Consultancy Intelligence Publishing

Special Report

Q2, 2022

ADNOC's Transformation IGNITES Global Appetite for UAE Capital Markets

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At Abu Dhabi National Oil Co. (ADNOC), it has almost been like a parade of global institutional Wall Street investors coming through the doors over the last five years. BlackRock Inc., Apollo Global Management Inc., KKR & Co., Brookfield Asset Management Inc., and many more, have all made their way to the state-owned oil producer to partner in billions of dollars of financial deals unveiled as part of its ongoing transformation.

As the world increasingly needs more energy with lower emissions, top tier investors from around the globe have been drawn to Abu Dhabi, as a reliable supplier of some of the lowest cost, lowest carbon barrels available anywhere.

ADNOC has generated some $65 billion in foreign investment from various joint ventures and financial initiatives since 2016 as it implemented a new strategy that lays emphasis on partnerships as a way of using capital more efficiently, unlocking growth opportunities and improving returns. Several of these have had ramifications for the wider United Arab Emirates economy, the Arab world's second-biggest after Saudi Arabia.

Four ADNOC subsidiaries have successfully listed on the Abu Dhabi stock market since, the most recent last week when Borouge, its petrochemicals JV with Borealis, became the largest IPO in Abu Dhabi to date. This has helped attract new capital and boost the emirate's exchange. ADNOC group companies sold bonds in foreign markets for the first time, tapping a new capital market segment that has generated long-term funding and improved its capital structure. ADNOC is seeding a new industrial cluster further up the coast from Abu Dhabi, TA'ZIZ, which is luring new partners and millions of dollars in investments in petrochemicals manufacturing, and which promises to fire up the wider economy.

"I see possibilities of partnerships at every turn," Dr. Sultan Ahmed Al Jaber, ADNOC's chief executive officer and managing director said at the Adipec conference in November 2021. The global oil industry needs to invest more than $600 billion a year until 2030 to meet energy demand and "we require a new model of partnership across the industry" to unlock opportunities, he said.

ADNOC has been responsible since its founding in 1971 for developing Abu Dhabi's oil and gas reserves, the world's sixth biggest, with a significant exploration and development program ongoing. It makes a major contribution to Abu Dhabi government revenue and GDP. But as pressure on the energy industry grew following the plunge in global oil prices, ADNOC drew up an expanded partnership model in 2016 to more actively manage its businesses, unlock value and improve performance, all of which now form a part of its ambitious 2030 Strategy. This includes increasing crude oil production capacity, delivering gas self-sufficiency, expanding within downstream industries such as petrochemicals and developing a more commercial attitude to new partner relationships.

Translated into numbers, that involves boosting crude oil production capacity to 5 million barrels a day from over 4 million barrels now, unlocking Abu Dhabi's vast gas resources and increasing petrochemicals production three-fold by 2025 from 4.5 mtpa in 2016.

ADNOC's 2030 Strategy includes:

5mn b/d

Crude oil production capacity: 5 million barrels per day in 2030 from more than 4 million barrels today

X3

Increasing its protrochemicals production three-fold

Five-Year Plan

$122bn — **Capital spending of $122 billion planned between 2021 and 2025.**

$43.6bn+ — **Drive more than $43.6 billion back into the UAE economy between 2021-2025 with its In-Country Value program. This will help foster economic opportunities for UAE citizens by creating local and international partnerships and businesses.**

FIRST-OF-THEIR-KIND DEALS

Some of the company's initiatives aimed at unlocking value have led to first-of-their-kind deals in the Middle East. In 2019, ADNOC announced a series of three oil pipeline infrastructure landmark awards including BlackRock, the world's biggest asset manager, and KKR as well as Abu Dhabi's ADRPBF and Singapore's GIC. Together, these deals helped ADNOC generate about $5 billion of initial cash.

Under the agreement, an innovative leasing investment structure marked the first time that leading, global and domestic institutional investors deployed long-term capital into key ADNOC infrastructure assets. BlackRock and KKR together hold 40%, ADRPBF 3%, GIC 6% and ADNOC the remaining 51% in the newly formed entity, ADNOC Oil Pipelines LLC ('ADNOC Oil Pipelines'). Sovereignty over the pipelines and management of pipeline operations remain with ADNOC. The pipelines transport crude oil and condensate across ADNOC's offshore and onshore facilities and the new company would receive a tariff from ADNOC for its share of volume of crude and condensate that flowed through the pipelines. The deal "can be a catalyst for further foreign investment and broader economic transformation in the UAE," Henry Kravis, co-founder, co-chairman and co-CEO of KKR said in a statement at the time. The direct investment was KKR's first in the Gulf region and "we believe there is substantial potential to do even more," he said.

The investments by BlackRock and KKR, one of the world's biggest private equity companies, underscored the attractiveness of Abu Dhabi and the UAE as a destination for international capital with its promise of long-term stable returns in a secure and reliable investment environment. It was also the first time that global institutional investors deployed capital in midstream infrastructure assets of a national oil company in the Middle East.

