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Qatar

Qatar contains the third largest natural gas reserves and the largest non-associated gas field in the world. Qatar is also emerging as a major exporter of liquefied natural gas. An OPEC member, Qatar exported more than 1 million barrels per day of liquids in 2004.

Note: The information contained in this report is the best available as of February 2005 and may change.



GENERAL BACKGROUND

Since 1995, Qatar has been ruled by Sheikh Hamad bin Khalifa al-Thani. Sheikh Hamad has implemented several changes in policy, including a limited political liberalization creating an elected council and giving women the right to vote. In the economic sphere, Qatar has suffered from many of the same problems as other oil-dependent Persian Gulf states, especially the need to diversify economic development beyond crude oil exports and scale back the generous state subsidies for consumers. However, due to new revenue streams from rapidly increasing exports of liquefied natural gas (LNG), as well as its very small population, Qatar has not experienced the erosion of per capita gross domestic product (GDP) that has been seen in Saudi Arabia and some other Persian Gulf oil exporters in recent years.

Qatar's real gross domestic product (GDP) is projected to be 6.7% in 2005, after growth of 7.0% in 2004. Inflation in Qatar has accelerated somewhat over the last two years, and is projected at 4.1% for 2005.

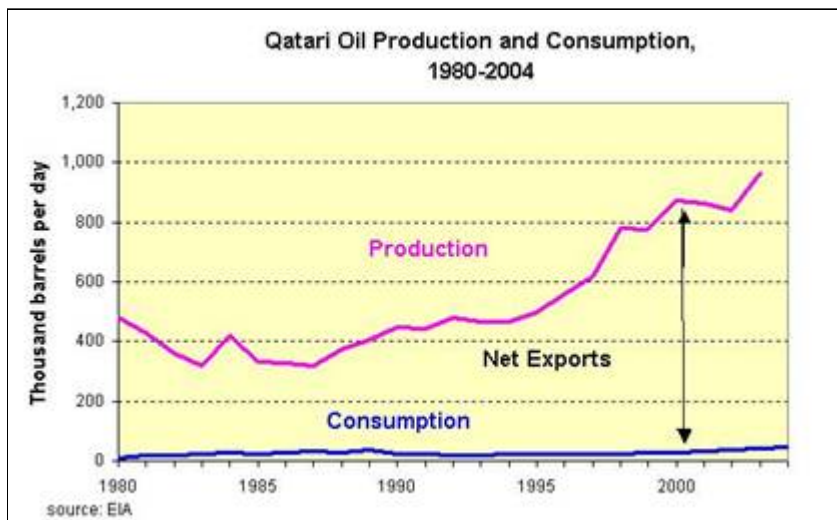
Qatar's policy of economic diversification has led to a surge in investment in projects for the export of LNG and petrochemicals. The government expects that it will be able to earn more per barrel of crude oil produced if it can export refined products and petrochemicals, as well as create private sector jobs -

in a country which has been heavily dependent on government ministries to provide employment for the population.

Qatar has a relatively large foreign debt -- around \$17 billion as of 2004. Qatar accumulated this debt largely for infrastructure investment in oil and gas projects, which sharply increased Qatar's oil production capacity, plus construction of facilities for the export of LNG, and petrochemical plants.

Qatar recorded a large budget surplus for the 2003/2004 fiscal year, which ended in March 2004. Government budget allocations for the 2004-2005 fiscal year increased by 22%, continuing a policy of spending heavily on infrastructure development. Surging oil and natural gas export revenues have enabled Qatar to maintain a significant budget surplus despite the sharply increased spending.

In a ruling issued in March 2001, the International Court of Justice resolved a dispute between Qatar and Bahrain over the Hawar Islands and neighboring islands. Sovereignty over the Hawar Islands was awarded to Bahrain, while Qatar retained the neighboring islands of Zubarah and Janan.



OIL

Qatar has proven, recoverable oil reserves of 15.2 billion barrels. The onshore Dukhan field, located along the west coast of the peninsula, is Qatar's largest producing oilfield. Qatar also has six offshore fields, Bul Hanine, Maydan Mahzam, Id al-Shargi North Dome, al-Shaheen, al-Rayyan, and al-Khalij. Qatari crude oil has gravities in the 24 o-41 o API range. The country's two primary export streams are Dukhan (41 o API) and Marine

(36 o API) blend. Despite the country's significant oil production and reserves, oil accounts for less than 15% of domestic energy consumption.

