Middle East Energy Dubai

MEE Dubai Daily

DAY TWO 4TH MARCH 2020

HH Sheikh Ahmed Bin Saeed Al Maktoum Opens Middle East Energy 2020

45th edition of global energy platform spotlights latest breakthroughs in transitional sector amid greater demand, digitalisation and diversification

His Highness Sheikh Ahmed bin Saeed Al Maktoum, President of Dubai Civil Aviation Authority opened the 45th edition of Middle East Energy, previously known as Middle East Electricity, on 3 March at Dubai World Trade Centre (DWTC).

Touring the exhibition, HH Sheikh Ahmed explored the latest technologies and solutions being displayed by more than 1,100 local, regional and international exhibitors at the global energy event, which runs until 5 March.

With global energy consumption set to double by 2050, according to the Energy & Utilities Market Outlook Report 2020 by Informa Markets, organiser of Middle East Energy, the 2020 edition is bringing together companies and visitors from more than 100 countries to find solutions to the challenge of meeting the world's growing energy needs.

In the opening plenary session of the conference, Dr Nasser Saidi, chairman of the Clean Energy Business Council (CEBC) addressed the key challenges of meeting power demand during the transition towards cleaner and renewable sources of energy.

"Currently, there are 7GW of renewable energy projects in the region and this is very encouraging for the transformation of the energy mix in GCC countries. If you look at prices, we are currently at lower than $0.02 per kilowatt for renewable energy and heading towards $0.01," he said.

"This means the region is not only at the forefront in adopting renewable sources such as solar power, it means fossil fuel power generation is now being outcompeted by renewables. If you're going to invest in the regional energy sector, it has to be in renewables. They are much more efficient, cleaner for the environment and can be achieved at much less cost," Saidi told the conference.

Saidi added that ending regional energy subsidies, which have historically kept energy prices lower, will benefit both public and private sectors, consumers and the planet, with the opportunity for money previously set aside for subsides to be used in renewables-based research and development, job creation and a greater understanding of how much energy is being consumed versus how much is actually needed.

The clean energy advocate also stressed the region is primed to take the lead in energy grid integration, stressing his desire for "everyone across the GCC to have their own power plant" is unnecessary.

"Region primed to make switch from energy consumers to energy exporters"

Nasser Saidi
Chairman
Clean Energy Business Council, Mena

"Let's integrate the grids across the UAE, across the GCC. Integrated cooperation across the GCC will make for greater efficiency. It means that if there is a surge in energy demand in one location, it can be satisfied by other countries on the grid."

Saidi told Middle East Energy delegates that while clean energy targets are a start, they should form part of a wider framework centred around climate policy and decarbonising economies for the future, insisting Mena governments and energy companies are already in the driving seat to chart a decarbonised future.

"There is an enormous opportunity for the region to invest in the industry and create jobs. We've long been energy consumers; now we should become exporters of renewable energy. There's no reason why we cannot be at the forefront, as producers of solar technology, to link Europe and North Africa," added Saidi.

"If there's one place where we should be doing research and development in solar it is here, not in Europe. We have 365 days of sunshine. Let's take the lead, build homegrown technology and become exporters of that technology. We can partner with countries such as China who are at the forefront of solar technology. I think this is the answer."

The renewable energy discussion continues on day two of the show (March 4), with topics including: 'The Middle East and Emission-Free Technology Mix'; 'Disruptive Technologies, Hybrid systems and Smart Grid solutions', in addition to other focused sessions on solar power and digitalisation.

Middle East Energy is held under the patronage of HH Sheikh Maktoum Bin Mohammed Bin Rashid Al Maktoum, Dubai Deputy Ruler and is hosted by the UAE Ministry of Energy.

Middle East Energy will be open daily from 10-6pm and, following a partnership between the event organiser Informa Markets and Dubai Expo 2020, exhibition goers can purchase Expo 2020 tickets at this week's show. A range of Informa Markets exhibitions will be held as part of the Expo 2020 experience.

Green hydrogen rises to the fore

Green hydrogen is the most important emerging trend in the renewable energy sector today, Cornelius Matthes, SVP, Dii Desert Energy and CEO, Kuwekesa Holdings told the Intersolar conference in Dubai on 3 March.

Matthes described green hydrogen as a gamechanger in the energy industry and said it was now receiving huge attention thanks to the fall in renewable energy prices to below 2 $cents a kilowatt hour. Within the Middle East, Matthes said Dubai would soon commissioning a 2.5MW green hydrogen project at its Mohammad Bin Rashid Solar Park, and Saudi Arabia, Morocco, Algeria and Oman are also looking at the technology.

"We will see more and more green hydrogen pilot projects," Matthes said, and he predicted the cost electrolisers, which comprises about one third of the cost of green hydrogen, will come down significantly in the next few years. "Green hydrogen will be competitive with natural gas in 25 years from now."

Matthes revealed he would be announcing the launch of the Mena Hydrogen group at 5pm on 4 March at the Intersolar exhibition.

"Green hydrogen is very interesting, and I am certain that in 2030 we will look back at this as the beginning of the green hydrogen revolution," he said, adding that green hydrogen will have a crucial role to play in helping Europe meet its 2050 decarbonisation targets. "It has the flexibility to decarbonise the entire economy."

The other key trends that Matthes highlighted for the decade ahead included the spread of net metering across the region, hybrid renewables projects, floating solar power, energy efficiency, and the launch of market trading in the Gulf region, which "will have a profound impact on the market".

Middle East must focus on reducing wasteful use of energy

The Middle East needs to focus more on curbing the wasteful use of energy, Dr Nasser Saidi, Chairman, Clean Energy Business Council (MENA) told the Middle East Energy (MEE) 2020 conference on 3 March.

