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COUNTRY ANALYSIS BRIEFS

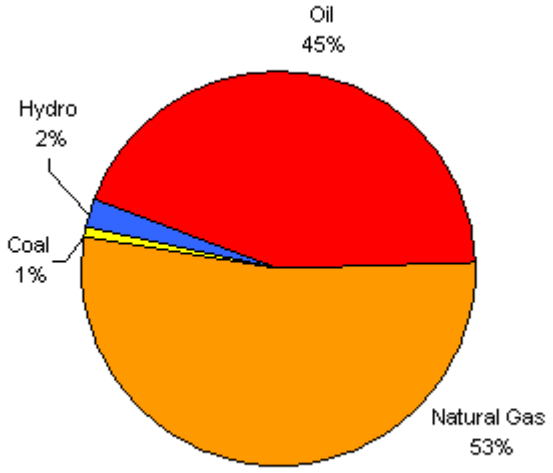
Iran

Last Updated: February 2009

Background

Iran, one of OPEC's founding members, holds the world's third-largest proven oil reserves and the world's second-largest natural gas reserves.

Total Energy Consumption in Iran, by Type (2006)



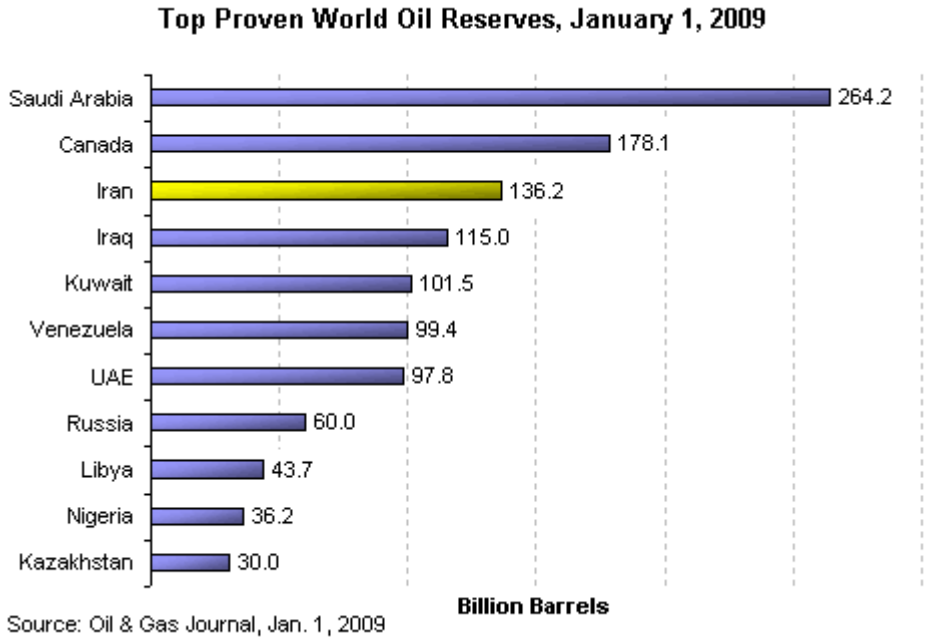
Source: *EIA International Energy Annual 2006*

Iran is a member of the Organization of the Petroleum Exporting Countries (OPEC), and ranks among the world's top three holders of both proven oil and natural gas reserves. Iran is OPEC's second-largest producer and exporter after Saudi Arabia, and is the fourth-largest exporter of crude oil globally after Saudi Arabia, Russia, and Norway. Natural gas accounts for half of Iran's total domestic energy consumption, while the remaining half is predominately oil consumption. The continued exploration and production of the offshore South Pars natural gas field in the Persian Gulf is a key part of Iran's energy sector development plan.

Oil

Iran is OPEC's second-largest oil producer and the fourth-largest crude oil exporter in the world.

According to *Oil and Gas Journal*, as of January 2009, Iran has an estimated 136.2 billion barrels of proven oil reserves, or roughly 10 percent of the world's total proven petroleum. Iran has 40 producing fields, 27 onshore and 13 offshore, with the majority of crude oil reserves located in the southwestern Khuzestan region near the Iraqi border. Iran's crude oil is generally medium in sulfur content and in the 28°-35° API range. In 2007, Iran exported about 2.4 million bbl/d of oil, primarily to Asian and OECD Europe countries, making it the fourth largest exporter in the world.