Qatar exports almost all of its oil production to Asia, with Japan by far its largest customer. In 2004, net oil exports totaled 1,023,000 barrels per day (bbl/d). During this period, Qatar produced 1,068,000 bbl/d of liquids (including crude oil, natural gas liquids, and condensate), up from 964,000 bbl/d in 2003. The turnaround from the previous downward trend in 2003 and 2004 was the result of the reversal of previous OPEC production cuts, combined with modest increases in production capacity. Qatar also produces a significant amount of lease condensate and other natural gas liquids (NGLs), both of which fall outside the country's OPEC crude oil production quota, which has been set at 700,000 bbl/d since November 1, 2004. Production on NGLs has been rising as a byproduct of increased natural gas production.

Following the coup in 1995, Qatar initiated a number of new policies aimed at increasing oil production, locating additional oil reserves before existing reserves become too expensive to recover, and investing in advanced oil recovery systems to extend the life of existing fields. To accomplish this, the government in recent years has improved the terms of exploration and production contracts and production sharing agreements (PSA). The improved terms are designed to encourage foreign oil companies to improve oil recovery in producing fields and to explore for new oil deposits. Foreign companies now account for more than one-third of Qatar's oil production capacity.

Onshore Development

In March 1998, Qatar signed an onshore oil exploration agreement with Chevron (now ChevronTexaco), which is still in effect. It is a five-year PSA and exploration agreement, covering a 4,209 square-mile area known as Block-2. Block-2 covers virtually all of the Qatari peninsula except for the Dukhan field. Seismic surveys were conducted in 1998, and drilling commenced in 1999. ChevronTexaco also holds offshore Block-1 jointly with Hungary 's MOL.

Offshore Development

One of Qatar 's newer oil fields is al-Rayyan, operated by Anadarko Petroleum, which bought the stakes in the project previously owned by BP, BG, Wintershall, and Gulfstream Petroleum in a series of transactions in 2001 and 2002. The field came on stream in November 1996, producing 20,000 bbl/d of heavy oil from four wells. It lies in offshore Block 12 at the southern edge of the North Field near Ras Laffan. The PSA for the field was signed on July 16, 1997 . The field currently is producing about 70,000 bbl/d. Anadarko acquired exploration acreage in May 2004, in Block 4 adjacent to Block 12. The company plans to conduct exploratory drilling in Block 4 over a five-year period.

Qatar 's latest offshore oil field to come onstream is al-Khalij. Production began in March 1997, after five years of exploration and appraisal work, at an initial rate of 6,000 bbl/d. Al-Khalij is located in Block-6, along Qatar 's maritime border with Iran , and to the east of the North Field. Development of the field had been delayed since 1991 as Elf Aquitaine Qatar, the field's operator, sought improved production sharing terms from Qatar Petroleum (formerly QGPC). TotalFinaElf (the result of mergers between the three French oil majors, including Elf Aquitaine) completed a capacity expansion in mid-2004 that brought the field's total production capacity to 80,000 bbl/d. Al-Khalij produces a medium/sweet (28 o API) oil with about 1% sulphur. The oil is piped to Halul Island for processing and transportation. TotalFinaElf holds a 100% interest in the 25-year PSA, with an option for a five-year extension, having acquired ENI's 45% equity stake in May 2002.

Maydan Mahzam became operational in 1965, and its production is currently around 60,000 bbl/d, down significantly from its peak. However, Qatar Petroleum is currently undertaking a renovation intended to extend the life of the field. The field was producing around 70,000 bbl/d in late 2004.

Bul Hanine came on line in 1973, producing well over 100,000 bbl/d, but production began falling off in the early 1990s. Current production is around 100,000 bbl/d. Development plans to boost production include drilling 86 new wells. Bul Hanine holds approximately 700 million barrels of recoverable reserves.

