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2015

Coming in from the cold?

*Iran's energy sector gears up
for the post-sanctions era*



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“The most powerful force ever known on this planet is human cooperation - a force for construction and destruction.”

Jonathan Haidt, Social Psychologist and Professor of Ethical Leadership

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Coming in from the cold?

*Iran's energy sector gears
up for the post-sanctions era*



CONTEXT

Following the highly-anticipated conclusion of a framework agreement on its nuclear program with Western powers in early April, Iran is positioning itself for the potential lifting of international sanctions, a move that would revive the Islamic republic's ailing energy industry, pave the way for its return as a major oil exporter and provide much-needed stimulus to the domestic economy.

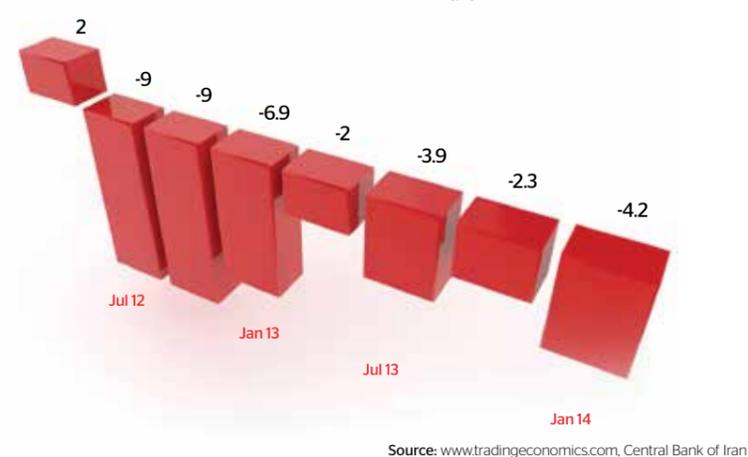
Pending the conclusion of a final accord by June 30 on the country's controversial nuclear program between Tehran and the five permanent UN Security Council members Britain, France, Russia, China and the US plus Germany (P5+1), the Islamic republic may see relations with the rest of the world return to normal as early as this year, a development that would not only reverse the fortunes of its struggling economy at a time when Brent crude prices have more than halved to around \$50 a barrel since mid-2014. It would also open the biggest bonanza for international energy companies since the ouster of Iraqi President Saddam Hussein in 2003.

Iran, holder of the world's fourth-largest proved oil and the second-largest proved natural gas reserves, has been hard hit by UN and international bilateral sanctions imposed on the country in 2006 and 2010 on top of existing US sanctions¹. But it was the latest set of even more stringent measures enacted by the US and the European Union (EU) in late 2011 and 2012 that had the most devastating impact on the local economy.

ECONOMIC IMPACT

According to the International Monetary Fund's (IMF) latest Article IV Consultation report on Iran published in April, the sanctions have had a contractionary impact on the economy, with real gross domestic product (GDP) declining by almost 6 percent in 2012/13. During the first half of 2013/14, real GDP was estimated to have declined by about 2.5 percent, compared with the same period in the previous year, the IMF said². Between June 2012 and February 2014, Iran recorded negative GDP growth for seven consecutive quarters³.

FIGURE 1 IRAN GDP ANNUAL GROWTH RATE (%)



1. The US has used sanctions against Iran since the 1979 Islamic revolution and increasingly since the mid-1990s with a particular focus on convincing Tehran to limit the scope of its nuclear program.

