



The Arab Gulf States
Institute in Washington
Building bridges of understanding



Everything at Once: Transformation of Abu Dhabi's Oil Policy

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About the Author

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Executive Summary

Under Crown Prince Mohammed bin Zayed al-Nahyan, Abu Dhabi has made a fundamental shift in oil policy since 2016. Abu Dhabi traditionally managed its oil and gas resources cautiously and conserved hydrocarbon wealth for future generations, but the energy transition is reshaping its strategy. The Abu Dhabi National Oil Company has restructured its major onshore and offshore concessions, launched two bid rounds to license much of its acreage, and partly privatized elements of its downstream, midstream, and drilling segments. It plans to raise oil production capacity from 4.2 million barrels per day to 5 mb/d by 2030, and it has launched a new futures contract for its Murban crude. The United Arab Emirates' growth agenda is at odds with continued production restraint, and there are important implications for OPEC.

Introduction: Abu Dhabi's Traditional Approach

For decades, Abu Dhabi took a conservative approach to oil policy. Since the 1970s, Abu Dhabi – which accounts for nearly all oil and gas production in the United Arab Emirates – relied on a small set of trusted partners in concessions that lasted multiple decades.¹ Historically, three major onshore and offshore concessions accounted for a large share of oil production: the Abu Dhabi Company for Onshore Oil Operations (ADCO), the Abu Dhabi Marine Operating Company (ADMA-OPCO), and the Upper Zakum field, operated by the Zakum Development Company (ZADCO). The key partners of the Abu Dhabi National Oil Company (ADNOC) were European and U.S. oil majors (mainly Shell, Total, BP, and ExxonMobil) as well as several Japanese companies that operated smaller concessions.

For Abu Dhabi, as well as foreign investors, this was a highly successful model. Unlike Saudi Arabia or Kuwait, Abu Dhabi allowed equity investment in upstream oil and gas. Foreign companies could also book their reserves there (this is no longer a critical factor for investors, but companies formerly placed great emphasis on maximizing proven reserves). The huge scale of hydrocarbon assets in Abu Dhabi and the emirate's stable business climate and operational safety were attractive to investors despite the low after-tax profitability.

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ADNOC typically took a 60% stake in operating assets, leaving the remaining 40% for foreign partners, and it was a conservative company, dependent on partners for technical leadership.

An extremely small population and abundant hydrocarbon wealth meant there was little incentive to change this approach. By 2019 Abu Dhabi was one of the world's wealthiest provinces, with an estimated per capita income of 356,600 dirhams (\$97,068).² (This figure

¹ U.S. Energy Information Administration, *Country Analysis Executive Summary: United Arab Emirates*, May 6, 2020.

² Statistics Centre Abu Dhabi, *Statistical Yearbook of Abu Dhabi 2020* (Abu Dhabi: Statistics Centre Abu Dhabi, 2020).

underestimates the real wealth of residents since foreign nationals make up 81% of Abu Dhabi's population).³ Oil rents financed extensive benefits for citizens, including public sector jobs, housing, higher education funding, and marriage grants.

In 2014, however, two events converged that would reshape Abu Dhabi's oil policy. In January 2014, the 75-year ADCO concession expired, ending a decadeslong contract that was central to the UAE's economic development.⁴ For several years, companies had been competing for a stake in the next concession, and the future of ADCO (which produced about 1.6 million barrels per day in 2015) had significant economic and geopolitical implications.⁵ The second, unexpected event was that UAE President Khalifa bin Zayed al-Nahyan suffered a stroke that significantly reduced his role in day-to-day governance, including oil policy. Crown Prince Mohammed bin Zayed al-Nahyan had already been accumulating power for some time. But within several years it was clear that he had consolidated control over the oil and gas sector, and he would set ADNOC on a very different course.

Mohammed bin Zayed Takes Control

Since its formation in 1988, Abu Dhabi's Supreme Petroleum Council governed the oil and gas sector, effectively acted as the board of directors for ADNOC, and approved the most critical decisions in the industry. The SPC included Abu Dhabi's ruler, the CEO of ADNOC, and other technocrats and officials. Until 2011, the ADNOC CEO had also served as secretary general of the SPC, but the role was split that year. The SPC in place from 2011-16 was a typical balance of more conservative members, including Khalifa bin Zayed and several of his advisors, as well as the more dynamic and forward-looking Mohammed bin Zayed and his brother, Mansour bin Zayed.⁶

Since his selection as UAE president and ruler of Abu Dhabi in 2004, Khalifa bin Zayed effectively controlled the SPC and the oil portfolio. Mohammed bin Zayed, meanwhile, controlled Mubadala, the state investment fund he created in 2002 to support economic diversification in Abu Dhabi.⁷ Mubadala managed the Dolphin Gas project (which bankrolled Mubadala investments in other sectors), but otherwise it was unofficially barred from direct investment in the domestic oil and gas sector.