Al-Shaheen, operated by Maersk Oil Qatar of Denmark, has become one of Qatar's most productive oil fields, with production capacity of around 130,000 bbl/d, though production in recent months has been around 110,000 bbl/d. Located in Block-5 about 43 miles off Qatar's northeastern coast, al-Shaheen produces a heavy (29 o-33 o API) oil with 1.7%-2% sulphur content. The field is thought to be linked to a section of the North Field. Current production is around 200,000 bbl/d. More than 70 new wells are being drilled. Maersk also concluded an agreement with Qatar Petroleum in April 2004 for the development of the Block 5 Extension Area, adjacent to the al-Shaheen field, which is expected to product around 20,000 bbl/d when it comes onstream in late 2005.

Id al-Shargi North Dome (ISND), first discovered by Shell in 1960 and now operated by Occidental Petroleum, lies 59 miles east of Qatar's northern tip. In 1994, the field was producing 12,000 bbl/d when Occidental signed a 25-year PSA with Qatar Petroleum, agreeing to invest \$700 million in field development, reservoir repairs, gas and water injection systems, and further exploration. Output from ISND currently is about 100,000 bbl/d.

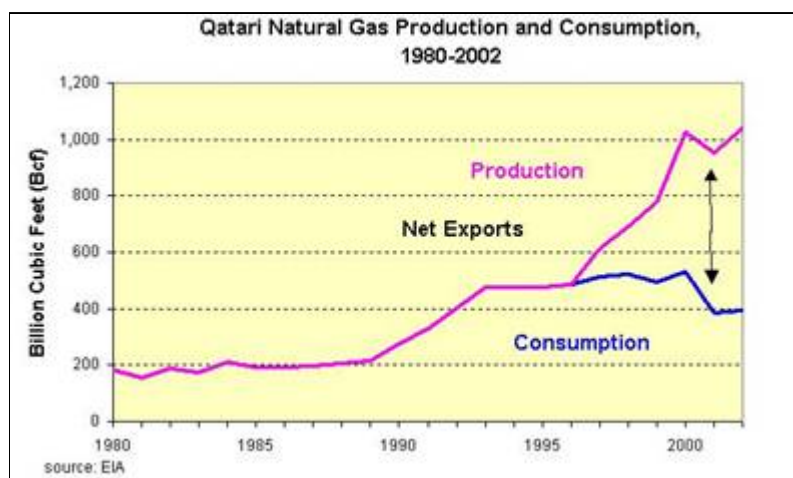
In September 1997, Occidental signed another PSA with Qatar Petroleum (then known as QGPC) to develop the Id al-Shargi South Dome (ISSD) oil field. ISSD is located 15 miles from ISND, and Occidental will operate ISSD as a satellite of ISND, keeping overall per-unit operating costs lower. The field came onstream in November 1999 at 11,000 bbl/d, and it currently is producing around 17,000 bbl/d. Occidental's ownership interest in ISSD is 44%. ISSD is estimated to contain recoverable reserves of 200 million-300 million barrels.

Qatar Petroleum and Cosmo Oil concluded a contract in October 2003 for the development of two small offshore oil deposits, Al-Karkara and A-North. Production from seven wells, four in Al-Karkara and three in A-North, is set to begin in 2005, and reach a peak of about 10,000 bbl/d.

Downstream

Qatar's QP Refinery (formerly known as the National Oil Distribution Company) recently upgraded its refinery at Umm Said. The expansion, completed in early 2002, increased capacity from 57,500 bbl/d to 137,000 bbl/d.

In November 1997, Chevron Phillips Chemical Company signed a \$1.1 billion deal with Qatar Petroleum to build a petrochemical plant, Q-Chem, which was completed in 2002. The plant produces a wide range of products, including polyethylene and olefins. An project to expand the facility, Q-Chem II, is currently under discussion and planned for completion in 2007. Bids for the project were solicited in late January 2005, and are due in April 2005.



NATURAL GAS

With proven reserves of 910 trillion cubic feet (Tcf), Qatar's natural gas resources rank third in size behind Russia's and Iran's. Most of Qatar's natural gas is located in the offshore North Field, which is the largest known non-associated natural gas field in the world. In addition, the onshore Dukhan field contains an estimated 5 Tcf of associated and 0.5 Tcf of non-associated gas. Smaller associated gas reserves also are contained in the Id al-Shargi,

Maydan Mahzam, Bul Hanine, and al-Rayyan offshore oil fields. The Qatari government believes that the country's economic future lies in developing this vast natural gas potential. Currently, Qatar has two liquefied natural gas (LNG) exporters: Qatar LNG Company (Qatargas); and Ras Laffan LNG Company (Rasgas).

