في خدمة شركات المنطقة منذ ١٩٨٤

SERVING THE REGION'S BUSINESS SINCE 1984

TECHNICAL REVIEW

النشرة التقنية - الشرق الأوسط MIDDLE EAST

USA: $16.50, United Kingdom: £10

Vol 36/Issue Four 2020

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THE JOURNEY OF solar power in the oil-exporting GCC nations has been a fascinating one. We dig deeper to understand how the region can contribute more and more to a sustainable future by cutting down its dependence on fossil fuels with the help of solar (p14). It's interesting to learn how the UAE and Saudi Arabia are leading the solar desalination way (p20). Our genset review highlights the growing demand for uninterruptible power supply in construction and data centre sectors (p18). Moving to construction, we feature a report on why creating a fair and collaborative business model is crucial for the sector to prosper in the post-COVID-19 era (p22). Similarly, the manufacturing industry is finding new ways for the new normal (p28). Elsewhere in the issue, we report on growing automation and data storage.

*At **Technical Review** we always welcome readers comments to trme@alaincharles.com*

TECHNICAL REVIEW MIDDLE EAST
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US MAILING AGENT: Technical Review Middle East ISSN 0267 5307 is published eight times a year for US$99 per year by Alain Charles Publishing, University House, 11-13 Lower Grosvenor Place, London, SW1W 0EX, UK. Periodicals postage paid at Rahway, NJ.

POSTMASTER: Send corrections to Alain Charles Publishing Ltd, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001. US Agent: Pronto Mailers International, 200 Wood Avenue, Middlesex, NJ 08846.

Printed by: Buxton Press **Printed in:** September 2020

Arabic Translation: Ezzeddin M. Ali - Email: ezzeddin@movistar.es

Arabic Typesetting: Lunad Publicity, Dubai

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Serving the world of business

Briefly

Nidec ASI wins five contracts in Saudi Arabia worth US$50mn

NIDEC ASI, HEAD of the Nidec industrial solutions platform belonging to the Nidec group, has been awarded work orders for motors and drives needed to create five pipeline systems for transporting water in the Arabian Peninsula.

The five projects being supplied by Nidec ASI are part of Saudi Arabia's Saline Water Conversion Corporation (SWCC) programme and will transport salt water to the desalination plants and then convoy the treated water along a network of pipelines to a number of Saudi cities. The pipeline network will take water to the cities of Arafat, Jeddah, Jubail, Rabigh, Riyadh, Al Shuqaiq and Taif.

These projects are expected to ensure greater volumes of water for over 12 million people, helping to improve the quality of life for everyone living in this geographical area characterised by a hostile climate and supporting its economic growth.

Nidec ASI motors and drives will be installed along the extensive route connecting the coast to the treatment plants and from there to the various cities, making it possible to take fresh water to inhabitants, hospitals and all public and private facilities in the various regions.

Nidec ASI's sustainable solutions contribute to energy savings for the entire system, minimising the use of electricity and reducing the environmental impact. It is supplying 124 motors and 85 drives produced in its Italian plants in Monfalcone and Cinisello Balsamo.

"Our motors and drives will help bring the precious commodity of water to over 12 million people who are currently struggling to have access to this life-giving resource. The pipeline systems will also have important benefits for the economic development of the areas concerned," said Dominique Llonch, CEO of Nidec ASI and chairman of Nidec industrial solutions. "Operating in a country of huge economic ferment like Saudi Arabia, serving such an important client as SWCC, once again confirms the success of our approach based on offering solutions which are innovative, made-to-measure and above all designed to save energy and raw materials."

Hitachi ABB Power Grids unveils disaster recovery solution

HITACHI ABB POWER Grids has pioneered a modular mobile substation solution which vastly reduces the time to restore power in the case of major disruptive events such as natural disasters.

This world-first 400 kV multi-voltage modular mobile substation system can be deployed and installed to restore power from an average duration of 18 months – required for the new build of a conventional substation – to seven days. Each mobile substation, equipped with high-voltage hybrid switchgear and protection and control solutions, is compact in design and ready for fast energisation.

This 'plug and play' solution is in line with Hitachi ABB Power Grids' vision of ensuring access to affordable, reliable and sustainable energy.

According to Niklas Persson, managing director of the grid integration business unit at Hitachi ABB Power Grids, "Disruptions to energy provision can result in severe consequences, which is why we are continuously innovating technologies, such as this modular mobile substation disaster recovery solution, to enable customers to provide stable and competitive sources of power and further reduce carbon emissions."

The mobile substation concept has been designed to ensure long-term grid stability and power quality to regions particularly prone to unpredictable events and natural disasters, such as storms, flooding and earthquakes. Hitachi ABB Power Grids designs and builds the modular solution, providing ongoing preventive maintenance to ensure the equipment is ready 24/7 to replace an existing substation in a rapid timeframe.

Photo Credit : Hitachi ABB Power Grids

This world-first 400 kV multi-voltage modular mobile substation system can be rapidly deployed and installed to restore power from an average duration of 18 months.

According to Hitachi ABB Power Grids, the factory-tested mobile substation unit can be installed and deployed within hours, proving the needed solution for utilities and industries that need to quickly provide interim grid connections and temporary power supplies.

These modules require no civil works, have reduced site activities, pose lower risks and come in the form of ready-to-connect, complete assemblies that are designed for grid code compliance and easy mobility. "They are an environmentally-friendly solution owing to limited space requirements and easy transportation from warehouse to site on trailers that are part of the modular mobile substation system," stated the company.

Dubai RTA and Serco build metro spare parts using 3D printing technology

DUBAI'S ROADS AND Transport Authority (RTA) has announced significant progress in the manufacturing of metro spare parts using 3D printing technology.

Mohammed Al Amiri, director of maintenance, rail agency, RTA, said, "The technology succeeded in providing some metro spare parts in a record time that saved 90% of the time of sourcing those parts through conventional means. It also saved 50% of the original cost," said Amiri.

"3D printing is progressing at an increasing rate all over the world. RTA intends to play a leading role in the development and optimal use of these technologies as part of its efforts to use the best global practices of the public transport industry and the required infrastructure," he said.

Photo Credit : RTA

3D printing is progressing at an increasing rate all over the world.

RTA and Serco are cooperating with a specialist firm under an MoU designating that firm as a technology partner in this field. The firm is supporting to manufacture required parts using 3D printing.

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Briefly

Bentley Systems' OpenGround Cloud assures geotechnical data integrity

BENTLEY SYSTEMS, INCORPORATED has announced the availability of OpenGround Cloud to enable geotechnical professionals to access reliable geotechnical data for better engineering decision support and to improve collaboration across the entire supply chain.

OpenGround Cloud aims to provide a complete solution for planning, data entry, borehole log production, lab data management, reporting. The cloud service improves collaboration across multidisciplinary project teams and increases the value of geotechnical data by making it easily accessible to major project stakeholders.

Geotechnical project team dynamics and the applications and services they require to manage natural resources are changing rapidly. Relevant geotechnical data is typically dispersed across various applications and devices, and can be cumbersome to gather and consolidate, complicating the effective and timely use of this data. With OpenGround Cloud, geotechnical engineers can readily access reliable, high-quality current and historical geotechnical data for the modelling, simulation, and analysis of infrastructure projects' ground conditions.

Scott Devoe, senior director, geotechnical information management, Bentley Systems, said, "OpenGround Cloud provides a single enterprise repository of multiple data sources for all ground investigation projects — a long-sought improvement for geotechnical and geological professionals. It eliminates the need to retain copies or to exchange data and ensures that everyone in the supply chain has the correct access rights to the most current version."

"As a result, OpenGround Cloud helps minimise project delays due to encountering unforeseen ground risks during construction," Devoe added.

Richard O'Brien, principal process engineer with Atkins, added, "OpenGround Cloud gives us the ability to determine and cross-reference the organisation's geotechnical parameters and correlations with those available from literature sources."

Ocean Readymix takes first Middle East delivery of Renault K trucks

THE UAE-BASED concrete supplier, Ocean Readymix & Precast has become the first company in the Gulf to take delivery of Renault Trucks' new 8x4 Chassis model with a transit mixer capacity of 14 cu/m.

The vehicles are being provided by Renault Trucks' UAE-based importer Al Masaood, one of the largest integrated industrial, commercial and service organisations in the Middle East.

In total, Ocean Readymix & Precast has received five units of Renault Trucks' K440 P8x4 model, which will be used by the company to service its projects and customers in its home city of Al Ain. With a gross vehicle weight of 50 tonnes, the 8x4 Chassis version is the ideal model to meet the company's specific operational requirements. At the same time, the availability of a preventive maintenance service contract and reliable after-sales support provided added appeal.

The K range models are equipped with an Optidriver manual gearbox with automated gearshifting, as well as Renault Trucks' unique Optibrake exhaust braking system which, with a power rating of 300kW, promotes driver safety. Additional selling points include hill-start aid, wheel anti-slip regulation (ASR), anti-lock braking system (ABS), emergency braking assist (AFU) and an electronic parking brake (EPB).

Eyad Ibrahim Dukhan, managing director of Ocean Readymix & Precast, commented, "Working with Renault Trucks for the very first time to bring this unique deal to light has been an extremely positive experience. Not only have we been able to collaborate closely to introduce the largest concrete mixer yet to the region, but the finance scheme offered by the brand ensures maximum flexibility for us as a business."

Photo Credit : Renault Trucks

Ocean Readymix and Precast has received five units of Renault Trucks' K440 P8x4 model.

Mohamed El Zeftawi, general manager of Al Masaood Commercial Vehicles & Equipment, added, "This collaboration is another testament to the industry's trust in our capability to deliver high-performing products and complete solutions according to the globally recognised standards."

Commercial director of Renault Trucks Middle East Guillaume Zimmermann, commented, "Complemented by the peace of mind and first-class customer service offered by our local partner, Al Masaood Commercial Vehicles & Equipment, the K model is the perfect working tool for customers around the UAE and wider Gulf region."

Egyptian government purchases 22 Bobcat loaders

EGYPT'S AUTHORISED BOBCAT dealer Otrac Heavy Equipment has delivered 22 Bobcat S550 skid-steer loaders that have been purchased by the Egyptian government for one of the governorates in the north of Egypt.

A governorate spokesperson commented, "We purchased the Bobcat brand based on the excellent experience we have had running Bobcat skid-steer loaders, particularly their durability and reliability, backed by the superb aftermarket service provided by Otrac."

Hatem Ouda, chairman of Otrac Heavy Equipment, said, "The Egyptian government and Otrac have a successful and long-standing relationship, involving the purchase of many machines, including an order for 21 new Bobcat skid-steer loaders supplied by Otrac three years ago." The latest batch of Bobcat skid-steer loaders is being used in a new cleaning and maintenance programme instituted and supported by the Egyptian government. The 22 Bobcat S550 skid-steer loaders have each been supplied with a Bobcat bucket and will be used for ditching and street cleaning work in the major cities in the governorate.

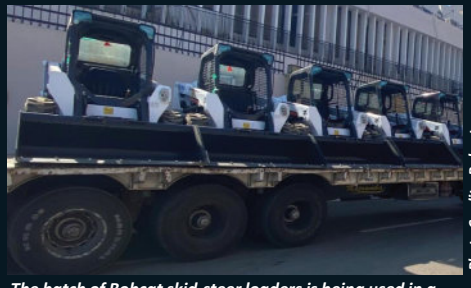

Photo Credit : Bobcat

The batch of Bobcat skid-steer loaders is being used in a cleaning and maintenance programme supported by the Egyptian government.

Among the advantages offered by the Bobcat skid-steer loaders that were pinpointed by this governorate are their compactness and their ability to easily operate in the narrow streets of the towns and cities in the district.

TVH expands into small earth-moving equipment

TVH, A LEADING provider of replacement parts and accessories for material handling, industrial and agricultural equipment, has announced its expansion into the small earth-moving (SEM) equipment market. This move allows TVH to broaden an already large product offering to this new adjacent market, commonly referred to as light construction.

TVH's new spare parts range for light construction equipment focuses on three types of machines: mini-excavators, skid steer loaders and compact track loaders. Within those three sub-markets, major focus is on parts for the makes Bobcat, Case, Caterpillar, JCB, Takeuchi, John Deere, Kubota, Volvo and Yanmar, while offering extensive lookup services for other brands.

Photo Credit: TVH

TVH taps into a new market by selling parts for SEM machines.

"For now, we are intentionally focusing on three distinct sub-markets and nine makes for parts for small earth-moving equipment, but all customer requests are welcome. What's more, based on the needs of the customer, we will continue to expand our SEM range in the future," said Kristof Bolle, senior VP sales EMEA and APAC, TVH.

More than eighteen months of preparation preceded the launch of TVH's light construction machine parts offering. "We only wanted to launch when we were confident that we could offer customers a relevant product range at competitive prices. We first introduced the result at ConExpo in Las Vegas (March 2020), the world's largest trade fair for the construction equipment sector," stated Dirk von Holt, president of TVH Americas.

From September, the company has been actively pushing their products within Europe and the Asia Pacific region.

Siemens bags contract for turnkey 400kV Iraqi substation

SIEMENS ENERGY AND the Iraqi Ministry of Electricity have signed a contract for the Al Hamudhia substation to provide power supply to the cities of Ramadi, Fallujah, Saqlawyah, Khalediyah and surrounding areas in Al Anbar governorate, North West of Baghdad.

Located about 20km away from Ramadi city, the turnkey 400- kilovolt (kV) Al Hamudhia substation will support greater grid connectivity and allows for a higher utilisation of the Al Anbar power plant's generated power, supporting anticipated energy demand growth of 10% annually.

The new substation will connect up to 750 Megavolt Amperes (MVA) to the national grid, helping decrease bottlenecks and transmission losses. Construction of Al Hamudhia station is expected for completion in July 2022.

Part of the JICA's projects in Iraq, the 400-kV Al Hamudhia's scope of work includes the design, construction, equipment supply, erection, testing and commissioning as well as training of personnel. The project will be completed by Siemens Energy's engineers in collaboration with specialised local Iraqi subcontractors.

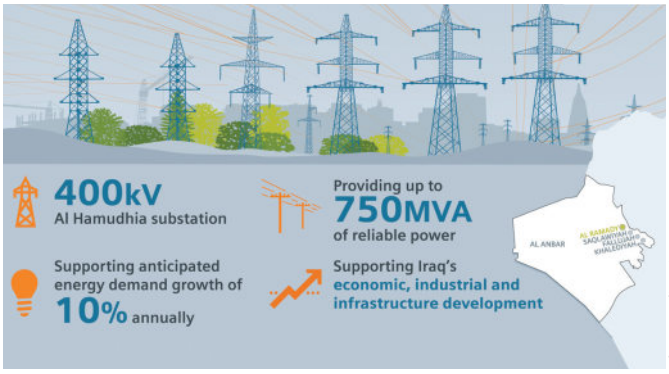

Photo Credit : Siemens

Siemens is also supplying 35 power transformers to support the Iraqi power grid.

Ammar Mohammed Kadhim, general director of the Planning and Studies department, Iraqi Ministry of Electricity and the head of the Japanese loan team "IQP22" projects at the Ministry, which are being financed by the Japan International Cooperation Agency (JICA), said, "A top priority for the new government of Iraq is rebuilding the country's power infrastructure. Upgrading and strengthening the Iraqi power grid is crucial to this ambitious plan, which will ultimately support Iraq's economic, industrial and infrastructure development."

He added, "We're already working on comprehensive grid projects across the country in collaboration with international partners like Siemens, to deploy the most reliable and advanced technologies."

Briefly

ICDBP selects Facilio to deliver operational intelligence

FACILIO, A LEADING AI-driven property operations platform, has announced that it has been chosen by ICD Brookfield Place (ICDBP) to optimise building performance and deliver real-time operational intelligence.

ICDBP, a joint venture between Investment Corporation of Dubai (ICD) and Brookfield Properties, is one of Dubai's premier lifestyle and business destinations. With more than four acres of curated dining, retail, and community space, alongside 990,000 sq feet of Grade A office space in the heart of Dubai's Commercial Business District, ICDBP has selected Facilio to address the changing wellbeing, environmental and productivity needs of workforce.

Facilio's cloud platform will allow ICDBP to gain real-time insights into building performance, leverage embedded AI capabilities to meet sustainability goals and automate operations and equipment maintenance. Additionally, the cloud platform enables ICDBP to control spaces, equipment, and multiple building systems remotely.

Sohar Port sees goods volume increase in Q2

THE IMPLEMENTATION OF its business continuity plan has seen Sohar Port and Freezone maintain its operations and deliver services to its tenants and vessels that travel via its complex, despite the COVID-19 pandemic. Q2 saw an increase of 112% in STS throughput, compared to the values of Q2 in 2019, resulting in a growth of STS operations by 16% and anchorage calls by 4%.

"The quarter saw several key highlights, including the introduction of two new services that facilitate ease of setting up business at the Port or Freezone and attractive land lease opportunities at Sohar Port South and Terminal 2D. The General Trade License (GTL) extends several discounts to established and potential investors. A second license, Tasheel, is available for our customers to allow them to meet all documentation requirements conveniently," said Mark Geilenkirchen, CEO of Sohar Port.

Briefly

Port of Duqm signs telecom infra deal with Oman Towers Company

OMAN TOWERS COMPANY (OTC) and the Port of Duqm Company (PODC) have signed an agreement to rollout telecom tower infrastructure for mobile operators within the Port concession land.

OTC is an infrastructure solutions provider for Greenfield towers, rooftops, in-building solutions and other innovative ideas for the 4th industry revolution. Moving ahead with the coming technologies like 5G, IOT and others, OTC is working with suppliers of street furniture to accommodate future antennas.

The agreement will allow OTC to accommodate all service operators with different technologies on its towers in an open access means, which will save CAPEX investment, time and enhance the efficiency.

