

Contents

- 1. Country Brief**
- 2. Oil & Gas Industry Brief**

1. Country Brief: About Qatar

Qatar is an independent state in the Southern Arabian Gulf surrounded by Saudi Arabia, Bahrain, the United Arab Emirates and Iran. The country is situated midway along the western coast of the Arabian Gulf.

Qatar was ruled by Bahrain from the 1700s until the mid-1800s, when Great Britain and the Ottoman Empire began vying for control of the peninsula. It was a British protectorate from 1916 until 1971, when it became independent. In the 1980s and 90s Qatar had territorial disputes with Bahrain and Saudi Arabia. These disputes were not completely settled until 2001.

The present emir, Sheikh Hamad bin Khalifa al-Thani, came to power in 1995 after ousting his father. In the late 1990s Sheikh Hamad eased press censorship and promoted ties with Iran and Israel. Since 2001 Qatar has allowed U.S. use of the Al Udeid air base, and the headquarters for the U.S. invasion of Iraq (2003) were in the country.

The emir has moved steadily to democratize the nation's government and institute elections. In 2003 voters approved a constitution establishing a largely elected advisory council with the power to pass laws, subject to the emir's approval; women have the right to vote and hold office. The constitution was endorsed by the emir in 2004 and came into force in 2005.

Map



Fig 1. Map of Qatar

Society & Culture

Head of the State: His Highness Sheikh Hamad bin Khalifa al-Thani

Capital City: Doha

Religion: Islam is the official religion of the country, and the Shariah (Islamic Law) is the principal source of legislation in the country.

Official Language: Arabic is the official language.

Weekend: Friday and Saturday for government institutions.

2. Oil & Gas Industry Brief

Qatar holds the world's third largest natural gas reserves and is the single largest supplier of liquefied natural gas. Qatar is also a member of OPEC and exports considerable amounts of oil.

While Qatar is a member of the Organization of the Oil Exporting Countries (OPEC) and is a significant oil producer, the government has devoted more resources to the development of natural gas in recent years, particularly for export as liquefied natural gas (LNG). In 2006, Qatar reportedly surpassed Indonesia to become the largest exporter of LNG in the world. Together, revenues from the oil and natural gas sectors amount to 60 percent of the country's gross domestic product (GDP). Domestically, the vast majority of Qatar's total energy consumption comes from natural gas (79 percent), while the balance is supplied by oil.

According to Oil & Gas Journal (OGJ), Qatar's proven oil reserves stood at 15.2 billion barrels as of January 2007. The onshore Dukhan field, located along the west coast of the peninsula, is the country's largest producing oil field. Qatar also has six offshore fields: Bul Hanine, Maydan Mahzam, Id al-Shargi North Dome, al-Shaheen, al-Rayyan, and al-Khalij. Despite the country's significant oil production and reserves, oil accounts for less than 15 percent of domestic energy consumption.

Qatar is the smallest oil producer in OPEC, though it remains an important supplier to world oil markets.

In 2006, EIA estimates that Qatar produced 1.1 million barrels per day (bbl/d) of total oil liquids, of which 815,000 bbl/d was crude oil. In 2006, Qatar's crude production and oil reserves were the lowest among OPEC member countries. In 2006, Qatar also produced an estimated 250,000 bbl/d of natural gas liquids (NGLs) and 35,000 bbl/d of condensate, each of which are exempt from the country's OPEC crude oil production quota. During 2006, Qatar consumed an estimated 99,000 bbl/d of oil, with most of the country's oil production going to exports.

