



Energy International Report

THE NEWSLETTER FOR THE EMPLOYEES AND FRIENDS OF ENERGY INTERNATIONAL CORPORATION

WINTER 2018

IN THIS ISSUE:

■ NEWS

2. RTA Government of Dubai Awards Four-Year Contract to EI Transportation for AFC Maintenance
4. Majd Kanaan Named as Operations Manager
4. Energy Transportation Receives Prestigious Award
5. Energy International - Jordan Hosts Energy Solution Workshop
6. Energy International Exhibits at Big 5 Show Dubai
8. King Abdullaziz Center for World Culture Smoke Curtain Installation
9. Energy U.S. Hosts Visitors

■ PROJECT NEWS

10. DEWA Headquarters Building - Dubai, UAE
13. DEWA MORO Data Hub - Dubai, UAE
16. King Abdullah University Hospital - Amman, Jordan

■ PEOPLE NEWS

17. EIC People News

EIC is Changing with the Times

As our team walked the floor at the 2018 ASHRAE Winter Conference and AHR Expo in Chicago, Illinois, USA, we were reminded that 2018 is a year of change. The expo showcases many of the new technologies in the world of HVACR and I wonder how many of these new ideas will be suitable for our market in the Middle East, especially in Saudi Arabia. Saudi Arabia is changing as a new leader takes power and begins to implement new thinking in the region. Already, in just a short period of time, cinemas have been reopened and women are allowed to attend concerts and major sporting events. This summer, they will be allowed to drive. There is excitement at Energy International as we see signs of a renewed construction market with the implementation of Vision 2030, yet a bit of concern as the government begins the implementation of the new five-percent Value Added Tax (VAT) and how the new tax will affect our business. We can only hope that these changes will benefit the country and benefit our business as we head into this new year.

This issue focuses on some of the changes at Energy International as we prepare for a prosperous 2018. We have a new Operations Department in Beirut under the supervision of Majd Kanaan who moves back to Lebanon after working for several years in our Riyadh, Saudi Arabia office. The new department merges our estimation department with logistics and the newly-created position of Technical Control and Order Processing (TCOP). There is coverage of our participation in trade shows, newsworthy items along with stories of several of our successful projects in the UAE and Jordan and the addition of many new members to the Energy International family.

Read it, enjoy it and feel free to pass it on to coworkers, friends and business associates.

EIC report is published four times a year by and for the employees of Energy International Corporation and their friends and associates in the business. All inquiries should be sent to: jpeter@energyintl.com.

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Be a Part of the Energy International Report

The EIC Report 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 jpeter@energyintl.com. I look forward to hearing from you.



RTA Government of Dubai, Awards 4 Year Contract to El Transportation for AFC Maintenance

Contract also calls for 100 new NOL Top Up Machines and CMS



The map above illustrates all of the places passengers can travel in Dubai using their NOL card and the Automated Fare Collection developed by Energy International Transportation for the Dubai RTA.

Along with the distinction of being one of the world's fastest-growing urban cities, Dubai faces a plethora of new opportunities and challenges.

Some of those challenges are the traffic and the mass movement of public in the city.

Further, the growing demand for land space, will lead to new developments outside the existing residential and commercial areas.

As a result, the travel pattern is expected to change significantly over the next few years.

The Roads and Transport Authority (RTA) which coordinates, organizes and operates all form of transport in Dubai is aware of the traffic situation. RTA is working on upgrading and expanding the road network.

To reduce and compensate for the rapid growth of private transport, RTA's aim is

to ensure a world class, comprehensive public transport system that meets the needs of Dubai's travelling public.

From Years 2007 to 2010, RTA has a transition period to fully automate the fare collection systems. This is where Energy

and marine services.

As a result of the hard work and dedication of Energy International's team for the past 10 years, in February 2018, Energy International Transportation has won a competitive tender and was awarded the 4 Years Contract for AFC Maintenance including 100 new Top Up Machines with CMS. The Contract ends February 2022.

"Stability and integrated platforms are necessarily to keep passenger flow run smoothly at peak hours; at the same time, all data will be gathered and transmitted into the data center and that is what our AFC system is presenting," said Aspi Kapadia, Vice President of Energy International Transportation.

The system includes all user-interface devices such as the Ticket Vending Machine (TVM), the Electronic Validation Machine (EVD), Fare Collection Gates (FCG) for marine transport, Ticket Office Machine (TOM), Multipurpose Portable Device (MPD), Smart Solar CitiHub 2020 Top-up machines and as well as the back-end servers and software solution encompassing fare management, media management, remote control, software distribution, report generation and transaction monitoring on all connected devices.

RTA buses are equipped with state-of-the-art check-in-check-out

"Since 2009, we have been improving our customer experience and enhanced our agency's operations through comprehensive first-class AFC solution built on the solid foundation with industry experience gained from satisfied customers around the globe,"

- Aspi Kapadia -Vice President, Energy International Transportation

International Transportation launched the Automated Fare Collection Project on September 9, 2009 allowing passengers to purchase and use the same electronic cards for all of Dubai's mass transit and paid parking zones linking rail, bus, taxi

terminals (EVD) that communicate to a central processing hub. These devices have fully independent offline software upgrade capability and upload encrypted transactional data to a secure server

continued on next page



placed at the bus depots.

Electronic tickets are dispensed from vending machines (TVM) placed strategically across the city. These machines are equipped with a full color touch screen, advanced currency evaluation systems and ticket encoding systems. They were also customized to withstand the varying climate conditions prevalent the region.

Moreover, passengers who are not familiar with how the system works have the option to purchase tickets from an attendant at the ticketing office (TOM) which is designed to meet the needs of public transport operators (PTOs) by offering a high-performance solution for the sale of Contactless Tickets (CT) and Contactless Smartcards (CSC) and for supporting passenger services at attended point of sales.

Marine transport (FCG) has also been included in the fare collection system making it easier for passengers who use multiple modes of transport daily. The FCG reads from and writes to contactless fare media and allows the passengers, boarding and leaving the marine waterbuses, to Check-In and Check-Out. At the same time, it controls the barrier so that only passengers with a valid ticket can pass the FCG.