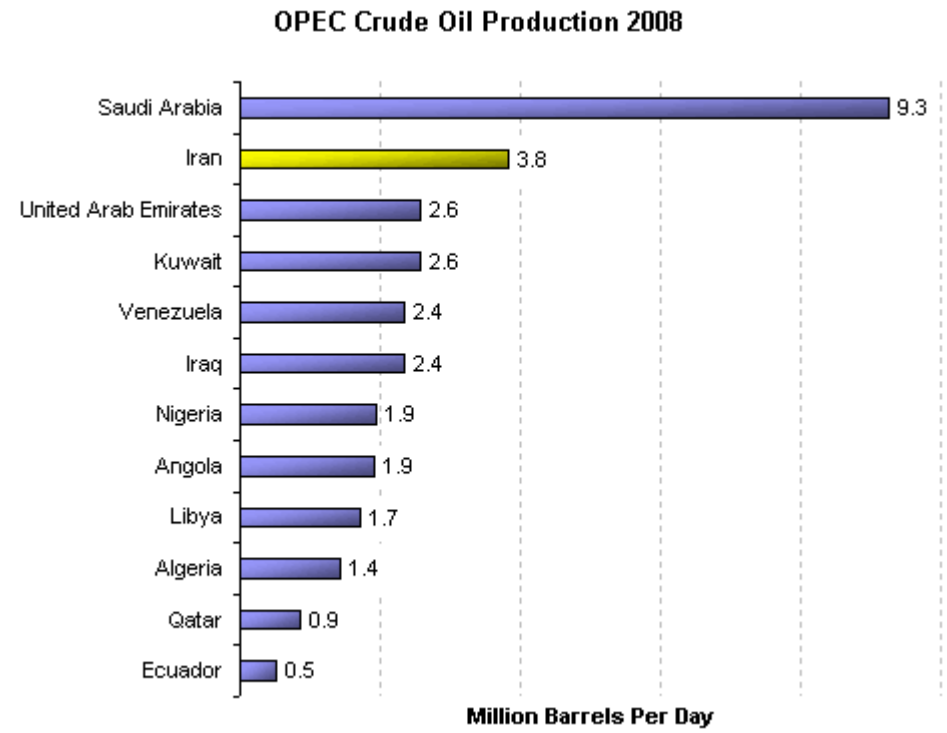


Sector Organization

The state-owned National Iranian Oil Company (NIOC), under the supervision of the Ministry of Petroleum, is responsible for oil and natural gas production and exploration. The National Iranian South Oil Company (NISOC), a subsidiary of NIOC, accounts for 80 percent of the local oil production covering the provinces of Khuzestan, Bushehr, Fars, and Kohkiluyeh va Boyer Ahamd. Though private ownership of upstream functions is prohibited under the Iranian constitution, the government permits buyback contracts which allow international oil companies (IOCs) to enter exploration and development through an Iranian affiliate. The contractor receives a remuneration fee, usually an entitlement to oil or gas from the developed operation.

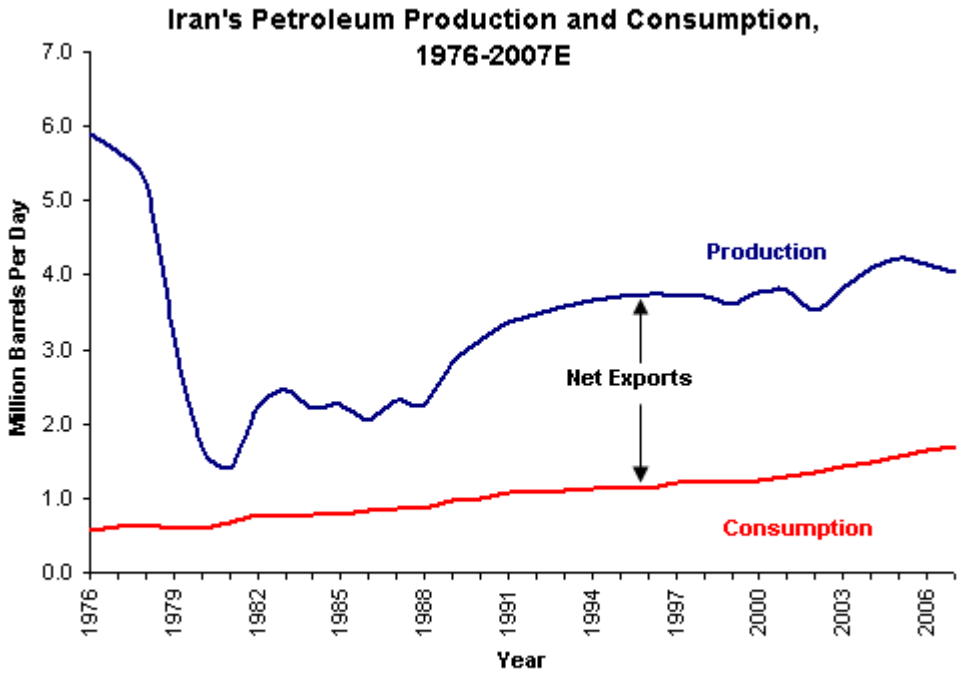
Production

Iran is OPEC's second-largest producer after Saudi Arabia. In 2007, Iran produced approximately 4.1 million barrels per day (bbl/d) of total liquids, of which roughly 3.8 million bbl/d was crude oil, equal to about 4.5 percent of global production. For most of 2008, it is estimated that Iran's OPEC production was approximately 3.8 million bbl/d; OPEC-wide cuts in late 2008 have lowered its production quota to roughly 3.6 million bbl/d. Iran's current crude oil production capacity is estimated to be 3.9 million bbl/d.



