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Continental Focus, International Reach



The Post Pandemic Decade

The Art of the Deal

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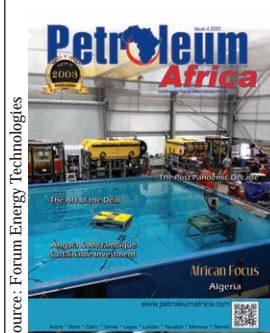
Touat Gas Facility

Source: Neptune Energy

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ON THE COVER



New remote piloting
capability for ROVs
from Forum

Source: Forum Energy Technologies

Another Coup in Mali

President Ibrahim Boubacar Keita was ousted in a bloodless military coup in Mali, after being detained at gunpoint and being forced to resign and dissolve parliament on August 18. The Malian soldiers responsible for the coup have promised to organize new elections.

A spokesman for the mutinous soldiers, who have dubbed themselves the National Committee for the Salvation of the People, is led by Colonel Major Ismael Wagué, who stated “With you, standing as one, we can restore this country to its former greatness,” while also announcing that borders were closed and that a curfew would go into effect.

Anti-government demonstrators, who want to see the end of France’s influence in the country, celebrated in the streets of Bamako, the capital, while regional and international partners condemned the coup, fearing the president’s departure could further destabilize the country that is faced with an ongoing insurgency.

Wague called on Mali’s civil society and political movements to participate in the political transition. “Our country is sinking into chaos, anarchy and insecurity mostly due to the fault of the people who are in charge of its destiny,” he said in a statement broadcast on state-owned television. “We are not keen on power, but we are keen on the stability of the country, which will allow us to organize general elections to allow Mali to equip itself with strong institutions within the reasonable time limit.”

Equatorial Guinea Dismisses Cabinet to Implement Changes for a Sustainable Future

The Government of Equatorial Guinea has decided to restructure its ministerial cabinet in order to accelerate the implementation of economic and structural measures currently under way. In an August 14, 2020 statement, the Government of Equatorial Guinea stated that it is obliged to take strict measures to mitigate the effects of a severe economic downturn and forestall political and social instability.

The government says that after the recent crisis, it is estimated that its Gross Domestic Product would fall by about 6% in 2020, compared to an initial forecast of a 1.6% drop. In a more pessimistic scenario, it said they could see a fall in GDP of between 8% and 9%, which although a significant deterioration would be well below the levels of many developed and developing economies that estimate negative double-digit growth rates.

Tripartite Talks on Ethiopia’s Hydropower Dam Stall Again

Egypt’s government announced in early August that it would withdraw from the latest round of Nile dam talks to hold internal consultations. The statement by the Egyptian Ministry of Water said that its decision to withdraw from the latest round of tripartite negotiations with Sudan and Ethiopia comes after Addis Ababa proposed a new draft of filling guidelines.



Egypt’s delay will allow for internal consultations regarding the dam to be built on the Blue Nile from where Egypt draws 90% of its fresh water. Egypt fears Ethiopia’s planned Grand Ethiopian Renaissance Dam (GERD) project will lead to upstream water shortages.

“Egypt and Sudan demanded meetings be suspended for internal consultations on the Ethiopian proposal, which contravenes what was agreed upon during the African Union summit,” the Ministry statement said. Egypt has called on the United States to help mediate the talks.

Militants Occupy Port near Mozambique LNG Site

The port of Mocimboa da Praia was captured by terrorists in the early morning hours on August 12, according to a report on the Moz24Horas website. The report says militants occupied this vital port in gas-rich northern Mozambique following days of attacks claimed by an ISIS-affiliated group, according to military sources and local media.

This is the third time militants have seized the port, which was planned to be a key logistical piece for the \$23 billion natural-gas project being developed by French major Total.

Since 2017, attacks have intensified in the north of the country resulting in more than 1,000 lives lost. Mozambique’s defense forces (FDS) are working to eradicate the militant group but says they are using local populations as shields

Rahamaniyya CEO Sentenced to 10 Month Jail Term by UK Court

A UK court has sentenced the CEO of Rahamaniyya Oil and Gas Limited, Abdulrahman

Bashir, to a 10-month jail sentence after he was found guilty of breaching multiple orders of the court in a pending lawsuit initiated by Sahara Energy Resources Limited.

In previous court mandates in February, Bashir was ordered to comply with several orders including the release of 6.4 metric tons oil to Sahara Energy Resource from its Lagos terminal. Bashir breached those orders by failing to allow or procure Rahamaniyya Oil and Gas Ltd to allow the release of the oil from the terminal.

The court, in its sentencing, did say that Bashir’s sentence could be reduced to six months if he complies with the previously breached order. The judge in the case also handed down a fine of £500,000 to the company.

UNSMIL Statement on the Latest Developments in Libya

According to UNSMIL, Libya is witnessing a dramatic turn of events that underlines the urgent need to return to a full and inclusive political process that will meet the aspirations of the Libyan people for representative government, dignity, and peace. UNSMIL urged calm, the application of the rule of law and the preservation of the rights of all citizens to peacefully express their views.

Across Libya, UNSMIL is registering an increase in reports of human rights violations, including arbitrary arrests and detention, restrictions placed on freedom of movement and expression, as well as on the right of peaceful assembly and protest. In Tripoli, UNSMIL remains concerned about the excessive use of force against demonstrators as well as the arbitrary arrest of a number of civilians. UNSMIL is also concerned about reports of on-going human rights violations and abuses in Sirte, including the killing of one civilian, the arbitrary arrest of several others, and the illegal forced entry into private properties.

The prolific use of hate speech and incitement to violence appears designed to further divide Libyans, increase polarization and tear at the country’s social fabric at the expense of a Libyan-Libyan solution.

African Union Commission Inaugurates AfCFTA Permanent Secretariat in Ghana

In an August ceremony to commission the permanent secretariat of the African Continental Free Trade Area (AfCFTA), Ghana’s President Nana Akufo-Addo and Moussa Faki Mahamat, chairperson of the AU Commission, reiterated the importance of the body to the continent’s economic transformation agenda.

"The economic integration of Africa will lay strong foundations for an Africa beyond aid. Africa's new sense of urgency and aspiration of true self-reliance will be amply demonstrated by today's ceremony," Akufo-Addo said.

Ghana was selected as the venue for the headquarters by African leaders during a Summit of AU Heads of states in Niamey in July last year, to launch the implementation phase of the agreement, which is expected to spur regional trade among member countries. Currently, 54

states have signed on to AfCFTA, out of which 28 have ratified.

President Akufo-Addo appealed to member states that have not ratified to do so before the next AU summit in December, "to pave the way for the smooth commencement of trading from January 1, 2021."

The COVID-19 pandemic has heightened the importance of the success of the AfCFTA, the Ghanaian president said. "The destruction of global supply chains has reinforced the necessity

for closer integration amongst us so that we can boost our mutual self-sufficiency, strengthen our economies and reduce our dependence on external sources," he said.

AfCFTA, the world's largest free trade area, has the potential to transform the continent with its potential market of 1.2 billion people and combined GDP of around \$3 trillion across the 54-member states of the AU. Mahamat said the opening of the secretariat marked a milestone in the vision of Africa's founding founders for continental integration.

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MESSAGE FROM THE EDITOR

With Covid-19 still hanging around in a big way and oil prices stagnant, as you can see from our Big 5 and At Large sections, plenty of the action coming out of the continent's major producers seems to be aimed at attracting investment into their oil and gas sectors, this especially true in Angola and Algeria. Egypt on the other hand, had plenty of discoveries and drilling campaigns announced, while Nigeria and Libya resumed production on some fields but are surely angling for investment as well.

Some bid rounds have also been delayed or postponed while governments strategize on the best path forward in today's stymied investment climate. Over the decade, governments in Africa have increasingly realized that they not only compete for investment dollars within the continent, but also with global counterparts. This realization has been pushed to the forefront as oil prices have seen dramatic swings, both high and low, over the past two decades, but especially in recent years and in the here and now.

Governments are now faced with implementing more competitive fiscal regimes, eliminating the lucrative signing bonuses of days gone by, and being realistic in their local content requirements. While local content is imperative to develop domestic industries to become increasingly self-sufficient, the onerous LC demands of the recent past are not going to see investors flocking to sign up. Finally, transparency is a must and African countries are stepping up on this front with many signing on to the Extractive Industries Transparency Initiative, most recently Nigeria and Uganda.

Inside this issue you will find additional information on the latest drives to attract investment, both in the upstream and downstream sectors, as well as a feature on energy in the post-pandemic decade by Dr Scott Shemwell. And making these deals poses a new challenge with the limitations placed on travel and face-to-face meetings due to the COVID-19 pandemic, be sure to read "The Art of the Deal" by Ricardo Silva in our Monthly Focus section. Ricardo provides some insights on petroleum negotiations in an age of social distancing. Finally, Algeria features in our Africa Focus while Local Impact looks at sustainable investment in Angola and Mozambique. As always, your comments and suggestions are welcome and can be sent to info@petroleumafrika.com.

Dianne Sutherland
Chief Editor

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MOVING ON



Tanzania's former president, **Benjamin Mkapa**, the East African country's third Head of State, passed away. Current President **John Magufuli** made the announcement in a televised broadcast from Chamwino State House.

Mkapa was known to be a regional peacemaker led Tanzania for 10 years between 1995 and 2005. He died at age 81 in a Dar es Salaam hospital. In his brief address, President Magufuli has referred to Mkapa's death as a great loss to Tanzania.

Benjamin Mkapa

African Energy Chamber has brought on two new Advisory Board members for 2020 and 2021. American geologist and oil expert **Robert Erlich** will be advising and supporting the Chamber's work within its Exploration Committee. Leading and prominent African energy expert and finance executive **Rolake Akinkugbe-Filani** also joins and will be advising and supporting the Investment and Energy Transition Committees.



Darrell McKenna



Satinder Purewal

ADM Energy PLC, announced the appointment of two Oil and Gas veterans, **Darrell McKenna** and **Dr Satinder Purewal**, as advisory members to the company's technical team. McKenna will now be the Drilling and Surface Engineering Lead, bringing 38 years of experience with companies such as **ExxonMobil**, **Kosmos**, and **Hess**. Purewal becomes the Petroleum and Reservoir Engineering Lead with nearly four decades of experience, including with **Shell**.

StormGeo announced the appointment of **Kim Hedegaard Sørensen** as the new COO for the company's shipping division. Sørensen has an extensive portfolio of global C-level leadership positions in shipping and transportation, including CEO of **Nordics Nagel-Group**, **Blue Water Shipping**, and **Trans Atlantic Industrial**

Shipping, including 17 years' experience with **A.P. Møller – Mærsk Group**.

MEA Tec, announced the appointment of **Wael Handous** as Managing Director. Handous will oversee the company's operations across the Middle East and Africa to offer clients and partners in these markets real time local support filling niches in the market while leveraging alliances with global vendors.



Austin Avuru

Austin Avuru has retired from his CEO position at **Seplat Petroleum Company** but he will remain on the Board as a non-executive director. **Roger Brown**, current Chief Financial Officer, will become the new CEO.

Seplat also announced the appointment of **Emeka Onwuka** as CFO and executive director of the company, joining the **Seplat Board** with effect from August 1, 2020. Onwuka has over 30 years' experience in financial services within sub-Saharan Africa.

Xebec Adsorption Inc. announced that Ms. Sara Elford has joined Xebec's Board effective August 25th, 2020. Ms. Elford is a current board member of **BioSynt Inc.** and **BQE Water Inc.** She also sat on the audit and governance committees at **Hydrogenics** and also served on the special committee for its acquisition.

Enphase Energy, Inc. announced the appointment of **Jamie Haenggi** to its board of directors. Ms. Haenggi brings to the Enphase

board more than 25 years of leadership in marketing, sales and customer experience.



William de la Motte

Airborne Oil & Gas has promoted **William de la Motte** to chief financial officer following his six months as interim finance director. With over 30 years' experience spanning eight countries, William has an excellent track record and is an invaluable addition to Airborne's senior leadership team, the company states. He will play a vital role in driving efficiencies within the business and supporting its future development.

Zindzi Mandela, the daughter of the late South African president **Nelson Mandela**, died in early July. Zindzi died in a Johannesburg hospital at aged 59. It was revealed that she had tested positive for COVID-19 on the day of her death. However, the virus has not been confirmed to be the cause of her death.



Francesco Gattei

Francesco Gattei has taken up the role of Chief Financial Officer at **Eni**. Gattei is tasked with supporting the CEO in developing and implementing Eni's economic and financial strategy during this important phase of accelerating the company's decarbonization plan.

To include a corporate personnel announcement in Moving On, write to info@petroleumafrika.com. Preference will be given to Africa-specific appointments and to those companies who have interests within the continent; all others will be included on a space available basis.

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Sonatrach Signs Upstream

Cooperation MoUs with Cepsa and OMV

Algerian state firm Sonatrach was busy trying to drum up future investment over the period and to that effect signed a Memorandum of Understanding (MoU) with both Cepsa out of Spain and OMV out of Austria.



Source: Sonatrach

The MoU signed with Cepsa will have the pair seek to analyze joint growth opportunities in the exploration, development and production of hydrocarbons in Algeria and internationally while consolidating their current alliance.

In partnership with Sonatrach, Cepsa has successfully operated at three Algerian oil fields in the Berkine Basin for over 30 years: Rhourde El Krouf (RKF), the first oil field commissioned by Cepsa in Algeria, Ourhoud (ORD), which became the second largest field in the country, and Bir M'Sama (BMS). Cepsa also operates at the Timimoun natural gas field in the south-west of the country. In total, the fields where Cepsa operates produce more than 110,000 barrels of oil equivalent a day.

The MoU with OMV looks to initiate discussions with a view to identifying the possibilities for both parties to jointly invest in exploration, development and production of hydrocarbons in Algeria. The MoU shows the interest of both parties in assessing opportunities for collaboration following the recent promulgation of the new hydrocarbons law.

ANPG Announces Block 0's Nsinga Production Online

The National Oil, Gas and Biofuels Agency (ANPG), Cabinda Gulf Oil Company Limited (CABGOC), Sonangol EP, Total Petroleum Angola Limited and Eni Angola Production BV announced the start of production at the Nsinga oil field, located in area A of the Block 0 concession, off the coast of Malongo, in Cabinda Province.

Nsinga is the first oil field in the Block 0 concession to start production after the approval

of Presidential Legislative Decree No. 6/18, which governs incentives for the development of marginal fields.

The Nsinga oil field is being developed through a phased intervention, in which the first wells are drilled from an existing platform. Phase 1, consists of four producer wells, drilled directionally, which will provide additional information for the design of specific development alternatives in Phase 2. The Nsinga field wells were developed based on a new completion technology, which allows the production of the reservoir fluids and enhances the reduction of sand production.

Total Announces Offshore Gas Discovery in Egypt

Total, bp and Eni (as the operator) have made a gas discovery with the Bashrush well on the North El Hammad license, located 11 km off the Egyptian coast. The well encountered 102 meters of net gas pay in high quality sandstones of the Abu Madi formation. A production test was conducted with flow rates of up to 32 million standard cubic feet of gas per day (Mmscf/d), limited by testing facilities. It is estimated that future deliverability per well will be up to 100 Mmscf/d, along with up to 800 barrels of condensate per day. Future plans foresee development through a tie-in to nearby existing infrastructures.

"We are very pleased to announce this discovery in Egypt. These results support our strategy to allocate a significant share of our exploration budget to the search of hydrocarbons in the vicinity of existing infrastructures," said Kevin McLachlan, Senior Vice President Exploration at Total. "These resources have low development costs since they can rapidly be tie-in and put into production."

Total holds a working interest of 25% in the North El Hammad license, alongside operator Eni (37.5%) and bp (37.5%).

Burullus to Drill Development Wells at WDDM

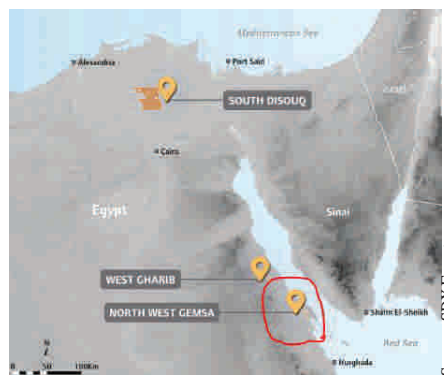
According to a press release from Burullus Gas Company, plans are underway to drill three new development wells at the West Delta Deep Marine (WDDM) project. The cost of the program is tagged at about EGP 250 million (about \$15 million).

Burullus also reported that it completed the onshore construction works at El Maadeya Square, in addition to drilling and completing all of the phase 9B wells for the WDDM project, despite

challenges faced with the COVID-19 pandemic. Burullus' natural gas sales reached 309 million cubic feet per day (Mmcfd), and condensate production recorded 8,000 barrels per day, according to Sherif Hasaballah, head of the company. The project's production capacity could reach 500 Mmcfd.

SDX Energy Exits NW Gemsa License in Egypt

SDX Energy announced that it has disposed of its 50% working interest in the North West Gemsa license, situated in the Eastern Desert of Egypt. The purchaser, Gulf Energy, a private Egyptian oil and gas company, has paid \$3 million in consideration for the company's interest, of which \$1.4 million has been used to discharge the company's remaining liabilities on the license.



Source: SDX Energy

The net \$1.6 million proceeds exceeds management's expectations for the sale of this non-core asset. The disposal is part of SDX's ongoing focus and commitment to capital discipline and careful management of the Group's portfolio while also providing additional cash to further strengthen its balance sheet.

Mark Reid, CEO of SDX, commented: "We are pleased to complete the sale of our interest in the North West Gemsa license. Whilst we have presented our interest in the license as non-core for some time, owing to its reducing production and marginal netbacks, it is a welcome outcome to be exiting the license with a useful cash consideration and also avoiding the upcoming associated budgeted capex of approximately \$2 million for the year. This deal demonstrates our continued focus on portfolio and capital management, and we look forward to recycling the cash into projects that will further enhance and grow our business in the future."

The NW Gemsa Concession is an 83 sq km onshore concession located approx. 300 km southeast of Cairo in the Eastern Desert adjacent to the Gulf of Suez. The concession consists of three main oilfields Al Amir SE, Al Ola and

Geyad fields producing light 42-degree API Oil. NW Gemsa is a late-life asset with increasing water cut and declining production.