2. IMF Country Report No. 14/93: <https://www.imf.org/external/pubs/ft/scr/2014/cr1493.pdf>

3. See Figure 1

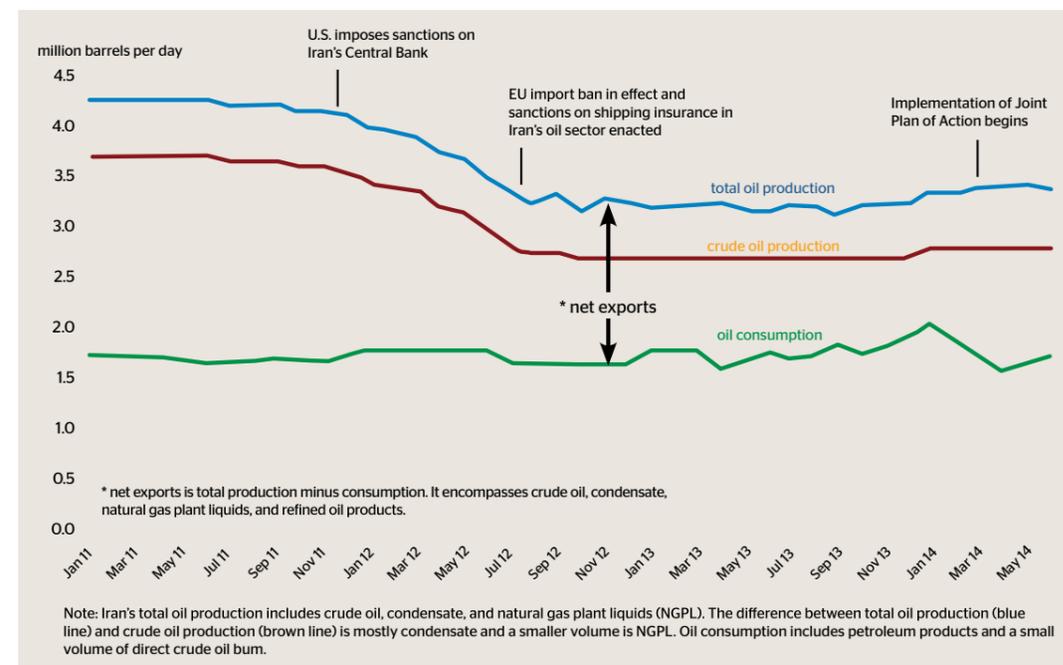
4. See Figure 2

5. Iran's fiscal year ends March 20

6. See Figure 2

7. Zanganeh was appointed petroleum minister by President Hassan Rouhani in 2013. He previously served in this position from 1997 until 2005.

FIGURE 2 IRANIAN PETROLEUM AND OTHER LIQUIDS PRODUCTION AND CONSUMPTION, JANUARY 2011 TO JUNE 2014



Source: U.S. Energy Information Administration

“Since early 2012, international trade and financial sanctions brought renewed shockwaves and pushed the economy into a deep contraction. A series of sanctions restricting oil exports, the supply chain of some key sectors (like automobiles), and transactions of international and domestic banks, impaired Iran's ability to conduct international current and capital transactions and brought a sharp decline in income,” the IMF said in its Article IV report.

The Islamic republic's energy sector has been among the most severely affected by the various embargoes in recent years. Since first imposed in 2006, UN sanctions have prevented Iran from securing much-needed foreign investment, technology and expertise for its energy sector, stymieing developments especially in upstream oil and gas. A large number of projects has either been cancelled or delayed. As a result, the country has struggled to expand production capacity at its oil and gas fields, and to halt and reverse declines at its mature fields.

Since another round of stringent EU and US sanctions was levied on Tehran in late 2011 and 2012, the country's economic situation has dramatically worsened. Aimed at impeding Iran's ability to sell oil, the sanctions led to a 1 million-barrel a day (b/d) drop in crude and condensate exports in 2012 versus the previous year. Once OPEC's second-largest oil producer, Iran now ranks behind Iraq in terms of oil and liquids production, averaging only about 3.2 million b/d in 2013, compared with about 4.2 million b/d in 2011⁴.

The economic price of falling oil production and exports in particular has been hefty. According to IMF figures, Iran's oil and gas export revenues slumped by 47 percent to \$63 billion in the 2012/13 fiscal year⁵ from \$118 billion a year earlier. The IMF estimates that oil and gas export revenues declined by another 11 percent to \$56 billion in the 2013/14 fiscal year. Without a deal that would allow Iran to ramp up crude exports again to make up at least in part for today's cheap oil prices, fiscal revenues would likely fall as low as \$23.7 billion this financial year, the World Bank said in January.

The crippling effect of the latest round of sanctions,

combined with the election of moderate Hassan Rouhani as Iran's president in June 2013, is widely considered to have played an important role in Tehran's decision to agree to the establishment of a Joint Plan of Action (JPA) with the P5+1 in November 2013.