In another development, Arjan Engineering signed an agreement with Port of Duqm Company for a an expansion project, which will take the total built-up area of the facility to 10,000 sq m. The expansion project would witness the establishment of cold storage warehouses in Duqm Free Zone. It will add to the ease and convenience of companies seeking warehousing and storage facilities to handle the overflow of inventory while converting warehousing costs into variable costs.

HFZA signs strategic partnership with Lamprell

THE SHARJAH-BASED HAMRIYAH Free Zone Authority (HFZA) has signed a strategic partnership agreement with Lamprell, the leading provider of fabrication, engineering and contracting services to the offshore and onshore oil and gas and renewable energy industries.

Under the agreement, Lamprell will lease an additional 1.360 million sq. ft. of land inside the free zone to continue to improve its efficiencies and support the delivery of its strategic objectives.

Saud Salim Al Mazrouei, director of HFZA, and Alex Ridout, Lamprell's company secretary and general counsel, signed the agreement during a ceremony held at the premises of HFZA.

"Our expansion inside HFZA will allow us to improve our production efficiency significantly," said Ridout.

Dubai Chamber whitepaper explores growth opportunities for UAE space economy

DUBAI CHAMBER OF Commerce and Industry's new whitepaper reveals that space industry could become one of the UAE's most promising sectors and a vital pillar of economic growth over the next few years.

The report, *Space Economy Investment Opportunities for the UAE,* has identified 10 areas of the space economy that offer the most investment potential for the UAE, namely space mining, space stations, space settlements, space law, sustainability in space and recycling, space tourism, space companies, and space academies that include preparing astronauts for commercial flights, space industries, and developing and manufacturing spacecraft components.

The UAE's mission to the International Space Station in 2019 and the launch of the Hope Probe to Mars earlier this year were major steps positioning the country as a global player in space exploration and research, it added.

These important developments are paving the way for new investment opportunities and public-private sector partnerships that could take the UAE's space economy to new heights, enhance the country's economic competitiveness and cement its status as a global innovation leader.

The global space race is no longer dominated by countries and governments, as billionaires and businesses are now among the major investors in this area, the report explained, highlighting Elon Musk's SpaceX, Jeff Bezos's Blue Origin and Richard Branson's Virgin Galactic as prime examples. As the industry continues to shift towards privatisation, this trend is expected to create new business opportunities for technology startups to make their mark on the industry.

Photo Credit: Dubai Chamber

The study identified specific areas where the private sector could play a major role in advancing the global space economy.

The study identified specific areas where the private sector could play a major role in advancing the global space economy, including satellite servicing, interplanetary small satellites, robotic mining, microgravity research for biomedical applications, liquid rocket engines for launch vehicles, wireless power, space communications, and earth observation data visualisation. In this regard, public-private sector partnerships could prove to be a vital factor driving future development and progress, the report noted.

Kuwait aims to complete 135 projects under 2019-2020 development plan

THE TOTAL NUMBER of projects included in Kuwait's annual 2019-2020 development plan amounted to 135, as opposed to 132 ventures in the 2018-2019 fiscal year, said Dr Khaled Mahdi, secretary general of the Supreme Council for Planning and Development (SCPD).

The percentage of projects in the implementation phase for this year reached 50 per cent, reported Kuwait Times, citing the senior official, who spoke at press conference the General Secretariat of SCPD held to announce results of the annual plan follow-up report of 2019-2020 that ended on 31 March.

Of these US$10.4bn projects, around 40% are in line with the schedule, while 2% of the projects are ahead of schedule and 58% lag behind, according to Dr Khaled Mahdi.

On the completion rate of ventures, Mahdi noted 67 of these projects are 50 % done, while 51 of them are 38% over, 10 of them 7% complete, four at 3% and three projects at about 2%.

Photo Credit: MichaelGaida/Pixabay

Total 660 challenges facing execution of projects: SCPD

He added that the Clean Fuels project was nearly 98.8% completed, while the Al-Zour Refinery project work stood at 95.4%, the Shagaya Renewable Energy Park project at 95.2% and the Al-Mutlaa City project with 58%.

On the other projects, the top Kuwaiti official said the work on Mubarak Al Kabeer Port project had reached 52.7% completion, Kuwait International Airport Terminal 2 project 35.1%, Sabah Al Salem University City 54.8% and Al Sabah Hospital project work nearly 73% done.

Al-Futtaim HINO delivers 200 trucks to NFPC

AL-FUTTAIM HINO, AN Al-Futtaim Automotive company that exclusively franchises light, medium and heavy-duty HINO trucks in the UAE, has announced the delivery of a major order of 200 HINO trucks to the National Food Product Company (NFPC).

With the latest handover, NFPC's fleet of HINO trucks grows to 450 HINO trucks, following a similar deal of 250 trucks in 2019.

NFPC is one of the premier food and beverage companies in the Middle East with brands such as Oasis Water, Blu, Lacnor, Safa, Gulf & Safa, Melco, Milco, Royal Bakers, Aqua fresh amongst others.

Photo Credit: Al-Futtaim HINO

Deal grows NFPC fleet to 450 HINO trucks.

The company will use the HINO 916XLWB_6TON trucks to boost its delivery operations which include water shutters, chillers and freezers.

"With this deal, we are further cementing our strong relationship with NFPC whose fleet primarily consists of HINO trucks," said Ramez Hamdan, general manager, Al-Futtaim HINO. "The COVID-19 pandemic has resulted in a huge boost to e-commerce and this has had a corresponding increase in our light-duty truck sales which now makes up 65% of our sales primarily to FMCG and logistics operators."

The 200 HINO trucks will be custom-fitted by Al Furat to meet the specific requirements of NFPC and which adhere to UAE safety standards.

The HINO line-up in the UAE consists of light-duty 300 series, medium-duty 500 series and heavy-duty 700 series.

Al-Futtaim HINO, which has increased its market share by around 300% in the past five years, has been the preferred mobility partner for many Fast-Moving Consumer Goods (FMCG) companies, thanks to HINO's Japanese quality and reliability, and Al-Futtaim's dedicated aftersales support.

Abu Dhabi Ports new initiative to cut emissions

ABU DHABI PORTS has launched the Smart Container Initiative that will house its digital solutions in a safe and optimised eco-friendly mobile environment as part of its ongoing digital transformation drive.

Powered by clean energy, the solar-panelled steel and aluminium smart container uses environmentally-friendly technologies, such as in-row cooling, renewable energy and efficient space allocation that will reduce power usage effectiveness (PUE) by more than 20% and will slash carbon emissions by half. The prefabricated containerised data centre runs a wide range of mission-critical applications, including port and terminal operation systems, visitor passes, and other digital customer services.

Doosan wins Saudi Arabia contract to supply 10 large 50-tonne excavators

DOOSAN INFRACORE HAS signed a contract to supply 10 50-tonne excavators (DX520LCA) to a Saudi Arabian construction company.

Photo Credit: Doosan

The DX520LCA, Doosan Infracore's 50-ton class large excavator, is gaining traction in the Middle East market.

The construction company is also using various types of construction equipment supplied by Doosan Infracore in its large-scale construction project in Riyadh, Saudi Arabia. Having already purchased 10 articulated dump trucks (ADTs) from Doosan Infracore in early 2020, the Saudi contractor will be using more than 50 machines of Doosan Infracore construction equipment, including 70-tonne excavators, wheel loaders, ADTs, and the newly purchased 50-tonne excavators.

Although the construction equipment market in the Middle East has stagnated due to low oil prices and the COVID-19 pandemic, Doosan Infracore has maintained a market share of more than 10% in the region by launching competitive new products and implementing an integrated customer service called DoosanCARE while striving to continue winning large accounts.

"We are reinforcing our product line-up, including large excavators, in order to flexibly respond to the rapidly changing market environment and fierce competition in the region," said an executive from Doosan Infracore. "We plan to focus on expanding our sales in Saudi Arabia and the United Arab Emirates, in particular, as large excavators account for a relatively high proportion of their construction equipment markets."

Briefly

TAQA issues one of Morocco's largest private bond placements

TAQA, THE ABU Dhabi National Energy Company, has announced one of Morocco's largest private bond placements in 2020. According to the company, the transaction was delivered through its subsidary TAQA Morocco's finalisation of a bond issuance by a private placement for US$293.8mn.

The bond placement was substantially oversubscribed by qualified investors, providing the company an opportunity to further optimise its capital structure and create value for its shareholders. The transaction resulted in a reduction in debt cost of over 20% and an extension to its debt maturity date by 11 years, to March 2038.

The bond issuance follows the option to extend the power purchase agreement (PPA) between TAQA Morocco and the electricity off-taker, ONEE, for an additional 17 years in respect to Units 1-4 of its Jorf Lasfar Power Plant, thereby enhancing value by extending the company's debt repayment profile. TAQA Morocco's 2,056 MW Jorf Lasfar Power Plant generates electricity to meet more than 40% of Morocco's demand, serving approximately 18 million people annually.

Italy to strengthen innovation cooperation with the UAE

THE EMBASSY OF Italy in the UAE is launching a new initiative to explore opportunities for cooperation in innovation between Italy and the UAE. Titled *InnovItalyUAE*, the initiative will cover sectors such as cybersecurity, space research, smart cities, life sciences, food technologies, renewable energy and circular economy.

The initiative is in cooperation with Khalifa University of Science and Technology and the Dubai Future Foundation. It will feature two phases of the event.

In the first phase, six online forums (one per sector) are scheduled to take place between September and December 2020 with speakers from the academic and business sectors of both countries. The second phase hosts six in-presence workshops, to take place in principle in the first half of 2021.

ON THE WEB

A round-up of the leading developments and innovations recently featured on *Technical Review Middle East*'s online portal. To read more or to stay up to date with the latest industry news, visit *www.technicalreview.me*

ASRY signs deal with AMS Docking Repairs

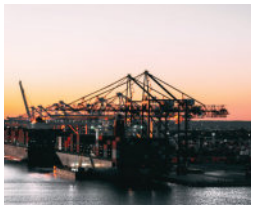

Photo Credit : Matthis Volquardsen/Pexels

The deal aims to represent Arabian Gulf's most experienced shipyard.

ARAB SHIPBUILDING & REPAIR Yard (ASRY), the Arabian Gulf's repair and maintenance fabrication facility, has signed a representation agreement with AMS to exclusively market ASRY's products, services and facilities to the Singapore and Hong Kong market. The move comes in line with ASRY's new management's strategic re-alignment of its international agent's network after following the takeover of the National Oil and Gas Authority in the Kingdom of Bahrain.

www.technicalreviewmiddleeast.com/logistics

DNV GL's Energy Transition Outlook 2020

DECARBONISATION IS RISING rapidly up the agenda of industry and governments, but not at the pace or depth required to meet the Paris Agreement, according to DNV GL's forecast. Deep decarbonisation of the world's energy system is still 15 years away, stated DNV GL. Carbon dioxide emissions from energy use will fall just 15% to 2035, before then dropping 40% to 2050.

The oil and gas industry will account for more than 80% of world energy-related carbon emissions in 2050.

www.technicalreviewmiddleeast.com/power-a-water/power-generation

Abu Dhabi energy sector enters digital transformation era

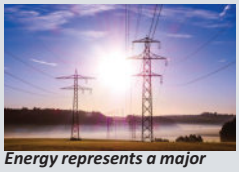

Photo Credit : Michael Schwarzenberger/Pixabay

Energy represents a major pillar of Abu Dhabi's smart transformation plans.

THE ABU DHABI energy sector plays a pivotal role in driving the government's smart transformation with an integrated plan to digitise all services it provides to customers, making them accessible from authorised digital platforms across the emirate. The energy sector boasts a solid digital infrastructure that enabled it to transfer most services to digital platforms.

www.technicalreviewmiddleeast.com/power-a-water/power-generation

Tech Mahindra announces partnership with Smart Energy Water

TECH MAHINDRA AND Smart Energy Water (SEW) have announced a global partnership to accelerate digital transformation for the energy and water utility industry.

Tech Mahindra will assist SEW in their product development journey to build industry solutions, further to manage speed, scale, and availability for successful integration of cloud services, systems integration, managed services and consulting services projects.

As part of the collaboration, SEW's digital customer experience (CX), workforce experience (WX), artificial intelligence (AI) and machine learning (ML) will enable clients to develop a cost-effective digital transformation strategy.

www.technicalreviewmiddleeast.com/power-a-water/water-a-environment

Partnership established for PV project development

Photo Credit : Andreas Glücklhorn/Unsplash

Sharp and innoVent plan to develop, implement and sell a volume of several hundred MWp.

PHOTOVOLTAIC MANUFACTURERS SHARP Energy Solutions Europe has entered into a strategic partnership with wind project developer innoVent Planungs GmbH & Co. KG for photovoltaic projects-business. They aim to develop partnership-based free-field photovoltaic project rights up to construction readiness.

www.technicalreviewmiddleeast.com/power-a-water/renewables

UAE construction sector set to grow by 3.8% in 2021: Linesight Middle East

THE UAE CONSTRUCTION industry is expected to grow by 3.8% in 2021, with Saudi Arabia's construction industry to be buoyed by significant funds invested in the tourism industry as part of the Saudi Vision 2030, according to Linesight's market research.

Ciaran McCormack, regional director for Linesight Middle East, said, "According to GlobalData, the UAE construction sector recorded growth of 3.3% in 2019. Pre-COVID, this figure was expected to increase to 4.3% in 2020, predominantly driven by a range of government initiatives. With the onset of the virus and the subsequent drop in oil prices, output is expected to contract to 1.9% this year, before recovering to 3.8% in 2021. With the onset of the virus and the subsequent drop in oil prices, output is expected to contract to 1.9% this year, before recovering to 3.8% in 2021."

www.technicalreviewmiddleeast.com/construction/buildings

UAE nuclear plant Unit 1 reaches 50% power capacity

NAWAH ENERGY COMPANY (Nawah), the joint venture nuclear operations and maintenance subsidiary of the Emirates Nuclear Energy Corporation (ENEC) and Korea Electric Power Corporation (KEPCO), has announced that the reactor of Unit 1 of the Barakah Nuclear Energy Plant has achieved 50% of its electricity production capacity.

The achievement was announced on the sidelines of the 64th Annual Regular Session of the IAEA General Conference in Vienna, where the UAE hosted a side event entitled 'UAE Peaceful Nuclear Energy Programme: The Journey'.

"Reaching 50% power at Unit 1 of Barakah is an important step in the process of power ascension testing (PAT), and comes at a historic time for the UAE Peaceful Nuclear Energy Programme, one month after the safe and successful completion of the synchronization of Unit 1 to the UAE transmission grid and the dispatch of the first megawatts of clean electricity from the Barakah Plant to the nation," according to the company.

Mohamed Ibrahim Al Hammadi, CEO of ENEC, said, "The UAE is now producing clean, baseload electricity through Unit 1 of the Barakah Plant, and the Unit has now achieved 50% power as part of the power ascension testing our teams at Nawah are currently undertaking. Safety and quality-led progress is continuing to be made across all four units of the Plant."

"The UAE Peaceful Nuclear Energy Programme is an engine of growth for our nation, delivering abundant clean electricity to support the UAE's economic diversification efforts, while in parallel contributing to the country's climate change commitments," he added.

Photo Credit: Nawah

The Barakah Nuclear Energy Plant is the cornerstone of the UAE Peaceful Nuclear Energy Programme.

Ali Al Hammadi, CEO of Nawah, said, "The PAT process is safely and successfully on track and moving ahead in line with national regulatory requirements and the highest international standards, despite the challenging environment we are all facing globally."

The PAT is conducted under the oversight of the UAE's independent nuclear regulator, the Federal Authority for Nuclear Regulations (FANR), which has now conducted more than 280 inspections since the start of Barakah's development.

MEA ranks fourth in global solar technology tender activity

A NUMBER OF 131 solar technology tenders were announced in August 2020, according to GlobalData's power industry tenders database.

With nine tenders and a 6.9% share, the Middle East and Africa region was at the fourth place in global solar technology tender activity in August 2020. South and Central America with three tenders and a 2.3% share stood at the fifth place.

Looking at global power tenders activity divided by the type of technology, solar held the second position in terms of number of tenders during August 2020 with a 37.5% share.

Comparing tenders activity in solar technology in different regions of the globe, Asia-Pacific held the top position with 80 tenders and a share of 61.1% during August 2020, followed by Europe with 23 tenders and a 17.6% share and North America with 16 tenders and a 12.2% share. Under project implementation phase, there are 107 tenders with a 81.7% share.

Photo Credit: adreas160578/Pixabay

Asia-Pacific leads solar tenders activity in August 2020.

Briefly

Trina Solar's Vertex 600W/550W Series pass TÜV Rheinland's test

TRINA SOLAR HAS announced that the company's Vertex 600W/550W series ultra-high power modules had passed the comprehensive reliability test by TÜV Rheinland. This is another development after Trina Solar was granted both the IEC 61215 PV module performance standard and the IEC 61730 PV module safety standard certificates in March 2020.

Zhang Yingbin, senior director of Solar Product VCG at Trina Solar, said, "The Vertex series modules have created a new product technology platform. With enhancements in technology, the conversion efficiency is on track to push past 24%. Combining the optimisation in module design as well as improvements in load capacity and downstream installation, the power delivered by the Vertex series modules will continue to increase. These enhancements create huge potential for the iterative development of PV modules, further driving the continuous decrease in the cost of PV systems and LCOE of PV power generation while accelerating application of PV as an energy source worldwide."

Abu Dhabi Ports acquires MICCO

ABU DHABI PORTS has announced the acquisition of MICCO Logistics, making the company a provider of fully integrated supply chain logistics solutions.

With the integration of MICCO as part of Abu Dhabi Ports Logistics, the group's logistical arm leverages MICCO's experience and capabilities as the emirate's first provider of end-to-end logistics solutions.

