



ENERGY INTERNATIONAL QUARTERLY

SUMMER 2011

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Letter from the Top • Rami Fawaz

Welcome to the summer edition of the Energy International Quarterly newsletter for 2011.

It's hard to believe that half the year is over already.

It's also exciting to see the company growing as is evidenced in this issue. We've added a new division to Energy International. Energy Environmental will provide customers with solutions for Indoor Air Control and Energy Conservation. Dr. Syed Rahman, an expert in the field of Air Quality Management, will head the division.

We are also announcing joint ventures that will expand EIC into areas that we believe will bring positive growth to the company. The U.S. office is buzzing with activity with the addition of four Applications and Estimating Engineers. We're building the Estimating Department in preparation for the launch of a new automated system that will improve the way we handle inquiries and quotes - a necessary step as we continue to grow in our current markets and expand into new markets. The July issue also features articles on interesting projects that EIC is involved in along with a feature on Energy International's Transportation & Parking Division and the usual features, technical articles and people stories. Please feel free to share the newsletter with your customers and friends. 📧



Rami Fawaz
Executive Vice President

Be A Part of the Energy International Quarterly

The EIC Quarterly is designed to keep everyone at Energy International informed about the happenings at EIC, from the acquisition of multi-million dollar contracts to the latest additions to the EIC family. We need your participation to help make it a success. If it's of interest to you, it's of interest to us. We'd also like to know what you think about the newsletter content and format and how we can make it better. Send all your news, information, thoughts and ideas to me at jpeter@energyintl.com. I look forward to hearing from you.



EIC NEWS

The Latest News

Energy International Corporation Renews Deal as Exclusive Representative for Jay R. Smith Mfg. Co. in the UAE

Expansion will extend the company's reach into the Iraqi construction sector

Jay R Smith, a world leader in plumbing and drainage products, is renewing its collaboration with Energy International Corporation (EIC) as the exclusive representative for the Jay R Smith Mfg. Co.'s line of products in the United Arab Emirates (UAE).

Joe Frem, Product Area Manager for Energy International Corporation in the UAE, has been assigned the responsibility for sales, marketing and technical support for Jay R. Smith products. Frem will work out of EIC's regional office in Dubai where he will help with product inquiries and answer customer's technical questions. Frem can be reached at 050-614-0905 or via E-mail at joe.frem@energyintl.com.


"The UAE is experiencing a growing demand for plumbing and drainage products," said Frem. "Construction projects that were put on hold during the recent downturn are coming back on line, and more projects are being added to the pipeline every day."

"We are pleased that Jay R. Smith sees the value in the expertise, commitment



Jay R Smith manufactures a complete line of plumbing and drainage products for commercial and industrial use. Jay R Smith products are known for quality and dependability.

and professionalism of the Sales and Engineering staff at EIC to promote, market and sell the company's roof drains, trench drains, specialty drains, cleanouts, interceptors and much more."

Energy International Corporation is a leading supplier of industrial HVAC and plumbing products to the UAE and the Middle East. EIC and Jay R Smith have a long-standing relationship in servicing the market dating back to 2005. EIC is currently the exclusive representative for Jay R. Smith in Qatar, Jordan and Lebanon. For more information visit the EIC Web Site at www.energyintl.com. 


We are pleased that Jay R. Smith sees the value in the expertise, commitment and professionalism of the Sales and Engineering staff at EIC to promote, market and sell the company's roof drains, trench drains, specialty drains, cleanouts, interceptors and much more. — Joe Frem, EIC Product Area Manager

EIC to Sponsor ASHRAE RAL-CRC Annual Conference

Energy International Corporation is lending its support as one of the category sponsors to the 2011 ASHRAE RAL-CRC Annual Conference to be held at the Rotana Beach Hotel, Abu Dhabi, United Arab Emirates on September 19 -22, 2011.

The four day event, titled "Sustainability Beyond Certification," hosted by the American Society for Heating, Refrigeration and Air Conditioning Engineering (ASHRAE) Falcon Chapter in the UAE, will feature an International Summit – a two-day scientific conference in collaboration with the United Nations Environment Program (UNEP).

There will also be two days of workshops addressing such topics as Green Construction Retrofitting, Urban Horticulture and Sustainable Transport.

For more information on the conference, visit their Web Site at www.cpievents.net/ashrae2011. 





Energy International Corporation Announces New Environmental Division

Energy Environmental Systems will design and supply air purification systems to the Middle East

Energy International Corporation is broadening its technical expertise and offerings with the announcement with the launch of Energy Environmental Systems (EES).

Energy Environmental Systems fills a growing need for air purification technologies in the MENA region, providing customized solutions for improving indoor air quality while increasing energy efficiency. The division will be headquartered in EIC's office in Sharjah, United Arab Emirates with personnel stationed in EIC's offices in Bahrain, Kuwait, Jordan, Lebanon, Saudi Arabia, Qatar and the UAE.

Dr. Syed Ehteshamur Rahman will serve as General Manager of the new division. Dr. Rahman is an expert in clean-air technologies. He holds a Bachelor of Science degree in Chemistry and received his M.D. from the State Medical Institute in Kiev, Ukraine. He served as a medical practitioner for 12 years before focusing his attention on environmental air management systems and green building concepts.

For the last eight years Dr. Rahman has worked with renowned manufacturing companies, engineers and consultants in the industry and is responsible for countless installations. He is also a frequent keynote speaker at industry seminars, conferences and educational workshops.

"Environmental research is disclosing a surprising and disturbing factor in how the quality of the air in our homes and offices is affecting our health," said Rahman. "Improved building techniques and society's concern for energy efficiency have resulted in major improvements in draft proofing and air-tight housing. Modern office buildings retain and re-circulate indoor air for longer periods allowing contaminants to accumulate at unsafe levels."

Dr. Rahman points out how leading environmental researchers have discovered that indoor air is often two- to five-times more polluted than outdoor air and can be up



Energy Environmental meets a growing need for air purification technology in the Middle East.

to 1,000-times more contaminated in extreme cases.

"These potentially harmful substances generally fall into two groups: particulate and gases," said Rahman. "Energy Environmental Systems will supply complete solutions that will address both problems."