The Qatargas downstream consortium comprises Qatar Petroleum (65%), Total (10%), ExxonMobil (10%), Mitsui (7.5%), and Marubeni (7.5%). In December 1996, the Qatargas venture delivered its first shipment of LNG to Japan. The Qatargas LNG plant consists of three, 2-million-ton-per-year (Mmt/y) (97 billion cubic feet - Bcf) trains. The third train was completed in 1999. Qatargas currently is proceeding with a project to debottleneck its existing liquefaction trains, which is to expand total capacity to 9.2 Mmt/y (446 Bcf) when it is completed in 2005. Qatargas signed an agreement in July 2004 with Gas Natural of Spain for the sale of the incremental volume over a period of 20 years, to commence when the capacity expansion is completed.

Rasgas is Qatar's second LNG project. The two major shareholders in the project are Qatar

Petroleum and ExxonMobil. Rasgas consists of two 3.3-Mmt/y (163 Bcf) trains. The first train was completed in early 1999, and loaded its first cargo in August 1999 for South Korea 's Kogas, which has a long-term supply contract. The second train came onstream in April 2000. Rasgas contracted with Chiyoda, Mitsui, and Snamprogetti in April 2001 for the construction of the third 4.7-Mmt/y (228-Bcf) train, which was completed in 2004. Two additional trains have been ordered from the same consortium, with the fourth scheduled for completion in late 2005 and the fifth scheduled for 2007.

Qatar Petroleum and ExxonMobil signed an agreement in October 2003 for the construction of RasGas II, adding 15.6 Mmt/y (756 Bcf) of liquefaction capacity. The facility will comprise two liquefaction trains, with a capacity of 7.8 Mmt/y (378 Bcf) each -- the largest liquefaction trains ever built. The first of the two trains is expected to commence commercial operation in 2008 or 2009. Much of the LNG produced at Qatargas II will be imported into the United States , through import terminals to be built on the Gulf of Mexico , under the 25-year agreement. Reserves of 26 Tcf from the North Field have been earmarked for export through the RasGas II terminal. Qatar Petroleum will hold a 70% stake in the export terminal, with ExxonMobil holding the remaining 30%.

Qatargas II reached financial close in December 2004. The project, which also is a joint venture between ExxonMobil and Qatar Petroleum, will involve two 7.8-Mmt/y (378-Bcf) liquefaction trains, with the first completed in 2007 and the second in 2008. The project will supply an import terminal to be built in the United Kingdom .

A preliminary agreement also has been signed with ConocoPhillips for Qatargas III, which would involve 7.5 Mmt/y of liquefaction capacity, aimed at the U.S. market, to begin operation in 2009 or 2010.

Qatar 's original markets for its LNG exports were Japan and South Korea , the world's two largest LNG importers. India has joined them as a significant market for Qatari LNG. RasGas signed an agreement in July 1999 to supply 7.5 Mmt/y (365 Bcf/y) of LNG to Petronet, an Indian LNG import and gas distribution project. Deliveries under the Petronet contract began in January 2004. Spain 's Enagas also has signed a purchase agreement with Italy 's Edison, its first term-contract customer in Europe . Deliveries of 3.5 Mmt/y (170 Bcf) are to commence in 2005.

Another significant proposed project will tie Qatar into the United Arab Emirates (UAE) Dolphin Project, an integrated natural gas pipeline grid for Qatar , UAE, and Oman , with a possible subsea connection linking Oman to Pakistan . The United Offsets Group (UOG), a UAE state-owned corporation backing the project, signed preliminary memorandums of understanding with Qatar , Oman , and Pakistan in June 1999. ExxonMobil also signed a preliminary agreement in June 1999 for the natural gas supply from ExxonMobil's production capacity in the North Field. The total project is expected to cost around \$10 billion, including costs associated with the development of more extensive gas distribution networks in the UAE and Oman . Qatar initially will sell around 730 Bcf per year of North Field natural gas, starting in 2006, transported through a subsea pipeline linking the North Field to Abu Dhabi in the UAE. Links between Abu Dhabi , Dubai , and Oman will be added afterwards. UOG announced in March 2000 that TotalFinaElf and Enron had been selected to implement the project, and each would have an equity stake of 24.5%. Enron, however, announced in May 2001 that it was pulling out of the project, and UOG acquired Enron's equity stake, which was resold to Occidental Petroleum in May 2002. The Dolphin Project has been driven in part by the desire of UAE and Oman to use more natural gas for power generation and industrial uses, and the decline in their own production of associated natural gas. Pakistan 's participation is highly doubtful, due to its financial condition and the possibility of imports from

Iran .