Source: EIA Short Term Energy Outlook; January 2009

Iran produced 6 million bbl/d of crude oil in 1974, but has been unable to produce at that level since the 1979 revolution due to a combination of war, limited investment, sanctions, and a high rate of natural decline in Iran's mature oil fields. Iran's fields have a natural annual decline rate estimated at 8 percent onshore and 11 percent offshore, while current Iranian recovery rates are 20-25 percent. It is estimated that 400,000-700,000 bbl/d of crude production is lost annually due to declines in the mature oil fields. A 2007 National Academy of Sciences study reports that if decline rates are allowed to continue, Iran's exports, which in 2007 averaged 2.4 million bbl/d could decrease to zero by 2015. To offset natural decline rates, Iran's oil fields require structural upgrades including enhanced oil recovery (EOR) efforts such as natural gas injection.



Source: EIA World Petroleum Consumption & Short-Term Energy Outlook (January 2009)

Upstream Projects

The Azadegan field, currently managed by Petroiran, contains 26 billion barrels of proven crude oil reserves, but is geologically complex and difficult to extract. Currently, Azadegan produces about 25,000 bbl/d, and Iran hopes to increase production to 50,000 bbl/d by 2009 as part of Azadegan Phase I. Achieving the production goal of 140,000 bbl/d by 2014-2015 (Azadegan Phase II) will likely require significant further investment, as well as an international partner to provide the technical expertise.

Iran and Venezuela agreed in 2007 on a $4 billion investment to develop an estimated 30 billion barrels of oil in Venezuela's Ayacucho 7 block. Iran's Northern Drilling Company (NDC) has also worked with Russia's Lukoil on oil field development in the Caspian Sea.

New Iranian Upstream Crude Projects through 2015			
Field	**Company**	**Thousand bbl/d**	**Online**
Azadegan Phase I (south)	NIOC	50	2009
Darquain Phase II	NIOC & Eni	60	2009
Jofeir Phase I	NIOC & Belarusneft	15	2010
Kushk-Hosseinieh	NIOC	300	2010
Jofeir Phase II	NIOC & Belarusneft	25	2012
Anaran Phase I	NIOC & TBD	68	2012
Yadavaran Phase I	NIOC & Chinese Partners	85	2012
Azadegan Phase II (north)	NIOC	170	2012
Anaran Phase II	NIOC & TBD	130	2015
Yadavaran Phase II	NIOC & Chinese Partners	185	2015
New Potential Total		**1,088**	

Source: OPEC, FACTS Global Energy, and Middle East Economic Survey

Iran plans to increase oil production capacity to over 4.5 million bbl/d by 2010 and 5 million bbl/d after 2015, but foreign assistance will likely be necessary. Foreign investment in Iran's energy

sector has been tempered by international unease related to US economic sanctions. According to the IEA 2008 Medium-Term Oil Market Report, Iran will not be able to expand oil production capacity through 2013.

Consumption

Iran's oil consumption was approximately 1.7 million bbl/d in 2007. Iran has limited refinery capacity for the production of light fuels, and consequently imports much of its gasoline supply [see Gasoline below]. Iranian domestic oil demand is mainly for gasoline and diesel. According to FACTS Global Energy, diesel consumption was roughly 550 thousand bbl/d in 2007, with nearly 90 percent produced domestically. Domestic demand for other oil products is declining as natural gas is further integrated into Iran's energy consumption makeup. The Iranian government heavily subsidizes the price of refined oil products, increasing domestic demand. However, Iran is an overall net petroleum products exporter due to large exports of residual fuel oil.

Refining

Iran's total refinery capacity in 2008 was about 1.5 million bbl/d, with its nine refineries operated by the National Iranian Oil Refining and Distribution Company (NIORDC), a NIOC subsidiary. Iranian refineries are unable to keep pace with domestic demand, but Iran plans to increase refining capacity to around 3 million bbl/d by 2012. This increase, through expansions at existing refineries as well as planned grass-root refinery construction, could eliminate the need for imports by 2012. In addition, Iran has discussed joint ventures in Asia, including China, Indonesia, Malaysia, and Singapore to expand refining capacity.

Iran Crude Refining Capacity, 2008

Refinery	Thousand bbl/d
Abadan	350
Isfahan	284
Bandar Abbas	232
Tehran	220
Arak	170
Tabriz	100
Shiraz	40
Kermanshah	25
Lavan Island	30
Total Exisiting	**1,451**

Source: *Oil & Gas Journal*, January 1, 2009

Gasoline

In 2007, Iran consumed around 400,000 bbl/d of gasoline, roughly the same amount as 2006. Iran does not currently have sufficient refining capacity to meets its domestic gasoline and other light fuel needs. However, according to FACTS Global Energy, government targets for domestic gasoline refinery projects combined with the elimination of gasoline subsidies by the official goal of 2011 could make Iran a gasoline exporter by 2012. The International Energy Agency predicts 5.3 percent demand growth in 2009.

The Rationing System

Currently, the majority of motorists are permitted a monthly ration of approximately 32 gallons of gasoline (120 liters), at approximately 37 cents per gallon (10 cents/liter; 1,000 rials/liter). Part-time taxis, commercial vehicles, and government vehicles have special allowances. The current rations are expected to be maintained through the June 2009 Iranian election.

