

A COMPREHENSIVE ANALYSIS OF THE
OIL AND GAS INDUSTRY
IN THE UAE

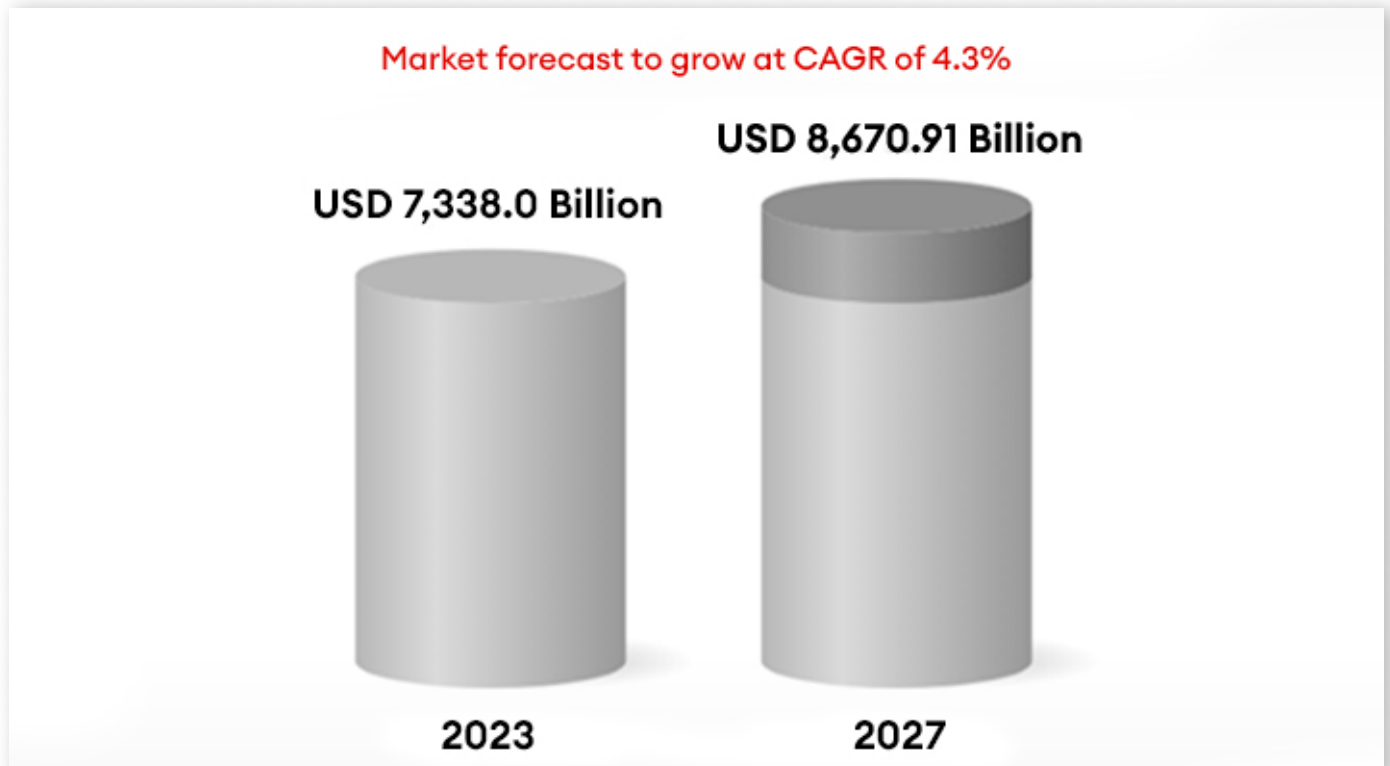
Executive Summary

The global oil and gas industry is experiencing significant growth, with projections indicating a steady increase in market value from \$7,330.80 billion in 2023 to an estimated \$8,670.91 billion by 2027, driven by a CAGR of 4.3%. Notably, the Asia-Pacific region has emerged as the largest market, closely followed by North America, with key industry players including Royal Dutch Shell, BP plc, Saudi Aramco, and others.