Kuwait also has held discussions with Qatar about the purchase of Qatari gas. A preliminary agreement was signed for gas sales in July 2000, which would source the gas from ExxonMobil's North Field holdings. Details of the project and volumes are still being discussed, and a final agreement has not been reached. Qatar also has held discussions with Bahrain on the possible supply of North Field natural gas, which could be accomplished with a "spur" from the proposed North Field-Kuwait pipeline. The pipeline would have to be built through Saudi Arabia 's territorial waters, and political tension between the Saudi and Qatari governments reportedly have inhibited progress on the project. As an alternative, Kuwait may consider importing LNG sourced from Qatar .

With such vast reserves of natural gas, Qatar has also been interested in potential development of Gas-to-Liquids (GTL) projects. Shell signed a contract with Qatar Petroleum in October 2003 for a 140,000-bbl/d GTL facility to be built at Ras Laffan. The first 70,000 bbl/d of capacity is expected to commence operation by 2009, with the rest in 2010 or 2011. If completed, it will be the world's largest GTL plant.

ELECTRICITY

Qatar had an electric generation capacity of 1,880 megawatts (MW) and produced 9.7 billion kilowatthours of electricity in 2002. Most of the country's power plants are natural gas-fired. The residential sector accounts for about 70% of Qatar 's electricity consumption, but this share is declining as power demand associated with LNG export terminals increases. Since 1999, the Qatari government has limited the provision of free electricity to Qatari-citizen households, with payment required for consumption above a set threshold.

In May 2000, the Qatari government took a major step towards privatization of its power sector. Assets owned by the Ministry of Electricity and Water (MEW) were transferred to the Qatar General Electricity and Water Corporation (QEWC). QEWC is 57% controlled by local investors and 43% controlled by the government.

The Ras Abu Fontas B-plant is the country's largest and newest power and water desalination plant. It currently has an electric generation capacity of 1,030 MW. France 's Alstom Power completed an additional 380-MW generation unit at the facility in June 2002.

QEWC awarded a contract in May 2001 for the Ras Laffan Independent Power and Water Project ("Ras Laffan IWPP"), which will be co-located with the Ras Laffan gas and industrial complex. The plant has a generating capacity of 750 MW, and began operation in May 2004. AES owns a 55% equity stake in the project, with QEWC holding 45%. A contract was signed with International Power PLC and Chubu Electric in September 2004 for the construction of another plant at an adjacent location, Ras Laffan B. The plant will be ready for operation before the end of 2006 and will have an initial capacity of 600 MW, to be expanded to 1,025 MW by the end of 2008.

Sources for this report include: APS Review of Oil Market Trends; CIA World Factbook; Dow Jones News Wire service; Economist Intelligence Unit ViewsWire; Global Insight Middle East Economic Outlook; Gulf News; Hart's Middle East Oil and Gas; International Market Insight Reports; Oil and Gas Journal; Petroleum Economist; Petroleum Intelligence Weekly; U.S. Energy Information Administration; World Gas Intelligence.

COUNTRY OVERVIEW

Head of State: Sheikh Hamad bin Khalifa al-Thani
Independence: September 3, 1971 (from United Kingdom)
Population (2004E): 840,290
Location/Size: Persian Gulf/4,416 square miles, slightly smaller than Connecticut
Major Cities: Doha (capital), Umm Said, Dukhan, al-Khawr
Languages: Arabic (English widely spoken)
Ethnic Groups: Arab (40%), Pakistani (18%), Indian (18%), Iranian (10%), other (14%)
Religion: Muslim (95%)