Gasoline Imports

Iran spent approximately $6 billion on gasoline imports in 2007. Under the rationing system, implemented in June 2007, Iran's gasoline imports declined from an estimated 204,000 bbl/d in May 2007, to an estimated average of 94,000 bbl/d for the remainder of 2007. Large, multinational wholesalers such as BP, Reliance, Total, Trafigura, Vitol, and several Chinese companies provide Iran with gasoline.

Exports

In 2007, Iran exported approximately 2.4 million bbl/d of oil. Iranian Heavy Crude Oil is Iran's largest crude export at 990,000 bbl/d followed by Iranian Light at 746,000 bbl/d. In 2007, Iran's oil export revenues amounted to approximately $57 billion. nearly one-third of government revenues and 85 percent of total exports earnings.

Top Iranian Crude Oil Export Destinations, 2007	
Country	**Thousand bbl/d**
Japan	523
China	411
India	374
South Korea	258
Italy	197
France	131
South Africa	128
Greece	113
Netherlands	93
Spain	79
Other	151
Total Exports:	**2,458**

Source: Global Trade Atlas; FACTS; EIA

Iran suffers from budget deficits due to a growing population and large government subsidies on gasoline and food products. For Iran's financial year 2007/2008, the International Monetary Fund (IMF) estimated that subsidies for crude oil and its derivatives cost Iran approximately 11 percent of its GDP.

Iran has the largest oil tanker fleet in the Middle East. The National Iranian Tanker Company holds 29 ships, including Very Large Crude Carriers. There have been reports that Iran uses its oil tanker fleet to store oil when its export terminals are full.

Export Terminals

Kharg Island, the site of the vast majority of Iran's exports, has a crude storage capacity of 20.2 million barrels of oil and a loading capacity of 5 million bbl/d, followed by Lavan Island with capacity to store 5 million barrels and loading capacity of 200,000 bbl/d. Other important terminals include Kish Island, Abadan, Bandar Mahshar, and Neka, which helps facilitate imports from the Caspian region. The Strait of Hormuz, on the southeastern coast of Iran, is an important route for oil exports from Iran and other Persian Gulf countries (see Persian Gulf Analysis Brief). At its narrowest point the Strait of Hormuz is 21 miles wide, yet an estimated 17 million barrels in the first half of 2008, or roughly two-fifths of all seaborne traded oil, flows through the Strait daily.

U.S. Sanctions

According to the Iran Transactions Regulations, administered by the U.S. Department of Treasury's Office of Foreign Assets Control (OFAC), U.S. persons may not directly or indirectly trade, finance, or facilitate any goods, services or technology going to or from Iran, including goods, services or technology that would benefit the Iranian oil industry. U.S. persons are also prohibited from entering into or approving any contract that includes the supervision, management or financing of the development of petroleum resources located in Iran. See OFAC's Iran Transactions Regulations page for more information.

Pipelines

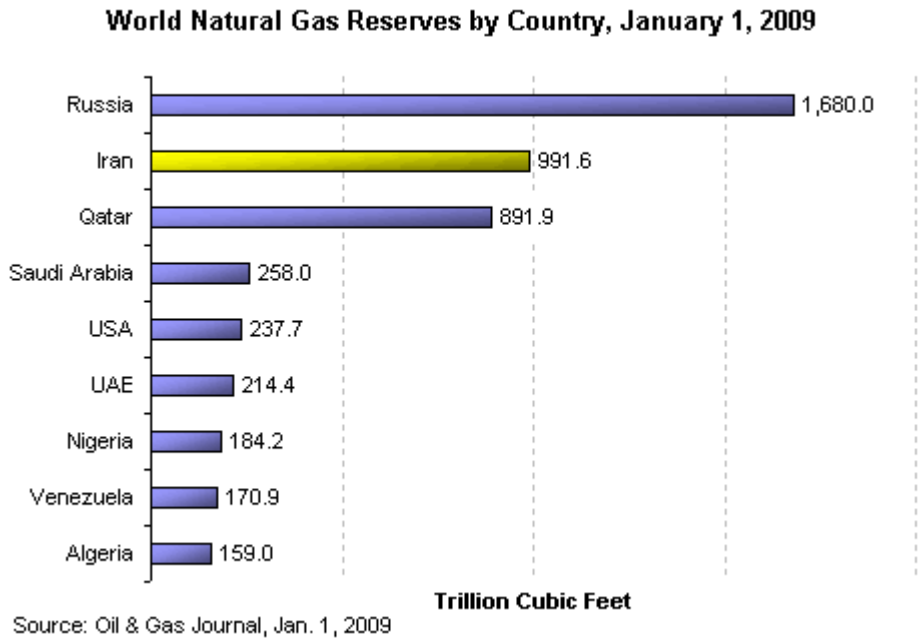
Iran has an expansive domestic oil network including 5 pipelines, and multiple international pipeline projects under consideration. Iran has invested in its import capacity at the Caspian port to handle increased product shipments from Russia and Azerbaijan, and enable crude swaps with Turkmenistan and Kazakhstan. In the case of crude swaps, the oil from the Caspian is consumed domestically in Iran, and an equivalent amount of oil is produced for export through the Persian Gulf with a Swiss-trading arm of NIOC for a swap fee.