Energy Environmental Systems will work with leading manufacturers of clean air technology such as BioClimatic GmbH, Proklima and UVGI-UK to provide

the latest technologies in air quality management including:

- Indoor Air Quality Control and Energy Conservation Management Systems in commercial buildings addressing issues like Sick Building Syndrome, mold, mildew and dust problems.
- System solutions for the removal of CO and NO² in residential and commercial car parks including the installation of alarm systems.
- Germicidal UV technology to inhibit microbial growth and limit transfer of infection in hospitals
- Odor control solutions for industrial and manufacturing facilities commercial, hospitality, health care, office buildings, IT parks and smoking bars and restaurants.
- Reduction of pathogens in food processing plants including disinfection and sterilization of storage, process and packaging areas.
- Reduction of Ethylene and CO² in cold storage preservation to prevent spoilage and increase product shelf life.
- Clean In Place (CIP) Solutions for plant equipment by using Ozone
- Hand sterilization solutions
- Sterilization systems for workers and their uniforms

Dr. Rahman can be reached at 971-6-534-3477 or via e-mail at syed.rahman@energyintl.com. 📧



Energy International and ISAT Join Forces in Launching a Middle East Initiative to Promote Safe Building Construction through Seismic Technology

ISAT-Energy joint venture aims to increase compliance with seismic building code

Construction professionals with responsibility for engineering, construction and inspection of buildings in the Middle East will now have a valuable resource to aid in achieving a new level of safety and security for current and future projects.

ISAT-Energy, a specialized company dedicated to non-structural seismic technology, is launching operations in the Middle East. The joint venture, combining more than 60 years of industry experience, is dedicated to empowering industry professionals to streamline and improve seismic building code compliance through education, innovation and service.

The company will operate out of offices in Abu Dhabi, Dubai and Sharjah, UAE; Doha, Qatar; Riyadh, Kingdom of Saudi Arabia; Amman, Jordan; Beirut, Lebanon; and Muscat, Oman. ISAT-Energy will provide contractors with strategic job site management teams that include registered Structural Engineers, mechanical engineers, designers, component manufacturers, assembly craftsmen, project managers, quality control personnel and field support staff.

ISAT-Energy builds on the strengths of two formidable forces in the construction industry. Energy International Corporation (EIC) is a leader in the design, supply and installation of HVAC, electromechanical and industrial plumbing equipment to major construction projects in the Middle East and North Africa. International Seismic Application Technology (ISAT) is a global provider of engineering services, consulting services and restraint system components for non-structural seismic bracing.

"ISAT-Energy brings a vital service to the construction sector in the Middle East," said Jim Massey, Vice President, ISAT Seismic Bracing. "Earthquake safe construction should be a top priority. The International Building Code, currently utilized throughout the Middle East region, is very specific as to the new seismic bracing requirements. However, many contractors and inspectors in the region don't have a good understanding of what the code entails and how and when to implement it."

The International Building Code, a system of building regulations and requirements used by construction professionals around the globe, requires that Mechanical, Electrical, and Piping systems be braced to



ISAT-Energy has published a set of manuals designed specially for the Middle East. ISAT manuals make it easier for MEP designers and engineers to design systems that are code compliant.

handle the forces exerted during an earthquake or other man made or natural disaster. The code applies to each specific structure based on how and where it is being built and the intended use.

Non-structural seismic bracing is designed to maintain the integrity of non-structural components and systems so that they remain safe and functional in the case of a seismic event. These systems include such things as electrical systems, fire safety systems, telephone and communications systems and heating, ventilating and air-conditioning (HVAC) systems.

The installation of this technology is critical for structures such as hospitals, data centers, and airports to ensure these vital services remain operational in the event of a natural disaster. Many other buildings also fall under the guidelines as they serve as temporary shelters for people who are displaced in the aftermath of a natural disaster.

"Energy International Corporation is involved in the construction of a number of hospitals and universities throughout the Middle East," said Rami Fawaz, Executive Vice President, Energy International
continued on next page




EIC NEWS

The Latest News

Corporation. "As good corporate citizens, we saw a real benefit (ISAT) in teaming up with ISAT to see that this life-saving technology is properly instituted in all of the current and future construction going up in the Middle East."

As part of the strategy, EnergyISAT is developing a set of manuals designed specifically for use in the Middle East region. ISAT manuals have become the standard for engineers who deal with requirements pertaining to the International Building Code. ISAT currently publishes manuals for the following codes: 2001 CBC (OPA-0485), 2000 IBC, 2003 IBC, 2006 IBC and the 2007 CBC.

"The new manuals will be an important tool in helping to educate the construction community on how to implement non-structural seismic technologies," said Massey. "They are, essentially, a guideline that breaks the code down into simple, layman's terms, making it much easier for contractors and designers to construct systems that are in compliance with the code."

In addition to distributing the manuals, EnergyISAT is planning to hold a series of educational seminars throughout the region and develop a Web portal offering such features as streaming video and live chat forums. 

Energy international Enters Joint Venture with HWI Global

EIC will provide the marketing support in the Middle East for HWI Global's Health and Life Sciences Technology

Energy International Corporation (EIC) has entered into a joint venture agreement with HWI Global, Inc., a Pittsburgh-based clean room design builder that recently merged with IVT Software, Inc. (OTCBB: IVTW).

EIC joins Allen Shariff Consortio International (ASCI), a UAE-based construction management firm, in partnering with HWI Global to promote and distribute the company's line of health science information management system software to the Middle East region.

Deric Haddad, HWI Global CEO was impressed with EIC's 30 year history in providing customers with quality products through a number of established offices throughout the region.

"EIC has a long history of performance and satisfied customers," said Deric Haddad, . "They have solid and respectful relationships with a vast community of consultants who work directly with end users, and those relationships are based on trust and reliability. EIC doesn't work



with just anybody; they don't take on new product lines if they don't see a growing potential. Therefore we are honored and extremely enthusiastic that they share our vision of creating a Middle East entity that specializes on the expanding health care market in the region."

"Partnering with HWI Global is a win-win situation for everyone involved," said Rami Fawaz, Executive Vice President, Energy International Corporation. "HWI Global's suite of high-quality, specialized products will allow us to broaden our expertise and expand our current product line-up while introducing the region to the latest in state-of-the-art technology."

