

SOL VISTA

CASE STUDY

Hotel Monaco – Washington DC



SOL VISTA's approach to reducing utility costs by 43%, energy rates by 31% and water use by 48% while maintaining this historic DC luxury boutique hotel's sumptuous guest experience in the heart of our nation's capital



"The SOL VISTA team looked out for our hotel guests' comfort and convenience during every aspect of the identification, replacement and installation of major energy equipment and systems. SOL VISTA's work delivered a seamless guest experience."

- Ed Virtue, General Manager, Hotel Monaco DC

SOL VISTA

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background

History and luxury come together for an experience like no other at **Hotel Monaco Washington DC**. A luxury boutique hotel located across from the Smithsonian National Portrait Gallery and steps from the National Mall with its famous monuments and museums, the Monaco was completed in 1842 and once served as the U.S. General Post Office. The building is owned by the General Services Administration and officially designated as an historic property. It was converted to a hotel in 2001; **Pebblebrook Hotel Trust** has owned the ground lease since 2010. Pebblebrook immediately sought to improve energy efficiency and sustainability of the equipment and systems that suffered during

the prior years of deferred maintenance and neglect. **SOL VISTA** was retained to analyze, recommend and implement energy and sustainability upgrades that would yield a payback in three to five years.

savings realized

Numbers verified by Skywalk:

- Utility Costs:  **43%**
- Energy Use:  **22%**
- Energy Rates:  **31%**
- Water Use:  **48%**

our approach

With deep expertise in energy management and domain experience working with 100+ hotels, the SOL VISTA team hit the ground running. A unique challenge presented itself from the onset: all energy efficiency improvements had to meet GSA requirements for mechanical design, comply with NAFTA regulations as well as adhere to strict historic preservation guidelines. Energy efficiency was one criteria. But equally important was whether recommendations met the artistic vision of the hotel and the luxury comfort level expected by its upscale guests. "We involved the various interior designers in our recommendations," explains Zack Moore, SOL VISTA co-founder and team leader on the Monaco energy project.

As a first step, SOL VISTA conducted an onsite ASHRAE Level II energy and water audit. The Company's energy experts dug deep to find creative savings opportunities and smart capital improvements. The team developed a comprehensive list with an estimated ROI within the asset manager's payback threshold for each component. In addition to meeting the cost savings criteria, guest satisfaction considerations played an equally important role in evaluating the project.

"The efficiency of each newly identified system stood on its own merits, but we also carefully examined whether the guest experience would be compromised as a result," explained Ed Virtue, general manager of Hotel Monaco. "As an upscale hotel, guest convenience and comfort is paramount – and we were delighted that SOL VISTA understood and shared that view."

With the recommended project list complete, the SOL VISTA team tackled new electricity and natural gas procurement strategies. The goal was to lower hotel rates through real-time market rate intelligence, comparisons to its proprietary database of equivalent

environmental impact

The Monaco DC reduced greenhouse gas emissions equivalent to:



1,531,620 miles/yr.
driven by the average
passenger vehicle



58.7 homes' energy
use for 1 year

SOL VISTA solutions deployed

- Energy & Water Audit
- Energy Procurement
- Energy Project Management
- Incentive Administration
- Skywalk Tech Platform



hotel occupancy and weather condition benchmarks and ultimately through sophisticated contract negotiations. At the same time, the team sought to qualify for and gain incentive rebates such as those offered by the DC Sustainable Energy Utility for selected upgrades.

implemented recommendations

With the approved list of energy efficiency and sustainability recommendations, SOL VISTA took on the project management of all the improvements. These began in mid-summer of 2011 and took nearly two years and nearly \$2 million to complete.