ECONOMIC OVERVIEW

Currency: Qatari Riyal
Market Exchange Rate (2/3/05): US\$1 = 3.64 Qatari riyals
Nominal Gross Domestic Product (2004E): \$23.2 billion **(2005F):** \$25.0 billion
Real GDP Growth Rate (2004E): 7.0% **(2005F):** 6.7%
Inflation Rate (consumer prices) (2004E): 4.7% **(2005F):** 4.1%
Current Account Balance (2004E): \$7.3 billion **(2005F):** \$7.6 billion
Major Trading Partners: Japan, United Kingdom, United States, Italy, Germany, France, South Korea
Merchandise Exports (2004E): \$16.7 billion
Merchandise Imports (2004E): \$6.3 billion
Major Export Products: Crude oil, LNG
Major Import Products: Machinery and transport equipment, manufactured goods, food and live animals

ENERGY OVERVIEW

Minister of Energy and Industry: Sheikh Abdullah bin Hamad al-Attiyeh
Proven Oil Reserves (1/1/05E): 15.2 billion barrels
Oil Production (2004E): 1,068,000 barrels per day (bbl/d), of which 783,000 bbl/d was crude oil
OPEC Crude Oil Production Quota (effective since 11/1/04): 700,000 bbl/d (not including condensate)
Natural Gas Liquids Production (2004E): 250,000 bbl/d
Oil Consumption (2004E): 45,000 bbl/d
Net Oil Exports (2004E): 1,023,000 bbl/d
Crude Oil Refining Capacity (1/1/05E): 137,000 bbl/d
Natural Gas Reserves (1/1/05E): 910 trillion cubic feet (Tcf)
Natural Gas Production (2002E): 1.0 Tcf
Natural Gas Consumption (2002E): 396 billion cubic feet (Bcf)
Net Natural Gas Exports (2003E): 669 Bcf
Electric Generation Capacity (1/1/02E): 1.9 gigawatts
Electricity Production (2002E): 9.7 billion kilowatthours

ENVIRONMENTAL OVERVIEW

Total Energy Consumption (2002E): 0.5 quadrillion Btu* (0.14% of world total energy consumption)
Energy-Related Carbon Dioxide Emissions (2002E): 27.7 million metric tons of carbon dioxide (0.13% of world total carbon emissions)
Per Capita Energy Consumption (2002E): 814.7 million Btu (vs. U.S. value of 339.1 million Btu)
Per Capita Carbon Dioxide Emissions (2002E): 12.6 metric tons of carbon dioxide (vs. U.S. value of 20.0 metric tons of carbon dioxide)
Energy Intensity (2002E): 25,151 Btu/\$1995 (vs U.S. value of 10,613 Btu/\$1995)**

Carbon Dioxide Intensity (2002E): 1.4 metric tons of carbon dioxide/thousand \$1995 (vs U.S. value of 0.6 metric tons/thousand \$1995)**

Fuel Share of Energy Consumption (2002E): Natural Gas (84.9%), Oil (15.1%), Coal (0.0%)

Fuel Share of Carbon Dioxide Emissions (2002E): Natural Gas (81.1%), Oil (18.9%), Coal (0.0%)

Status in Climate Change Negotiations: Non-Annex I country under the United Nations Framework Convention on Climate Change (ratified April 18th, 1996). Not a signatory to the Kyoto Protocol.

Major Environmental Issues: limited natural fresh water resources are increasing dependence on large-scale desalination facilities.

Major International Environmental Agreements: A party to Conventions on Biodiversity, Climate Change, Hazardous Wastes and Ozone Layer Protection. Has signed, but not ratified, Law of the Sea.

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

**GDP based on OECD Purchasing Power Parity (PPP) figures

OIL AND GAS INDUSTRIES

Organization: Qatar Petroleum - exploration, production, refining and distribution; Qatar Liquefied Gas Company (Qatargas) and Ras Laffan LNG Company (Rasgas) - production and marketing of liquefied natural gas (LNG)

Major Foreign Oil Company Involvement: Anadarko Petroleum, BP, ChevronTexaco, ExxonMobil, Maersk, Marubeni, Mitsui, MOL, Occidental, OMV, Phillips Petroleum, TotalFinaElf

Major Ports: Umm Said, Ras Laffan

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

Major Pipelines: Dukhan-Umm Said, an offshore network connecting Halul Island to al-Khalij, Bul Hanine, and Maydan Mahzam, and Das Island (U.A.E.)-al-Bunduq

Major Refineries (capacity - bbl/d): Umm Said (137,000)

LINKS

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Links to other U.S. government sites:

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