Pharos Energy Sustains El Fayum Production

In a trading and operational update, Pharos Energy announced that its production for the first half of 2020 from the El Fayum Concession averaged 5,979 bopd. This is in line with the Egypt 2020 production guidance given on May 12, which remains unchanged at 5,000-6,000 bopd.

As announced earlier in the year, the discretionary drilling program in Egypt was scaled back to preserve capital in the prevailing uncertain macro-economic environment. Pharos is using the break in drilling activity to reduce the cost base, while aiming to maintain productivity and the revenue stream.

Production operations in the field have been centered on well intervention and water-flood enhancement, utilizing the remaining active workover rig. Forward operations will be focused on further enhancing productivity from existing wells through recompletions, the addition of new producing zones, and the conversion of selected existing production wells to injector wells.

In addition, work to update the subsurface static and dynamic models to incorporate the results of the 2019 and 2020 drilling campaigns has progressed well. This work will allow further optimization of the water-flood pattern and facilitate optimized reservoir management through better well spacing when drilling recommences, which will further improve sweep efficiency, well deliverability and lead to an increased recovery. Target secondary recovery factors for water-flood activity in the El Fayum fields remain c.24%; current primary recovery factor is 8 to 12%.

Lekoil Pens Service Agreements for Next Phase at Otakikpo

Lekoil has announced that the Otakikpo Joint Venture which is made up of Green Energy International Limited (GEIL), the operator of the Otakikpo Marginal Field, and the Technical Partner, Lekoil Oil and Gas Investments Limited (LOGI), in which the company has a 90% economic interest, has executed definitive agreements for the next phase of the Otakikpo marginal field development.

Further to the execution of a non-binding Memorandum of Understanding (MoU), the Otakikpo JV has executed additional service agreements with Schlumberger which cover the comprehensive infrastructure upgrades and field

management services in relation to the planned upstream drilling program.

The upstream drilling program consists of the phased drilling of up to seven new wells in Otakikpo with project capital expenditures (Capex) estimated at \$110 million, of which LOGI is expected to provide funding of \$44 million. Drilling of the first two wells, estimated at \$25 million, is expected to increase gross production to approximately 10,000 bopd from the current gross rates of 5,755 bopd. Existing infrastructure at Otakikpo is capable of accommodating this incremental production.

Rig mobilization is expected to occur as soon as the partners of the Joint Venture have both raised funding for the first two wells, according to their respective participating interest.

The Otakikpo JV has also entered into an infrastructure sharing and utilization agreement in respect of the production from the Otakikpo marginal field with Integrated Hydrocarbon Infrastructure Limited (IHIL), a special purpose company incorporated and owned by GEIL to build, own, operate and maintain the shared infrastructure facilities, (the ISU).

Sonatrach Initiates New COST Program

Sonatrach CEO Toufik Hakkar announced that the company will set a new cost containment strategy in place in light of lower oil prices and tighter margins. As a result, Sonatrach created the COST Project Directorate (Cost Optimization System Tracking), which will aim to deploy cost optimization initiatives across all of its activities.

The COST project management has as a main objective the implementation of a sustainable cost reduction program and the realization of concrete actions to optimize expenses to ensure sustainability and profitability, according to Project Director, Lazhar Mahboubi.

These missions are based on two goals. The first consists in uniting all the teams of HS Activities and Structures towards the review and optimization of their operating budgets. The second consists of working on the corporate culture and change management in order to involve and instill a cost optimization culture among all Sonatrach staff.

Egypt's Western Desert Yields Another Oil Discovery

Eni announced the successful drilling of the SWM-A-6X well, in the South West Meleha

development and exploration concession located in the Egyptian Western Desert, some 130 km North of the Siwa Oasis. The new well has been drilled close to existing production facilities and is already connected to the production network.

The production from South West Meleha Concession began in July 2019 and in just one year ramped up to 12,000 bopd thanks to the contribution of new discoveries.

The SWM-A-6X well, drilled in the Faghur Basin, reached a total depth of 15,800 feet and hit 130 feet of net oil pay in the Paleozoic sandstones of the Dessouky Formation. The well is already on stream with a daily production of 5,000 bopd.

Eni is successfully implementing its near-field exploration strategy in the Egyptian Western Desert through AGIBA, a joint venture with the Egyptian General Petroleum Corporation (EGPC) quickly turning on production of the newly discovered resources.

Angola Releases Exploration Strategy 2020-2025

Angola's National Agency of Petroleum, Gas and Biofuels (ANPG) presented its strategy for the exploration of hydrocarbons over 2020-2025 to national oil and gas principals on July 3. The meeting was attended by the Minister of Mineral Resources, Oil and Gas, Diamantino Azevedo, along with the Secretary of State for Petroleum, José Barroso and the President of the Board of Directors of the National Oil and Gas Agency, Paulino Jerónimo.

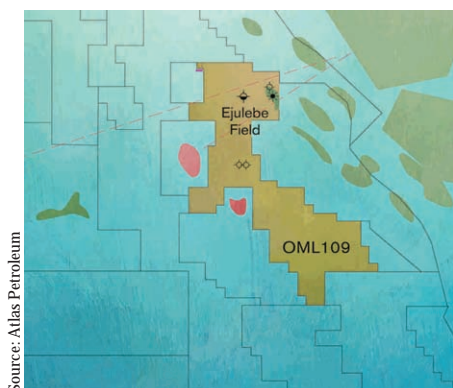
ANPG Administrators as well as MIREMPET and ANPG Directors were also present. The document was presented by the Exploration Director, Adriano Sebastião, assisted by Hermenegildo Gomes, also from the Exploration Department.

The event, the first of its kind, sought to find consensus in the search for the best way to explore hydrocarbons in the national territory in order to mitigate the current decline in production. The document also aims to expand the global knowledge of the country's potential in terms of the occurrence of hydrocarbons along the interior basins (onshore) and the maritime platform (offshore).

After the discussions and the contributions of geoscientists were collected, the document will be sent to the Council of Ministers for appreciation and approval, and the importance of the event was agreed.

Atlas Petroleum Resumes Development of Nigeria's OML 109

Atlas Petroleum International has resumed work over activities and well interventions on OML 109 in Nigeria in order to enhance production from the Ejulebe marginal field. Awarded to Atlas Petroleum International in 1991, the block entered into production through the development of the Ejulebe discovery in September 1998.



Source: Atlas Petroleum

OML 109 comprises 14 identified and mapped prospects and leads, and an un-risked resource potential in excess of 500 million barrels of oil equivalent. Its low-cost operating environment in shallow water and proximity to existing oil and gas infrastructure such as the Escravos Terminal make it one of the most attractive assets in the Niger Delta, with significant untapped and under-explored hydrocarbons potential.

"The renewed development of OML109 will bring a boost to local content development in Nigeria and support the industry's recovery following the COVID-19 crisis. As Nigeria multiplies efforts to build domestic capacity and develop the Nigerian content, we intend to live up to expectations as one of the country's major indigenous player," declared Prince Arthur Eze, Executive Chairman of Atlas Oronto. "We expect the ongoing wells interventions on OML 109 to deliver quick wins on the recovery and enhancement of production from the field and express our thanks to the Department of Petroleum Resources for facilitating all permits," he concluded.

GPC makes Gas Discovery at Abu Sennan

In Egypt, the General Petroleum Company (GPC) announced a new natural gas discovery at its Abu Sennan concession. The discovery is producing 28 million cubic feet per day (Mmcf/d) as well as 1,180 barrels of condensates per day.

The well was drilled in 15 days and was supplemented by using GPC's well repair device, reducing drilling time resulting in a significant cost savings for this well.

Libya to Resume Oil Production and Exports

The Speaker of the House of Representatives and the chairman of the Presidency Council are supporting the National Oil Corporation's (NOC) proposal to resume production and export of oil and to freeze sales revenues in NOC accounts in the Libyan Foreign Bank. Revenues should remain frozen until a comprehensive political agreement is reached in line with the recommendations of the Berlin Process. Full transparency and effective governance are required as well as the return of security management of oil facilities to NOC's exclusive control.

Regarding continued supply of gas to the Zueitina and North Benghazi power plants, NOC is currently making all possible efforts to provide a ship to empty condensate tanks. This should allow gas production to continue. All gas production was to cease on August 22.

NOC sent a shipment of diesel to Benghazi on August 19 to help meet the needs of the city's power stations as far as is possible under current circumstances, despite the severe shortage of fuel allocations and the huge debts that have accumulated as a result of the closure of the fields producing gas and oil and the suspension of refineries.

NOC reiterated its call for all oil facilities to be freed from military occupation to ensure the security and safety of its workers. Once this has been done, NOC should be able to lift force majeure and re-commence oil export operations.

PGS Data Covers Key Blocks for Nigeria's 2020 Bid Round

PGS MultiClient data is available for evaluation of the blocks. The PGS Nigeria MegaSurvey complements offshore blocks of the 2020 Marginal Fields Bid Round, offering prospective block licensees the opportunity to integrate 3D seismic data with available horizon interpretation into block evaluations to gain an understanding of prospectivity in key areas offshore.

The Department of Petroleum Resources (DPR), on behalf of the Federal Government of Nigeria, recently launched its 2020 licensing round. A total of 57 marginal fields are on offer, including a number in shallow-water terrains.

MegaSurveys are merged final-stack 2D and 3D datasets which enable evaluation of basins in a regional context, including visualization of different plays and hydrocarbon migration pathways on a large scale. They act as a

mechanism for exploration analog-building and opportunity identification.

TGS Commences Egyptian Multi-Year Geophysical Survey

TGS announced that it has commenced its first-ever regional airborne Enhanced Full Tensor Gravity Gradiometry (eFTG) multi-client survey – together with magnetic and Lidar data – over the Upper Egypt region of the country. This survey is designed to provide unique, high-resolution imaging of the region with increased accuracy and higher spatial resolution to enhance exploration activities.

TGS, in partnership with Austin Bridgeport, was recently granted rights to acquire eFTG data (the world's highest resolution gravity imagery) across the whole of Egypt. The first phase of the project covers an area of approximately 120,000 square kilometers over which Ganope manages and supervises all upstream and downstream oil and gas activities. The survey will provide sufficient data on the geological structures and sedimentary basins in Upper Egypt to enable the Egyptian government to launch new international onshore bid rounds for the region.

This is the first phase of a planned program that will roll into a multi-year acquisition that aims to cover both onshore and offshore Egypt. The eFTG technology used for data acquisition, is being applied for the first time in the Middle East and North Africa (MENA).

Rune Eng, Executive Vice President, International at TGS, stated: "We are delighted that this significant project is now underway in Egypt and will, for the first time, provide much-needed high resolution data to a region that is set to significantly step-up its hydrocarbon activities in 2020 and beyond. Along with our partner, Austin Bridgeport, we are looking forward to a significant long-term relationship with Ganope."

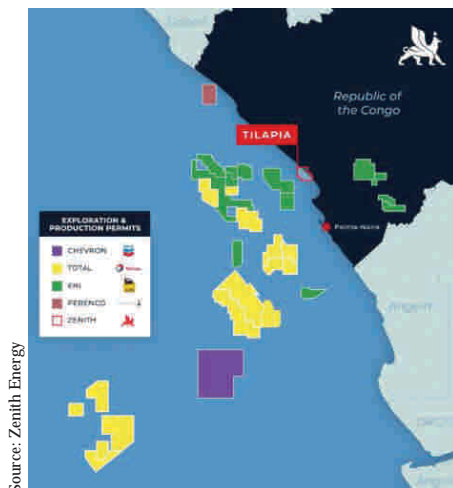
Algeria to see \$10 Bn Loss in Energy Revenue

Algeria's new Minister of Energy, Abdelmadjid Attar, says that the North African country expects its oil and gas revenue to decrease to \$23 billion this year, down \$10 billion from last year's \$33 billion. "We are in a difficult economic situation," Attar told state radio.

The COVID-19 pandemic has had a detrimental effect on global oil and gas operations worldwide, and Algeria is no different. Algeria had hoped to spur investment in its petroleum sector when it passed a new energy bill last November.

Zenith Awarded 25-year License for ROC's Tilapia Field

Zenith Energy provided an update on the Tilapia license in the Republic of the Congo which expired on July 18, 2020. The company confirmed that its subsidiary, Anglo African Oil & Gas Congo (AAOG Congo), continues to operate the Tilapia oilfield on an interim basis following the implementation of a 'Plan for the Continuation of Activities' (PCA) agreed with the national oil authorities.



Zenith Energy has announced that, in accordance with local procedures, it has submitted a comprehensive commercial and technical offer to the Ministry of Hydrocarbons of the Republic of the Congo for the award of a new 25-year license for the Tilapia oilfield to be named 'Tilapia II'.

Andrea Cattaneo, Chief Executive Officer of Zenith, commented: "We are very excited about the good progress we have achieved in recent weeks in the Republic of the Congo, specifically in respect of the submission of the Offer for Tilapia II. As is to be expected, the unprecedented world crisis presented by COVID-19 has delayed all activities, including the arranging of meetings to conduct the necessary negotiations prior to submitting the Offer. The Tilapia asset has transformational production potential and the award of a new 25-year license will represent the first important successful milestone in our journey in the Congo. It is our hope and expectation that we shall achieve this goal in due course."

Tullow and Partners to Lift Force Majeure on Kenya Blocks 10BB/13T

Tullow and its joint venture partners on Blocks 10BB and 13T in Kenya, have submitted a letter to the Kenyan Ministry of Petroleum and Mining, to withdraw the notices of Force Majeure that were declared on May 15, 2020.

The lifting of Force Majeure notices has been facilitated by the improvement in COVID-19 pandemic restrictions worldwide and the resumption of local and international flights, allowing the restart of the various work streams under the Project. The joint venture partners are also continuing their dialogue with the Government of Kenya to determine the best way forward for this strategic project, including discussions regarding how the incentives previously granted by the government to the Project shall be facilitated.

Sasol Opts-Out of Mozambican Block 16/19

Sasol has announced in a statement that it has opted to give up its license to explore for natural gas off the Mozambican coast.

"Sasol will return Block 16/19 in its entirety to the Government of Mozambique. To this end, a withdrawal notification has already been sent to the relevant Mozambican authorities," the firm said in a statement.

PGS Expands GeoStreamer Coverage in Deepwater Cote d'Ivoire

PGS announced that modern imaging techniques applied to 12,000 sq km of broadband data unveil key plays in the West Africa Transform Margin exploration hot spot of Cote d'Ivoire. This MultiClient 3D dataset is now available in the PGS data library.

Recent 3D GeoStreamer acquisition over blocks CI-526/707/708 has been combined with reprocessed GeoStreamer data acquired in 2015 over CI-602/603, to target the deepwater area offshore Cote d'Ivoire.

Upper Cretaceous aged turbidite channel and fan complexes provide the primary target in the deepwater Cote d'Ivoire Basin. Extensive 3D GeoStreamer coverage provides an unprecedented view on the distribution and detail of depositional systems held in stratigraphic pinch-out traps.

Broadband acquisition paired with the latest processing workflows provides over

Liberia Adjusts Bid Round Evaluation Criteria

The Government of Liberia, through the Liberia Petroleum Regulatory Authority (LPRRA), has made significant adjustments to its bid evaluation criteria for the 2020 Offshore Licensing Round for the Harper Basin. These modifications, according to the Director General, Hon. Archie Donmo, "are in response to the devastating impact of COVID-19 on the global price of oil, share price of E&P companies, and the sensitivity of the Government of Liberia towards mitigating this impact and attracting international investment in the Harper Basin, one of the untapped regions within the West Africa Transform Margin."

These changes include the adjustment of requirements for signature bonus from a minimum of \$8 million payable in one tranche to a more flexible option. Under this new adjustment, there will be no minimum requirement thereby allowing

companies to submit bids describing their proposal for signature bonus. This allows the industry to determine the signature value for each block based on submissions. In addition to designating the signature bonus as a biddable item, LPRRA has announced that interested bidders will have an opportunity to negotiate a payment schedule with the Government of Liberia. Also, LPRRA has modified the mandatory 2D seismic data purchase requirement for the entire Harper Basin to require interested bidders to license 2D seismic data for the particular block (s) of interest.

The 2020 Offshore Licensing Round was launched at a virtual event on April 10, 2020 opening up the request for pre-qualification of international exploration and productions companies. The deadline for Pre-qualification is October 31, 2020. Companies that are pre-qualified and received



"Notice of Qualification" will be allowed to submit formal bids for block (s) in the Harper Basin from November 2020 through February 2021. Thereafter, LPRRA will issue notice of awards to companies whose bids have been accepted and evaluated as most responsive and invite same to formalize a petroleum sharing agreement.

12,000 sq km of enhanced imaging in this underexplored area. The increased high and low-frequency content provides clearer imaging of subtle depositional features.

PetróleoNautipa FPSO Gets Extra Time Offshore Gabon

BW Offshore has received a one-year contract extension for the lease and operation of the FPSO *PetróleoNautipa*. The firm period has been extended to Q3 2022 (from Q3 2021). The FPSO is operating on the Etame field offshore Gabon for VAALCO Energy.



Source: BW Offshore

Sound Gets Extra Time in Morocco

Sound Energy announced that it has, together with its license partners, successfully concluded a re-negotiation of the terms of its Anoual Exploration Permits with Morocco's National Office of Hydrocarbons and Mines (ONHYM) which aligns the work program commitments on the Permit and the company's continued pursuit to unlock the exploration potential of the Eastern Morocco Basin, with the expected phasing of the company's recently announced Tendirara Production Concession Phase 1 development plan.

The Permit, which became effective in August 2017 and covers an area of some 8,873 sq kms has a duration of eight years and, as with all Moroccan exploration permits, is divided into three phases with each phase having pre-agreed work commitments which include an FTG-aerogradiometry survey, 600 kms of 2D seismic and 150 square kms of 3D seismic. The extension also calls for the drilling of exploration wells with Triassic objective in the optional complimentary exploration periods.

Mohammed Seghiri, Sound Energy's COO, commented: "Despite the challenges caused by the COVID-19 restrictions, I am delighted to have re-aligned our committed exploration work

program at the Anoual Exploration Permit in Eastern Morocco so it dovetails more efficiently with the proposed phasing of our Phase 1 Development Plan at the Tendirara Production Concession in a manner that underscores both our confidence in the potential of the basin as a future significant gas producing province and our ability to deploy capital judiciously across the portfolio."