A year later, ADNOC followed up the deal with an even bigger one, this time for its UAE gas pipelines network that led to a payment of $10.1 billion. A consortium of investors comprising U.S. infrastructure fund manager Global Infrastructure Partners, Canada's Brookfield Asset Management, Singapore sovereign wealth fund GIC, Ontario Teachers' Pension Plan Board, South Korean investment bank NH Investment & Securities Co. Ltd. and Italian energy infrastructure company Snam SpA agreed to invest in select ADNOC gas pipeline assets that were valued at $20.7 billion.

Under the agreement, ADNOC leased the assets to ADNOC Gas Pipelines for 20 years in return for a volume-based tariff subject to a floor and a cap. The transaction allowed ADNOC to tap new pools of global institutional capital and enabled ADNOC's partners to invest in quality energy infrastructure assets with a low-risk profile that generated stable cash flows.

These transactions have inspired copycat deals elsewhere in the Middle East. In Saudi Arabia, state-owned oil giant Saudi Aramco announced in June 2021 it had closed a $12.4 billion deal with a group of companies for a 25-year lease and leaseback transaction for its stabilized crude oil pipeline network. In December 2021, Saudi Aramco signed a $15.5 billion lease and leaseback deal involving its gas pipeline network with a group led by BlackRock Real Assets and Hassana Investment Company.

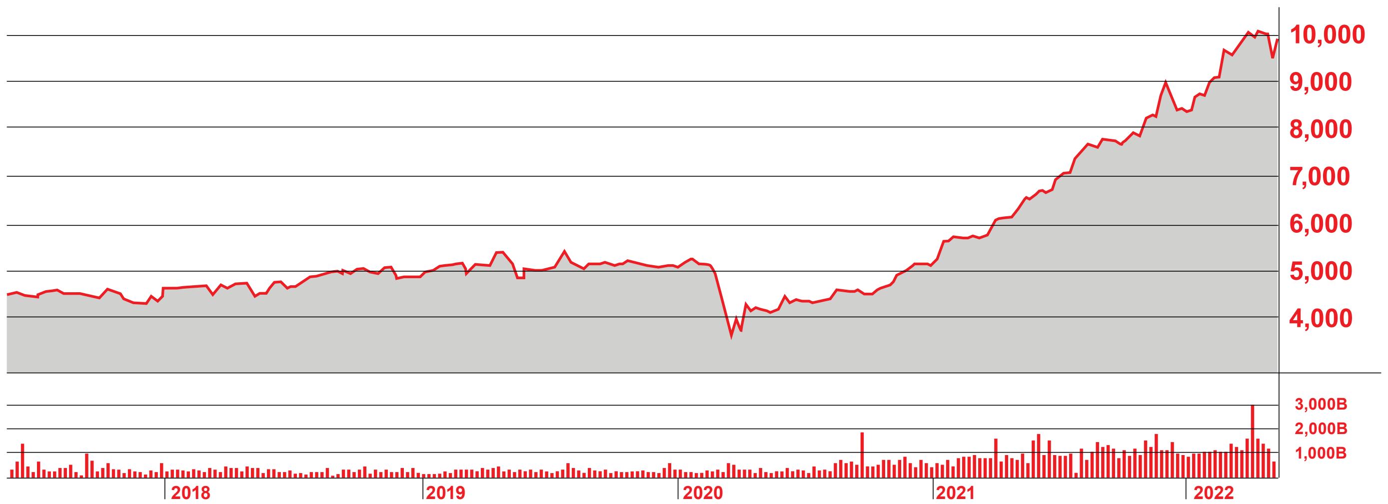
ADNOC used this partnership model to extract value from its property portfolio as well. That transaction with a group of investors led by Apollo resulted in a $2.7 billion upfront payment to ADNOC.

FUNDING TRANSACTIONS

Governments and oil companies in the Gulf have now grown conscious of the need to attract new pools of

Abu Dhabi Index Surges

Main share gauge has more than doubled since 2020, trading volume climbed on recovery



capital, build bridges with investors as well as develop a public yield curve for their debt that would allow other issuers from their country to better price securities.

As the main energy company in the UAE, OPEC's third-biggest oil producer, ADNOC rarely accessed the public market for funds. Even though it invested billions of dollars in the past decades to develop its oil reserves it relied mainly on re-investing surpluses from oil sales.

ADNOC also launched several long-term funding transactions to help optimise capital structure, lower finance costs and improve return on capital.

In November 2017, it raised its first ever term-loan, a $6 billion facility, from a group of international and domestic banks. It also sold bonds in international markets for the first time that year, issuing $3 billion of securities with 12- and 30-year maturities that were backed by a UAE crude oil pipeline. The pipeline stretches across 406 km and carries ADNOC onshore crude oil from a collection centre in Abu Dhabi to the Fujairah oil export terminal on the coast.

