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United Arab Emirates ENERGY - OIL & GAS

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This country-specific Q&A provides an overview of energy - oil & gas laws and regulations applicable in United Arab Emirates.

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UNITED ARAB EMIRATES

ENERGY - OIL & GAS



1. Does your jurisdiction have an established upstream oil and gas industry? What are the current production levels and what are the oil and gas reserve levels?

The United Arab Emirates (“**UAE**”) has an established upstream oil and gas industry. The UAE is a federation of emirates (Abu Dhabi, Ajman, Dubai, Fujairah, Ras Al Khaimah (“**RAK**”), Sharjah and Umm Al Quwain). Each emirate, through its Ruler, retains ultimate control over the development of oil and natural gas reserves in that emirate. The Emirate of Abu Dhabi holds the vast majority of the UAE’s oil and gas reserves. The Emirates of Dubai, Sharjah and RAK hold the remainder.

The UAE is a member of the Organisation of the Petroleum Exporting Countries (“**OPEC**”), which sets the UAE’s oil production targets. The UAE’s proven crude oil reserves in 2022 were 113,000 million barrels, representing approximately 7% of global proven crude oil reserves (excluding oil sands) (source: OPEC Annual Statistical Bulletin 2023, the “**OPEC Bulletin**”). In 2022, the UAE’s oil production (including crude oil, shale oil, oil sands, condensates (lease condensate or gas condensates that require further refining) and NGLs) was 4,020 thousand barrels per day representing, 4.3% of global production; while crude oil and condensate production stood at 3,364 thousand barrels per day, representing 4.1% of global production (source: Energy Institute (EI) Statistical Review of Work Energy 2023 (the “**2023 Review**”)). The state owned oil company, Abu Dhabi National Oil Company (“**ADNOC**”), is aiming to increase crude production capacity to 5 million barrels per day by 2027. In 2022, there were 52 active rigs and 276 completed wells (source: OPEC Bulletin).

In 2022, the UAE’s proven natural gas reserves were 8,210 billion cubic metres, representing approximately 4% of global proven gas reserves (source: OPEC Bulletin) and the UAE produced 58 billion cubic metres of natural gas, representing 1.4% of global natural gas production (source: 2023 Review). Natural gas accounts for just over half of the UAE’s total energy consumption, followed by crude oil, nuclear, coal and renewables.

Consumption of natural gas decreased slightly in 2022 compared to 2021, with the UAE consuming 69.8 billion cubic metres of natural gas, representing 1.8% of global consumption (source: 2023 Review). Domestic gas consumption therefore exceeds production. Most of the UAE’s natural gas production is associated gas or sour gas in non-associated fields. Production in the associated fields is also limited by the UAE’s OPEC quotas.

2. How are rights to explore and exploit oil and gas resources granted? Please provide a brief overview of the structure of the regulatory regime for upstream oil and gas. Is the regime the same for both onshore and offshore?

Article 23 of the UAE Constitution provides that the natural wealth and resources of each emirate are considered the public property of that emirate. As such, each emirate of the UAE has constitutionally entrenched rights to the natural resources (including oil and natural gas) within that emirate. Each emirate has its own policies regarding the development of oil and natural gas, with the Ruler in each emirate retaining ultimate control over the development of oil and natural gas reserves in that emirate.

At a federal level, there are a number of general civil and criminal laws which apply to the sector, including: UAE Federal Law No. 24 of 1999 on the protection and development of the Environment (as amended) (the “**Federal Environment Law**”); UAE Federal Law No. 23 of 1999 on the exploitation, protection and development of living aquatic resources in the UAE (as amended); and UAE Federal Law No. 14 of 2017 on trading in petroleum products.

The right to explore, develop and produce petroleum varies from emirate to emirate; it is typically granted by way of a concession to state-controlled companies, with participation by international oil companies normally limited to minority ownership interests. As stated above, the Emirate of Abu Dhabi holds the vast majority of the

UAE's oil and gas reserves. The emirate does not have consolidated hydrocarbon legislation governing the granting of exploration and development concession rights, however, there are a number of industry specific laws, including: Abu Dhabi Law No. 4 of 1976 on gas ownership (the "**Abu Dhabi Gas Ownership Law**"); Abu Dhabi Law No. 8 of 1978 on the conservation of petroleum resources (the "**Abu Dhabi Petroleum Resources Conservation Law**"); Abu Dhabi Law No. 12 of 1973 on petroleum ports (the "**Abu Dhabi Petroleum Ports Law**"); and the Abu Dhabi Income Tax Decree of 1965, each as amended.