Total Gabon Divests Mature Non-Operated Assets

Total has announced that its 58% owned affiliate Total Gabon has signed an agreement with Perenco to divest its interests in seven mature non-operated offshore fields, along with its interests and operatorship in the Cap Lopez oil terminal. The transaction remains subject to approval by the Gabonese authorities.

In all, a total of seven assets in two licenses with stakes ranging from 37.5% to 65.275% will be divested along with the oil terminal (100%). The price to be paid by Perenco will be between \$290 million and \$350 million, depending on future Brent prices. The production divested by Total Gabon amounted to approx. 8,000 SEC barrels of oil per day in 2019.

Somali Petroleum Authority Established

The Ministry of Petroleum and Mineral Resources of the Federal Republic of Somalia announced that the Government's Cabinet Ministers has approved the Board Members of the Somali Petroleum Authority (SPA) and appointed Ibrahim Ali Hussein its first Chairman and Chief Executive Officer.

The Petroleum Law, ratified on February 8, 2020 provided for the establishment of the SPA to be the competent Government authority to regulate the development of the oil & gas industry, applying regulatory principles of equality, openness, accountability, transparency and non-discrimination in the interests of all the Somali people.

Commenting on the establishment of the Somali Petroleum Authority, H.E. Minister Abdirashid Mohamed Ahmed said: "The establishment of the Somali Petroleum Authority is one of the first critical milestones of the implementation of the Petroleum Law. The Authority comes into existence when the country is commencing its first exploration activities. The Ministry and the SPA will work hand in hand, according to the Petroleum Law, to achieve the government's vision towards the development of oil and gas sector of the country."



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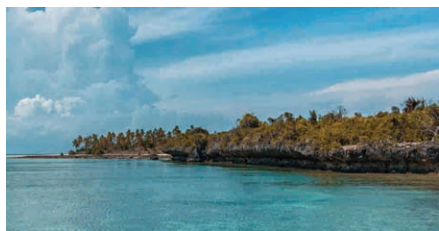
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Orca Awards

CPTDC SongoSongo Contract

On August 3, Orca Energy Group signed a contract with China Petroleum and Technology Development Company (CPTDC) for the design, supply, installation and commissioning of natural gas compressors within the Songas gas processing facility on SongoSongo Island in Tanzania.



The compressors will work in harmony with the previously installed refrigeration to address declining reservoir pressure and ensure maximum production levels can be sustained, subject to demand, through to the end of the Production Sharing Agreement in 2026. The compressors are forecast to cost a total of \$38 million of which circa \$6 million was expended in 2019 and \$19 million will be incurred over the remainder of 2020. The compressors are scheduled to be operational by the end of Q2 2022.

Orca has managed to maintain production throughout the COVID-19 pandemic. Orca's Additional Gas sales averaged 50.6 million standard cubic feet a day (Mmcf/d) for Q2 2020 (Q2 2019: 56.6 Mmcf/d) and 53.5 Mmcf/d for the six months ended June 30, 2020 (six months ended June 30, 2019: 59.5 Mmcf/d). Gas sales were impacted by sustained and significant rainfalls that enabled the Tanzania Electricity Supply Company (TANESCO) to operate its hydro facilities at high utilization rates.

The company is preparing for the workover of onshore well SS-10 in early 2021. A decision on

whether to conduct remedial work on two of the older onshore wells, SS-3 and SS-4 will be taken on completion of a major subsurface review of the SongoSongo gas field that will be finalized during Q4 2020. This review, which includes a re-build of the static and dynamic reservoir models, will enable Orca to assess whether the workover of SS-3 and SS-4, or the drilling of new infill wells will be preferable over the remainder of the license period.

Africa Energy Increases Interest in South Africa's Block 11B/12B

Africa Energy Corp announced the signing of definitive agreements to increase its effective interest in Block 11B/12B offshore South Africa from 4.9% to 10%. Africa Energy currently holds 49% of the shares in Main Street 1549 (Proprietary), which has a 10% participating interest in Block 11B/12B.

Garrett Soden, president and CEO, commented: "Block 11B/12B offshore South Africa contains one of the most exciting oil and gas exploration plays in the world today. In anticipation of the Luiperd-1X well results expected later this year, we have agreed with Impact and Arostyle to simplify and consolidate Main Street's 10% interest in Block 11B/12B under Africa Energy."

The company is pursuing two transactions by which Africa Energy will first secure the indirect financial interest held by Impact Oil & Gas and then obtain an option from Arostyle Investments (RF) (Proprietary), which holds 51% of the shares in Main Street, to acquire the entire participating interest after drilling the Luiperd-1X well. Following the Impact Transaction and exercise of the Arostyle Option, subject to various consents and approvals, Africa Energy will directly hold the Participating Interest, and both Impact and Arostyle will be significant shareholders of Africa Energy.

Africa Energy has entered into an investment agreement with Impact and Impact Oil & Gas SA Blocks 11B-12B whereby Africa Energy will subscribe for new shares and thereby obtain control of Impact 11B/12B, a wholly-owned subsidiary of Impact, whose sole asset is the Arostyle Loan Agreement that provides for an indirect financial interest in Main Street. Impact has also entered into a subscription agreement with Africa Energy to subscribe for 509,092,771 common shares of Africa Energy that is subject to completion of the Investment. The Subscription Shares will be issued shortly after closing of the Investment.

Petrosen Increases Sangomar JV Stake, Dilutes FAR Ltd Share

FAR Ltd subsidiary FAR Senegal RSSD SA and its Sangomar RSSD joint venture partners have executed documentation confirming State oil company Petrosen's decision to increase its stake in the Sangomar Exploitation Area from 10% to 18%. As a result, FAR's stake in the Sangomar Exploitation Area decreases from 15% to 13.67%.

FAR has captured the impact of this expected action by Petrosen in economic modelling of the project previously announced to the market.

Petrosen is now required to reimburse the other RSSD venturers their pro-rata share of the 8% of expenses relating to the Sangomar Exploitation Area incurred since January 8, 2020. As at the end of June 2020, the share due to FAR is \$4.79 million.

FAR's Managing Director, Cath Norman said, "FAR has long planned for Petrosen's interest accretion and it has been reflected in our modelling and communications. The FAR Board continues to pursue a sale of all or part of FAR's stake in lieu of an alternate financing option."



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Environmental Studies for Uganda Refinery Project Commence

Atacama Consulting and DNV GL, both contracted by the Albertine Graben Refinery Consortium (AGRC) to undertake an Environmental Social Impact Assessment (ESIA) for the Uganda Refinery Project, have started collection of baseline data for the ESIA.



The ESIA will cover the components of the project that include a Water Intake at Mbegu (on Lake Albert) for supplying water to the Refinery, the Refinery, and Multi-product pipeline from the Refinery to Remote Terminal in Mpigi.

The Petroleum Authority of Uganda and Uganda National Oil Company are currently participating in this process to ensure that a comprehensive and quality baseline is generated. The exercise kicked off with collection of baseline data on mammals, avi-fauna (birds), entomology (insects), reptiles, aquatic ecology, botany (plants) and hydrology for the ESIA. The baseline will be used for future monitoring of project impacts on the environment.

Sonatrach Resumes Production at Skikda

Sonatrach announced that the resumption of production at the natural gas liquefaction complex located in Skikda (GLIK) began on July 16, after a general shutdown to carry out periodic maintenance work.

During this major shutdown, the equipment and devices subject to regulations and whose service life is coming to the end of inspections and tests, were also included in the scope of the shutdown work. The inspections and controls provided for by law are carried out by the Hydrocarbons Regulatory Authority (ARH) and the General Directorate of Mines.

After the recording of a work progress of 85%, an incident occurred, on February 21, 2020 on one turbine among the 14 contained in this mega train. The replacement of this complete turbine would require delays exceeding 18 months. Faced with this situation, the company's management decided to repair the turbine and replace the

damaged parts with new ones in order to put the turbine back into service as quickly as possible, on the one hand, and to maximize the production of LNG in the Arzew complexes (GL1Z, GL2Z and GL3Z) to meet the commitments with Sonatrach partners, on the other hand.

Despite the COVID-19 pandemic, the containment system and the closure of borders, the joint Sonatrach teams and its service providers succeeded, with the support of the competent authorities, particularly those of transport and health, in repairing the turbine and finalizing all the work planned in the total shutdown schedule without constraints.

Cape Town Refinery Explosion Kills 2

Two people were killed when an explosion occurred at Astron Energy's 100,000 barrel per day refinery in Cape Town, the country's third largest. Seven others were injured and taken to local hospitals where two continued to receive treatment.

An Astron statement at the time said, "It is with great sadness that Astron Energy can confirm that two Astron Energy employees died in an incident at the company's Milnerton refinery this morning. Seven other individuals were injured, two of which remain in hospital where they are receiving treatment for their injuries. All steps are being taken by Astron Energy to support the families, friends and colleagues of the two individuals who tragically lost their lives and those who were injured in the incident."

The fire was contained and the plant stabilized, but work had to be stopped. There was no danger to surrounding communities nor any immediate threat to fuel supplies because of the incident, the company reported then reported.

NNPC Records 19% Gas to Power Supply Increase

The Nigerian National Petroleum Corporation (NNPC) announced an increase of 19.14% in the average daily natural gas supply to power plants which translates to 788 million standard cubic feet of gas per day (Mmscf/d), equivalent to power generation of 2,873 MW.

The NNPC, in a release by its Group General Manager, Group Public Affairs Division, Dr. Kennie Obateru, explained that the figure was contained in the NNPC Monthly Financial and Operations Report (MFOR) for April 2020.

According to the report, a total of 226.51 billion cubic feet (Bcf) of natural gas was produced in April 2020, translating to an average daily

production of 7,786.17Mmscf/d. The figure indicated an increase of 3.73% or 226.51 Bcf compared to output in March 2020. Out of this figure, a total of 136.44 Bcf of gas was commercialized, consisting of 36.99 Bcf and 99.45 Bcf for the domestic and export market, respectively.

Out of the 1,233.01 Mmscf/d of gas supplied to the domestic market in April 2020, about 787.70 Mmscf/d, representing 63.88% was supplied to gas-fired power plants, while the balance of 445.31 Mmscf/d or 36.12% was supplied to other industries.

Similarly, for the period of April 2019 to April 2020, an average of 1,184.29 Mmscf/d of gas was supplied to the domestic market, comprising an average of 677.87 Mmscf/d or (57.24%) as gas supply to the power plants and 506.42 Mmscf/d or (42.76%) as gas supply to industries. Also for the period of April 2019 to April 2020, a total of 3,082.91Bcf of gas was produced, representing an average daily production of 7,857.18 Mmscf/d during the period.

Egyptian Pipeline Fire Injures 17

An oil leak from the Shuqair-Mostorod pipeline caused the infrastructure to burst out in flames on July 14, resulting in 17 injuries. A spark from a passing car on the busy Ismailia Desert Road, a major highway leading out of Cairo that traverses the pipeline, ignited the crude, according to a statement from the Ministry of Petroleum.



The pipeline's valves were immediately closed in the area of the blaze and the flames were brought under control, a statement by the Petroleum Pipelines Company added. The cause of the leak was being investigated.

Sasol Invites Bidders for Development of Two 10-MW Solar PV Facilities

Sasol is inviting interested Bidders to participate in a Request for Proposals (RFPs) process for the development of two embedded 10-MW Solar Photovoltaic (PV) facilities at its South African

operations – one in Secunda, Mpumalanga and another in Sasolburg, Free State – as part of its response to climate change. The closing date for submissions is October 2, 2020.

Sasol Chief Sustainability Officer, Hermann Wenhold, said: “We are excited to launch the RFP which forms part of our broader Greenhouse Gas (GHG) emission reduction aspiration and moves us forward on our journey to achieving our target of a 10% GHG emission reduction by 2030.”

In May this year, Sasol invited the Bidders to participate in a Request for Information (RFI) process for the supply of renewable energy to its South African operations. The RFPs for the development of the two embedded 10-MW Solar PV facilities at Sasol’s Secunda and Sasolburg operations come at the back of that, and are a first step towards Sasol realizing its commitment and objective to eventually procure 600 MW of renewable energy capacity.

The successful Bidder(s) will be expected to design, finance, construct, operate, maintain and own the Solar PV facilities and their associated connection infrastructure to supply 10 MW of power to each of Sasol’s operations at their own cost. The successful Bidder(s) will supply electricity from the Solar PV facilities as Independent Power Producer(s) to Sasol as part of a long-term Power Purchase Agreement.

Master Gas Inaugurates

First Natural Gas Station in New Cairo

Master Gas, a TAQA Arabia company, inaugurated its first natural gas station in the Al Rehab area of New Cairo. The station has a 30-car per hour capacity. Pakinam Kafafy, the Chief Executive Officer of TAQA, said the company planned to establish 13 new gas stations across the country during 2020 which is part of its plan to deliver 50 stations in the upcoming three years with investments worth EGP 650 million.



Source: TAQA

Khaled Abu Bakr, the Executive Chairman of TAQA Arabia and Master Gas, stated that TAQA is applying the latest technologies in its strategy to expand the usage of natural gas.

Renergen to Hold

South Africa’s First LNG Auction

Emerging domestic natural gas and helium producer Renergen announced the commencement of South Africa’s first ever Liquefied Natural Gas (LNG) auction. Interested parties are invited to apply to bid for the allocation of LNG, which will be produced from the company’s Virginia Gas Project, located in the Free State, approximately 250 km southwest of Johannesburg. Renergen holds the first and only onshore petroleum production right in South Africa.

With an average of greater than 95% methane and almost zero higher alkanes, Renergen will produce LNG of outstanding purity, placing the company’s product as the ideal substitute for liquid fuels, which will burn cleaner and release fewer emissions. Importantly, consumption of LNG does not require significant changes to the infrastructure required for liquid petroleum gas (LPG), making the switch efficient and cost-effective.

Renergen is the first South Africa-based company to supply LNG, and from domestic supply as opposed to other imported sources. By 2021, the company will complete its Phase 1 expansion plans of the Virginia Gas Project and will be producing LNG and helium. This major milestone will see Renergen become the first distributor of LNG at filling stations (in partnership with Total) in the country and the only domestic producer of helium.

Renergen anticipates that Phase 2 of the Virginia Gas Project will be available by 2023. The company expects demand for LNG to increase significantly across South Africa. Phase 2 production at the Virginia Gas Project will bolster the 2021 Phase 1 production, providing availability of LNG across all major highways in South Africa, with surplus volume to be made available to the market.

Protestors Shut

Pumping Station in Tunisia

Hundreds of protestors demanding jobs shut-in one of Tunisia’s main oil pumping stations in the south of the country. Demonstrations have been ongoing for weeks with the protestors demanding jobs and the development of the region.

The protestors forced their way into the remote El-Kamour production site just south of Tataouine, unphased by the presence of army personnel protecting petroleum installations. According to wire reports, the protestors chanted, “Tataouine does not give up” and sang the national anthem.

Rainoil to Build New LPG Plant in Lagos

Rainoil Limited, an integrated downstream oil and gas company operating in Nigeria, will be building a new Liquefied Petroleum Gas (LPG) plant in Lagos. The project was officially commissioned with Minister of State for Petroleum Resources H.E. Chief Timipre Sylva and Mele Kyari, Group Managing Director, NNPC, in attendance along with Rainoil executives.



Source: Rainoil

The new plant will have a tank capacity of 8,000 metric tonnes and according to Sylva, “the establishment of the plant aligned with the Federal Government’s drive to deepen cooking gas penetration and attain five million MT of LPG consumption by 2022.”

“Rainoil is really working in tandem with the vision of the Federal Government in making gas a preferred fuel in the country,” Kyari commented, adding “We believe that gas is our next instrument for developing our economy, and we commend Rainoil for its effort in ensuring the use of gas in the country.”

Rainoil has been expanding steadily in Nigeria with a number of facilities including retail outlets. The Group Managing Director, Rainoil Limited, Gabriel Ogbechie, stated the company made the decision to invest in growing the LPG sector in 2018. “Our investment in the project is substantial as we now account for 16.6 percent of the LPG storage in the country,” he explained.

NNPC Pledges to Boost Gas Delivery to Domestic Market

The Nigerian National Petroleum Corporation (NNPC) has restated its commitment to working with relevant partners and stakeholders in the Oil and Gas Sector to boost delivery of gas to the domestic market. The Group Managing Director of NNPC, Mallam Mele Kyari, made the commitment at the launch of the Nigerian Gas Transportation Network Code (NGTNC) which is designed to enhance the use of gas as a catalyst for national economic development.

In a goodwill message at the event, the NNPC GMD said the corporation was at the center of gas delivery to the domestic market, stressing that it was involved in all the available gas delivery

infrastructure in the country either directly or indirectly through joint venture partnership. He said the inauguration of the Network Code was an opportunity to enhance gas delivery and utilization in furtherance of the Federal Government's objective of transforming gas into a key component of the nation's energy mix and revenue sources.

"We will continue to give our support to this process to ensure that the full delivery of this process is achieved. We commit to working closely with the DPR to ensure that the target of the government is attained. This opportunity has provided the right framework for the transportation of gas from the source to the end user in order to get value. We are happy to have this framework on ground and we are ready to collaborate with all our partners, the gas off-takers, gas producers, transportation companies, shippers, and all those involved in the gas value chain," Kyaristated.

Dangote Refining and PetChem Complex Nearing Completion

According to Nigeria's Department of Petroleum Resources (DPR) the construction of what is to be Africa's largest oil refinery and the world's biggest single-train facility upon completion, is now 71% complete. The \$12-billion Dangote Refinery will have the capacity to refine 650,000 barrels per day.

Dangote Industries Executive Director Devakumar Edwin says the facility is set to be operational early next year.

It was also recently reported that Dangote Group's fertilizer plant, will be ready to start production late this year, according to contractor Saipem SpA. The facility will have a capacity of 3 million tons a year of urea and ammonia, making it the world's largest.



Source: Dangote Industries

Maurizio Coratella, chief operating officer of Saipem SpA, said, "Train two commissioning and testing will start soon, as such activities will be overlapped with train one," adding, "The project is planned for completion within the end of 2020, with train one starting production within weeks and train two following soon after."