While the region is at the forefront of renewable energy development, with more than 7GW of renewable projects in the pipeline, not enough is being done to tackle the inefficient consumption of energy, which is being encouraged by low prices.

"The price of energy is low because it is subsidised and this encourages the overuse of energy and inefficiencies," he said, adding that governments need to be talking about renewables and energy efficiency simultaneously. "We need to move beyond renewable energy targets and be cognisant of the reality... the bigger problem is the issue of climate change."

The countries of the Middle East face rising sea levels, increasing desertification, population displacement, and rising heat levels as a consequence of climate change.

Saidi said renewable energy targets need to be put within the framework of decarbonising economies. He recommended governments remove energy subsidies and impose a carbon tax of $35-50 a tonne.

"Targets and renewables are very nice, and we can applaud ourselves for those, but they are just targets. What is at stake is our existence."

MEE 2020 is being held under the patronage of the UAE's Ministry of Energy and runs from 3-5 March at Dubai World Trade Centre.

Abu Dhabi leads regional push for sustainable finance

Abu Dhabi Global Market (ADGM) is committed to becoming a hub for sustainable finance for the region, Mercedes Vela Monserrate, Associate Director International Affairs told the Middle East Energy (MEE) 2020 conference on 3 March.

In order to create a supportive ecosystem for sustainable finance, ADGM published in January the UAE's first set of guiding principles on sustainable finance, which addresses taxonomy, disclosure and governance.

January also saw the launch of the Abu Dhabi Sustainable Finance Declaration, which has now been signed by more than 35 public, private, local and international entities.

Monserrate told the conference that other initiatives that ADGM has recently help to launched include the Abu Dhabi Climate Initiative to fast-track research and development in water and climate technology, a green bond accelerator programme, and a sustainable real estate investment trust in conjunction with Masdar.

Developers submit revised proposals for 1.5GW Abu Dhabi solar project

Bidders have resubmitted revised proposals for the planned 1.5GW Al-Dhafra photovoltaic (PV) solar project in Abu Dhabi.

The five bidders submitted revised proposals on 1 March, according to sources close to the project.

Energy & Utilities reported in February that bidders had been asked to submit revised proposals, which included significant additional information and clarifications, for the Al-Dhafra independent power producer (IPP) project.

The following five bidders had submitted original proposals on 21 November:

- Acwa Power (Saudi Arabia)/ Shanghai Electric (China)
- EDF (France)/ Jinko Power (China)
- Engie (France)/ AlFanar (Saudi Arabia)
- Softbank Energy (Japan)/ Eni (Italy)
- Total (France)/ Marubeni (Japan)

According to sources close to the project, the client is planning to announce the tariff and select the preferred bidder in mid-March.

The project will involve the financing, construction, operation and maintenance of the solar plant under a long-term power purchase agreement. The successful developer will form a special-purpose vehicle (SPV) company in partnership with Ewec. The successful developer will own up to 40 per cent of the SPV, with the Abu Dhabi government to hold the remaining 60 per cent stake.

The project will be Abu Dhabi's second major PV solar scheme.

In February 2017, the emirate awarded a contract to a consortium led by Japan's Marubeni Corporation and China's Jinko Solar to develop a 1,177MW PV solar IPP at Sweihan, the world's largest single-site solar project. The Sweihan IPP was fully commissioned in June 2019.

Saudi Aramco to invest $110bn on Jafurah unconventional gas development

Oil company has already issued tender for independent steam and power project at the Jafurah field

State oil company Saudi Aramco is planning to invest $110bn to develop unconventional gas reserves in Saudi Arabia's Al-Jafurah field.

The plans were approved by the Saudi High Commission for Hydrocarbons during a meeting chaired by the kingdom's Crown Prince Mohammed bin Salman. The crown prince revealed that the development would lead to annual net income of $8.6bn and contribute $20bn to the kingdom's gross domestic product (GDP) every year.

The Jafurah field is expected to produce 500,000 barrels per day (b/pd) of gas liquids and condensates and 130,000 barrels per day (b/pd) of ethane.

In line with the Vision 2030 masterplan, Riyadh is aiming to ensure the kingdom remains self-sufficient in gas supply as demand for power continues to grow in the residential and industrial sectors.

Saudi Aramco has tendered a contract for developers to submit proposals for the planned Jafurah cogeneration independent steam and power plant (ISPP).

In December, Aramco extended the bid submission date to 15 March from the previously set deadline of 31 January. This had already been extended from the original submission date of 1 December 2019.

The cogeneration plant will have a power capacity of 270MW-320MW and a low-pressure (LP) steam demand of 77-166 thousand pounds an hour (klb/hr) and high-pressure (HP) steam demand of 29-126 klb/hour by 2023. The LP and HP steam demand will increase to 283-373 klb/hr and 66-321 klb/hr by 2027 respectively.

Aramco has set a target commissioning date for the project for 31 March 2023. The local SMBC has been appointed as financial adviser for the scheme.

Oman to tender 1GW of solar capacity in March

Oman Power & Water Procurement Company (OPWP) is planning to issue tender documents for two planned 500-600MW photovoltaic (PV) solar independent power producer (IPP) projects in March.

After having received prequalification entries from 14 groups in August, OPWP prequalified nine groups in December last year to participate in the upcoming bidding round for the Manah 1 and Manah 2 projects.

According to sources close to the projects, the client is preparing to issue the request for proposals (RFP) to prequalified groups in March.