The added capacity enables the organisation to manage all customer touch points including: sourcing; PO management; international freight handling through project, commercial, and contract logistics; customs clearance; stevedoring; local, regional, and international transportation; airline road feeder services; and, storage, order fulfilment and handling solutions via its strategically located network of distribution centres.

EXECUTIVES' CALENDAR 2020

OCTOBER			
20-21	The Mining Show	VIRTUAL	www.terrapinn.com/exhibition/mining-show/index.stm
26-28	WETEX	VIRTUAL	www.wetex.ae
27-28	Intelligent Cities Exhibition & Conference	CAIRO	www.platforms-root-technologies.com/icec-2020
NOVEMBER			
3-6	Key Energy	RIMINI	www.en.keyenergy.it
9-10	CABSAT	VIRTUAL	www.cabsat.com
11-13	Build4Asia	HONG KONG	www.build4asia.com/about/
17-18	Smart City Live	VIRTUAL	www.live.smartcityexpo.com/
23-26	The Big 5 Digital Festival	VIRTUAL	www.thebig5digitalfestivalglobal.com
DECEMBER			
1-2	Africa PPP	VIRTUAL	www.africappp.com
10	Renewable North Africa	VIRTUAL	www.moroccorenewable.org
10-13	Mining Turkey	ISTANBUL	www.madenturkiyefuari.com/en/
14-15	Gulf Traffic	VIRTUAL	www.gulftraffic.com/en/home.html

Readers should verify dates and location with sponsoring organisations, as this information is sometimes subject to change.

Middle East Energy rescheduled to June next year due to COVID-19

IN LIGHT OF the ongoing global situation relating to the COVID-19 pandemic, Middle East Energy (MEE) and the supporting Global Energy & Utilities Forum has been rescheduled to 14 - 16 June 2021. The event will take place at the Dubai World Trade Centre, United Arab Emirates (UAE), according to the event organiser Informa Markets.

The decision to host the Middle East Energy forum in June next year, was made in consultation with partners and leading stakeholders, after conducting several industry-based research surveys, which forecasted how businesses and economies will fare after Q2 in 2021.

"As has been the case over the last 46 years we continue to work with the industry to deliver the best and safest possible event experience for our participants. We will keep you informed of any new developments and initiatives to support bringing the community together through face to face events with complementary digital opportunities," said the event organiser in a statement.

Informa will be hosting the following events in Dubai this year; Middle East Event Show from October 14-15, Cityscape from November 15-17, HR Summit from November 16-18, and Gulf Traffic from December 15-17. All events will run in accordance with Informa's all secure safety standards.

The MEE forum will return to its traditional timeline of March/April from 2022, it added.

DEWA to host virtual WETEX and Dubai Solar Show

DUBAI ELECTRICITY AND Water Authority (DEWA) will organise the 22nd Water, Energy, Technology and Environment Exhibition (WETEX) and the 5th Dubai Solar Show virtually from 26-28 October 2020. The two exhibitions will provide a new experience for exhibitors to display their products innovatively, through 3D customisable stands to suit each company's needs. They also will enable meetings, seminars, and workshops using the latest smart technologies.

"Due to the precautionary measures implemented in most countries because of COVID-19, WETEX and the Dubai Solar Show 2020 will happen virtually; using DEWA's state-of-the-art digital infrastructure. This will provide an exceptional experience for exhibitors to reach a larger number of visitors across the world," said Saeed Mohammed Al Tayer, MD and CEO of DEWA, and founder and chairman of WETEX and Dubai Solar Show.

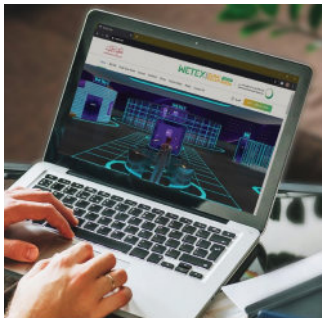

Photo Credit: DEWA

The event enables meetings, seminars, and workshops using the latest smart technologies.

For more information, please visit www.wetex.ae.

UAE has 64mn sq m green building built-up area: report

THE UAE HAS 63.96mn sq m of built up area adapted to local green building regulations or certification programmes, according to the 2020 UAE Green Building Market Brief by EmiratesGBC, an independent forum aimed at conserving the environment by strengthening and promoting green building practices. The in-depth publication also reveals the number of buildings under various green building ratings across the UAE region.

There are 35.3mn sq m of total built up area of certified projects under Estidama Pearl Rating System in Abu Dhabi and 26.9mn sq m of total built up area of completed projects following Dubai Green Building Regulations and Specifications in Dubai, the report said. Additionally, there are 239,200 sq m of total built up area of projects which received permits under Barjeel in Ras Al Khaimah.

EmiratesGBC has witnessed that the health and wellbeing of building occupants has become a focal point within the green building realm, and the COVID-19 pandemic has brought even more attention to how indoor environmental quality is a major factor influencing wellness.

In all, the UAE has 386 leadership in energy and environmental design (LEED) certified projects as of April 2020 with a total built up area of 5.9 million sq m. Additionally, 4,000 sq m of built-up area in the UAE is WELL certified, an international performance-based system for certifying buildings based on their impact human health and well-being.

Ali Al Jassim, Chairman of EmiratesGBC said, "The UAE Green Building Market Brief presents evidence-backed insights on the progress achieved by the UAE in promoting sustainable built environments. With a growing footprint of buildings being developed under green building regulations, the nation is progressing towards its goal of achieving net zero carbon buildings by 2050."

Photo Credit: EmiratesGBC

Abu Dhabi has 35.3mn sq m of total built up area of projects.

Dubai has completed 1,241 buildings and 6,658 villas under its retrofit programme established in 2013 whereas Sharjah has 18 buildings, having established the Sharjah Electricity and Water Authority (SEWA) retrofit programme two years ago and Ras Al Khaimah has executed retrofit of 16 villas as of April 2020.

World Future Energy Summit to be held in April 2021 in Abu Dhabi

THE WORLD FUTURE Energy Summit (WFES) returns to the UAE capital's Abu Dhabi National Exhibition Centre (ADNEC) from 5–7 April 2021, with a broader market focus and expanded business agenda.

The business event will feature a new, three-day format, bringing together stakeholders from government and private sectors, finance, technology providers, innovators, academics and industry leaders. The new format of the event was developed following extensive consultation with vital industry stakeholders and partners. During the week, the attendees can experience a programme of accelerated business meetings and networking delivered by the dedicated Sustainability Business Connect team.

Grant Tuchten, group event director - World Future Energy Summit, highlighted the range of new business, education and networking features for 2021, saying, "The revised, multi-pronged format of the event will offer attendees the opportunity to conduct business and engage with industry colleagues through a platform of their choice: whether on the exhibition floor or in a virtual meeting space.

A recent report published by the International Renewable Energy Agency (Irena) showed that accelerating investment in renewable energy could power an economic recovery with worldwide GDP gains of almost US$100tn over the next 30 years. In response, the Agency's director-general, Francesco La Camera, urged governments to invest in renewable energy in order to stimulate economic growth while helping to meet climate targets – something that falls directly in line with the World Future Energy Summit's remit to take centre stage in the promotion of global green technologies.

As a leading driver of regional collaboration, the Summit will feature a newly formed Climate and Environment Expo & Forum, which will showcase the latest advancements, innovative technologies and best practice to help accelerate the business of local and global climate resilience. There will also be an expanded Energy Forum covering vital topics such as green hydrogen, energy storage and digitalisation. The other five expos and forums include Energy, Water, Solar, Smart Cities and the co-located EcoWASTE Exhibition & Forum in partnership with the Abu Dhabi Centre for Waste Management – Tadweer.

Photo Credit : WFES

The Summit will feature a newly formed Climate and Environment Expo & Forum.

The Summit will also host the fourth Climate Innovations Exchange (CLIX), launched to explore the world's most innovative technologies to combat climate change challenges, as well as to provide a dynamic and agile platform that connects start-ups and investors. The 2021 event will feature two new themes: smart cities and climate resilience, in addition to energy, food, agriculture and space.

The most recent edition delivered more than 34,000 attendees from 125 countries, with over 840 exhibiting companies and brands.

Organised by Reed Exhibitions, the World Future energy Summit takes place at the Abu Dhabi National Exhibition Centre (ADNEC), from 5 – 7 April 2021. Visitors can register online at www.worldfutureenergysummit.com/en-gb/visit/register-your-interest.html.

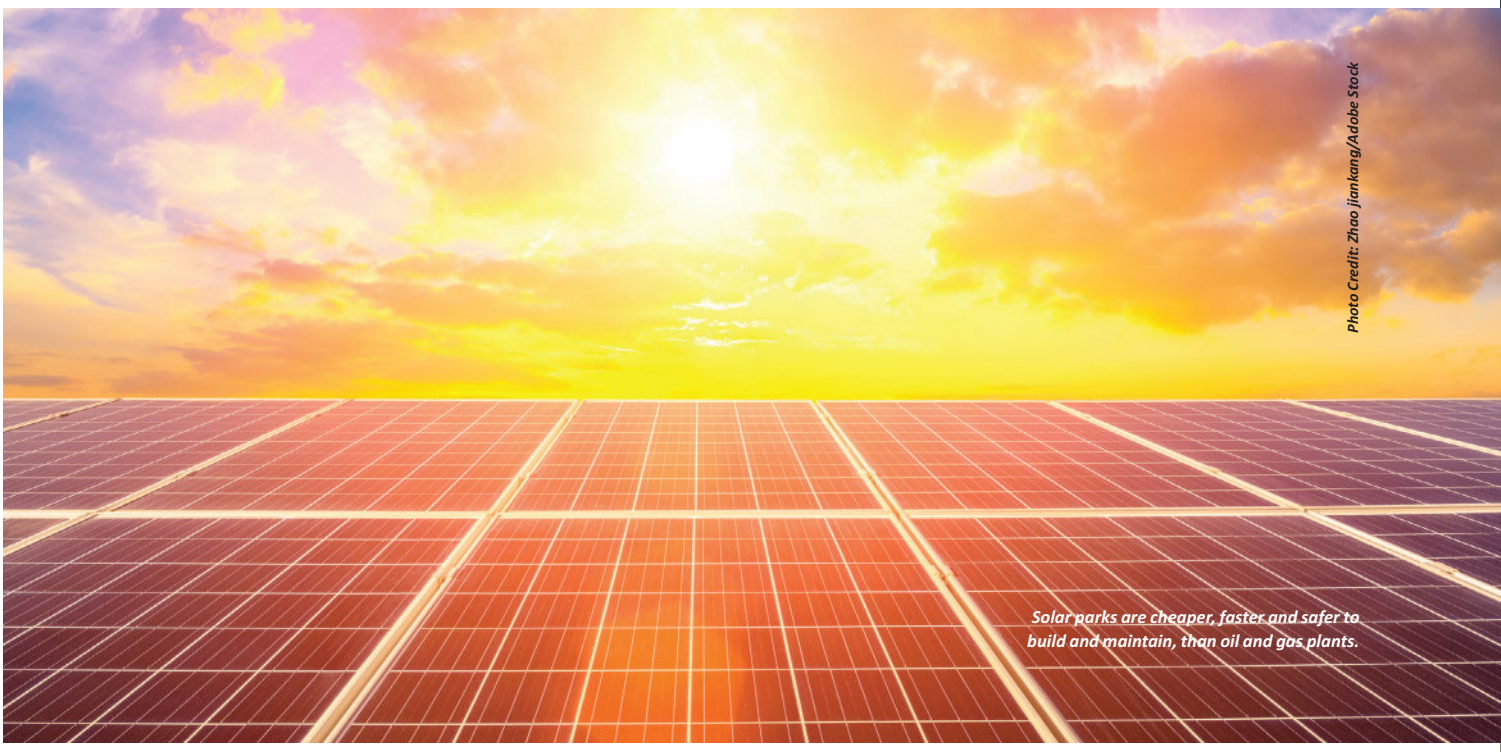

Photo Credit: Zhao jiankang/Adobe Stock

Solar parks are cheaper, faster and safer to build and maintain, than oil and gas plants.

Solar dawn in the GCC

The influence of renewable energy, especially solar, is growing in the oil- and gas-rich Gulf states. Slava Kiryushin, head of energy at DWF, and Joshua Coleman-Pecha, associate at DWF, shed light on the challenges the solar energy sector needs to overcome before it can realise its full potential.

ONE THING THE Middle East has, and we assume will always have, is sunshine – plenty of it. The members of the Gulf Cooperation Council (GCC) each take different steps to harness this sunshine to implement a gradual diversification from hydrocarbons to alternative sources.

The approach is due to increasing energy demand. Rapid population growth in GCC countries coupled with large-scale economic and industrial expansion plans mean the region's energy consumption is predicted to increase dramatically.

Solar power should, if implemented correctly, produce cheaper energy than oil and gas. Solar parks are cheaper, faster and safer to build and maintain, than oil and gas plants. This should make them an attractive investment.

The United Arab Emirates (UAE)

The UAE leads the way in solar energy with 79% of the region's installed solar generation capacity, according to International Renewable Energy Agency analysis. It is in the process of implementing its ambitious 'Energy Strategy 2050' plan which targets to derive 44% of its energy from clean sources (mainly solar), 38% from gas, 12% from 'clean' coal and 6% from nuclear energy by 2050.

The Noor Solar Park in Abu Dhabi is the largest in the world and it is considered a benchmark for solar energy projects. It became operational in mid-2019 and generates 1.2 Giga-watt hours (GWh) of energy.

Construction of Abu Dhabi's new 2 GWh solar park in Al-Dhafra should commence shortly and will complete in 2022. It will almost triple Abu Dhabi's solar power generation capacity to 3.2 GWh and take the emirate's clean energy share to 17%, and according to the *Economist*, will generate electricity at two-thirds the cost of gas and one third of the cost of oil. It is projected to have the world's cheapest solar energy tariff that will be 44% cheaper than Noor Park.

The Mohammed Bin Rashid Al Maktoum Solar Park in Dubai has been split into five phases. Construction started in 2013 and is expected to complete in 2030. As part of phase four, a 263-metre solar tower was installed - the tallest in the world. On current projections, by 2021, the Park will increase Dubai's clean energy share to 24% of its overall mix. Once fully operational, the Park will generate 5GWh, making it the world's largest solar park.

Saudi Arabia

Another solar powerhouse in the GCC is Saudi Arabia. Its ambitious National Renewable Energy Programme aims to develop just under 60GWh of renewable energy over the next decade – 40GWh of this will be from solar energy. The Middle Eastern Solar Industry Association reports that Saudi Arabia is ahead of its interim targets in meeting this long-term goal. The kingdom currently has seven solar projects, with a total generation capacity above 1.5 GWh, out for tender.

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Mohammed bin Rashid Al Maktoum Solar Park - a leading project that promotes sustainability in the UAE.

Photo Credit : DEWA

Other GCC based solar projects

The bulk of the GCC's solar energy investment and deployment is in the UAE and Saudi Arabia. However, other GCC nations are deploying smaller solar facilities.

In Kuwait, the completion of the Shagaya Complex in 2030 will see a combined total installed capacity of 2GWh, comprising 1,850 MWh of energy from solar and 150 MWh from wind.

Oman's first utility-scale solar power project, the 105MWh Amin facility, went online at the end of May 2020. The Sultanate also has two solar projects with combined capacity of 1.1GWh out for tender.

Market penetration of solar technology and use in the GCC's private sector is extremely hard to estimate. However, residential, commercial and industrial facilities are increasingly installing solar panels. This is promising as it suggests an even greater percentage of the GCC's energy mix will be from renewable sources than official statistics indicate.

Is the future as bright as suggested?

Whilst GCC countries are taking impressive steps towards clean energy generation, the process is only just beginning. GCC nations still rely on fossil fuels to meet most of their energy needs. The International Renewable Energy Agency (IRENA) reports that fossil fuels comprise around 90% of the UAE, Oman and Bahrain's energy mix. Only 10% of those nations' energy is currently derived from renewable sources. Solar is just one part of the renewable mix (albeit the largest).

There remain significant challenges for solar energy to overcome before it can realise its full potential in the region.

First, it needs 'grid parity'. In the GCC, fossil fuels are subsidised and relatively cheap. To be effective, solar energy needs better regulation of markets to compete with subsidised sources.

Second, more capital needs to be made available. Investment is required not just to build solar parks but also to connect them to the grid, so the energy they produce can be distributed effectively. Typically, raising finance for these steps is harder for solar projects than for oil and gas projects.

Third, solar energy is intermittent. For effective solar harvesting, very bright sunlight is required. Even with the abundance of sunshine in the GCC, harvesting solar energy does not happen consistently. One possible workaround is the improvement in storage and battery technology.

Saudi Arabia aims to develop just under 60GWh of renewable energy over the next decade – 40GWh of this will be from solar energy.

Finally, solar parks are vulnerable to sandstorms and maintenance issues. In a sandstorm, if the solar panels are not damaged, sand cover can reduce their effectiveness by up to 30%, according to Delloite. High-tech cleaning solutions, such as drones and robots, are being tested to overcome this challenge.

Improving regulation

Market regulation poses a significant barrier to solar energy deployment. However, regulatory frameworks are gradually underway throughout the GCC that will assist in solar energy's development.

The UAE, in particular the emirate of Dubai, is taking the lead. All independent solar power producers in Dubai are backed by a guarantee from the Dubai Department of Finance. This ensures that solar power projects in the emirate are financially viable.

Dubai also launched the Shams Rooftop Solar Program in 2015. This allows consumers to install solar panels on their buildings and have a two-way connection to the electricity grid. The consumers are charged on a 'net metering' basis. I.e. they only pay for the net amount of electricity they consume. If they produce surplus electricity from their solar panels, it is sold to the grid. This allows consumers to have the dual benefit of a reliable grid connection and lower net energy cost. Analysis by has found that the project has already developed 18.7 MWh of energy.