Within the United Arab Emirates (UAE), the oil and gas sector is also thriving, marked by increased investments in the upstream segment and a rising demand for LNG. Major players in the UAE market include Abu Dhabi National Oil Company (ADNOC) and Exxon Mobil Corporation, among others. Recent developments, such as significant gas discoveries and strategic contracts, underscore the sector's focus on upstream dominance and escalating investments, with ADNOC at the forefront.

For exporters, abundant opportunities exist in the UAE's oil and gas sector, particularly in exploration projects, downstream expansion, and collaborations on energy-related initiatives and technologies. The UAE's commitment to energy transition and ambitious growth plans reinforces its significance as a market for industry players.

Global Oil and Gas Industry



The global oil and gas market experienced growth from \$6,989.65 billion in 2022 to \$7,330.80 billion in 2023, with a compound annual growth rate (CAGR) of 4.9%. Projections suggest further growth to \$8,670.91 billion in 2027 at a CAGR of 4.3%.

Regional Market Overview

Asia-Pacific was the largest region in the oil and gas market in 2022, followed by North America. There are numerous countries in the oil and gas market, including Argentina, Australia, Canada, China, India, Russia, Saudi Arabia, UAE, USA, and more.

Furthermore, key players in the oil and gas market include Royal Dutch Shell, BP plc, Saudi Aramco, Exxon Mobil, Gazprom PAO, Chevron, Iraq Ministry of Oil, PJSC Lukoil, Total SA, and Rosneft.

Market Segmentation

The oil and gas market encompasses sales of crude oil, natural gas, refined petroleum products, asphalt, lubricating oil, and grease. It includes 'factory gate' values and related services, with market values measured in USD.



UAE Oil and Gas Industry Overview

The United Arab Emirates (UAE) is a significant player in the global oil and gas industry. It is the region's fourth-largest exporter of crude oil, boasting substantial reserves of both oil and natural gas. The following summary provides insights into the UAE's oil and gas sector, its challenges, and future development plans.

Reserves and Export Status

- UAE holds the world's sixth-largest proven reserves of conventional crude oil and the seventh-largest reserves of natural gas.
- It ranks as the fifth-largest net oil exporter globally, with Russia and Saudi Arabia exporting more.
- In 2009, the UAE demonstrated strong compliance with OPEC production cuts, leading to a temporary reduction in oil output to stabilize global markets.



Global Oil Demand and OPEC's Role

Despite fluctuations in global oil consumption due to economic crises, energy forecasts project gradual demand recovery.

OPEC's contribution to global oil supply is expected to grow, favoring the UAE's plans to increase production capacity by 30% to 3.5 million bpd.

Diversification and Domestic Challenges

Following are some of the suggestions to tackle the challenges in the oil and gas sector in the UAE:

- To address a domestic gas crisis affecting electricity supply, the UAE aims to diversify its energy sources, including nuclear and solar power.
- Continued gas development is considered to be vital to support population growth and industrial expansion.
- The UAE is implementing energy efficiency programs and encouraging conservation, alongside efforts to reduce carbon emissions.

Abu Dhabi's Key Role in the Oil and Gas Sector

- Abu Dhabi holds the majority of the UAE's oil and gas reserves (about 95%).
- The Supreme Petroleum Council, chaired by HH Sheikh Khalifa bin Zayed Al Nahyan, oversees energy policy and ADNOC (Abu Dhabi National Oil Company).
- ADNOC and its joint ventures are involved in significant oil and gas projects, including the development of sour gas fields and increased oil production.

Dubai's Evolving Role

- Dubai's oil production has declined, making it a net oil importer.
- Dubai remains active in oil trading, bunkering, and energy services.
- The Dubai Mercantile Exchange (DME) offers futures trading in Middle Eastern crude.
- International oil companies maintain regional offices in Dubai, fostering oil-related services.

