



Sultanate of Oman

7.04

Oman



TABLE OF CONTENTS

1. Oman in Global Oil Balance	1045
1.1 Oman Oil and gas resource Endowments	1045
1.2 Projections of Demand for Oman Oil and Gas	1045
1.2.1 Production, Consumption Reserves for Oil	1046
1.2.2 Production, Consumption Reserves for Gas	1046
2. Upcoming projects in Oil and Gas in Oman	1047
2.1 Construction projects awarded for oil and gas	1047
2.2 Construction projects awarded for Pipeline in Oman	1048
3. Competitive Overview	1048
4. Future Outlook of Oman Oil and Gas Sector	1048
5. CODE of ETHICS	1049

LIST OF FIGURES

Figure 1: Oman Natural Gas Statistics	1046
Figure 2: Construction projects awarded value for Oil & Gas in Oman	1047
Figure 3: Percentage share of Key Upstream players	1048

LIST OF TABLES

Table 1: Oman Oil Statistics	1046
Table 2: Oil & Gas Projects in Oman	1048
Table 3: Major Players in Oman	1048

1. OMAN IN GLOBAL OIL BALANCE

The estimated proven oil reserves in Oman stood at 5.6 billion barrels (bbl) as of H1 2009. Oman's petroleum deposits were discovered in 1962, decades after most of its neighbors. Moreover, Oman's oil fields are generally smaller, more widely scattered, less productive, and pose higher production costs than in other Persian Gulf countries. The average well in Oman produces only around 400 barrels per day (bbl/d), about one-tenth the volume per well of those in neighboring countries. To compensate, Oman uses a variety of enhanced oil recovery (EOR) techniques.

Oman is not a member of the Organization of the Petroleum Exporting Countries (OPEC), though it is a significant exporter of oil. Most of Oman's crude oil exports go to Asian countries, with China, India, Japan, South Korea, and Thailand the largest importers.

The country's proven natural gas reserves are over 30 trillion cubic feet (Tcf). It's looking forward to increase natural gas production to meet rising domestic demand, provide stock for its enhanced oil recovery projects, as well as increase exports of liquefied natural gas (LNG). The late 2008 economic downturn, combined with improved efficiencies in production, have provided more time for Oman to come up with new supplies to meet these goals.

1.2 PROJECTIONS OF DEMAND FOR OMAN OIL AND GAS

Enhanced oil recovery (EOR) projects are the primary reason for Oman's production increase in 2008. Currently underway, the Mukhaizna EOR project, operated by Occidental Petroleum and UAE's Mubadala, began steam-flood operations in 2008. The EOR project has proven successful in raising Mukhaizna's production from 10000 bbl/d in 2006 to approximately 50000 bbl/d in 2008. Current plans call for raising Mukhaizna's production to 150000 bbl/d by 2012.

PDO has plans for several other EOR schemes. Harweel field production could increase by 40000 bbl/d with a miscible gas injection EOR project in 2010. Qarn Alam's steam injection EOR project could increase production by 40000 bbl/d by 2011. The start up dates for these, and other EOR projects, has been delayed several times.

Oman's long-term oil output targets depend greatly upon the success of its EOR projects. The Mukhaizna development plan involves a steam flooding process to recover heavy, viscous oil reserves difficult to recover with conventional methods. Aside from the substantial costs, the technique uses large amounts of water, a relatively expensive and scarce resource in the Persian Gulf. In addition, EOR schemes use substantial amounts of natural gas as a feedstock, leading Oman to redirect some of its natural gas supplies, formerly designated for export, to use at EOR projects around the country.

Oman's crude refining capacity is approximately 222,000 bbl/d. Mina al-Fahal, in operation since 1982, refines around 106,000 bbl/d of crude oil and is managed by the state-owned Oman Refinery Company. Sohar, in operation since 2007, refines about 116,000 bb/d of crude oil and is managed by Oman Refineries and Petrochemicals Company, which is owned by the Omani Ministry of Finance (75 percent) and OOC (25 percent). Sohar is linked by pipeline to Mina al-Fahal.

Oman continues to pursue the building of a large refinery and petrochemical complex at Al Duqm in southern Oman, which would be geared toward export markets. Under current plans, a joint venture of the Oman government and international investors would build a 200,000-300,000 bbl/d refinery, a crude oil export terminal, and several large petrochemical facilities.

The country also requires increased natural gas supplies to meet the growth in its domestic consumption as well as its enhanced oil recovery and LNG export plans

1.2.1 Production, Consumption Reserves for Oil

The year 2008 saw a slight increase in Oman's oil production. Oman produced an estimated 760000 bbl/d of total oil liquids in 2008, about 6% more than 2007 levels. Of 2008's output, roughly 669000 bbl/d was crude oil, 88000 bbl/d was lease condensate, and the remainder consisted of natural gas plant liquids. During 2008, Oman consumed an estimated 80,000 bbl/d of oil, with net oil exports estimated at 680000 bbl/d.