One of EIC's market segments is the furnishing and installation of Building Management Systems, representing Johnson Controls and others. This

fits well with HWI Global's recent development and launch of its patent-pending C3 SmartRoom™ information management system, a high-level control, monitoring, and reporting software application for life science environments. C3 SmartRoom™ is platform agnostic and can integrate with any BMS system, including Johnson Controls, Rockwell, Siemens and General Electric.

"We expect HWI's Middle East division to become a recognized brand within the Health and Life Sciences and Technology sectors within the United States, becoming a distribution outlet into the Middle East region," said Haddad. "And a significant source of recurring revenue should come through distribution of products and services in these market sectors. Throughout the States you'll find communities of professionals, or companies, trying to get their Bio-pharm & Tech-based products and services into the international marketplace, and we will now be able to be a conduit for them." 



PROJECT NEWS

King Abdullah Petroleum Studies and Research Center - Riyadh, KSA

Shaping the Kingdom's Energy Future

EIC provides Air Terminals to the Kingdom's first proposed LEED Platinum building project

Rising out of the desert near the King Khalid International Airport in Riyadh, Kingdom of Saudi Arabia, the King Abdullah Petroleum Studies and Research Center (KAPSARC) is deemed a fitting addition to the "energy center of the world." The new research and policy center is designed to play a vital role in helping to institute environmental exploration and analysis that will help to shape a sustainable energy future for the Kingdom and the world.

The main structure, an organic assemblage of six-sided crystalline-shaped pods, was designed by renowned architect Zaha Hadid. The modular structure is made up of a series of outdoor spaces, courtyards, meeting areas, indoor gardens, corridors, underground tunnels and roof terraces and will include state-of-the-art energy and research centers, conference and education centers, a library.

The project is planned to be the first LEED Platinum project produced in the Kingdom. A number of sustainable building techniques will be employed to help the complex achieve LEED Platinum status. Shading and natural ventilation will help keep indoor and outdoor spaces cool while natural light will flood through the partial shading to illuminate interior courtyards and rooms.

The landscaping and buildings will take advantage of the seasonal breezes to offer temperate zones for residents and visitors. LED lighting will



An artist rendering of the King Abdullah Petroleum Studies and Research Center (KAPSARC) illustrates the organic, crystalline structures that make up the main research facilities.

be used throughout to reduce energy consumption and solar photovoltaics will play a role in using the sun's energy to produce power for the complex.

The adjacent residential compound will include more than 700 residential units with 188 villas, two apartment blocks, recreation facilities, a clubhouse and community center and commercial facilities for community and religious uses for in-Kingdom and expatriate researchers and their families. The compound will also have its own water, wastewater and cooling facilities.

Saudi Aramco, developer of the project, chose Drake & Scull Construction Saudi Arabia, a wholly-

owned subsidiary of Drake & Scull International, as the principle contractor for the SAR two billion (USD 533.3 million) main structure project currently under construction with a target completion date of August 2012.

In May 2010, Aramco awarded South Korea's SK Engineering & Construction the estimated SAR 1.9 billion (USD 506.6 million) contract to build the residential buildings at KAPSARC. Energy International Corporation was chosen to supply the Variable Air Valve (VAV) boxes to a portion of the residential project.

"Providing a comfortable living atmosphere is essential when you are
continued on next page



PROJECT NEWS

King Abdullah Petroleum Studies and Research Center - Riyadh, KSA

bringing in people from different parts of the world to a hot climate that they may not be used to," said Ahmed Chughtai, EIC Engineering Manager for Variable Air Valves (VAVs). "A top-quality HVAC system is a critical in providing that comfortable climate."

MetalAire, a division of Metal industries with headquarters in Clearwater, Florida, USA, was sourced to supply the VAVs for the project. MetalAire is a well-respected brand name recommended by many of the contractors in the region and was the preferred choice for this project.

"Energy International is the exclusive supplier for MetalAire in the Middle East," said Chughtai. "Our customers look to us because they know we carry only the top brands in the industry and back them up with expert engineering and excellent service."

The VAV, or air terminal, is integral component of the HVAC system. Air terminals are stationed throughout the system and used to control the temperature of specific rooms or areas of a structure.

The MetalAire Series FVI parallel, fan-powered boxes with thermostat and multi-stage heater controllers were chosen for the job. Powered air terminals are usually used in systems providing air to larger spaces like meeting rooms or community centers where many people are gathered.

The powered units are designed to



The rendering (above) represents the residential area with villas, townhouses and apartments surrounding the recreation facilities, clubhouse and community center. The spacious villas, (represented by the rendering at right) will utilize MetalAire VAVs as part of the HVAC system.

shut off the incoming airflow when the desired temperature in the room is met while the fan continues to circulate the air in the space to help maintain the optimum air temperature.

The units are designed to sync into the villas building management system allowing for precise control of temperature and air pressure throughout the villas. Each of the 51 units was

individually specified to meet the contractor's requirements.

Along with the MetalAire VAVs, EIC was also given the contract to supply wall-mounted hot water heaters to the main research and office complex. Bradford White's model WH30L655 was chosen to meet the rigorous standards required for KAPSARC to achieve LEED Platinum status. ■

MetalAire, a division of Metal industries in Clearwater, Florida, USA, was sourced to supply the VAVs for the project. MetalAire is a well-respected brand name recommended by many of the contractors in the region and was the preferred choice for this project.



PROJECT NEWS

New Doha International Airport Mosque - Doha, Qatar

Custom Design on a Big Scale

Energy international – Qatar deliver custom-designed trench drain to NDIA mosque project

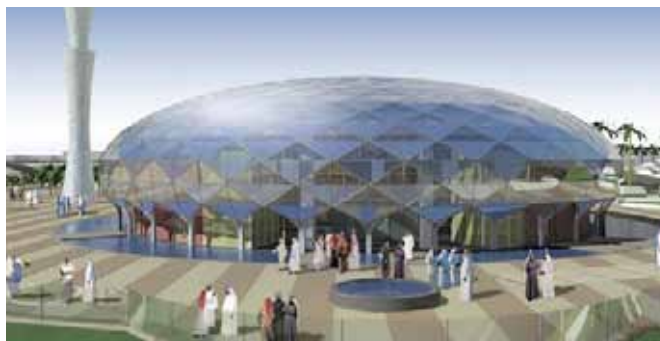
Energy International Corporation (EIC) has been a major contributor to the construction of the New Doha International Airport (NDIA) in Doha, Qatar, including the supply and installation of fire and smoke curtains for the world's largest maintenance hangar.