The following nine groups have been prequalified:

- Abu Dhabi Future Energy Company (Masdar), EDF Renewables (France)
- Acwa Power (Saudi Arabia)
- Eni (Italy), SB Energy (Japan)
- Jinko Power (China)
- Korea Western Power Company (South Korea), Hanyang Corporation (South Korea), Solar Reserve (US), Nafath Renewable Energy (Oman)
- Marubeni Corporation (Japan)
- Power Construction Corporation of China
- Tag Energy, Al-Shanfari Group (Oman)
- Total Solar International (France)

The PV solar plants will be developed at Manah, 150km southwest of the capital Muscat. US/Indian Synergy Consulting has been appointed as financial adviser by OPWP, with DLA Piper providing legal advisory services and Germany's Fichtner providing technical advisory services.

Oman's government is planning for renewable energy to contribute 10 per cent of the country's total generating capacity in the main interconnected system by 2025.

The first 500MW is due to come online in 2022. A consortium led by Saudi Arabia's Acwa Power is developing the Ibri 2 IPP project, having signed the final project agreements in May last year.

Operating licence issued for first phase of UAE nuclear power project

The UAE's independent nuclear regulator, Federal Authority for Nuclear Regulation (FANR), has issued the operating licence for the first reactor of the 5.6GW Barakah nuclear power project.

The licence was issued to the Nawah Energy Company (Nawah), the Emirates Nuclear Energy Corporation (Enec) subsidiary, established to operate the $24.4bn nuclear power plant, which is being developed by a consortium led by Korea Electric Power Corporation (Kepco).

The operating licence enables Nawah to operate the first reactor for a period of 60 years. The overall construction work on the project is 93 per cent complete. With construction work on the first unit having been completed, the second unit is 95 per cent complete, with units three and four 92 per cent and 83 per cent complete respectively.

The issuance of the operating licence for the first reactor marks a significant step forward for the plant, which has fallen a number of years behind schedule. The first reactor had been due to come onoine in 2017, with the remaining three to come online one-a-year up until 2020.

The consortium developing the project, including Kepco and other South Korean firms Doosan Heavy Industries and Samsung Corporation, was awarded an estimated $20bn contract to develop the project in 2009.

Three groups work on proposals for Saudi PPP utilities package

Three groups are working on proposals for a project to develop utilities and related infrastructure under a public-private partnership (PPP) model for the first phase of the Red Sea Tourism development on the west coast of Saudi Arabia.

According to sources close to the scheme, the following prequalified three groups are working on proposals for the tender:

- Acwa Power (local)
- Engie (France)
- SEC (local)/Masdar (UAE)

The PPP contract will include the provision of power and water production, sewage treatment and solid waste treatment.

Under the first phase of the Red Sea development, which is due to be commissioned in 2022, power generation capacity will be required to service a peak demand of 210MW. Power is planned to be generated for the first phase from photovoltaic (PV) solar, wind energy, energy storage batteries and biofuel emergency power.

Under the second phase, which is due to be commissioned by 2030, power generation capacity will be required to meet peak demand of 360MW. The client is planning for geothermal and concentrated solar power (CSP) to add additional capacity by 2030.

For water production, two seawater reverse osmosis (SWRO) plants will be developed with a capacity of 30,000 cubic metres a day (cm/d) under the first phase. The demand will be split between potable water, 21,000 cm/d, and irrigation top-up, 9,000 cm/d.

Under the second phase, an additional SWRO plant will be developed in addition to brine squeezer and chlor-alkali technologies to meet expected demand of up to 50,000 cm/d, split 39,000cm/d and 11,000cm/d between potable water and irrigation top-up respectively.

The selected developer will also be required to provide a sewage treatment plant (STP) with a capacity to treat up to 18,000 cm/d of sewage under the first phase of the project through a constructed wetlands scheme. The peak sewage flow of the development is expected to reach 34,000 cm/d by 2030.

For the waste treatment development, the PPP contract will cover collection, automatic recovery and waste-to-energy production for up to 30 tonnes per day (t/d) under the first day. This will rise to 55 t/d by 2030,

The client Red Sea Development Company (TRSDC), wholly-owned by state wealth vehicle Public Investment Fund (PIF), was established in line with the kingdom's Vision 2030 economic reform plan to diversify the country's economy and increase the kingdom's tourism sector.

Under the first phase development, TRSDC is planning to develop five islands, two inland sites and deliver 3,000 hotel keys to accommodate 300,000 visitors a year by 2022.

By 2030, the client hopes to have developed 22 islands, six inland sites and have delivered 8,000 hotel rooms to service up to 1 million visitors a year.

KEMA Labs

KEMA Labs is a CESI brand, the world-leading testing, consulting and engineering company in the field of technology and innovation for the power sector.
The recent acquisition of KEMA Labs makes CESI the world's leading provider of independent testing of power components. With our world's most advanced laboratories, we are positioned to offer, under the KEMA Labs brand, top-class testing and inspections services to world-wide customers. Our clients are utilities, TSOs, DSOs, financial investors, electromechanical manufacturers, governments and regulatory authorities.
CESI is headquartered in Milan and with facilities in Berlin, Arnhem, Mannheim, Prague, Dubai, Knoxville (USA), Rio de Janeiro and Santiago de Chile.

kema.com

CESI
Shaping a Better Energy Future

Region targets clean energy and smart infrastructure

ALFANAR IS A MULTI-FACETED COMPANY – WHAT SERVICES DO YOU SEE THE MOST DEMAND FOR IN 2020?

Alfanar is committed to meeting the ever-growing demand for power infrastructure across the world. We are primarily engaged in manufacturing electrical construction products, Engineering, Procurement and Construction (EPC) solutions for conventional and renewable power plants, allied engineering services and design engineering. We have built up an international presence throughout much of the Middle East, Asia, Africa, and Europe.

Through our construction arm, we provide turnkey EPC solutions for conventional and renewable energy power plants, project development, Operations and Maintenance (O&M) and field services.