Oman's crude output have increased during the H1 reversing a trend in production after several years of decline. The National Economy Ministry has announced that the Sultanate's average oil production rose 6.6% to 792,700 barrels per day in the first six months of 2009 compared with a year earlier.

Table 1: Oman Oil Statistics

Petroleum (Thousand Barrels per Day)	2007	2008
Total Oil Production	714.67	761.00
Crude Oil Production	710.36	757.32
Consumption	76.00	81
Net Exports/Imports	638.67	680
Refinery Capacity	85	85
Proved Reserves (Billion Barrels)	5.50	5.50

Oman's oil pipeline system is mostly focused on delivering crude oil to the country's only oil export terminal at Mina al-Fahal, near the capital Muscat. PDO operates the Mina al-Fahal facility, as well as the Main Oil Line that runs to the export terminal. PDO operates approximately 1,000 miles of oil pipelines throughout the country, according to industry sources.

1.2.2 Production, Consumption Reserves for Gas

Oman's natural gas production in 2008 is estimated at nearly 848 billion cubic feet (Bcf). By 2013, production volumes could reach 1.2 Tcf. Oman pacts with foreign companies to produce gas from technically challenging fields, such as the tight gas believed to be in the Khazzan and Makarem fields in Oman's central interior. The Khazzan and Makarem fields are estimated to contain significant volumes of natural gas; some estimates indicate that the two fields could nearly double Omani reserves.

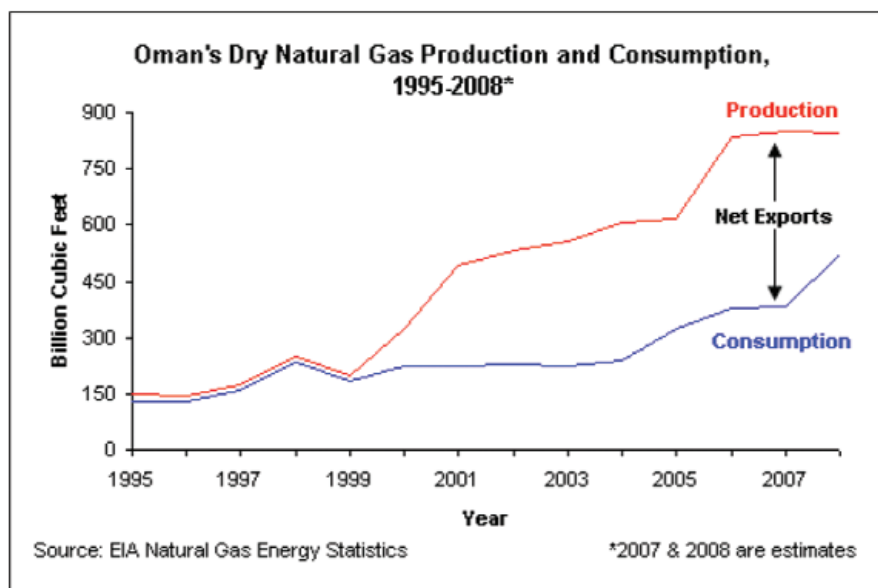


Figure 1: Oman Natural Gas Statistics

EOR, Oman's economic diversification program, and the 2008 oil price boon to the Omani economy all drove natural gas consumption rates higher. Oman consumption in 2008 is estimated at 475 Bcf of natural gas, almost 25% more than 2007 consumption levels. By 2013 consumption volumes could reach 580 Bcf.

In 2008, liquefied natural gas (LNG) was Oman's sole source of natural gas exports. During 2008, Oman exported approximately 385 Bcf of LNG, nearly two-thirds of which went to South Korea, while the remainder went to Japan, India, Taiwan, and Spain. Oman has three LNG production trains with total annual liquefaction capacity of about 485 Bcf. Oman LNG operates two production trains with a combined capacity of approximately 320 Bcf. Oman's third train, Qalhat LNG, has a capacity of approximately 160 Bcf and is operated by a consortium that includes the Omani government, OLNCG, and several other companies.

A small amount of gas is imported via Qatar from the Dolphin pipeline. October 2008 marked the beginning of its Dolphin imports, which at the end of H1 2009 amount to about 200 million cubic feet per day. In 2008, Oman imported approximately 12 Bcf from the Dolphin pipeline.

Oman's domestic natural gas pipeline system is controlled by the Oman Gas Company, although OGC has contracted the management of the network to a consortium of private companies. Oman's natural gas network spans about 1,100 miles, bringing supplies from production centers to the country's LNG terminals, power plants, and other domestic end users.