The hangar is just one part of the US\$12.3 billion (QAR 45 billion) NDIA, the first airport in the world designed to accommodate the 550-seater Airbus A380-800, a staple of Qatar Airways since 2009.

The NDIA will also boasts two of the longest commercial runways in the world, an 85 meter(275-foot) high control tower, a 510,000-square-meter 5.5 million-foot) passenger terminal with 40 gates, a separate terminal for the Emir of Qatar, a general aviation terminal, a cargo terminal, a 150,000 square meter (1.6 million square foot) aircraft maintenance center, one of the world's largest airport catering facilities, state-of-the art air traffic control equipment and security systems, and other facilities.

When it opens later this year, it will be ready to accommodate 24 million passengers and 750,000 metric tons of cargo annually. Many of those passengers will find their way to the public mosque currently under construction at the south end of the main terminal.

Complimenting the water-themed design of the NDIA passenger and Emiri terminal, the public mosque is a circular glass structure, measuring



The NDIA mosque sits among a grove of trees at the south end of the Emiri terminal. The glass dome is made up of a many of convex triangles, the finished structure resembling a large drop of water, tying it into the overall design theme of the new airport.

47 meters (155 feet) in diameter, resembling a glimmering drop of water set in a grove of leafy trees and fragrant flowering shrubs.

The glass exterior shell and gently-domed roof is made up of a mix of translucent and opaque insulated glass triangles, ornately arranged and colored to create a visually-pleasing pattern visible from both the exterior and interior of the prayer hall with a capacity of 500

worshippers in two segregated areas.

Entrance to the mosque is accessed from the passenger terminal by an air-conditioned pedestrian bridge or from the parking structure by a shaded ramp. The triangular interior layout of the mosque's two-level interior will be designed, as all mosques are, to point to Mecca.

Energy International – Qatar was called on to supply and install the
continued on next page



PROJECT NEWS

New Doha International Airport Mosque - Doha, Qatar

custom-designed trench drain that runs the entire circumference of the mosque. Most every building utilizes some kind of trench drain to capture and remove run-off rain water and water used to wash the outside of the building.

The designers of the mosque went one step farther. They wanted a design that would complement the architecture of the building. Energy International – Qatar turned to long-time partner Jay R. Smith Mfg. Co. of Montgomery, Alabama, USA to construct the special drain.

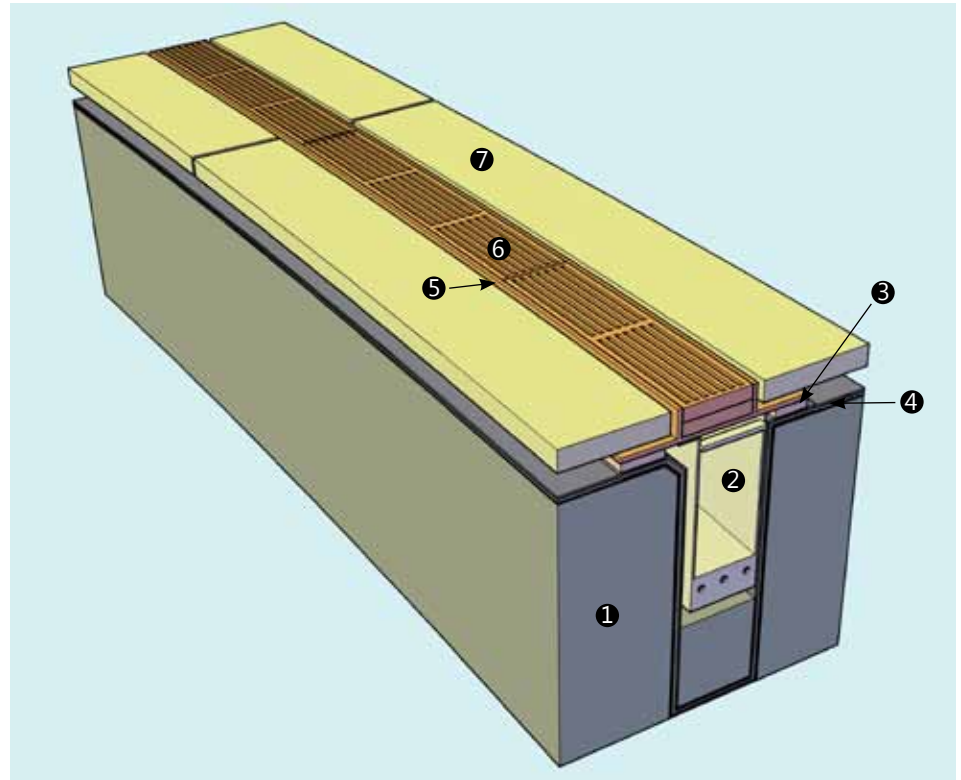
"Meeting and exceeding customer expectations is top priority at Energy International," said Ammar Assi, General Manager for Energy International – Qatar. "That's why we chose Jay R. Smith. EIC is very conscious of choosing the right manufacturers to partner with them on special projects like these."

Jay R. Smith is experienced with creating unique designed drain covers, but the scale of the NDIA job proved an interesting challenge for them.

"This is a first for Jay R. Smith," said Steve Chromey, executive vice president, Jay R Smith Mfg. Co. "We don't come across jobs like this too often."

The creation of the final product was a joint effort with contractor Bechtel, Energy international, Qatar and Jay R. Smith. EI-Qatar worked with Bechtel to finalize the drawings necessary for Jay R. Smith to manufacture the components.

The drain is made up of 64 sections of



This artist's rendering illustrates the components that make up a section of the custom trench drain. 1. Concrete structure. 2. Stainless Steel Liner. 3. Leveling Shim. 4. Waterproof Membrane and Protection Board. 5. Trench Drain Frame. 6. Trench Drain Statuary Bronze Grating. 7. Stone Floor Tile.

seven different lengths. These will then be assembled into five subsections that will encircle the entire mosque.

Each section is made up of a lining constructed of 316-L stainless steel and topped with a custom-designed and manufactured frame and grate made of brass and finished in statuary dark bronze to match the door and window trim on the mosque.