We anticipate demand for the following products and services in 2020:

- Renewable Energy
- Smart Grids; Smart Metering
- Distribution and Substations Automation
- Transformers and Package Substations
- Medium Voltage Systems and Solutions
- Low Voltage Systems and Solutions

THERE IS MUCH ANTICIPATION ABOUT THE POTENTIAL OF YOUR HOME MARKET OF SAUDI ARABIA WITH ALL IT HAS PLANNED OVER THE NEXT DECADE – WHERE DO YOU SEE THE MOST AREAS OF OPPORTUNITIES FOR YOUR BUSINESS?

Saudi Arabia's 2030 Vision has inspired alfanar to maximise our potential by targeting the wealth of knowledge our people have and use the power of this knowledge to create a sustainable technological future for generations to come.

Acknowledging the untapped human resources we have, and using this resource by sharing knowledge in order to explore unparalleled avenues to the fullest extent, honouring our environment and cooperating with both the government and private sector, presents us with the unique opportunity to make this vision a reality.

In line with this objective, alfanar is focusing on developing and manufacturing renewable and sustainable energy-related products and solutions to serve the increasing demand of the Saudi market. These areas include:

- Renewable Power Project Development
- Clean Energy and Electrical Vehicle (EV) Charging
- Smart Grid Solutions
- Smart Solutions for Homes & Buildings
- Energy Management Systems and Energy Storage

COULD YOU ELABORATE ON THE IMPACT THAT ENERGY TRANSITION TOWARDS RENEWABLE ENERGY AND LOWER CARBON EMISSIONS IS HAVING ON YOUR BUSINESS?

The energy transition towards lowering carbon emissions and developing renewable energy is no longer a global phenomenon but a reality that industry has accepted and is looking for solutions to. The impact of this demand for solutions has created opportunities for alfanar to integrate our knowledge and experience of traditional energy with alternative energy using advanced technologies such as IoT and AI to develop carefully tested and researched solutions.

Alfanar is passionate about minimising the environmental impact of the energy industry, and we recognise that the future of the industry depends on embracing alternative energy sources.

We specialise in developing and investing in renewable energy projects created by this energy transition, including CSP, PV, wind energy, biomass, geothermal, and waste-to-energy schemes.

By securing infrastructure development opportunities through its industry-leading expertise and experience in the tendering, financing and structuring of infrastructure projects, alfanar's long-term commitment is not only to its partners and industry but also to the local and international communities we serve. Because of the all-encompassing nature of this energy transition, alfanar's potential market has expanded, and we now have the opportunity and capacity to serve markets around the world.

HOW IMPORTANT IS RESEARCH AND DEVELOPMENT (R&D) TO YOUR BUSINESS?

At the heart of all industry is the successful research and development components that a company has in place. Understanding our customer's challenges, researching the problem, then developing a solution is a big part of our business. Alfanar operates a number of well-equipped research and development laboratories staffed by highly qualified engineers who take on these challenges allowing us to keep abreast of the latest developments in our industries.

We are engaged in various research and development projects that focus on supporting electrical utility companies to ensure their power efficiency by reducing power losses in the grid.

The magnitude of these R&D projects translates into a direct impact on creating a reliable power supply for individual, commercial, and industrial users.

WHAT IMPACT WILL THE INTERNET OF THINGS (IOT) AND ARTIFICIAL INTELLIGENCE (AI) HAVING ON THE ENERGY SECTOR?

With the fast pace that technology has advanced, the impact of IoT and AI on the energy sector was inevitable with customers looking for technological solutions that, for example, can be monitored remotely or provide additional IoT security to reduce human error. This demand has had a direct influence on the manufacturing industry and our businesses in particular.

Over the years, alfanar has developed and used AI and robotics in its factories to streamline manufacturing and production. For example, AI robotics are used to assemble and install components that can't possibly be efficiently done manually. Having the capabilities to design and build AI robotics to our specifications and requirements gives us a huge technological advantage in the manufacturing process.

Additionally, throughout our business units, alfanar strives to acquire the latest technologies to meet the ever-growing demands of smart home technology and IoT in the MENA thereby staying one step ahead of our competitors and equipping our factories for the future.

Our product line includes several IoT solutions for both industrial and consumer applications. alfanar's Home Energy Solution is a real-time metering and sub-metering system for energy consumption and generation, with smart appliance monitoring analytics.

We have also developed an IP Video Door Intercom system and smart room management solution for consumer and commercial use. Both of these systems take full advantage of smartphone technology, allowing users remote control access capabilities.

On the industrial side, the IoT capabilities of our SFA-RM units enable utility companies to have full access, control and monitoring of transformer sub-stations or wind power plants that are located in remote areas of the country.