Saudi Arabia and Oman have established schemes similar to Dubai's. Through this change in regulation, Oman aims to increase prevalence of rooftop solar generation from 10% to 30% of residential premises. Despite this, solar energy still needs a broader range of government and fiscal policy that supports its growth for it to become truly successful.

Outlook

Solar power is not a silver bullet for the GCC's growing energy requirements. No one is anticipating the imminent end of fossil fuel

Joshua Coleman-Pecha, associate at DWF

Photo Credit: DWF

Photo Credit : DWF

Slava Kiryushin, head of energy, DWF

Oman aims to increase prevalence of rooftop solar generation from 10% to 30% of residential premises.

usage. However, the GCC appears politically, economically and socially committed to expanding its use of renewable energy and solar power sits at the forefront of this.

GCC nations are mindful that oil is finite and its prices can be volatile. Solar energy is infinite albeit currently intermittent. With technological developments, GCC nations could potentially store and export solar derived energy for profit, as they currently do with oil. ■

Solar PV to generate US$182bn investment in Middle East renewables by 2025

THE PRESSURE TO lower greenhouse gas (GHG) emissions is compelling the Middle East – the United Arab Emirates (UAE), Saudi Arabia, Oman, Kuwait, Bahrain, Iran, Iraq, Jordan, and Lebanon – to embrace renewable energy, reveals Frost & Sullivan's analysis, solar PV dominating investment opportunities in renewable sector across the Middle East, 2020-2025.

With a 57GW capacity addition – solar photovoltaic (PV), concentrated solar power (CSP), and wind – by 2025, the region is estimated to witness an 18-fold growth of the current capacity, thereby receiving an investment of US$182.3bn. Despite this, the COVID-19 crisis has adversely impacted the renewable energy market through supply chain disruptions, delays in tendering processes, crashing oil prices, and government restrictions.

"Capabilities in solar are more pronounced compared to wind energy as most countries in the region fall under the Sun Belt," said Saraswathi Venkatesan, energy & environment research analyst at Frost & Sullivan. "Going forward, with wind making less than 20% of the total renewable energy installed capacity by 2025; solar energy investments are relatively more attractive."

Venkatesan added, "Solar cell manufacturing and solar panel assembly are key areas to consider for investment. Going forward, in terms of value, solar PV investments are expected to contribute the most, at 67.4% of the opportunity size for the next five years, followed by solar CSP investments at 17.5%."

Generators provide the power for various types of construction equipment and lighting systems.

Photo Credit : Hoda Bogdan/Adobe Stock

Energy innovations for a new era

New technologies, environmental performance and total reliability are all priorities for vital Gulf industries, from the construction sector to data centres. As a result, operators are seeking more and more from genset makers as business evolves in the era of the 'new normal'. Martin Clark reports.

WHILE BUSINESS IN the Middle East has been disrupted in the wake of the COVID-19 pandemic – taking some of the sheen off the Gulf's usually high-performing economies – there are reasons to remain upbeat.

The region's fundamentals include a robust demand for energy, which has fuelled massive investment in new power generation infrastructure in recent years. That's expected to continue as economic activity begins to pick up once more.

It is welcome news for manufacturers and distributors of generation sets (gensets) – the likes of Doosan, Perkins, FG Wilson and Volvo Penta – tasked with providing power to installations across the region, from oil and gas fields to construction sites.

The Middle East's genset market overall was faring well, at least until the pandemic struck in the early months the year.

At an event at the end of 2019, to bring together its clients and partners from across the combined Africa and Middle East regions, leading industry player Himoinsa highlighted the dynamism of the market.

Guillermo Elum, Himoinsa's regional director, said these two high-potential markets accounted for 14% of the group's total sales in 2018, "which we expect to grow by more than 10% in terms of turnover in the next few years."

While no one expected 2020 to turn out the way it did, many of the drivers underpinning such optimism remain intact – from the Gulf's growing, youthful populations, through to various multi-billion dollar, state-sponsored development project roll-outs.

As well as continued investment in large-scale power generation, and fuelling interest in renewables and other alternatives, it is likely to support demand for traditional genset solutions as well, which boast a tried and trusted track record in the field.

The beauty of such machines is not only in their power and dependability, but their versatility and rapid installation where needed.

After the tragedy of the Beirut port explosion in August, Kohler SDMO moved swiftly to help meet the energy needs of locals and infrastructure. It responded by working with Électriciens Sans Frontières to meet the basic energy needs of nearby residents, then teaming up with partner MIDIS to supply a full 40-foot container of 20 kVA generators to the affected area.

The 18 K22 units equipped with Kohler engines have been made available to Beirut schools and hospitals.

Powering construction in the new normal

Looking ahead, however, it may not quite be business as usual. Major changes are coming that are expected to shape energy provision at the workplace, from building sites to data centres.

That includes efforts to decarbonise entire cities, which will have a direct impact on the construction sector.

According to the World Green Building Council, 11% of the world's carbon emissions come from the construction industry – producing the materials and constructing the buildings.

It issued a vision last year outlining how these carbon emissions could be reduced 40 % by 2030 through various collaborative actions, from ambitious public procurement policies to cleaner construction processes. It brings implications for genset companies, which have, for years, been refining and improving their environmental performance.

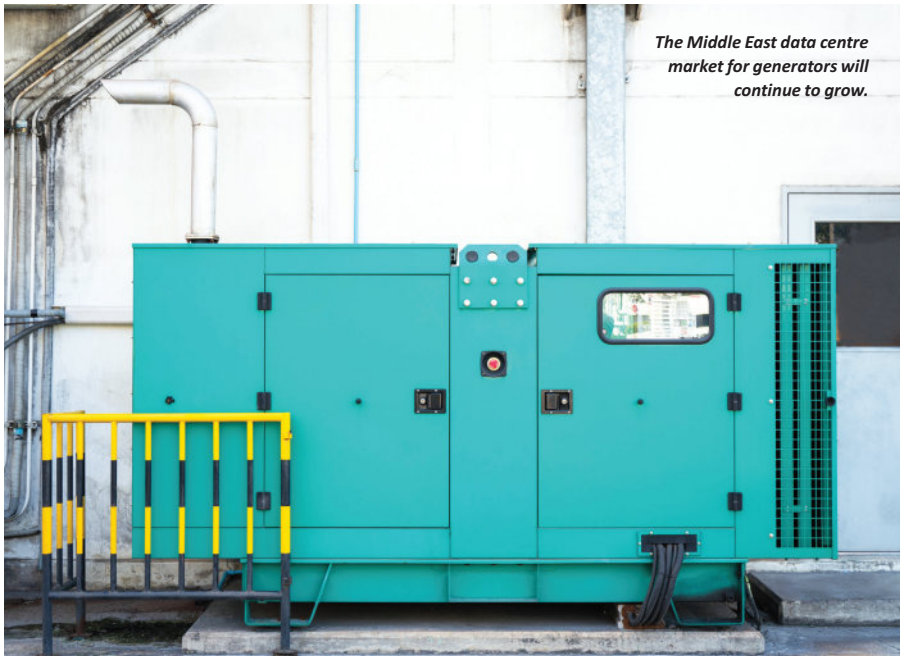
One global player that's been serving the energy market for a century, Cummins, identifies some of the changes it sees ahead in a series of papers entitled 'Worksite of the Future'.

Efficient combustion strategies, coupled with sophisticated air-handling and after-treatment technologies have enabled its engines to reach near zero emissions levels already, exceeding many current regulations around the globe.

The same technology advances that contributed to reduced emissions have produced higher power density, more torque and quieter operation than earlier engine versions – desirable features for any industry seeking to reduce its climate footprint.

"The higher horsepower from a smaller, lighter package seen in our Performance Series engines is a pointer to where we expect the development of advanced diesel to continue in the future," it notes.

But energy efficiencies are being integrated along the whole construction industry chain, along with more power.



The Middle East data centre market for generators will continue to grow.

Photo Credit: Suphanat/Adobe Stock

While Cummins says it will continue to innovate diesel engine technology, "as we believe it will be an integral part of many industries for years to come", it sees a shift to emerging electrified systems and hydrogen fuel cells.

These new technologies will start to be integrated into the construction machinery itself. The company is working with Hyundai and XCMG to produce electric mini excavators featuring Cummins BM4.4E battery modules.

The machines eliminate gaseous tailpipe emissions and nearly eliminate operational noise. However, heavy-duty cycle applications such as full-sized excavators, graders and mobile cranes will continue to rely on advanced diesel or hybrid systems for years to come, it adds.

Enhancing performance in the data centre market

Like construction, many other sectors, such as data centres, will continue to rely on diesel-based gensets to keep essential operations running.

Data centres consume vast amounts of energy to keep online businesses running at maximum capacity around-the-clock.

The global data centre generator market was tipped to grow at more than 2% a year through to 2025, according to a market research report released in April. It highlighted a strong ongoing demand in the Middle East for diesel generators.

It's an area that global players – again, the likes of Kohler SDMO and Himoinsa – are contesting strongly in what is becoming an increasingly data-driven economy.

Kohler SDMO gensets, for example, already support critical data sites in the Gulf – in the UAE, that includes the Etisalat, Mubadala and PTCL data centres – and many others worldwide.

The main considerations include size and space, as well as performance, dependability and environmental issues.

Again in the UAE, Al-Bahar this year released the new power-dense Cat C18 Diesel Generator Set for use in various Gulf markets, including Kuwait, Bahrain and Oman.

It brings with it high-power density that's designed to meet challenging restrictions on capital, emissions, cost, as well as site size – the new genset requires less overall space for installation.

"Its smaller size and lower weight make it a smaller displacement engine, lowering shipping costs as overall packaging size reduces," notes Ahmed Mohamed Kamal of Al-Bahar.

"Further, it demands lesser oil and coolants, leading to reduced maintenance costs, and environmental impact, all adding more value to the bottom-line. In the end, lower shipping costs, lower fuel consumption and lower maintenance costs, all add up to savings, making it an ideal engine for varying requirements." ■

Kohler SDMO gensets already support critical data sites in the Gulf – in the UAE, that includes the Etisalat, Mubadala and PTCL data centres.

UK-based Solar Water to build the first ever solar dome desalination plants in NEOM, located in northwest Saudi Arabia.

Photo Credit: NEOM

Solar desalination – the affordable solution

The desalination of seawater is an energy-hungry and expensive process. In arid regions such as the Middle East, however, where the sun shines most of the time, using renewable solar power to run desalination plants, is the viable way ahead. Tim Guest reports.

IN SOME OF the more arid regions of the world, the desalination of seawater is one of the main sources of potable water for growing populations. The Middle East, which faces numerous challenges with current water resources, accounts for some 70% of desalination plants worldwide, located in countries like Bahrain, Kuwait, Saudi Arabia and the UAE. And while there are numerous benefits from desalination, not least of which is the ultimate aim of producing clean drinking water, its high use of power results in raised energy prices and a more expensive water end-product, both of which hurt the consumer.

Yet, there is no getting away from the need for desalination plants. In the UAE, for example, which is one of the highest per-capita users of fresh water anywhere on the globe, the water table is dropping by about one metre every year and at its current rate of usage, the emirates will exhaust natural water supplies within 50 years. That makes reliance on desalination a foregone conclusion.

With such dependence on desalination across the region, it makes it crucial to find more efficient ways of operating and powering the process and advances in photo-voltaic/solar (PV) technologies with increased implementation in several places, are the major 'great hope' making a difference. Using solar energy to power desalination plants has the potential to make this water-producing process viable and more sustainable for the whole region.

> The World Bank sees concentrating solar power (CSP) as having, perhaps, the greatest significant benefits for desalination.

Regional initiatives

This sentiment is shared by the World Bank, which sees renewable energy (RE), especially solar, as having tremendous potential not only to provide overall energy security and reduce green-house gas emissions across the ME, but to reduce the high costs of desalination, eventually eliminating the process' reliance on fossil fuel. Of the various solar technologies currently widely used in the power generation sector, the organisation sees concentrating solar power (CSP) as having, perhaps, the greatest significant benefits for desalination. It sees CSP as a competitive energy supply option and a good, economically-viable RE technology able to store and provide power on demand; that makes it particularly suited for desalination plants, which typically operate 24/7. However, initial CSP-powered desalination in the past 10 years has still proven relatively expensive, although ongoing regional initiatives such as the World Bank's co-financed MENA CSP Investment Plan and DESERTEC have significant potential to bring down the cost of CSP further (the DESERTEC Foundation is a global civil society initiative aiming to shape a sustainable future by deriving energy from desert regions).

Continued on page 45

Solving the lime silos challenge

How Saudi Water Company (SWC) ensures Jeddah has a steady supply of fresh water by innovating and tackling one of the most difficult measuring tasks: level measurement in lime silos.

THE CITY OF Jeddah is the largest in the Makkah region and the second largest city in Saudi Arabia after the capital, Riyadh. With its population of 3.5 million people, and being a gateway to the holy city of Mecca, Jeddah is facing a daunting challenge in water production and management. During the period of pilgrimages and religious gatherings, the city is expected to produce more water than any other city in the kingdom. To fulfil such a massive demand, Jeddah must safeguard the smooth operation of an impressive number of desalination plants and units.

Fortunately, Jeddah is known for being one of the most innovative cities on the Middle East map.

In this context, the Saudi Water Company (SWC) is constantly looking for the most reliable and state-of-the-art technology that can optimise the production of water and maintain the operation of the desalination plants across the country.

As a senior instrumentation and control engineer in Jeddah's RO plants, Talal H Althebiani's mission is precise. To leverage this technology, he must find and install the best instruments which can monitor and control the processes in their plants. He has stepped forward to solve a known worldwide issue of level measurement in the dustiest plant silos – hydrated lime silos.

Hydrated lime, in the form of a white powder, is used in water production to remove hardness, fluorite and to dissolve solids from water. It is being used all around the globe in several other applications such as sugar refining, paper processing, fumes and gas treatment; and in industries such as pharmaceutical, rubber, and the metallurgical sector.

The difficulty of measuring and monitoring the level of this sticky, dusty material inside the silo is not new to many engineers. Indeed, many of the measuring principles are either getting stuck, experiencing breakage, disappearing below a thick layer of build-up, losing signal, or becoming ineffective because of the dust.

With this in mind, accompanied by his eagerness to unravel the challenge, Engr. Althebiani approached VEGA, a German manufacturer of level sensors and an ambassador of radar technology.

Radar technology has been around for decades now. It is slowly replacing obsolete or underperforming technologies such as mechanical switches, electromechanical sensors (Yo-yo type) and even non-contact type technologies, like ultrasonic sensors, for example. Nevertheless, lime silos remained challenging because of the tough characteristics the product has. The sticky, dusty powder attenuates the signal or can create false measurement (also known as "false echoes").

> Saudi Water Company in Jeddah found a way to monitor lime powder stocks with the help of VEGA's 80 GHz radar.

Photo Credit: VEGA

The Saudi Water Company (SWC) has installed VEGA's new high frequency 80GHz radar in Jeddah and is now monitoring the lime stocks without any issue.

Being the world leader in radar principle, VEGA developed a new type of high-frequency radars for solids, the 80 GHz level sensors. With no dead bands, a narrow beam angle of 4° to focus the emitted waves straight to the optimal measurement spot, an auto-adjustable sensitivity to measure through build-ups, a high dynamic range and thus a stronger and more reliable signal, the new 80GHz Radar has become the most appropriate technology here, and so the choice of SWC.

Engr. Althebiani installed the 80 GHz radar a few months ago and is now monitoring the lime stocks without any issue. The radar sensor, having no dead bands, allows him to instruct the operators to fill the five metre silos to the top, thus optimising and utilising the container to its full capacity.

Since then, lime storage silos have no longer posed a challenge for SWC. ■

To know more about VEGA solutions, go to www.vega.com/en-ae/products/product-catalog/level.

Revisiting the business model

As stakeholders of the GCC construction industry grapple with the 'new normal' that COVID-19 has presented, they also face an opportunity to rethink the way they used to work and discover new opportunities to change the status quo collectively, reveals a Deloitte study.

EVEN BEFORE COVID-19, the GCC construction industry was facing challenges from low margins, increased competition and lower project volumes, leading to pressure on liquidity levels. The pandemic has only aggravated the situation, with revised future projections.

To tide over the deepening crisis, the *GCC Powers of Construction 2020* report by Deloitte underscored that the construction industry can come together amidst the new normal to create a future in which everyone thrives. The report noted what the industry needs to address to create a fair, collaborative and transformed contractual and project controls environment, and how this will create the new normal needed to embrace the opportunities in the GCC and wider Middle East region.

"We are currently witnessing the move of the construction industry's response to COVID-19 from a Respond to a Recover phase. In the early Respond phase, the industry's natural focus turned to ways to effectively and safely execute projects at the pace and scale required to minimise social and economic damage and to contain costs while focusing on cash preservation," explained Cynthia Corby, partner and construction leader, Deloitte Middle East. "As the regional industry moves into the Recover phase, it is essential to adopt a strategic view where the focus should be on the effective execution of projects and payments to contractors being made in a timely manner to ensure the much-needed liquidity to complete the projects under execution."

The Deloitte report finds that the COVID-19 has caused significant disruption across all real estate sectors, and the magnitude of the impact due to travel restrictions and lockdown measures will depend on the shape and pace of recovery.

Photo Credit: neiezhmakov/ Adobe Stock

The greatest opportunity facing the construction industry is to create winning environments.

"What COVID-19 and the oil price fall have done is served to focus minds on the need to accelerate economic diversification and movements toward each country's national vision. From that, at least many major new opportunities will emerge, and companies which can pre-empt and grasp these changes will be those that will be best positioned to face the challenges ahead," explained Oliver Morgan, director, head of Real Estate Development, Deloitte Middle East. "Looking at Saudi Arabia, diversification efforts, social reforms, and government-led investments in infrastructure, entertainment and the tourism sector will be key to the real estate sector's recovery and growth in the long term."