When the sections arrive on the job

site, EI-Qatar will work with Bechtel to build a concrete trench that will house the drain components. EI-Qatar will handle the final installation of the trench drain.

"This has been a great opportunity for Energy International to show our customers how far we will go to deliver custom solutions no matter what size the project is," said Assi. "We have been working on this project for more than a year-and-a-half, but the results are more than worth it." ■

This has been a great opportunity for Energy International to show our customers how far we will go to deliver custom solutions no matter what size the project is.

— Ammar Assi, General Manager, Energy International - Qatar



FEATURES

Leading the Way

EIC's Transportation & Parking Division innovation makes life easier for commuters in the UAE

The next time you're in the United Arab Emirates and you use one of the convenient Pay & Display Parking machines (PDMs), you can thank the people of Energy International's Transportation & Parking Division.

Their dedication and hard work not only made the technology possible in the Middle East but helped to launch a new division for the company.

In 1994, Energy International's Dubai office bid on a tender and won a contract to supply, install and maintain 40 Pay & Display parking machines (PDMs) in downtown Dubai. Pay & Display machines are utilized in urban parking areas and car parks. Drivers insert coins or credit cards to purchase a ticket that is displayed on the vehicle's windscreen. Similar to parking meters, Pay & Display machines are more suited for car parks as one machine can service a number of parking spaces.

EIC's first venture into the automated parking business didn't go as planned. The team spent nearly a year performing temperature and humidity tests, collecting extensive data and preparing reports on the technical specifications required for the units to perform



EIC Transportation & Parking was formed to meet a contract to source, install and maintain 40 Pay & Display parking machines, like the one shown above.

properly in the Middle East's extremely hot and humid climate.

"The information was sent to several of Europe's leading manufacturers of PDMs who, to our dismay, informed us that they could not manufacture a PDM to meet and perform to our specifications," said Aspi Kapadia, Vice President and Director of EIC's Transportation & Parking Division. "Finally, our current supplier, Automatentechnik Baumann GmbH of Luhe-Wildenau, Germany (known then as Nagler Technik), agreed to create a machine to meet our specifications, and within four to five months we had tested

a complete prototype machine."

Those same 40 machines, installed in 1996, are still working on the streets of Dubai.

The official Transportation & Parking division was born in 1998 when EIC won a larger contract from the Dubai Municipality for the design, supply, installation, commissioning and maintenance of 258 PDMs.

"To meet the stipulations of the contract it was necessary to have a dedicated enterprise," said Kapadia. "(EIC Chairman) Dr. Ned Fawaz saw the potential for such a business development and made the investment in the new products and services that the division could offer to the Dubai Municipality."

To date, EIC Transportation & Parking has installed and maintains 5,000 PDMs under 14 different contracts in four cities in the United Arab Emirates.

The new division also marked a shift in the business philosophy of Energy International from being a universal supplier of electromechanical equipment to being a government contractor, supplying, installing and maintaining equipment.

"The true strength of the division lies in its ability to sustain itself over the long term based on continued city equipment maintenance services, *continued on next page*



FEATURES

Going Green

upgrade options and order extensions that are necessary to growing cities in our region," said Kapadia. "We utilize our own engineering resources to sustain the division and to grow our business by developing other potential infrastructure products and services that are needed in our region."

The division currently has more than 50 employees including Project Managers, Project Engineers, IT Engineers and Technical and Administrative support staff. Aspi Kapadia, who oversees the operation and helped get the division started in 1998, has been with Energy International Corporation for more than 20 years.

Kapadia holds a Bachelors' degree in Civil Engineering from the Indian Institute of Technology, Kharagpur, India. Before coming to EIC, Kapadia worked as a Project Engineer for Pan Gulf Construction in Dubai and as a Design Engineer for ultra high voltage power transmission lines in India.

The group is currently working on the completion of the Automated Fare Collection project for the Roads & Transportation Authority (RTA) Dubai. The USD 452 million, three-phase project will allow passengers to purchase and use the same electronic cards for all of Dubai's mass transit and paid parking zones, linking rail, bus, taxi and marine taxi services.

"This project affects nearly everyone living in Dubai," said Kapadia. "EIC Transportation & Parking supplied and installed over 15,000 fare collection devices for street parking and in 2,000 buses. More than 1,000,000 people use



EIC Transportation & Parking has been busy recently installing Automated Fare Collection machines for the RTA in Dubai. The machine above provides access to water taxi's crossing Dubai Creek. The system allows commuters to use the same fare card to purchase tickets for taxis, buses and rail.

our equipment every day."

"We are proud that the city has chosen us for such a big and important project as this," said Kapadia. "We are considered as one of the few strategic partners of the Government of Dubai. We have been working with the RTA for 16 years and they continue to award EIC additional contracts for all their on-street parking and transportation projects."

The division is currently working with the RTA on a number of forward-looking projects. In the coming months EIC Transportation & Parking will install a pilot project that utilizes WiFi technology to communicate with PDMs. They are also working on an Automated Tolling System that uses accurate number plate recognition and automated customer billing,

replacing the RFID tags that are currently being used. The division is also looking to supply the Dubai police with handheld, automated ticketing machines and a parking sensor system that will improve the quality of parking enforcement.

One big project looming on the horizon is the installation and maintenance of an Automated Fare Collection system for the new high-speed railway project. The RTA is in the process of expanding Dubai's rail system to ease vehicle traffic in the city. One line is currently completed with three more on the way. When finished (completion is scheduled for 2012) the rail system will cover 182 kilometers and service more than 1.2 million passengers daily. 🇦🇪



PEOPLE

Hot Dogs, Apple Pie and EIC

Energy U.S. enjoyed their annual summer outing with a trip to Comerica Park in Detroit, Mich. to see the Detroit Tigers play the Cleveland Indians in baseball. The group proudly wore their Tiger hats and enjoyed pizza at Niki's restaurant before heading to the park for the game. It was an fun time for all, despite a little rain and a watching the home team lose to the Indians by a score of 5 to 4. 🍕

The gang (right) enjoys pizza at Niki's in downtown Detroit. Comerica Park (below) gives fans a view of Detroit's skyline over the left field wall.