The Northern Emirates

- Other UAE emirates have minor oil and gas production.
- Sharjah and Ajman are developing the Zora gas field.
- Ras Al Khaimah is involved in gas production, while Fujairah has become a significant bunkering port.

International Development

Following are some of the international developments in the oil and gas sector made by the UAE:

- UAE entities, including Mubadala, Taqa, and IPIC, have expanded their energy investments globally.
- Dubai's ENOC invests overseas, primarily through its stake in Dragon Oil.

- Private-sector companies like Crescent Petroleum and Dana Gas explore for oil and gas internationally.
- RAK Petroleum is active in oil and gas exploration and production in Oman and Kurdistan.

Future Development and Environmental Initiatives

These are some of the details on the future initiatives in the sector:

- The UAE oil and gas sector focuses on environmental mitigation.
- Efforts include reducing gas flaring, carbon capture and storage, and enhanced oil recovery using captured carbon dioxide.
- Abu Dhabi faces upcoming negotiations regarding long-term oil field concessions, valuing international energy partnerships.
- The UAE's oil and gas industry remains a crucial part of its economy, with plans for expansion, diversification, and environmental responsibility shaping its future.

UAE Oil and Gas Market Details

The oil and gas market size of the UAE is expected to grow from 3,300 thousand barrels per day in 2019 to 4,939.24 thousand barrels by the end of the forecasted period of 2019-2028 with a growth rate of 8.40%. The growth in the market will be driven by a couple of factors including:

- Increasing investment in upstream sector coupled up with government policies.
- Increase in the demand for LNG in the region, which leads to integration of smart technology in the existing LNG infrastructure, creating sufficient opportunities for the market players in the forecasted period.



Market Players



The United Arab Emirates (UAE) oil and gas market is moderately fragmented, with several major players including Abu Dhabi National Oil Company (ADNOC), Exxon Mobil Corporation, BP PLC, Emirates National Oil Company Group, and TotalEnergies SE.

Recent Investment in the Oil and Gas Sector in the UAE

Recent developments in the market include:

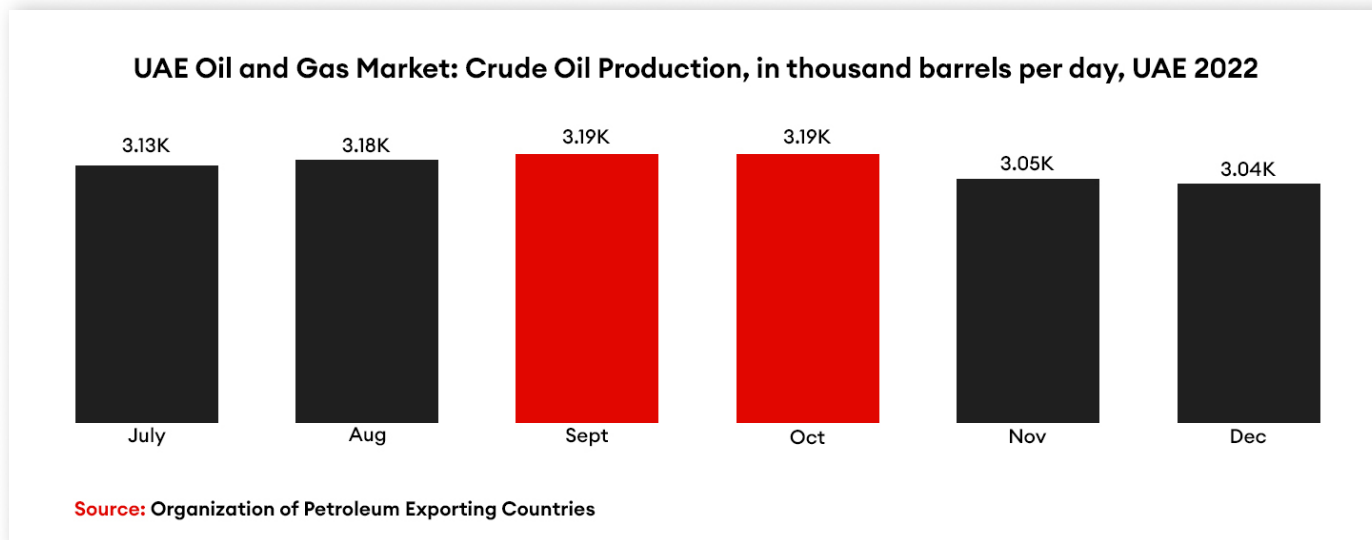
- **June 2023:** National Petroleum Construction Company PJSC (NPCC), a UAE-based company, secured a contract worth USD 162.3 million from ADNOC for the installation of seven jackers. This project involves Engineering, Procurement, and Construction works.
- **February 2022:** ADNOC announced a significant gas discovery in an offshore area in the northwest, estimating between 1.5 to 2 trillion standard cubic feet of gas. This discovery is crucial as Gulf Arab states rely heavily on profits from oil and gas exports.
- **January 2022:** ADNOC awarded a USD 946 million Engineering, Procurement, and Construction (EPC) contract to the National Petroleum Construction Company for the long-term strategic development of its Umm Shaif field. This contract followed a competitive tender process.