Understanding and monitoring of the actual cash profile of each project on a standalone basis in addition to their combined outcome is critical, it added.

"As we begin the second half of 2020, the effects of the COVID-19 pandemic will continue to be felt across the Middle East in all sectors, with construction continuing to be one of the most impacted," said Corby. "Stakeholders in the region need to collaborate and focus on how to maximise the opportunities which exist in a fairer contractual relationship, to deliver projects in a new decade under a new normal to avoid the pitfalls of the past and thrive in this new and unprecedented landscape," she concluded. ■

Topics discussed in the Deloitte report include GCC projects market outlook, real estate sector performance, financing contractors, contract renegotiations, technology, project liquidity, and smart design, among others.

To view the whole report, visit www2.deloitte.com/xe/en/pages/real-estate/articles/gcc-poc.html.

Protecting steel against fire

Scott Fretwell, group business development manager, Cellulosic PFP, Hempel A/S, explains how intumescent coating for steel plays a crucial role when Cellulosic fire occurs in buildings.

WITH MORE CONSTRUCTION projects using steel as the main structural component, it is important for these buildings to be protected against both fire and corrosion. Cellulosic fires – those that generally occur within residential or commercial buildings – can reach temperatures of 500˚C within minutes and could rapidly compromise the building's structural integrity. Consequently, steel components are often insulated using a range of fire protection material such as boards, inorganic sprays and intumescent coatings. For a specified period of time, their role is to insulate the structural steel and prevent it from reaching a temperature where the steel fails and the building collapses. This time delay is critical to allow people to escape and fire-fighters to respond.

Intumescent coatings are widely used as passive fire protection and are applied in thin layers to the steel, where they remain inert at normal operating temperatures. Once temperatures start to rise above 200˚-250˚C, the coating begins to expand to around 50 times its original thickness where the coating morphs into a char, incorporating millions of microscopic gas cavities that insulate and protect the steel beneath. Hempel's Hempafire Optima 500 waterborne intumescent coating is certified to BS476 to provide up to 180 minutes protection for cellulosic fires. Unlike similar coatings, Hempafire Optima 500 delivers an exceptionally high thermal efficiency per applied thickness with increased applied thickness per coat and so achieves the specified fire protection with a reduced number of layers.

Selecting a passive fire protective coating is important to protect steel.

Photo Credit : Adobe Stock

A total coating solution must also guard against corrosion in a range of environments. To be effective, the solution must also comprise of both compatible primers and tested topcoats to provide the following benefits:

- To protect against steel corrosion and promote the adhesion of the char in a fire scenario.
- To enable the intumescent coating to deliver the char with thermal insulation for the specified fire duration times.
- To provide a decorative finish and colour and to protect the steel from corrosion and the intumescent layer from weathering.

In more aggressive corrosive environments, the overall coating system may be specified with higher thicknesses of primer and topcoat and different more robust primer and topcoat chemistries may be used. A system incorporating Hempafire Optima 500, for example, can be applied up to C3 internal conditions making it suitable for most urban and industrial areas. As these coatings are applied inside residential and commercial buildings, their aesthetic appearance is important, and a smooth finish is required to reduce the need for cleaning and maintenance. Hempafire Optima 500 dries with an even, smooth surface to enhance the appearance of the exposed steel and achieve a contemporary look.

Selecting a passive fire protective coating is important, and it is critical that the system protects the steel from corrosion in its particular environment, is easy to apply and results in a high aesthetic finish. But above all, it must protect the underlying steel from deteriorating when impacted by the heat of a fire. ■

Contact your local representative for further information.

> "Steel components are often insulated using a range of fire protection material such as boards, inorganic sprays and intumescent coatings."

Meet the new electric truck mixers

Construction and mining machinery manufacturers are stepping up the clean energy game with the launch of electric concrete mixers.

Photo Credit: Liebherr

Environmentally-friendly concrete transport with the Liebherr ETM 1205 on a Futuricum chassis.

LIEBHERR AND DESIGNWERK have developed the first fully electric truck mixers with 10 and 12 cubic metres drums on a five-axle chassis.

The new ETM 1005 and 1205 truck mixers on a chassis from Futuricum can transport large quantities of concrete to the construction site quietly and reliably without exhaust emissions. Since distances from the concrete plant to the construction site are relatively short compared to freight traffic, this all-electric solution is particularly well suited for this application.

Moreover, the vehicles return to the concrete plant again and again, where there is a charging infrastructure for the batteries. Thanks to large accumulator capacities, charging the batteries is normally only necessary overnight.

The drum drive developed by Liebherr and ZF consists of a low-maintenance and efficient unit of electric motor and mixer gearbox. For the first time, both the truck and the truck mixer body are powered jointly by the traction battery, eliminating the need for costly power electronics components. The new Liebherr Generation 05 electrified body offers further advantages. The compact electric drive for the mixing drum is flanged directly to the drum, and its high efficiency ensures that power consumption for relieving the traction battery of the Futuricum truck remains low. It also eliminates the need for any hydraulic equipment – no hose connections, no pump, and therefore no risk of leakage.

Liebherr's truck mixer body features a low net weight combined with the best possible transport volume, a long service life thanks to its special wear-resistant steel and the ergonomic design of the operation system and access points.

The first operations are planned for Holcim and KIBAG in Switzerland.

Photo Credit: Sany

Battery electric truck mixers from Sany.

Traditional concrete mixing goes green

Sany has unveiled a full battery electric version of its truck mixers, scheduled to be under the spotlight at bauma CHINA 2020.

The light-weight designed model is equipped with permanent magnet synchronous motors with maximum 350 kW in power output and 2,800 N·m in torque, remarkably outperforming diesel-powered vehicle. The high-energy-density LFP batteries supply sufficient energy for the motion and mixing activities of the vehicle, enabling a NEDC-rated driving range of 250km. Sany has partnered with a leading battery supplier to augment the power source with thermal management technology, anti roll-over structure, and fire-proof protection system.

Other features of the vehicle include self-heating function in low-temperature environments and advanced cooling system in high-temperature conditions, so the truck is versatile under a wide scope of work conditions. In addition, Truck Line, an IoT platform dedicated for Sany vehicles, provides productivity-enhancing functions, such as real-time monitoring, performance analysis and remote diagnosis. ■

Articulated trucks for MEA markets

Offering impressive hauling capacities, the new articulated trucks fitted with advanced features improve fuel efficiency, performance and safety.

Doosan's new DA30 & DA45 ADTs

DOOSAN CONSTRUCTION EQUIPMENT has launched the new DA30 and DA45 articulated dump trucks (ADTs) for markets in the Middle East and Africa (MEA). The DA30 has a payload of 28 tonnes, while that of the DA45 is 41 tonnes.

Like all Doosan ADTs, the new models feature an articulation hinge positioned behind the turning ring to provide equal weight distribution to the front axle, even during maximum steer articulation. This, combined with a free-swinging rear tandem bogie, ensures equal distribution of weight to each wheel and guarantees permanent six-wheel contact and drive for equal power distribution and better performance particularly on difficult terrains such as soft ground, uneven surfaces, very steep slopes, tight turns or a combination of all of these difficult conditions.

Doosan's DA30 has a payload of 28 tonnes.

Photo Credit: Doosan

The new dynamic look given to the ADTs reflects the high performance, power and robustness of the Doosan ADT range.

Together with the visual changes there are a number of functional changes on the new ADTs which improve safety, comfort and serviceability. These include a new positioning of the diesel and Adblue tanks.

For more details, please visit www.eu.doosanequipment.com

New Cat AD63 underground articulated truck

THE NEW CAT AD63 underground articulated truck features 5% increased payload and more torque for enhanced production capabilities, compared to its predecessor, the AD60. The new AD63 can be configured to meet the strictest diesel engine emissions regulations — for both regulatory compliance and improved underground air quality.

Additional new features enhance operator ergonomics, maintenance access and safety, and data collection for machine health monitoring. The AD63, with 63 tonnes (69 tons) payload, becomes the largest underground truck in the Caterpillar product line. The new model will be available in late 2020.

Front quarter view of Cat AD63 underground articulated truck.

Photo Credit: Cat

The new truck is powered by the proven Cat C27 diesel engine, which produces 588 kW (789 hp), meets EU Stage V emission standards and is approved by CANMET for use in underground mines. The AD63 does not require Diesel Exhaust Fluid (DEF) to meet these standards.

The emissions control system maintains the ability to use diesel particulate filters, such as the Cat Wall Flow Filter, to further reduce particulate emissions.

For more information, contact the local Cat dealer or go to: www.cat.com/underground.

Hyster latest electric trucks feature a charging solution delivering maximum operational flexibility

Fast charging forklifts with integrated lithium-ion batteries — HYSTER J3.0XNL & J7.0-8.0XNL

THE HYSTER J3.0XNL lithium-ion forklift is the first counterbalance lift truck designed from the ground up around an integrated lithium-ion battery pack. This industry leading design offers significant ergonomic and productivity benefits such as greater space in the operator compartment and a lower centre of gravity.

Ideal for food, beverage or pharmaceuticals industries, which have rigorous emissions and hygiene controls; this truck delivers zero emissions both in operation and during the charging process.

Opportunity charging and the ability to fully charge in around one hour offers a huge amount of flexibility to a vast range of customer applications, enabling shift managers to constantly adjust their operational needs according to demand, without fear of their trucks running out of energy.

Similarly, the larger new Hyster J7.0–9.0XNL forklift series with fully integrated lithium-ion batteries offer comparable diesel engine performance, and rapid opportunity charging. Achieving 100% charge in just 80 minutes, the new trucks have high voltage lithium-ion batteries and the endurance to support three shift operations in demanding industrial applications.

Hyster Electric lift trucks feature easy to access and comfortable operator compartments with clear unobstructed foot space, an adjustable steering column, rear drive handle with horn, full suspension seat and low whole-body vibration levels.

Affordable new truck series

In 2020 Hyster has also expanded its product range with the introduction of the new "UT" range of equi designed to offer customer wider choice of options, wh selecting the right truck for their budget and their operational needs.

A Hyster spokesperson said, "When matched with the right application and the right operating volume, businesses will find Hyster UT trucks straightforward, durable, reliable, and uncomplicated to maintain. This affordably priced range of trucks, which include IC forklifts, three and four-wheel electric forklifts, pallet trucks and stackers, are particularly suitable for lower intensity applications." ■

For more information, visit www.hyster.cpm or contact your local Hyster dealer.

HYSTER J3.0XNL LITHIUM-ION FORKLIFT

Photo Credit : Hyster

Rise in e-commerce activities to fuel demand for forklifts

THE ESCALATING USE of forklifts in various applications across industrial, logistics, construction, and others may bring efficient growth for the forklift market, according to a report by Transparency Market Research.

The Transparency Market Research (TMR) analysts predict the global forklift market to expand at a CAGR of 3% through the forecast period of 2020-2030. The global forklift market is estimated to reach a valuation of US$30bn by the end of the forecast period.

The technological advancements observed in the forklift market are further enhancing the growth rate of the forklift market to a great extent, the report revealed.

Novel forklifts with ergonomic features are adding extra stars of growth to the forklift market. Technological advancements like environment-friendly forklifts are further strengthening the growth prospects of the forklift market. Inculcation of cutting-edge technologies such as flexible electronics and robotics will bring immense growth prospects for the forklift market, it added.

Additionally, the burgeoning demand for online shopping has led to an addition of warehouses where material equipment handling is an important task performed by forklifts.

The TMR analysts mention the focus of manufacturers in the forklift market on innovative methods of channelizing their power-producing capabilities to prevent the scarcity of electricity.

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Businesses, rethinking and reconfiguring their supply chains, provides momentum for localisation efforts.

New strategies for the new normal

The COVID-19 global crisis continues to disrupt manufacturing and global supply chains. How can companies operating in the MENA region prepare for the rebound and increase the resilience in their manufacturing and supply systems? Here are a few ways that companies can try to adapt to, to ensure long-term success.

> There's a need to orient the design of global value chains towards risk-competitiveness rather than optimising only for cost-competitiveness.

AMID COVID-19 OUTBREAK, governments and industries need to find new approaches, share knowledge and work together as never before to ensure manufacturing business continuity, protect employees and shore up supply systems for the future, reveals a new report of the World Economic Forum.

The report, titled *"Rebounding from COVID-19: MENA perspectives on resilience in manufacturing and supply systems"*, has outlined the three major initiatives of the regional governments and private-sector is focusing on.

While pointing out that the COVID-19 is proving to be an accelerator of vital imperatives for business, it underlined the need to orient the design of global value chains towards risk-competitiveness rather than optimising only for cost-competitiveness.

Localisation efforts

Governments across the region have formulated ambitious programmes to transform their economies away from the reliance on hydrocarbons. At the heart of many of these initiatives is the intent to localise entire industrial sectors to create new jobs, introduce emerging technologies and build a thriving future economy.

Much progress has been made in incumbent industries such as oil and gas, which has for several years engaged in

programmes enabling the identification and support of localisation opportunities, even investing in the emergence of enabling ecosystems such as industrial and logistic parks.

The metals and construction materials sector has the highest exposure and is a clear candidate for "qualified" localisation strategies.

The public debate on the viability of global supply chains together with businesses rethinking and reconfiguring their supply chains provides momentum for localisation efforts.

Enhancing regional capabilities

While local production capabilities playing a role in increasing resilience to disruption, governments in the region are also looking at a series of other capabilities. Senior government officials across countries stress that the push for Industry 4.0 technologies will only be accelerated in the aftermath of COVID-19. The crisis proves that existing targets and aspirations are steps in the right direction – investments in connectivity infrastructure have already paid dividends during the pandemic.

COVID-19 has accelerated the ongoing change in the way how people live, work and consume more quickly than most societies are prepared for. Next to investments in infrastructure, governments are focusing on developing the right regulatory frameworks such as business start-ups, investor protections and financial incentive structures to provide a nurturing ground for these emerging technologies to flourish. All of this will fall short without significant investments in human capital and reskilling of people to make sure that the region can capture the opportunities of technology.

Private-sector practices and actions

In the first reaction to the COVID-19 crisis, companies focused on taking care of their employees while ensuring business continuity. Surveyed companies are enforcing several active measures to protect both physical well-being and mental health, such as the use of personal protective equipment (PPE) (51%), restrictions on employee contact in the workplace (46%), switching employees to working from home (40%) and travel restrictions (37%). In this context, executives in MENA indicated that rather than waiting for a vaccine, they are accepting the constraints and investing and preparing for a scenario of continued social distancing.

Companies are not only focused on managing the crisis but also preparing for the post-COVID-19 scenario while drawing crucial learning from the pandemic and its impact on global businesses.

Senior government officials across countries stress that the push for Industry 4.0 technologies will only be accelerated in the aftermath of COVID-19.

Leading multinational companies in the region have started to launch strategic initiatives to create more resilient supply chains vis-à-vis the ongoing crisis and are accelerating their implementation.

Around 47% of executives surveyed indicate a need to overhaul their manufacturing and supply networks to increase resilience. To make their supply chains more effective and resilient in the medium term, business leaders are looking to derisk and reduce complexity, increase their use of local suppliers and manufacturing capacities and diversify their supply base to ensure the continuation of supply. In this light, the ambitious programmes in the region that aim to diversify and transform economies are sensing a window of opportunity.

Business leaders also noted the crucial role that advanced technologies – such as artificial intelligence, data analytics, 3D imaging and additive manufacturing – play in arming them to face the future and adapt to potential disruptions in supply and demand. An analysis of survey results found a positive correlation between the degree to which companies are leveraging advanced technologies and the supply chains' ability to adapt to the disruption. Leaders indicated a need to double down on this, for instance, to continue to digitalise the supply chain in support of better and faster decision-making. ■

Imperatives for global value chains in the new normal

The long-ranging impact of the pandemic has yet to be understood. However, in discussions with senior executives around the globe, the following five consistent imperatives emerged that leaders need to consider to prepare for long-term business success.

– The crisis has forced consumers to change their preferences. A recent study in the region has found that 48% of interviewed customers intend to keep their changed shopping habits after the pandemic. Therefore, leaders indicated the vital need for rapid tailoring of manufacturing and supply systems to these changes.

– Investments in advanced manufacturing technologies have paid off during the crisis leaders indicated that this is only the beginning and agile manufacturing and supply system set-ups enabled by advanced technologies will be critical topics going forward.

– Increasing coordination, transparency and visibility of logistics across and within global value chains will be crucial to tackle further disruptions – AI, mathematical optimisation and blockchain are poised to have a profound impact.

– In many cases, the pandemic has made organisations and the people who work in them faster and more agile – organisations are testing the adoption of new ways of working and governing to increase manufacturing resilience.

– Companies have been working in new ways with public bodies, often characterised by centralised decision-making and complex structures, or other companies in their broader manufacturing ecosystem. Leaders indicated they would continue with this new way of working through shared responsibility and collaboration among companies and authorities to address social and environmental challenges.

This is an excerpt from the World Economic Forum's executive report, which builds on the Regional Action Group for MENA's insight and on the Forum's Platform for Shaping the Future of Advanced Manufacturing and Production activities, in collaboration with Kearney, and provides key perspectives captured from interactions with leaders from the region around building capabilities to increase resilience.
To access the full report, go to www.weforum.org/reports/rebounding-from-covid-19-mena-perspectives-on-resilience-in-manufacturing-and-supply-systems

The power of storage in Industry 4.0

At the core of the digital transformation is data and is the need to secure and analyse this data to gain business insights. How data storage is becoming crucial for transportation, power and manufacturing sectors?

The GCC and Levant's data storage market is set to reach a record-high of US$8.5bn by 2027.