A little rain didn't dampen the evening spirits (above). Ahmed Chughtai (far right) enjoys the game with Mohamed Sayenna, Allie Bazzy and Alex Fawaz. Rachel Muller (center left) waits on pizza and salad at Niki's. Tracey Baughman and Bill Gianino (left) smile for the camera while John Peter checks out the scoreboard. *Photography by Alex Itawi*

Would you like to see your company event or outing in the newsletter? Send photos and info to jpeter@energyintl.com



Electrifying Ride

Chevrolet Volt Plug-in-Hybrid Electric could change the way driver's "fuel" their cars.

Drive by the Energy international Corporation headquarters in Canton, Mich., on any given work day and you're likely to see a dark metallic gray Chevrolet sedan plugged into the outside warehouse wall, a long orange extension cord draped from a circular box plugged into the vehicles driver-side front fender.

If you're familiar with the technology behind the new Chevrolet Volt, you'll understand that the cord is sending 240 volts of electricity to charge the lithium-ion battery. The battery delivers energy to the electric motor that gets Bill Gianino, EIC's Vice President of Operations, and his Volt back and forth from his home in Detroit Metro's northern suburbs to EIC's Canton office each day.

Bill leased his Volt several months ago and loves it.

"It's a great car to drive car," said Bill. "The Volt is a lot more responsive than any conventional car I've driven. It has impressive performance and the gas mileage is great. I've been averaging over 200 miles-per-gallon."

The Chevy Volt is the world's first production "plug-in-hybrid." The Volt is designed to run on electricity for up to 40 miles (60 km) between charges. If the vehicle needs to go farther, a small four-cylinder gasoline engine kicks in and serves as a generator to run the electric motor.

The Volt holds special significance to Metro Detroiters as the vehicle is manufactured at GM's Hamtramck, Mich.,



The 240-volt charging station will charge the Volt's lithium-ion battery to a full charge in about four hours, half the time it would take if it was plugged into a standard U.S. wall outlet. The full charge gives the Volt a range of about 40 miles, more than enough for Bill's trip home at night.

plant providing jobs for several thousand Metro Detroiters.

News reports have revealed that GM engineers have shipped several test cars to the UAE to evaluate the Volt's

performance in the hot, gulf environment. Based on the results of testing and a study of the market, GM Middle East will determine whether or not to export the VOLT to the UAE. ■



PEOPLE NEWS

Wissam Nassif • Regional Sales Manager

Wissam Nassif's journey to Energy International Corporation began with a trip to the United States from Lebanon after receiving a scholarship to work on his Masters Degree in Business Administration at the Long Island University in Brookville, New York. Nassif had been studying Computer Science in his native country of Lebanon, receiving the scholarship after earning a Bachelor's Degree in Business Computer (MIS) from the Lebanese American University in Beirut.

He also holds several Technical Certificates in Heating, Ventilation and Air Conditioning (HVAC) from The American Lebanese University. He has also taken a number of training courses receiving certification through American Institutions and HVAC manufacturers.

During a break in his studies, Wissam travelled to Dearborn, Mich., to visit relatives and was asked to speak at a Sales and Marketing event where he got the attention of Dr. Ned Fawaz, founder and Chief Executive Officer of EIC, who was impressed by Wissam and asked to be introduced.

That introduction turned into an interview with EIC President Allie Bazy and a meeting with the other ranking members of EIC's HVAC & Industrial Division, finally culminating in a job offer. Wissam joined Energy International in May of 2004 as a marketing and Business Analyst with a focus on expanding EIC's reach into the North African marketplace.

It wasn't long before Wissam moved from new business development to



Wissam and his family recently took a vacation to visit his homeland of Lebanon.

the sales side of the business, a natural progression according to Nassif.

"I had worked in sales and marketing for a bank in Lebanon after graduation," said Wissam. "I always felt that my strengths were in sales so it was only a matter of time before I would join the Sales Department at EIC."

Recently, Wissam was promoted to Regional Sales Manager for the company's HVAC and Industrial Division, where he is responsible for monitoring and managing the sales operations for EIC's regional sales offices throughout the Middle East including Riyadh and Dammam Saudi Arabia, Bahrain, Kuwait, Qatar and Jordan. He is also

the point of contact for the major contractors in the Saudi market.

His keen business sense and understanding of the culture have helped EIC secure sales for a number of high-profile projects in the Middle East, including the Aldar headquarters building in Abu Dhabi, a giant, disc-shaped structure often referred to as the world's first circular skyscraper; Al Wakra Hospital in Qatar, the 250-bed, state of the art medical facility covering 70,000 square meters; the expansion of King Saud University (KSU) in Riyadh and The New Doha International Airport in Qatar and the USD300 expansion of Bahrain International Airport.

When he's not selling fans and VAV boxes, you can find Wissam on the soccer field. An avid player and fan, (his favorite team is Real Madrid, one of the world's top soccer clubs) he began playing the game as a young boy eventually earning a starting spot on The Lebanese American University club travelling to countries such as Bulgaria to compete.

When he's not playing, he coaches the U-12 and U-11 boy's teams for the Dearborn Soccer Club in Dearborn, Mich.

Wissam also likes to swim and enjoys travelling, recently taking a trip with his family to his homeland of Lebanon.

"We stayed in an area in the center of the country," said Nassif. "Lebanon isn't a large country so we were able to do a lot of exploring. I saw parts of Lebanon that I had never been to before."

Nassif resides in Dearborn, Mich., with his wife Fadia and two daughters Lea and Celine. 🇸🇦



PEOPLE NEWS

Please join us in welcoming new members to the EIC family

Energy International Corporation has added four new members to its Applications Engineering and Estimation staff at its world headquarters office in the U.S.

Mohamed Sayenna, Charles Sikora, James Conolly and Jeremy Kellogg join Ryan Follick working under Engineering Managers Ahmed Chughtai, Alex Itawi and Ali Fawaz, where they will be sourcing product and providing quotations for EIC customers and clients.

"The additions to our Applications Engineering and Estimation team will allow us to better meet the increasing demand for industrial and commercial air movement products in the Middle East," said Allie Bazzy, President, Energy International Corporation. "With a number of projects back on track in the UAE and an increase in construction activity in Qatar and the Kingdom of Saudi Arabia, we could see the market more than double over the next five years."