3. What are the key features of the licence/production sharing contract/concession/other pursuant to which oil and gas companies undertake oil and gas exploration and exploitation?

In the majority of circumstances, the right to explore, develop and produce oil and natural gas in an emirate is granted by way of a concession by the applicable emirate. Under the concessions, foreign companies or investors are typically granted minority interests in oil or natural gas development activities or enterprises.

In addition to the authorisations required from the applicable regulatory body of the relevant emirate (see question 5 below), the concessions/contractual agreements typically include (directly or as part of the contract approval process) the principal authorisations necessary for the exploration, development and production of oil and natural gas. The concession/contractual terms vary, both between the different emirates and within the emirates themselves, depending on several factors, including the date of the initial grant, the size and importance of the development and the amount of foreign involvement.

4. Are there any unconventional hydrocarbon resources (such as shale gas) being exploited and is there a separate regulatory regime for unconventional?

Most of the UAE's natural gas resources have a relatively high sulphur content, which is costly in terms of development and processing. As a result, currently around a third of the UAE's gas production is re-injected into oilfields as part of the UAE's enhanced oilfield recovery programme.

At the heart of the UAE's energy strategy is a target to become gas self-sufficient by 2030, before the expiry of the Dolphin contracts (in 2032). The UAE currently

imports gas from Qatar through the Dolphin Gas Project's export pipeline. The export pipeline transports refined gas from the Ras Laffan processing plant in Qatar to gas-receiving facilities at Taweelah in Abu Dhabi. From there, the majority of the gas is supplied to other parts of the UAE, using the Eastern Gas Distribution System. The Eastern Gas Distribution System is also used to transport natural gas to Oman, using a connection with an Omani pipeline on the Oman border.

As part of the drive towards self-sufficiency, the UAE is growing domestic gas production, in line with its target of increasing oil production capacity to 5 million barrels per day by 2027. However, in addition to tapping into its associated gas resources, it will also need to tap into its unconventional resources, including unconventional shale gas and gas cap developments. ADNOC is seeking to develop its unconventional resources from the Ruwais Unconventional, which delivered its first unconventional gas in 2020. ADNOC is targeting the production of 1 billion standard cubic feet of unconventional gas from Ruwais Unconventional by 2030.

The gas caps of the Umm Shaif and Bab fields also contain unconventional resources and ADNOC has carried out feasibility studies for codeveloping the gas caps on top of the oil rings. Also note that reducing its dependency on gas for power generation, as it increases nuclear and solar power generation capacity.

There are no separate laws or regulations specific to the exploration and production of unconventional oil and gas resources; the general laws and regulations applicable to oil and gas in each emirate will apply.

5. Who are the key regulators for the upstream oil and gas industry?

In Abu Dhabi, the Abu Dhabi Supreme Council for Financial and Economic Affairs, which was established in December 2020 pursuant to Abu Dhabi Law No. 24 of 2020, regulates Abu Dhabi's oil and natural gas policy. The Council is the supreme authority responsible for the economic, investment and financial affairs in the Emirate, including in petroleum and natural resources.

In Sharjah, the Sharjah Petroleum Council is responsible for regulating policy regarding the development of oil and natural gas in that emirate. The Sharjah Petroleum Council is responsible for submitting recommendations to the Ruler for concessions and concluding such agreements. It is also the body that represents the Sharjah Government in companies in which it participates in the field of oil and gas investments.

In Dubai, operations are carried out through concessions

or contracts concluded between companies and the Dubai Government. The Department of Petroleum Affairs was established pursuant to Dubai Law No. 18 of 2009 and is responsible for approving licences necessary to perform oil-related activities. In addition, the Dubai Supreme Council of Energy is responsible for providing primary energy resources (defined to include crude oil and natural gas) at a reasonable cost and reducing the negative environmental impacts arising therefrom. The Supreme Council of Energy is also responsible for promoting the cost-effectiveness and quality of services rendered for energy supply by all available means, including using incentives and imposing tariffs.