These developments reflect the ongoing activity and investments in the UAE's oil and gas sector, with ADNOC playing a central role in various projects and initiatives. The market remains dynamic and continues to be a significant contributor to the UAE's economy.

Oil and Gas Market Trends in the UAE

Following are some of the sector related trends expected to be prominent in the UAE:

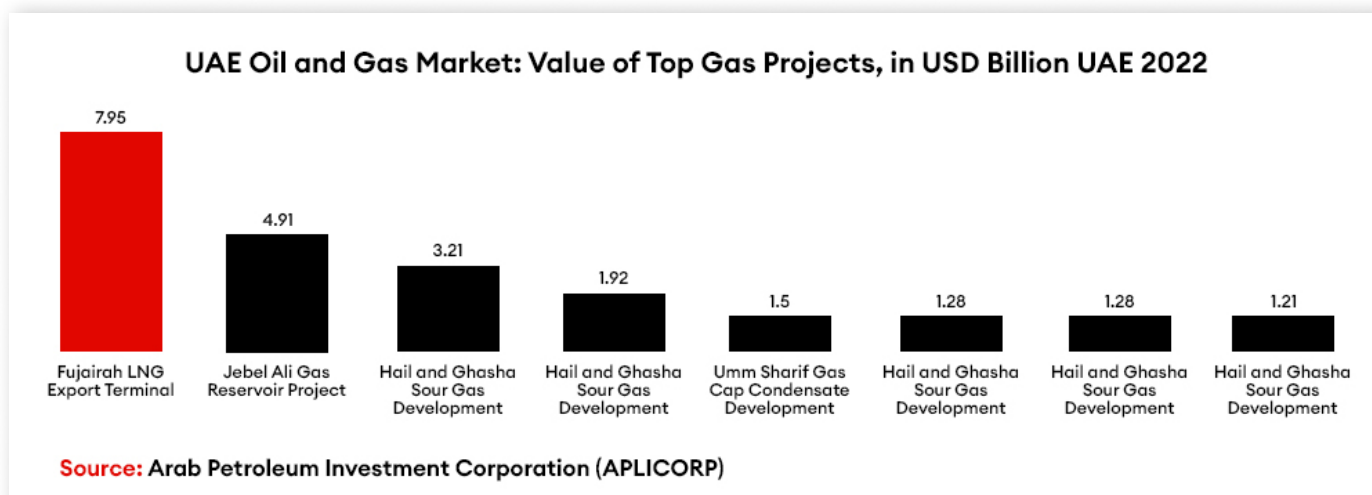
Upstream Sector Expected to Dominate the Market



The upstream sector is poised to be the dominant force in the oil and gas market in the near future, driven by substantial investments across the country. Notably, the United Arab Emirates (UAE) has witnessed significant growth in its oil production, with about 3,043 thousand barrels per day as of December 2022. The UAE has also seen a boost in natural gas and hydrocarbon reserves, particularly in Abu Dhabi, along with recent noteworthy discoveries in both onshore and offshore acreage.