The Multipurpose Portable Device (MPD) is an inspection handheld device and part of the Revenue Protection Program. By using the MPD, the Inspector oversees checking the travel rights of the passengers. In case of non-valid travel rights or any other violation, the Inspector issues a penalty receipt and may retain a Passenger identification document.

The CitiHub 2020 is a Solar Powered SMART Multi-Purpose CitiHUB + NOL Recharge Machine which has been designed to simplify the NOL card recharge process by directly adding the value of the inserted banknote in the Bank Note Validator to the value of the NOL card.

In addition to conventional payment by banknotes, this machine is also capable of supporting the following OPTIONAL



The Automated Fare Collection System features (clockwise from top left) Electronic Validation machines located on RTA busses, portable ticket office machines, CitiHub 2020 solar-powered NOL card charging machines, multi-purpose hand-held inspection devices, ticket vending machines and fare collection gates mounted at the entrance to Dubai River water taxis.

payment systems: Contactless Payments (NFC, MasterCard PayPass, Visa PayWave + Apple Pay & Samsung Pay in future) and Chip & PIN Credit Cards. In addition, several other alternative OPTIONAL payment systems such as e.g. RFID payment or QR-Codes for customer loyalty programs etc. can be supported too.

The scope of the maintenance contract includes first and second level debugging; providing 24/7 support for customer complaints; filtering and verifying that complaints received by the end customer are accurate and related to the AFC system and providing and obtaining all

information required for issue analysis and a quick turn-around resolution; identifying system issues at an early stage to minimize customer impact and provide resolution before issues become critical; and monitoring the health of the system providing local support for hardware and software upgrades.

“Since 2009, we have been improving our customer experience and enhancing our agency’s operations through comprehensive first-class AFC solution built on the solid foundation with industry experience gained from satisfied customers around the globe,” said Kapadia. 🇦🇪



Majd Kanaan Named as Operations Manager

Sarah Al Hajjar, Ali Mteirek and Amany Awada also assume new duties



Majd Kanaan has been named Operations Manager for Energy International.

Energy International announces they have named Majd Kanaan as Operations Manager.

Kanaan will be working out of the Beirut, Lebanon office where he will manage the daily operations of Estimation, Logistics and Shipping, and Technical Control and Order Processing (TCOP).

"The establishment of the Operations Department is the next phase of a three-year plan designed to increase efficiency, reduce cost and provide exemplary service to our customers," said Alex Fawaz, VP Operations, Energy International. "We feel Majd is the right person to be heading this department. He is a dedicated employee, has a great understanding of the workings of Energy International and has proven himself as a

successful estimator and salesman."

Along with his managerial duties Kanaan will provide sales training to estimators that demonstrate sales potential and groom them for deployment to Energy's regional sales offices.

Kanaan will also help launch the Product Development Department identifying new products that can be added to the Energy International portfolio.

Kanaan joined Energy international in 2013 as an Estimation Engineer working out of the Beirut, Lebanon office. He was promoted to Sales Engineer the following year working under Area Manager Mazen Sheet in Energy's Riyadh, KSA office, before returning to Lebanon to take on his new position.

Sarah Al Hajjar has been promoted to Senior Estimating Engineer for the Estimation Department while also providing support to TCOP.

Ali Mteirek has been promoted to Supervising Estimation Engineer for the Estimation Department.

The Estimation Department works with the U.S., Beirut and Saudi offices to provide Sales Engineers with product selections and other technical information based on job specifications provided by customers.

Amany Awada expands her role moving from providing shipping and logistics to the Energy's Lebanon office to working with the shipping and logistics team in the U.S. where she will assist with shipping product from Energy's U.S. and European supplier-partners to construction sites throughout the Middle East. 🇸🇦

Along with his managerial duties Kanaan will provide sales training to estimators that demonstrate sales potential and groom them for deployment to Energy's regional sales offices.

Energy Transportation Receives Prestigious Award



Congratulations to Abdulwahab Qasem Mohsen from the Energy International Parking & Transportation division in Dubai, UAE who was awarded the Certificate of Appreciation from the Dubai Roads and Transportation Authority at an event held on July 2, 2017. The certificate reads:

Mr. Abdulwahab Saleh
After Greetings
Acknowledgments

We would like to extend our thanks and gratitude to you for your active contribution and your excellent efforts in providing technical support to the inspectors and the NOL audit devices, which has greatly improved the level of work. We hope that this outstanding cooperation will continue to achieve further progress, and we ask God for success and repayment.

Yours sincerely,

Majid Moosa AlKhamri
Director of Bus Performance Control
Deputy Director of Traffic Control Department"



Energy International - Jordan Hosts Energy Solution Workshop

Representative from business and industry discover the benefits of YORK energy-saving chiller technology



Energy International – Jordan held their annual Energy Solution Seminar on Tuesday, February 27, 2018 at the Amman Rotana Hotel in Amman, Jordan.

The event was hosted by Fadi Rashid, General Manager, Energy International – Jordan, Alex Fawaz, VP Operations for Energy International and Energy founder and CEO Dr. Ned Fawaz who presented Awards of Appreciation to The Four Seasons Hotel and ZARA Holding Company, owners of several prestigious hotels located throughout Jordan .

The event was attended by 130 consultants, contractors, owners and operators of local business and industry who learned about the benefits of Johnson Controls (JCI) Building Technologies and Energy Saving Solutions.

Toufic Farah, Regional Director ESG & New Channel Development from Johnson Controls introduced Mohammad Baklizi, Regional Product manager for chillers and Serj Ibrahim, Regional Manager-VRF who gave presentations on JCI chillers including the new line from YORK and Hitachi including mini-split, ducted-split and VRF chillers.

Guest were served a sit-down lunch at the conclusion of the presentation and Q&A session. 🍽️



Dr. Ned Fawaz (top) speaks to attendees at the Energy Solutions Workshop. Dr. Fawaz presented the Appreciation Awards to the Engineering Manager from Zara Holding Co. (in photo above) flanked by Toufic Farah from JCI and Fadi Rashid and Alex Fawaz from Energy. Talal Khreis (in center of photo at left) receives the award for The Four Season Hotel flanked by Fadi Rashid, Toufic Farah, Dr, Ned Fawaz and Alex Fawaz.



Energy International Exhibits at Dubai Big 5 Show 2017

New display hall and new products part of another successful show



Energy international joined 2,600 exhibitors from more than 60 countries at the 38th edition of the Big 5 Show held at the Dubai World Trade Center November 26 – 29, 2017.