Mohamed Sayenna comes to EIC from Chennai, India where he served as a Project Manager-HVAC at ETA Engineering Pvt. Ltd., a global manufacturer and marketer of a full range of industrial, commercial and residential Air-conditioning products, with a main office in Chennai.

Sayenna left ETA to come to the United States where he earned a Masters of Science Degree in Mechanical Engineering from the University of Wyoming in Laramie. He also holds a Bachelor of Engineering in Mechanical Engineering from Crescent Engineering College, Anna University, Chennai, India and studied business marketing at Madurai Kamaraj University, Tamil Nadu, India.



(Clockwise from lower right) Jeremy Kellogg, Mohamed Sayenna, Charles Sikora and James Conolly join EIC's Applications Engineering and Estimating staff.

Charles Sikora comes to EIC by way of Ferris State in Big Rapids, Michigan. The recent graduate earned a Bachelor of Science HVACR Engineering Technology Degree and also carries an Associate's Degree in HVAC from Kalamazoo Valley Community College.

James Conolly is also a recent graduate of Ferris State with a Bachelor of Science HVACR Engineering Technology and an Associate's Degree in HVAC from Kalamazoo Valley Community College. While at Ferris, Conolly was chosen for an advanced class in boiler installation and control with a focus on energy efficiency.

Jeremy Kellogg is also a recent Ferris

State University graduate. He holds a Bachelor of Science HVACR Engineering and an Associate's Degree in HVAC from Ferris State.

Energy International Corporation (EIC) is expanding its presence in the Kingdom of Saudi Arabia with the announcement of the hiring of a new Sales Engineer for the company's Riyadh office.

Syed Mukkaramuddin joins Regional Sales Manager, Mazen Sheet in servicing EIC's many clients and customers in Riyadh and the surrounding region.

"We are very pleased to welcome Syed to the Energy International family," said



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Allie Bazy, President, Energy International Corporation. "Saudi Arabia is one of the fastest-growing construction markets in the Middle East and Energy International Corporation is growing as well to meet the increased demand for quality electromechanical products."

Mukkaramuddin, an Indian by nationality, comes to EIC from the Set Trendz Company in the Kingdom of Saudi Arabia in 2009 where he served as a Sales Engineer dealing with electrical items. Prior to that, Mukkaramuddin was a sales

and software developer at Blue Stone IT Services in India.

Mukkaramuddin holds a Bachelor of Technology degree in Computer Science and Information Technology from Jawaharlal Nehru Technology University. He enjoys playing cricket, snooker and table tennis and likes to relax by reading.

Mukkaramuddin will work out of the Energy International Corporation Riyadh office located on 16th Street in the Malaz Area. The office phone number is +966-1-291-5483.

Mukkaramuddin can be reached directly by mobile phone at +966 5 0461279720 or via e-mail at syed.mukkaramuddin@energyintl.com.

Ali Fawaz has been promoted to Product Manager for Energy International's HVAC & Industrial Division. He will be responsible for handling all non-core products as well as Lau products. Fawaz has worked for Energy International for five years in a number of capacities and is a recent graduate of the University of Michigan. 🇸🇦

Energy International Corporation Hires Regional Sales Manager

Energy International Corporation (EIC) is proud to announce that Salman Bukhari has joined the company as Regional Sales Manager, working out of the company's U.S. Headquarters in Canton, Mich.

Mr. Bukhari will be responsible for EIC's sales operations in Qatar, Pakistan, Oman, Jordan, as well as handling relationships with EIC's U.S. contractors.

Bukhari joins EIC from Square-M Systems Inc. in Toronto, Canada where he served as a Sales Manager and has also worked for the Faisal Jassim Trading Co. in Dubai, United Arab Emirates as a Sales Engineer.

He brings 10 years of experience in sourcing energy-efficient HVAC controls, systems application and design for commercial buildings, hospitals, Pharmaceutical, Clean Room and other industrial and institutional projects, both nationally and internationally.

We are excited to have Salman as part of the Energy International family," said Allie Bazy, President, Energy International Corporation. "He provides



Salman Bukhari, Regional Sales Manager

our customers with a full scope of HVAC engineering design services for all phases of a project from assessing their initial needs to final implementation."

Bukhari holds a Bachelor of Mechanical Engineering degree from the NED University of Engineering & Technology in Karachi, Pakistan. He has also received certified training in VAV Systems, HVAC Systems

Controls and HVAC Design & Application. Bukhari is a member of the American Society of Heating, Refrigeration and Air Conditioning Engineers and is a member of the Professional Engineers Ontario (PEO).

Bukhari can be reached at Energy International by calling +734.354.2000; by fax at +734.354.4225 or by e-mail at salman.bukhari@energyintl.com. 🇸🇦



TECHNOLOGY

Clearing the Air

Ozone generation has proven to be the most advanced technology for air purification

If you work in a modern office, hotel, mall, multiplex or hospital, chances are the building is centrally air conditioned and sealed off from the outside world. This nearly-air tight construction and absence of enough outdoor fresh air being added to the ventilation system creates its own form of indoor air pollution commonly known as "Sick Building Syndrome."

Some of the more common cause of "Sick Building Syndrome" are Volatile Organic Compounds (VOCs), CO², Fungal growth.

Interior air can become contaminated by a wide range of organic and hydrocarbon gases (VOCs) released from synthetically-produced interior furnishings such as carpeting, curtains,