Photo Credit: BillionPhotos.com/Adobe Stock

2020 HAS BEEN a year of unprecedented change for businesses globally and in the region. The onset of the pandemic brought with it the pressing need to accelerate digital transformation, especially to enable remote working across sectors. In a matter of days, companies had to upgrade their legacy infrastructure and equip employees to operate from anywhere.

At the core of this transformation is data and the need to secure and analyse this data to gain business insights. In fact, according to the forecasts by Global DataSphere, data is expected to grow to 175 zettabytes by 2025 driven by investments in new emerging technologies. As we enter the data decade, enterprise data storage has become critical. According to a recent report from Coherent Market Insights, the GCC and Levant's data storage market is set to reach a record-high of US$8.5bn by 2027, nearly tripling from US$2.9bn in 2019.

In data storage – which touches every IT-driven business – the pace of innovation is accelerating, yet most enterprises continue to struggle with data's explosive growth and velocity. Getting the highest use and value from their data is becoming ever more critical for organisations, especially for those with data stores reaching exabyte scale.

Getting the highest use and value from their data is becoming ever more critical for organisations, especially for those with data stores reaching exabyte scale.

Transportation, power and manufacturing

There are three major industries that often go unnoticed in discussions around enterprise storage – namely transportation, power and manufacturing. In the highly-competitive transportation industry, speed and differentiation are the key. A wide range of organisations, from suppliers to mobility providers, are scaling infrastructures at the edge, bringing vehicles and intelligence closer. They are also scaling at the core and cloud to handle exponential data growth with agility. Challenges such as enabling autonomous vehicles to drive is incredibly data and compute intensive. The ability to achieve feats like this requires an agile, integrated, software-defined infrastructure enabled by purpose-built storage solutions for automotive workflows. A case in point would be the racing industry which went far and beyond. With data analytics at the edge and core, data insights are used to develop and update more than 150,000 parts in a

racing car to achieve better performance.

Next is the manufacturing sector that continues to be powered by technology. From integration to automation, tech is helping companies innovate faster and make things smarter and more efficient every day. Industrial progress has been at the centre of human advancement for centuries and data is driving the rise of Industry 4.0. Companies in this sector are increasingly seeking versatile, performance-centric storage solutions built for operational simpli city and agility, and managing a distributed process across geographies with proper scaling and connectivity.

Finally, the energy and utilities sector continues to evolve powered by storage technologies. To move forward their digital transformation, energy companies are getting deeper deployments on the digital oil field. With the use of cloud-like realisation of diverse data models that allows better cross insights throughout the globe, utility companies are deploying edge and IoT devices to manage and monitor electricity at a higher level of granularity than in the past. Importantly, they also need a modern distributed storage architecture and analytics capabilities to store and analyse the data collected. This will deliver real time insights that meet changing business demands, while delivering actionable intelligence.

With the need for a revolutionary and agile infrastructure that can adopt to applications models, from being scale-up performance intensive to cloud native applications that are aiming at creating data at edge, core and cloud is a major functionality that customers need to look for. As there is no one-size-fits-all, the emergence of multiple storage

Photo Credit: Dell Technologies

Ossama El Samadoni, senior sales director – Middle East, Russia, Turkey, and Africa (MERAT), Dell Technologies

technologies is underway. Focus is placed on how we can manage such diverse technologies under a single pane of glass that allows data management and applications servicing regardless of where the application is or what the application technologies being used are. We are proud of our development so far and what we continue to do to provide the infrastructure medium for such transformations to be successful and productive.

Data security strategy

But with this explosion of data comes considerable threats. With data security becoming an important point of discussion, the question is not if the data is at risk of being breached, but when. Security adoption is not happening at the same rate as risks are increasing, and with over 350,000 new threats identified each day, it is vital for businesses to understand the evolving threat landscape, what can be done to ward off threats, and what's next in cybersecurity.

From human error to attacks beneath the OS, corporate data breaches are on the rise as hackers continue to remain one step ahead. By continuously evolving their tactics to compromise systems and endpoints, organisations need to engage a strong defense strategy by prioritising security from the onset. It is vital to have the framework and technologies to provide security at the edge and on the storage itself, manage the risk in terms of data resiliency, and finally doing that in a consistent manageable manner. The way forward for organisations is to create an enterprise-wide data strategy that meets the needs of everyone but still maintains the strengths of each functional area.

Going ahead

As we look at technology requirements today and beyond 2020, one thing is clear. Storage will be architected and consumed as software-defined and the lines between storage and compute will continue to blur, as organisations demand unparalleled agility and simplicity for business-critical IT infrastructure to respond effectively to rapidly changing market dynamics. ■

– By Ossama El Samadoni, senior sales director – Middle East, Russia, Turkey, and Africa (MERAT), Dell Technologies

Digital DEWA partners with Group 42 to boost AI and cloud innovation

DIGITAL DEWA – THE digital arm of Dubai Electricity and Water Authority (DEWA), has announced a strategic partnership with Group 42 (G42), an Abu Dhabi based leading Artificial Intelligence (AI) and cloud computing company.

The partnership with Group 42 enables Digital DEWA companies – Moro Hub, InfraX and DigitalX – to introduce and implement digital and data transformation initiatives. It aims to foster new services around AI and enhance innovations across Digital DEWA's service portfolio.

Commenting on the collaboration, Saeed Mohammed Al Tayer, MD and CEO of DEWA, said, "The partnership with G42 will strengthen Digital DEWA offerings, as they can now extensively collaborate on technological endeavours, to co-create services in the clean energy and IoT, leverage AI-led solutions for government entities and enterprises across different sectors as well as explore the commercial and operational feasibility of such opportunities."

The new services will be hosted on Moro Hub and G42 cloud infrastructure to ensure data security and superior customer experience. The services will be managed in Moro Hub's Smart Cities Command and Control Centre, offering 24/7 support to future clients.

"We are also committed to trengthening the UAE's position as a global hub for the Fourth Industrial Revolution and increase its contribution to a knowledge-based national economy that depends on innovation and future technological applications," said Saeed Mohammed Al Tayer.

At the signing ceremony, Peng Xiao, CEO of Group 42, commented, "Our expertise in the fields of AI, Big Data Analytics and cloud computing, combined with our specialised industrial know-how, allow us to develop progressive and holistic solutions to problems in every sector, empowering businesses to transition to digital environments effortlessly."

Project Databank

Compiled by Data Media Systems

Project Focus

Compiled by Data Media Systems

Project Summary

Name of Client	RESRECO - Al Reef Sugar Refinery Company (JSC)
Estimated Budget ($ US)	400,000,000
Facility Type	Food Processing Plant
Sector	Industrial
Status	Construction
Location	Jizan, Saudi Arabia
Project Start	Q1-2012
End Date	Q1-2021
Last Updated	01-09-2020
FEED	AK Saeed Group
Main Contractor	AK Saeed Group
Contract Value ($ US)	300,000,000
Award Date	Q1-2015

Background

Al Reef Sugar Refinery is located in Jizan, Southwest of Saudi Arabia and will initially refine raw imported sugar. The scheme is looking to capitalize on the low energy costs and the advantages of its Red Sea location.

Project Scope

The project scope includes:

- Development of a refinery with an annual production capacity of 1,000,000 tonnes of refined sugar in Jazan economic city
- Two raw sugar storage with each having 150000-tonne capacity
- Process building: 5000 sq metre with 4 floors
- Three conditioning silos of 3000-tonnes each
- Conditioning and dedusting building
- White sugar packing and storage station
- Workshop and chemical storage
- Flue Gas Desulfurization (FGD) station
- A 14-megawatt (MW) power plant
- 2 fuel tanks of 3000 cubic metres
- 2 molasses tanks of 3000 cubic metres
- Seawater desalination plant with capacity of 250 cubic metres per hour

Project Status

Date	Status
Aug 2020	Biomass Industries Associates (BIA) continues to provide geo technical engineering with ongoing sheet piling and installation work. Various machinery from Hyundai Construction Equipment are being used on site.
Jan 2020	Construction of the Al Reef Sugar Refinery buildings and the steel work are nearing completion. The first sugar silo is already in place.

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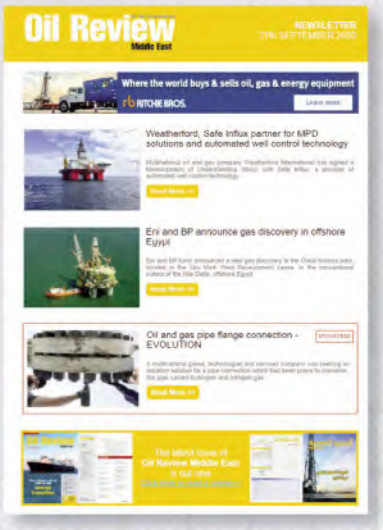

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Project Databank

Compiled by Data Media Systems

MAJOR INFRASTRUCTURE AND CONSTRUCTION PROJECTS, SAUDI ARABIA

Project	City	Sector	Facility	Budget	Award Date	Status	Start Date	Completion Date
Advanced Petrochemical - SK Gas - Isopropanol Plant	Jubail	Industrial	Alcohol	10,00,00,000		Project Announced	2019-Q2	2024-Q3
Air Products Qudra - Jubail Industrial Gases Hub	Jubail	Industrial	Industrial Gas Production	50,00,00,000	2021-Q1	EPC ITB	2019-Q4	2023-Q4
Al Abdullatif Industrial Investment - J AZADCO - RESRECO - Al Reef Sugar Refinery	Jizan	Industrial	Food Processing Plant	40,00,00,000	2015-Q1	Construction	2012-Q1	2021-Q1
Al Andalus Property Company - Aljawhara Alkubra	Jeddah	Construction	Mixed-Use Development	23,28,00,000		Project Announced	2019-Q1	2021-Q4
Al Baha Cement Company - Cement Plant	Al Baha	Industrial	Cement	9,00,00,000		Pre-FEED	2012-Q2	2020-Q4
Al Murjan Investment - Murjan Hospital Development	Jeddah	Construction	Medical/Health Facilities/Spa	25,00,00,000	2015-Q1	Construction	2014-Q1	2022-Q2
Al Oula Real Estate Development - ARED - Ajdan Waterfront Development (Wajihat Wajdn Albahriya)	Khobar	Construction	Mixed-Use Development	8,26,65,784	2017-Q2	Construction	2014-Q2	2020-Q4
Al Yamamah Steel Industries - Two Renewable Steel Structure Plants	Eastern Region	Industrial	Steel Plant	6,90,00,000		Project Announced	2018-Q1	
AlKhozama - Al Faisaliah District Redevelopment - Overview	Riyadh	Construction	Malls/Retail Outlets	30,00,00,000	2017-Q2	Construction	2016-Q1	2024-Q4
AlKhozama - Al Faisaliah Mall Expansion (Al Khozama Hotel)	Riyadh	Construction	Hotels	25,00,00,000	2017-Q2	Construction	2016-Q1	2020-Q3
AlMadinah AlMunawwarah Development Authority - Ministry of Finance - Madinah Public Transport (Program)	Medina	Infrastructure	Railway	1,60,00,00,000		Design	2005-Q2	2022-Q3
AlMadinah Region Development Samaya Holding - Al Safiyyah Museum and Park	Medina	Construction	Mixed-Use Development	10,00,00,000	2019-Q3	Project Authority - Announced	2018-Q4	2021-Q4
AlRajhi United - Mixed-Use Development	Riyadh	Construction	Mixed-Use Development	1,20,00,00,000		Feasibility Study		2015-Q2
AMC - Medical Cities Development Program - Overview	Riyadh	Construction	Medical/Health Facilities/Spa	1,30,00,00,000	2016-Q3	Construction	2015-Q4	2022-Q3
AMC - Wellness Village	Jeddah	Construction	Medical/Health Facilities/Spa	15,50,00,000	2020-Q2	Design	2019-Q4	2022-Q1
Asharqia Chamber - Al Kharwa Investment Tower	Dammam	Construction	Commercial Buildings	8,93,00,000	2019-Q3	Construction	2019-Q3	2021-Q4
Bahri - SALIC - Handling Grains Terminal	Yanbu	Industrial	Food Processing Plant	11,00,00,000		Project Announced	2020-Q3	2022-Q1
Bindawood Group-Sisban Holding - Jeddah - Swissotel	Jeddah	Construction	Hotels	15,00,00,000	2017-Q2	Construction	2016-Q1	2020-Q4
Cayan Group - Obhur Waterfront Mixed-Use Development	Jeddah	Construction	Mixed-Use Development	32,00,00,000	2020-Q4	EPC ITB	2017-Q1	2024-Q4
DCOMM - Makkah Mass Rail Transit (MMRT)	Makkah	Infrastructure	Railway	16,50,00,00,000	2017-Q3	Construction	2010-Q2	2023-Q4
DCOMM - Makkah Public Transport Programme (MPTP) - Metro Network - Phase 1	Makkah	Infrastructure	Mass Transit Systems	16,50,00,00,000	2020-Q3	Feasibility Study	2010-Q4	2024-Q4
DGDA - Diriyah Gate	Riyadh	Construction	Mixed-Use Development	1,60,00,00,000		EPC ITB	2014-Q2	2021-Q4
Dr. Sulaiman Al Habib Medical Group - North Jeddah Hospital	Jeddah	Construction	Medical/Health Facilities/Spa	40,00,00,000	2020-Q3	Design	2018-Q1	2023-Q4
Dr. Sulaiman Al Habib Medical Group - Southwest Jeddah Hospital	Jeddah	Construction	Medical/Health Facilities/Spa	40,00,00,000	2019-Q3	Construction	2017-Q1	2022-Q4
EMAAR - MISA - King Abdullah Economic City (KAEC) - Overview	Rabigh	Construction	Mixed-Use Development	27,00,00,00,000	2007-Q2	Construction	2005-Q4	2035-Q4

GACA - Abha Airport Development	Abha	Infrastructure	Airport	48,00,00,000	2014-Q4	Construction	2011-Q2	2021-Q4
GACA - Al Jouf Airport Expansion	Al Jouf	Infrastructure	Airport	30,00,00,000	2019-Q3	Engineering & Procurement	2014-Q1	2021-Q4
GACA - Al Qunfudah Civilian Airport	Qunfudah	Infrastructure	Airport	90,00,00,000	2019-Q1	Engineering & Procurement	2010-Q3	2021-Q2
GACA - Farasan Island Airport	Farasan	Infrastructure	Airport	10,10,00,000		Project Announced	2017-Q2	2021-Q4
GACA - Jeddah - King Abdul Aziz International Airport (KAIA) - Cargo Terminal	Jeddah	Infrastructure	Airport	8,00,00,000	2018-Q2	Engineering & Procurement	2016-Q4	2021-Q4
GACA - Jeddah Airport City	Jeddah	Construction	Mixed-Use Development	3,20,00,00,000	2016-Q3	Engineering & Procurement	2015-Q1	2021-Q4
GACA - King Abdul Aziz International Airport (KAIA) Expansion - Overview	Jeddah	Infrastructure	Airport	6,00,00,00,000	2007-Q1	Construction	2005-Q3	2035-Q4
GACA - King Abdullah bin Abdul Aziz Airport	Jizan	Infrastructure	Airport	50,00,00,000	2014-Q2	Construction	2012-Q4	2022-Q4
GACA - King Khalid International Airport - Overview	Riyadh	Infrastructure	Airport	3,00,00,00,000	2013-Q1	Construction	2008-Q3	2022-Q4
GACA - King Khalid International Airport - Terminal 1 & 2 Expansion	Riyadh	Infrastructure	Airport	75,00,00,000	2013-Q1	Construction	2008-Q3	2021-Q4
GACA - New Taif City - Taif Commercial Airport	Al Taif	Infrastructure	Airport	82,60,00,000	2017-Q2	Engineering & Procurement	2008-Q4	2020-Q4
GACA - Prince Naif Regional Airport Expansion	Qassim	Infrastructure	Airport	39,50,00,000	2020-Q4	EPC ITB	2012-Q1	2023-Q4
GACA - RCJY - Jubail Airport Redevelopment	Jubail	Infrastructure	Airport	40,00,00,000	2020-Q4	EPC ITB	2016-Q4	2022-Q4
GACA - Riyadh - King Khalid International Airport - Terminal 6	Riyadh	Infrastructure	Airport	60,00,00,000		Feasibility Study	2016-Q3	2022-Q4
GACA - Riyadh - King Khalid International Airport - Terminal 3 & 4 Expansion	Riyadh	Infrastructure	Airport	90,00,00,000	2013-Q1	Construction	2011-Q3	2022-Q4
GACA - Turaif Airport Expansion	Turaif	Infrastructure	Airport	30,00,00,000	2020-Q1	EPC ITB	2014-Q1	2022-Q1
GE Healthcare - Tatweer Medical Equipment Development - Riyadh - Diagnostics Center	Riyadh	Construction	Medical/Health Facilities/Spa	47,00,00,000		Construction	2018-Q1	2020-Q4
HOJDC - KDC Limited - Heart of Jeddah	Jeddah	Construction	Mixed-Use Development	11,00,00,00,000		Design	2012-Q1	2034-Q4
Jeddah Economic Company Ltd. - Jeddah Economic City - Overview	Jeddah	Construction	City	20,00,00,00,000	2011-Q1	Construction	2007-Q3	2025-Q1
JODC - Jabal Omar Development - Overview	Makkah	Construction	Mixed-Use Development	2,70,00,00,000	2010-Q4	Construction	2007-Q4	2023-Q1
JODC - Jabal Omar Development - Phase 2	Makkah	Construction	Mixed-Use Development	40,00,00,000	2012-Q1	Construction	2012-Q1	2020-Q4
JODC - Jabal Omar Development - Phase 4	Makkah	Construction	Mixed-Use Development	61,40,00,000	2014-Q1	Construction	2007-Q1	2023-Q1
JODC - Jabal Omar Development - Phase 5	Makkah	Construction	Mixed-Use Development	55,00,00,000		Project Announced	2007-Q1	2022-Q1
KEC - The Down Town Project	Medina	Construction	Mixed-Use Development	58,60,00,000		Design	2019-Q1	2023-Q1
Khalid Saud Al-Shubaily for Real Estate Investment - Shubaily Grand Mall	Khobar	Construction	Malls/ Retail Outlets	26,60,00,000	2013-Q4	Construction	2004-Q2	2020-Q4
King Fahd Causeway Authority - Saudi-Bahrain Causeway Expansion	Eastern Region	Infrastructure	Roads	28,50,00,000	2020-Q4	EPC ITB	2011-Q2	2021-Q4
King Faisal Specialist Hospital and Research Centre (KFSHRC) - Central District Cooling Facility	Jeddah	Industrial	District Cooling Plant	11,00,00,000	2020-Q3	EPC ITB	2020-Q1	2023-Q4
LogiPoint - South Jeddah Logistics Park	Jeddah	Construction	Logistic Hub	14,70,00,000		Design	2016-Q1	
Maaden - Gold Mines Development Programme - (Program)	Various	Mining	Gold	60,00,00,000	2019-Q2	Construction	2015-Q4	2022-Q2
Maaden - Sabic - Mosaic - Waad Al Shamaal Phosphate City - Overview	Ras Al Khair	Mining, Infrastructure	Phosphate	9,60,00,00,000	2013-Q3	Construction	2010-Q1	2022-Q4

Inmesol presents new Stage V Range gensets

INMESOL'S NEW "GREEN" gensets on white canopies are eco-friendly, meaning that they are all equipped with diesel engines that meet the EU Stage V exhaust gas emission standards. "This makes them the less polluting engines on the market today, in addition to being all certified for renewable fuels use," says the company.