This year's show was even bigger with Energy International and other HVAC-R companies moving to the new, Zabeel Hall, a dedicated exhibit venue for HVACR manufacturers and distributors.

"This is Energy's fifteenth year as an exhibitor at the Big 5 Show," said Alex Fawaz, Vice President of Operations for Energy international. "The Big 5 show is the biggest, most impressive show of its kind in the Middle East and provides us the opportunity to showcase our products to thousands of prospective clients from the GCC region."

This year's booth featured products from long-standing suppliers PennBarry (commercial and industrial ventilations), Metalaire (air terminals), Wolter, (smoke extraction fans), Jacir-Gohl (cooling towers), Powered Aire (air curtains), BLE Group (smoke and fire curtains), Purified Air (air purification products), Filcar (vehicle exhaust extraction), Fumex (fume extraction) and Dynamix (pumps) among others.

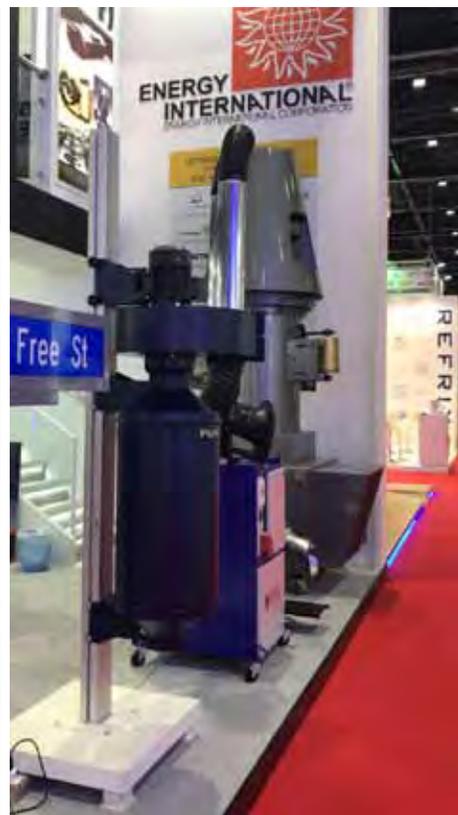
This year's product line-up featured an example of a Solartronic – solar powered street lighting system. The Ann Arbor, Michigan-based company develops innovative solar voltaic products and systems for buildings, parks and streetscapes. Solartronic has signed an agreement naming Energy International as their regional partner in the Middle East and North Africa. 🇸🇦



The Energy stand is abuzz with activity on show day (top). Energy technical experts are on hand to demonstrate the many products on display at the Big 5 Show.



The Big 5 Show 2017 (continued)



A show crew are busy setting up the Energy display at the show (top left). A Fumex fume extraction system sits next to an upblast extraction fan at the show display (top right). Wolter fans and Metalaire air terminals on display (above). (Left to right at right) Ahmed Shaheen, Energy Industrial; Wissan Fawaz, President of Energy Industrial; Khalil Bilan, General Manager, Energy UAE; Mattais Guilliani, Filcar SPA; and Mahmoud Al Kirdi, Product Manager, Energy UAE.



King Abdulaziz Center for World Culture Smoke Curtain Installation

Ahmed Chughtai, Vice President of Engineering recently visited the Kingdom of Saudi Arabia to supervise the installation of fire curtains at the King Abdulaziz Center for World Culture (KACWC) project currently under construction near Riyadh. BLE Group supplied the curtains that were custom-designed to fit the structure's unique architecture. 🇸🇦



Large scaffolding is used (in photos top and above) to install smoke curtains that drop seven meters from the ceiling .



Smoke curtains hang from the ceiling under the skylight that provides natural light to the library. Note that smoke curtains can have a gap between them, by design.



(Left) workers installing smoke curtains around the circumference of the second floor library. (Below) an installer walks among the large scaffolding needed to install the larger curtains that drop seven meters from the ceiling.





Energy US Headquarters Hosts Visitors

Supplier and customer representatives visit to discuss business and check on on-going projects



Energy International had the pleasure of hosting Andrea Cangiano, Mattias Giuliano of Filcar, manufacturers of vehicle fume exhaust systems with headquartered in Reggio Emilia, Italy. Filcar is a leading manufacturer of vehicle exhaust extraction, welding fume extraction and dust extraction systems. The gentlemen were in town to discuss Filcar's relationship with Energy International in the Middle East. (Left to right) Sam Nassif, VP Sales, Energy International; Mohammad Sayenna, Senior Sales Engineer, Energy International; Allie Bazy, President, Energy International; Andrea Cangiano, CEO Filcar SPA; Mattias Giuliano, Technical Sales Manager Assistant, Filcar SPA; Rami Fawaz, Executive VP, Energy International; Alex Fawaz, VP Operations, Energy International and Ahmed Chughtai VP Engineering, Energy International.



Naeem Moien, Sr. Mechanical Engineer for Khatib & Alami, an engineering consultancy firm in Riyadh, KSA spent the day with the Energy U.S. staff in Canton, MI before travelling to PennBarry headquarters in Plano Texas with Sam Nassif, EIC Vice President of Sales. Naeem and Zafar were invited to Plano to witness the testing of fans at PennBarry's in-house testing laboratories. After testing the fans will be shipped to Riyadh for the construction of a new Crowne Plaza Hotel.



Alex Fawaz, Vice President of Operations and Rami Fawaz, Executive Vice President treated the Beirut employees to lunch on their last day in Beirut before returning to the U.S. Attendees included Beirut sales engineers and administrators, members of the Operations Department and guest Fadi Rashid, General Manager of Energy's Jordan office (standing in black and gray jacket on the left in photo at top).

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Architect's illustration of the Dubai Electricity & Water Authority (DEWA) G+4 headquarters building in Dubai, UAE.

Custom Cooling

Jacir-Gohl and Energy International install custom-designed cooling towers for DEWA's new offices

The Dubai Electricity & Water Authority (DEWA) is a state-run, public service infrastructure company providing the residents of Dubai with a reliable supply of electricity and clean water.

As of April of 2015, DEWA had installed capacity of 9,656 MW of electricity and 470 million imperial gallons of desalinated water per day, with plans to increase capacity to over 10,000 MW by 2018.