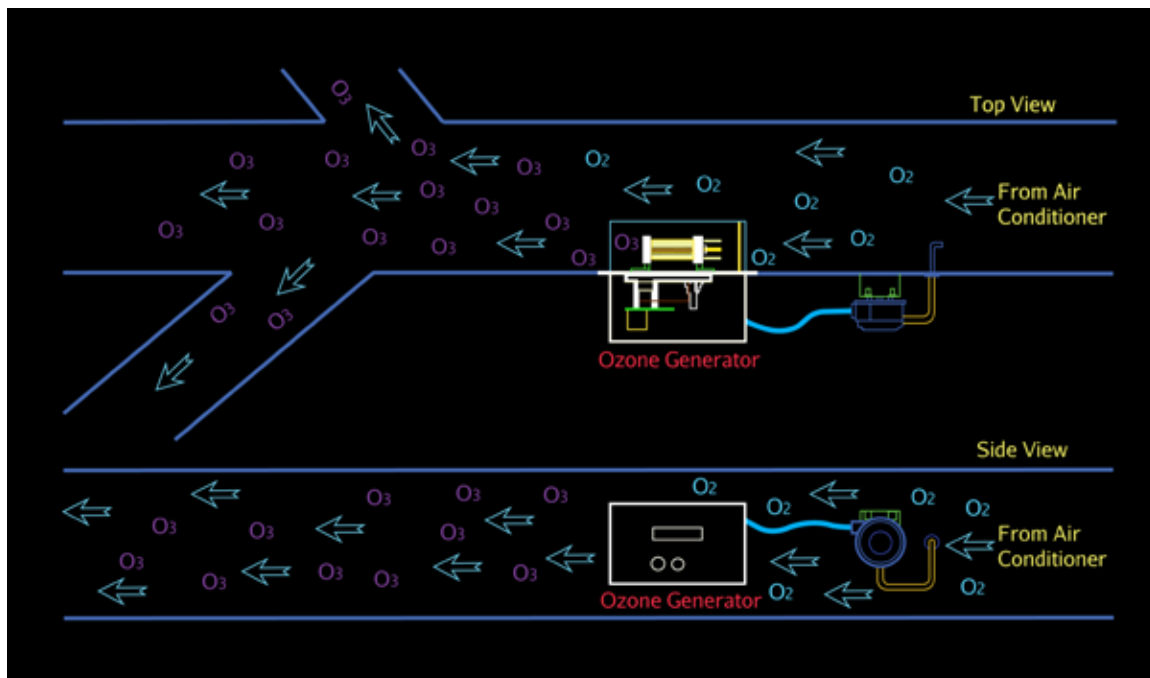
ceiling tiles, paint and fabric protective coatings, just to name a few.

Occupants can also contribute to the VOC problem through cigarette smoke, body odors, deodorant and food odors. Continuous presence of VOCs, even in low concentration, adversely affects the health of occupants. Many VOCs are carcinogenic or carcinogenic promoters and can irritate the mucous membranes creating an uncomfortable working and living environment.

Carbon Monoxide (CO²), while neither toxic n or harmful, can affect productivity in the workplace. At elevated levels, CO² can cause reduced concentration, fatigue and lethargy. The most probable source for CO² is the

exhalation of occupants, though CO² can also be introduced into the building from outside air.

Air handling units and air ducts can provide all the necessary conditions (temperature, humidity, moisture on cooling coils and porous surfaces of duct linings) that make them ideal breeding grounds for the growth and propagation of fungi. Introduced into the air system, fungi can cause allergies, breathing disorders and irritation and loss of concentration. Fungi also work as a bio-adhesive, adhering dust and particulate contaminants to duct and AHU sections. The typical discoloration seen on many air vents is due to the growth of fungi.



This diagram illustrates a how an Ozone generation system works. In this scenario, the Ozone Generator is mounted to the HVAC duct. As air is circulated from the air conditioning system, a small amount of air passes through the Ozone Generator and is converted to Ozone. The Ozone rich air mixes into the general airstream. When the Ozone comes in contact with a contaminant, it oxidizes them reducing them to a less stable molecular state transforming them into transient gases that are much less harmful.



TECHNOLOGY

Obviously, reduction and elimination of these harmful, airborne contaminants needs to be a priority. Thankfully, there is a technology available to quickly and economically eliminate the air quality of indoor spaces.

Ozone treatment is a proven and viable solution for purifying and deodorizing indoor air.

Ozone is a very strong oxidizer and has powerful purifying properties. Ozone is capable of oxidizing various organic odors and destroys viruses and bacteria present in the air, microbes that are not only create offensive odors, but are harmful as well.

Ozone oxidizes VOCs reducing them to a less stable molecular state transforming them into transient gases that are much less harmful.

As harmful VOCs are removed, the odors associated with them are almost completely eliminated resulting in a safe and pleasant environment.

Today, Ozone is considered by most to be the best available and advanced technology for air purification and a much better alternative than using chemicals," said Dr. Syed Rahman, General Manager, Energy Environmental. "A very small and safe concentration of Ozone can purify and deodorize air much better than deodorizing sprays, which only mask odors and add more chemicals to the air."

Benefits of Indoor Air Quality Systems

- Reduction of VOC and gaseous organic pollutants by more than 90%
- Near elimination of organic odors
- Eliminate fungi in indoor spaces and HVAC system
- Reduces capital costs by requiring smaller-capacity AC unit
- Reduces HVAC operating costs by reducing energy use by 15% to 20%.
- Optional Integration into computerized Building Management System

The two technologies that are currently being used are duct-mounted Ozone generators and systems that inject Ozone into the air ducts.

In a duct-mounted system, Ozone cells are mounted inside the air duct. The cells mix Ozone with a small amount of air that passes through the unit. The outgoing, Ozone-rich air is mixed into the general airstream providing purification of the entire airstream.

In the injection method, Ozone is produced outside the duct and injected into the duct at a suitable location. In this configuration, generation of Ozone and control of Ozone concentration is independent of airflow, air quality, presence of moisture and any kind of

contaminant or suspended impurities.

"This configuration provides for better control of Ozone concentration and is much more stable, reliable and maintenance friendly," said Dr. Rahman. "It doesn't require the frequent cleaning of the HVAC system and is a more robust solution."

The concentration of Ozone in the airstream is monitored and controlled by an Ozone Monitoring System. The automatic system uses high and low level relay outputs constantly measuring the Ozone concentration and keeping it at optimum levels and can be designed to interface with computerized Building management Systems.

An Indoor Air Quality Management System can reduce VOCs and gaseous organic pollutants by more than 90 percent with the near-elimination of organic odors. The system can also eliminate fungal growth inside the system.

A properly-monitored system will keep Ozone levels well below those specified by OSHA, EPA and WHO and monitor incoming air to maintain CO² levels within OSHA standards.

Air Quality Management Systems can save on the capital costs of HVAC systems allowing system designers to use smaller capacity air conditioning units, reducing AC unit size by as much as 25 percent. A more energy efficient system can lower operating costs by 15 to 20 percent. 🌱

Today, Ozone is considered by most to be the best available and advanced technology for air purification and a much better alternative than using chemicals.

— Dr. Syed Rahman, General Manager, Energy Environmental.