Exploration and Production

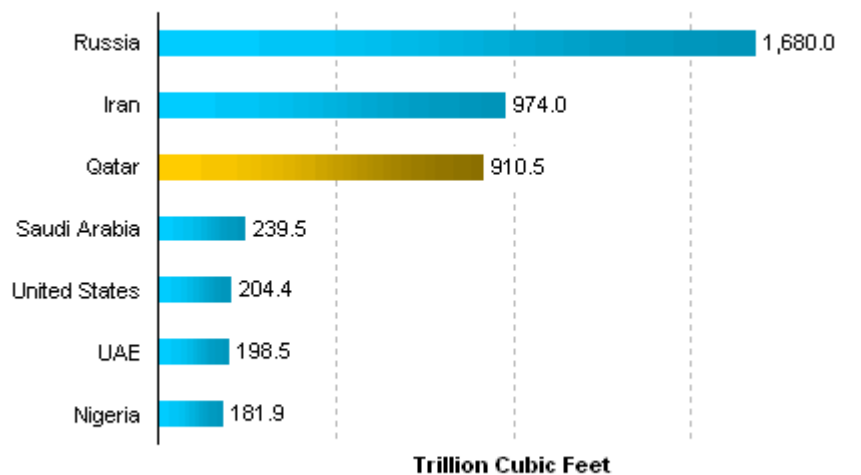
QP has focused on enhanced oil recovery (EOR) projects to extend the life of its oil fields, particularly at the onshore Dukhan field, Qatar's largest oil field. QP expects to modestly boost production capacity at Dukhan from 335,000 bbl/d in 2006 to 350,000 bbl/d in 2008. QP is carrying out similar work at several of its smaller fields, including the offshore Bul Hanine and Maydam Mahzam.

Most new exploration and production (E&P) work is being carried out by international oil companies in offshore areas through Production Sharing Contracts (PSC), including ExxonMobil, Chevron, and Total. While there is substantial E&P work underway, there have not been any major oil discoveries in Qatar during the last decade. Almost all of anticipated new oil production capacity will come from Maersk Oil & Gas of Denmark, which operates the offshore Al Shaheen field. Maersk reached a field development plan agreement with QP in 2005, under which the company intends to more than double the production capacity at Al Shaheen from 240,000 bbl/d in 2006 to 525,000 bbl/d by late 2009. When completed, Qatar would have more than 1.1 million bbl/d in crude oil production capacity compared to an estimated 850,000 bbl/d in EIA's May 2007 Short-Term Energy Outlook.

Qatar's North Field holds more than 900 trillion cubic feet of natural gas reserves, the largest non-associated natural gas field in the world.

According to OGJ, Qatar's proven natural gas reserves stood at 910.5 trillion cubic feet (Tcf) as of January 2007, about 15 percent of total world reserves and the third-largest in the world behind Russia and Iran. Most of Qatar's natural gas is located in the massive offshore North Field, which holds more than 900 Tcf of proven natural gas reserves and is the world's largest non-associated natural gas field. The North Field is a geological extension of Iran's South Pars field, which holds an additional 280 Tcf of recoverable natural gas reserves.

Top Proven Natural Gas Reserves, Jan. 1, 2007



Source: Oil & Gas Journal, Jan. 1, 2007

Qatar's natural gas production has grown significantly during the last decade. In 2005, preliminary data shows that Qatar produced 1,536 billion cubic feet (Bcf) of natural gas, or more than three times the 1995 output of 477 Bcf. Preliminary data puts Qatar's natural gas consumption at 579 Bcf in 2005.

Exploration and Production

Qatar plans to significantly expand natural gas production during the next five years. Qatari officials have stated that target production for 2012 is about 8.7 Tcf, or nearly six times greater than 2005 output levels. The expected increase in natural gas production will fuel the growing natural gas requirements of domestic industry, LNG export commitments, piped natural gas exports through the Dolphin pipeline, and several large-scale gas-to-liquids (GTL) projects.

Gas-to-Liquids

In February 2007, ExxonMobil cancelled its planned 154,000-bbl/d Palm GTL project, which would have been the largest GTL facility in the world if completed. Gas-to-liquids technology uses a refining process to turn natural gas into liquid fuels such as low-sulfur diesel and naphtha, among other products. GTL projects have received significant attention in Qatar over the last several years, and Qatar's government had originally set a target of developing 400,000 bbl/d of GTL capacity by 2012. However, project cancellations and delays since the North Field reserve assessment has substantially lowered this target. In February 2007, ExxonMobil announced that it had cancelled its planned Palm GTL project due to rising costs. The Palm project was originally slated to produce 154,000 bbl/d of liquids for export, although estimated costs spiraled from \$7 billion to \$15 billion according to industry estimates. The company will instead develop the Barzan Gas Project in the North Field, which is scheduled to supply 1.5 Bcf/d of natural gas to Qatar's domestic market beginning in 2012, when the Barzan field comes online.

By 2012, Qatar is likely to have 177,000 bbl/d of GTL capacity at two facilities: the Oryx GTL plant and the Pearl GTL project. Oryx GTL is a joint-venture of QP (51 percent) and Sasol-Chevron GTL (49 percent), and has the capacity to produce 34,000 bbl/d of liquid fuels. The plant was formally commissioned in June 2006, but technical problems prevented the consortium from loading the first export cargo until April 2007. The Oryx project uses about 330 MMcf/d of natural gas feedstock from the Al Khaleej field. Depending on the outcome of the North Field reservoir study, Oryx GTL may choose to expand production capacity of the plant in the future.