2. UPCOMING PROJECTS IN OIL AND GAS IN OMAN

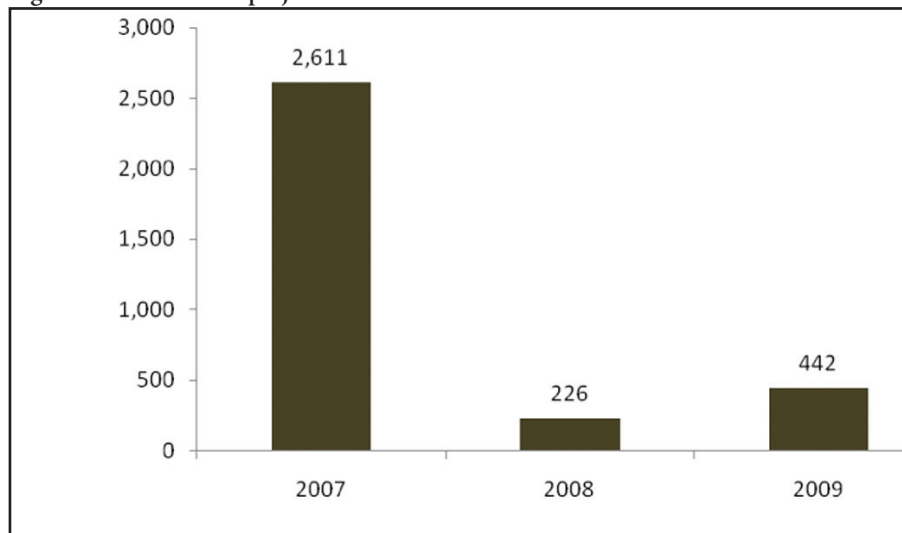
The budget total of proposed Oil & Gas projects and Pipeline projects in the state of Oman is estimated to be more than \$8.5 billion. The estimated value of construction projects awarded in the Oman's oil & gas and the pipeline sector for the year 2005 - 2010 is over \$7.3 billion.

2.1 CONSTRUCTION PROJECTS AWARDED FOR OIL AND GAS

Oman is reviving its plans to build a refinery and a petrochemical plant after the projects were shelved last year due to a slowdown in the global economy. The state-owned Oman Oil Company (OOC) and the Abu Dhabi sovereign wealth fund the International Petroleum Investment Company (IPIC) have announced that they signed a memorandum of understanding (MoU) regarding the potential development of a US\$7 billion refinery and petrochemical complex at Duqm, Oman.

The government announced plans at the end of 2006 to build the Duqm Refining and Petrochemical Complex, which would see the construction of Oman's third refinery at al-Duqm in the southeast of the country. The plan, which struggled to get off the ground because of rising costs, would include a 300,000 - 400,000 bpd refinery and a petrochemicals facility including a polypropylene plant with a capacity of 1.2 million to 1.5 million tonnes a year.

Figure 2: Construction projects awarded value for Oil & Gas in Oman



Source: Ventures Middle East GCC & MENA Projects Database (www.ventures-uk.com)

2.2 CONSTRUCTION PROJECTS AWARDED FOR PIPELINE IN OMAN

Five international firms have submitted their final bids for Oil & Gas Pipeline in Musandum; the biggest oil and gas project to be tendered in Oman in 2009. The UK's Petrofac, India's Engineers India Limited, South Korea's Hyundai Heavy Industries, Italy's Saipem, Hungary's OTF Contracting, and China's Sinopec all submitted bids for the estimated USD 500 million engineering, procurement and construction deal on October 2009.

The contract covers the construction of a 1 kilometer long pipeline from offshore production facilities at the West Bukha field, off the Strait of Hormuz to an onshore processing unit at Musandam. The plant is designed to handle 20,000 barrels per day of oil and 45 million cubic feet per day of gas.

Oman Oil Company, the client on the project will also ask the winning contractor to carry out civil works at the onshore site. These include major excavation and ground leveling works because the area is hilly and a 750 meters long jetty.

Expansion projects for Oil & gas

Oman is undergoing several upstream and downstream expansion projects in order to capitalize on economic growth and potential demand. Some of the major ongoing/proposed projects in the oil & gas sector include the following:

Oil and Gas Projects in Oman

- Duqm Refinery & Petrochemical Complex
- Mabrouk Field Project
- Harweel Cluster Phase - 2
- Saih Rawl Gas Depletion Project
- Oil & Gas Pipeline in Musandum
- Enhanced Oil Recovery at Mukhaizna
- Depletion-Compression Project at Saih Nihayda
- Kauther Gas Compression Project

3. COMPETITIVE OVERVIEW

Oman's Ministry of Oil and Gas organizes the state's role in the country's hydrocarbons sector, although all energy sector developments must receive approval from the Sultan of Oman. PDO is the premier hydrocarbon exploration and production company in the Sultanate of Oman. It accounts for more than 90% of the country's crude-oil production and nearly all of its natural-gas supply. The Company is owned by the Government of Oman (which has a 60% interest), Royal Dutch Shell (which has a 34% interest), Total (which has a 4% interest) and Partex (which has a 2% interest). It had a total production capacity of 556,686 barrels of oil per day and 77,251 barrels of condensate per day as of Q1 2009.