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DRC Launches 600-MW Kinshasa Solar City

The government of the Democratic Republic of Congo has launched the construction of a 600-MW solar photovoltaic (PV) plant in Menkao, a district located in Kinshasa. The construction of the Kinshasa Solar City project is being carried out by Sun Plus, a subsidiary of The Sandi Group, under a build-own-operate-transfer (BOOT) basis.

The electricity generated by the future Kinshasa Solar City power plant will be fed into the grid of the state-owned utility, National Electricity Company (Snel). According to the authorities of the DRC, Snel will purchase 100% of the electricity produced by the solar power plant at a set rate of \$0.095 per kWh as per a 25-year power purchase agreement (PPA) signed by the two entities.



The project was conceived by Sun Plus in partnership with the city of Kinshasa and power utility Snel and it is expected to be extended to a capacity of 1,000 MWp in the near future.

According to Dr. Rubar Sandi, the Managing Director of TSG, the project is to boost the economy of the country through the creation of jobs for Congolese during and after the construction works, as the TSG's workforce represents only 10% of the necessary personnel.

KenGen Considers Floating PV

Kenya Electricity Generating Company (KenGen), the state-held utility, is said to be considering the installation of floating solar energy facilities at three of its hydropower dams. A pre-feasibility study for floating solar PV will be conducted by Norwegian firm Multiconsult to assess the potential for installations at the Kamburu, Kiambere and Turkwell reservoirs.

The study will be funded by the German development bank KfW. Multiconsult will look at the social, environmental and climate aspects and associated risks as well as review the power infrastructure at the sites, assess hydro turbines

characteristics, operation of the reservoirs, water flow patterns and power evacuation in the grid, as well as provide recommendations about the integration of floating solar plant in hybrid operation with the existing infrastructure.

Koru-Soin Dam Construction to Begin in September

Construction work is set to begin on Kenya's Koru-Soin multipurpose dam on River Nyando, in Kisumu in September this year. The dam will generate power at an associated 2 MW hydropower plant as well as address a number of water control needs.

Erick Okeyo, the chairperson of the National Water Harvesting Storage Authority (NWCP) made the announcement after a stakeholders' meeting regarding the project. Mr. Okeyo said that tenders for the project have been closed for evaluation over the month of August after which the site will be handed over to the selected bidder to start the work.

The Koru-Soin multipurpose dam is designed to control flooding, supply water for domestic and industrial consumers in the city of Kisumu and surrounding towns, supply the existing irrigation schemes in Ahero and West Kano, and generate power at the associated 2 MW hydropower plant.

SustainSolar Connects Containerized Solar Mini-Grid in Malawi

SustainSolar, an off-grid supplier, announced that it has recently commissioned a 12-kWp containerized mini-grid in the village of Mthembanji in the Dedza district of Malawi. The solar photovoltaic system provides electricity to 60 households and small businesses in the village.

Bringing a stable and low carbon electricity provision to the previously unconnected village of Mthembanji, Dedza District, this mini-grid will be the first experience of wired household electricity and has potential for significant social and economic impact in the village.

The 12kW solar generation unit provides high-quality 220 V power for domestic and commercial use including lights, phone charging, TVs, fridges as well as other productive uses. Being the first of its kind in Malawi, the mini-grid is cheaper, quicker to implement and potentially more financially sustainable than larger capacity mini-grids currently deployed in the country. This new method of rural electrification also allows for more electricity and a higher impact than the solar home systems offered on the market.

Kerui Rigs-Up for Ethiopia Geothermal Drilling

Chinese equipment and oil services company Kerui Petroleum said it has successfully lifted the derrick and substructure for the first 1500HP drilling rig at Ethiopia's Aluto-Langano Geothermal Energy Project.

The completion of the first rigging up marks a milestone in the 70-MW geothermal energy project, which is part of Ethiopian government's plans to expand geothermal energy generation in the coming few years, the Chinese firm said in a statement.



Source: Kerui Group

In February 2019, Kerui Petroleum, in partnership with Kenya's state-owned power producer Kenya Electricity Generating Company PLC, signed a contract with Ethiopia's state utility firm Ethiopian Electric Power (EEP). Under the contract, Kerui Petroleum is supplying two sets of 1500HP drilling rigs, personnel training, drilling operation and related technology transfer for the drilling initially of the 22 wells at Aluto-Langano.

The Aluto-Langano geothermal project's first exploration work began in 1981. The site already has a geothermal power plant that began operation in 1998 with a production capacity of 7.3 MW. The facility, however, has been closed since 2018 due to technical issues.

Norfund and Scatec Abandon Kenya's Rumuruti Solar Project

According to local reports, Norfund, the Norwegian state-owned investment vehicle and partner Scatec Solar have decided not to participate in the Rumuruti Solar Park project. Kenenergy Renewables is the last remaining company still committed to the project. Kenenergy already has a 20-year Power Purchase Agreement (PPA) with Kenya Power in place. The Rumuruti Solar Park, if developed, will produce 40 MW of clean solar energy and will span a 300-acre area, at a cost of around Sh6 billion.

Norfund cited a long development timeline as its reason for withdrawing. "Together with our

partner Scatec Solar, we assessed the development timelines to be too long to warrant continued involvement in this project,” said Norfund Executive Vice President for Clean Energy Mark Davis.

NUCAFE Sees its First Industrial Solar Power Plant in Uganda

The National Union of Coffee Agri business and Farm Enterprise (NUCAFE) has made a breakthrough to become the first coffee organization in East and Central Africa to commission an industrial-capacity solar power plant at its coffee processing factory outside the capital of Kampala.



This will facilitate production and export of the first of its kind, “Uganda Carbon Neutral Coffees”. It will also save 241.3 tons of CO₂ emissions per annum from the atmosphere and planet earth. This has all been possible with support of aBi, NCF/NDF and NIRAS.

A Ugandan firm, Village Energy, undertook the installation of the solar facility which consists of 442 panels capable of producing 172 kWp.

Total and Macquarie Partner to Develop 2GW Floating Offshore Wind Portfolio

Total and Macquarie’s Green Investment Group (GIG) have concluded a 50/50 partnership to develop a portfolio of five large floating offshore wind projects in South Korea with a potential cumulated capacity of more than 2 gigawatts (GW).

Located off the Eastern and Southern coasts of the country (Ulsan and South Jeolla Provinces), the projects have commenced an on-site comprehensive wind data collection campaign. The partners aim to launch construction of the first project of around 500 megawatts by the end 2023.

With the announcement of the “Green New Deal” plan last July 14, South Korea has re-affirmed its strong ambitions to develop renewable energies which shall reach at least 20% of the power mix by 2030, including 12 GW of offshore wind

capacities. The country has a significant potential for the development of a floating offshore wind segment benefiting from a strong governmental support and a unique set of local competencies amongst which is the extensive shipbuilding know-how and the country’s ambitious R&D programs.

“Our entry in the floating offshore wind segment in South Korea is in line with Total’s strategy to profitably develop renewable energy worldwide and contribute to our net zero ambition,” said Patrick Pouyanné, Chairman & CEO of Total.

Climate Financing by Multilateral Development Banks Tops \$61.6 Billion

Climate financing by seven of the world’s largest multilateral development banks (MDBs) totaled \$61.6 billion in 2019, of which \$41.5 billion (67%) was in low- and middle-income economies, according to the 2019 Joint Report on Multilateral Development Banks’ Climate Finance.

The study expands the scope of reporting for the first time to all countries with multilateral development bank operations. It now provides data on MDB climate finance commitments beyond those directed solely at developing and emerging economies, but with the focus remaining on low- and middle-income countries.

This year the report combines data from the African Development Bank, the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank Group (IDB Group), the World Bank Group (WBG) and – for the first time – the Islamic Development Bank (IsDB), which joined the working group in October 2017. In 2019, the Asian Infrastructure Investment Bank (AIIB) also joined MDB working groups, and its data is presented separately within the current report.

The 2019 report shows that \$46.6 billion, or 76% of total financing for the year, was devoted to climate change mitigation investments that aim to reduce harmful greenhouse gas emissions and slow down global warming. Of this, 59% went to low- and middle-income economies.

The remaining \$15 billion, or 24%, was invested in adaptation efforts to help countries build resilience to the mounting impacts of climate change, including worsening droughts, extreme flooding and rising sea levels. Of this finance total, 93 percent was directed at low- and middle-income economies.

Elsewedy to Build High Voltage Substation in DRC

Elsewedy Electric announced that its subsidiary was awarded a contract by SNEL (Societe National D Electricite), the state utility of the Democratic Republic of Congo, to build a 220-15/6.6 kV high voltage distribution substation in the city of Kasumbalesa. The contract value is approximately \$38.6 million.



According to a company statement, Elsewedy Electric’s scope of work covers engineering, procurement and construction (EPC) of the entire project on turnkey-basis; and should be completed within 18 months from the project’s commencement date.

The company also said the project is strategic due to enabling efficient management of the flow of energy exchanged between the electricity grid of Southern Africa (SAPP) and that of the DRC; and improving energy exchanges and the measurement of this energy exchanged between the DRC and Zambia.

Waste-to-Energy Projects for the ECOWAS Region

The ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE) is undertaking an initiative for projects that will focus on turning waste into energy for cities in the member countries of the Economic Community of West African States (ECOWAS).

In the ECOWAS region, most countries face the challenges of municipal waste collection and disposal. While the municipalities continue facing the challenges of waste management, the urban populations however continue to grow and compound existing problems. The challenges of municipal waste management is characterized by the lack of adequate and sustainable infrastructural services. One of the services that is severely hampering the development of these expanding settlements is the unavailability of adequate energy services. This, therefore, results in inadequate energy services and hence rationing of the available resource through frequent power outages.

POWER & ALTERNATIVES

Other infrastructural services such as roads, water and telecommunication services are equally hampered by the expanding urban populations. The expanding urban populations contribute to the current waste management problems as well. To address these problems, ECREEE wants to explore various waste management options that could generate energy from the waste. In this context, ECREEE intends to select a maximum

of six WTE projects from municipal waste from cities in ECOWAS member states to carry out pre-feasibility studies.

Egypt Cancels West Nile PV Project

The state-owned Egyptian Electricity Transmission Company (EETC) has reportedly cancelled a tender for the construction of the 200-MW West Nile Solar Photovoltaic Power Plant.

The facility was to be grid-connected and help the country diversify its energy mix.

This decision is reportedly due to low demand in the local market at this time. ACWA Power, Alcazar Energy, First Solar, Infinity Energy, Lekela Power, Masdar, Orascom Construction, and Tebia were among the 13 companies set to participate in the tender.

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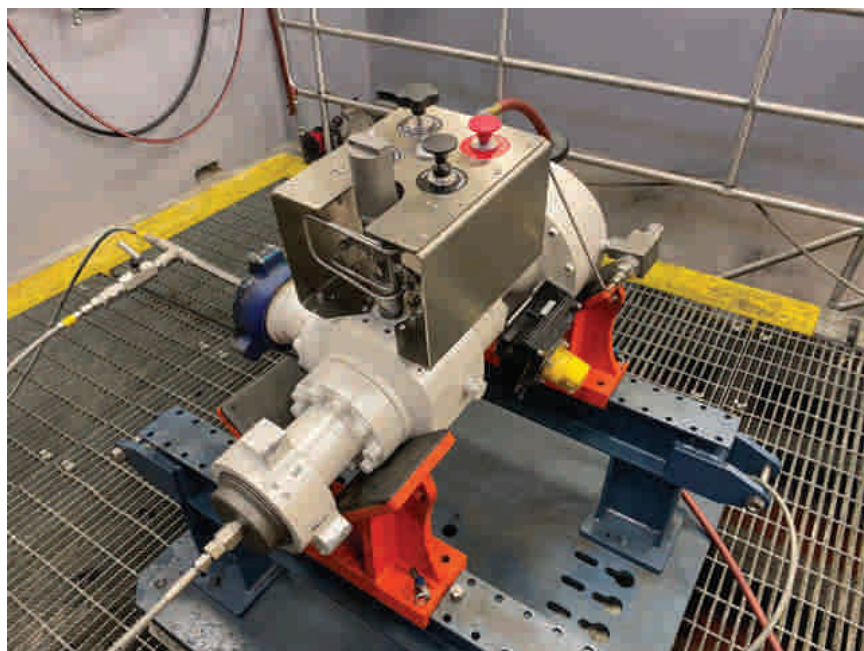
NEW PRODUCTS & SERVICES

Cortec Launches New CX-RV2.6 Pneumatic Pressure Relief System

CORTEC, a manufacturer of high-quality API valves, has launched the new CORTEC CX-RV2.6 Pneumatic Pressure Relief System. The system, API 6A PSL 3 monogramable and comprised of SIL 3 rated components, is designed to provide rapid pressure relief within high-pressure systems, including mud pumps, managed pressure drilling manifolds and frac relief systems.

Designed as a replacement to purely mechanical devices that are significantly less reliable, the CX-RV2.6 is a unique, rugged, all-pneumatic system that requires only 80 PSI minimum air supply to function.

Mike Chauvin, manager of controls and automation, CORTEC, said, "This new, simple design offers precise control and repeatability over hundreds or even thousands of pressure tripping events. We have proven this design through extensive validation over thousands of pressure cycles, with consistent tripping results within 1% or less of the pressure set point. Users have the ability to set an auto and manual



reset mode along with the reassurance that the relief valve will function efficiently when

needed, protecting personnel and preserving operational safety on site."

Forum Develops Remote Piloting Capability for ROVs

Forum Energy Technologies revealed it has developed and demonstrated the ability to remotely operate Work class and Observation Class (Perry and Sub-Atlantic) ROV systems between an offshore vessel and a remote location. This new capability brings major opportunities to adapt operational practices in response to the latest industry drives as cost savings and reductions in HSE risks can be realized through reducing offshore crew sizes.

The concept of remote piloting was proven by Forum 2010 when the company successfully operated its TXLX Workclass ROV in its test pool at Kirkbymoorside, UK from a TXLX Console located in Florida, USA. Remote Control capabilities demonstrated were camera and light controls, manifold power on/off, depth and gyro power, pan and tilt controls, manipulator controls, ROV thruster controls, auto heading controls. At that time, internet speeds were much slower than today resulting in high latency telemetry which the control system software was not equipped to counter.

However, continued development in software efficiencies which reduce the effect of network latency coupled with increased availability and reliability of the global 4G network has now allowed Forum to offer remote operations on its full range of ROV systems. Forum's ICE™ & subCAN™ remote operations suites provide a robust means of piloting vessel or platform-based systems from an onshore control facility via a wired, 4G or satellite connection.

The onshore hardware replicates the offshore HMI hardware and GUI so controls will be immediately familiar to operators. The Onshore Control Module provides a local hub for power and data connections. Existing offshore control station hardware can be upgraded to allow remote control and monitoring of power systems. The Offshore Control Module interfaces with the upgraded hardware providing control and monitoring via the existing ICE/subCAN network. A key-switch, in conjunction with the software, ensures secure control of hand-over between offshore and onshore stations.



The ICE™ & subCAN™ control software applies enhanced position control when a compatible DVL and gyro are fitted to the ROV.

Brüel & Kjær Vibro Debuts VIBROPORT 8000 Portable Vibration Analyzer

Brüel & Kjær Vibro, a leading worldwide independent supplier of condition monitoring solutions for rotating machinery, has debuted its VIBROPORT 8000 (VP-8000) Portable Vibration Analyzer for rotating and reciprocating equipment.

The new VP-8000 is a specially configured and packaged version of Brüel & Kjær Vibro's VC-8000, which is an internationally renowned machinery protection system. The VP-8000 features the same universal measurement modules (UMMs) and the rugged and field-proven design as the VC-8000 but is optimized for portable dynamic data collection and diagnostics.

There is a wide range of applications for VP-8000 for both plant operators and service providers. It is ideal for verifying the condition of machines after a turnaround and those repaired prior to service start-up. It is also used for steady state and transient condition monitoring (i.e. during a run up and coast down) for observation and trending of machines following an event (e.g. operational process changes or machine fault detection). VP-8000 can also be used as a mobile platform for monitoring a number of machines within the plant that are not instrumented or that only have protection systems.

VP-8000 can be used both as a portable data collector and as an analyzer. Advanced diagnostics offered by Brüel&KjærVibro's

best-in-class SETPOINT® condition monitoring software (CMS) include:

- Shaft/bearing – Orbits, full spectra, shaft centerline plots, Bode plots, polar plots, etc.
- Reciprocating compressor – PV plots, rod load, rod reversal, impact monitoring, etc.
- Two-plane balancing

The VP-8000 connects to rotating machines and captures real-time vibration and process data for immediate monitoring and diagnosis of equipment health, or via the VP-8000 flight recorder for storing data for remote analysis. The VP-8000 can be connected to the buffered outputs of most machine

protection systems with BNC outputs, or it can be used with temporally mounted sensors on machines where there is no monitoring system. Data can also be exported to the OSIsoft PI data historian.

The VP-8000's patented intelligent wave form capture ensures critical waveforms are never missed. It can rapidly capture and trend data at 80 ms and is versatile enough to scale from 1 hour to 1000+ hours of data capture. With 24-channels, the VP-8000 features 32 GB removable SD storage, 256 GB internal SSD storage, resolution from 400 to 12800 spectral lines and sampling from 16 to 1024 samples per second.



Source: Brüel&KjærVibro

DORIS, AVEVA and Schneider Create Digital Twin Alliance for Upstream Oil & Gas

DORIS Group, global Engineering and Project Management company in the energy industry, Schneider Electric, the leader in digital transformation of energy management and automation, and AVEVA a global leader in engineering and industrial software, have agreed to develop a strategic

partnership to deliver Digital Twin technology for the upstream oil and gas markets. These new solutions will support the goals of oil & gas organizations to improve asset performance, increase sustainability and maximize return on capital on projects.

The three companies will combine offerings to bring engineering capabilities, an asset lifecycle software solution and digital specialization in order to create a fully formed digital twin to serve as a backbone for improving performance for the upstream sector.

Chevron Announces First 100% Renewable Base Oil Production

Chevron Products Company, a division of Chevron U.S.A. Inc., and Novvi LLC have announced the first production of 100% renewable base oil from Novvi's Deer Park, Houston Facility.