In February 2007, the same week that ExxonMobil decided to cancel its GTL plans, Shell held a groundbreaking ceremony for its Pearl GTL Project. The Pearl plant will be 51 percent-owned by QP, though Shell will act as the operator of the project with a 49 percent stake. The facility is expected to use 1.6 Bcf/d of natural gas feedstock to produce 140,000 bbl/d of GTL products as well as 120,000 bbl/d of associated condensate and LPG. The Pearl GTL project will be developed in phases, with 70,000 bbl/d of GTL product capacity expected by 2010 and a second phase expected in 2011. Like the Palm project, Shell's Pearl GTL

initiative has experienced significant cost escalation. Originally estimated at \$4 billion, industry sources believe the Pearl facility will now cost between \$12 and \$18 billion. The Pearl project will be the first integrated GTL operation in the world, meaning it will have upstream natural gas production integrated with the onshore conversion plant.

Dolphin Project

Qatar is part of the Dolphin Project, which aims to connect the natural gas networks of Oman, the United Arab Emirates (UAE), and Qatar with the first cross-border natural gas pipeline in the Gulf Arab region. The project is being developed by Dolphin Energy, a consortium owned by Mubadala Development Company on behalf of the Abu Dhabi government (51 percent), Total (24.5 percent), and Occidental Petroleum (24.5 percent). A company spokesperson announced in early March 2007 that it had began testing its natural gas receiving and distribution facilities in the UAE, and that it expected to begin full commercial operations in June 2007. The pipeline currently sends 400 MMcf/d of natural gas supplies from Qatar to the UAE and Oman, and Dolphin Energy expects this volume to reach 2 Bcf/d by the end of 2007. The company is also in discussions with the Qatari government to expand the sendout capacity of the pipeline to 3.2 Bcf/d, depending on the availability of additional natural gas supplies from the North Field.

Main Oil Fields

Dukhan, Id al-Shargi North Dome, Bul Hanine, Maydan Mahzam, al-Shaheen, al-Rayyan, and al-Khalij

Major Refinery

Umm Said (200,000 bbl/d capacity).

Sector Organisation

State-owned Qatar Petroleum (QP) controls all aspects of Qatar's oil sector, including exploration, production, refining, transport, and storage. QP accounts for about half of the country's total crude oil output, and holds the rights to all petroleum resources in Qatari territories. However, QP often enlists foreign company involvement through production sharing contracts (PSCs), in which QP typically takes a majority equity share. The company has occasionally relaxed this requirement to attract greater foreign investment. QP also controls Qatar's downstream oil sector, operating the country's entire oil pipeline network and sole refinery through its wholly-owned subsidiary, National Oil Distribution Company (NODCO).

The chairman of Qatar Petroleum, Abdullah Bin Hamad Al-Attiyah, is also the head of the Ministry of Energy and Industry and, as of April 2007, the Deputy Prime Minister of Qatar. QP's operations are therefore directly linked with state planning agencies, regulatory authorities, and policymaking bodies.

As in the oil sector, QP plays a dominant role in Qatar's natural gas sector. QP is a leading upstream producer of natural gas and also plays an important role in downstream projects. Most new natural gas developments in Qatar tend to be large-scale projects linked to LNG exports or the promotion of downstream industries that utilize natural gas as feedstock. Therefore, foreign company involvement has favored IOCs with the technology and experience in integrated mega-projects, including ExxonMobil, Shell, and Total.

Qatar's LNG sector is dominated by Qatar LNG Company (Qatargas) and Ras Laffan LNG Company (RasGas). RasGas is 70 percent-owned by QP and 30 percent-owned by ExxonMobil, while the Qatargas consortium includes QP, Total, ExxonMobil, Mitsui, Marubeni, ConocoPhillips, and Shell. In each case, the exact equity structure varies from project to project. The LNG companies handle all upstream to downstream natural gas transportation themselves, while the Qatar Gas Transport Company (known as "Nakilat", which means carriers in Arabic) is responsible for shipping Qatari LNG.

Source: Chamber of Commerce and Industry Qatar, EIA Country Brief (as of 2007)