

EFFICIENCY

Luxury hotel retrofit maximizes efficiency

Sheraton on the Park – Sydney, Australia

Sheraton on the Park saves 15% on energy bill thanks to the EcoStruxure™ Building solution, along with refurbishment of the hotel's HVAC, lighting, and chiller systems.

Introduction

One of the most luxurious hotels in Sydney, Sheraton on the Park is well-known as a leader in the Australian hotel landscape.

Owned by Starwood Hotels and Resorts, the hotel has 557 rooms and suites, several dining areas, a heated swimming pool and spa area, and 18 multifunction meeting rooms. The hotel prides itself on maintaining facilities to a high standard, with top quality furnishings and products used throughout. This same philosophy has been adhered to during an upgrade of the hotel's backend systems. The upgrade has resulted in an increase in energy efficiency at the hotel, allowing management to take advantage of AusIndustry's Green Building Fund, which required a reduction in the hotel's environmental footprint, energy consumption, and improvement in overall energy efficiency.

The challenge

To begin the process, management at Sheraton on the Park contracted Enman, a company specializing in efficiency improvements, to conduct an audit of their building management systems. Enman put forward a number of recommendations to reduce energy usage at the hotel, including refurbishment of the hotel's chiller system, HVAC, and lighting control system. One of the key recommendations was an upgrade of the existing Building Management System (BMS). The incumbent BMS was of an age that the system was no longer supported by the manufacturer. Schneider Electric's EcoStruxure Building* was specified by Enman to replace this, with Enman citing the Schneider Electric solution as the most suitable for the project. Schneider Electric was chosen to supply this on the merits of project cost, delivery of energy savings, and ongoing maintenance costs.

A large number of variable speed drives (VSDs) were also recommended in the audit. Schneider Electric was specified to supply these also.

The solution

EcoStruxure building: integrated building management solution

EcoStruxure Building* solution combines proven software with hardware innovation to connect everything from sensors to services over one IP backbone. Built upon open standards and end-to-end cybersecurity, our comprehensive solution seamlessly integrates and facilitates data exchange from energy, lighting, HVAC, and fire safety systems while leveraging digitization and big data to make buildings smarter and more efficient.

The system is designed for compatibility with existing or third-party building systems and devices, and is open and scalable to expand with the building enterprise's future needs.

Goal

Reduce environmental footprint and energy consumption while improving overall energy efficiency at one of the most luxurious hotels in Sydney.

Story

Results from the refurbishment of the hotel's HVAC, lighting, and chiller systems and BMS upgrade allowed the hotel to take advantage of AusIndustry's Green Building Fund.

Solution

- Existing BMS upgrade to EcoStruxure Building solution
- Variable speed drives for increased efficiency

Results

- Increased energy efficiency
- Energy cost savings of 15% in the first month
- Remote system access for increased operational efficiency

At Sheraton on the Park, the EcoStruxure Building* solution extends control and provides energy monitoring, reporting, and savings for the building. It also provides CO2 monitoring for the car park and a high level interface to the new chillers. Authorised operators can access the system via the internet — from anywhere, at any time. The solution also provides for customised work spaces on the hotel’s operating systems so that building managers can make informed decisions on energy usage and control.

Additional control points were installed into the system and 37 new Schneider Electric VSDs, all featuring LON interface cards, were installed.

VSDs have been installed in the building to bring about energy savings for all major drives, especially for use with pumps, fans, and chillers. The drives change the speed of the pumps by controlling the power that is fed into the machine, therefore making them run more efficiently. The VSDs are being applied to condenser water pumps, chilled water pumps, cooling tower fans, air handling unit fans, kitchen exhaust fans, and car park and loading dock fans.

The bottom line

The Sheraton on the Park Hotel is a living, breathing example of how businesses, even those with a heavy focus on hospitality, can achieve greater energy efficiencies.

Although it is still in the early days, the hotel is already achieving double digit percentage energy savings.