By 2016, the crown prince had effectively assumed control over day-to-day governance in Abu Dhabi. In March 2016 he placed his stamp on the all-important oil sector by shaking up and enlarging the SPC, whose new membership reflected Mohammed bin Zayed's modernization agenda.⁸ Power in the new council centered on the "Bani Fatima," or the sons of Sheikh Zayed

³ Statistics Centre Abu Dhabi, *Statistical Yearbook of Abu Dhabi 2020* (Abu Dhabi: Statistics Centre Abu Dhabi, 2020).

⁴ Peter Hellyer, "The End of an Incredible Oil-Powered Era," *The National*, January 8, 2014.

⁵ "Abu Dhabi: Total Awarded 10% in the New 40-Year ADCO Concession," *Total*, January 29, 2015.

⁶ "Khalifa Restructures Supreme Petroleum Council," *Emirates* 24/7, June 25, 2011; and Guido Steinberg, "Regional Power United Arab Emirates: Abu Dhabi is No Longer Saudi Arabia's Junior Partner," *German Institute for International and Security Affairs*, July 2020.

⁷ "Our History," Mubadala, accessed March 25, 2021.

⁸ "Shake-Up of Abu Dhabi's Oil Sector," *Economist Intelligence Unit*, April 6, 2016.

bin Sultan al-Nahyan, the UAE's founder, and his favorite wife Fatima bint Mubarak al-Ketbi,⁹ including Mohammed bin Zayed and his brothers Hazza bin Zayed and Mansour bin Zayed. Their trusted lieutenants are Khaldoon Khalifa Al Mubarak, the powerful CEO of Mubadala, as well as Suhail Mohamed Faraj Al Mazrouei, who has served as the UAE's energy minister since 2013.

This institutional shakeup, which replaced an older cohort of advisors and technocrats, enabled all of the subsequent changes in Abu Dhabi's energy policy. Two months after the SPC reshuffle, ADNOC's new CEO pushed through extensive management changes.¹⁰ And in November 2016, the SPC approved ADNOC's 2030 Strategy and its 5-year business plan, which included a target to raise oil production capacity to 3.5 mb/d as well as a number of ambitious downstream goals.¹¹

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several downstream, midstream, and drilling segments, launched two new bid rounds, raised its production target, and launched a new futures contract. All of these changes reflect Mohammed bin Zayed's vision for the oil and gas industry and the broader economy, with ADNOC CEO Sultan Ahmed Al Jaber as the driving force behind the company's transformation.

⁹ Peter Salisbury, "Risk Perception and Appetite in UAE Foreign and National Security Policy," *Chatham House*, July 2020.

¹⁰ "Abu Dhabi Shakes Up ADNOC Management," *Middle East Economic Survey*, May 20, 2016.

¹¹ "Supreme Petroleum Council Approves ADNOC's 2030 Strategy," ADNOC, November 2, 2016.

ADNOC Strategy Shift Since 2016

Feb. 2016: Sultan Al Jaber becomes ADNOC CEO
Mar. 2016: New Supreme Petroleum Council
Nov. 2016: SPC approves 2030 Strategy and new 5-year business plan
Feb. 2017: Final award for ADNOC Onshore concession
Oct. 2017: ADNOC restructures business units
Dec. 2017: ADNOC Distribution capitalizes 10% of company and raises \$851 million
Apr. 2018: Final award for large ADNOC Offshore fields (former ADMA-OPCO concession)
May 2018: ADNOC announces \$45 billion downstream investment plan
Oct. 2018: ADNOC Drilling sells 5% of the business to Baker Hughes for \$550 million
Nov. 2018: SPC approves ADNOC's \$132 billion 2019-23 investment plan
Nov. 2018: Total signs exploration agreement for onshore Ruwais Diyab asset
Jan. 2019: Eni and OMV acquire a combined 35% stake in ADNOC Refining for \$5.8 billion
Feb. 2019: Fitch assigns ADNOC's first credit rating
Feb. 2019: ADNOC sells stake in oil midstream business to KKR, BlackRock, a state fund and later GIC for \$4.9 billion
Mar. 2019: ADNOC commissions SK Engineering to build underground storage capacity of 42 million bbl at Fujairah
May 2019: Second licensing round opens
Jun. 2020: Sale of 49% stake in new ADNOC Gas Pipelines subsidiary raises \$10 billion
Sep. 2020: Sale of 49% stake in Abu Dhabi Property Leasing Holding Company raises \$2.7 billion
Nov. 2020: SPC approves \$122 billion budget for 2021-25 and affirms 5 mb/d target by 2030
Nov. 2020: SPC announces unconventional discovery of 22 billion BOE in recoverable stock tank resources
Dec. 2020: ADNOC awards Onshore Block 5 to Occidental Petroleum and Offshore Block 3 to Eni and PTTEP
Dec. 2020: Supreme Council for Financial and Economic Affairs formed, absorbing SPC
Feb. 2021: Announcement of new 10-member ADNOC board of directors, chaired by Mohammed bin Zayed
Mar. 2021: ADNOC launches Murban futures contract after lifting destination restrictions

