



Building Energy Services

ENERGY STAR Building Profile

6464 Sunset

6464 Sunset Blvd
Hollywood, CA 90028

Date project began: November 2007

Completed: Ongoing

Owner: Paramount Contractors and Developers

Description: Provide and install digital controls, variable speed drives, and perform retro-commissioning of the HVAC system in 12 story high rise office building

Objectives: Improve HVAC system performance and energy efficiency. Achieve Energy Star rating.



6464 Sunset Blvd Office Building

The energy management team continues to strive for optimum energy efficiency in this 40-year-old office building, which earned the ENERGY STAR for superior energy performance in 2009. What began as a simple digital monitoring system of central HVAC plant conditions has grown to include comprehensive monitoring and control of HVAC equipment, lighting systems, garage carbon monoxide (CO) ventilation controls, energy meters, and indoor air quality. Before the control system was implemented, much of the HVAC equipment ran continuously and performance was poor. During implementation, many HVAC system deficiencies became apparent, and corrections have led to increased capacity, longer equipment life, and higher levels of comfort, safety, and security.

The LonWorks building automation system (BAS) includes more than 200 control devices from 10 different manufacturers communicating on simple twisted pair wire media. Wiring is run in a free-topology configuration, and devices communicate peer-to-peer without network managers or gateways. A simple Web-server device provides a graphical user interface to any Internet Explorer Web browser connected to the Internet.

The control system has enabled the extensive use of outdoor air for free-cooling. Using outdoor and indoor humidity conditions, a previously seldom used economizer is now used extensively to perform pre-cooling in the early morning hours during summer months and replaces mechanical cooling on cool days. Carbon dioxide (CO₂) sensors monitor indoor air ventilation rates and adjust fresh air dampers as needed to meet indoor air quality standards.

Control devices also include variable speed drives for supply fan and cooling tower equipment. A networked CO monitoring system throughout the building's five parking levels measures carbon monoxide levels, and a programmable control device energizes ventilation fans to maintain adequate fresh air ventilation rates.

Outdoor lighting systems previously controlled by mechanical time clocks are now energized according to astronomical sun positions. Interior corridor lights are controlled by time of day and day of week schedules that include holiday and special day operation.

Future plans include replacement of pneumatic zone controllers with direct digital control (DDC) network devices, penthouse mechanical room insulation, and microturbine cogeneration.



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Network Integrator: Enerlon - Santa Clarita, CA
Electrical Contractor: Griffith Electric – Huntington Beach, CA

Control Devices

Functional Devices LONMARK relay RIB2401B-LN
Circon general purpose controllers SCC310GPC
Circon programmable controllers SCC310PRG, UHC320
Circon programmable VAV controllers PRG-310VAV
Echelon LonPoints DIO-10, DO-10, AI-10, AO-10
Yaskawa Variable Speed Drive E7
Distech Programmable VAV controllers
PureChoice Nose air quality sensors
Raypak LonWorks boiler controller Y-200
Viconics heatpump thermostats T7600
Douglas lighting controls WNR-2112
Continental Controls Wattnode WNC-3D-480-FT10
Capelon temperature node LS-T01

Infrastructure Devices

Echelon iLON100 Smart Server
Echelon Lonpoint routers LPR-10
Functional Devices power supply PSH-75AN
Core components power supply LDO-2100
Echelon Free-topology terminators
Air Test CO2 sensors TR-2000
BAPI temperature sensors
ACI temperature, humidity, pressure sensors

Communication Channel: LonWorks 709.1 Free Topology wiring structure

Network Management Tool: LonMaker Integration Tool

Network Management Platform: LNS - LONWORKS Network Services

Human Machine Interface: Microsoft Internet Explorer, Safari, Firefox

HMI Development Tool: i.LON Vision and Macromedia Contribute

Client Quotations:

As one of the principal owners of the high-rise office building at 6464 Sunset Blvd, Paramount Contractors and Developers, Brian Folb understands the bottom line of a balance sheet when it pertains to value in terms of customer service and energy savings.

“Most important from the business standpoint, is being able to supply state of the art technology and convey to our perspective clients that we can offer them services that no one else can provide, and, we are also being kind to the environment.”

Jed August is the project manager for Paramount Contractors and Developers. By observing the data logs of the newly installed LonWorks building automation system, issues that were previously overlooked have become apparent. From the penthouse fan room Jed pointed out,

“This is where it all started, when we began monitoring our mechanical operations, we could see the problems, then we were able to quickly resolve them. Wow, massive savings and performance!”