ADNOC's financial profile has been "very conservative" and the group's ratio of net debt to earnings before interest, tax, depreciation and amortisation, a measure of financial health, will remain comfortably below 1 for at least over the next four years, Fitch Ratings said in a report in april. The lower the net debt/Ebitda ratio, the stronger the financial health.

In January ADNOC created a new, wholly owned subsidiary, ADNOC Murban RSC Ltd., which will become the primary debt capital markets issuing company for the ADNOC Group.

ADNOC Murban is expected to receive an AA credit rating by Standard & Poor's, Aa2 by Moody's Investor Services and AA by Fitch Ratings, the third-highest investment grade ranking at all the three. ADNOC's owner, the Emirate of Abu Dhabi, has the same rating.

INITIAL PUBLIC OFFERINGS

ADNOC's debt deals were followed by several initial public offering of shares in its subsidiaries on the Abu Dhabi Securities Exchange that have helped it raise cash, attract new investors and boost activity on the market.

The Abu Dhabi Securities Exchange is one of seven bourses in the six-nation Gulf Cooperation Council, and the second-biggest by market value after the Saudi Exchange. All the Gulf markets have struggled over the years with thin liquidity and a shallow pool of listed securities. Like many other markets, Abu Dhabi's main stock index dropped sharply in March 2020 at the start of the pandemic but has more than doubled since as the regional economy recovered. The listing of ADNOC's subsidiaries have helped lift trading volume.

ADNOC Distribution, the company's oil retailing unit, was the first to list, raising $851 million from an offering of 10 percent of its shares in December 2017. The IPO was the first on the Abu Dhabi Securities Exchange in the preceding 6 years and the largest in a decade. Three years later ADNOC raised a further $1.64 billion from the sale of additional shares and exchangeable bonds in the company, offloading a further 10 percent stake.

In October 2021 ADNOC Drilling Co. raised over $1.1 billion from the sale of an 11 percent stake that was

GI Special Report: ADNOC Transformation

ADNOC Unit IPOs

ADNOC Distribution	ADNOC Distribution Additional offering	ADNOC Drilling	Fertiglobe	Borouge
December 2017 **$851 million**	shares, exchangeable bonds May 2021 **$1.64 billion**	October 2021 **$1.1 billion**	October 2021 **$795 million**	May 2022 **$2 billion**

Media reported that all of ADNOC IPOs were attractively priced, giving investors an opportunity to invest in attractive, growth-orientated UAE businesses.

the largest-ever offering on the Abu Dhabi Securities Exchange until then. The issue received over $34 billion in orders and was more than 31 times oversubscribed, and helped increase investor choice. Several weeks later ADNOC and Amsterdam-listed OCI NV listed their joint venture fertilizer business, Fertiglobe Plc. that raised $795 million.

Media reported that all of ADNOC IPOs were attractively priced, giving investors an opportunity to invest in attractive, growth-orientated UAE businesses.

The market capitalization of all three companies have risen considerably since their listings and was about $40 billion as of April 1, 2022. All three have also announced, paid or expect to pay about $4.4 billion of dividends.

ADNOC listed its fourth entity in Abu Dhabi last week. Borouge plc, the joint venture between ADNOC and Borealis that is a leading provider of innovative and differentiated polyolefin solutions, offered about 3.0 billion shares or 10 percent of its share capital at 2.45 dirhams each. The offering, which was some 42 times oversubscribed, raised $2 billion, making Borouge the largest-ever IPO on the ADX.