In RAK, the regulator was established pursuant to RAK Law No. 4 of 2018 on the regulation of the petroleum sector in RAK (**"Petroleum Authority Law"**). The Petroleum Authority Law established the RAK Petroleum Authority as the competent authority for, and the regulator of, the petroleum sector in RAK. The RAK Petroleum Authority is responsible, among other things, for ensuring the protection, recovery and commercial utilisation of petroleum resources for the benefit of the economy, managing relations that arise in conducting petroleum operations and providing a regulatory system for rational and safe exploration, development, production and commercial utilisation of petroleum.

The Federal Ministry of Energy and Infrastructure has limited powers to set policies and planning at a federal level and is subject to the constitutional rights of the emirates. Approvals are also required from the Federal Ministry of Climate Change and Environment in accordance with the Federal Environment Law. In practice, federal approvals are overseen by the Ministry of Climate Change and Environment, but it is the local emirate environmental departments that are responsible for approvals in that emirate and enforcing the requirements of the Federal Environment Law, as well as the applicable local environmental regulations and laws.

Finally, the states of the Gulf Co-operation Council (**"GCC"**) (Kingdom of Bahrain, Kingdom of Saudi Arabia, Qatar, State of Kuwait, Sultanate of Oman and the UAE) have agreed to pursue unified policies in the exploitation of natural resources. The GCC Economic Agreement (incorporated into UAE domestic law by Federal Decree No. 55 of 2002) provides that the GCC states will adopt integrated policies in all stages of the oil and gas industries in a manner that facilitates the best exploitation of natural resources, taking into account environmental considerations and the interests of future generations, and that they will implement unified policies for oil and gas, adopting a common position towards non-Member States and international organisations.

6. Is the government directly involved in the upstream oil and gas industry? Is there a government-owned oil and gas company?

Each emirate participates directly in the development of oil and natural gas. In most circumstances, concessions are granted to the applicable emirate state-owned company holding the majority interest during the production phase, although the structures and participants vary depending on the emirate.

As stated above, the majority of the oil and natural gas reserves in the UAE are located in Abu Dhabi. Under the Abu Dhabi Gas Ownership Law, natural gas (discovered or to be discovered) in the territorial zone of the Emirate of Abu Dhabi is the sole property of the Emirate of Abu Dhabi. The Emirate of Abu Dhabi maintains rights over gas at the delivery points and in all stages of production. Since 1976, the ADNOC group of companies has managed upstream, midstream and downstream oil and gas operations on behalf of the Abu Dhabi Government; article 4 of the Abu Dhabi Gas Ownership Law affords ADNOC the right to exploit and use all gas discovered or to be discovered within Abu Dhabi and to claim all rights derived from agreements concluded by the Abu Dhabi Government that are related to gas discovered or produced or the facilities of production and extraction of gas. As such most oil and natural gas development and production activities are carried out by companies within the ADNOC group of companies. Under article 6 of the Abu Dhabi Gas Ownership Law, ADNOC has the right to exploit natural gas in Abu Dhabi alone or in joint ventures with third parties, provided that ADNOC's share does not fall below 51%. ADNOC is owned by the Abu Dhabi Government and the management of ADNOC reports directly to the Supreme Council for Financial and Economic Affairs.

Opportunities for exploration and production in the UAE have historically been relatively limited with a narrow pool of participants; however, in recent years, a number of concessions have been awarded. Production in the UAE is dominated by ADNOC Onshore and ADNOC Offshore. ADNOC Onshore operates the onshore concession originally granted in the 1930s. ADNOC Offshore operates the offshore concessions. Alongside ADNOC, a number of international companies hold interests in the ADNOC Onshore and ADNOC Offshore concessions.

7. Are there any special requirements for or restrictions on participation in the upstream oil and gas industry by foreign

oil and gas companies?