"As part of our aim to find more reliable, affordable and ever-cleaner solutions that scale, Chevron remains committed to our investment in and technology development with Novvi LLC," said Colleen Cervantes, Chevron Lubricants President. "This milestone reflects the focus in our partnership despite the recent pandemic-related downturn, and we are excited about the future."

Chevron is an equity investor in Novvi LLC, a California-based company that engages in the development, production, marketing, and distribution of high-performance base oils from renewable sources. The agreement was announced in 2016.

This development is the latest in a series of Chevron announcements signaling its commitment to the energy transition and climate change focused on three areas: 1) lowering carbon intensity cost efficiently, 2) increasing renewables in support of its business, and 3) investing in the future targeting breakthrough technologies.

"Novvi is focused on delivering renewable solutions—essential chemicals and products for the industrial fluids and lubricants markets—without trade-offs in performance, price, or availability," said Jeff Brown, Novvi President and CEO.

The Chevron-Novvi partnership leverages the complementary technologies of Chevron's long-standing expertise in hydroprocessing, particularly ISODEWAXING, with Novvi's innovative use of renewable feed stocks to produce and market high-performance, synthetic and renewable premium base oils.



Source: Novvi

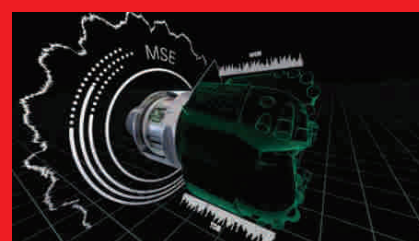
Halliburton Introduces Cerebro Force Drill Bit Sensors

Halliburton introduced Cerebro Force in-bit sensors, a first-of-its-kind technology that captures weight, torque and bending measurements directly from the bit to improve understanding of downhole environments, optimize bit design and increase drilling efficiency.

Built on Halliburton's successful in-bit vibration sensing platform, Cerebro Force utilizes downhole data to reduce or eliminate surface measurement uncertainty and inefficiencies caused by bit design, bottomhole assembly and drilling parameter selection. Through the Design at the Customer Interface (DatCI) process, Halliburton's local network of drill bit experts, collaborate with operators to

customize bits for basin-specific applications, and will use data from Cerebro Force to inform new designs and optimize parameters for efficient and precise drilling. The technology is available on fixed cutter drill bits and is compatible with conventional motor and rotary steerable drive systems.

"Achieving drilling performance requires efficiently converting energy into rock cutting. Cerebro Force in-bit sensors provide direct measurements to help operators optimize their rate of penetration to reduce well construction costs," said David Loveless, vice president of Drill Bits and Services. "We are excited to add the only in-bit sensor that accurately measures strain and pressure to our portfolio of products."



Source: Halliburton

An operator in West Texas recently deployed Cerebro Force to improve directional control while drilling the curve portion of its wells. Cerebro Force data identified several issues that limited performance, and Halliburton developed a mitigation plan that optimized drilling practices and BHA design. This reduced the time to drill the curve section by 38 percent.

Our Journey to Electrify the Continent

Five Years of the New Deal on Energy for Africa

Five years into the African Development Bank's ambitious New Deal on Energy for Africa (NDEA), the Bank's investments are set to provide electricity access to around 13 million people and deliver about 55,000 km of distribution lines, and 6,700 km of transmission lines, of which 3,200 km are for regional interconnections.

The NDEA called for a substantial increase in investments to realize the Bank's High 5 priority to "Light Up and Power Africa," which aims to mobilize finance and expertise to expand access to reliable, sustainable energy for more than 200 million Africans through investments in power generation, inter-connections, transmission and distribution. This effort is critical to unlocking Africa's vast economic potential, enabling the growth of value-adding industries and services, and, most importantly, unleashing the ingenuity of the continent's 1.3 billion people.

The strategy was grounded in the recognition that partnerships are central to its success. In collaboration with African countries, the Bank's interventions have ranged from setting up the right enabling policy environment, supporting utilities, to increasing the number of bankable energy projects. Additionally, the Bank is accelerating major regional projects and driving integration through the Program for Infrastructure Development in Africa, whilst also supporting bottom-of-the-pyramid energy access programs.

Priority was given to investments in low-carbon technologies, set to contribute to over 2 GW of additional generation capacity by harnessing the large, hydro, solar, geothermal and wind resources of the continent. Yet this is only the beginning, as much of the work to date has been centered on setting up the right frameworks to mobilize different partners and alternative forms of capital to tackle the various challenges in the sector at country, sub-regional and regional levels.

Indeed, mobilizing partnerships and rolling out countrywide energy transformation are continuous works in progress. In 2019, as testament to the Bank's efforts in enhancing dialogue and consensus, the G5 Heads of State endorsed the Bank's Desert to Power initiative, intended to build the world's largest solar zone across the Sahel by adding up to 10 GW of solar generation capacity through public and private interventions. The Yeleen Solar Program in Burkina Faso – the first of dozens of similar projects expected to flourish across the Sahel region – will provide energy to 150,000 households in rural areas through solar mini-grids and solar home systems, and an additional 52 MW of grid-connected solar generation, enough to power 30,000 new households.

“Over the past five years, the Bank's interventions reached \$1.5 billion in private sector operations, corresponding to 1.7 GW additional generation capacity through independent power producers.”

Achieving the objectives of the New Deal on Energy for Africa will require a significant increase in private sector investments. The Bank catalyzes more private investments into independent power producers and off-grid projects through partnerships with project developers, commercial banks, private equity funds, institutional investors and other development finance institutions. Over the past five years, the Bank's interventions reached \$1.5 billion in private sector operations, corresponding to 1.7 GW additional generation capacity through independent power producers.

In addition to mobilizing concessional resources through bilateral and multilateral sources – notably from the European Union, Green Climate Fund and Climate Investment Funds – the Bank hosts the Sustainable Energy Fund for Africa (SEFA), one of the largest multi-donor technical assistance and concessional capital funds in the continent, designed to catalyze private sector participation in renewable energy.

In 2019, the Bank converted SEFA into a special trust fund to widen its interventions into green mini-grids to accelerate energy access to underserved populations; green baseload to support clean generation capacity; and energy efficiency to optimize energy systems and reduce energy intensity. SEFA is expected to contribute to the electrification of more than 7 million households by 2030.



The AfDB has assisted with numerous interconnection projects to improve regional power infrastructure


The Bank is also actively supporting the mobilization of commercial capital through blended finance solutions. The Facility for Energy Inclusion, which was operationalized in 2019, is a \$500 million investment platform organized around two funds – off-grid and on-grid – to provide flexible debt products, including in local currency, to emerging business models in the small-scale renewable energy space. The Facility for Energy Inclusion will contribute to more than 3 million new connections by 2030.

To enhance institutional performance and improve the enabling conditions to attract much needed investments, the Bank has also implemented initiatives such as the Electricity Regulatory Index to monitor and benchmark regulatory performance against best practices, the Sustainable Utilities Transformation Agenda, to build sustainable utilities and energy institutions, and the Africa Energy Portal to provide accurate, up-to-date data on Africa's energy sector.

In 2019, the African Development Bank reported that an additional 96 million African households had gained access to electricity between 2015 and 2019, with countries like Rwanda on track to achieve universal access by 2025. Despite this encouraging progress, close to 600 million Africans still lack electricity access and achieving universal access

goals under SDG7 still requires greater and swifter efforts to meet the demands of Africa's growing population.

Addressing electricity access remains a costly enterprise, with the International Energy Agency placing the price tag at around \$120 billion annually through 2040, four times higher than current levels (<http://bit.ly/37TIIIS>).

While our direct financial contribution is modest by comparison, we are confident that its judicious application to catalytic power projects, innovative financial structures, sector reform processes and acceleration of decentralized solutions will get us far in our mission. 

About the Author

Dr. Kevin Kariuki is the Vice President, Power, Energy, Climate Change & Green Growth, at African Development Bank. The African Development Bank Group is Africa's premier development finance institution. It comprises three distinct entities: the African Development Bank (AfDB), the African Development Fund (ADF) and the Nigeria Trust Fund (NTF). On the ground in 41 African countries with an external office in Japan, the Bank contributes to the economic development and the social progress of its 54 regional member states.

MEGA Endüstri Kontrol Sistemleri has designed and developed a proprietary and state of the art Terminal Automation System, Flashtech®. With this in-house developed software package, Mega has been able to present a whole turnkey, flexible and multi-layer loading terminal automation solutions linking the field equipment and instrumentation to the high level supervisory system and interface to customer's operational and business systems.

MEGA has developed a new project for nineteen Terminals in Turkey for Jetty Loading&Unloading Metering Systems, as it has become a legal obligation to install custody transfer metering systems on the product transfer pipe lines for the petroleum products which are subject to customs duty.

MEGA has successfully installed and put into service most of these custody transfer metering skids at terminals with Flashtech® Automation.



Minister Sylva Unveils NCDMB Gas Hub in Bayelsa

The Minister of State for Petroleum Resources, Chief Timipre Sylva unveiled the Nigerian Content Development and Monitoring Board (NCDMB) Gas Hub and performed the groundbreaking ceremony of Rungas LPG Composite Cylinder Manufacturing plant, located inside the Gas Hub at Polaku community, Bayelsa state.

The Gas Hub is sited at the 10.6 hectares of land which the Board had purchased at Polaku Community in 2013 for the purpose of establishing a pipe mill. Discussions with various investors regarding set up of the pipe mill did not yield the desired results, thereby forcing the Board to re-strategize on how to utilize the land for productively.

Speaking at the event, the Minister stated that the project was in furtherance of the efforts of President Muhammadu Buhari's administration to diversify the Nigerian economy by developing the nation's huge gas resources across the entire value chain.

He commended NCDMB for re-strategizing to utilize the 10 hectares of land for gas related projects, adding that the event is a practical step being taken to give effect to the Federal government declaration of 2020 as the 'year of gas.'

Commenting on the proximity of the NCDMB gas hub to the Shell Gbarain-Ubie gas plant, Sylva hinted that it will provide opportunities to leverage and activate value adding initiatives.

"The location of this land is close to the Gbarain Gas Plant that produces more than one billion standard cubic feet per day of gas; that provides opportunities to leverage on the proximity to activate value adding initiatives and lead to industrialization and multiple economic activities."

Commenting on the groundbreaking of Rungas Prime limited facility, Sylva said achieving LPG penetration across Nigeria will require targeted interventions directed at both the demand and supply end of the LPG value-chain. He mentioned that it is a pragmatic step towards achieving Federal Government's agenda of LPG penetration towards making LPG the preferred choice for cooking fuel.

The Minister indicated that the manufacturing plant will have the capacity to produce between 400,000 to 1 million LPG composite cylinders per annum and in turn make composite LPG cylinders accessible and affordable to Nigerians as well as create employment opportunities during its construction and operations phase.

Sylva assured Rungas and other stakeholders that the Ministry of Petroleum Resources was committed to supporting the success of the



Minister of State for Petroleum Resources, Chief Timipre Sylva

manufacturing plant, adding that a committee had been set-up to drive the National Gas Expansion Program to make Nigeria the gas hub for the African continent.

In his remarks, the Executive Secretary, NCDMB, Engr. Simbi Kesiye Wabote explained that the Board developed a 10-Year Strategic roadmap in 2017 and commenced its implementation in January 2018, with an ambitious goal of achieving 70 percent Nigerian Content level by the year 2027.

He said: "Technical Capability Development is one of the pillars of our Strategic Roadmap meant to facilitate the building of manufacturing facilities and capabilities to support in-country manufacturing and assembly of equipment and input materials required for exploration and production activities."

Wabote explained that the strategic roadmap provided the leverage to use the Polaku land for gas-related activities and partner with Rungas Limited to setup a LPG Cylinder Manufacturing plant; Shell Nigeria Gas to set up Pressure Reduction and Metering Station; and Total Support Energy Limited for the provision of CNG and LNG mother-stations.

Shedding more light on the Board's new strategies for the Polaku land, Wabote stated that "within a year of changing the direction towards gas, we have finalized partnerships with three investors with four hectares of the land already taken up."

He mentioned that these activities will contribute to the drive towards the 70 percent Nigerian Content goal and the creation of job opportunities and other economic activities. He also congratulated Rungas Prime Industries and other stakeholders for taking the bold step to bring the facility to Bayelsa State. **PA**

By Ricardo Silva and Joana Gonçalves
Miranda & Associados

Sustainable Investment in Angola and Mozambique Forecasting Value Creation for the Petroleum Industry

In this day and age, it is no longer feasible to consider a business sustainable without the creation of shared value. What started years ago with the idea that consumers could potentially influence capital markets with their “wallet vote” on a daily basis has now become a reality. And proof that this is real is that the majority of companies are now aware of the importance of implementing sustainability as a strategy and that, in the long run, there will most likely be no market-share for organizations which aren't purpose driven.

Just how quickly this idea has spread can be confirmed by reading Blackrock CEO Larry Fink's 2019 letter to CEOs, in which he clearly states that “society is increasingly looking to companies, both public and private, to address pressing social and economic issues” as a result of the lack of capacity of governments to provide lasting solutions.

This change in how society as a whole, and more importantly how institutional and individual investors see the role of companies in addressing the challenges of the future has also impacted on oil and gas and other energy industry companies.

The year is 2020, the criteria for sustainable investment is fastidious, and if you are an oil company, you must obtain and maintain a “social license to operate.” It is an up or out license, as it requires a constant and ongoing alignment of the company's actions with the expectations of its stakeholders and surrounding community.

Winds of Change in Southern Africa

For a long time, the oil and gas industry was often accused of not giving enough backing to communities in Africa. For years, the world heard of problems in Nigeria, where local communities, especially in the Niger Delta, protested against the activities of international oil companies, and the fact that in their view the region had not adequately benefited from oil and gas production. Oil companies, to a certain extent fairly, replied that they paid a significant amount of the revenue generated by their operations to the government, and that it was the latter that was responsible for not enough being done for the host communities. However, in 2020, this is no longer an adequate response, and company executives are well aware of this.

When we look today at the practice of companies active in Southern Africa's oil and gas industry, the outcome is quite positive. For instance, in its development of the Greater Plutonio project, BP has factored in solutions that are contributing to Angola's energy transition, notably by reducing GHG emissions including from operational flaring. On the social front, BP has also committed to funding the *Halo Trust* charity project, which aims to train local women as deminers to help



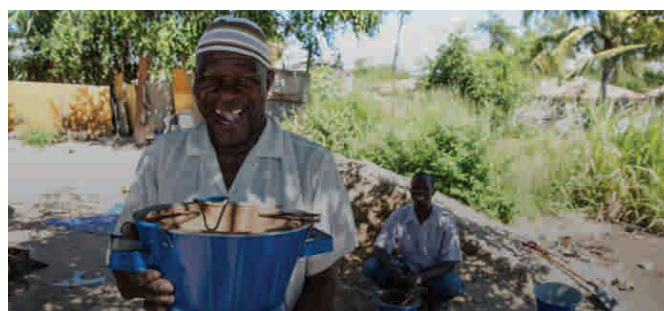
Source: Halo Trust

BP supports the Halo Trust demining operation in Angola

find and clear land mines that have been a major hindrance to rural development since the end of the country's civil war. Besides assisting the Angolan government in trying to reach its target of making Angola landmine-free by 2025, *Halo Trust* has employed 31 new staff, contributing both to employment and gender equality.

In turn, Equinor, which has also made strong commitments to sustainability over time, has opted to increase the capacity and expertise of its Angolan petroleum engineering staff through the establishment of MSc and PhD programs in Angola. Similar to BP, it has also done notable work in the clearing of landmines across the country and is openly committed to reducing its carbon footprint.

On the East coast of Africa, in Mozambique, Italian major Eni has implemented the *Promoting Energy Efficiency and Clean Cooking* project in the city of Pemba, where it aims to replace 10,000 traditional stoves. This initiative would have a direct impact on deforestation, insofar as it will reduce the felling of trees for coal for domestic use, while improving the health and safety of the community and reducing emissions. Concurrently, the company has also been responsible for implementing a package of health-related measures, which include the supply of radiology, ultrasound and laboratory equipment to the health unit in the Palma district, together with the setting up of a home-birthing unit and an off-road vehicle to provide clinical services to remote areas of the province.



Source: Eni

Eni implements the Promoting Energy Efficiency and Clean Cooking project in Mozambique

These measures, together with many others by different companies in southern Africa are a clear indication of the industry's increased commitment towards the creation of shared value. Notwithstanding, it is legitimate to ask whether there is a formal social license to operate within the oil and gas industry that companies have to comply with?

“Contractual” Social License to Operate?

In order to better assess this question, it is necessary to look at the clauses agreed in the contracts established between the governments and the international oil companies. Thus, two model contracts in use in Angola and Mozambique were analyzed to assess the standards imposed by both Governments.

In Angola, and although other options have also been used over time, most oil and gas exploration and production rights in the country have been contractually enshrined in Production Sharing Agreements (PSA). It is common for Angolan PSAs to include an obligation by the contractor group to pay certain bonuses and contributions, including a contribution to social projects.

In Mozambique, the contractual relation between the contractors and the government is established through an Exploration and Production Concession Contract (EPCC). In this respect, some contracts include an obligation of the concessionaire to support projects for communities in the areas where petroleum operations take place. These programs are to be agreed with the Government and can be recommended by the concessionaires. Although different contracts are negotiated and designed for each concession area, it is not uncommon for companies to be bound to these types of obligations.

Notwithstanding the foregoing, and as the Nigerian example shows, the contribution by companies to social projects, or the agreement of such projects with the government, does not, *per se*, incorporate the “social license to operate.” Instead, in order to ensure that they maintain this fluid and ever-changing license, companies should keep an open dialogue with the communities where they operate and try, to the best of their capacity, to ensure that the programs they develop meet specific needs of such communities.

Tax Treatment of Costs

Since it is beyond doubt that, either as a result of ethical considerations, stakeholder pressure, or due to compliance reasons, oil companies will increasingly allocate an important amount of their budget to social projects, the question to be asked is – are these costs deductible for tax purposes?

In general, in order for a cost to be deductible, it must be either (i) admissible under applicable law or (ii) essential to the conduct of petroleum operations.