CRUDE OIL CONCESSIONS

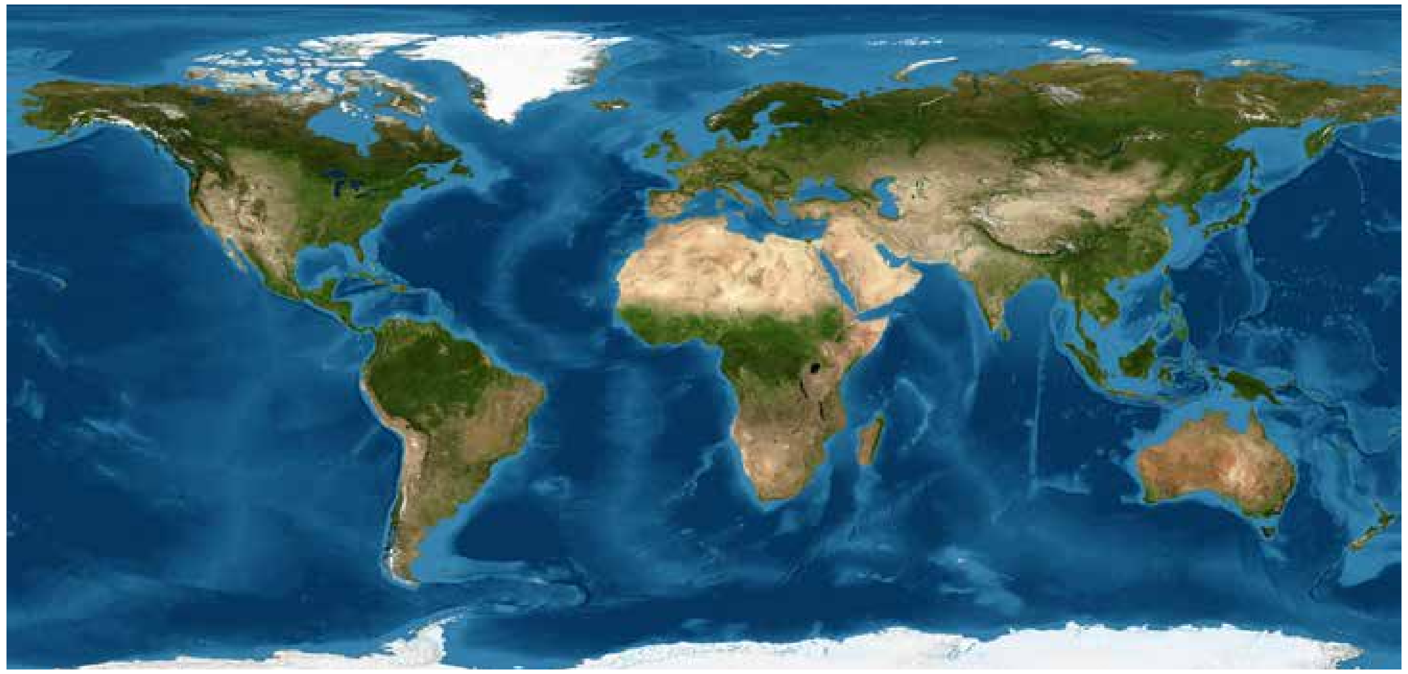
ADNOC has also been more commercially astute while rejigging its oil production concessions over the past few years. The UAE's first oil concession was granted on January 11, 1939, covering both onshore and offshore Abu Dhabi. These agreements were relinquished after the Second World War, as were the offshore rights in Abu Dhabi. Abu Dhabi entered into its second oil concession agreement on March 9, 1953, which covered its offshore areas. After a number of amendments, relinquishments and extensions, Abu Dhabi's original onshore concession expired on January 11, 2014 – 75 years after its initial grant.

During 2015 and 2018, Abu Dhabi completed the re-awarding of its legacy concession agreements, widening its concession base and enhancing the number of strategic international partners. As part of these awards, ADNOC continued its successful partnership approach with both existing and new international partners, boosted cooperation with its Asian counterparts, and maintained its strong relations with European and American energy firms. This ensured that its main partners are well balanced, take long-term stakes in its concessions and have close ties to key markets and economies around the world.

Between 2015 and 2017, interests in a new onshore concession were awarded to TOTAL (10%), BP (10%), CNPC (8%), INPEX/JODCO (5%), ZhenHua Oil (4%), and GS Energy (3%), with Abu Dhabi National Oil Co. retaining a 60 percent interest.

"We are committed to bringing our most advanced technological expertise to unlock the full production potential of Abu Dhabi's onshore fields and therefore contribute to the development of additional reserves over the next 40 years," Patrick Pouyanné, Chairman and CEO, Total said in a statement at the time.

In 2018, ADNOC announced new offshore concession



agreements, and interests totalling 40 percent were granted to international oil companies, with ADNOC retaining a 60 percent interest in each concession area. Among ADNOC Offshore's strategic partnerships are CEPSA, CNPC, ENI, ExxonMobil, INPEX/JODCO, ONGC/Falcon, OMV and TotalEnergies who help enable ADNOC's offshore arm to unlock greater value, optimize costs, and extract maximum value from its resources and infrastructure.

As it renewed its concessions, ADNOC chose international oil companies that struck a balance between technology and capabilities, capital and market access. While maintaining western partners like ExxonMobil, Total or BP it included new European players like Eni, OMV, Wintershall and CEPSA, which is owned by Mubadala. Equally, it kept Japan's Inpex, for example, while adding leading industry players from South Korea, China, India and other countries.

On the exploration side, ADNOC transformed and accelerated its approach as it launched its first competitive bid round in 2018 and completed it in 2019 after having awarded Onshore Blocks 1, 3 and 4 as well as Offshore Blocks 1 and 2. Shortly after, ADNOC kicked off its second, equally successful block bid round, which it completed in 2021 with the award of Offshore Exploration block 5 in a historic concession agreement, marking the first time a Pakistani consortium joined an Abu Dhabi concession. The second round consisted of Offshore Blocks 3, 4, 5 as well as Onshore Block 5.