Please see question (6). In addition, under Federal Decree Law No. 32 of 2021 on Commercial Companies (as amended) (the “**Commercial Companies Law**”), companies in the UAE may be 100% foreign owned, except for companies determined to carry on activities of a strategic impact. Under article 10 of the Commercial Companies Law, a committee, whose membership includes representatives from the competent authorities, and which is vested with the competence to propose activities with a strategic impact and the controls required to license the companies that engage in any of these activities, shall be formed by a resolution of the Cabinet based upon a proposal from the Minister. The Cabinet shall, based upon a recommendation from the committee, issue a resolution defining the activities with a strategic impact and the controls for licensing the companies that engage in any of these activities, determining, among other things, the percentage of ownership of nationals or their involvement in the management of companies carrying on such activities and the ratio for the contribution of UAE nationals to the capital or the boards of directors of such companies. Based on the existing practice in the UAE, oil and gas-related activities may be considered as having a strategic impact; however, this and the extent of any ownership limitation should be assessed on a case-by-case basis.

Since 2018, the UAE has seen a number of new international oil companies hold interests in UAE oil and gas resources, including companies from China, India, Pakistan and Russia, opening up the field of participants that was previously very narrow.

As part of its broader strategy to manage its assets and increase value derived from across its businesses, ADNOC has commenced a series initial public offerings (“**IPOs**”) of ADNOC Group companies, starting in December 2017 when 10% of the shares in ADNOC Distribution were listed on the Abu Dhabi Securities Exchange (the “**ADX**”), with a further listing of an additional 10% completed in September 2020. Since then, ADNOC has launched a series of very successful IPOs in a further five ADNOC Group companies: ADNOC Drilling, Fertiglobe, Bourouge, ADNOC Gas and ADNOC Logistics & Services.

8. What are the key features of the environmental and health and safety regime that applies to upstream oil and gas activities?

Upstream oil and gas activities must comply with the

framework of federal and local environmental, health and safety laws and regulations.

Among other things, the Federal Environment Law requires permits to be issued and environmental impact assessments to be undertaken in respect of oil and natural gas development projects. The Federal Environment Law also regulates the disposal of waste and hazardous materials, which can potentially impact oil and natural gas development operations. Environmental protection is regulated at a federal level by the Ministry of Climate Change and Environment in accordance with the Federal Environment Law.

Under the Federal Environment Law, parties licensed to prospect, extract or exploit onshore or offshore oil and gas fields are prohibited from discharging any polluting substance resulting from drilling, exploring, testing of wells or production into the water or land area in the vicinity of those activities, unless safety measures are adopted. Such safety measures must safeguard against harm to land and water environments, and oblige the parties to treat discharged waste and polluting substances in accordance with technical systems approved under regional and international conventions and protocols. Emissions from the burning of fuels or other substances for any commercial purpose must be within the permissible limits, and the amounts of pollutants in combustion emissions must be recorded. There are also specific requirements for the transportation by sea of hazardous substances. A local authority in each of the emirates is the competent authority responsible for implementing the Federal Environment Law.

There are a number of laws, regulations and guidelines in place at emirate level that address environmental concerns, including regulations on storage, transportation of hazardous substances, waste management and record-keeping. In relation to health and safety, a number of safety regulations have been introduced by the Federal Ministry of Human Resources and Emiratisation, local authorities and Civil Defence (the fire service).

All large industrial enterprises are required to have in place certified occupational safety officers. Health and safety issues are becoming increasingly important in the UAE oil and gas sector, with most companies implementing health and safety measures in line with international practice.

ADNOC acts as the environmental regulator of the Abu Dhabi oil and gas industry. ADNOC proactively regulates its group companies and pursues a number of strategic objectives for health, safety and the environment, which are subject to implementation by its subsidiaries. ADNOC

operates codes of practice and a health, safety and environment management system requiring its group companies to develop and implement compatible programmes.

9. How does the government derive value from oil and gas resources (royalties/production sharing/taxes)? Are there any special tax deductions or incentives offered?

At emirate level, the emirates derive value from oil and natural gas development through a mixture of equity participation and taxation.