SOL VISTA worked with the hotel's engineering team to divide the projects between in-house personnel and vetted contractors. Creative design specifications were built, competitive bids were sought, vendors selected and contracts were negotiated by SOL VISTA. The team worked on-site to coordinate all activities involving third-party vendors to reduce impact on staff.

small projects

Small projects identified included both back of house and guest-facing upgrades. These included installation of kitchen hood controls, networked guestroom thermostats, pump and fan VFDs, water fixture retrofits, air handler repairs, and lighting upgrades. "A project isn't well done if a guest notices it," explained Mr. Virtue. "Our results with SOL VISTA supported this premise as we never received complaints about low water pressure, lack of heating or cooling depending on the season, or inadequate lighting issues as a result of these upgrades. It's a win-win: we experience considerable savings while guests continue to experience upscale conveniences," he added.

As a result of the upgrade project, the Hotel Monaco received the:

- 2012 DC Mayor's Sustainability Award (Commercial Building Category)

major projects

Major projects included a district steam-to-gas conversion, chiller replacement, and installation of a building automation system.

The gas-fired boiler project was a massive undertaking. SOL VISTA had to monitor weather conditions, occupancy rates, times of day when they would not be able to work on certain aspects of the project due to guest requirements – as well as the overall production schedule. The team kept the old system running while the new one was built around it. When the switchover was ready to be made, it was scheduled for the middle of the night – again, to minimize any potential guest impact. It went without a hitch.

"Our project management expertise in the hospitality sector allowed the Hotel Monaco staff to remain focused on operating the hotel with minimal intrusion, impact and inconvenience without worrying about our ability to act on their behalf," said Zack Moore, co-founder of SOL VISTA.

"When we switched to the new gas-fired boiler, SOL VISTA scheduled it during the night to avoid any potential guest impact. It was done so well that not a single guest noticed." - Ed Virtue, General Manager

utility projects

INCENTIVE ADMINISTRATION

SOL VISTA handled the administration and implementation of incentive opportunities offered by the DC Sustainable Energy Utility. The Company managed the application process with its documentation requirements and the requisite onsite inspections and verifications. As a result of these efforts, the Hotel Monaco landed more than \$100,000.

ENERGY PROCUREMENT

The Company also developed the optimal energy purchasing strategy for the Monaco. It involved securing multiple competitive supplier bids, negotiating terms and securing new, lower rates for the Hotel's electricity and natural gas contracts.

the savings... and what came next

As a result of the major energy efficiency improvements, the Hotel Monaco DC has experienced some extraordinary results. These include a reduction in utility costs by **43%**, a reduction in energy rates by **31%**, a reduction in energy use by **22%** and a reduction in water use by **48%**. The Company's documented improvements enabled the Monaco to receive a vastly improved Energy Star score of **32** in 2014, up from **6** in 2011.

In addition to the 2012 DC Mayor's Award for Sustainability, Hotel Monaco has won the following:

- 2013 American Hotel & Lodging Association (AH&LA) Stars of the Industry Award
- 2013 Good EarthKeeping Award from Hotel Association Washington, D.C.
- GreenLeaders Gold Level on TripAdvisor
- U.S. Department of Energy Better Buildings Challenge Showcase Property

Today, Hotel Monaco uses SOL VISTA's Skywalk technology platform to monitor its monthly electric, gas and water bills. The software ingests the disparate monthly bills and normalizes the data to reflect apples-to-apples comparisons for usage and cost. It then pinpoints anomalies which SOL VISTA energy experts use to identify probable causes. Using this 'advance notification intelligence', the hotel's engineers can look into potential problems long before money and resources are wasted.

The General Manager also relies on Skywalk for the data to file for LEED certifications. "It would have taken a tremendous amount of staff time and resources to compile the information for LEED if we didn't have Skywalk," Mr. Virtue stated.

*"We've seen a general trend of **increased guest comfort** and an **improved employee experience** as the hotel gained better control of its energy management systems."*

- Ed Virtue, General Manager, Hotel Monaco DC

SOL VISTA helps hotels quickly and continuously reduce utility expenses through a unique combination of onsite services and performance data analytics software. At more than **150** hotels, including many well-known brands and properties, we have successfully delivered actual utility cost savings of **20** to **50** percent.