To determine how Petroleum Operations in Angola have been taxed since the 2004 reform, the first statute we must consider is the Petroleum Activities Law (Law no. 10/04, of 12 November 2004), which sets forth the specific catalogue of rights and obligations to be complied with by operators and other members of the contractor group. The second relevant statute is the Petroleum Activities Tax Law (PATL – Law no. 13/04, of 24 December 2004), which foresees the general framework for taxing income derived from operations under PSAs and, more specifically, the rules on deductible costs for Petroleum Income Tax (PIT) purposes. Under the PATL rules, donations for social, educational, cultural and scientific purposes are currently deemed deductible.

Turning now to Mozambique, in addition to a Petroleum Law (Law No. 21/2014, of 18 August 2014) which solely sets out that the specific taxation regime for petroleum operations is set forth by law, Mozambique's Petroleum Taxation framework is governed by the Petroleum Operations Tax Law (POTL), approved by means of Law No. 27/2014, of 23 September 2014. Unlike the Angolan PATL, this statute does not categorically establish cost deductibility, and refers such deductibility to the Corporate Income Tax Code (CITC) rules. However, the CITC also does not include specific rules on cost deductibility, which leads us back to the discussion of whether or not a given cost is essential to the conduct of the company's operations.

“...there are still a lot of opportunities when it comes to value creation and sustainability in Southern Africa, especially in terms of energy efficiency and sustainable power generation.”

Regardless of being legally explicit, it is always arguable – even though subject to approval – that the costs that companies incur with social projects are fundamental to the company's operations, and should thus be deemed deductible to the extent that the relevant statute does not provide for their non-

deductibility. This, however, needs to be subject to careful planning and assessment.

Another different topic that also needs to be carefully considered in each specific jurisdiction and contract is whether or not these types of costs are cost recoverable.


What Does the Future Hold?

If 2020 is a year full of uncertainty, the one thing we can be certain of is that the discussion around energy transition and sustainability is here to stay. We know liquefied natural gas will definitely be part of the transition, and we also know that the largest private investment project in Africa to date is the Mozambique LNG project. Yet, there are still a lot of opportunities when it comes to value creation and sustainability in Southern Africa, especially in terms of energy efficiency and sustainable power generation. Diesel power plants are still a major energy source, despite the availability of natural gas in the region. Additionally, both Angola and Mozambique still lack a strong national backbone infrastructure for energy supply, which creates opportunity for micro-grids to be set-up locally using renewables. Many traditional IOCs are looking to reinvent themselves as full scale

energy companies, and Africa can be a good testing ground for their renewable ventures.

This being said, it seems safe to conclude that energy companies are increasingly committed to impact management and value creation. This effort must be steady and consistent, as stakeholders expect companies in today's world to be able to demonstrate their purpose through a strategy and culture that fosters sustainable financial performance.

At a local level, this can be achieved by linking their contractual social obligations to their non-contractual social license to operate. By seeking to ensure that their social contributions and other similar contractual duties are adequately channeled to meeting the needs of the local communities where they operate, oil companies can show they are committed to socially conscious investment. If they manage to do that

and contribute to a greener and more sustainable energy generation and distribution infrastructure, then they will have gone full circle, creating a socially conscious and environmentally sustainable business model for the African countries where they operate. 

About the Author

**Ricardo is a Partner at Miranda & Associados' Lisbon headquarters, and is responsible for coordinating the firm's Timor-Leste office. He is Co-Head of the Firm's Energy and Natural Resources Practice Group and together with Miranda Alliance's local offices frequently advises energy companies and Host Nations in oil & gas negotiations, and in setting up and carrying out operations in Africa and South East Asia. He is Vice-President of Membership of the Association of International Petroleum Negotiators (AIPN). Joana is a Trainee and a member of the Energy and Natural Resources Practice Group at Miranda & Associados. Ricardo and Joana may be contacted at Ricardo.Silva@Mirandalawfirm.com and Joana.Goncalves@Mirandalawfirm.com.*



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By Scott M. Shemwell, D.B.A.
Managing Director
The Rapid Response Institute

Enter Renewable Energy

The Forthcoming Post Pandemic Decade

At the June 2020 Corporate Council on Africa's Leadership Forum regarding the Post-COVID economic recovery, one speaker, "stressed the importance for African countries to create a business environment that is conducive to innovation." Another spoke of the need to, "diversify from reliance on natural resources."

Moreover, major oil and gas organizations such as BP and Royal Dutch Shell are changing their business models reflecting the mature nature of petroleum extraction. By some metrics, revenue from the historic core crude oil commodities is no longer able to sustain profitability alone.

In 1993, the futurist Theodore Mod published a scholarly article depicting the life cycle and substitution of energy types as a function of maturity. This process is depicted in this graphic (*top of column 2*) right taken from almost 30 years ago. For clarity, we have superimposed the redline at year 2020.

One can make the case that the mature crude oil sector is now at a *generational inflection point*. If this hypothesis is correct, expect new investment and innovation to continue to grow for 'renewable' projects accompanied by a continued decline within the historic crude oil segment.

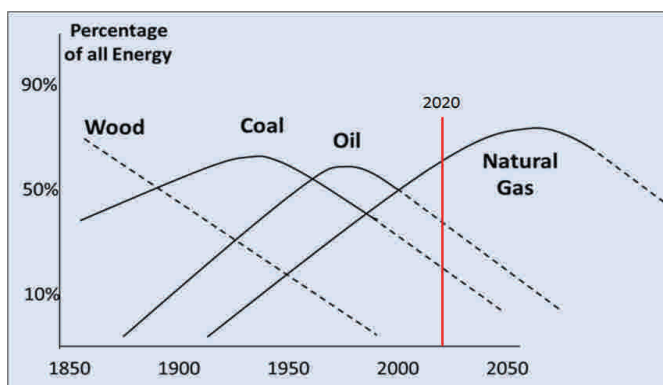
Like Big Oil, others in the liquids resource business must change as well. Note, that according to Modis, the prospects for natural gas remain favorable.

Digital Transformation

"The digital oil field is getting more digital and less oil." Paraphrased from a senior executive interviewed for our *Roadmap to Enterprise Optimization* study published in 2004, it appears now this statement is even more applicable.

The Industry Value Chain as well as organizational Supply Chains are undergoing *digitalization*—digitalizing business processes. Moreover, this broad use of information technologies is enabling new players to enter with potentially disruptive consequences.

For example, in July the technology juggernaut Tesla surpassed Toyota in market capitalization despite manufacturing significantly fewer vehicles. Now Tesla is the most valuable automobile producer in the world. Not bad for a 17-year-old company!



Traditional players may not remain at the forefront of the petroleum sector either. Equity markets are seen as leading indicators portending the future and they are speaking.

Since 1928 ExxonMobil and its predecessors have been in the Dow Jones Industrial Average. Effective August 31 of this year it was dropped from that index and replaced by the software giant, Salesforce.com.

Interestingly, organizations such as Microsoft, Google, Emerson, Siemens and others continue to grow in the petroleum sector. Operators and traditional Energy Service providers remain floundering.

Navigating the Path

No one will be immune to this economic Creative Destruction. The route is strewn with potholes, missing manhole covers and dead ends. There is also a great deal of hype and hope regarding the opportunity to meaningfully reduce dependence on petroleum; supplanting with green renewable resources. Likewise, while renewables may have hit *critical mass* with all disruptive change there will also be Winners and Losers.

Regions, countries, organizations and individuals will all be impacted. The degree will be a function of their readiness and adaptability to change. Louis Pasteur's famous quote, "Chance favors the prepared mind, and opportunity favors the bold" is as relevant today as it was in 1854!

Readers may remember he was also the father of the Germ Theory of Disease in the late 1800s. Perhaps his sage advice can help guide us today in other ways as well.

New technologies have been over-hyped for decades; maybe even longer. Magic elixirs often peddled by modern day snake oil sales representatives. Decisions and change management processes based on emotion will most likely fail badly. *Caveat emptor* is still the best defense.

Energy remains vital to global economies. Renewables are claiming their role and may even become dominant. The road may be rough but, "Chance favors the prepared ..."

Successful Transformation

If the petroleum industry is at or near an inflection point, all constituents must adapt or be left behind. But is this true? Oil will most likely be a key resource for decades to come and time will tell. Again, "Chance ..."

So, does the oil commodity continue to offer a viable business model? The short answer is yes, but like coal before it, the opportunities and its role may continuously diminish or at least change. Remember, John Rockefeller's Standard Oil originally sold kerosene before the arrival of the horseless carriage.

Renewable Energy CAPEX Assessment Model

Passive wind energy is an attractive alternative in areas which have consistent wind patterns. For example, engineers can lay out a wind mill field and calculate an output of over 6 million kWh per year or enough power for 1,500 western-style households. Sounds attractive and is often pitched as basically free once installed.

Technology Romance must be met with Fiscal Realities however: There is a large body of knowledge regarding new technology project management methods and associated risk mitigation processes. The Project Management Institute (PMI) is a great source of information on this subject.

Inherently, renewable energy is geographically fixed. For example, solar panels, windmills and other immobile assets require infrastructure delivery systems to get the power generated to market. This must all be factored into a viable project plan.

There are also the usual concerns such as power availability, quality and often higher cost than traditional carbon sources (or at least that perception) that management must address with the stakeholder base. Economics will decide whether an energy solution is advanced forward or not.

Project Framework Model

The National Renewable Energy Laboratory published *A Framework for Project Development in the Renewable Energy Sector* which is available online. There are two major aspects of this model:

- Project Assessment and Communication of the Value Proposition – BEPTC
- Project Seven Core Delivery areas – SROPTTC

This model is consistent with generally accepted project management practices and incorporates risk mitigation processes as well. Briefly,

BEPTC

This is project assessment consisting of the analysis of all data necessary to successfully build and operate a new renewable energy build. This should include options and risk analysis incorporating these five elements.

Baseline – Fundamental project validation

Economics – Energy economics from the Life-Cycle perspective

Policy – Alignment with government policy environments at all levels

Technology – Portfolio of technologies required, i.e., IT, engineering, etc.

Consensus – Stakeholder agreement (so-called *Buy In*)

Finally, project analysis must be expressed in financial terms such as Net Present Value (NPV) before CAPEX or Capital Expenditure approval. In other words:

Technology enablement decisions must be translated into the 'Language of Business.' This is the vernacular of the economic buyer, aka final decision-making authority! Project managers and technologists must understand and incorporate this metric if their project is to be sanctioned.

“

“Site, Resource, and Off-Take are the core elements of project development. Together they create value that promotes further investment. Securing these three elements by contract is a significant milestone for a project developer.”

”

SROPTTC

These seven elements of the framework are the foundation of a commercial project. It provides decision-makers and implementors with the methodology and timely information they require. A major driver is the management of risk during new energy initiatives.

Site – Facilities selection and assessment processes

Resource – Understanding of the renewable resource supporting energy output, i.e. wind, solar, etc.

Off-Take – Likely customer base perhaps using Power Purchase Agreements (PPA)

Permits – All necessary regulatory permitting

Technology – All engineering stages including documentation

Team – Qualified Multi-Functional groups capable of Delivering all Tasks.

Capital – Financial Resources

Effectively, these are the Delivery components for the project. Sometimes different nomenclature is used by project managers, but the intent is the same. On the Critical Path.

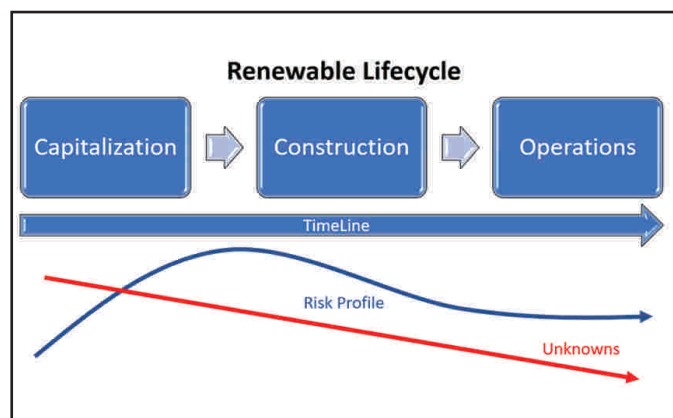
In summary, this Framework provides organizations with the methodology, processes and tools necessary to develop successful renewable energy projects.

Lifecycle Model

A renewable energy investment will follow a similar path to that of any asset intensive investment. Following project approval and

capitalization, the facility is constructed and certified for operations. Operations with associated OPEX (and CAPEX upgrades) will continue until the unit is decommissioned.

The risk mitigation strategy must also reflect the lifecycle stage. During the design phase, new build risks rise to the highest level as do the *Unknowns* or those potential negative impacts we cannot yet foresee. As the 'new' becomes mature both risk and unknowns diminish. Risk mitigation strategies must reflect the current life cycle stage.



As noted, while a renewable energy project may be new for many, it follows standard project and risk mitigation methodologies and processes. At the fundamental level, how is an offshore Wind Farm any different from an FPSO or Tension Leg Platform? This model works for all renewable CAPEX including Solar, Bio, Hydro and others.

Career Planning

Covid-19 has cast major uncertainty on the global petroleum markets. Some say the worst it has ever been. Unfortunately, as of this writing the end game for the pandemic is not known.

However, as in the above model 'Unknowns' decrease as a process matures. The GOOD news; likely, this will happen with this virus as well.

Now is the time to prepare and position oneself for the 'post pandemic decade' in energy. The *basket of energy* includes all sources and opportunities will be available in every segment. However, as discussed herein, some may be better than others.

From Pasteur's perspective, those who have made a career in the 'patch' as well as other segments of the petroleum value chain are well prepared to 'boldly go' forward to new opportunities. So, seize the moment!

Talent Pool

The petroleum sector requires both talented professionals, i.e., engineers, management, accountants, etc. as well as a skilled workforce (welders, truck drivers, pipefitters, etc.). The renewable sector will need to draw on the sum total of this capability as well.

Renewables will provide new career opportunities for those who may be made redundant by the traditional petroleum sector. So as the saying goes, "one door closes and another opens." According to the International Renewable Energy Agency, "Employment remains limited in Africa, but the potential for off-grid jobs is high, particularly as energy access improves and domestic supply chain capacities are developed."

As US politicians like to say, "We are going to retrain coal and oil workers to write software." We all know that will not happen. However, a logical transition is to build on existing skills regardless of what stage an individual is on her or his career path.

Personal Action Plan

This writer has been in the upstream sector since the mid-1970s. While I cannot say I have seen it all, I have seen a lot. Every downturn has resulted in changes. Some dramatic and some incremental.

When things are horrible, Lessons Learned in 40+ years include:

- Assess and focus on your strengths. That, that you know how to do and do well.
- Don't worry about weakness. So what? We all have them.
- Where is your passion? What do you really want to do that adds value?
- Develop a Plan and Go for It!


Renewable energy has a place in today's world and will likely increase its market share going forward. In some ways such as project management, risk mitigation and ROI assessment it is no different than historic carbon-based projects. This allows for a transition; not an abandonment of the existing processes.

Disruptive forces have always been with us. Pasteur's wisdom is a 'go by' for us all.

The virus will pass and opportunities in energy will abound. After all, even Tesla needs energy to charge the batteries.

Finally, the US EPA has a web page; *Renewable Energy Project Development Resource Directory*. If you are involved in a renewable energy project, you might check it out.

About the Author

Dr. Scott M. Shemwell, Managing Director of The Rapid Response Institute is an acknowledged authority and thought leader in field operations and risk management. He has over 35 years in the energy sector leading turnaround and transformation processes for global S&P 500 organizations as well as start-up and professional service firms. He had been directly involved in over \$5 billion acquisition and divestitures as well as the management of significant projects and business units. He is the author of six books and for over a decade, he and his firm have helped clients adapt to the dramatic changes impacting global energy and heavy industry sectors. www.theRRInstitute.com Additional information on this subject is available on the RRI Critical Mass blog available on this website. 

By Ricardo Silva
Partner, Miranda & Associados

THE ART OF THE DEAL

Petroleum negotiations in an age of social distancing and low oil prices

Oil & gas negotiations have always been a complex matter, where often parties with differing views and interests try to reach an agreement on how to best explore for and develop a valuable resource, to the benefit of them all. If different corporate and national cultures weren't enough to complicate things for negotiators, when you throw in a Host Nation or a NOC, it gets a lot more interesting.

With this backdrop, a lot has been written about the "art of the deal" in the oil & gas sector, numerous negotiation skills courses and workshops abound, some markedly better than others, and it is nowadays relatively common for corporations to hold internal workshops on negotiations for their younger or more inexperienced staff, through which they can learn directly from more experienced colleagues. But no matter how you learned to negotiate, or who your teachers and mentors were, nothing could have prepared us for what we are living through today.

Traditional Negotiations

Negotiations in a traditional scenario have typically involved alternating sessions of in-person negotiations, exchange and analysis of documents and drafts, sharing of revised documents, followed by subsequent in-person negotiations, etc., for as long as necessary to achieve one of two outcomes: or an agreement was reached, or one of the parties decided it was time to walk away from the deal.

This relatively prolonged interaction and the opportunity for face-to-face meetings created specific negotiation dynamics, and plenty of opportunities for building trust between teams, and for informal problem solving and discussions (for instance during coffee breaks, at meals, etc.). It also allowed for the building of relationships that were often key to getting a deal done.

In addition, being face to face allowed the negotiators on both sides of the table to read body language and see the direct impact of their words and actions on the other side in "real time". As a consequence, a good negotiator learned early on to control their body language, at the same time as being able to read the other side's reactions.

A world turned on its head

The normal negotiating process described above was turned completely on its head due to the COVID-19 pandemic and international and local restrictions on travel and the adoption of social distancing measures. All of sudden,

ongoing negotiations (some that had already been in progress for months or even years), and newly planned deals that were about to commence negotiation, were left in limbo.

To make things worse, the oil price crashed, leading some potential deals to stall, be postponed or outright canceled. Negotiation teams on both sides of the table were left with no option but to reinvent themselves and their activity, and seek alternative (and to a certain extent untried) solutions to be able to continue with their work.



Conversing socially during a coffee break can build trust and ease tensions

The Challenges of Remote Negotiations

The obvious solution to the impossibility of meeting face-to-face was to adopt the "default mechanism" for all meetings in the era of COVID-19: video conferencing. However, if video calls may work for certain type of work with people with whom we have a long working relationship and have been able to build trust with over the years, it falls short in certain negotiating scenarios. As anyone who has ever been involved in protracted negotiations involving conference or video calls instead of face-to-face meetings can tell you, nothing helps move things along like being in a room together.