Under Federal Decree Law No. 47 of 2022 on the taxation of corporations and businesses (the “**Federal Corporate Income Tax Law**”), in accordance with article 4, a person engaged in an “Extractive Business”, will be exempt if certain conditions set out in article 7 of the law are met. An “Extractive Business” is defined as: “The Business or Business Activity of exploring, extracting, removing, or otherwise producing and exploiting the Natural Resources of the State or any interest therein as determined by the Minister.” “Natural Resources” captures water, oil, gas, coal, naturally formed minerals, and other non-renewable, non-living natural resources that may be extracted from the territory of the UAE.

Article 7(1) of the Federal Corporate Income Tax Law sets out the conditions for an exemption, namely: “(a) the Person directly or indirectly holds or has an interest in a right, concession or Licence issued by a Local Government to undertake its Extractive Business. b) The Person is effectively subject to tax under the applicable legislation of an Emirate in accordance with the provisions of Clause 6 of this Article. (c) The Person has made a notification to the Ministry in the form and manner agreed with the Local Government.”

If the foregoing conditions are met, income derived from the Extractive Business will be calculated and taxed according to the applicable legislation of the emirate; income derived from any other business falling within the scope of the Federal Corporate Income Tax Law will be taxed in accordance with the Federal Corporate Income Tax Law in the absence of any other applicable exemption under the law. Article 7(3) states that for the purposes of determining an exemption, a person is not considered to derive income from any other business where such other business is “ancillary or incidental to that person’s Extractive Business” and the revenue of such other business in a tax period does not exceed 5% of the total revenue of that person in the same tax

period.

Note that article 7(6) of the Federal Corporate Income Tax Law further provides that a person is considered effectively subject to tax under the applicable legislation of the emirate for the purposes of article 7 if the local government imposes a tax on income or profits, a royalty or revenue tax, or any other form of tax, charge or levy in respect of such person’s Extractive Business.

At emirate level, Abu Dhabi, Dubai and Sharjah have specific income tax provisions. In Abu Dhabi, corporate tax applies to oil and natural gas activities in accordance with the Abu Dhabi Income Tax Decree of 1965 (Abu Dhabi Decree No. 1 of 1965). Although not a petroleum-specific decree, in practice it applies only to “chargeable persons” that are “dealing in oil”, as well as “chargeable persons” defined to include foreign entities, ADNOC and its subsidiaries, and any other domestic companies that are “dealing in” petroleum. The tax rate ranges between 55% and 85% depending on the product that generates the taxable income. Similar provisions apply in Dubai and Sharjah, in accordance with Dubai Decree No. 1 of 1969 on the issuance of the income tax and Sharjah Law No. 1 of 1968 on the income tax in the Emirate of Sharjah respectively.

Finally, Federal Decree No. 55 of 1974 on increasing the royalty in all concession agreements of petroleum companies working in the state, provides for the provisions of the royalty (revenues) in all concession agreements with the petroleum companies working in the state to be 14.5%

10. Are there any restrictions on export, local content obligations or domestic supply obligations?

Standard export controls (through permits and licensing) apply on certain products for safety, security and environmental reasons, and to ensure compliance with international obligations under treaties and conventions to which the UAE is a party, including compliance with sanctions. Although not a participant in any of the multilateral export control regimes, the UAE implements trade controls in line with the control lists established by these regimes. For example, the UAE restricts exports of dual-use goods that may be used as weapons.

The Federal Ministry of Technology and Advanced Technology manages the National In-Country Value (“**ICV**”) Programme in the UAE with the aim of boosting economic performance and supporting local industries by redirecting higher portions of public spending into the national economy and to stimulate and attract foreign

investments, diversify the economy, create valuable job opportunities in the private sector and contribute to the growth of the national GDP. The ICV Programme is a procurement-led initiative which was initiated initially by ADNOC and was subsequently expanded to a federal level under the remit of the Federal Ministry of Technology and Advanced Technology.

ICV certifications are included in tender assessments. ADNOC includes contractual localisation/ICV requirements in its tenders and contracts with the aim of promoting participation of local businesses in the oil and gas value chain. While it is not compulsory to hold an ICV certificate to participate in an ADNOC tender, suppliers that have ICV certificates will benefit from the ICV score during the tendering process, since suppliers without the certificate will be considered to have 0% ICV score.