Recently DEWA has been moving away from gas-fired power plants adding solar-generated electricity to the mix. Operating a 13 MW plant, installed in 2013 and a 200 MW plant installed in 2015, DEWA is currently working on an 800 MW plant to be completed in 2020.

As Dubai continues to grow, DEWA is expanding its presence to better serve its customers. Along with the construction of a new massive headquarters facility DEWA is also constructing a new office and service center in Dubai.

The new office building is being built on a plot in Al Hudaiba, a small community located in the area of Bur Dubai near Port Rashid east of the city center.

The five story office complex covers a built-up area of 22,509 square meters and features a conference hall, cafeteria and a four-story car park plus additional parking at street level around the complex.

Following on the success of working with DEWA on the MORO Data Hub project, the Energy International/Jacir-Gohl team approached GBH International Contracting,

of the facility's cooling system, required to create a comfortable working environment in Dubai's unusually-warm climate.

In a basic office building air conditioning system, a chiller, or heat exchanger is used to create cool water. The cool water is pumped to air handling units (AHUs) located throughout the facility.

The cooled liquid, usually around 6 to 8

"The required cooling capacity couldn't be achieved with the current Jacir-Gohl product line. We would need to produce an extensively larger VAP cooling tower to meet the required capacity." - Khalil Bilan -General Manager, Energy Intl.

the contractor for the new DEWA G+4 office building, and asked to provide a quote for the cooling towers.

"We had already quoted them for fans and VAVs," said Khalil Bilan, General Manager, Energy International-UAE," and we asked them to send us an inquiry for cooling towers."

Cooling towers are a fundamental part

degrees C (43 to 47 degrees F), is pumped through coils in the AHU. Air is blown across the coils, cooling the air which is distributed throughout the building via ductwork to the various office spaces.

The heat from the air is transferred to the water and returned to the chiller. The chiller condenser stores the heat from the process

continued on next page



and pumps it to the cooling towers, usually situated on the roof. The cooling towers use evaporation to remove much of the heat from the water where it is pumped back to the chiller to continue the cooling process.

After receiving the inquiry, the team realized it would take a lot of work and engineering ingenuity to meet the client's specifications.

"The required cooling capacity couldn't be achieved with the current Jacir-Gohl product line," said Bilan. "We would need to produce an extensively larger VAP cooling tower to meet the required capacity."

"On top of that", added Bilan, "the architect had designated a space that would accommodate only four towers, the towers had to be elevated on concrete supports, and the client had requested custom modifications including an equalizer line running between the basins, and multiple make-up water and drainage outlets."

Undeterred the team set out to create a cooling tower solution to meet the client's requirements.

Jacir-Gohl, with more than 55 years of experience, is considered specialists in the development and manufacture of innovative technology in the field of evaporative cooling solutions with more than 65,000 installations in 100 countries.

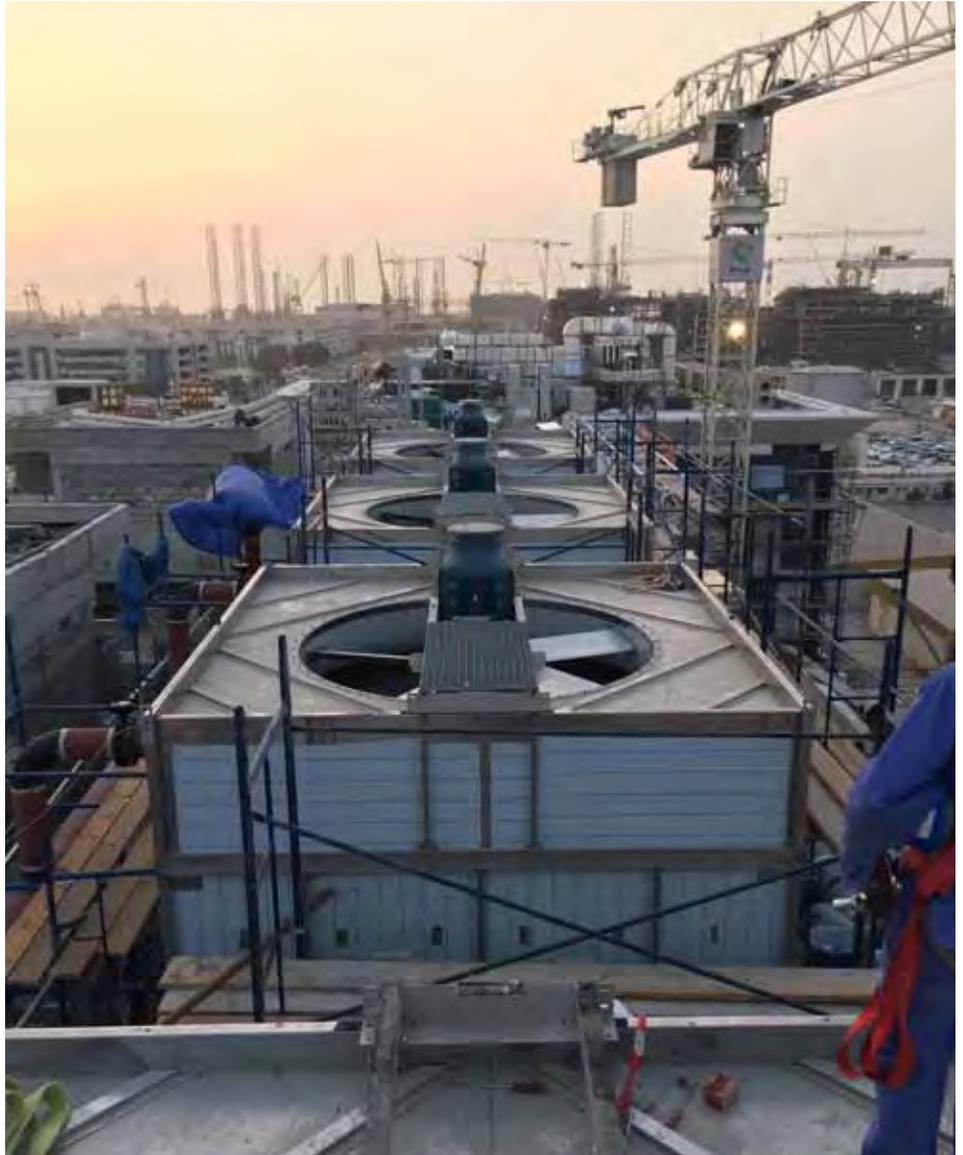
The company is very active in R&D, launching new products and filing for new patents nearly every year, taking into account the increasing demand for resource-saving solutions.

