

U.S. Headquarters, Ann Arbor, MI

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

Global energy company chooses Lutron's 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

In today's world, the word "green" has become the very symbol of environmentalism, while energy has become the very thing that stands in its way. Public scrutiny is heavily focused on energy companies who seemingly make a profit on poor environmental practices. But the Abu Dhabi National Energy Co. – better known as TAQA New World Inc. – is turning that idea on its head.

TAQA was founded in 2005, is majority owned by the Abu Dhabi government, and operates in offices throughout the world. This fast-growing

and forward-thinking energy investment company has this business philosophy: Provide clean energy in a cost-effective and environmentally sound manner.

This philosophy has never been more evident than in TAQA's own office design. Every office aims to provide significant contributions to help improve the environment. In fact, incentives and prizes are awarded to the offices that generate the largest contributions.

Last spring, TAQA acquired a division of Michigan-based CMS Energy, CMS Generation, and soon after began to scout out a nearby location for its U.S. Headquarters. It eventually chose Ann Arbor, MI as the hub which will be managing TAQA's independent power plants around the world, as well as housing the company's business and technical support, accounting, tax, legal and risk management groups.

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TAQA was determined to make the existing space as functional and energy efficient as possible – all while allowing for 24-hour operation.

TAQA's new office suite, just over 13,000 square feet in size and located in the unique Domino's Farms Office Park, is surrounded by glass windows and has an exposed structure layout with several open office spaces. Just one look around and visitors will see a wide range of colors, wood paneling, European artwork, and elegant polished marble. The office makes a statement – TAQA is now emerging in the North American market.

TAQA was determined to make the existing space as functional and energy efficient as possible – all while allowing for 24-hour operation. It was these goals that naturally led the company to install a Lutron lighting control system.

"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. Lutron's GRAFIK 7000™ centralized lighting control system, along with its Eco-10™ Fluorescent Dimming Ballasts, provided the perfect solution for this application. The GRAFIK 7000 system provides switching, dimming, energy management, and shade control from a single system. It manages the lighting in multiple spaces for various needs and includes both manual and automatic control options.

As far as functionality was concerned, lighting scenes needed to be tailored so that they could be

set up for any client-driven purpose. The suite houses two conference rooms, one board room, the CEO's office, and several private and executive offices that all needed to employ pre-set lighting conditions for a number of applications. With the GRAFIK 7000 system, all lights could be easily trained and adjusted to fit specific preferences.

Most importantly, Lutron's lighting system was chosen to help TAQA's office reduce the requirement of electricity and to increase overall wattage sustainability. This was achieved most effectively by maximizing the use of ambient light in the space. Photo cells placed on the outer walls of the building allowed Lutron's GRAFIK 7000 system to dim or brighten light fixtures according to the amount of sunlight sensed by the cells. As a result, daylight that enters the office through the windows often takes the place of light fixtures, saving dramatically 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," explains Jim Zimmer, TAQA's Plant Support Manager.

This integration of daylight has another, even more interesting payoff. The Domino's Farms complex is surrounded by nearly 300 acres of pastures and is, in fact, a wildlife habitat. TAQA's west-facing windows look out over two large pastures where buffalo roam. TAQA likes to keep these windows open at all times to preserve the view, and Lutron's lighting system takes

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advantage of the extra light, saving on energy. It's a win-win situation.

Another way that TAQA is improving energy efficiency through lighting is by cycling its lamps. Non-dimmable lights are set on a timeclock, so that each evening only half of the lights in a pre-determined bank turn on. The next evening, the other half of the lights illuminate. This way, lamp life is virtually doubled just by programming the lights to become active in an odd/even arrangement. "Lutron's GRAFIK 7000 astronomic timeclock allows us to schedule our lights, making the suite as energy efficient as it can be," says lighting designer Gary Steffy.

Because TAQA was taking over an existing office space, it was naturally more difficult for them to personalize the suite to their environmental standards. This was where lighting, and the Lutron solution, proved to be the only way to truly change the space to match TAQA'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," added Jim Zimmer.

Lutron's GRAFIK 7000 centralized lighting system is adaptable to projects of any size or complexity, so it can take virtually any space and quickly turn around energy savings and improved productivity. The system did exactly that for TAQA in Domino's Farms. By easily interfacing with the existing building management system, TAQA saw the incredible benefits of lighting

control – and those benefits matched their 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," explains Zimmer.

TAQA's ultimate goal is to improve the environment through its global enterprise. This is an energy company that has been proactive in pushing the importance of alternative energy, and continually spearheads energy research and development initiatives. They certainly practice what they preach. TAQA was the first company in the Gulf Corporation Council to join the 3C Initiative, which consists of business leaders who are committed to a low-emitting society. Not to mention, they offer their employees cash incentives if they buy or lease a hybrid vehicle.

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.

Energy companies today are ruthlessly scrutinized. It is TAQA New World Inc.'s constant internal scrutiny of their own practices and processes that makes them an environmentally responsible company and an international energy thought leader. They know that the world needs energy - it just needs to be found in alternative sources, effectively harnessed, and made "greener." With Lutron's help, that is exactly what they are doing.