



ZigBee®

SUCCESS STORY

Control your world™

CityGrow with ZigBee; Energy Efficient Buildings of the Future, Now



Hong Kong Hotel Suite

Globally, energy consumption continues to increase at an unprecedented pace. Fast growing economies are bringing about an increased need for energy. In recent years the Asia Pacific region has seen a 48% increase in energy consumption, while global consumption grew by only 23%. China is the world's third-largest energy producer and the second-largest energy consumer. A large portion, 27.5 % of the Chinese energy consumption, is attributed directly to their construction industry.

A property developer in Hong Kong, intending to not only meet, but exceed, new and emerging government energy-savings standards identified several energy saving opportunities within his properties. He wanted to reduce operating expenses while increasing energy efficiency by providing tenants with the best in building automation. Realizing the limitations of a hard-wired system, he called upon CityGrow for consultation on energy efficiency options. After a comprehensive needs assessment, CityGrow recommended its flexible, web-based ZigBee® Energy Optimization System Display, (EOS).

CityGrow's EOS includes a full array of products to make residential energy efficiency possible. Products like power sockets, adaptor sockets, switches and displays, portals, USB dongles and intra-building meters provide the basic tools needed to realize energy efficiency. The EOS was installed quickly with minimal impact to more than 500 units within several buildings on a very tight schedule. Tenants now see highly detailed electric, water and gas consumption usage information at any time, from any place via the Internet. While energy efficiency benefits are being realized, tenants are experiencing the ultimate in convenience. By using a single remote control, residents are now controlling their lighting, heating and cooling systems with ease.

CITYGROW
Technology Co., Ltd.

Energy efficiency is achieved through home and building automation systems that instantly inform and immediately respond to commands.

BUSINESS GOALS

CityGrow's ZigBee Energy Optimization System (EOS) provides property developers a way to lower energy costs, implement sustainable designs that reduce greenhouse gases while improving tenant satisfaction and services. Offering flexibility, reliability and affordability, EOS can be easily retrofitted into any sized building.

TECHNOLOGY SOLUTION

CityGrow with ZigBee provides property developers the chance to increase the value of their property by replacing old, inefficient lighting, heating and cooling systems. These upgrades give tenants greater control over the comfort and energy use of their living space. Utilizing computerized control and dimming systems, property managers and residents are able to automate lights, fans, pumps, thermostats, audio/video equipment, sprinklers, motorized drapes/blinds/doors, security systems and more. With sensor technology, lights in unoccupied areas can be dimmed or turned off and motorized blinds can automatically close blocking excess light and heat from entering a room, thereby reducing air conditioning costs.

This ZigBee wireless solution is designed to use 10% to 40% less energy providing long term operating cost savings, while supplying the tenant with a system that has a high degree of reconfiguration flexibility. Property developers and owners are paying particular attention to the fact that green buildings generate about 3.5 percent higher occupancy rates with 3 percent higher rent rates than conventional buildings, and the value of the building itself can realize an increase of up to 7.5 percent.

Thanks to ZigBee technology, EOS offers leading-edge mesh technology to create a self-forming, self-healing wireless building automation system network. All of which is virtually transparent to residents. The mesh network topology ensures reliability by creating multiple redundant paths of communication. The redundant paths assure messages are able to get through no matter the facility type or obstructions that may exist.

"CityGrow is committed to providing technologies that promote energy efficiency and reduce costs," said Kim Fung Tsang, CEO of CityGrow. "The City-Grow EOS system offers a comprehensive, customized solution that enables property developers and owners to build upon past investments, meet today's needs, and take advantage of the latest in wireless technology."



Energy Optimization System Display

BENEFITS

- Lower operating costs through energy savings
- Lower capital costs by eliminating redundant wiring and components
- Provide both new construction and legacy buildings wireless energy saving solutions that meet government standards
- Communicate centrally using open protocol standards over the building's IT network