Jacir-Gohl offers water-saving and energy-efficient coolers that are compliant with standards such as BREEAM, LEED, HQE and other sustainable projects.

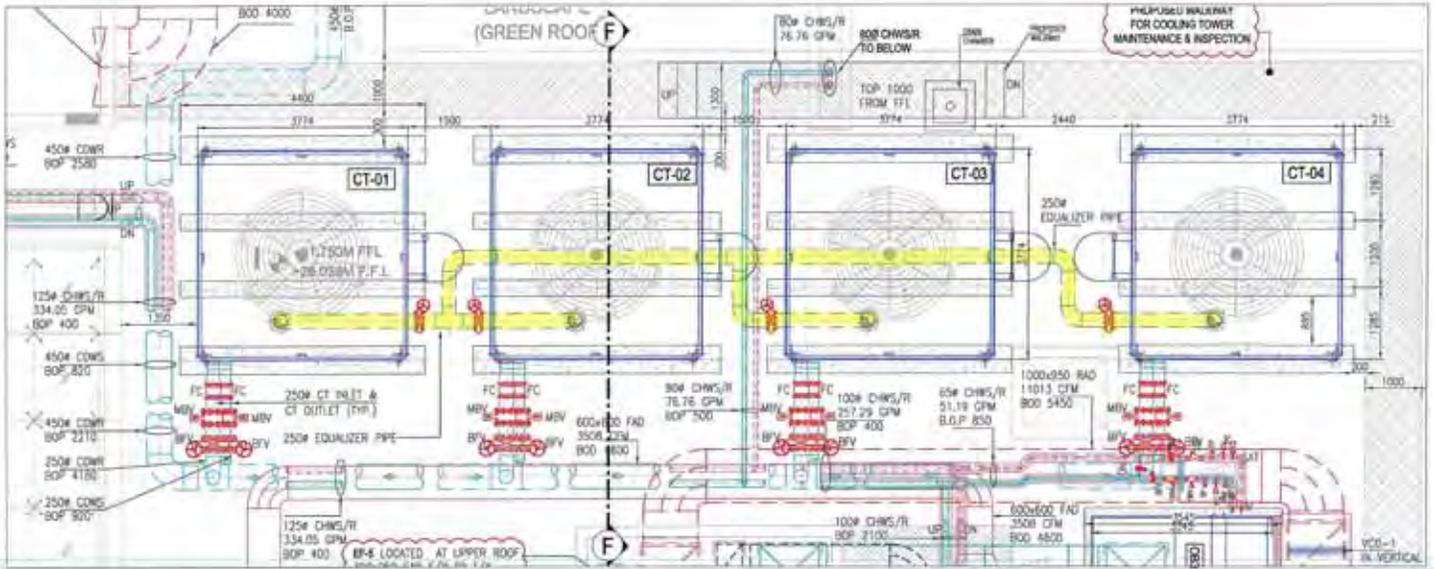
Jacir-Gohl pooled all of their resources together to create a design for the larger towers for the G+4 project, providing all of the electrical and thermal load data along with a set of basic drawings based on their biggest available model.

Energy International engineers

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Construction crews install the four custom-designed Jacir-Gohl cooling towers at the new DEWA G+4 headquarters building site. The four towers were designed to fit into a limited space while still meeting necessary cooling requirements with the addition of an equalizer line running between the basins and multiple make-up and drainage outlets.



refined the drawings using the technical information provided by Jacir-Gohl to design and specify a tower that they could present to the client for their consideration.

"Keep in mind," said Bilan, "all of this effort and work was done before we had an order."

Once the proposal had been submitted and the final price was negotiated, Energy International and Jacir-Gohl were awarded the project and work began on the technical submittal.

"Al Turath Consultants were in charge of reviewing the submittal," said Bilan. "The contractor was looking for quick

capacities and fit into the designated space while still leaving enough room around the units to be able to service them.

The crew at Jacir-Gohl under the guidance of Nicolas Winkler, Jacir-Gohl International Sales Manager, had the final design done in two weeks and the four towers constructed in five weeks with one tower fully assembled and tested.

The cooling towers were delivered to the site on time and handed over to Mahmoud Al Kirdi, Product Manager, Energy International – UAE, who oversaw the offloading of the units to the specified



Energy International engineers worked with Jacir-Gohl to design and build an equalization system for the DEWA cooling towers. The equalizer assures that all four basins are filling at the same rate. The above technical drawings were done by Energy engineers and used as reference for installing the final equalizer system.

Installation took place during Ramadan with the crew working night shifts from 8:00 pm to 3:00 am to escape the intense heat, often reaching 50 degrees C during the middle of the day. The contractor provided the team with labor and equipment with the Energy International team managing the process.

With all four towers in place preparations were made for testing and commissioning.

The system passed initial testing with flying colors. Final testing had not been done at the time of this writing. 🇦🇪

The crew at Jacir-Gohl under the guidance of Nicolas Winkler, International Sales Manager had the final design done in two weeks and the four towers constructed in five weeks with one tower fully assembled and tested.

approvals as the delivery deadline was critical. We had to have the cooling towers on site in six weeks."

The approval was finally granted after an exhaustive 10 days of daily meetings with the consultant and contractor to tweak the design to ensure the towers would deliver the required cooling

spot on the construction site.

"DEWA was pushing hard to finish the project and there were some delays in the construction," said Kirdi. "We had attended all of the meetings as a subcontractor for the cooling towers and continued to promise DEWA executives that we would do whatever needed to be done to finish on time."



Determination and Dedication

Energy International and partner Jacir-Gohl set the precedent for cooling towers in the UAE

Data Hub Integrated Solutions LLC (MORO) was established as a subsidiary of the Dubai Electricity & Water Authority (DEWA).

Launched in November of 2017, MORO, designed as a world-class data center facility, will deliver technical innovations, solutions and services to support the National Innovation Strategy launched by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to make the UAE one of the most innovative countries in the world.