Partners across the various exploration blocks range from North America to Europe and to Asia, and – like in the producing onshore and offshore concessions – represent a who's who of leading IOCs and NOCs, as well as prime growth markets for oil and gas.

Critically, the exploration block awards have already begun producing results. In February 2022, ADNOC announced that interim results from the first exploration well in Abu Dhabi's Offshore Block 2 Exploration Concession, operated by Eni, indicated between 1.5 – 2 trillion standard cubic feet of raw gas in place.

The discovery is the first from Abu Dhabi's offshore exploration concessions. A consortium led by Eni and PTT Exploration and Production Public Co. Ltd. were awarded the exploration rights for Offshore Block 2 in 2019 as part of ADNOC's debut competitive block bid round.

This achievement follows the announcement in December 2021 of the discovery of up to 1 billion barrels of oil equivalent in the Onshore Block 4 Exploration Concessions, operated by INPEX/JODCO.

In June 2022, ADNOC announced another three oil discoveries in place totaling over 650 million barrels of oil across its Onshore and Al Dhafra Concession as well as Onshore Exploration Block 3.

Around 500 million barrels of oil were discovered at Bu Hasa, which is Abu Dhabi's biggest onshore field. The second oil find, which is estimated to hold approximately 100 million barrels of oil in place, was made in the Occidental-operated Onshore Exploration Block 3 – awarded in 2019 – marking the second oil discovery in this concession and highlighting the success of ADNOC's accelerated exploration and development program.

ADNOC also identified nearly 50 million barrels of light and sweet Murban-quality crude oil in the Al Dhafra Petroleum Concession that is operated by a joint venture between ADNOC, GS Energy, and the Korea National Oil Company. First oil production from the Al Dhafra

Petroleum (ADP) discovery is expected in early 2023, which follows first oil from Al Dhafra Petroleum's Al Humrah and Bu Tasah fields last year. This accelerated production highlights the company's agility to quickly progress from the discovery phase to production as it unlocks new fields in its concession area.

INVESTMENTS AND JOINT VENTURES

ADNOC also executed several value-adding investments and joint ventures to boost operating efficiency as part of its transformation strategy.

In October 2018, Baker Hughes, one of the world's largest oilfield services companies, acquired a 5% stake in ADNOC Drilling for $550 million. The company provides specialized oilfield services equipment, technology and expertise to ADNOC Drilling, the drilling arm of ADNOC Group that supplies start-to-finish well drilling and construction services to ADNOC's Upstream businesses and is the Middle East's largest drilling company. Critically, the partnership between ADNOC Drilling and Baker Hughes transformed ADNOC's drilling arm into the Middle East's only national drilling company offering fully integrated drilling services (IDS) while cementing its position as the region's largest company in its sector.

The partnership aims to help ADNOC boost its oilfield services market share to 50% and enhance drilling operational efficiency, as well as delivering 100% of ADNOC's unconventional wells.

On the Downstream side, in January 2019 ADNOC announced that it would raise an estimated $5.8 billion from two equity deals it signed with Italian oil company Eni SpA and Austria's OMV AG for its ADNOC Refining unit and a new trading joint venture to be jointly set up by the three.

In the deal, Eni acquired a 20 percent stake and OMV 15 percent in ADNOC Refining, whose enterprise value was estimated at $19.3 billion. ADNOC owns the remaining 65 percent. The unit, based in Ruwais, has a total refining capacity of 922,000 barrels per day and operates the fourth-largest single site refinery in the world. As a part of this agreement, the partners also established a trading joint venture, ADNOC Global Trading, in which Eni and OMV own 20 percent and 15 percent of the shares respectively.

Eni and OMV have experience in maximizing value from advanced, complex refinery operations and bring extensive operational and project management expertise. The three partners also committed to substantial growth plans for ADNOC Refining in the short to mid-term as it evolves to become a leading global downstream player. This will include expanding refining and petrochemical operations at Ruwais and securing greater downstream global market share.

Further value will be created from the global trading joint venture, which is an international exporter of ADNOC Refining's products, with export volumes equivalent to approximately 70 per cent of throughput. Domestic supply within the UAE continues to be managed by ADNOC.

In June 2019, OCI N.V. announced a new partnership with ADNOC that resulted in ADNOC combining its fertilizer business with OCI's Middle East and North Africa nitrogen fertilizer platform to form a new joint venture. The new company, Fertiglobe, became the largest export-focused nitrogen fertilizer platform globally, and the largest producer in the MENA region with a production capacity of 5 million tons of urea and 1.5 million tons of sellable ammonia. This combination brings greater geographic diversity to the platform's MENA production channels, enabling greater combined market access. It has a centralized commercial team, supported by a robust storage and distribution infrastructure with access to key ports on the Mediterranean, Red Sea and Arabian Gulf.