2020 – 2021 Events

GEO Middle East Geosciences Conference and Exhibition

16 - 19 MARCH 2020
MANAMA, BAHRAIN
www.geo-expo.com

THE BATTERY SHOW EUROPE

28 - 30 APRIL 2020
STUTTGART, GERMANY
www.thebatteryshow.eu

electric & hybrid vehicle technology expo europe

28 - 30 APRIL 2020
STUTTGART, GERMANY
www.evtechexpo.eu

Build Asia 2020

6 - 8 MAY 2020
HONG KONG
www.build4asia.com

Brazil Windpower

2 – 4 JUNE 2020
SÃO PAULO, BRAZIL
www.brazilwindpower.org

MIRECWEEK

2 – 4 JUNE 2020
MEXICO CITY, MEXICO
www.mirecweek.com/en

ENERGY SOLUTIONS SHOW

2 – 3 JUNE 2020
SÃO PAULO, BRAZIL
www.energysolutionsshow.com.br

Levant Energy

9 – 11 JUNE 2020
BEIRUT, LEBANON
www.levant-energy.com

ASEAN SUSTAINABLE ENERGY WEEK

11 - 13 JUNE 2020
BANGKOK, THAILAND
www.asew-expo.com

EVE ELECTRIC VEHICLE ASIA

11 - 13 JUNE 2020
BANGKOK, THAILAND
www.asew-expo.com

ASEAN SUPER 8 · ASEAN M&E SHOW · TENAGA EXPO & FORUM

23 - 25 JUNE 2020
KUALA LUMPUR, MALAYSIA
www.super8asean.com

ELECTRIC & POWER VIETNAM

9 – 11 SEPTEMBER 2020
HO CHI MINH CITY, VIETNAM
www.electricvietnam.com

RENEWABLE ENERGY RE VIETNAM

9 – 11 SEPTEMBER 2020
HO CHI MINH CITY, VIETNAM
www.renergyvietnam.com/en-us

THE BATTERY SHOW NORTH AMERICA 2020

15 - 17 SEPTEMBER 2020
NOVI, USA
www.thebatteryshow.com

electric & hybrid vehicle technology expo north america 2020

15 - 17 SEPTEMBER 2020
NOVI, USA
www.evtechexpo.com

ELENEX INDONESIA

16 - 18 SEPTEMBER 2020
JAKARTA, INDONESIA
www.elenexindonesia.com

Renewable Energy India

23 – 25 SEPTEMBER 2020
NOIDA, INDIA
www.renewableenergyindiaexpo.com

MOGSEC 2020
The 5th Malaysia Oil & Gas Services Exhibition And Conference

22 – 24 SEPTEMBER 2020
KUALA LUMPUR, MALAYSIA
www.mogsec.com.my

Nigeria Energy

22 - 24 SEPTEMBER 2020
LAGOS, NIGERIA
www.nigeria-energy.com

Saudi Energy · Renewable Energy Arabia

12 – 14 OCTOBER 2020
RIYADH, KINGDOM OF SAUDI ARABIA
www.saudiarabia-energy.com

CONSTRUCTION, POWER & MINING Myanmar 2019

21 - 23 OCTOBER 2020
YANGON, MYANMAR
www.cpmmyanmar.com

AIREC

NOVEMBER 2020
BUENOS AIRES, ARGENTINA
www.airecweek.com

Egypt Energy

4 – 6 NOVEMBER 2020
CAIRO, EGYPT
www.egypt-energy.com

OSEA

24 - 26 NOVEMBER 2020
MARINA BAY SANDS, SINGAPORE
www.osea-asia.com

East & Central Africa Energy

1 – 3 DECEMBER 2020
NAIROBI, KENYA
www.eca-energy.com

Society of Petroleum Engineers MEOS Middle East Oil & Gas Show and Conference

15 - 18 MARCH 2021
MANAMA, BAHRAIN
www.meos-expo.com

Middle East Energy Dubai

22 - 24 MARCH 2021
DUBAI, UAE
www.middleeast-energy.com

PhilEnergy · RE EE E&P EV ES · Towards Energy Security and Sustainable Development

24 – 26 MARCH 2021
METRO MANILA, PHILIPPINES
www.philenergyexpo.com

OGA

8 - 10 JUNE 2021
KUALA LUMPUR, MALAYSIA
www.oilandgas-asia.com

A PAMERINDO INDONESIA TRADE EVENT ELECTRIC & POWER INDONESIA

8- 11 SEPTEMBER 2021
JAKARTA, INDONESIA
www.electricindonesia.com

OIL&GAS INDONESIA

8 - 11 SEPTEMBER 2021
JAKARTA, INDONESIA
www.oilgasindonesia.com

Society of Petroleum Engineers KOGS Kuwait Oil & Gas Show and Conference

10 – 13 OCTOBER 2021
MISHREF, KUWAIT
www.kogs-expo.com

IstanbulLight

2021
ISTANBUL, TURKEY
www.istanbullight.com

informa markets

energy@informamarkets.com

Q&A: Middle East Water Sector with Lu'ay Khdeir, Mott MacDonald

In conversation with: Lu'ay Khdeir, water sector leader and regional development director, Middle East, Mott MacDonald. Khdeir will be speaking at the Middle East Energy event in Dubai World Trade Centre (DWTC), 3-5 March

EVOLVING MARKET

"A key emerging theme of the water market in the Middle East and North Africa (Mena) is the move towards public-private partnership (PPP) model for developing desalination projects through independent water projects (IWPs) and wastewater treatment through independent sewage treatment plants (ISTPs) – where the private sector is key to develop and deliver them on a concession basis."

In addition to developing new projects in partnership with the private sector, Khdeir says the private sector will likely play a key role in existing water assets, particularly older infrastructure.

"For brown field assets, new projects are evolving on how to deal with existing assets reaching the end of their life, either through contracts to extend operation contracts or selling them off through initial public offers (IPOs)."

Khdeir says that establishing a wider water reuse market will also be a key trend in the region's sector moving forward.

"Industries and utilities are seeking to use more of the available treated sewage effluent (TSE)," he says. "This will free more desalinated water for potable use in addition to saving more petro-dollars to benefit economies."

DECOUPLING POWER AND WATER PRODUCTION

The decoupling of power generation and water production is also emerging as the preferred option for many of the region's utilities to develop water infrastructure through the rise of reverse osmosis (RO) membrane technology, replacing the energy-intensive thermal desalination technologies which dominated the sector since the 1970s.

Khdeir says this will facilitate the development of solar energy for providing power for RO plants. "[solar] was key in recent wins in desalination projects, particularly as an additional form of power for mega plants. It will continue to gain traction – mainly for remote and off-grid locations."