Source: ADNOC, company reports, media reports

Concession Renewals Set New Tone

For decades, the ADCO concession was Abu Dhabi's most important oil and gas asset, operated alongside Shell, BP, Total, and ExxonMobil (each with a 9.5% equity stake, while ADNOC held 60% and the Portuguese company Partex held 2%). The jostling to retain a stake in ADCO began several years before the concession expired, but by 2014 the oil industry had changed. The shale oil and gas boom in the United States and an abundance of resources and investment opportunities globally reduced the urgency for companies to keep a foothold in Abu Dhabi. In the end, Total and BP remained but ExxonMobil and Shell bowed out, refusing to match Abu Dhabi's commercial expectations (ExxonMobil remains a partner at Upper Zakum).

The awards process took several years, but ultimately Abu Dhabi ended up with a more diverse set of equity partners in the newly christened ADNOC Onshore concession.¹² ADNOC holds 60%, alongside Total and BP with 10% each, China National Petroleum Corporation with 8%, Japan's INPEX whose local Jodco subsidiary holds 5%, China's ZhenHua Oil with 4%, and South Korea's GS Energy with 3%.

¹² "Who We Are," ADNOC Onshore, accessed March 25, 2021.

Abu Dhabi followed this template – a desire for new partnerships, less reliance on the Western majors, and a strong interest in attracting Asian companies – for its major offshore concessions as well. Previously BP, Total, and INPEX were ADNOC's partners in the ADMA-OPCO concession while ExxonMobil and INPEX were key partners in the ZADCO concession that included the giant Upper Zakum field. But this was a complex and unwieldy structure that created inefficiencies in managing Abu Dhabi's largest offshore assets. In 2016 ADNOC merged these two operating companies, and by 2018 it had broken the ADMA-OPCO mega-concession into three parts, to bring in more partners and increase the focus on each asset cluster (see Table 1).

The onshore and offshore concession renewals set the tone for a flurry of other new initiatives to come in the next few years (see Table 1). Abu Dhabi balanced its technical needs – and its desire to keep trusted partners in charge of its most important clusters of oil fields – with a desire to expand links with oil-importing states. Chinese, Indian, and South Korean companies now have a much larger presence in Abu Dhabi's oil sector, and the "Abu Dhabi club" of Western supermajors is much diminished.

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Table 1: ADNOC Upstream Deals and Concessions

Date	Asset	Partners and Details*
2015-17	ADNOC Onshore	ADNOC signs new 40-year concession for assets formerly known as ADCO. Total becomes asset leader at Bu Hasa, Northeast Bab, and South East clusters, and BP at the Bab cluster. Final shareholding: ADNOC 60%, Total 10%, BP 10%, CNPC 8%, INPEX 5%, ZhenHua Oil (acquiring stake held by CEFC China Energy) 4%, GS Energy 3%.
2018	ADNOC Offshore	ADNOC breaks former ADMA-OPCO concession into three parts, bringing in new partners. Lower Zakum: ADNOC 60%, INPEX 10%, Indian state companies 10%, CNPC 6%, Eni 5%, Total 5%, CNOOC 4%. Umm Shaif and Nasr: ADNOC 60%, Total 20%, Eni 10%, CNPC 6%, CNOOC 4%. Satah al Ras Root and Umm Lulu: ADNOC 60%, Cepsa 20%, OMV 20%.
2018	Ruwais Diyah	ADNOC awards an unconventional gas concession to Total, which by 2018 has emerged as its most important upstream partner. The partners (ADNOC 60%, Total 40%) target gas production of 1 bcf/d to 2 bcf/d.
2018	Ghasha sour gas	ADNOC selects partners (Eni 25%, Wintershall 10%, OMV 5%) for a large sour gas concession including Dalma, Hail, and Ghasha fields, with hopes of delivering 1.5 bcf/d in gas by the mid-2020s, plus 120,000 b/d in liquids. Lukoil acquires a 5% stake in October 2019.
2019-21	First and second licensing rounds	In the first round, blocks awarded to Eni and Thailand's PTTEP (Offshore Blocks 1 and 2), Indian Oil Corp. and Bharat Petroleum (Block 1), Occidental Petroleum (Block 3), and INPEX (Block 4). In the second round, as of Mar. 2021, ADNOC had awarded onshore Block 5 to Occidental, offshore Block 3 to Eni and PTTEP, and offshore Block 4 to Cosmo Energy.