One area in respect of which this new negotiating paradigm has led to added difficulties is in building trust, as there are limited to no opportunities for informal interaction, not to mention the absence of prolonged exposure to the members of the other negotiating team. When you are no longer in the same city, hotel, or often even the same

country, how do you get to know your counterparties? This also raises another problem, which is the lack of informal deadlock breaking situations that typically take place during coffee breaks and other occasions on the sidelines of negotiations.

“ It is nice to say that negotiation should end in a win-win situation... but for someone to win, normally the other side has to lose. ”

Photo by Jessica Sysengrath on Unsplash



To add to the this, we have also noticed that, to a certain extent surprisingly, it is not uncommon for people to let their guard down in terms of body language control when attending video conferences. This may be caused by the lack of psychological pressure that arises from not having someone sitting a couple of meters across the negotiating table from you, or other reasons, but it is nevertheless a tendency we have identified. When a negotiator is less alert to their body language, it makes it easier for the counterparty to read their reactions. But another situation we have verified on a number of occasions also creates a certain disadvantage to one of the parties: when the other party has their video transmission turned off. In these cases, only one side gets to see the other, with all that this implies. In addition to all this, the fact that different members of the same team may be at different locations during negotiation sessions may also create unwanted inefficiencies.

Finally, all the above challenges intensify the language and cultural barriers that are often present in a negotiation, giving rise to misunderstandings, some of which may be fatal. Never mind the fact that everyone's nerves are frayed due to the stress of the risk of contamination, prolonged social distancing, lock downs, and overall economic and health uncertainty.

Don't Forget the Oil Price...

If things weren't hard enough for negotiators, we are once again faced with a low (and uncertain) oil price scenario, that has thrown a spanner into a lot of prior hard work and planning.

This has caused a number of difficulties to an industry already on the edge, with a significant number of companies (both in the E&P and services sectors) going through a hard time. Faced with rapidly declining demand for crude oil and natural gas, investor pressure, and future economic uncertainty, some players have been tempted to renege on past commitments, deliberately stall projects or negotiations, or to abandon projects altogether. These types of decisions, especially when companies are not upfront about the difficulties they are facing and what their real intentions are, in a context where negotiations have

become increasingly difficult, can create additional mistrust, or outright hostility from counterparties, damaging relationships for the long run, and having potential spillover effects to other joint ventures or markets where the companies are active (or may wish to move into in the future).

The Current State of the "Art of the Deal"

Notwithstanding the doomsday scenario described above, the "art of the deal" continues to be, to a certain extent, the same as it has always been. If we were to establish a set of principles to guide negotiations, they would be something along these lines:

- When you come to the table, have a clear understanding of what you are seeking, and what are your red lines. Be prepared to discuss critical aspects with your counterparty, and never lose sight of your objectives or get distracted by "side shows".
- Understand your counterparty. Different IOCs have different objectives, concerns, priorities and ways of doing business. The same goes for NOCs and Host Nations, whose objectives and priorities may vary significantly from country to country and region to region, and are, more often than not, not fully aligned with those of the IOCs. The secret to getting closer to a deal is to understand what motivates the other side of the table. If you don't get it, you won't stand a chance of closing the deal.

- It is nice to say that negotiations should end in a win-win situation... but for someone to win, normally the other side has to lose. The best description that anyone has ever given me of a good negotiating outcome is "lose-lose". If both parties don't feel that they and their counterparty have left something on the table, then someone has won and someone has lost... and when this happens, there is a greater possibility of the deal unraveling in the future with costly and ugly litigation just around the corner.

Long term stability and trust (crucial in any oil or gas investment) comes


from both parties believing they got a fair deal. Not necessarily ideal, but fair.

- Negotiate hard but be ethical. Remember that you should be in it for the long run. Don't promise what you know you won't be able to deliver. Don't lie, and don't push a bargain that is so good for you that the other party will soon understand it has been "taken to the cleaners".
- Choose your lead negotiator and team well. If there is past bad blood between members of the opposing negotiating teams, consider choosing a different negotiating team or a different lead negotiator for your deal. Sometimes all it takes is to change the lead negotiator for things to run smoothly, even between companies or entities that have had difficult negotiations in the past. Some of the best outcomes I have seen have come from both parties acknowledging that they need to make changes to their line up as a confidence building measure.
- Put in place mechanisms and tools for live interaction during negotiations between members of your team that are working remotely. Also consider how to establish informal channels of

communication with your counterparty. This can save a “distance negotiation.”

- Check in often with the other side. This is even more important if things are starting to get ugly and there is no breakthrough in sight, and especially if there is past bad blood between members of the opposing negotiating teams. Sometimes it helps to pause, take a step back, and jointly reflect on what’s not working. Leave an avenue open to higher level interaction. No matter the size of your company or client, try to avoid involving the CEO/top management in the negotiations. This allows you to have a fallback position in case of deadlock. Sometimes escalating a hotly contested issue to the respective CEOs (or VPs in charge of a given matter) is the best way to allow for a solution to be found that does not compromise the position of either negotiating team, nor leave one side feeling humiliated.
- Unless you are willing to throw it all away, always leave a dignified way out for your counterparty. Don’t back them into a corner they cannot get out of without losing face. On the other hand, know when the time comes to walk away, and do it in a dignified manner. No one wins if one party feels offended.
- If your company comes to a point where you are no longer interested in progressing with a project, it is better to be upfront about it and step away or negotiate a way out. If your partners wish to move ahead, don’t hold up a project just because of pride, or other subjective factors. This is a long-term business, and good relationships are worth their weight in gold.

- Use capable and knowledgeable advisors and, when coming into markets that are new to you or that you don’t fully comprehend, understand who they truly are. It is crucial to understand if they have political links, may be subject to third-party pressure, or have any business or other interests that may negatively affect their independence or their ability to be upfront with you.

This is by no means a negotiating Bible, but we truly believe that if you follow some (if not all) of the above principles to a greater or lesser extent, you are on your way to mastering the “art of the deal.” As to negotiating in this new “pandemic paradigm” the main recommendation is to come prepared with a large dose of patience, additional attention to detail, and cultural and emotional awareness. Add to that a pinch of good old common sense and everything will work out just fine. 

About the Author

**Ricardo is a Partner at Miranda & Associados' Lisbon headquarters, and is responsible for coordinating the firm's Timor-Leste office. He is Co-Head of the Firm's Energy and Natural Resources Practice Group and together with Miranda Alliance's local offices frequently advises energy companies and Host Nations in oil & gas negotiations, and in setting up and carrying out operations in Africa and South East Asia. He is Vice-President of Membership of the Association of International Petroleum Negotiators (AIPN). Ricardo may be contacted at Ricardo.Silva@Mirandalawfirm.com.*



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ALGERIA

LOOKING FOR A FRESH START

Activity in Algeria's oil and gas sector has seen a lull over the past year and 2020's oil price crash and the COVID-19 pandemic have only served to make matters worse. In July, Algeria's new Minister of Energy, Abdelmadjid Attar, said that the North African country expected its oil and gas revenue to decrease to \$23 billion this year, down \$10 billion from last year's \$33 billion.

As a result, President Abdelmadjid Tebboune at a recent Council of Ministers meeting said state oil concern Sonatrach shall undergo an audit with an aim to modernize its management, improve its operational efficiency and competitiveness and up skill its human resources. And to this end, Sonatrach, in a statement, said that it has decided to pursue the realization of its strategic program through improvement projects covering, among other things, the modernization of the human resources function, the implementation of an information system. (ERP, digitalization, etc.), the revitalization of the research and development function and the promotion of local content.

Algeria had hoped to spur investment in its petroleum sector by passing a new energy bill last November, but it has yet to be implemented. Attar's appointment was aimed at getting the country's energy industry back on its feet, so to speak. Attar, Sonatrach's CEO from 1997 to 1999, said this August that his staff has been tasked with finalizing the law's regulatory texts, including setting out prequalification terms. "I have set a very tight deadline for this task," he said. "A large exchange of views with operating companies will help ensure that regulatory texts do offer the most favorable environment," he was quoted as saying in an S&P article.

Algeria, once one of Africa's most attractive investment destinations, has never quite recovered since it enacted a 2006 windfall tax that left operators less than keen to make new long-term deals in the country when there were plenty of attractive opportunities elsewhere. This tax resulted in plenty of litigation for the Algerians with some of its major operators, including Anadarko (now Oxy) and Maersk Oil.

Despite the setbacks, Algeria did see some activity over the year, mainly in the form of new deals, directly and indirectly. With the acquisition of Anadarko, Occidental Petroleum (Oxy) officially became operator of the Berkine Basin assets when Sonatrach blocked a deal to sell the Anadarko assets to French-major Total.

FACT BOX

Proven oil reserves of about 12.2 billion barrels

Proven natural gas reserves of 159 trillion cubic feet (Tcf)

Algeria has six active refineries with a total capacity of approximately 618,000 barrels per day

Major exporter of natural gas to Europe via pipeline

*Figures as of 2018

New Deals

In January, Algeria and Turkey signed an agreement to renew the contract for the supply of liquefied natural gas (LNG) for the next five years, taking the new agreement through 2024. The deal also has another component which reaches outside its borders.

Mohamed Arkab, then Minister of Energy announced the planned construction of a petrochemical complex for the production of propylene and polypropylene (PDH-PP), which will be carried out in the city of Adana in Turkey. The project, whose investment is estimated at \$1.4 billion, is 66% owned by the Turkish company Renaissance and 34% by Sonatrach, is expected to take 24 months to complete after the start of construction work. This partnership will also allow a transfer of technology in Algeria which intends to build a petrochemical complex for the production of propylene and polypropylene in Arzew

Eni's CEO, Claudio Descalzi, met with Minister Attar and Sonatrach's CEO, Toufik Hakkar in July resulting in a Memorandum of Understanding being signed with the aim of expanding their collaboration in the context of upstream activities. The agreement provides for joint work aimed at identifying exploration, development and production opportunities, based on the new Hydrocarbons law and extending the fast track development model successfully applied to the North Berkine project. Furthermore, agreements were concluded for the upstream gas marketing of the North Berkine Blocks and the commercial conditions of the gas import contract in Italy for the year 2020-21.

Source: Sonatrach



Sonatrach also signed a number of MoUs this year with European firms Cepsa, OMV, and Wintershall, Turkish firm TPAO, Russian firms Lukoil and Zarubezhneft, and US supermajors Chevron and ExxonMobil, aimed at shoring up and expanding partnerships in the sector. In particular, the identification for new cooperation opportunities in hydrocarbon exploration and development is at the top of Sonatrach's priorities.

BP announced in February that it is looking to divest its 45.89% stake in the In Amenas natural gas plant in line with its plan to focus on more profitable assets around the globe. The British major had been working a deal with Rosneft but those talks did not materialize into a deal, largely due to stakeholder Equinor's reluctance to partner with a Russian firm.

Sonatrach completed a transaction to acquire 19.10% of the shares held by the Spanish company CEPSA Holding in the company Medgaz SA, increasing its stake in Medgaz SA, and the Medgaz pipeline, by 8.04%. Sonatrach's stake goes from 42.96% to 51% in Medgaz SA, which manages and operates the offshore gas pipeline directly connecting Algeria, departing from the Compression Station located in Beni-Saf, to Spain at the arrival terminal located in Almeria.

The offshore pipeline is 24" in diameter and 210-km long with an annual transport capacity of 8.2 billion cubic meters, which will be increased during the first quarter of 2021 to 10.2 billion cubic meters by adding a fourth Turbo-Compressor at the Beni-Saf Compression Station in Algeria.

Operationally Speaking

Most of the operational updates come from the downstream sector, but there were a few midstream and upstream developments.

A new gas compression and reinjection station, with a production capacity of 24 million m³ per day was completed north of the Zone of the Naili Abdelhalim industrial complex (ZCINA), located 6 kms from Hassi Messaoud. The new station will allow the increase of crude oil production by injecting treated gas up to 16 million m³/d through a new gas-lift loop of 20" diameter which feeds 15 expansion stations. It will also make it possible to maintain the pressure of the field deposit by re-injecting a volume of 8 million m³ / d of high-pressure gas via two pipelines of diameter 14" and 15". With an investment of

\$635 million, the installation of this Sonatrach project was carried out by India's Dodsai Engineering and Construction using several Algerian subcontracting companies.

Neptune Energy saw a major milestone for the Touat gas facility, with operatorship having been formally passed to Groupement Touat Gaz (GTG). Day-to-day operation of the facility had been carried out by contracting company, Técnicas Reunidas (TR), since gas export began in September 2019. Operational handover was dependent upon the signing of the Performance Acceptance Certificate between GTG and TR, which took place on June 24.

The Touat facility is located around 1,400 kms southwest of Algiers and close to Adrar, comprising 19 development wells, a gas treatment plant for gas and stabilized condensate with a gathering network and export pipelines. The facility achieved plateau production in April 2020.



Source: Neptune Energy

Touat Gas Facility

Production from Touat will represent around 9% of Algeria's total gas exports and will be in production for more than 20 years.

This March, Sonatrach announced that the company successfully completed, in partnership with Eni, the construction of the gas pipeline which links the sites of Bir Rebaa Nord (BRN) and Menzel Ledjmet Est (MLE) in the Berkine Basin, in the southern part of Algeria, 320 km from Hassi Messaoud. The 185 km long, 16-inch diameter gas pipeline has the capacity to transport 7 million standard cubic meters of gas per day.

The project will allow the export of the associated gas and the development of the gas fields of the "North Berkine" blocks, where the drilling and connections of the first four wells were completed, only one year from the entry into force of the agreements signed in February 2019. In addition, the production of the oil fields, of these same blocks, started in May 2019 while continuing development during the current year.

African Focus

Another pipeline began operating on September 1, the R-OB1 pipeline (between Msila and Béjaia), after the completion of the project by the National Pipeline Company (ENAC). The R-OB1 project was part of the rehabilitation of the main OB1 oil pipeline installed in 1959. This operation concerned 164 km in length of the pipeline between the pumping station SP3 (Msila) and the isolation station SP13 in Oued Ghir (Bejaia).

Algeria also inaugurated the Baraki modernized Sidi R'cine oil refinery. Production from the Sidi R'cine refinery will cover the country's petroleum needs for 18 states, over a third of Algeria's 48 states. The rehabilitation and extension work on the pre-existing refinery had been awarded to French company, Technip FMC in 2010, but in 2015 the contract was broken due to considerable delays. In 2016, the government awarded the rehabilitation contract to China Petroleum Engineering and Construction for almost \$380 million.

New Energy

Algeria, historically over-dependent on its hydrocarbon sector for revenue and power, has in recent years taken steps to develop renewable energy in the country. In 2019, Algeria had only 343 MW of solar PV capacity installed, including a 10-MW solar plant in Bir Rebaa North (BRN) co-operated by Eni and Sonatrach, but the status quo is set to change.

Prime Minister Abdelaziz Djerad in February announced a national strategy for a smooth energy transition aimed at developing and raising the production of renewable energies to 16,000 MWs by 2035. Djerad affirmed that this strategy, which aims to produce 4,000 MWs by 2024 and 16,000 MW by 2035, will save nearly 240 billion m3 of natural




BRN PV Plant under construction

Source: ENI

gas in addition to building small and medium-sized enterprises, specialized in the manufacturing of renewable energy components. "Freeing oneself from dependence on hydrocarbons and moving towards renewable energies is no longer a choice for the government, but an imperative necessity, given the fluctuations in oil prices," Djerad stated.

A few short months later, a new project, dubbed Tafouk 1, was announced, which will require an investment of between \$3.2 and \$3.6 billion. The project will involve the construction of several photovoltaic solar power plants over an area of about 6,400 hectares with a cumulative capacity of 4,000 MW. Construction is expected to begin this year and run through 2024. The renewable power produced will be used for meeting increased demand in the country as well as for export customers. Additional benefits will see an estimated 56,000 jobs created during the construction phase and 2,000 jobs during the operational stage.

Officials realize that in parallel, it must develop a supporting industry and to that end in June it was announced that Algeria's SPS and Dubai's QI-energy will team up to make mounting structures for photovoltaic systems in Algeria. The partners said the mounting systems will comply with international quality standards. The work force will also boost local employment opportunities. 

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Heerema Installs the Pemex Yaxche-C Platform Offshore Mexico

Heerema's *DCV Balder* has installed Pemex's Yaxche-C jacket and topside on behalf of client Cotemar S.A de C.V. The engineering, procurement, construction, and installation contract for the Yaxche-C platform was undertaken by a consortium made up of Cotemar, Hoc Offshore (Arendal), and Construcciones Mecanicas Monclova (Commsa).



Source: Heerema

For the Yaxche-C installation, *Balder* arrived at the Bay of Campeche, started work on August 8, and completed the Yaxche-C jacket and topside installation on August 15. The jacket and platform were fabricated in Tampico, Mexico, by Cotemar. All components left the fabrication yard on one barge to be stored at Dos Bocas before being taken to the Bay of Campeche for installation. The jacket weighed 700 MT, the four skirt piles 125 MT each, and the topside 850 MT.

This project is Heerema's first for Cotemar, and it was executed safely with no incidents and on schedule as a result of excellent collaboration between the parties.

Interoil Granted Extension of LLA-47 and Altair Exploration Periods

InterOil Exploration and Production has announced that the national E&P authority Agencia Nacional de Hidrocarburos (ANH) in Colombia has granted an extension of 12 months for the LLA47 and the Altair exploration licenses.

These extensions have been issued pursuant to the provisions of Agreement No. 002/2020 of the ANH, a legal framework established by the ANH in March 2020 setting forth mitigating measures for the industry affected by the lock-in period

and other economic consequences resulting from the COVID-19 pandemic.

The new expiration date of the exploration period for LLA-47 is February 7, 2022 while the new expiration date for Altair is April 27, 2021.

These extensions of contracts provide InterOil with an additional exploration term aimed at offsetting delays suffered in the industry in the recent trying times as well as with an adequate time frame to make the most of the ongoing exploration phases while continuing with the efforts to improve efficiencies and benefits as markets and prices start to recover.

