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Abu Dhabi Oil & Gas Update

Perspectives on latest developments

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Structuring Gas Projects

By Christopher Gunson

Gas development has become a top priority for Abu Dhabi in recent years due to growing domestic electricity demand. Unlike oil exploration and production, for which there is essentially no legislative framework, gas development is subject to Abu Dhabi's Natural Gas Ownership Law of 1976, which grants the Emirate ownership of all natural gas and requires ADNOC majority participation in all gas projects.

Ownership of Natural Gas Law

The 1939 and 1953 concessions signed for oil development in Abu Dhabi (see our previous edition for more information) did not address the production of natural gas. At the time there was no infrastructure to consume or export gas, and associated gas was typically flared by field operators. Flaring of natural gas was a major issue of conflict between field operators and Abu Dhabi in the early years of oil development.

In 1976, as Abu Dhabi was joining neighboring countries in exerting more control over its resource development, the Emirate passed the Ownership of Natural Gas Law (Abu Dhabi Law No. 4 of 1976) in which it exercised its sovereignty and acquired the sole right to dispose of all natural gas. "Natural gas" was broadly defined as all associated gas, unassociated gas, methane, ethane, propane, butane, natural gasoline and condensate. Under the provisions of the law, Abu Dhabi acquired the sole right to dispose of all natural gas from (1) the gas exit points in gas-oil separating plants, or (2) at the well head for unaccompanied gas.

The Ownership of Natural Gas Law also granted the Abu Dhabi National Oil Company (ADNOC) the right to exploit and use all quantities of natural gas, and the right to invest, either solely or in joint projects, so long as ADNOC's share capital in the project company was not less than 51%. The law in turn required ADNOC to provide oil operators all of the gas necessary to implement oil lifting, maintain reservoir pressure, and to carry out secondary extraction.

Pursuant to Article 23 of the UAE Constitution, which provides that the natural resources of each Emirate are the public property of that Emirate, Abu Dhabi natural gas law does not apply in Dubai or the other Emirates of the UAE.

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Abu Dhabi Gas Projects

Abu Dhabi's initial goal in gas development was to harness associated gas produced from oil fields. ADNOC led the development of three gas projects, all through locally incorporated companies, as joint ventures with foreign companies:

- **Abu Dhabi Gas Liquefaction Ltd. (ADGAS)** was established in 1973 to build an island facility to liquefy offshore gas and export it as LNG, primarily to Japan. The ADGAS Das Island facility was the first LNG project in the Middle East. ADNOC held a 51% equity stake in ADGAS until 1997, when it raised its equity interest to 70%. The other shareholders of ADGAS are Mitsui & Co., BP and Total.

- **Abu Dhabi Gas Industries Ltd. (GASCO)** was established in 1975 and operates several facilities to process associated natural gas produced from onshore oil fields and process it as LPG. ADNOC holds a 68% equity interest in GASCO, and the other shareholders are Royal Dutch Shell, Total and Partex.

- **Ruwais Fertiliser Industries Ltd. (FERTIL)** was established in 1980 to process lean associated gases produced from onshore fields to manufacture fertilizers, most of which are sold overseas. ADNOC holds 66.7%, and Total holds the remaining 33.3% of the equity interest in FERTIL.

No other projects were launched for almost two decades, but in recent years gas development has become an important priority for Abu Dhabi, leading to a number of new projects:

- **Dolphin Energy Ltd.** was established in 1999 to develop and process gas in Qatar, and transport that gas to the UAE via an offshore pipeline. The gas imported by the project is used for domestic power generation. Dolphin Energy does not develop gas in Abu Dhabi, and it is therefore not subject to the Ownership of Natural Gas Law and ADNOC is not a shareholder in the project. Mubadala Development Company, the strategic investment company of Abu Dhabi, holds 51% of the equity interest of Dolphin Energy, and Total and Occidental each hold 24.5%.

- **ADNOC Linde Industrial Gases Company Ltd. (ELIXIER)** was established in 2007 to process industrial gasses. ADNOC holds a 51% equity interest and The Linde Group holds the remaining 49%.

- **Abu Dhabi Gas Development Co. Ltd. (Al Hosn Gas)** was established in February 2010 to develop sour gas reservoirs in Abu Dhabi's onshore Shah Field, and to process and transport sweet gas, liquid hydrocarbons, and sulfur to Ruwais for sale and export. ADNOC holds a 51% equity interest and Occidental holds the remaining 49%.

- **The Shuwaihat Gas Field Appraisal Contract** was signed in June 2012 with the consortium of Wintershall and OMV, at which time it was announced that the consortium agreed with ADNOC to appraise a sour gas and condensate field near Shuwaihat Island. It is understood that if a venture is deemed to be commercial, ADNOC will participate in the development and production of the field.

Comparing the Structures Between Oil Concessions and Gas Projects

The project company model, the structure by which gas projects are developed, is a different legal structure than the two models used to explore and develop oil resources, which is done by way of a concession. These three models can be explained and compared as follows:

- **Classic E&P Concession Model:** Historically, international oil companies (IOCs) formed consortia by way of a company incorporated in an offshore jurisdiction, and that concessionaire company was then granted a concession by the Ruler or Government of Abu Dhabi. This concessionaire held 100% of the working interest of the concession and acted as the operator of the concession.