"MORO will provide integrated data center solutions to utilize the latest disruptive technologies to deliver secure, reliable, and scalable cloud solutions will support the UAE's digital transformation, which is aligned to the UAE Vision 2021 and the Smart Dubai initiative," said HE Saeed Mohammed Al Tayer, MD & CEO of DEWA at a recent press conference.

MORO will also offer data hosting and managed business services including call

centers, business continuity, E-cycling and serviced office spaces.

The data center is rated Tier3+ Uptime Institute design and STARS level 3 accredited design and features 4.9 MW and 500 cabinets covering 1,200 square meters; dual internet service providers/connections and services Hosting & Safeguard mission critical system for collocation of data.

The data center, located near the Dubai Marina, features an organic design with a large reflective metal roof and constructed of sustainable materials with technologies for solid and liquid waste recycling.

Energy International and supplier partner Jacir-Gohl, a world leader in the design, manufacture and installation of state-of-the-art cooling solutions was awarded the contract for supply, installation, testing and commissioning of cooling towers for the chillers servicing the data center and service offices.

"Energy International UAE received an inquiry from contractor Site Technologies,

who was working on the project," said Khalil Bilan, General Manager. "We have a good working relationship with Site Technologies and knew we could meet their requirements with product from Jacir-Gohl."

Bilan submitted a quotation and after several weeks of negotiations with the client and the supplier a letter of intent was issued to proceed with submittals.

"After reviewing the submittal, PTS consultants, the project management company, rejected our offer stating that Jacir-Gohl was a new brand and felt it was too risky to give them such a critical job," said Bilan.

Bilan provided the PTS consultants with EIC's long history of working with DEWA along with evidence demonstrating how EIC stands behind the products it sells and their expert knowledge of the Jacir-Gohl product line.

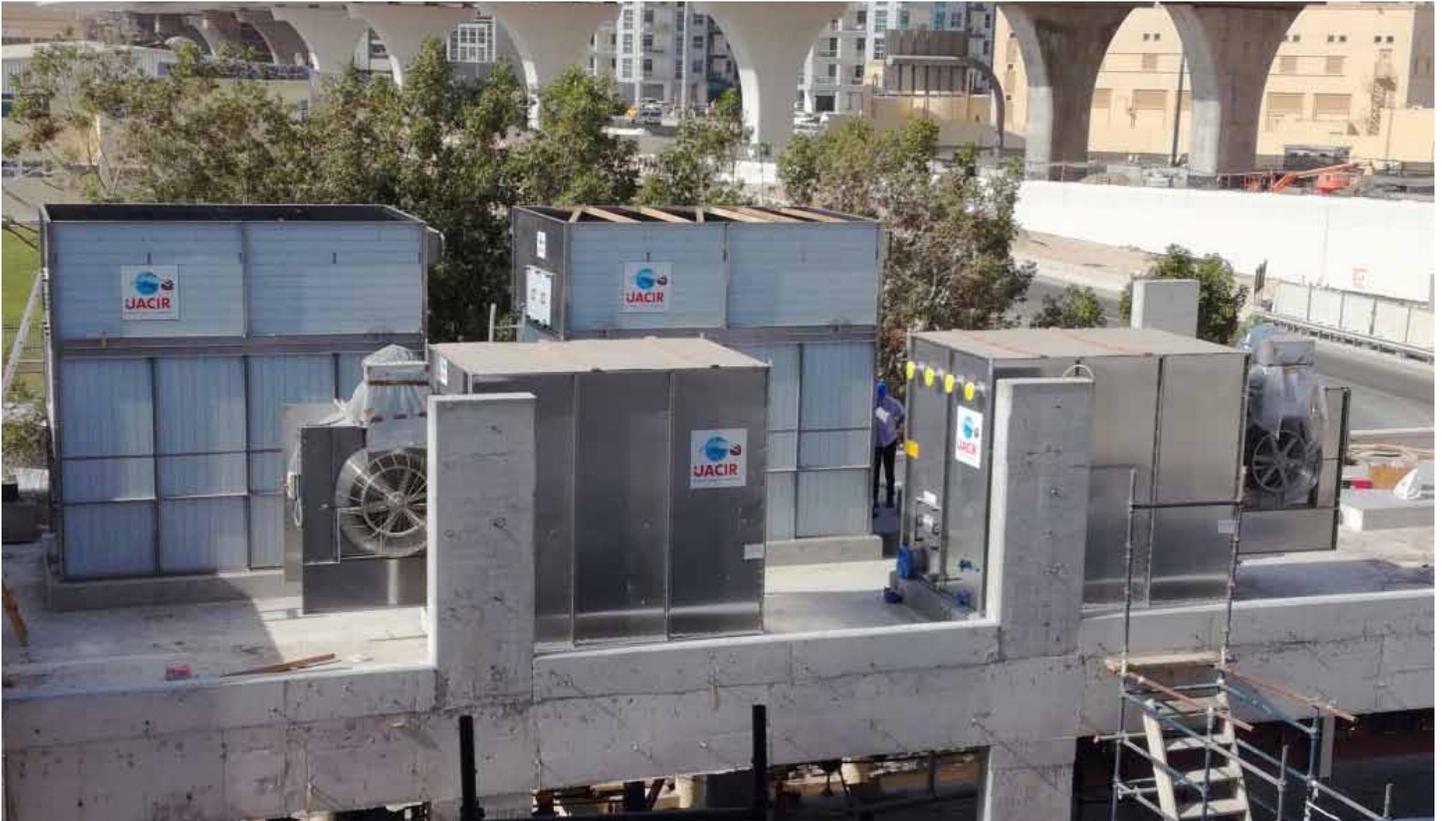
The Energy team and representatives from DEWA and PTS Consultants also

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Featured Projects

DEWA MORO DATA HUB - DUBAI, UAE



visited the Saver Glass factory in Ras Al Khaimah, UAE where Energy International had recently worked with Jacir-Gohl to install four additional cooling towers along with the eight that were already there.

"DEWA and PTS Consultants were amazed at the quality of the cooling tower casings," said Bilan "and how the towers had withstood several years of operation at the glass plant without showing any signs of corrosion. They looked almost new compared to the freshly-supplied cooling towers."

That was all the evidence the PTS Consultants needed. They approved Jacir-Gohl and awarded Energy the project.