These generator sets are available with Deep Sea, ComAp and DEIF controllers that facilitate the combination of gensets with renewable energy plants, either as stand-by gensets or in different hybrid configurations.

The engines in this new series are Kohler and Volvo, and are all fuel-efficient, resulting in low operating costs, especially for gensets that produce continuous power. In the case of Volvo engines, they are certified for renewable paraffin diesel fuels such as HVO according to the EN 15940 standard.

The white canopies belong to the Inmesol rental range, the variety where these new engines are incorporated as the Stage V standards are mandatory for mobile gensets.

Photo Credit : Inmesol

The power range starts with the Kohler engines with a 12 kVA to 110 kVA standby Power (LTP) generator set.

The power range starts with the Kohler engines with a 12kVA to 110kVA standby power (LTP) generator set.

For higher powers, this range offers VOLVO engines for generator sets with a reserve power ranging from 170 kVA to 740 kVA (LTP).

And in order to complete and extend the range of powers, the equipment is featured in ISO containers with dual gensets and VOLVO engines inside which result in total power ranging from 550 kVA to 1480 kVA standby power (LTP).

Dual gensets, suitable for rental, utilities and construction companies, can enable large amounts of electrical power from a unit, as well as the flexibility to adapt to actual power demand by running both or just one generator set.

Caterpillar unveils 1100 kVA diesel generator set for stationary standby applications

CATERPILLAR HAS ANNOUNCED the introduction of the Cat DE1100 GC diesel generator set. Designed exclusively for use in stationary standby applications and engineered to Caterpillar's high standards for quality and productivity, the DE1100 GC offers better performance and reliability.

Photo Credit: Cat

Cat DE1100 GC diesel generator set

The DE1100 GC is designed for the Middle East, Africa and Asia Pacific markets, and it will be manufactured locally at the Caterpillar facility in Hosur, India. Producing the product closer to customer markets can significantly reduce the lead time to job site by up to 39%.

Configured with options for stationary standby 50 Hz applications, the DE1100 GC conforms to ISO 8528-5 G3 transient response and load acceptance requirements, while the Cat control panel ensures reliable generator set operation, providing extensive information regarding power output and engine operation.

The Cat DE1100 GC generator set includes Caterpillar's customary two-year warranty for standby power solutions, with options available for flexible extended service contracts.

"Customers with standby power needs are seeking systems with an optimised combination of capabilities that deliver the productivity and dependability they need while minimising their initial purchasing and installation costs," said Jason Kaiser, general manager for Caterpillar Retail Electric Power Solutions. "By offering only options that customers value in stationary standby applications and selecting the best place for manufacturing this product to support our customers, we have been able to significantly improve both product availability and affordability providing a lower installed $ per kVA for standby power customers."

Pramac's new stationary diesel generator line: GDW Series

PRAMAC HAS INTRODUCED its new stationary diesel product line, which is designed to meet or exceed the needs of any application, from 10kVA to 820kVA. This innovative line joins Pramac's product family, and expands upon the capabilities of the existing GSW series.

The new GDW design brings versatility to real operations, allowing for additional support to projects that requires local needs, purpose and regulations.

This new line solidifies Pramac's global view of developing a basic core configuration for the power supply market that is compatible with a wide list of modules.

Pramac designed the new GDW series to be reliable, durable and scalable to meet the needs of today's industry professionals. The GDW generator series presents a package of strategic vital features that make the units adaptable:

- **Three possible genset versions: open, silent and extra silent**
- **Multiple fuel tank sizes ranging from 8 to 48+ hours of autonomy**
- **Manual, automatic or parallel control panels equipped with options for remote signalisation and/or control**
- **Extended option list to enhance the genset safety, security and protection levels according to ambient/site conditions and specific regulations**

Photo Credit : Pramac

Reliable, durable and scalable from 10 to 820kVA.

The first GDW models released for sale cover a power range from 10 to 280kVA, fitting top engine/alternator brands and high quality components.

The new Mercedes-Benz Zetros heavy-duty truck: all-round solution

THE NEW ZETROS has been completely reworked all around: from a technical standpoint, the Zetros remains available in Euro III and EuroV emission norms and comes equipped with a more powerful 12.8 litre engine, capable of delivering as much as 350 kW (476 hp) in Euro III and up to 375 kW (510 hp) in Euro V.

The Mercedes-Benz Zetros heavy-duty truck is, therefore, suitable for markets with poor fuel quality in regions such as the Middle East, Africa, and Latin America.

It has been developed for demanding transport tasks involving high payloads. That is why it is often used for delivering supplies to remote regions, as well as in energy exploration and in forestry operations, and can be used all over the world across all extreme climates – from hot desert regions right up to the Arctic.

All vehicles are equipped with a 16-speed manual gearbox with a striking 2400 Nm of torque at the highest engine output. On the outside, the company says, the new model generation is distinctive in its striking, restyled radiator grille, which, thanks to optimised airflow guidance, ensures even more effective cooling. The new Zetros keeps its signature characteristics with a low silhouette and the cab behind the engine concept, in addition to an optional fording ability of up to 800mm.

The robust off-road specialist

The Zetros will be available as a specialist truck with extreme off-roading capabilities, a product of its permanent all-wheel drive system with 4x4 or 6x6 configuration. The product portfolio will expand to include a 6x4 configuration and was due to start production in September 2020. The portfolio will be complete in the first quarter of 2021 with the introduction of the 4x2. All vehicles are available in three different wheelbases as well as different weight variants. The cabin interior features numerous detail improvements, such as a re-designed instrument panel and an electronic parking brake. It keeps vital characteristics of the predecessor, like the fully-fledged middle seat, as optional equipment.

Photo Credit: Mercedes-Benz

The new Mercedes-Benz Zetros heavy-duty truck.

A Mercedes & Benz Trucks spokesman said, “Whether long haul, construction site, off-road, or distribution transportation, the Mercedes-Benz brand offers the right solution for the light-duty, medium-duty, and heavy-duty truck segments.”

For more information about Mercedes-Benz Trucks visit trucks.mercedesbenzmena.com.

Trio cone crushers boost plant capacity in Oman

IN A DEMANDING application involving hard, coarse-grained gabbro for use as construction aggregate, a Trio TP350 cone crusher supplied by Weir Minerals Africa is being used in one of the largest crushing operations in Oman, raising production by 30%.

Photo Credit: Weir Minerals Africa

The Trio TP 360 cone crusher installed at an operation in Oman.

“The operators wanted to increase the crushing plant’s capacity to over 300 tonnes per hour,” says Tiisetso Masekwameng, general manager comminution, Weir Minerals Africa. “With its (Trio TP350 cone crusher) capacity of 340 to 370 tonnes per hour at the same closed side setting of 38 mm, we were sure it would deliver the right result.” Not only did it achieve the required output, but it also reduced downtime by 50%. Installation was straightforward, requiring only an adaptor motor base to accommodate the larger, 250kW electric motor.

She adds that these crushers are also designed to allow for maximum mobility without sacrificing versatility or crushing force. The Trio crusher range is compatible with Weir’s Synertrex technology for remote monitoring. Synertrex is an industry-internet-of-things (IIoT) platform that monitors mining equipment for peak reliability and performance.

Epiroc expands solid body hydraulic breaker tunnel range

EPIROC HAS TWO new additions to the popular tunnel version of its SB breakers. The new lightweight SB 202 Tunnel and the buff SB 552 Tunnel adds versatility on both ends of the range.

The thorough work of perfecting the proven SB breaker concept for underground applications led to the introduction of SB 302 and SB 452 Tunnel version in 2017. Both the lighter SB 202, weighing in at 200 kg, and the powerful SB 552, with a service weight of 560 kg, will share the qualities of the existing models. This extends the scope of suitable carriers to 2.5-15 tonnes, previously 4.5-13 tonnes.

Among the application-specific modifications are the exchangeable wear plate and the front shield dust cover that extends lifetime by preventing bigger rocks from damaging the body and keeping dust out.

The tunnel version is also equipped with integrated nozzles for water spraying, a feature with a positive effect on both health and safety. As the water catches the dust, the line of sight for the operator stays clear and the dust is kept on the ground.

Renault Trucks introduces T X-PORT model to African and Middle East market

RENAULT TRUCKS HAS launched a new model, specially converted and certified for the African and Middle Eastern markets – the Renault Trucks T X-Port. Based on a Renault Trucks T Euro 6 model with an 11-litre engine, this truck is being produced by the brand's Used Trucks Factory in Bourg-en-Bresse, France.

For users operating on the African continent and in the Middle East, where Euro 3 legislation is in force, Renault Trucks has developed the T X-Port. This is a Renault Trucks T Euro 6 model, converted to Euro 3 using strict industrial processes in the company's specialised Used Trucks Factory workshops, in order to guarantee the highest level of pollution reduction in force in these markets. A Euro 6 used truck driven without the addition of Adblue would be permanently damaged and its emissions would equate to those of a Euro 0 vehicle.

Photo Credit: Renault

Renault Trucks T X-Port has been designed to promote fuel savings.

A robust Euro 3 vehicle

The conversion starts with dismantling the Euro 6 components, namely the silencer and AdBlue components, which are then sent to the manufacturer's recycling network.

Operators at the Renault Trucks Used Trucks Factory then install the Euro 3 components and the reinforced filtration system. The software and manufacturer's documentation are updated, allowing the vehicle to be recognised throughout the network with its new features.

Meeting all needs in the road haulage sector

The Renault Trucks T range meets the needs of all companies operating in the road haulage sector: industrial transport, controlled temperature transport, tanker transport, and livestock transport.

Enhanced productivity Is provided by a GCW (gross combined weight) rating of up to 60 tonnes and a fuel tank capacity of up to 1,475 litres for long journeys.

New-gen 11LC series flat-top tower cranes from Comansa

COMANSA HAS LAUNCHED the new generation of 11LC flat-top tower cranes range and it will be soon expanded to the 16LC flat-top tower cranes.

Improvements include enhanced ergonomics, thanks to new and simplified accessing elements not only to the cathead, but also to the jib sections for an easy access to the trolley.

New drives in the hoisting winch and trolley give new linear movements with attached potentiometers. That makes it possible to easily move and precisely position sensitive loads.

In addition to this, a new version of the 18 kW hoist mechanism has been added to the six tonnes versions, requiring less power supply while maintaining drum capacity and speed features.

Power lift system comes standard, improving the load diagram by 10% at reduced speeds for jobs that require.

Optional 24 kW and 37 kW hoist motors feature the Effi-Plus system which increases significantly the hoisting and lowering speeds for light loads without increasing power or consumption.

Photo Credit: Comansa

The quick set system has been introduced in the 11LC flat-top tower crane family as an option.

The quick set system, already available in the 21LC flat-top tower crane series, has been introduced in the 11LC flat-top tower crane family as an option. This technology is designed to simplify the commissioning of tower cranes. Comansa continues to propose four flat-top tower crane models of the series: 11LC90, 11LC132, 11LC150 and 11LC160, adding to the product range a new 6 tonnes version of the 11LC150.

Gensets Buyers' Guide 2020

The Middle East's annual where-to-buy guide

Section One: International and regional suppliers of Gensets
Section Two: Contact details of Middle East agents & subsidiaries listed by country, page 42

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ABZ manufactures, installs and services custom-built diesel gensets of 50 kVA to 5000 kVA capacity for continuous, stand by or peak load operation for all possible applications as stationary, mobile, containerized or canopied units. A wide range of control systems and switchboards for all kinds of operations is available.

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Emirate's solar vision

Dubai is a good example of a regional drive to reduce the cost of water production from seawater desalination through the use of solar energy to power the process. In March, Dubai Electricity and Water Authority (DEWA) announced that the emirate was adopting 'three pillars' to ensure the sustainability of water production based on using clean solar energy to desalinate seawater using the latest Reverse Osmosis (RO) technologies (RO requires less energy than the Multi-stage Flash Distillation (MSF) process, making RO a more sustainable choice for water desalination). Using this approach, excess water is stored in aquifers and pumped back into the water network when needed. The company claims this integrated, innovative model not only protects the environment, but is a sustainable economic solution. By adopting this strategy, DEWA says it will ensure that by 2030, 100% of desalinated water will be produced by a mix of clean energy that uses renewable energy and waste heat, in turn allowing Dubai to exceed global targets for using clean energy to desalinate water. Increasing the operational efficiency in decoupling desalination from electricity production will, the company claims, save around US$3.53bn (AED 13bn) and reduce 43 million tonnes of carbon emissions by 2030.

DEWA also says that the RO process will help the company's water-production capacity expand to 305 million gallons of desalinated water per day, then further increasing desalinated water production capacity to 750 million gallons of desalinated water per day by 2030.

> The cost of producing water via solar dome technology is estimated at US$0.34/cu/m.

In line with the three pillars approach, DEWA is already collaborating with the UAE Water Aid Foundation (Suqia UAE), under the umbrella of the Mohammed bin Rashid Al Maktoum Global Initiatives, in the research and development of water desalination using solar power. The two parties have developed an RO water desalination plant using PV solar delivering a capacity of 50cu/m of water per day, with seven hours of power storage at the Mohammed Bin Rashid Al Maktoum Solar Park. The project relies on a hybrid energy system combining 100-kW PV cells and a battery power storage system with a 520-kWh capacity. DEWA and Suqia UAE have previously cooperated on RO desalination using PV cells to produce 7.7 cu/m of water per day. It's worth noting that DEWA's R&D centre at the Mohammed bin Rashid Al Maktoum Solar Park highlights four major operational areas: electricity generation from solar energy, integration of smart grids, energy efficiency, and water production.

Solar dome for Saudi's NEOM

At the start of 2020, Saudi Arabia's NEOM project announced that it will adopt pioneering solar technology to produce low-cost, environmentally-friendly water, having signed an agreement with UK-based Solar Water to build the first ever solar dome desalination plants in NEOM, located in northwest Saudi Arabia. The cost of producing water via solar dome technology is estimated at US$0.34/cu/m, which, it is claimed, would be significantly lower than desalination from plants using RO. The technology will also significantly reduce the impact on the environment by producing more concentrated brine, a potentially harmful by-product of the water-extraction process.

Nadhmi Al-Nasr, CEO of NEOM, said, "Easy access to abundant seawater and fully renewable energy resources means NEOM is perfectly placed to produce low-cost, sustainable fresh water through solar desalination."

Work on the first solar dome began in February. ■

Sharp introduces new 440W half-cut cell PV panel NU-JD440

SHARP HAS ANNOUNCED the addition of a new 440W monocrystalline silicon photovoltaic (PV) panel to its half-cut cell portfolio.

Available now, the NU-JD440 has a module efficiency of 19.9% and uses 144 M6 wafer size half cells. This decreases the balance-of-system costs per watt-peak installed across the whole BOS component range, providing customers with lower levelised costs of electricity (LCOE) and a higher return on investment.

The new module features 9 BB (multi busbar) technology using round ribbons which increases the power gain from each cell and making them less sensitive to microcracks, offering higher module reliability.

A low temperature coefficient of -0.347%/°C for the power output ensures higher performance at high environmental temperature, which becomes increasingly important due to climate change and the resulting rise in temperatures.

New 440W half-cut cell PV panel NU-JD440 from Sharp.

In addition, the NU-JD440 module uses 1,670mm cables which enable trouble-free wiring in landscape installations and also allows for leapfrog wiring when installing in portrait, helping to further reduce system costs.

All Sharp half-cell modules have three small junction boxes instead of just one, each fitted with one bypass diode. These junction boxes are transferring less heat to the cells above and in turn boost the longevity of the panels and the overall performance of the system.

Jens Meyer, manager, product engineering, Sharp Energy Solutions Europe said, "We are pleased to expand our half-cut cell portfolio with a higher wattage size module of 440W. The NU-JD440 reduces the levelised cost of energy across various applications. With our regularly updated product portfolio, our team based in Germany and services offered across Europe, Africa and Middle East our customers can always count on maximised product and service value."

The safety, quality and durability of the panel has been recognised with IEC seals (IEC61215 and IEC61730). The modules have been rigorously tested for compliance with international standards and endurance under extreme conditions, passing tests for ammonia, salt mist, sand and PID resistance.