In August 2019, ADNOC also bought a 10 percent stake in oil storage terminal owner and operator VTTI BV that gave it access to storage facilities across some of

Key Partners, Joint Ventures

Crude Pipelines – $4.9 billion raised from BlackRock Inc., KKR & Co., GIC (Singapore Sovereign Wealth Fund) and the Abu Dhabi Retirement Pensions and Benefits Fund (ADRPBF)

Gas Pipelines – $10.1 billion raised from Global Infrastructure Partners, Brookfield Asset Management Inc., GIC, Ontario Teachers' Pension Plan Board, NH Investment & Securities Co. Ltd., Snam SpA

Property – $2.7 billion raised from investor group led by Apollo Global Management Inc.

ADNOC Drilling – $550 million raised from Baker Hughes Co.

ADNOC Refining – $5.8 billion raised from Eni SpA, OMV AG

Property Deal with Apollo

In September 2020 ADNOC entered an investment deal with a group led by Apollo Global Management Inc., one of the world's biggest alternative investment managers, for its $5.5 billion real estate portfolio. The investment relies on rental income from select ADNOC real estate assets under a 24-year lease agreement. The Apollo-led consortium, which includes insurance and pension funds, acquired a 49 percent stake in Abu Dhabi Property Leasing Holding Company RSC Ltd, which holds long-term leasehold interests in a diversified portfolio of assets across the emirate of Abu Dhabi. ADNOC retained a 51 percent majority stake in the company and maintained full ownership and control over the real estate and social infrastructure assets as well as responsibility for its operations and maintenance. The transaction resulted in an upfront payment of $2.7 billion to ADNOC. ■

its key export markets. IFM Global Infrastructure Fund, an investment vehicle managed by IFM Investors, and Vitol each own 45 percent of the company. VTTI owns 15 hydrocarbon storage terminals across 14 different countries with a combined capacity of about 60 million barrels (9.5 million m^3).

The investment in VTTI gives ADNOC access to storage capabilities across Asia, Africa and Europe while also securing additional facilities at the port of Fujairah, UAE, its eastern seaboard storage hub. The transaction also contributed to the development and growth of ADNOC's global marketing, supply and trading platforms.

And most recently, in May this year, ADNOC acquired a 25 percent stake in European petrochemicals company Borealis AG from Mubadala Investment Co. Details of the deal were not disclosed. After the completion of the transaction, Borealis will be 25 percent owned by ADNOC and 75 percent by OMV, an Austrian multi-national integrated oil, gas and petrochemicals company. Borealis is a leading global provider of advanced and circular polyolefin solutions and a European market leader in base chemicals, fertilizers and mechanical recycling of plastics.

DIVERSIFICATION WITH INDUSTRY AND MANUFACTURING FOCUS

In November 2020, ADNOC and ADQ, a diversified Abu Dhabi-based holding company, announced their intent to establish a joint venture called TA'ZIZ, to drive the development of industrial projects within Ruwais and act as a catalyst for the UAE's economic diversification and technology-led growth.

Abu Dhabi's 2030 Economic Vision aims to diversify the emirate's economy and grow the contribution of the non-oil sector significantly. It aims to ensure future prosperity by reducing the emirate's reliance on hydrocarbons through the development of a sustainable, knowledge-based economy fueled by private sector activity. The strategy targets greater investment in non-oil sectors and foreign countries through vehicles such as sovereign wealth funds, investment in research and development, technologically advanced manufacturing and other high-value-added areas that are not necessarily labour intensive.

The name TA'ZIZ in Arabic means advancement, strengthening, or creating a foundation aimed to kickstart industrial growth in Ruwais. In addition, it aligns with ADNOC's drive to improve returns from every barrel refined, shipped and sold as well as to target self-sufficiency in domestic production of essential raw materials and feedstocks.

Industrial infrastructure will be created by ADNOC and ADQ, alongside additional strategic partners, to include a new port, utilities, infrastructure, feedstock supply and shared services at a total cost of well over $2 billion. These facilities will be made available to new investors under a "plug and play" concept so that new projects can be plugged into existing park infrastructure, lowering the cost of investment and further enhancing TA'ZIZ's competitiveness. These developments will enhance the efficiency of logistics across the new identified projects, supporting the oil and gas services sector and associated industries.

TA'ZIZ enjoys strong synergies with ADNOC's integrated downstream assets for feedstocks and services, as well as maritime, land and air logistics and transport links. It sits adjacent to the Ruwais Industrial Complex and enjoys a favourable location at the crossroads of east-west trade flows and routes to the UAE's target markets, with a third of the world's population accessible within four hours by plane.

In December 2021, TA'ZIZ and India's Reliance Industries Ltd. agreed to launch TA'ZIZ EDC & PVC, a world-scale chemical production partnership at the TA'ZIZ Industrial Chemicals Zone in Ruwais. The new joint-venture will construct and operate a Chlor-Alkali, Ethylene Dichloride and Polyvinyl Chloride production facility, with an investment of more than $2 billion. This will be the first production of these chemicals in the UAE; the project will enable import substitution, the creation of new local value chains as well as meet growing demand for these chemicals globally. This is Reliance's first investment in the MENA region.