"In addition to renewable energy, the diversification into other energy sources such as nuclear power will also gain more momentum to the decoupling trend."

OPPORTUNITIES

Unsurprisingly, Khdeir says that Saudi Arabia will offer water companies the most opportunities in 2020. "Saudi Arabia will still be the biggest market for water with more than $30bn of planned and un-awarded projects, followed by the UAE with close to $15bn. The rest of the GCC countries will also offer opportunities in 2020 and beyond."

"As for the type of projects – water desalination will lead the sector followed by major tunnels, especially in Dubai – then wastewater treatment plants. The rest of the sector will be business as usual such as reservoirs and water tanks, pipelines and pumping stations."

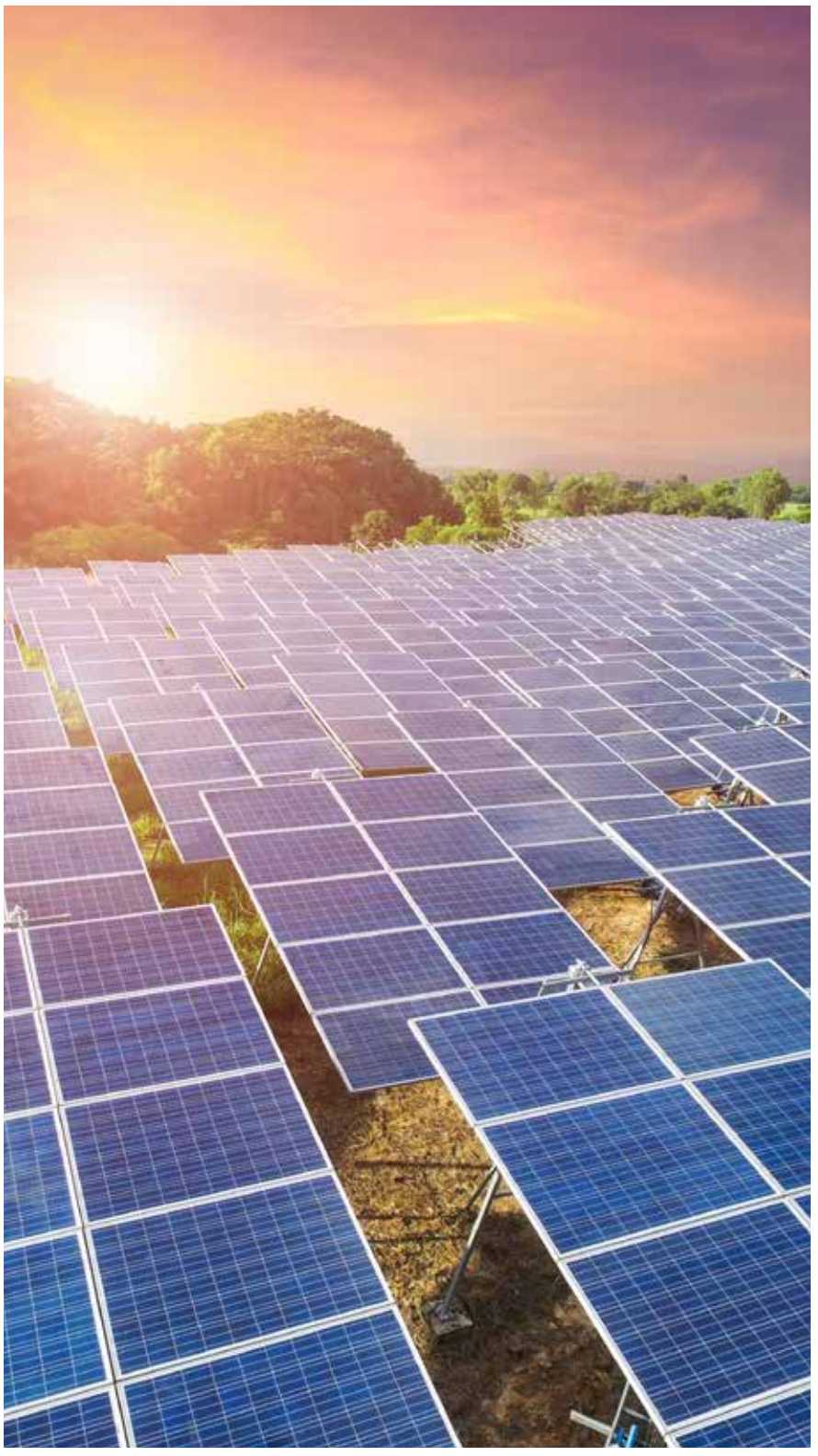
EFFICIENCY DRIVE

A central theme of the upcoming Middle East Energy Event will be increasing sustainability across the energy and utilities sector, says Khdeir.

"The carbon reduction footprint and improving efficiency are becoming the new norms and are going hand in hand with asset management as well as with digital transformation – they are all interrelated," he says. "The main challenge is how to connect the three pillars of transformation – digital disruption, carbon management and reduction and asset management – to deliver more efficient water assets and less environmental impact."

Q&A: Omar Sadder, Yellow Door Energy

Omar Sadder, regional development manager, Yellow Door Energy, discusses a few of the key themes that will be discussed at this year's Intersolar and Middle East Energy event from 3-5 March in Dubai World Trade Centre.



WHAT ARE THE PROSPECTS FOR SOLAR ENERGY IN THE MIDDLE EAST AND NORTH AFRICA IN 2020?

Overall, we're very optimistic about solar energy in the Middle East and North Africa. For example, Egypt is a very promising market for solar developers like Yellow Door Energy because the country is facing annual rising electricity prices for conventional power, increased costs of doing business and heightened awareness about renewable energy and sustainability.