Under the JPA, which came into force in January 2014, Iran agreed to halt expansion of its nuclear program in exchange for limited sanctions relief for a six-month negotiation period during which the parties committed to seek a comprehensive solution to the Islamic republic's nuclear plans. The original July 2014 deadline was first extended to November 24 and subsequently to June 30 this year, with a view to reach a framework agreement in March – the deal that was just announced.

While sanctions have remained in place during the talks, the JPA has brought some benefits to Iran. While temporary sanctions relief hasn't allowed Tehran to ramp up its oil sales, the country has been able to boost sales from condensates, which under the JPA aren't considered as crude oil. As a result, Iran's oil and condensate exports stood at an average 1.4 million b/d during the January-May 2014 period – above 2013 export figures and thus an additional revenue earner⁶.

“The sum of crude oil plus condensate sales to Iran's six big customers has been running about 350,000 b/d higher during the first five months of last year than the same sum was during the last six months of 2013. That's worth more than \$13 billion a year to Iran,” Washington, D.C.-based consulting firm Foreign Reports said in a report published in July.

With hopes high that the sanctions on Iran are indeed going to be lifted, the country's (re-)appointed minister, long-time technocrat Bijan Namdar Zanganeh⁷, has moved swiftly to unveil a new oil contract model that will replace the unpopular buyback schemes. Aimed at drawing more foreign companies to invest in and develop Iranian hydrocarbon reservoirs, the new, so-called Iran Petroleum Contract (IPC) is still being finalized but indications are that it will be a major improvement on the old buyback model. ■

HISTORY OF IRAN'S OIL & GAS INDUSTRY

Iran's oil and gas industry dates back to the early 20th century, making it the oldest in the Middle East. Petroleum exploration began in 1901 when wealthy English adventurer and petroleum entrepreneur William Knox D'Arcy won an oil concession from the Iranian government and subsequently struck oil at the Masjid-e Soleiman field—Iran's oldest field located in the country's southwest—in 1908.

A year after first production at Masjid-e Soleiman started, Anglo-Persian Oil Company (APOC)—which has since become BP—was formed and tasked with extracting and marketing the oil produced in the southwestern region. The field would remain Iran's main crude source for some time, producing some 100,000 b/d by 1930, and is still pumping today.

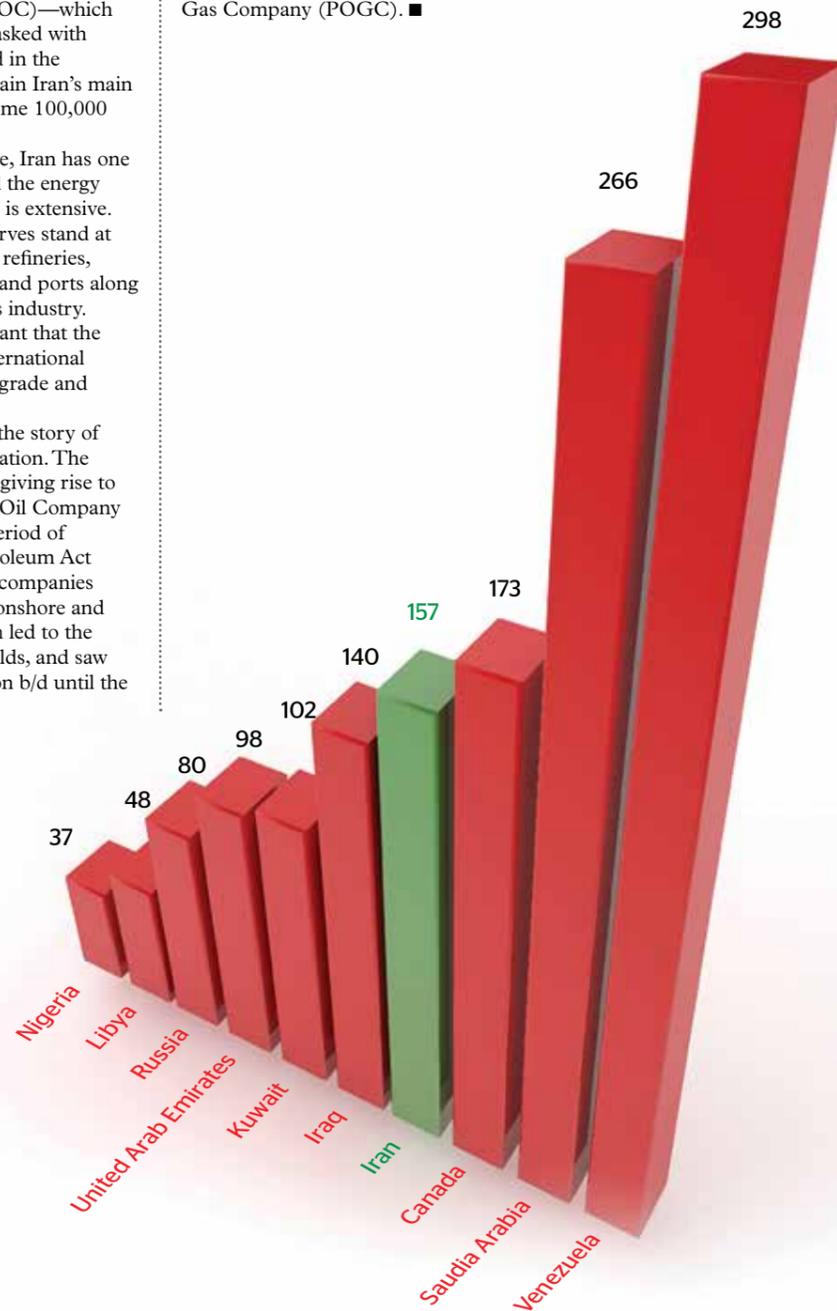
With more than 100 years of experience, Iran has one of the world's most mature oil sectors and the energy infrastructure that has been built up since is extensive. Today, Iran's conventional proved oil reserves stand at 157 billion barrels⁸. The country has nine refineries, extensive pipeline networks, oil terminals and ports along the Gulf coast, and a large petrochemicals industry. However, international sanctions have meant that the country has been unable to attract the international investments and technology needed to upgrade and expand this infrastructure.