Natural Gas

In 2007, Iran was the world's fourth largest producer and third largest consumer of natural gas

According to *Oil and Gas Journal*, Iran's 2008 estimated proven natural gas reserves stand at 948 trillion cubic feet (Tcf), second only to Russia. Roughly two-thirds of Iranian natural gas reserves are located in non-associated fields, and have not been developed. Major natural gas fields include: South and North Pars, Tabnak, and Kangan-Nar. In 2007, Iran produced and consumed an estimated 3.9 Tcf of natural gas. Natural gas consumption is expected to grow around 7 percent annually for the next decade.

Both production and consumption have grown rapidly over the past 20 years, and natural gas is often used for re-injection into mature oilfields in Iran. According to FACTS Global Energy, Iran's natural gas exports will be minimal due to rising domestic demand even with future expansion and production from the massive South Pars project. In 2007, roughly 70 percent of Iranian natural gas was marketed production, while approximately 30 percent was for enhanced oil recovery gas re-injection, and 285 million cubic feet was lost due to flaring. As with the oil industry, natural gas prices in Iran are heavily subsidized by the government.

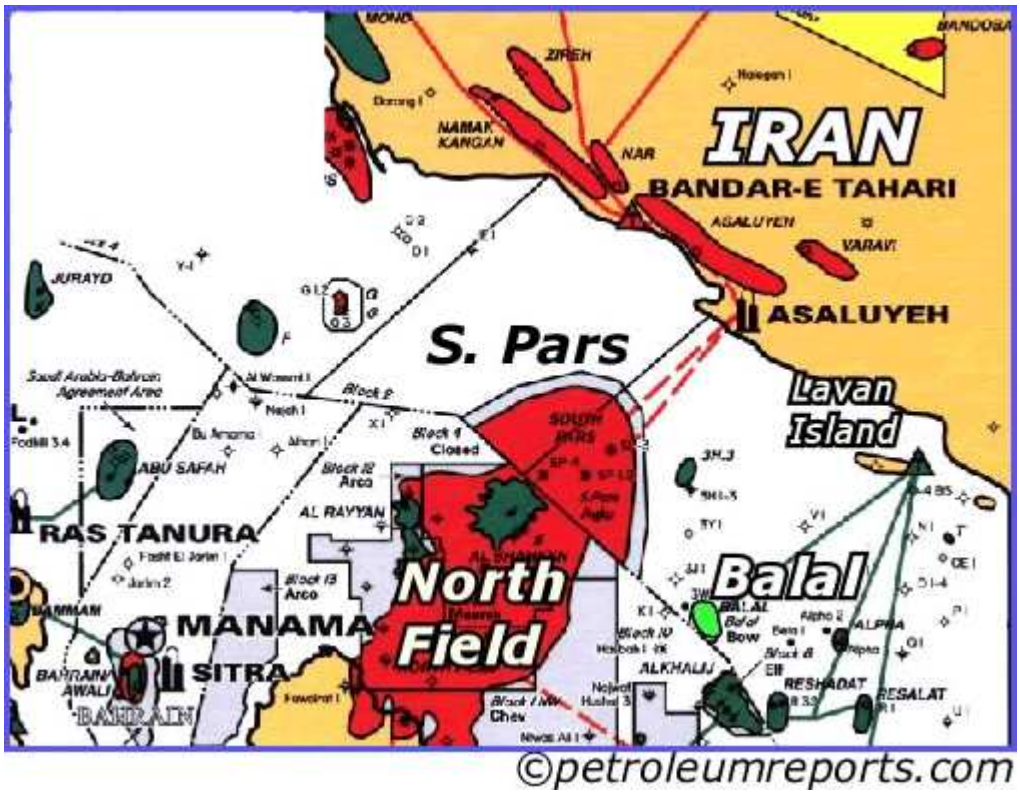


Sector Organization

The National Iranian Gas Company (NIGC) is responsible for natural gas infrastructure, transportation, and distribution. Due to the poor investment climate, some international oil companies including Repsol, Shell, and Total have divested from Iran's natural gas sector. In response, Iran has looked toward eastern firms, like state-owned Indian Oil Corp. China Petroleum & Chemical Corporation, and Russia's Gazprom to take an increased role in Iranian natural gas upstream development.

Under Iran's buy-back scheme, foreign firms hand over operations of fields to the National Iranian Oil Company (NIOC), and after development they receive payment from natural gas production to cover their investment. National Iranian South Oil Company (NISOC), a subsidiary of NIOC, is, as its name implies, responsible for much of the southern natural gas production. In 2007, NISOC was responsible for approximately 65% of Iran's total gas production.

South Pars Field



The most significant energy development project in Iran is the offshore South Pars field (called the North Field in Qatar), which is estimated to have 450 Tcf of natural gas reserves, or around 47 percent of Iran's total natural gas reserves. Discovered in 1990, and located 62 miles offshore in the Persian Gulf, South Pars has a 25 phase development scheme spanning 20 years. The entire project is managed by Pars Oil & Gas Company, a subsidiary of the National Iranian Oil Company. Each phase has a combination of natural gas with condensate and/or natural gas liquids production associated with it. Phases 1-6 are online, and Phases 7-10 are at varying levels of completion, though all of Phases 7-10 are expected online by the middle of 2009. The majority of South Pars natural gas development will be allocated to the domestic market for consumption and gas re-injection. The remainder will either be exported to South Asia or Europe, used for LNG production, and/or used for gas to liquids (GTL) projects.