Source: ADNOC, company reports, media reports

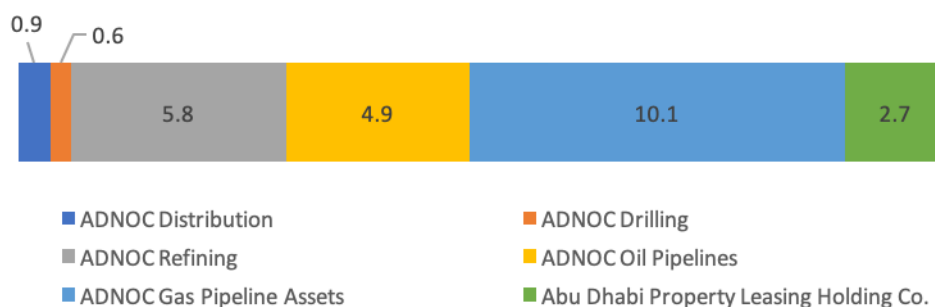
*Equity stakes as of March 2021. Note that ownership stakes in several assets have changed since the initial awards.

ADNOC Monetizes Assets

ADNOC's new approach was not limited to the upstream. Some of the more fundamental shifts in corporate strategy have been carried out in other segments. Jaber, the company's CEO, used the oil price downturn that began in mid-2014 as an opportunity to reassess ADNOC's structure and create more value from existing assets.

In December 2017, ADNOC privatized 10% of its domestic fuel distribution business on the Abu Dhabi Securities Exchange, raising \$851 million.¹³ The initial public offering – including a prospectus that offered an unprecedented look at ADNOC finances, if only for this segment – showed how much capital ADNOC could raise through partial privatizations. It has since sold 5% of its ADNOC Drilling subsidiary for \$550 million and 35% of its refining business to Eni and OMV for \$5.8 billion.¹⁴ It capitalized 40% of its oil pipeline business for \$4.9 billion, raised \$10 billion by selling a 49% stake in a new gas pipeline and infrastructure subsidiary, and raised \$2.7 billion by selling 49% in a new real estate holding company.¹⁵

ADNOC: Proceeds From Partial Privatizations
\$ billion



Source: ADNOC, media reports

ADNOC has raised capital from previously overlooked segments and assets, without ceding control of these business lines. Indeed, the nearly \$25 billion in proceeds from these deals rivals the \$29.4 billion generated by Saudi Aramco's 2019 IPO, without forcing ADNOC to adopt the transparency and reporting requirements mandated by public ownership (even on a friendly local bourse).¹⁶ Jaber has repeatedly said that ADNOC has no plans to list the parent company. However, it could opt to sell parts of other business lines in the future, for example its liquefied natural gas or gas processing businesses or its logistics and services segment.

¹³ "ADNOC Distribution Fuel Firm IPO Raises \$851 Million," *Reuters*, December 8, 2017.

¹⁴ See "Baker Hughes Acquires 5% of ADNOC Drilling for \$550 Million," *Reuters*, October 8, 2018; and "ADNOC Closes Landmark Strategic Partnership Agreements With Eni and OMV in Refining and Trading," ADNOC, July 31, 2019.

¹⁵ See "ADNOC Closes \$4 Billion Pipeline Deal With KKR and Blackrock," *Reuters*, June 27, 2019; "ADNOC Announces \$20.7 Billion Energy Infrastructure Deal," ADNOC, June 23, 2020; and "ADNOC Signs \$5.5 Billion Real Estate Deal With Apollo-Led Consortium," *Reuters*, September 15, 2020.

