

SIEMENS

Ingenuity for life

Creating perfect places to relax

Energy efficiency optimization
for Marriott Hotels in Europe



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Reconciling commercial needs with environmental considerations



Changing guest expectations and growing environmental and competitive pressures are demanding that hotels shape up and go green. It's no surprise then that Marriott – a leader in the tourism industry for over 80 years, with nearly 3,900 hotels and 18 brands in 72 countries – set up an ambitious energy and emission reduction program. The program aims to deliver substantial cost savings with low upfront investments, without impacting guest comfort.

Marriott partnered with Siemens for its ambitious energy efficiency program, initially involving 15 hotels. The goals: Cut water and electricity use in participating hotels by 20 percent and emissions by 10 percent by 2020.

Marriott turned to Siemens for help in achieving its goals. The Charles de Gaulle Airport Hotel in France piloted the program. After establishing the hotel's energy profile by means of an audit, Siemens defined relevant measurement criteria and implemented the efficiency improvements. Siemens energy experts now remotely monitor consumption data and optimize energy efficiency on an ongoing basis. The result: 15 percent lower energy costs

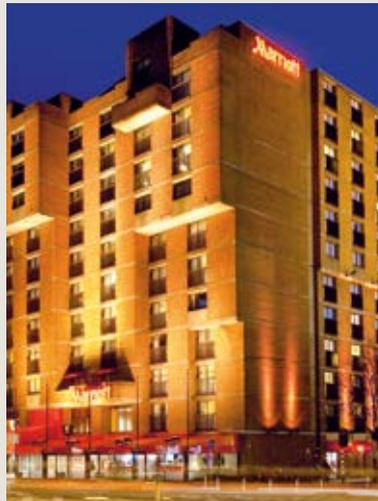
and a 15 percent drop in CO₂ emissions. Siemens drove the program in 15 other hotels with a payback in under three years. In five of these hotels, Energy Performance Contracting was used to finance the deeper retrofits required to meet the targets. Green Building Monitors were also deployed, allowing employees and guests to view current energy usage and promoting energy-efficient behavior.

“This new way of working allows a greater engagement with owners and other stakeholders on the topic of energy reduction, and helps to reduce the pressure on the environment and to lower our energy consumption.”

Edwin Duijvekam,
Director of Energy & Engineering Europe

A successful partnership – to be continued

The results of the pilot projects in Europe led to an extension of the collaboration: The Energy Efficiency Directive (EED) advisory service is helping Marriott meet the strict new European regulations, while Marriott hotel engineers are expanding their energy efficiency expertise at Siemens’ customized energy saving workshops. Because Siemens applies a standardized and proven approach to running efficiency programs across countries, other regions are now considering joining the program, with seven projects for Demand Flow™ implementation under evaluation in the U.S. and the Middle East. This solution controls and sequences cold water systems and reduces energy consumption from 20 up to 50 percent.



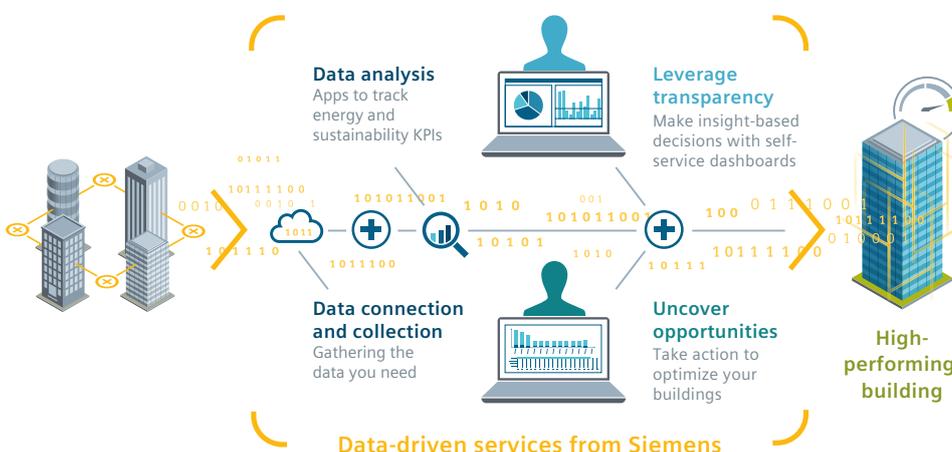
A perfect place to relax – behind the scenes

Marriott’s energy efficiency program leverages Siemens’ advisory and regulatory expertise, powerful building analytics capabilities and an efficiency optimization experience gained from over 7,500 projects worldwide:

- On-site audits evaluate the hotel’s energy profile and the optimization options for the building management systems and processes
- Continuous remote monitoring by Siemens experts ensures ongoing optimization of energy consumption
- Navigator – the cloud-based energy and sustainability platform, provides centralized energy and sustainability performance intelligence to both Marriott hotels and Siemens service experts
- Green Building Monitors are daily reminders to all hotel users of the impact their behavior has on energy consumption

Navigator – the cloud-based energy and sustainability platform

Turning data into results across your entire building portfolio



When building technology creates
perfect places – that's Ingenuity for life.

Never too cold. Never too warm.
Always safe. Always secure.

With our knowledge and technology,
our products, our solutions and our services,
we turn places into perfect places.

We create perfect places for their users'
needs – for every stage of life.

#CreatingPerfectPlaces
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