Vintage Completes Successful Vali-1 ST1 Flow-Test Program in Australia

The ATP 2021 joint venture (Vintage Energy 50% and operator, Metgasco 25% and Bridgeport (Cooper Basin) 25%) have advised that the highly successful flow test program for Vali-1 ST1 in Australia has completed. During the extended flow test program, a rate of 4.3 Mmscf/d of gas was measured through a 36/64" choke at a flowing well-head pressure (FWHP) of 942 psi over a two-day period.

Transient tests were also undertaken with rates recorded between 3.7 Mmscf/d (through a 24/64" choke at 1,676 psi FWHP) and 7.5 Mmscf/d (through a 32/64" choke at 1,593psi FWHP).

The program was carried out safely and as planned. Strong rates were achieved during all flow periods and quick pressure build-ups were observed during all shut-in periods, with pressure levels quickly approaching around 3,000 psi. All flow rates were restricted through varying choke sizes to ensure proppant was not returned from the formation into the well bore, therefore avoiding any reduction in the effectiveness of the stimulation process.

Neil Gibbins, Vintage Managing Director, said: "We are ecstatic with the results of the stimulation and flow test work. The program was a resounding success, with all fracture stimulated zones contributing to the overall gas flow from the well. The team has worked incredibly hard and diligently on this opportunity which takes us a massive step toward realizing one of our initial strategic imperatives, that being the delivery of gas to the east coast of Australia."

Wellesley Granted Drilling Permit for Wildcat Well 6204/11-3 in Norway

The Norwegian Petroleum Directorate has granted Wellesley Petroleum a drilling permit for wildcat well 6204/11-3 in production license PL 829.

Well 6204/11-3 will be drilled from the Borgland Dolphin drilling facility in position 62° 3' 52.058" N and 04° 22' 10.418" E. The rig is currently at the shipyard in Kvinesdal.

The area in this license consists of parts of Blocks 6204/7, 8, 10 and 11. The well will be drilled about 65 kms north-northeast of the Peon discovery and about 100 km southwest of Ålesund. Production license 829 was awarded on 5 February 2016 (APA2015). This is the first exploration well to be drilled in the license.

The permit is contingent on the operator securing all other permits and consents required by other authorities prior to commencing the drilling activity.

Barron Petroleum Makes Major Permian Basin Discovery

Barron Petroleum has a reason to celebrate after coming across their biggest oil and gas discovery to date. The Sahota Carson 20BU #1 was drilled with a company rig to a total depth of 12,650 feet. Approx. 70 feet of gas-bearing Strawn porosity was encountered. The discovery is located approx. six miles southwest of the Massie (Strawn) Field that has produced over 157 Bcf.



Source: Barron Petroleum

Following stimulation, the well tested at rates up to 5 Mmscf/d of gas. Barron Petroleum has a 100% working interest in the prospect.

Barron presently holds development rights to over 13,000 acres over the prospect, which was developed with the use of a 3D seismic survey. The company has identified 67 high-graded Strawn formation locations and is refining future location placement based on results of the first well. Barron Petroleum is also contemplating testing and potential development in the Canyon formation at an approximate depth of 9,000 feet and Ellenburger at about 16,000 feet depth.

Zion Oil and Gas Receives Approval for Next Well in Israel

Zion Oil & Gas has announced formal approval from the Israel Ministry of Energy of its drilling plan for the Megiddo Jezreel-2 well on the

99,000-acre Megiddo-Jezreel license area, onshore Israel.

“The amount of progress has been miraculous given the strains on the Israeli government due to Covid-19 and their operating at approx. 30% capacity,” expressed Rob Dunn, CEO. “This drilling plan approval demonstrates Israel’s commitment to further energy exploration and the ongoing partnership between Zion and the State of Israel.”

Zion submitted its proposed drilling plan to the Ministry for approval on April 12, 2020, and after considerable work by Zion and Ministry personnel, they received plan approval on July 29, 2020. Zion’s plan anticipates drilling activities will commence in mid to late third quarter, 2020. Barring any unforeseen circumstances, Zion expects it will take approximately five months from spud to target depth to drill the Megiddo Jezreel-2 well.

The importation of Zion’s drilling rig has been delayed due to the uncertainties of the pandemic and, as a result, severely restricted visa issuance within Israel for Zion’s rig crews. During the pandemic-related delays, Zion also has been working simultaneously with customs authorities and shipping agents to deal with all of the logistical issues posed by transporting around 150 truckloads of rig and related equipment to the port of Constanta, Romania for importation into Israel.

TechnipFMC Wins Subsea EPCI for the Mero 2 Project Offshore Brazil

TechnipFMC has been awarded a large contract for Engineering, Procurement, Construction and Installation (EPCI) through a competitive contracting process, by Petrobras, the leader and operator of the Libra Consortium. The consortium was formed by Petrobras, Shell Brasil, Total, CNPC, CNOOC Limited and Pré-sal Petróleo SA (PPSA), for the pre-salt Mero field, located in the Santos Basin (Brazil) at 2,100 meters deep.

The contract covers engineering, procurement, construction, installation and pre-commissioning of the infield rigid riser and flowlines for production, including the water alternate gas wells. It also comprises the installation and pre-commissioning of service flexible lines and steel tube umbilicals, as well as towing and hook up of the FPSO.

The company will leverage synergies with the Mero 1 project Subsea EPCI, utilizing in-house

rigid and flexible lay vessels and its significant local footprint in Brazil, including a spoolbase, logistics base and engineering capabilities. The offshore campaign is scheduled to start in 2022.

Genel Energy Updates Iraq’s Tawke PSC

Genel Energy notes that DNO, as operator of the Tawke PSC (Genel 25% working interest) in Kurdistan, has issued an update on license activity. Gross production from the Tawke license averaged 102,000 bopd during the second quarter of 2020, of which the Tawke field contributed 58,100 bopd and the Peshkabar field 43,900 bopd. Taken together, this is a reduction of 11% from the first quarter, as the operator halted development activity to preserve cash at a time of historically low and uncertain oil prices.



Source: Genel Energy

In June 2020, following the stabilization of oil prices and export payments, a Tawke license well intervention campaign was fast-tracked, quickly adding an incremental 15,000 bopd month-on-month to raise average July 2020 production to 115,000 bopd.

The Peshkabar-to-Tawke gas reinjection project (the first enhanced oil recovery project in Kurdistan) was commissioned in June and aims to unlock additional oil reserves at Tawke while significantly reducing gas flaring at Peshkabar.

North Sea Oil Discovery for Neptune Energy

Neptune Energy Norge, operator of production license PL 882, has completed the drilling of wildcat well 34/4-15 S and appraisal well 34/4-15 A. The wells were drilled about 10 kms northwest of the Snorre field and 160 kms west of Florø in the northern part of the North Sea.

The primary exploration target for well 34/4-15 S was to prove petroleum in reservoir rocks from the Middle Jurassic Age (the Rannoch Formation). The secondary exploration target was to prove petroleum in reservoir rocks from the Late Jurassic Age (Intra Draupne Formation sandstone).

An oil column of about 80 meters was encountered in the primary exploration target in the Rannoch Formation, 50 meters of which are sandstone with generally moderate reservoir quality. The oil/water contact was not encountered. A sandstone layer of a few meters was encountered in the secondary exploration target in the Intra Draupne Formation, with poor reservoir quality and traces of petroleum.

The primary objective of well 34/4-15 A was to delineate the discovery in well 34/4-15 S in the Rannoch Formation. The secondary exploration objective was to prove petroleum in reservoir rocks from the Late Jurassic Age (Intra Draupne Formation sandstone).

An oil column of about 80 meters was encountered in the primary exploration target in the Rannoch Formation, 17 meters of which are reservoir sandstone of generally poor reservoir quality. The oil/water contact has not yet been determined. An oil column of about 100 meters was encountered in the secondary exploration target in the Intra Draupne Formation sandstone, 55 meters of which are in sandstone of poor to moderate reservoir quality.

Shearwater GeoServices Receives SK Innovation 3D Award Offshore Vietnam

Shearwater GeoServices has received an award for a towed streamer 3D acquisition by SK Innovation, the operator of Vietnam Block 16-2. The survey covers 900 sq km in Block 16-2 of the Cuu Long Basin. Shearwater has deployed the vessel *SW Duchess* for the survey.



Source: Shearwater GeoServices

“This will be Shearwater’s first seismic survey in Vietnam and our first project for our new client SK Innovation,” said Irene Waage Basili, the CEO of Shearwater GeoServices. “We are well-established in South East Asia and look forward to further expanding our regional operations through this new survey.”

Court of Auditors Trains ANPG in Public Procurement

Public Procurement Law was the subject of a seminar addressed to members of the Board of Directors, managers and technicians of Angola's National Agency of Petroleum, Gas and Biofuels (ANPG), an initiative of the Court of Auditors (TC) that took place on the 14th and 15th of August, at the Palace of Justice, in Luanda.

Source: ANPG



In the opening speech, Veneranda Judge Counselor President of the TC, Exalgina Gamboa, stressed that the choice of ANPG as a target group "has reason to be because the Agency is not just any public entity. It is in fact the main public entity in the nomenclature of public institutes, since it contributes with more than 80% of the total revenues of the State."

The TC spoke, among others, the Judge Counsel, Joaquim Mande, who dealt with the Organic Law and the Court Process, the New Legal Framework and Concomitant Inspection. Jurist Lara Craveiro, on the other hand, dealt with topics such as the Phases of Public Procurement Training and Ethics in the Public Procurement Procedure.

According to ANPG, the Director of the Legal Office, Olga Sabalo, focused on Law no. 10/04 (Law of Petroleum Activities) and Presidential Decree no. 86/18, of 02 April, which establishes the rules and procedures of the tenders for the Acquisition of the Quality of associate of the National Concessionaire and for the contracting of goods and services in the oil sector.

Nigeria and Uganda Become EITI Supporters

Both Nigeria and Uganda announced in August that they would become signatories to the Extractive Industries Transparency Initiative (EITI). EITI is the global standard to promote the open and accountable management of oil, gas and mineral resources.

As a company, the Nigerian National Petroleum Corporation (NNPC), announced it had become an EITI supporting company, joining a group of over 65 extractives companies, state-owned enterprises (SOEs), commodity traders, financial

institutions and industry partners who commit to observing the EITI's supporting company expectations.

Zainab Ahmed, Nigeria's Minister of Finance, Budget and National Planning and former EITI Board member, stressed the importance of ensuring that natural resource wealth contributes to sustainable development, saying that: "Increased transparency of Nigeria's national oil company revenues is contributing to improvements in our country's domestic resource mobilization efforts."

EITI also saw its board approve Uganda's application to join, making it the 54th member country and the 26th in Africa. Uganda's Minister of Finance, Planning and Economic Development, Matia Kasaija, said: "The decision to join the EITI was informed by the appreciation of the value of transparency as we progress our plans to develop Uganda's natural resource wealth. We believe that this initiative has the potential to strengthen tax collection, improve the investment climate, build trust among sector stakeholders and help create lasting value from our mineral and petroleum resources."

Total Confirms Security Investment for Mozambique LNG

Following reports that Total and the Government of Mozambique had entered a deal regarding the security of the multi-billion dollar LNG project in the country, Total E&P Mozambique Area 1, operator of the Mozambique LNG project, announced in August that it has signed a new Memorandum of Understanding with the Government of Mozambique regarding the security of Mozambique LNG project activities.

This new Memorandum of Understanding provides that a Joint Task Force shall ensure the security of Mozambique LNG project activities in Afungi site and across the broader area of operations of the project. Mozambique LNG shall provide logistic support to the Joint Task Force. The Government of Mozambique is committed that the Joint Task Force personnel shall act according to the Voluntary Principles on Security and Human Rights (VPSHR).

The memorandum demonstrates the project's commitment to meeting its milestones in a secure manner, while creating local opportunities and bringing meaningful social and economic benefits for the province of Cabo Delgado and the country. His Excellency the Minister of Mineral Resources and Energy, Ernesto Max Elias Tonela, said: "We are proud to continue working with the

Mozambique LNG project to ensure the country benefits from its presence. This Memorandum of Understanding bolsters security measures and endeavors to create a safe operating environment for partners like Total which enables their ongoing investment in Mozambican industry, for small and medium enterprise and for our communities."

Total E&P Mozambique Area 1 Limitada, a wholly owned subsidiary of Total, operates Mozambique LNG with a 26.5% participating interest alongside ENH Rovuma Área Um, S.A. (15%), Mitsui E&P Mozambique Area1 Limited (20%), ONGC Videsh Rovuma Limited (10%), Beas Rovuma Energy Mozambique Limited (10%), BPRL Ventures Mozambique B.V. (10%), and PTTEP Mozambique Area 1 Limited (8.5%).

CGG Announces Agreement for the Sale of its Multi-Physics Business

CGG has entered into a Sale and Purchase Agreement (SPA) with Xcalibur Group for the sale of CGG's Multi-Physics business. The SPA provides for the sale of CGG's entire Multi-Physics business, except its multi-client library, and is subject to approval by the competent regulatory authorities. The closing of this transaction is expected in Q4 of this year.

Xcalibur is a worldwide leading provider of ultra-high resolution for Magnetics-Radiometrics regional and detailed airborne geophysical services, being the leading provider in Africa, with offices in Spain, South Africa and Colombia.

Zenith Announces Termination of SPA for Acquisition of Coro Energy's Italian Assets

Zenith Energy has announced the termination, by mutual agreement between the parties, of the sale and purchase agreement (SPA) entered into with Coro Energy relating to the proposed acquisition by Zenith of Coro's entire Italian natural gas production and exploration portfolio.

Under the SPA, completion of the Italian Acquisition was conditional on, inter alia, receipt of Italian regulatory approvals prior to the long stop date of July 31, 2020, which will not be achieved. The SPA allowed for a possible extension of the long stop date to October 31, 2020 upon written request by Zenith. For reference, signing of the SPA was first announced to the market on December 3, 2019.

The company has elected not to formulate such a request for the following reasons: negative profitability of the Italian Acquisition as a result of COVID-19; and the concentration of the

MARKET MOVERS

company's focus, in terms of management time and financial resources, on its publicly announced acquisition campaign in Africa.

Shell Gives \$1.7 Million to Support Energy Access in Africa & India During Covid

Shell has granted \$1.7 million to six companies providing electricity in India, Kenya, Nigeria, Sierra Leone, Tanzania, and Uganda to support customers in financial difficulty because of the pandemic.

Shell's grants to d.light, PowerGen, Husk Power Systems, Orb Energy and SolarNow will help their customers pay for electricity for up to six months, and contribute to the installation of solar power systems in hospitals and schools. Shell is a minority investor in these companies. The grants will also support customers of RVE.SOL, a company that Shell partners with to deliver social investment programs providing access to energy in east Africa. Through these companies' existing customer networks, Shell's grants will reach up to 700,000 people.



Source: Shell

"With COVID-19, the key is to help families and entrepreneurs weather this hardship, particularly those in vulnerable locations, so that innovation and income creation can continue," said Vivian Vendeirinho, CEO of RVE.SOL. "Shell's grant to RVE.SOL's customers will help maintain access to reliable electricity and enable people and small businesses to thrive."

"Working jointly with our partners, we want to help families, communities and businesses keep the lights on and mitigate the impact the COVID-19 pandemic has had on their lives," said Ben van Beurden, Chief Executive Officer of Royal Dutch Shell.

ADM Energy Raises Cash to Progress Acquisition of OML 113 Interest

ADM Energy PLC announced that it has raised £672,500, to be used primarily to fund the cash completion element of ADM Energy's deal with EER Colobus Nigeria Limited to acquire a further stake in OML 113. Completion of the deal will increase ADM's stake in OML 113 to 5.0%, with a profit interest of 9.2%. The fundraise also includes subscriptions by five Directors.

OML 113 is a highly strategic asset giving ADM access to reliable oil production, which is estimated to be able to triple next year with further successful drilling. It also contains significant wet and dry gas reserves, which command a premium in the local markets.

ADM Energy has recently announced a number of significant milestones, including appointments such as former UK Government Minister for Africa, Sir Henry Bellingham and Dr Stefan Liebing, who chaired the G20 Compact with Africa investment summits in 2018 and 2019. The company also recently announced its pre-qualification for Nigeria's Marginal Field Bid Round, partnering with OilBank International Ltd.

Valaris Suspended and Delisted from NYSE

Valaris, an industry leader in offshore drilling services across all water depths and geographies, announced on August 19 it was notified by the New York Stock Exchange (NYSE) of its determination to indefinitely suspend trading of the company's common stock and to commence proceedings to delist the company's common stock from the NYSE. This suspension and delisting by the NYSE is in accordance with Section 802.01D of the NYSE Listed Company Manual due to the company's voluntary filing for reorganization under Chapter 11 of the Bankruptcy Code on August 19, 2020.

Effective August 19, 2020, the company's common stock commenced trading on the OTC Pink marketplace under the symbol 'VALPQ.'

Halliburton Announces \$1.7 Billion Loss for Q2

Halliburton announced a net loss of \$1.7 billion, or \$1.91 per diluted share, for the second quarter of 2020. This compares to a net loss for the first quarter of 2020 of \$1.0 billion, or \$1.16 per diluted share. Adjusted net income for the second quarter of 2020, excluding impairments and other charges, was \$46 million, or \$0.05 per diluted share. This compares to adjusted net income for the first quarter of 2020, excluding impairments and other charges and a loss on the early extinguishment of debt, of \$270 million, or \$0.31 per diluted share.

"Halliburton's second quarter performance in a tough market shows we can execute quickly and aggressively to deliver solid financial results and free cash flow despite a severe drop in global activity. Our results demonstrate a significant and sustainable reset to the power of our business to generate positive earnings and free cash flow," commented Jeff Miller, Chairman, President and CEO.

"Total company revenue was \$3.2 billion and adjusted operating income was \$236 million. Despite the market headwinds, the margin performance of our Completion and Production and Drilling and Evaluation divisions and the \$456 million of positive free cash flow generated this quarter show the speed and effectiveness of our aggressive cost actions.

"Halliburton is charting a fundamentally different course. The strategic actions we are taking will further boost our earnings power and ability to generate free cash flow as we power into and win the eventual recovery," concluded Miller.

The company said "Europe/Africa/CIS revenue in the second quarter of 2020 was \$691 million, a 17% decrease sequentially, resulting primarily from reduced well construction and pressure pumping activity, and lower software sales across the region. These reductions were partially offset by increased fluids activity and completion tool sales in Norway and improved cementing activity and completion tool sales in Russia."

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