¹⁶ "Saudi Aramco Raises IPO To Record \$29.4 Billion by Over-Allotment of Shares," *Reuters*, January 12, 2020.

Carving out new segments and asset clusters allowed ADNOC to bring in a broader array of partners, enhancing its access to technical expertise in drilling, the midstream segment, and refining and trading (the latter is another element of ADNOC's strategic partnership with Eni and OMV). And as the national oil company embarks on a significant expansion of oil production, unconventional gas development, refining and petrochemical output, and trading capacity, it now has numerous equity partners. ADNOC has also tapped debt markets. Several of its subsidiaries have now issued bonds and ADNOC secured its first-ever credit rating from Fitch in 2019.¹⁷

Big Upstream and Downstream Growth Targets

In the upstream, midstream, and downstream segments, ADNOC has ambitious goals. It plans to raise oil production capacity from approximately 4.2 mb/d to 5 mb/d by 2030.¹⁸ Several megaprojects that are already underway will help it to reach this target, but new exploration and production projects may be required as well.

ADNOC has a long list of current expansion projects. The onshore Bu Hasa expansion, part of ADNOC Onshore, will raise capacity to 650,000 b/d. The UZ1000 project at Upper Zakum will raise output from approximately 750,000 b/d to 1 mb/d by 2024. The offshore Umm Shaif and Nasr project should see an increase of 160,000 b/d (over 2018 volumes) to 460,000 b/d by around 2025. The offshore Satah al Ras Boot and Umm

New exploration assets present upside potential but greater uncertainty.

Lulu fields should deliver about 100,000 b/d in gains by 2023, to about 215,000 b/d. The Bab expansion should add about 60,000 b/d by 2023, and Lower Zakum could potentially deliver another 50,000 b/d by 2030. ADNOC also believes the offshore Ghasha sour gas concession can deliver 120,000 b/d in liquids around 2025-26.

New exploration assets present upside potential but greater uncertainty. Beginning in 2018, Abu Dhabi launched two licensing rounds that have opened much of the country's unexplored acreage to investment. Its first open licensing round, initiated in 2018, awarded five blocks to a diverse range of partners (see Table 1). Its second licensing round, announced in May 2019, offered a total of five offshore and onshore blocks, three of which had been awarded as of March 2021. Several of these exploration blocks, including Onshore Block 3, have significant unconventional oil and gas potential.

As part of its 2030 Strategy, ADNOC is emphasizing unconventional oil and gas exploration. Developing more domestic gas capacity is an especially strong focus, as the UAE aims for self-sufficiency by 2030.¹⁹ The UAE currently imports about 2 billion cubic feet per day from Qatar via the Dolphin pipeline but hopes it can free itself from import dependence by developing

¹⁷ See "ADNOC Natgas Pipeline Investors Galaxy Raise Nearly \$4 Billion via Bonds," *Reuters*, February 9, 2021; and "ADNOC Makes Record-Setting Debut With USD3bn Bond," *Bonds & Loans*, February 6, 2018.

¹⁸ Dania Saadi, "UAE Says OPEC Adding 1.5 Mil b/d in April Hinges on Vaccine Rollout, Demand Recovery," *S&P Global Platts*, February 28, 2021.

¹⁹ Ben Cahill, "Gulf Gas Projects Still a Priority Despite High Costs," *Center for Strategic and International Studies*, November 16, 2020.

onshore unconventional gas, offshore gas caps at oil fields, and sour gas.²⁰ There are many questions, however, over the pace of development of unconventional gas resources. In February 2020, ADNOC announced the Jebel Ali discovery along the Abu Dhabi-Dubai border, which reportedly contains 80 trillion cubic feet of gas in place. But it is unclear how much of this gas can be recovered, how rapidly, and at what cost.²¹

ADNOC also has a growth agenda for the downstream and petrochemical sector. In 2018 it announced a \$45 billion investment plan for the sector, including the construction of a new 600,000 b/d capacity refinery at Ruwais. ADNOC plans to raise petrochemical output to 14.4 million tons per year by 2025, including a new mixed feed cracker with capacity of 1.8 million tons per year. As noted, Eni and OMV have acquired a combined 35% of ADNOC's downstream business and have also joined forces on trading and marketing – although neither of these companies is a leader in trading, especially in Asia.