TA'ZIZ has received significant interest from local and international investors. In addition to Reliance, partnership agreements have been signed with Fertiglobe, GS Energy, and Mitsui for the proposed development of a low-carbon blue ammonia production facility and with Switzerland's HELM Proman Methanol AG for a world-scale methanol production facility. Eight UAE-based investors have signed investment agreements with TA'ZIZ, for up to a 20% stake in a portfolio of chemicals projects within the TA'ZIZ Industrial Chemicals Zone, marking the first domestic

The projects identified for TA'ZIZ Industrial Chemicals Zone

ANCHOR PROJECT	END USES
Chlor-Alkali	Water Treatment, Metallurgy, Textiles
Ethylene Dichloride and PVC	Housing, Infrastructure, Consumer Goods
Maleic Anhydride	Piping, Construction, Heavy Transport
Methanol	Energy, Consumer Goods, Pharmaceuticals
Ammonia	Agriculture, Apparel, Energy
Isopropyl Alcohol	Healthcare, Cosmetics

Boosting Shipping and Logistics

As part of the broader ADNOC transformation, ADNOC Logistics & Services (ADNOC L&S), the shipping and maritime logistics arm of ADNOC, began a programme to expand and diversify its shipping fleet and offer broader services to its customers, while supporting its upstream and downstream and petrochemical operations.

ADNOC L&S has the largest and most diversified fleet of vessels within the Middle East and its trading fleet transports crude oil, refined products, dry bulk, containerized cargo, LPG and LNG to global markets through its owned and chartered vessels.

Over the past 24 months, ADNOC L&S acquired 16 deep sea vessels, including eight Very Large Crude Carriers in 2021, adding 16 million barrels of capacity. It also added six product tankers, which expanded the product tanker fleet capacity to over 1 million metric tonnes, in addition to five Very Large Gas Carriers for AW Shipping, its joint venture with China's Wanhua Chemical Group.

Most recently, ADNOC L&S announced a contract to build five new 175,000 cubic metre liquefied natural gas (LNG) vessels, that will join its fleet in 2025/26. The purchase, part of the company's broader growth and expansion strategy, further reinforces its position as the UAE's leading shipping and maritime operator. The new LNG vessels will be crucial enablers of ADNOC's 2030 growth strategy, supporting its existing LNG business as well as its ambitions to grow its LNG production capacity. They will be built at the Jiangnan Shipyard in China.

The new-build LNG vessels, each with a capacity of 175,000m^3, are significantly larger than the current ADNOC L&S fleet of LNG vessels which have a capacity of 137,000m3 each. Each of the new build vessels will carry enough LNG to power 45,000 homes for a year.

The new vessels' engine technology will slash emissions (CO_2, NO_x and SO_x) and in combination with the innovative air lubrication system further reduce fuel consumption by at least 10 percent. These vessels will also feature partial reliquefication systems which allow for a further reduction of emissions and conserve cargo. ■

Trading in Murban Futures Contracts

ADNOC launched trading of the Murban Futures Contract in Abu Dhabi as part of its diversification plan. In March, ADNOC, Intercontinental Exchange and partners in ICE Futures Abu Dhabi celebrated the first anniversary of trading of the contract on the IFAD commodities exchange.

IFAD began operations on 29 March 2021 and during its first year, the equivalent of around 1.5 billion barrels of Abu Dhabi's flagship lower-carbon Murban crude oil was traded on the exchange. IFAD has attracted over 90 market participants and Murban is now more widely available to both physical purchasers of crude oil and financial market participants around the world, reinforcing the UAE's role as a reliable global energy supplier.

The introduction of the Murban Futures Contract was backed by ICE, ADNOC and nine of the world's largest energy companies who joined IFAD as founding partners: BP, GS Caltex, INPEX, ENEOS, PetroChina, PTT, Shell, TotalEnergies and Vitol.

Following the launch of IFAD, Murban is freely traded, offering crude customers increased access, better price transparency, and flexibilty to hedge and manage risks. Traded alongside Brent and West Texas Intermediate WTI crudes, Murban is well-positioned to act as an important price marker for crude oil. ICE Murban Futures are physically delivered contracts, with one futures contract equating to 1,000 barrels of Murban crude oil delivered from the ADNOC Terminal located in Fujairah, on the east coast of the UAE. ■

Public Private Partnership in Abu Dhabi's downstream and petrochemicals sector. In May 2022, UAE company Shaheen became the latest business to partner with TA'ZIZ, joining Reliance as an investor in TA'ZIZ EDC & PVC.

In March this year, ADNOC signed an agreement with Proman, one of the world's leading producers of methanol, to develop the UAE's first world-scale natural gas to methanol production facility at TA'ZIZ. The plant is anticipated to have an annual capacity of up to 1.8 million tons. The facility will meet growing domestic and international demand for the clean and versatile chemicals commodity which is gaining momentum as a lower-emission fuel alongside existing uses spanning industrial products.