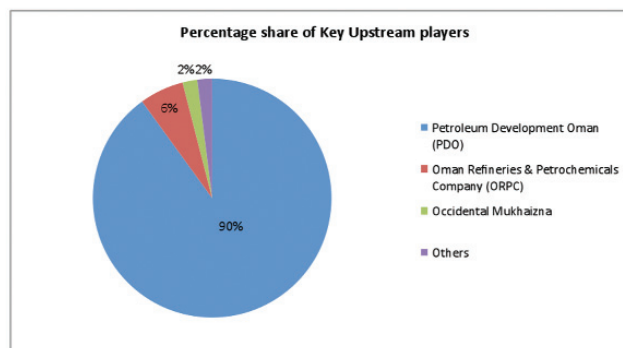


Figure 3: Percentage share of Key Upstream players

Source: Company Websites

Major Players in Oman

- Petroleum Development Oman (PDO)
- Oman Refineries & Petrochemicals Company (ORPC)
- Occidental Mukhaizna
- Oman Oil Company
- Shell Development Oman
- Daleel Petroleum Company
- Petrogas E&P LLC

4. FUTURE OUTLOOK OF OMAN OIL AND GAS SECTOR

Oman needs to boost oil output in order to plug a hole in its revenues from the decline in average oil prices since last year. The average price of the Omani oil fell by 50.5% during the H1 2009 to \$45.72 a barrel, against \$92.39 a year earlier.

According to Oil and Gas Minister Dr Mohammed bin Hamad al Rumhy Oman's oil output is set to increase significantly during 2010 on the back of the hydrocarbon sector's continuing healthy performance. Production is projected to increase to between 850,000 and 900,000 barrels/day (b/d), maintaining a year-on-year trend in output growth. This jump compares with a current output of around 805,000 b/d for 2009 (at the end of October), entailing a 6.5% increase over the 2008 output of 756,000 b/d, and a 13% rise over the 2007 output of 710,000 b/d.

The upbeat hydrocarbon projections for 2010 made by the country's Oil & Gas Ministry further underscore continuing successes by oil producers in ramping up output. PDO is expected to end the year at 555,000 b/d (excluding condensate), Oxy at around 140,000 b/d, and Daleel Petroleum around 22,000 b/d, which is very encouraging for the country's oil sector.

Rising production is seen as proof that the government multi billion dollar investment programs to reverse years of declining output is finally paying dividends. Petroleum Development Oman (PDO) is planning to treble production at the Amal oilfields in the southeast through the use of steam-injection technology. It will boost production at Amal East and Amal West by drilling 300 new wells over a 14-year period. The first phase of the development is due to be completed by 2012.

Oman has continued to attract foreign investors, despite the slow global market condition; attributing this appeal to the healthy state of the Sultanate's oil and gas sector and its prospects for growth in the future. The Oil & Gas ministries has floated a few tenders in the middle of the 2009, and are in discussion with some of the interested companies, the results of which will be known before the end of 2009. On the gas front, Oman continues to meet the demand of customers as gas availability is currently (at the end of October 2009) well over 99.8%. However production challenges has continued to remain a barrier to boost gas output. It needs to be smarter in the way it develops the gas fields by selecting the right technology for the right field.

The uptake of gas is projected to increase during end-2009 and early 2010, following a period of lower demand on account of the global slowdown. The gas sector, like oil, is healthy. However, unlike oil, the demand for gas, especially the LNG buyers, was lower in 2009 than that of 2008. For this reason, the country had to reduce our gas production, mainly that of PDO.

An abundant supply of energy, relatively low labor costs and inexpensive long-term use of land for industrial purposes are just a few more reasons to do business in the Sultanate. Natural resources offer a variety of industrial possibilities. Oman has large reserves of natural gas that already feed major projects like Oman LNG. This plentiful supply of gas can be made available as a source of energy to various polyolefin and aluminum projects, or as feedstock to other small industries.

5. CODE OF ETHICS

Ventures Middle East and its employees adhere to the practices and ethical standards established by the American Marketing Association (AMA), Charter Institute of Marketing (CIM), and the Society of Competitive Intelligence Professionals (SCIP). The firm and its employees abide by the applicable laws for the jurisdiction of the research, Ventures Middle East, and the client organization. Additionally, any request or requirements are incorporated into the practices of Ventures Middle East for the client's engagement.