The Middle East logistics sector had up to now relied more on manual labour.

Photo Credit: Messe Frankfurt ME

Turning to automated technologies

As COVID-19 forces major shift in consumer behaviour, warehousing and logistics sector is increasingly moving towards automation. The pandemic's influence on online shopping leads Middle East retailers to adapt supply chain infrastructure.

> The Middle East has often lagged behind other markets regarding warehouse automation adoption.

COVID-19'S IMPACT ON consumer buying has advanced demand for automation technologies in the Middle East warehousing and logistics industries, with retailers scrambling to adapt their supply chain infrastructure to address a surge in online shopping.

That's the view of Alain Kaddoum, general manager in the Middle East of Swisslog, an international supplier of robot-based and data-driven intralogistics solutions.

When the novel coronavirus was declared a pandemic by the World Health Organization (WHO) in March 2020, the global lockdown has drastically altered consumer shopping behaviour.

Customers for the most part turned to e-commerce in particular for daily staples such as groceries or pharmaceuticals, with micro-orders and same day or next day delivery a vital part of order request and fulfilment.

At the outset of the pandemic, however, Kaddoum said that traditional manual fulfilment processes became less practical due to labour constraints, inefficiency and a lack of scalability, along with warehouse storage and congestion issues.

"COVID-19 dramatically changed customer behaviour, presenting a new set of challenges for the supply chain industry," said Kaddoum.

"Shoppers flooded online websites with orders for essential and non-essential goods, leading to retailers feeling overwhelmed, resulting in delivery delays and logistics bottlenecks at their warehouses.

"A survey conducted at the end of March 2020 found that 65% of consumers had changed their grocery shopping behaviour as a result of the virus. And automation was the obvious answer for grocers or online retailers to adapt to a large step up in demand while still providing competitive

fulfilment times."

Global pandemics aside, e-commerce and online shopping has for the last few years driven demand for warehouses in the UAE especially, while the Middle East warehouse automation market is estimated to grow to be worth US$1.6bn in 2025, compared to US$700mn this year, stated Logistics IQ, a research advisory firm.

Statistics from the UK-based consultancy Business Monitor International (BMI) also estimates the average annual online spend per person in the UAE is US$300, compared to US$90 in Saudi Arabia and US$94 in France.

The UAE meanwhile has the region's highest mobile penetration rate, and digital commerce was identified as a high government priority in the UAE's Vision 2021. Combine all this with high purchasing power per capita says Kaddoum, and the demand for warehouses and automated solutions will only increase further.

Even so, on a global level, the Middle East has often lagged behind other markets regarding warehouse automation adoption; retailers and fulfilment centres typically had easy access to low-cost manual labour, opting against the higher initial capital outlay toward new technologies.

According to Kaddoum, there has always been an underlying appetite for warehouse automation in the region, however, industry players preferred a 'wait and see' approach. The pandemic has now turned that view on its head.

"Suddenly we saw automation plans for most businesses were accelerated," he added. "Those who earlier thought they had three years to adapt were now realising the timeline to be not more than 12 weeks."

Kaddoum was part of a panel discussion webinar hosted by Messe Frankfurt Middle East, organiser of Materials Handling Middle East, the region's only dedicated trade fair for warehousing, intralogistics and supply chain solutions. The webinar focused on forecasting future demand for logistics and warehouse space in a post COVID-19 era.

Mohsen Ahmad, CEO of Logistics District for Dubai South, was another of the five panellists. He said that COVID-19 increased the need for more automated and innovative technologies in the Middle East logistics sector that had up to now relied more on manual labour.

"Automation technology is still behind in the Middle East partially because there was easy access and availability of manpower and with the balance between manpower and automation, the preferred option was manual labour," commented Ahmad.

Growth of e-commerce will spur the demand for logistics space.

Photo Credit: Messe Frankfurt ME

"Moving forward though, with the challenges we've faced and with operations being shut down or majorly reduced due to COVID-19, this should be a wakeup call. Companies need to ask how they can stay operational and take care of the essential needs in the immediate environment, and COVID-19 provided a valuable lesson for everyone.

"It's in human nature to innovate and we have to utilise the technology that is available today and work closer together in the future for a win-win situation."

Kaddoum said that Swisslog Middle East will continue its efforts to help businesses address the strong need to shape the future development of logistics automation.

"One thing is certain: the winners in the corona crisis are companies that have processes developed to eliminate panic, mistakes and business fall down," added Kaddoum. "Since many e-commerce companies are already reaching their limits or are not yet properly equipped, we expect an increased demand for automation solutions, especially in these areas." ■

The biennial Materials Handling Middle East next takes place from 2-4 November 2021 at the Dubai Exhibition Centre. More information is available at www.materialshandlingme.com.

New opportunities for occupiers and investors

THE SAUDI ARABIA Industrial Market Review H1 2020 by Knight Frank Middle East confirms that the outlook for Saudi Arabia's industrial, warehousing and logistics sectors is likely to be challenging in the short to medium term. Despite these challenges, the development in regulations and soft and hard infrastructure are set to provide sizeable opportunities for occupiers and investors alike.

In the short term, to help the sector deal with the demand shock of COVID-19, the Saudi Industrial Development Fund (SIDF) has announced several initiatives including the rescheduling of loan payments for small and medium enterprises (SMEs) and medical factories. This will make available new financing products for pharmaceutical and medical supplies producers and revolving lines of credit initiatives to finance operating expenses of qualified SIDF SME clients.

The government has identified the industrial and logistics sector as a major component of its economic diversification strategy where the National Industrial Development Logistic Programme (NIDLP) looks to position Saudi Arabia as a leading industrial destination and as a global logistics hub for the mining, energy and logistics sectors. In an attempt to achieve these objectives, the NIDLP program plans to provide a range of essential enablers, including the provision of financing, development of infrastructure, expansion of the implementation of digitisation procedures, enhancing research, innovation and training and raising the efficiency of available cadres.

These long-term initiatives will be supported by the recent improvement of Saudi Arabia's soft infrastructure where the ease of doing business ranking has improved from 92 in 2019 to 62 in 2020. Low-quality warehouses are expected to see reduced levels of demand in the coming years, as prospective tenants will more likely demand better designed, sustainable, high-quality premises. The potential growth of e-commerce is expected to become a major driver of change in the logistics sector.

نظرة عامة على السوق الصناعية السعودية

ينقسم السوق الصناعي واللوجستي في المملكة العربية السعودية إلى نوعين من التطورات الصناعية؛ الأول الذي توفره الهيئة السعودية للمدن الصناعية ومناطق التقنية (مدن)، والثاني المدن الصناعية الخاصة. وتمتلك هيئة مدن حاليا 35 مدينة صناعية إما مكتملة أو قيد التطوير، تمتد على ما يقرب من 200 مليون متر مربع في جميع أنحاء المملكة العربية السعودية.

الإمدادات المتعلقة بالصناعات التحويلية في الرياض

في الرياض، جرى تخصيص حوالي 50 مليون متر مربع من الأراضي للتنمية الصناعية، وانتهى تطوير حوالي 28 مليون متر مربع منها حتى الآن. وتمثل المناطق التي طورتها هيئة مدن غالبية المنطقة المطورة، حيث تمثل التطويرات التي قامت بها هيئة مدن 73 في المائة من إجمالي المساحة المطورة. أما النسبة المتبقية البالغة 27 في المائة من الأراضي المطورة فقد طورها القطاع الخاص.

المستودعات والإمدادات اللوجستية بالرياض

تبلغ مساحة المستودعات والإمدادات اللوجستية بالرياض 23 مليون متر مربع من المساحة الإجمالية القابلة للتأجير. وتتألف الغالبية العظمى من المخزون الحالي من مشاريع تطوير تضم مستودعات تقليدية مثل التخزين الجاف والتخزين البارد والساحات المفتوحة.

الإمدادات المتعلقة بالصناعات التحويلية في جدة

تبلغ مساحة المدن الصناعية الأربع في جدة حوالي 105 مليون متر مربع من الأراضي المخصصة للتنمية الصناعية. وقد جرى تطوير ما يقرب من 29 مليون متر مربع حتى الآن من أصل 105 مليون متر مربع من الأرض.

المستودعات والإمدادات اللوجستية بجدة

على مدى السنوات الخمس الماضية، شهد مسرح عمليات التخزين والخدمات اللوجستية في جدة تغيرا ملحوظا. ومن أبرز التغييرات التي حدثت، نقل الأنشطة الصناعية من منطقتي النزهة والجامعة كجزء من خطط أمانة جدة لتجديد هذه المناطق. وقد بلغت مساحة التخزين والإمداد اللوجيستي بجدة حوالي 17,2 مليون متر مربع من المساحة الإجمالية القابلة للتأجير كما في الربع الأول من عام 2020. وتمتلك منطقة الخمرة الحصة الأكبر من المستودعات والإمدادات اللوجستية في جدة. حيث تمثل المستودعات والخدمات اللوجستية في مناطق الخمرة الشمالية والوسطى والجنوبية 81 في المائة من إجمالي المساحة القابلة للتأجير.

أداء السوق الصناعي واللوجستي

واجهت أسواق المستودعات والخدمات اللوجستية في الرياض وجدة قوى اقتصادية معاكسة وتحديات هيكلية مماثلة. ونتيجة لذلك، انخفض متوسط أسعار الإيجارات في الرياض وجدة بنسبة 5,4 في المائة و4,0 في المائة في العام حتى الربع الأول من 2020 على التوالي.

■ انخفض معدل الإشغال في قطاع المستودعات والخدمات اللوجستية في الرياض بنسبة أربعة في المائة في العام حتى الربع الأول من عام 2020، حيث بلغ معدل الإشغال 90 في المائة.

■ زادت نسبة الإشغال في قطاع المستودعات والخدمات اللوجستية بجدة بنسبة ثلاثة في المائة في العام حتى الربع الأول من عام 2020، حيث بلغ معدل الإشغال 93 في المائة.

ومن المتوقع أن تشهد المستودعات منخفضة الجودة مستويات منخفضة من الطلب في السنوات القادمة. إذ من المرجح أن يطلب المستأجرون المحتملون مباني مصممة بشكل

مدن جدة الصناعية الأربع تبلغ مساحتها الإجمالية 105 مليون متر مربع

أفضل وتتمتع بالاستدامة وذات جودة عالية. ومن المتوقع أن يصبح النمو المحتمل للتجارة الإلكترونية محركا رئيسيا للتغيير في قطاع الخدمات اللوجستية.

توقعات السوق

على المدى القصير، يواجه قطاعا الصناعة واللوجستيات في المملكة العربية السعودية بعض القوى المعاكسة، وتحديدا نتيجة لجائحة كوفيد 19- وعلى خلفية الإصلاحات المتعددة التي سنتها الحكومة السعودية. فنظرا لظروف الاقتصاد الكلي الصعبة هذه، نتوقع أن تنخفض معدلات الإيجار ومستويات الإشغال على مدار عام 2020.

وقد علق على ذلك تيمور خان، الشريك المساعد في نايت فرانك الشرق الأوسط، قائلا: «من المرجح أن تكون التوقعات لقطاع الصناعة والتخزين والخدمات اللوجستية في المملكة العربية السعودية صعبة على المدى القصير إلى المتوسط. ومن المحتمل أن يكون هذا الاتجاه مدعوما بمستويات منخفضة من طلبات المستهلكين، وهو اتجاه من المرجح أن يتفاقم أكثر من خلال مضاعفة ضريبة القيمة المضافة ثلاث مرات، وسط توقعات بتراجع ملحوظ في النشاط الاقتصادي خلال العام المقبل نتيجة لجائحة كوفيد 19- ونتيجة للإصلاحات المتعددة التي سنتها حكومة المملكة العربية السعودية. حيث صُممت اللوائح الجديدة، التي قد تُشكّل تحديات في البداية، من أجل ازدهار القطاع على المدى الطويل. ونظرا لطبيعة الازدهار الناشئة للقطاع في المملكة العربية السعودية، والموقع الاستراتيجي للمملكة العربية السعودية والاقتصاد المحلي الكبير إلى جانب لوائحها المرنة، تظل الأساسيات التي يقوم عليها قطاع الصناعة واللوجستيات المتنامي قوية، على الرغم من وجود بعض التحديات المذكورة أعلاه على المدى القصير».

مفكرة الفعاليات 2020

أكتوبر/تشرين الأول		
14 ـ 15	منتدى نمذجة معلومات البناء ـ BIM	الرياض
20 ـ 21	معرض التعدين	أونلاين
26 ـ 28	معرض تكنولوجيا المياه والكهرباء ـ ويتكس	أونلاين
ديسمبر/كانون الأول		
14 ـ 15	معرض الخليج للمرور	أونلاين

سيكون لكوفيد ـ 19 تأثير على قطاع الصناعة واللوجيستيات السعودي

فرص جديدة في قطاع الصناعة واللوجيستيات السعودي

تؤكد عملية استعراض السوق الصناعية السعودية للنصف الأول من عام 2020، التي أصدرتها مؤخرا وكالة نايت فرانك الشرق الأوسط، أن التوقعات لقطاعات الصناعة والتخزين والخدمات اللوجستية في المملكة العربية السعودية من المرجح أن تكون صعبة على المدى القصير إلى المتوسط. وعلى الرغم من هذه التحديات، فإن عمليات التطوير في اللوائح والبنية التحتية الخدمية والمادية من المقرر أن توفر فرصا كبيرة للعاملين والمستثمرين على حد سواء.

نظرة عامة على الاقتصاد الكلي

من المتوقع أن ينكمش الناتج المحلي الإجمالي للمملكة العربية السعودية بنسبة 6,8 في المائة في عام 2020 على خلفية إجراءات الإغلاق الصارمة وانهيار أسعار النفط والتخفيضات اللاحقة في الإنتاج كجزء من صفقة أوبك +، حيث من المتوقع أن ينخفض الناتج المحلي الإجمالي غير النفطي بنسبة 4,0 في المائة في عام 2020، حسب التقديرات الأولية لصندوق النقد الدولي.

نظرة عامة على القطاع

لمساعدة القطاع، على المدى القصير، في التعامل مع صدمة الطلب في ظل جائحة كوفيد 19-، أعلن صندوق التنمية الصناعية السعودي (SIDF) عن العديد من المبادرات؛ منها إعادة جدولة مدفوعات القروض للمؤسسات الصغيرة والمتوسطة والمصانع الطبية. وسيتيح ذلك الأمر منتجات تمويل جديدة لمنتجي المستلزمات الصيدلانية والطبية وكذلك خطوط ائتمانية متجددة لتمويل نفقات تشغيل صندوق التنمية الصناعية السعودي للعملاء المؤهلين من المؤسسات الصغيرة والمتوسطة.

وقد حددت الحكومة القطاع الصناعي واللوجستي كعنصر رئيسي في استراتيجيتها للتنويع الاقتصادي. إذ يتطلع البرنامج اللوجستي للتنمية الصناعية الوطنية (NIDLP) إلى وضع المملكة العربية السعودية كوجهة صناعية رائدة وكمركز لوجستي عالمي للتعدين والطاقة والقطاعات اللوجستية.

وفي محاولة لتحقيق هذه الأهداف، يخطط البرنامج اللوجستي للتنمية الصناعية الوطنية توفير مجموعة من العوامل التمكينية الأساسية، والتي تشمل توفير التمويل وتطوير البنية التحتية والتوسع في تنفيذ إجراءات الرقمنة وتعزيز البحث والابتكار والتدريب ورفع كفاءة الكوادر المتاحة. وستدعم هذه المبادرات طويلة الأجل التحسينات الأخيرة للبنية التحتية الخدمية في المملكة العربية السعودية، فقد تحسّن تصنيف سهولة ممارسة الأعمال التجارية من المرتبة 92 في عام 2019 إلى المرتبة 62 في عام 2020.

المحتويات

القسم العربي

تحليلات

ملخص محتويات القسم الانجليزي

طاقة: الطاقة الشمسية في دول مجلس التعاون الخليجي.

مولدات كهربائية: الطاقة لمواقع البناء ومراكز البيانات.

إنشاءات: تنشيط نموذج الأعمال.

لمحات عن بعض البلدان: المملكة العربية السعودية.

تصنيع: استراتيجيات جديدة للمعتاد الجديد.

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فريق التحرير والتصميم: ميريام بريتكوفا، راؤول بوتينفيدو، فاني فينوجوبال، لويز ووترز
فينا اشوات، بارفين سي پي، مانوج كومار، نوناليتكا نونجروم ، سمانثا باين، دبلينا روي .

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فاكس: ٩٢٦١ ٤٤٨ (٤) ٩٧١+

المكتب الرئيسي:
Alain Charles Publishing Ltd
University House, 11-13 Lower
Grosvenor Place
London SW1W 0EX UK
هاتف : ٢٠٧٨٣٤٧٦٧٦ (٠) ٤٤+
فاكس : ٢٠٧٩٧٣٠٠٧٦ (٠) ٤٤+

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الوكيل البريدي بالولايات المتحدة: النشرة التقنية ـ الشرق الأوسط Technical Review Middle East ISSN 0267 5307
تنشرها ست مرات في العام، لقاء 99 دولاراً أمريكياً، شركة آلان تشارلز للنشر
Alain Charles Publishing , University House, 11-13 Lower Grosvenor Place, London, SW1W 0EX, UK
يتم سداد ثمن المجلات لدى: Rahway, NJ.

مدير البريد: أرسل التصحيحات إلى: Alain Charles Publishing Ltd, c/o Mercury
Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001. US
Agent: Pronto Mailers International, 200 Wood Avenue, Middlesex, NJ 08846

الإنتاج: سريندي شيكارز، نلي ميندیز، باكشيت شيفاكومار
بريد إلكتروني: production@alaincharles.com

الإشتراكات: بريد إلكتروني: circulation@alaincharles.com

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