Liquefied Natural Gas (LNG)

Pars Oil and Gas Company (PAGC) is responsible for upstream LNG development, and downstream development is divided amongst various companies including the National Iranian Gas Export Company (NIGEC). Iran's LNG production will come from three different projects: Iran LNG, Pars LNG, and Persian LNG. South Pars development phases 11-14 are to supply Iran's overall LNG ambitions, with specific phases supplying each project. Currently, South Pars Phase 12 is slated to provide Iran LNG with feedstock, with 2010 as the official, targeted start date. Iran needs international partners to develop its LNG potential and at present, discussions for partnership are underway with international oil companies and/or national oil companies not affected by US economic sanctions.

According to FACTS, Global Energy, Iran may reach peak LNG exports of around 1,462 Bcf as a lifetime ceiling. LNG projects in Iran lag behind neighboring Qatar, the world's largest LNG exporter.

Development

Iranian natural gas field exploration occurs in the Fars province including the Varavi, Shanol, and Homa fields, and in the Persian Gulf Salman gas field. In November of 2008, NIGC announced it was partnering with Indian firm Oil and Natural Gas Corp to produce recoverable gas reserves estimated at 12.8 Tcf from the Farsi Block. In April of 2008, NIOC announced the discovery of a field containing an estimated 740 Bcf of recoverable sour gas in the southwestern province of Khuzestan. In late 2007, NIOC announced the discovery of an 11.4 Tcf new gas field, of which at least 8.5 Tcf is estimated to be recoverable, in the Fars province.

In April 2008, Oman and Iran signed an agreement to develop Iran's offshore Kish field. With

estimated reserves of 50 Tcf, Oman will invest $7 billion in developing Kish in the hopes of producing 3 Bcf/d of natural gas. Phase I of the project, tentatively scheduled for first delivery to Oman by 2013, will produce approximately 2 Bcf/d; 65% of production will remain in Iran, the remaining 35% goes to Oman. Phase II of the project will produce 1 Bcf/d to be used for Iranian purposes.

Pipelines

Developments in the Iranian Gas Trunkline (IGAT) pipeline series, all fed by South Pars development phases, are important to Iran's natural gas transport. IGAT-6 (operating as of the end of 2008) will have a capacity of 3.5 Bcf/d, but will likely operate at half capacity initially. IGAT-7 (2009) will transport up to 3 Bcf/d of gas along southern Iran, between Assaluyeh and Iranshahr. IGAT-8 (2009) will run nearly 650 miles to Iran's northern consumption centers, including Tehran. IGAT-9 (2014), is an estimated $8 billion pipeline proposed to run from Assaluyeh to the northwestern city of Bazargan. IGAT-9 is unique in that for the first time, Iran is offering a build-own-operate contract for construction of its pipelines.

The 745 mile Iran-Turkey pipeline, completed in 2001, can transport up to 1.4 Bcf/d of natural gas. The 87-mile long Iran-Armenia pipeline will transport 86 Mcf/d to Armenia in exchange for 3.3 billion kilowatt hours of electricity.

Iran imports roughly 470 Mcf/d from Turkmenistan via the first pipeline in the Caspian region to bypass Russia for consumption in northern Iran. In January 2008, Turkmenistan stopped gas exports to Iran over pricing issues. Both countries reached an agreement on price and Turkmenistan began exporting gas again in April 2008. Turkmenistan has indicated a preference for a different pricing formula after 2009.

Iran has contracted with the Swiss company EGL to export initial volumes of approximately 40 Mcf/d to Europe, beginning in 2009. After 2012, exports are expected to reach close to 400 Mcf/d. The gas will be transported from the existing export pipeline to Turkey.

Iran's participation in the Nabucco gas pipeline project remains unresolved. Plans call for a 2050 mile pipeline connecting Iran and other Caspian states to Austria and the EU through Turkey. Construction is slated to start in 2010, and the entire project will cost an estimated $12.2 billion with a capacity to transport 3 Bcf/d.