Abu Dhabi National Oil Company (ADNOC) uncovered 650 million barrels of offshore crude oil reserves in May 2022. To counter the declining production from maturing fields, the UAE plans to increase investments in field expansion projects and enhanced oil recovery (EOR) techniques. Consequently, the upstream sector is expected to dominate the UAE's oil and gas market in the forecasted period.

Increase In Oil and Gas Investment to Drive Growth



Increasing investments in the United Arab Emirates' oil and gas sector are set to drive the market. The UAE is a significant crude oil and petroleum liquids producer within OPEC and relies heavily on this sector for its revenue. With ambitious plans for its petroleum sector by 2030, the country is focusing on expanding midstream and downstream segments.

The Abu Dhabi National Oil Company (ADNOC) is playing a key role, with a substantial investment of approximately USD 45 billion in downstream expansion. Notable projects like the Habshan-Fujairah export pipeline and the world's largest bunkering port in Fujairah enhance the UAE's hydrocarbon export capabilities. High-value projects such as ADNOC LNG - Fujairah LNG Export Terminal and ADNOC/DUSUP - Jebel Ali Gas Reservoir Project further bolster the sector.

ADNOC's commitment to invest USD 150 billion over the next five years and plans to increase crude oil production capacity to 5 million barrels per day by 2030 demonstrate a strong growth strategy. Overall, the influx of domestic and foreign investments is expected to propel the UAE's oil and gas market during the forecast period.

Opportunities in the Sector

The United Arab Emirates (UAE) offers significant opportunities for exporters in the oil and gas sector. Here's a summary of key points:

Overview

- The UAE is a major global oil producer with significant reserves, particularly in Abu Dhabi, accounting for a large portion of the country's GDP and exports.
- The UAE has set "net-zero" emissions targets, emphasizing its commitment to energy transition.
- Abu Dhabi National Oil Company (ADNOC) is a leading player in the industry, aiming for 5 million barrels of maximum sustainable production capacity by 2030.

Leading Sub-Sectors

► **Upstream**

- ADNOC seeks to enhance the profitability of its upstream assets and expand crude oil production through concession agreements for new exploration.
- In 2022, ADNOC awarded framework agreements worth \$658 million to expand drilling operations and crude oil production capacity. Multiple oil discoveries were also announced.

► **Downstream**

- ADNOC is investing \$45 billion in expanding downstream operations to strengthen its market share.

► **Opportunities**

- Exploration projects and greenfield opportunities are emerging, with a focus on unconventional oil and gas resources.
- The Ruwais Derivatives Park is a major project in Abu Dhabi expected to become the world's largest integrated refinery and petrochemicals complex, offering opportunities for U.S. and international companies.

- Joint ventures and projects with companies like Reliance Industries and Fertiglobe are being pursued.
- ADNOC plans to build a new refinery, increase liquefied natural gas (LNG) export capacity, and expand hydrogen-related activities, offering further partnership and investment opportunities.

In summary, the UAE's oil and gas sector presents promising prospects for exporters, particularly in exploration, downstream expansion, and collaborations in various energy-related projects and technologies.

UAE's Exports and Imports of Petroleum Gas

Following are the trade details of petroleum gas for the UAE:

Exports

In 2021, the exports of petroleum gas in the UAE were recorded at USD 9.64 billion, which made it the 11th largest exporter of petroleum gas globally. During the same year, this was the 6th most exported product of the UAE. The following countries exported the most petroleum gas from the UAE in 2021: India (USD 4.37 billion), China (USD 2.92 billion), Indonesia (USD 704 million), Japan (USD 699 million), and South Korea (USD 170 million).

The fastest growing market for petroleum gas exports from UAE were India, China, and Japan.



