

case study | TAQA New World, Inc.

U.S. Headquarters, Ann Arbor, MI



Global energy company chooses Lutron GRAFIK 7000™ lighting control system to match its environmentally conscious philosophy – provide energy as greenly as possible.

“One of the objectives we have is looking at ways to reduce our carbon footprint. Lutron’s system is allowing us to do that.”

- Jim Zimmer, Plant Support Manager
- TAQA New World, Inc. U.S. Headquarters

TAQA New World, Inc., founded in 2005, is a rapidly growing and forward-thinking energy investment company. Held primarily by the government of Abu Dhabi, the organization operates offices throughout the world and adheres to the philosophy: Provide clean energy in a cost-effective and environmentally sound manner.

The philosophy is showcased in the design of the company’s worldwide offices. Every location aims to contribute significantly to environmental improvement. In fact, incentives and prizes are awarded to the facilities that generate the largest contributions.



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In the spring of 2007, TAQA acquired CMS Generation, a division of Michigan-based CMS Energy. After scouting for a location for a new U.S. headquarters, the company chose an existing office space in Ann Arbor, MI. The new location would serve as a hub to manage independent power plants around the world and house the company's business and technical support, accounting, tax, legal and risk management groups.

The new TAQA office suite, just over 13,000 square feet, is located in the pastoral Domino's Farms office park. The predominantly glass shell features an exposed structure layout with several open office spaces. With one look, visitors see a range of color, wood tones, artwork, and polished marble.

From the beginning, TAQA was determined to make the new facility unmatched for both aesthetically pleasing functionality and energy efficiency, all while allowing for 24-hour operation. This pair of goals led the company to rely on a Lutron lighting control system to help deliver both.

The facility houses two conference rooms, one board room, the CEO office, and several

private and executive offices, each of which required preset lighting conditions capabilities. To enhance functionality, lighting scenes had to be flexible enough to meet the multiple requirements of each space within the office. With a Lutron GRAFIK 7000™ system, all of the lights were easily trained and adjusted to fit specific preferences.

Taking over an existing office space made customizing the suite to TAQA environmental standards a challenge. The Lutron GRAFIK 7000 system proved to be an ideal way to change the space to match the company's philosophy. "Because we were moving into an existing space, we found that lighting was the only way for us to affect the office environment to save energy," said Jim Zimmer, TAQA plant support manager.

"The combination of demands in the space meant that we needed to incorporate a sophisticated lighting system that would save as much energy as possible and optimize functionality," said Thomas Phillips, chief architect of the project.

The Lutron GRAFIK 7000™ centralized lighting control system, along with Eco-10™ fluorescent dimming ballasts, offered the appropriate



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solution for this application. The GRAFIK 7000 system provides switching, dimming, energy management, and shade control from a single location. The system manages the lighting in multiple spaces, and allows both manual and automatic control options. GRAFIK 7000 is adaptable to projects of any size or complexity, quickly turning around energy savings and improving productivity in any space.

By easily integrating the Lutron system with the existing building management system, TAQA immediately realized the economic and environmental benefits of lighting control – and those benefits matched the company philosophy perfectly. “One of the objectives we have is looking at ways to reduce our carbon footprint. Lutron’s system is allowing us to do that,” explained Zimmer.

GRAFIK 7000 system was primarily chosen to help TAQA reduce the electricity usage in the office and decrease overall wattage. This was achieved most effectively by maximizing the use of daylight in the space. Daylight sensors placed on the outer walls of the building direct the GRAFIK 7000 system to dim or brighten light fixtures according to the amount of sunlight available in the space. As a result, daylight that enters the office through the windows often takes

the place of light fixtures, leading to dramatic savings on the energy bill.

“The office space is all glass, and ambient light is used in all parts of the office. With Lutron, we can have our lighting system dim or brighten based on the type of day we are having,” said Zimmer. Another way TAQA is improving energy efficiency through lighting is by cycling its lamps. Non-dimmable lights are set on a timeclock, turning on only half of the lights in a pre-determined bank. The next evening, the other half of the lights are used. The arrangement cuts energy usage in half while doubling lamp life.

“Lutron’s GRAFIK 7000 astronomic timeclock allows us to schedule our lights, making the suite as energy efficient as it can be,” said lighting designer Gary Steffy.

In the recent opening of their energy-efficient U.S. Headquarters in Ann Arbor, MI, and through the implementation of Lutron’s GRAFIK 7000, TAQA continues to be at the forefront of the energy movement.

Client:

TAQA New World Inc.

Architect:

Thomas Phillips, VP, Project Manager
James Sharba, VP, Director of Design
Lori Martens, Senior Interior Designer
Hobbs + Black Architects
Ann Arbor, MI

Lighting Designer:

Gary Steffy
Gary Steffy Lighting Design Inc.
Ann Arbor, MI

Plant Support Manager:

Jim Zimmer
TAQA New World Inc.
Ann Arbor, MI

Electrical Contractor:

Charge Electric, Inc.
Ann Arbor, MI

Facilities Construction Superintendent:

Van Belanger
Domino's Farms Office Park
Ann Arbor, MI



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