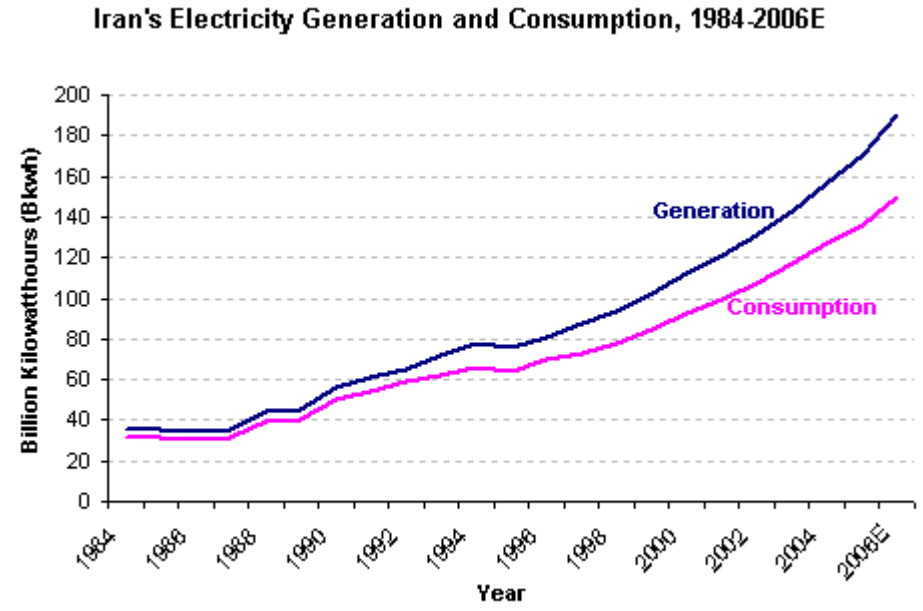
Iran-Pakistan-India (IPI) Pipeline

A controversial pipeline proposal is the $7.4-billion Iran-Pakistan-India (IPI) line which would transport Iranian natural gas south to the Asian subcontinent. With a proposed 1724 miles and a 5.4 Bcf/d capacity, the pipeline has been stalled in the past due in part to disputes over the cost of the shipments. Iran and Pakistan have finalized gas sales and purchase agreements, but without India's participation in the negotiations. It is probable that Iran would extend its domestic IGAT-7 pipeline into Pakistan, avoiding the creation of a new, parallel pipeline.

Electricity

Iran's electricity demand is projected to grow 7-9 percent annually and Iran does not use nuclear power.

In 2006, Iran generated a projected 190 billion kilowatthours (Bkwh) and consumed 149 Bkwh. 172 Bkwh was generated by conventional thermal electric power, and about 18 Bkwh was generated by hydroelectric power, with a marginal amount of renewable (solar and wind) power provided. As of 2007, EIA shows no nuclear electric power generation. Iran seeks to increase its installed capacity by roughly 10 percent annually, keeping in line with its projected 7-9 percent annual demand growth.



Source: EIA International Energy Annual 2007

Iran has been focused on meeting higher demand mainly through expanding combined-cycle and hydroelectric power. However, a severe drought during late 2007 and early 2008 adversely affected Iran's hydroelectric production, leaving water reservoirs emptied during the summer peak demand season, resulting in a drop of nearly 70 percent in hydroelectricity power generation. This has brought into question Iran's ability to fulfill its domestic power obligations, let alone its export obligations. Consequently, as of late 2007 some 85 water dams were under construction.

Further investment is required to meet Iran's future consumption needs. The Ministry of Energy estimates that to meet the growth in demand projected, capacity must reach 60,000 MW by 2015. A substantial element of this new capacity is due to be generated by independent power producers (IPPs), who are expected to have foreign equity stakes. Iran has a number of such projects in preparation, including plans to develop an IPP-based 1,000 MW open-cycle gas-fired power plant in Shiraz with the help of Quest Energy of Dubai. To date, most projects have been awarded through Iran's state-owned Tavanir but there is recognition that IPPs and private capital are necessary to meet even medium-term demand projections. The government also aims to increase power reserves to 26 percent, signifyingthat the number of new projects awarded is likely to increase in the coming years.

Iran continues to develop its nuclear program to generate electricity. Its first nuclear power plant of 1,000 MW is to be built at Bushehr with Russian assistance and operations are planned to begin in 2010.Russia is also providing fuel under an agreement signed in early 2005. Iran plans to develop 7,000 MW of nuclear-generated electricity by 2020. The United Nations and various other interested parties are keenly monitoring Iran's use of nuclear fuel and technology.

International Cooperation

Iran currently exports electricity to neighboring states including Armenia, Pakistan, Turkey, Iraq, and Afghanistan. Azerbaijan and Armenia supply electricity to Iran. The Azerbaijani Energy and Industry Minister has stated that talks were held on establishing a circular power grid between Russia, Azerbaijan, Iran, Turkey, and Georgia.

Tavanir and Saudi Arabia's Zenel Company have agreed to build a 1,200 MW power plant in Azerbaijan.Iran also plans to develop Belarus' heating stations and to construct a new hydroelectric station in the country.

Profile

Energy Overview

Proven Oil Reserves (January 1, 2009E)	136 billion barrels
Oil Production (2007)	4.1 million barrels per day, of which 3.8 million barrels per day was crude oil.
Oil Consumption (2007)	1.7 million barrels per day
Crude Oil Distillation Capacity (2008)	1.5 million barrels per day
Proven Natural Gas Reserves (January 1, 2009E)	948 trillion cubic feet
Natural Gas Production (2007E)	3.9 trillion cubic feet
Natural Gas Consumption (2007E)	3.9 trillion cubic feet
Recoverable Coal Reserves (2007E)	462 million short tons
Coal Production (2007E)	1.4 million short tons
Coal Consumption (2007E)	2.0 million short tons
Electricity Installed Capacity (2006E)	44.3 gigawatts
Electricity Production (2006E)	190 billion kilowatt hours
Electricity Consumption (2006E)	149 billion kilowatt hours
Total Energy Consumption (2006)	7.7 quadrillion Btus*, of which Natural Gas (53%), Oil (44%), Hydroelectricity (2%), Coal (1%)
Total Per Capita Energy Consumption (2006)	118.2 million Btus
Energy Intensity (2006)	14,120 Btu per $2000-PPP**