ADNOC Transformation is Part of Broader Policy Shift

The policy shift since 2016 has accelerated ADNOC's transition from a conservative, unambitious state company to a nimbler institution. The frenetic pace of new deals, negotiations, targets, and performance indicators in recent years has arguably pulled ADNOC in too many directions at once. Yet Jaber has succeeded in instituting a cultural change in a very short period and is the central figure in the UAE's ambitious energy agenda including its climate policies.²²

Mohammed bin Zayed has formalized his control of the energy sector through additional governance changes. In December 2020, Abu Dhabi created a new entity to oversee all economic affairs including the energy portfolio, the Supreme Council for Financial and Economic Affairs, and announced that the SPC's regulatory role would be absorbed into the council.²³ And in February, Abu Dhabi appointed a new board of directors and executive committee for ADNOC, to be chaired by Mohammed bin Zayed.²⁴ ADNOC's board includes Mohammed bin Zayed's brothers Hazza bin Zayed and Mansour bin Zayed, his son Khalid bin Mohammed, ADNOC CEO Sultan Al Jaber, UAE Energy Minister Suhail Al Mazrouei, Mubadala head Khaldoon Al Mubarak, and the Secretary General of Abu Dhabi's Executive Council, Ahmed Al Mazrouei. UAE President Khalifa bin Zayed chairs the Supreme Council, but it is clear that Mohammed bin Zayed is in firm control of the sector.

²⁰ Dania Saadi, "UAE Holds Back From Qatari-Saudi Détente and Plans for Gas Independence," *S&P Global Platts*, December 23, 2019.

²¹ Ben Cahill, "Gulf Gas Projects Still a Priority Despite High Costs," *Center for Strategic and International Studies*, November 16, 2020.

²² "Dr Sultan Al Jaber Appointed UAE Special Envoy for Climate Change," *The National*, November 29, 2020.

²³ Adal Mirza, "Abu Dhabi Merges Oil, Economics Oversight in New Body," *Argus Media*, December 28, 2020.

²⁴ Adal Mirza, "Abu Dhabi Appoints ADNOC Board and Executive Committee," *Argus Media*, February 28, 2021.

Oil and gas policy in Abu Dhabi has always been tantamount to economic policy. Abu Dhabi's oil sector typically provides more than half of the budget revenue for the entire UAE federation.²⁵ But the creation of these new institutions, especially the Supreme Council, suggests that oil policy will be at the service of Mohammed bin Zayed's larger vision for the UAE economy. And as with many other major oil producers, Abu Dhabi's thinking is evolving quickly.

Energy Transition Reshapes Strategy

Abu Dhabi traditionally focused on prudent management of its hydrocarbon resources. The UAE is the world's seventh-largest holder of proven reserves but had limited incentive to ramp up production.²⁶ Although it has experienced periods of rapid production growth, Abu Dhabi was generally more focused on conserving resources for future generations. However, the 2010s were as jarring for the UAE as for the other OPEC states. The explosive growth of oil production in the United States – from 5.5 mb/d in 2010 to 12.2 mb/d by 2019 – and other non-OPEC production increases affected the entire global industry.²⁷ Concerns over “peak oil” and resource scarcity in the 2000s gave way to an era of surplus production, and the flexibility and responsiveness of short cycle oil undercut OPEC's influence. At the same time, there were growing signs that an energy transition away from fossil fuels was picking up speed.

Concerns over “peak oil” and resource scarcity in the 2000s gave way to an era of surplus production, and the flexibility and responsiveness of short cycle oil undercut OPEC's influence.

This transition will be measured in decades, and oil and gas will still have a role for many years, particularly in supplying aviation fuels and energy for hard-to-decarbonize sectors, such as cement and steel production. Because Abu Dhabi contains some of the world's largest oil fields with the lowest per-barrel extraction costs, it will remain a competitive supplier even at lower oil prices and in lower global demand scenarios. Still, the energy transition and concerns over peak oil demand are naturally affecting Abu Dhabi's hydrocarbon strategy. The pace of change is accelerating, and the major resource-holding states can no longer count on robust oil demand for decades to come.

The transition is also reshaping ADNOC's strategy. Like other Gulf national oil companies, it is emphasizing its “low carbon oil” and interest in carbon capture and storage.²⁸ ADNOC will play an important role in helping the UAE to reach its target to produce 50% of its power generation from clean energy by 2050.²⁹ Mubadala's Masdar subsidiary is the main instrument to invest more in renewable energy, and Masdar City hosts the International Renewable Energy Agency. Jaber served as Masdar CEO for seven years and remains the chairman of its board. His dual role illustrates how the old walls between ADNOC and Mubadala have been removed.