This classic model is still used for a number of smaller offshore concessions, such as Japan's Abu Dhabi Oil Company (owned by Cosmo Oil, JX Nippon and others), Total ABK (owned by Total and INPEX) and Bunduq Oil Company (led by JX Nippon). It is also understood to be the structure by which Occidental was awarded an onshore concession for two fields in 2008. ADNOC has no direct participation in these projects and acts as a supervising and regulatory authority only.

- **ADNOC E&P Joint Venture Model:** In the 1970s, following its establishment, ADNOC participated in the two major offshore and onshore concessions and ultimately acquired a 60% working interest in the concessions. Subsequently, it also led the development of the Upper Zakum field, originally holding 88% of the working interest. ADNOC then led the establishment of local operating companies for each concession after it acquired majority ownership. The ownership of the share capital in these local operating companies is parallel to the working interest in the concession. The operating company has no equity interest in the concession.

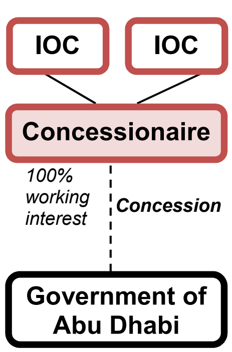
  The ADNOC E&P Joint Venture model is the way by which the 1939 onshore concession is owned and operated, for which the local operating company is Abu Dhabi Company for Onshore Oil Operations (ADCO); and the way by which the 1953 offshore concession is owned and operated, for which the local operating company is Abu Dhabi Marine Operating Company (ADMA-OPCO). The Zakum Development Company (ZADCO) is the operator for the Upper Zakum Concession and several other smaller fields. This ADNOC joint venture model is also the model by which the Korean National Oil Company (KNOC) signed an agreement with Abu Dhabi in January 2012 to explore three greenfield areas, with ADNOC as a 60% partner in the concessions.

- **Gas Project Model:** In contrast, investment in gas projects is done by way of an equity investment in a locally incorporated project company, which must be a joint venture with ADNOC as the majority shareholder. Importantly, gas project companies are understood to be supplied gas by way of contracts with operating companies, in which they are not granted concessions and do not have ownership rights in gas reserves. It is believed, however, that some gas projects may be granted concessions after the 1939 and 1953 concessions expire, and that future gas projects may develop by way of a concession.

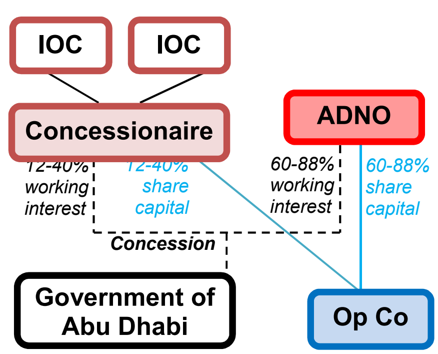
  Unlike the two oil concession models, where the concessionaire pays royalties and taxes to the government and is then paid (typically in crude oil), the shareholders of gas products are either paid (i) with a supply of the refined product, or (ii) through payments to the shareholder in the form of dividends. In the case of GASCO, each shareholder receives a share of LPG and is responsible for its own marketing of the product, and pays Abu Dhabi taxes for such sales. ADGAS operates under a different model, by which it directly markets and contracts with buyers, and the shareholders are paid dividends as shareholders in ADGAS.

These models can be structured and compared as follows:

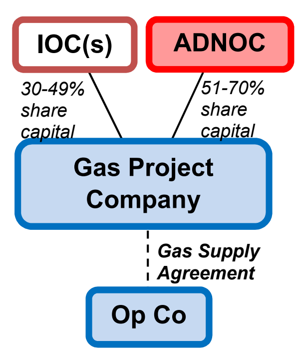
Classic Concession Model



ADNOC Joint Venture Model



Gas Project Model



Key Points for Gas Projects

Any IOC seeking to be involved in a gas project in Abu Dhabi should know the requirements of the Emirate's law, and be aware of other important factors in the structuring of an investment in a gas project. The key points can be summarized as follows:

- Any gas project in Abu Dhabi will require the incorporation of a local project company established under the laws of the UAE and Abu Dhabi, which will be the primary vehicle for the gas project.
- Abu Dhabi law requires that ADNOC hold a majority of the share capital in the local project company for any project that develops any gas in Abu Dhabi (provided that this requirement does not apply for a project that does not develop gas resources in Abu Dhabi, such as Dolphin Energy). Any IOC investor should consider the practical and legal position of being a minority shareholder in a gas project and plan accordingly.
- The contractual structure of the gas project is a critical factor when considering if the investors can book gas reserves. A gas supply contract scheme, as opposed to the grant of a concession, may not be enough of a legal basis under industry standards and the rules of the U.S. Securities and Exchange Commission to justify booking the reserves. The determination of whether or not gas reserves can be booked is a critical element for any investment by an IOC and something that should be considered in the early stages of planning any gas project investment.
- Fiscal terms for gas projects are reported to be more favorable than the terms of the oil concessions. However, if the gas sold by the gas project company is purchased by a government buyer in Abu Dhabi, such as ADNOC, the specific price formula for the gas purchased domestically will be the most important fiscal term, and one that should be addressed as early as possible.

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