Environmental Overview

Energy-Related Carbon Dioxide Emissions (2006)	471.5 million metric tons, of which Natural Gas (50.5%; including flaring), Oil (48.5%), Coal (1%)

Per-Capita, Energy-Related Carbon Dioxide Emissions (2006)	7.25 metric tons
Carbon Dioxide Intensity (2006)	0.9 Metric tons per thousand $2000-PPP**

Oil and Gas Industry

Organization	The Ministry of Petroleum (MoP) manages: 1) National Iranian Oil Company (NIOC) - oil and gas exploration and production, refining and oil transportation; 2) National Iranian Gas Company (NIGC) - manages gathering, treatment, processing, transmission, distribution, and exports of gas and gas liquids; 3) National Iranian Petrochemical Company (NPC) - handles petrochemical production, distribution, and exports; and 4) National Iranian Oil Refining and Distribution Company (NIORDC) handles oil refining and transportation, with some overlap to NIOC. The National Iranian Offshore Oil Co. (IOOC) is in charge of offshore oil fields in the Persian Gulf. The National Iranian South Oil Fields Co. (NIOC South) is in charge of onshore oilfields in southern Iran. Pars Oil & Gas Co. (POGC) is in charge of the offshore North and South Pars gas fields. Khazar Exploration & Production Co. is in charge of Iran's Caspian Sea sector. Also, the National Iranian Tanker Company (NITC) controls the second largest fleet of tankers in OPEC.
Major Oil/Gas Ports	Kharg Island, Lavan Island, Sirri Island, Ras Bahregan
Foreign Company Involvement	BG, BHP, BP, CNPC, Edison, Eni, Gazprom, Lukoil, OMV, Petronas, PGNIG, Royal Dutch/Shell, Sheer Energy, Sinopec, Statoil, Technip, Total
Major Oil Fields	Agha Jari, Ahwaz, Bangestan, Bibi Hakimeh, Darkhovin, Doroud, Gachsaran, Mansouri (Bangestan), Marun, Masjid-e Soleiman, Parsi, Rag-e-Safid, Soroush/Nowruz
Major Natural Gas Fields	South Pars, North Pars, Khuff, Zireh, Tabnak, Nar-Kangan, Aghar, Dalan, Sarkhoun, Mand
Major Refineries (capacity, bbl/d)	Abadan (400,000), Isfahan (265,000), Bandar Abbas (232,000); Tehran (225,000), Arak (150,000), Tabriz (112,000), Shiraz (40,000), Kermanshah (30,000), Lavan Island (20,000)
Major Export Terminals (loading capacity, bbl/d)	Kharg Island (5 million), Lavan Island (200,000), Neka (50,000), Assaluyeh (250,000 gas liquids), Kish Island and Abadan and Bandar Mahshahr

* 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 figures from OECD estimates based on purchasing power parity (PPP) exchange rates.

Links

U.S. Government
CIA World Factbook - Iran
EIA - Iran Country Energy Profile
Library of Congress Country Study on Iran
National Academy of Sciences: The Iranian petroleum crisis and United States national security
OPEC Fact Sheet
U.S. State Department - Iran
U.S. Treasury Department's Office of Foreign Asset Controls

Foreign Government Agencies
Interests Section of the Islamic Republic of Iran in Washington, DC (in the Pakistani Embassy)
Permanent Mission of the Islamic Republic of Iran to the United Nations
Salam Iran Home Page

Energy
National Iranian Oil Company
National Petrochemical Company of Iran
Pars Times: Caspian Sea Region
Pars Times: Iran Oil and Gas Resources

General
BBC Iran
BBC Persian
Bushehr: Global Security.org
Iran Nuclear Resources
Iranian Trade
Pars Times: Persian Gulf Region
Shana
Tehran Times

Sources

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Agence France Presse
AME Info
AP Worldstream
APS Review Oil Market Trends
ARMINFO News
Argus Media Ltd.
Armenian News
Asia in Focus
Asia Pulse
Bangkok Post
BBC
Business Monitor International
Business Standard
Cambridge Energy Research Associates
CIA World Factbook
Comtex News Network, Inc.
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Energy and Commodities Digest
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Inside U.S. Trade
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International Gas Report

International Monetary Fund
International Oil Daily
International Petroleum Finance
IPR Strategic Information Database
Middle East Business Intelligence
Middle East Economic Digest
Middle East Economic Survey
Middle East Oil Journal
New York Times
Newsday
Oil and Gas Journal
Organization of Petroleum Exporting Countries
Petroleum Economist
Petroleum Intelligence Weekly
PFC Energy, Inc.
Pipeline and Gas Journal
Platt's Commodity News
Press Trust of India Limited
Prime-News Business
Reuters
Rigzone
Shana News Agency
St. Petersburg Times
Straits Times
Trend News Agency
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