Like in other parts of the Middle East, the story of Iran's oil industry is also one of nationalization. The industry was nationalized in March 1951 giving rise to the establishment of the National Iranian Oil Company (NIOC) in the same year followed by a period of consolidation in the sector. When the Petroleum Act of 1957 came into force, international oil companies (IOCs) were able to get involved both in onshore and offshore exploration in the country, which led to the discovery of almost 90 new oil and gas fields, and saw production levels climb as high as 6 million b/d until the Islamic revolution in 1979.

US sanctions imposed on Iran following the seizure of the American embassy in Tehran amid the revolution and the eight-year Iran-Iraq war subsequently saw oil production slump as low as 1.5 million b/d – and never recover to pre-revolution levels⁹. Today, the sector continues to be dominated by state-run NIOC and its multiple subsidiaries, among the most important of which are National Iranian Drilling Company (NIDC), Iranian Offshore Oil Company (IOOC) and Pars Oil & Gas Company (POGC). ■

FIGURE 3 LARGEST PROVED RESERVE HOLDERS OF CRUDE OIL, JANUARY 2014 (BILLION BARRELS)

Source: Oil & Gas Journal



8. See Figure 3

9. See Figure 4

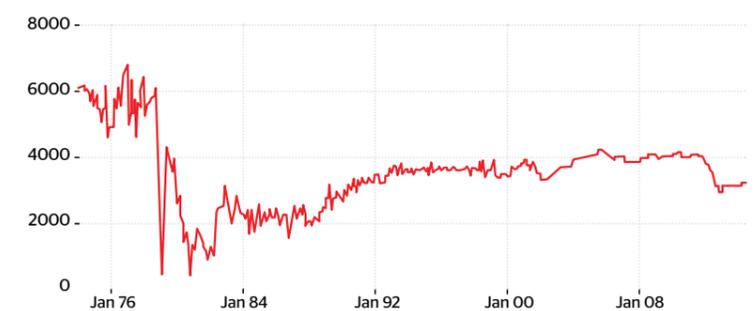


THE STATUS AND CHALLENGES OF IRAN'S ENERGY SECTOR TODAY

Few would disagree that Iran has the potential to reclaim its status as an energy giant. But it won't be an easy task. The sector's infrastructure is in dire need of rehabilitation and upgrading worth tens of billions of dollars after years of underinvestment. Moreover, decline rates at the country's oil fields are relatively high, ranging between 8-11 percent, while recovery rates are quite low at 20-25 percent, according to energy consultancy FGE and the Arab Oil and Gas Journal.