²⁵ “United Arab Emirates: 2018 Article IV Consultation,” *International Monetary Fund*, February 1, 2019.

²⁶ “Statistical Review of World Energy,” BP, 2020.

²⁷ “Crude Oil Production Data Series,” U.S. Energy Information Administration, accessed March 25, 2021.

²⁸ “Low Carbon Oil To Play Central Role in the Energy Transition,” ADNOC, March 3, 2021.

²⁹ “UAE Energy Strategy 2050,” UAE government, accessed March 25, 2021.

UAE energy officials have never explicitly stated that peak oil concerns drove the decision to ramp up production, but the target of producing 5 mb/d by 2030 accomplishes several goals. It ensures that major resources are developed in time to enjoy several decades of production, and it brings forward oil revenue to help fund long-term economic diversification strategies.³⁰ ADNOC's mission is to push forward with this growth agenda and find creative ways to finance it alongside partners and investors, thereby alleviating Abu Dhabi's financial burden. This rapid increase in oil production, however, will create some challenges.

Production Ramp and Implications for OPEC

Abu Dhabi's rising production capacity is at odds with its OPEC quota, and tensions will likely grow in the coming years. The UAE's reference production volume in the Declaration of Cooperation agreement, commonly known as the OPEC+ deal, is 3.168 mb/d (based on October 2018 volumes).³¹ The UAE has generally had strong compliance with the OPEC+ cuts, with some exceptions in the summer of 2020.³² But following deep production cuts in response to an unprecedented demand shock caused by the coronavirus pandemic, its quota in the second half of 2020 stood at just 2.59 mb/d. Ahead of the December 2020 OPEC meeting, the wide gulf between this number and its production capacity at the time (around 4 mb/d) was a source of frustration and tensions.³³ Although OPEC has tapered its production cuts in recent months, the UAE's quota for May 2021 stands at just 2.66 mb/d.³⁴

Unlike some other OPEC members, the UAE has a wide array of foreign partners who have invested in expansion projects. When the UAE cuts production in line with OPEC agreements, ADNOC's partners lose out as well.

The disconnect between the UAE's production target and its capacity is even more challenging due to the structure of its oil concessions. Unlike some other OPEC members, the UAE has a wide array of foreign partners who have invested in expansion projects. When the UAE cuts production in line with OPEC agreements, ADNOC's partners lose out as well. Most OPEC members make efforts to cut volumes for their national oil companies first when possible but managing this process with private investors can be difficult. As the UAE looks ahead to its 5 mb/d target, with the range of new partners it has accrued in various assets, it will become increasingly important to push for a more realistic OPEC quota.

³⁰ Nader Kabbani and Nejla Ben Mimoune, "Economic Diversification in the Gulf: Time To Redouble Efforts," *Brookings Institution*, January 31, 2021.

³¹ "New Decade, New OPEC Oil Curbs, Same Mixed Results," *Bloomberg*, February 25, 2020.

³² "UAE Escalates OPEC Dispute as Tensions on Output Quotas Grow," *Bloomberg*, November 18, 2020.

³³ "UAE Mulls OPEC Stance Ahead of Meeting," *International Oil Daily*, November 17, 2020.

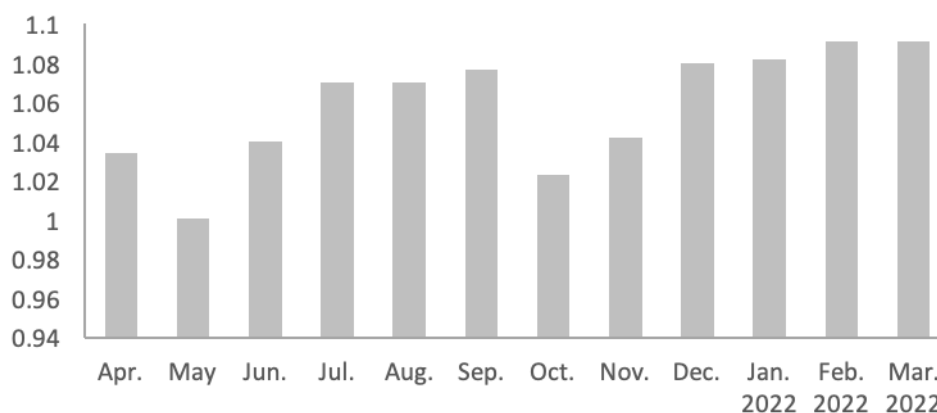
³⁴ "15th OPEC and Non-OPEC Ministerial Meeting Concludes, Production Adjustments Table," OPEC, April 1, 2020.