Imports

In 2021, the UAE became 28th largest country in the world to import petroleum gas, valued at USD 2.45 billion. Similarly, it was the 13th most imported product for the UAE. The countries that UAE imported from were Qatar (USD 2.34 billion), Nigeria (USD 31.6 million), Angola (USD 30.4 million), Oman (USD 27.6 million), and Trinidad and Tobago (USD 5.31 million).

The fastest growing import markets for petroleum gas in the UAE were Qatar, Nigeria, and Angola.

UAE's Exports and Imports of Crude Petroleum

Following are the trade details of crude petroleum for the UAE:

Exports

The UAE exported USD 58.5 billion of crude petroleum in 2021, making it the 6th largest exporter of the product. At the same time, crude petroleum was the 1st most exported product for the UAE. The countries that UAE mainly exported this product to were Japan (USD 19.1 billion), India (USD 9.35 billion), China (USD 8.36 billion), Singapore (USD 6.12 billion), and Thailand (USD 5.94 billion).

The fastest growing export markets for UAE crude petroleum were Japan, India, and Singapore.



Imports

The UAE imported USD 1.88 billion worth of crude petroleum, which makes it 41st largest importer of this product in the world. Also, it was the 17th most imported product for the UAE. The leading countries that UAE imported this product from were Libya (USD 719 million), Qatar (USD 372 million), Angola (USD 154 million), Malta (USD 77.3 million), and Argentina (USD 76 million).

The fastest growing import market of crude petroleum for UAE were Qatar, Libya, and Angola.

Regulatory Bodies for Oil and Gas Industry in the UAE

Following are main regulatory bodies for oil and gas sector in the UAE:

Supreme Petroleum Council

The Supreme Petroleum Council is responsible for formulating and overseeing the implementation of Abu Dhabi's petroleum policy, ensuring the accomplishment of set goals across all areas of the petroleum industry.

Dubai Supreme Council of Energy

The Dubai Supreme Council of Energy supports economic growth in Dubai by ensuring power supply, sustainability, and environmental preservation.

Ministry of Energy

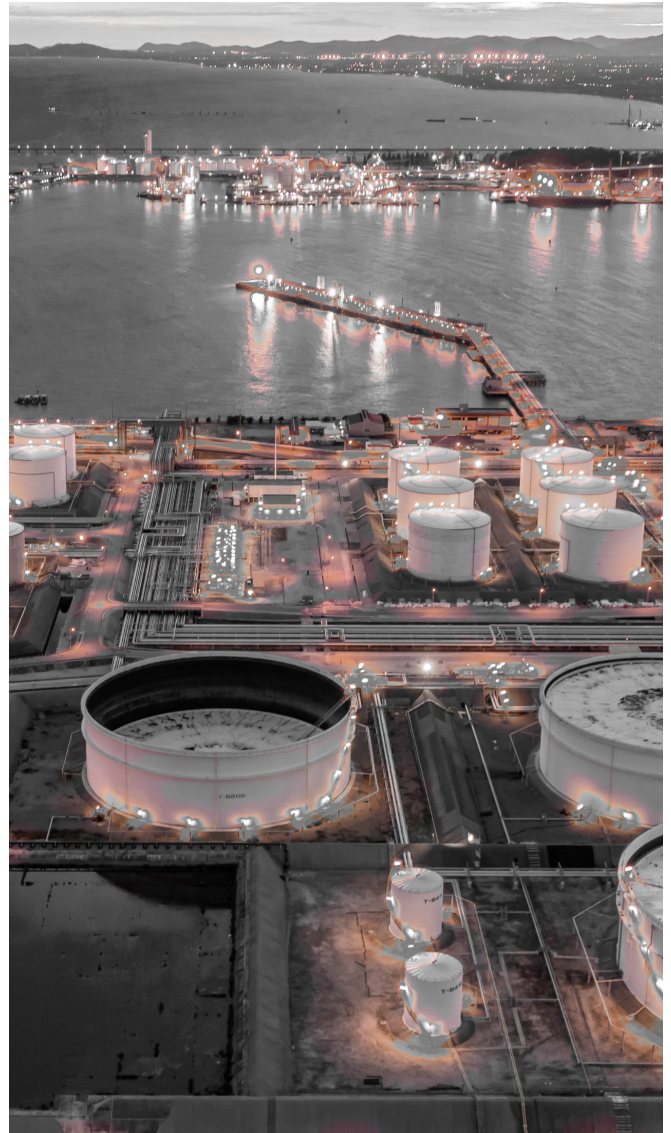
The Ministry of Energy coordinates with relevant authorities in petroleum affairs, minerals, electricity, and water to contribute to sustainable development and support the national economy.