“We have already saved 15% on our first month’s energy bill since the upgrade was completed,” said Andrew Smith, Regional Director of Engineering, Starwood Pacific Hotels.

15%
in one month

Energy savings after the upgrade was completed

37
variable speed drives

Provide efficiency to pump, fan, and chiller operations

“We have already saved 15% on our first month’s energy bill since the upgrade was completed.”

— Andrew Smith,
Regional Director of
Engineering,
Starwood Pacific Hotels

EcoStruxure™ for Hotels

Innovation At Every Level



EcoStruxure™

Innovation At Every Level

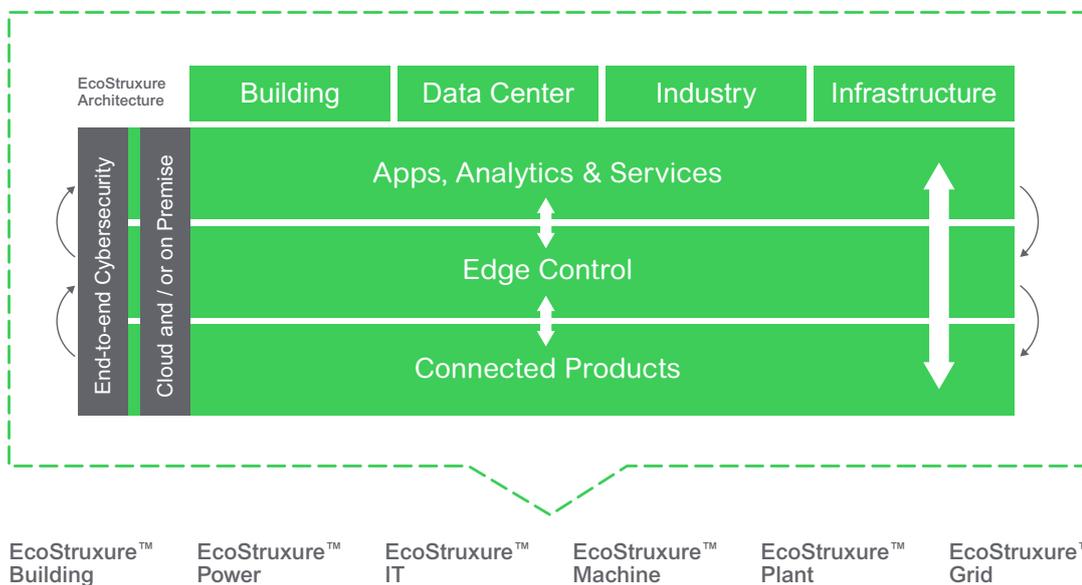
IoT-enabled solutions that drive operational and energy efficiency

EcoStruxure is Schneider Electric’s open, interoperable, IoT-enabled system architecture and platform.

EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers.

EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level including Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure™ has been deployed in 480,000+ sites, with the support of 20,000+ system integrators and developers, connecting over 1.6 million assets under management through 40+ digital services.

One EcoStruxure architecture, serving 4 End Markets with 6 Domains of Expertise



Connected Products

The Internet of Things starts with the best things. Our IoT-enabled best-in-class connected products include breakers, drives, UPSs, relays, sensors, and more. Devices with embedded intelligence drive better decision-making throughout operations.

Edge Control

Mission-critical scenarios can be unpredictable, so control of devices at the edge of the IoT network is a must. This essential capability provides real-time solutions that enable local control at the edge, protecting safety and uptime.

Apps, Analytics & Services

Interoperability is imperative to supporting the diverse hardware and systems in building, data center, industry, and grid environments. EcoStruxure enables a breadth of agnostic Applications, Analytics, & Services for seamless enterprise integration.

Find out more about EcoStruxure

schneider-electric.com/ecostruxure

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Sheraton on the Park saves 15% on energy bill thanks to EcoStruxure™ Building upgrade



Barcelona Tower Hotel achieves 30% energy savings with EcoStruxure™

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Cover photo courtesy of Starwood Hotels and Resorts
*Formerly known as SmartStruxure solution

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