The MORO data center is designed to be LEED certified. The cooling towers were a major component of the building's cooling system and needed to be energy efficient and environmentally sustainable in keeping with the project's initiative.

The MORO towers are based on

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Members of the DEWA Data Hub installation crew pose with Mahmoud Al Kirdi, Energy Product Manager (back row fourth from left) Khalil Bilan, General Manager (to Mahmoud's left), Nicolas Winkler, International Sales Manager for Jacir-Gohl (back row far right), Homer Debs of Site Technologies (third from left in front row and Assad Ullah, (far right in front row).



the induced draft design, where the centrifugal fan is mounted on top of the tower drawing air up through the media and cooling the fluid.

"We submitted numerous calculations and simulations regarding fan air flow variation and water loss," said Bilan. "We also provided calculations on the differences in water consumption that could be achieved by varying the fan air flow rates and the pump water flow rates."

"Concentration cycles were increased to six," said Bilan. "This was only possible by using Jacir-Gohl's patented X-Steel Stainless Steel construction for the basin walls."

X-Steel has a higher chemical and corrosion resistance than 316 L stainless steel reducing water consumption by reducing the blow-down volume.

Delivery was critical. Jacir-Gohl prioritized construction in order to produce the towers inside their six-week deadline.

The finished towers were shipped from France to the Port of Jebel Ali in Dubai where they were trucked to the construction site.

"The roads leading to the DEWA data hub went under a number of bridges," said Bilan. We had to ship the towers partially disassembled in open-top containers and flat racks."

Once the towers reached the site it



The Energy International crew with help from Jacir-Gohl were able to install the DEWA Data Hub cooling towers in five working days. Shifts were long and tiring extending into the dark of night.

With the civil and mechanical works in place it was time to install the towers with the help of Jacir-Gohl International Sales Manager, Nicolas Winkler, who flew into Dubai to lend a hand with the installation.

commissioning, performing test runs and troubleshooting the systems before final testing was done.

Testing and commissioning were done during the second week of November 2017.

"The testing and commissioning went successfully," said Mahmoud Al Kirdi. "The consultant and client were surprised by the tower's low noise and low vibration without using any vibration isolators for the installation."

"Jacir-Gohl recommended that no vibration isolators were needed and the tests proved that the towers are designed to perform at their best without the need for isolation."

"With the success of this prestigious DEWA project we feel that Energy International and Jacir-Gohl have earned their place in the UAE market as the leading supplier for cooling towers," said Kirdi. 🇦🇪

"With the success of this prestigious DEWA project we feel that Energy International and Jacir-Gohl have earned their place in the UAE market as the leading supplier for cooling towers." - Mahmoud Kirdi -Energy International

took two days with a tower crane and mobile crane to offload all of the materials into their designated areas.

Bilan and Energy Product Manager Mahmoud Al Kirdi supervised the offloading at the request of the contractor.

"We were able to install the cooling towers in five working days," said Bilan. "The shifts were long and exhausting but the target deadlines were met."

The Energy team worked with the contractor to finalize testing and



The Energy Solution

Energy International provides energy and money saving chillers to King Abdullah University Hospital in Jordan

Energy International's Amman, Jordan office continues to have success with their Energy Solution Program growing their list of satisfied customers.

The Energy Solution Program offers clients a free energy study on the electrical consumption of their chillers.

A major component of large air-conditioning and climate control systems, chillers can account for as much as 60% of the total electrical consumption of most large facilities.

Through the Energy Solution Program, Energy International specialists can demonstrate how replacing current units with high-efficiency York Variable Speed Drive (VSD) chillers can reduce energy costs by as much as 60%.

The King Abdullah University Hospital (KAU) is the most recent benefactor of EIC's Energy Solution Program.

The 15-story complex covers an area of 95,583 square meters with a capacity of 638 beds that can be increased to 800 beds in times of emergency.

The hospital is the largest medical facility in the North of Jordan serving



Workers unload one of the new York YVAA Smart Chillers as they are prepared for installation at the King Abdullah University Hospital in Amman, Jordan

from the Ministry of Health and the Royal Medical Services.

"We reached out to the hospital management to propose our Energy Solution Program a few years ago," said Fadi Rashid, General Manager, Energy

"Each chiller has a capacity of 350 tons," said Rashid. "Energy International delivered them as a turn-key job including all the electrical, mechanical and civil works, installation, commissioning and testing."

Validation testing was conducted by the Royal Scientific Society (RSS), the gold standard of accredited testing in Jordan.

RSS provides expert testing and calibration services out of more than 25 specialized locally and internationally accredited laboratories.

The RSS testing concluded the York system assisted in achieving an average energy savings of 69 percent over the existing system.

The King Abdullah University Hospital joins a list of nearly a dozen satisfied customers who have greatly reduced operating costs by utilizing The Energy Solution Program and installing efficient, long-lasting York chillers. 

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approximately one million inhabitants from the Ibrid, Ajlun, Jerash and Mafrq Governorates.

KAU is affiliated with the Jordan University of Science & Technology (JUST), located on a campus adjacent to the hospital. The hospital is staffed with full-time physicians and surgeons who are also faculty members of the JUST Faculty of Medicine along with others

International – Jordan. "As it is the biggest hospital in the North of Jordan, we knew our solution could help them to greatly reduce their energy costs."

The hospital management was sold on the findings of the energy study and preceded with project.

The hospital's old chiller units were replaced with high-efficient York YVAA Smart Chillers with variable speed compressors.



People News

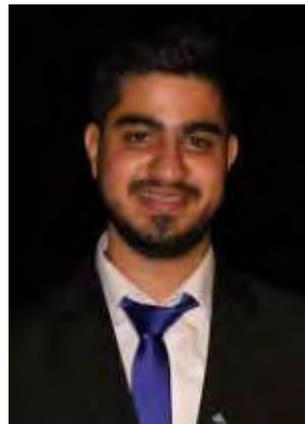
Jeddah KSA office grows, US office and Energy Parking & Transportation add employees

Our Energy international family is growing with a lot of new faces joining the company over the last 6 months. Please join us in welcoming everyone to Energy International.

