobby lighting by nearly 50 percent.

Willdan worked closely with contractors to ensure that implementations would follow established building codes for historic buildings and that selected products saved a significant amount of energy and qualified for SDG&E incentives or rebates, offsetting the cost of implementation.

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ENERGY SAVING PROJECTS

In 2009, Willdan performed a site-wide LEEP Energy Efficiency Audit for the Courtyard by Marriott San Diego Downtown, identifying energy-saving measures that include kitchen hood ventilation controls, water flow reduction devices, and lighting conversion to LED, among others

Additional measures were identified through further site analysis in 2014, ensuring that the hotel's road map for energy efficiency accounts for new technological advances and the state of equipment after years of use. To date, the hotel has saved over 500,000 kWh through the implementation of these measures and is looking to incorporate more as they strive for Energy Star certification.

As part of a kitchen upgrade, The Courtyard by Marriott San Diego Downtown installed a kitchen hood ventilation controls system from Melink – a leader in the technology. This project saved over 58,000 kWh annually and careful consideration was paid to historic building code and maintaining the historic feeling of the space while still upgrading to a more energy-efficient technology.

Recently, management installed an extracting washer and dryer system for cleaning linens. This system replaces up to two rinse cycles with a single high-speed spin cycle that extracts soil and soap suds, leaving linens cleaner and drier while also reducing water, electricity, and gas consumption in the washing process. With less water entering the drying process, less operating time and heat are needed, saving electricity and natural gas.

The final models were selected after a thorough analysis of options, including multiple optional scenarios developed by Willdan to determine the optimal combination for energy efficiency and cost-effectiveness.

Willdan worked closely with a local utility in order to design a customized M&V plan to satisfy CPUC standards. Marriott International Inc. selected this project as an example of great energy-saving practices and encouraged other Courtyard by Marriott properties to implement high-efficiency washer-dryer replacements based on this model.

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