11. Does the regulatory regime include any specific decommissioning obligations?

There are only limited laws and regulations that relate to abandonment and decommissioning. Most concessions/applicable contracts include an obligation to act in accordance with good industry practice or good oilfield practice, which would typically include decommissioning and abandonment obligations consistent with international practice. More recently, such contracts are more likely to include express obligations in relation to funding and carrying out decommissioning. For older concessions where there are no express provisions regarding decommissioning obligations, liability has typically been negotiated on a case-by-case basis.

In Abu Dhabi, participants must comply with the general requirements relating to pollution and protection of the environment, which fall under a combination of the Federal Environment Law, the Abu Dhabi Petroleum Resources Conservation Law, the Abu Dhabi HSE Decree, consents required by the Supreme Council for Financial and Economic Affairs, the environmental regulations and codes of practice implemented by ADNOC and the terms of the applicable concession.

The Abu Dhabi Petroleum Resources Conservation Law includes limited obligations in relation to abandonment and decommissioning. These obligations appear primarily related to ensuring that the petroleum resources have been used to their full potential prior to abandonment or decommissioning, rather than setting in place financial obligations and/or security for decommissioning. Under article 3, the operator must take all measures to ensure the prevention of damage resulting from operations, including damage to natural

resources, and, under article 56, must take all required precautions to prevent the contamination of the air, underground surface or the sea. Further, under article 16, the operator, after obtaining the written consent of the Supreme Council for Financial and Economic Affairs, must tightly close dry and non-commercial wells. Article 17 specifies that the Supreme Council for Financial and Economic Affairs application must include, among other things, specified data, together with the reasons justifying that a well is considered dry or non-commercial.

The UAE is a party to the Kuwait Protocol, pursuant to which the operator of an offshore installation in the case of platforms and other seabed apparatus and structures should be required to remove the installation in whole or in part to ensure safety of navigation and the interests of fishing. Each contracting state must also take practical measures to ensure that the operator has sufficient resources to guarantee that any such requirements can be met. Accordingly, pursuant to the Kuwait Protocol, the UAE is obliged to ensure that offshore participants have adequate resources in place to deal with abandonment and decommissioning.

12. What is the regulatory regime that applies to the construction and operation of offshore and onshore oil and gas pipelines?

As stated above, under the UAE Constitution, the natural resources in each emirate are the public property of that emirate. Each emirate therefore controls its own infrastructure for the transportation of oil and natural gas, with different government bodies and authorities regulating oil and gas transportation within the different emirates, setting various standards and codes of practice.

Access to oil and natural gas transportation pipelines and associated infrastructure is organised at emirate level. There are no standard rights for a new customer to compel or require the operator/owner of an oil or natural gas transportation pipeline or associated infrastructure to grant capacity or expand its facilities in order to accommodate new customers. Regulation is governed by the applicable emirate, which may include third-party access rights or rights to expand capacity/facilities as a matter of contract. The emirate granting the rights to construct, own and operate oil and natural gas transportation pipelines or associated infrastructure retains inherent rights of access on the basis that the Ruler ultimately owns the land upon which such infrastructure is located. The Rulers also possess powers of compulsory acquisition to facilitate land access.

Article 121 of the UAE Constitution permits expropriation in the public interest. In the event that foreign private property is expropriated or nationalised, compensation should be payable to the affected party.

In addition, approvals are required at a federal level, with the Ministry of Energy and Infrastructure and the Ministry of Climate Change and Environment responsible for preparing guidelines in respect of environmental safety and management of waste resulting from the transportation of oil and gas.

13. What is the regulatory regime that applies to LNG liquefaction and LNG receiving terminals? Are there any such terminals in your jurisdiction?

The UAE is both an exporter and an importer of LNG, which is regulated by the respective emirates.

There is no regulatory regime specific to LNG, it is regulated by the general energy, environmental and health and safety laws and regulations in the applicable emirate. Approvals are required from the relevant emirate to construct an LNG facility and, at a federal level, from the MOCCAE in accordance with the Federal Environment Law.

14. What is the regulatory regime that applies to gas storage (not LNG)? Are there any gas storage facilities in your jurisdiction?