And in May 2021, ADNOC announced it will advance the TA'ZIZ world-scale "blue" ammonia production facility. Blue ammonia is made from nitrogen and "blue" hydrogen derived from natural gas feedstocks, with the carbon dioxide by-product from hydrogen production captured and stored. Ammonia can be used as a low-carbon fuel across a wide range of industrial applications, including transportation, power generation and industries including steel, cement and fertilizer production. The facility's capacity will be 1,000 kilotons per annum.

The project will build on the UAE's position as a major producer and reserves holder of natural gas and leadership in Carbon Capture Utilization and Storage (CCUS). CCUS is the use of advanced technology to prevent CO_2 from entering the atmosphere after it is expended as a by-product of industrial processes. ADNOC today operates, Al Reyadah, the world's first fully commercial CO_2 facility for the iron and steel industry, and the first commercial-scale carbon capture, utilization, and storage facility in the Middle East. Each year, Al Reyadah captures up to 800,000 tons of CO_2 from local UAE steel production.

All of the TA'ZIZ Industrial Chemicals Zone projects are currently in the design phase with projects expected to start in 2025.

Chemicals is a priority sector for the UAE's industrial growth strategy, championed by the Ministry of Industry and Advanced Technology, which has the goal to raise the UAE's industrial sector's contribution of national GDP to 300 billion dirhams by 2031. Chemicals are an attractive sector given projected demand growth globally and the opportunity local production creates to enable new supply chains.

"We will make strategic, commercially viable and targeted investments aimed at building on our legacy of success and ensuring our continued growth," ADNOC CEO Sultan Al Jaber said in a statement when announcing the approval of its 2030 strategy. "In parallel, we will maintain our efforts to improve the organisation's efficiencies and identify opportunities to further optimise our value chain." ■

Expanding Investments in Clean Energy

As part of the company's transformation, ADNOC has also executed several investments and joint ventures over the past few years focused on sustainability and lower emissions.

In December 2021, Abu Dhabi announced the setting up of a significant clean energy initiative intended to spearhead its net-zero by 2050 strategic initiative. Abu Dhabi National Energy Company PJSC (TAQA), Mubadala Investment Company and ADNOC will partner under the Abu Dhabi Future Energy Company (Masdar) brand and consolidate their combined efforts in renewable energy and green hydrogen.

The partnership between the three Abu Dhabi companies will have a combined committed capacity of over 23 Gigawatts of renewable energy, with the expectation of reaching well over 50GW by 2030. Upon completion of the transaction, the expanded Masdar entity will become one of the largest clean energy companies of its kind in the world.

Under the plans, TAQA will take the leading 43 percent share in Masdar's renewable energy business with Mubadala holding 33 percent and ADNOC, 24 percent. ADNOC will take the lead 43 percent share in Masdar's green hydrogen business with Mubadala holding 33 percent and TAQA 24 percent.

In December 2021, ADNOC and Abu Dhabi National Energy Co. announced a $3.6 billion project to significantly decarbonize ADNOC's offshore production operations and in support of UAE's 'Net-Zero by 2050 Strategic Initiative'.

The project will result in the development of a first-of-its-kind high-voltage, direct current subsea transmission system in the Middle East and North Africa region. It will power ADNOC's offshore production operations with cleaner and more efficient energy, delivered through Abu Dhabi's onshore power grid, owned and operated by TAQA's transmission and distribution companies.

The project will be executed on a build, own, operate and transfer basis and funded through a special purpose vehicle in which ADNOC and TAQA will own 30 percent each. A consortium led by Korea Electric Power Corporation (KEPCO) and including Japan's Kyushu Electric Power Co. and Électricité de France (EDF) will hold a combined 40 percent stake.

The consortium will develop and operate the state-of-the-art transmission system alongside ADNOC and TAQA, with the full project being returned to ADNOC after 35 years of operation. The development is expected to reduce the carbon footprint of ADNOC's offshore operations by more than 30 percent, replacing existing offshore gas turbine generators with more sustainable power sources available on the Abu Dhabi onshore power network. This project will drive operational efficiencies and improve reliability of energy supply, while offering the potential for power supply cost optimization.

In October, ADNOC announced a clean energy partnership with Emirates Water and Electricity Company which resulted in up to 100 percent of the company's grid power being supplied by EWEC's nuclear and solar clean energy sources. This strengthened ADNOC's position as one of the world's least carbon-intensive oil and gas producers. Simultaneously, EWEC will benefit from long-term electricity offtake for its current and future renewable and clean power sources, which include solar and nuclear power, enabling continued investment in transformative innovations to decarbonise the energy sector. ■

• *GI Special Report was produced with the cooperation of ADNOC*

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