Significance of the Murban Futures Contract

Another key factor behind ADNOC's thinking will be the introduction of the Murban futures contract, which launched on March 29. The contract, for a benchmark crude that accounts for half of the UAE's total oil production capacity at about 2 mb/d, will establish a forward curve for Murban and allow market participants to trade derivatives. The crude will be traded on an Abu Dhabi-based exchange operated by the Intercontinental Exchange, and buyers will take delivery at the port of Fujairah. Abu Dhabi is investing in 42 million barrels of underground oil storage capacity at Fujairah, in an effort to ensure sufficient storage to support futures trading.³⁵ Abu Dhabi's Upper Zakum, Das, and Umm Lulu crudes will be priced at differentials to Murban.

The Intercontinental Exchange Futures Abu Dhabi contract will allow consumers to trade a large Middle Eastern benchmark crude without restrictions, unlike other Gulf national oil companies that sell oil in term cargoes at official sales prices.³⁶ As a light, medium sour crude (API of 39.9° and sulfur content of 0.78%) that is popular among Asian buyers, there is good reason to believe that Murban crude can become one of the world's most important benchmarks.³⁷ If consumers are able to lock in volumes and hedge prices through the Intercontinental Exchange Futures Abu Dhabi contract, Murban could potentially undercut other Gulf producers relying on rigid nominations and term contracts.³⁸ ADNOC hopes it will become the leading benchmark for Asia-bound crude oil, outpacing other Gulf crude benchmarks with smaller volumes such as Dubai and Oman.³⁹

Murban: Available Volumes for Exportation
mb/d



Source: ADNOC, Feb. 2021

³⁵ "Signing of Agreement Between ADNOC and SKEC," ADNOC, February 27, 2019.

³⁶ "ADNOC Lifts Crudes Destination Restrictions Before Murban Futures Launch," *Reuters*, March 3, 2021.

³⁷ Philip Verleger, "Murban: Ideal Global Benchmark," *Energy Intelligence Group*, March 2021.

³⁸ "ICE Futures Abu Dhabi," Intercontinental Exchange, accessed March 25, 2021.

³⁹ "ICE Futures Abu Dhabi Primed for Murban Launch," *Middle East Economic Survey*, March 12, 2021.

However, any futures market depends on transparency, clear specifications, strong regulatory oversight, and liquidity. In theory, Abu Dhabi has all of these pieces in place, but the key questions concern liquidity. Unlike other benchmark crudes such as West Texas Intermediate and Brent, the majority of Murban volumes are marketed by a wholly state-owned company (ADNOC partners market their equity volumes of Murban) that is subject to OPEC quota restrictions. It takes time to establish trust in the marketplace, and for Abu Dhabi it will be important to ensure that it can supply enough crude to meet market obligations.⁴⁰ After making extensive upstream investments, the UAE will want to utilize its expanded production capacity, but the Murban futures contract gives it a secondary incentive to push for a bigger OPEC quota.

Conclusion: UAE Losing Patience With Production Restraint

ADNOC has evolved into a very different company since 2016. The formerly sleepy national oil company has been stirred awake by demanding leadership and market forces. Its production capacity is rising quickly, the 5 mb/d output target seems attainable by 2030, and ADNOC is taking steps toward market-determined pricing for its crude.

The UAE is already losing patience with OPEC production restraint, and these tensions will only grow in the years to come. Abu Dhabi is poised to benefit from future oil demand growth, as one of the few OPEC countries with the prospect of higher production in the coming years. It will continue to pressure Saudi Arabia and other OPEC members for a higher quota, which will present problems for the organization. A new target for the UAE could lead Iraq and other states to demand higher quotas as well, jeopardizing the hard-won OPEC+ cooperation and production discipline of recent years.

While it seems unlikely that the UAE will leave OPEC, the country will follow its national interests. The implicit threat is that if Abu Dhabi believes OPEC membership and collective cuts are hindering rather than advancing its goals, the UAE will be prepared to walk away. The loss of a longtime OPEC member and a stalwart ally of Saudi Arabia would be a serious blow for the organization, and at this stage it seems more likely that OPEC will pull off a compromise to keep the UAE onside. In the meantime, Abu Dhabi is feeling confident about the decade ahead.

⁴⁰ "UAE's Oil Expansion Gives It New Weight Within OPEC," *Reuters*, December 3, 2020.