There are a number of health, safety and environmental regulations that set out the specifications for gas storage at emirate level. The regulations differ from emirate to emirate, and within the emirates, certain free zones impose standards, regulating, among other things, temperature and pressure requirements. Civil Defence requirements must also be complied with. In addition to the approval of the relevant emirate, approvals may be required in accordance with the Federal Environment Law.

15. Is there a gas transmission and distribution system in your jurisdiction? How is gas distribution and transmission infrastructure owned and regulated? Is there a third party access regime?

Yes, there is a gas transmission and distribution system in the UAE.

There is no integrated framework for the ownership, organisation and/or regulation of natural gas transmission/distribution infrastructure. Each emirate oversees the ownership, organisation and regulation of such infrastructure within its territory. Authorisations to operate a distribution network are required at emirate level and at a federal level from the Ministry of Energy and Infrastructure and the Ministry of Climate Change and Environment.

There are no specific laws organising access to the natural gas distribution network. Access is organised at emirate level and is linked to the rights granted by the relevant emirate for constructing any pipeline or associated infrastructure. Fees charged for accessing the distribution network are a matter of contract between the parties.

16. Is there a competitive and privatised downstream gas market or is gas supplied to end-customers by one or more incumbent/government-owned suppliers? Can customers choose their supplier?

Refinery capacity is through three stakeholders: ADNOC Refining, Emirate Oil and VTTI. In Abu Dhabi, government participation in the downstream oil sector is through ADNOC Refining. ADNOC Refining was established in 1999 and is responsible for all refining operations, including refining crude oil and condensate, supplying petroleum products in compliance with domestic and international standards, and producing sulphur granulation. It is majority owned by ADNOC, with Eni and OMV holding minority interests.

As of 2022, the UAE had refinery capacity of 1,227,000 barrels per day, including the Ruwais refinery, which is one of the largest refineries in the world. The refinery capacity is distributed as follows: 817,000 barrels per day at Al Ruwais (ADNOC Refining); 210,000 barrels per day at Jebel Ali (Emirate Oil); 85,000 barrels per day at Umm Al Narr (ADNOC Refining); 120,000 barrels per day at the VTTI Fujairah Terminals Limited FTL FZC – 1 and 80,000 barrels per day at the VTTI Fujairah Terminals Limited FTL FZC – 2 (source: OPEC Bulletin). In 2022, the UAE's refinery throughput was 1,046,000 barrels per day (source: OPEC Bulletin).

17. How is the downstream gas market regulated?

The downstream sector is regulated through various energy, environmental and health and safety and trading laws and regulations applied in each emirate as well as

federal law.

18. Have there been any significant recent changes in government policy and regulation in relation to the oil and gas industry?

The new Federal Corporate Income Tax became effective in 2023 and is a significant development. While the oil and gas industry should benefit from exemptions for "Extractive Business" and (subject to a cap) certain ancillary or incidental activities, anything that falls outside of that may be subject to corporate income tax, without prejudice to the existing tax and royalty regimes at emirate level. Moreover, for an exemption to apply the notification process prescribed under the law will need to be complied with.

Finally, ADNOC's IPO series continued with two significant IPOs. In March 2023, ADNOC Gas listed on the ADX, raising gross proceeds of approximately USD2.5 billion. Based on the final offer price, it the largest-ever listing on the ADX and one of the largest IPOs in 2023. Further, in June 2023, ADNOC Logistics & Services completed its listing on the ADX, raising gross proceeds of approximately \$769 million. Both IPOs were massively oversubscribed.

See question (2) in relation to developments related to the energy transition.

19. What key challenges have been identified by the government and/or industry in relation to your jurisdiction's oil and gas industry? In this context, for example, has the Russia/Ukraine war had an impact on the oil and gas industry and if so, how has the government and/or industry responded to it?

See question (4) above regarding the drive towards gas self-sufficiency and the challenges around unconventional resources.

The UAE has maintained a position of political neutrality in relation to the Russia/Ukraine war and has acted as a mediator in relation to the conflict. The conflict has had impact on the oil and gas industry as European states have looked to diversify their energy sources, with a renewed focus on the region's hydrocarbon resources.