Last year, electricity prices rose 15 per cent, and we anticipate that as the government continues to reduce subsidies, we will see further increases soon.

TELL US A LITTLE BIT ABOUT YELLOW DOOR ENERGY'S LATEST PROJECTS IN THE REGION

Currently, Yellow Door Energy has over 100MW of commercial-scale solar projects in the region. Most recently we signed our first solar lease projects in Saudi Arabia and Pakistan, and soon you will hear about our first project in Egypt. We also recently commissioned a 5.5MW-peak solar park in Jordan, started the construction of a 2MW-peak rooftop solar plant in the UAE, and soon we can announce additional signed solar projects in the region.As the sustainable energy partner for businesses, Yellow Door Energy provides solar as well as energy efficiency and water solutions. We see an opportunity in providing holistic energy solutions to help businesses reduce energy costs, optimize energy efficiency and enhance sustainability. This is our focus for the next few years.

WITH TARIFFS FOR SOLAR ENERGY CONTINUING TO FALL IN THE REGION – WHAT CAN DEVELOPERS DO TO REMAIN PROFITABLE?

While tariffs for solar energy may plateau, the utility electricity prices are on the rise in the region. This makes solar energy a competitive source of electricity for businesses from both a cost saving and sustainability perspective.

For developers such as Yellow Door Energy, we remain profitable by providing the best technology solutions to help businesses reduce energy costs and optimize energy efficiency. We are completely technology agnostic, which means we are not tied to any vendor or technology, and are always assessing emerging technologies and add them to our suite of offerings as appropriate.

WHAT ARE THE MAIN CHALLENGES FOR ENTITIES SEEKING TO DEVELOP SOLAR ENERGY IN THE REGION?

It really depends on the market. Of course, the typical conditions we look for in any market are a stable government, high transparency and ease of doing business. Additionally, for our industry, we also need favourable policies, such as net metering, and also removal of subsidies, to be able to compete with conventional power.

At Yellow Door Energy, we put a lot of effort on collaboration and education with all stakeholders. This is why I look forward to speaking at Intersolar Middle East and to learning from energy experts at the conference. Together, we can accelerate the sustainable energy transition.

New decade ushers in new era for Middle East's utilities sector

The advent of the 2020s has welcomed in a new era for the region's rapidly changing energy and utilities sector: the decade of delivery.

The last calendar decade marked the beginning of a fundamental shift for the Middle East and North Africa (Mena) energy market.

For a region in which hydrocarbons have dominated every aspect of industrial and energy production since the 1970s whilst facilitating unprecedented economic growth and development, a drive to diversify energy resources and develop new sources of energy is now forming a central part of energy strategies from the Gulf to North Africa.

Most of the alternative energy is planned to come from renewable energy sources.

While a token number of clean energy projects were developed in the early part of the previous decade – including the 100MW concentrated solar power (CSP) project in Abu Dhabi and the 13MW photovoltaic (PV) first phase of Dubai's Mohammed bin Rashid solar park – little of the talk around the potential for renewables in the Middle East and North Africa turned into actual projects and achievable targets.

The lack of real commitment and action towards planning for integrating renewable energy on a large-scale was not confined to the Middle East.

Large international energy conglomerates such as BP and Siemens decided to abandon their renewable energy ventures to focus on core traditional energy activities.

FALLING COSTS

This all started to change in 2015. While regional support for the Paris climate agreement, agreed in December 2015, conveyed a resolve to work to reducing carbon emissions- simple economics has been the primary driver for the uptake in renewable energy across the Mena region.

The cost of developing utility-scale PV solar has fallen by more than 70 per cent since 2010, and costs are continuing to fall as technology improves and competition in the private developer space increases.

In fact, the Middle East has been a primary driver in the dramatic fall in the cost of PV and wind power generation – setting new global records for unsubsidised renewable energy time and time again. This started with Dubai's first independent power producer (IPP) solar project, the second phase of the MBR solar park.

When Saudi Arabia's Acwa Power was awarded the contract for the 200MW project in January 2015 for a tariff of $cents5.85 a kilowatt hour (kWh), many energy firms and investors were fiercely critical: this is unsustainable, they said.

However, this was the start of a bidding war across the Gulf – with record tariffs being set for almost every new tender.

The decade culminated in the approval of a $1.65cents/kWh tariff for the fifth phase of Dubai's MBR park – the lowest tariff for an unsubsidised solar scheme to date.

While low interest rates and aggressive pricing from developers have contributed to falling tariffs, the coming decade is set to welcome new technologies, such as bifacial panels and high-efficiency modules, which could half the cost of solar production by 2030.

DELIVERY

The commitment to developing renewable energy was the central theme at the recent World Future Energy Summit (WFES) in Abu Dhabi, and will be a core element of the Middle East Energy (MEE) event in Dubai from 3-5 March.

While the commitment is now tangible, attention must turn to delivery. According to the latest date from the International Renewable Energy Agency (Irena), in 2017 61 per cent of the global net power additions, 167GW, were from renewable energy resources. By 2018, installed renewable energy capacity globally had reached 2,356GW.

Progress with delivering projects in the Middle East and North Africa has been slower, with installed solar and wind capacities reaching 2,350MW and 434MW respectively in 2017. While the commissioning of 1.4GW of solar projects under Egypt's feed-in-tariff (FIT) programme in 2019 has significantly increased that figure, the vast majority of planned renewable capacity has yet to be developed.

Saudi Arabia provides the starkest example of the challenge regional governments face in meeting their ambitious clean energy targets. Riyadh has set a target of developing 58.7GW of renewable energy capacity by 2030. To date, however, the kingdom has less than 200MW in operation and 700MW under development.