Ministry of Environment and Water

The Ministry of Environment and Water provides integrated, sustainable, environmentally friendly, and cost-efficient solutions for resource recovery and disposal in the UAE to protect the ecosystem.

Abu Dhabi National Oil Company (ADNOC)

ADNOC operates in all areas of the oil and gas industry, managing upstream, midstream, and downstream operations while implementing directives from the Supreme Petroleum Council (SPC).



Trends To Look Out in Oil and Gas Industry In 2023

The following trends are expected to lead the oil and gas industry in 2023 and beyond:

Upstream Prospects

The global upstream oil and gas sector anticipates its highest-ever free cash flows, reaching \$1.4 trillion by the close of 2022. This surge is driven by disciplined capital management and a keen focus on cash flow generation. The industry faces a pivotal choice between prioritizing shareholder distributions or directing resources toward hydrocarbon projects to ensure affordable energy supply.

Impact of Evolving Policies on Clean Energy Transition

Supportive policies, coupled with increased cash flows in 2022, are propelling oil and gas companies to ramp up their investments in clean energy. This trend is projected to gain

further momentum, but several factors may influence the pace and direction of clean energy investments in the coming year. New policies and investments could elevate the role of natural gas in the transition to cleaner energy sources.

Refineries Adapting to Changing Energy Landscape

Refineries are gearing up for a challenging year ahead, grappling with shifting energy demand, concerns about economic recessions, and an expected 1.6 million barrels per day increase in global refining capacity. Notably, U.S.-based refiners are prioritizing financial resilience, operational optimization, and the transformation of refineries to produce renewable fuels, rather than expanding their core refining capacity.

Market Trends Reflected in Deal-Making

While the industry anticipates record cash flows and heightened interest in mergers and acquisitions (M&A), the principles of capital discipline and an uncertain economic environment are poised to temper M&A activities in 2023. Survey data reveals that 27% of executives view high and stable energy prices as critical factors in sustaining M&A momentum for the year.

Integration of Big Data Analytics and AI

Major companies in the oil and gas industry are increasingly adopting big data analytics and artificial intelligence (AI) to enhance decision-making processes. These technologies enable the detection of patterns and the rapid response to changes or defects, resulting in cost savings. Companies like ExxonMobil, Shell, and Sinopec are investing in AI technology for centralized data management and operational efficiency.

Conclusion

As the global oil and gas industry anticipates continued growth, the UAE's oil and gas sector remains a crucial contributor to its economy. With substantial reserves, ambitious expansion plans, and a commitment to environmental responsibility, the UAE offers abundant opportunities for industry stakeholders. Investments in upstream activities, LNG infrastructure, and downstream operations, along with strategic partnerships, are driving the sector's dynamism.

Challenges such as oil price volatility and evolving clean energy policies persist but do not deter the industry's resilience. The integration of big data analytics and AI is poised to enhance decision-making capabilities and operational efficiency.

In 2023, stakeholders should closely monitor trends such as upstream prospects, evolving policies, and refinery adaptations to changing energy landscapes. Deal-making in mergers and acquisitions will be influenced by capital discipline and economic uncertainties. The industry's ability to adapt to these trends and seize emerging opportunities will shape its trajectory in the dynamic global energy landscape.