Hassan Hallal is joins Energy International & Engineering in Beirut, Lebanon as a Sales Engineer. Hassan previously worked as a Production Engineer for Gandour, a major manufacturer of candies and snack foods. He also worked as a Design Engineer Intern for contractor Dar Al Handasah (Shair and Partners) in Beirut where he designed HVAC and firefighting systems for a hotel on Jumeriah Island in Dubai, UAE. Hassan holds a Bachelor's of Engineering in Mechanical Engineering from Lebanese American University and a Master of International Business degree from Grenoble Ecole De management-GGSB in Grenoble, France.

Hassan Awada is joining our Beirut, Lebanon office as an estimation engineer. Hassan recently worked for Engineering and Contracting Services in Beirut where he provided drawings and instructions for wiring and configuring components in electrical switchgear and overseeing the installation of the panel boards. Hassan earned a Master 2 in Power and Automation, Electrical Engineering (EENG) from the Lebanese International University, where he also taught tutorial sessions in electrical circuits. Hassan received a Certificate in Ecodial (Schneider) from the Order of Engineers and Architects in Beirut, Lebanon and is certified in AutoCAD.

Omar Kerdi also joins our Estimation team in the Beirut. Omar recently worked as a junior supervisor for the Chekka



Energy International welcomes new faces. (top row, left to right) Hassan Awada, Estimation Engineer-Beirut, Omar Kirdi, Estimation Engineer-Beirut Hassan Hallal, Sales Engineer-Beirut. (Bottom row, left to right) Sarah Birouti, Application Engineer-Jordan, Rana Radwan, Executive Secretary, Jordan, Ms. Fahda Abdulaziz Alsaluli, Accountant/Shipping Coordinator-Riyadh KSA.

Sugar Refinery in Lebanon where he gained experience in the design and maintenance of boiler systems. He also did a three-month internship with Energy International in the UAE assisting with the installation of Jacir-Gohl cooling towers at the construction of the new DEWA G+4 headquarters and trained in preparing estimations and submittals. Omar holds a Bachelor of Science in Mechanical Engineering and is currently working on his Masters degree.

Sarah Birouti joins our Jordan office where she will work as an Application

Engineer. Sarah is a recent graduate of The Hashemite University in Zarqa, Jordan where she earned a Bachelor Degree in Mechanical Engineering.

Rana Radwan is the new Executive Secretary for the Jordan office. Rana has a degree in Business Networking and System Management from the Philadelphia University in Amman, Jordan. Prior to coming to Energy International Rana worked at the Al Qusor Academy and Karrar Technical Services, a construction contracting company in Amman, Jordan.

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Ms. Fahda Abdulaziz ALSaluli joins the Riyadh, KSA office as an Accountant / Shipping Coordinator. Prior to coming to Energy, Fahda worked as an Account Manager in a broker insurance company in Riyadh.

Eng. Eslam Abu Omera to Energy International. Eslam has been working in the Jeddah, KSA office as a Sr. Mechanical Sales Engineer for the Western Region. Eslam holds a Bachelor of Mechanical Power Engineering from Helwan University in Cairo, Egypt. Eslam has 9 years' experience in the Saudi market. Prior to joining EIC Eslam was the Western Regional Sales Engineer for Sanum Al Jazeera Projects Co. Ltd.(Samnan), where he specialized in pumps. He also worked as Head Mechanical Consultant engineer at Qudorat consultancy where he was responsible for designing and supervising installation of all Mechanical systems in many mega projects in KSA as the Saudi Airlines compound in Dahban and Waad Academy in Jeddah.

Kevin Warnack is our new Logistics Department Supervisor, working out of the U.S Headquarters in Canton, MI., where he will handle all duties involving logistics and shipping of products from our suppliers to customers throughout the Middle East. Kevin comes to us with extensive experience in international shipping, working most recently as Export Supervisor/TSA Coordinator for Global Fairways Inc., in Romulus, MI. Energy International and Global Fairways have enjoyed a working relationship going back a number of years. Kevin holds a Bachelor of Science in Business Administration from Central Michigan University where he majored in Supply Chain Management.

Natalie Pont is the new Executive Assistant to Energy International President Allie Bazy. Prior to joining Energy Natalie



(Top row, left to right) Eslam Abu Omera, Sales Engineer, -Jeddah KSA, Kevin Warnack Logistics Supervisor, Natalie Pont, Executive Admin to Allie Bazy, Shipping Coordinator, EIC Operations-Beirut, Taher Husain, Energy UAE, James Ramos, Admin, Jeddah-KSA.

worked as a receptionist for Real Estate One in Ann Arbor, MI.

Gaby Soukkar joins EIC's Operation Department as a Shipping Coordinator working out of the Beirut, Lebanon office. Gaby holds a Bachelor degree in Computer Science from Notre Dame University (NDU) and brings 10 years of experience in shipping and logistics to Energy International. Operations Manager Majd Kanaan said, "Gaby has been working in similar positions for 10 years, and we are confident that he will be an excellent match for this position and a strong asset."

James Ramos has joined the Jeddah, KSA office where he will be handling all administrative duties. James holds a

Bachelor of Science in Commerce with a major in Business Management from De La Salle University (DLSU) in Lipa City, Philippines. James comes to us from Rabya Electro-Mechanical in Jeddah, where he served as a Senior Document Controller.

Taher Husain is joining Energy's Abu Dhabi, UAE office as a Product Development Manager providing data and analysis to aid in expanding marketing efforts for Jacir-Gohl cooling towers in the UAE. Taher holds a Bachelor of Engineering degree from Bangalore Visvesvaraya Technological University, Karnataka State, India and has several years of experience as an HVAC Sales Engineer most recently at Yusuf Ahmed Alghanim & Sons Co. in Kuwait. 🇰🇼



People



Energy International's U.S. office staff celebrated the holiday season at their annual Christmas Party. This year's party was opened up to spouses, significant others and children. Everyone enjoyed a great dinner and played Deal of No Deal and Family Feud along with a Secret Santa gift exchange. 🎁

(Clockwise from top left). Guests enjoy a nice dinner. Dr. Ned Fawaz flanked by sons Alex, Rami and Daniel. Employees brought their spouses and kids to this year's event. Energy President Allie Bazzi plays Deal or No Deal with the kids. The annual employee raffle featured store gift cards and tickets to Detroit sporting events. (Left to right) Natalie Pont and guest Reuben, Alina Canca and guest.