LOCAL BENEFITS

Turning targets into capacity will be the main focus in the next decade. In addition to attracting private investment to cover the capital cost, the region's governments will seek to ensure that the transition towards new sources of energy will benefit local people through job creation and knowledge transfer.

Apicorp estimates that $71.4bn investment is required in the Mena region if the ambitious renewable energy targets are to be achieved. Saudi Arabia's Finance Ministry expects for renewable and alternative energy to create more than 6,000 job opportunities in the construction phase and 730 jobs in the operation stage of the clean energy projects planned in 2020.

POLICY SUPPORT

Establishing the correct regulatory environment and policies to support the integration of significant renewables capacity into the region's energy sectors is crucial if ambitious energy targets are to be met.

While large-scale utility projects will contribute the major share of the region's clean energy capacity, the adoption of appropriate feed-in-tariff, net-metering and wheel-in agreements will be crucial if individuals and businesses are to play a role in the energy transition.

Providing sufficient infrastructure and investment in grids will also need to be a key priority for utilities, with the impending addition of significant peak-power resources offering a challenge to stable power supply.

The second decade of the 21st century ushered in the creation of the blueprint for the future of the Middle East's energy sector. The challenge in the third decade is to deliver it.

MEE Day 1 Highlights

MEE Day 1 Highlights

Solar/storage combo key to middle east smart buildings, says disruptive innovation expert

Middle East & Africa Smart Cities Market Forecast to Reach US $2.7 bn by 2022

A combination of solar power generation and storage systems will be the most efficient means of transforming buildings throughout the Middle East from energy passive to active, according to a German electricity innovation expert.

As discussed at 'Digitalisation in Energy Conference,' which starting running yesterday as part of Middle East Energy 2020 at the Dubai World Trade Centre from March 3-5, Marc Helfter, Disruptive Innovation Director for the electrical installations solutions provider, Hager Group, said the region's future 'smart' buildings will be totally electric powered.

Helfter, who presented a 'Smart Building in Action' case-study at the conference said the region's high sunshine penetration rate – running at 1747 kWh/kWp/year in Dubai – made solar the obvious choice to power buildings but solutions needed to be supported by storage infrastructures.

"Within the region solar has by far the biggest potential but to be fully efficient, PV installations have to be combined with energy storage solutions," he said. "The future will be fully electric. Mobility, heating, cooling will become electric. Buildings will go from passive to active as they produce a part of their energy then exchange information and energy with the grid.

"In this way, smart buildings will play a role in the electric eco-system. Renewable energies need storage capacities and flexibility. Buildings connected to the grid can provide services, in terms of flexibility to utilities or grid operators."

The impact of smart buildings and office space is one of three seminars which make up the 'Digitalisation in Energy Conference', which is part of Middle East Energy, the global power industry event previously known as Middle East Electricity

"Smart buildings are a key component of the Middle East and Africa's smart cities market which has been forecast by KPMG to be worth $2.7 billion by 2022," explained Claudia Konieczna, Exhibition Director, Middle East Energy. Throughout the region there is rising public sector ambition to become a global leader in smart cities, with Dubai in the vanguard and smart buildings and work environments will be crucial to delivery of these goals.

"The Digital conference will feature cutting-edge content from those at the very forefront of the revolution with delegates gaining insights and access to key players from across the full industry value chain including relevant Government related entities, utility providers, developers, investors, manufacturers, automation providers, academics, R&D specialists and engineers," added Konieczna.

Other 'Digitalisation in Energy Conference' sessions will focus on Digital Grids and Digital Future Cities. The conference is part of an expanded Middle East Energy knowledge programme which, for the first time, includes a high-level plenary sessions summit providing specific market information.

A third conference, devoted to Renewables, also features in the wider, free-to-attend, knowledge programme which features over 30 conference sessions, over 150 speakers and represents 25 hours of learning opportunities.

Middle East Energy Dubai

Explore. Empower. Energise

3 - 5 March 2020 | Dubai World Trade Centre, UAE

Wednesday March 4 Programme Highlights

PLENARY SESSIONS
Al Multaqa Ballroom

Jon Blackburn
Partner (Utilities)
PwC

Brian Williams
Energy Natural Resources Industry Advisor
SAP

Saif Zahed
Business Development and Renewable Energy Business Unit Executive Manager
Alfanar

Brendan Cronin
Head of Management Consulting Middle East
Afry

Don't miss:
- **Power of digital**
- **Effective renewables integration**

ENERGY DIGITALISATION CONFERENCE
Sheikh Saeed Hall 2

Theo Borst
Business Director and Principal Consultant Energy
DNV GL - Digital Solutions

Waseem Ashraf Qureshi
Founder and CEO
Infusion Solar Energy Systems

Dr. Fadi Aloul
Professor & Department Head Computer Science & Engineering and Director
HP Institute, American University of Sharjah (AUS)

Marielle Akoury
Senior Consultant
DNV GL

Don't miss:
- **Smart grids**
- **Innovative digital solutions in energy**
- **Micro-grid opportunities and challenges**

RENEWABLE ENERGY CONFERENCE
Sheikh Saeed Hall 3

Turki Al Sheri
CEO
ENGIE Kingdom of Arabia

Paddy Padmanathan
CEO & President
ACWA Power

Dareen Ayyad
Business Development Manager Middle East
Jinko Solar, Saudi Arabia

Doug Waters
Director of Energy Services - Global
Uniper Energy Services

Don't miss:
- **Innovations ahead - disruptive technologies, hybrid systems and smart grid solutions**
- **Saudi Arabia - ambitious plans for a renewable-focused future**

Don't forget to download the MEE app for latest programme updates!

GET IT ON Google Play | Download on the App Store