20. Are there any policies or regulatory requirements relating to the oil and gas industry which reflect/implement the global trend towards the low-carbon energy transition? In particular, are there any (i) requirements for the oil and gas industry to reduce their carbon impact; and/or (ii) strategies or proposals relating to (a) the production of hydrogen; or (b) the development of carbon capture and storage facilities?

The UAE's Net Zero 2050 Strategy builds upon the UAE Net Zero by 2050 strategic initiative which outlines the UAE's ambitious journey towards net zero, and the National Net Zero by 2050 Pathway, which sets out the timeline and mechanisms for this transition.

Significantly, the UAE chaired COP28 and was a key driver in the final agreement which concluded the first-ever global stocktake under the Paris Agreement to reduce emissions. The stocktake is a five-yearly process, designed to check progress against the Paris Agreement goals and inform the next round of nationally determined contributions or NDCs. In the final agreement COP28 called on all countries to "contribute to" a list of goals. These goals include the need for deep, rapid and sustained reductions in greenhouse gas emissions in line with 1.5C; transitioning away from fossil fuels and accelerating action in this critical decade; countries to contribute to the global tripling of renewable energy capacity and doubling of the rate of energy efficiency improvements by 2030; and recognising different national circumstances.

Pursuant to the UAE Energy Strategy 2050, the UAE aims to triple the contribution of renewable energy between 2022 to 2030, bringing the share of clean energy in the UAE's total energy mix to 30%. It also aims to increase efficiency of energy and water consumption in highly intensive sectors in the UAE, in line with the objectives of the National Water and Energy Demand Management Program. There are emissions reduction and renewables targets at emirate level, some of which are even more ambitious than the federal strategy.

The UAE National Hydrogen Strategy was announced in July 2023. The UAE aspires to become one of the leading countries globally for low carbon hydrogen production by 2031, producing both green hydrogen and blue hydrogen. It is aiming to reduce emissions in hard-to-abate sectors by 25% by 2031, and 100% by 2050. It is planning to establish two hydrogen oases by 2031 and five by 2050. As part of the National Hydrogen Strategy it has identified ten steps and enablers 2031 to achieve

the 2031 targets, including: global collaboration; resources and assets; climate safety and social driver; enabling infrastructure; policy, regulation and standards (establishing the legislative mechanisms to support the low-carbon hydrogen transition, including hydrogen certification and guarantees of origin); finance and investments; industry development and demand activation; sustainable commercial and economic models (achieving and maintaining globally competitive hydrogen pricing through a long-term market driven support mechanism); and skills and education. The strategy is underpinned by several projects already under development and pilot developments, with a particular emphasis on oil refining processes and ammonia, power storage, heat and steel industries, heavy transport, as well as derivatives exports.

The oil and gas sector in the UAE has also taken steps towards decarbonisation. In January 2022, ADNOC became the world's first oil and gas major to meet 100% of its onshore grid electricity needs from clean energy sources. ADNOC has also invested in the region's first sub-sea transmission network to use carbon-free energy, powering its offshore operations, displacing gas turbine

generation. Once completed, the project is expected to cut ADNOC's offshore carbon footprint by up to 50%.

Reducing methane emissions to near-zero by 2030 is also a strategic priority for ADNOC. ADNOC is a member of the Oil and Gas Methane Partnership ("OGMP") 2.0, an initiative launched by the United Nations Environment Programme and the Climate and Clean Air Coalition to improve industry standards for reporting and reducing methane emissions. ADNOC is implementing solutions to support the OGMP goal of at least 30% reduction in methane emissions by 2030 compared to 2020.

ADNOC is also active in carbon capture and storage ("CCS"). The world's first commercial-scale operation to capture steel industry emissions was opened by ADNOC in Al Reyadah in 2016. ADNOC has a number of CCS initiatives, including at Habshan, Hail and Ghasha, with the aim of capturing 10 million tonnes of carbon dioxide by 2030. It has also partnered with a number of developers on other initiatives, including a project to turn carbon dioxide into rock, direct air capture project, the world's first fully sequestered carbon dioxide injection well in a carbonate saline aquifer, and modular carbon capture technology.

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