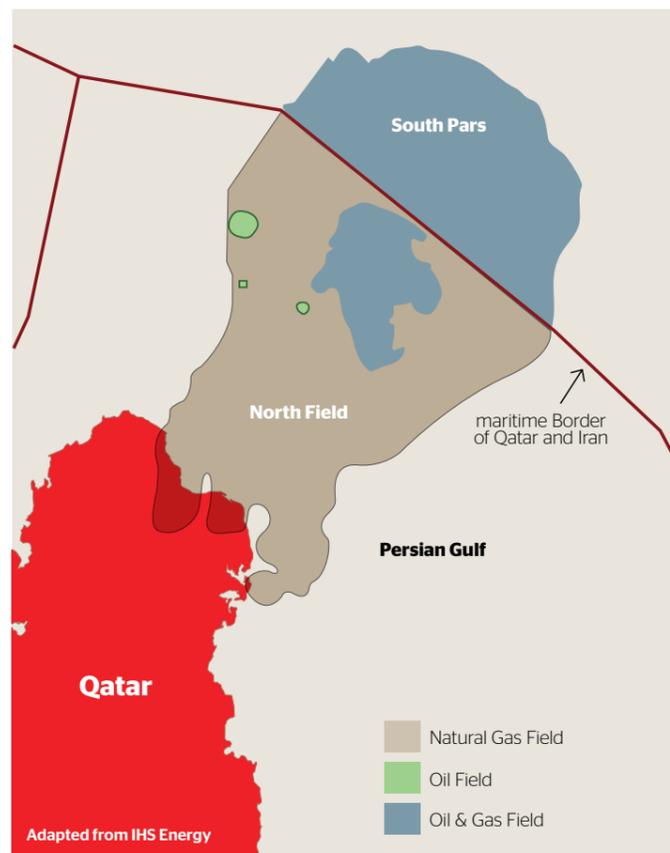
Therefore—even though Iran was able to keep crude production steady at around 4 million b/d for much of the past 10 years, thanks to new discoveries—returning to pre-sanction oil production levels will be difficult to achieve. Going forward, the country will have to introduce and apply advanced technologies and techniques such as enhanced oil recovery (EOR), which it hasn't been able to get its hands on due to sanctions, on a much greater scale to maintain and boost output.

FIGURE 4 IRANIAN CRUDE OIL PRODUCTION (THOUSAND B/D)



Source: www.tradingeconomics.com, U.S. Energy Information Administration

FIGURE 5 MAP OF QATAR'S NORTH FIELD



and reflect the wider problem Iran's energy sector has to contend with. Not only have sanctions prevented the Islamic republic from bringing in state-of-the-art technology and financing. The few international companies that have become involved have proceeded slowly on projects due to concerns that too much progress may lead to US action on their US or international business interests. At the same time, Chinese oil companies in particular have been unwilling to pull out from Iran to retain a prime position in the case of sanctions being lifted.

GASSECTOR

While the oil sector is arguably the most important for Iran to develop because it is the main source of

export revenue, the gas sector too has a key role to play in the country's energy future. Iran presently consumes the bulk of its gas in the domestic market, which in recent years has seen demand rise rapidly on the back of industrial and population growth. Consumption by the power, industrial, commercial and residential sectors accounts for nearly 90 percent of local gas production, according to the US Energy Information Administration (EIA).

But although Iran holds the world's second-largest natural gas reserves and the world's largest gas field, South Pars, Tehran has struggled to boost output to meet domestic demand over the past decade due to a lack of technology and foreign investment in key gas infrastructure. Plans announced in the early 2000s to export gas in liquefied form have equally been held back by Iran's inability to obtain liquefied natural gas (LNG) technology and funding.

The multi-phased, multi-billion-dollar development of the South Pars gas field, located offshore in the Persian Gulf and shared with Qatar, where it is known as North Field, is the largest upstream project presently under development in the country but is facing numerous delays.

The field, which holds around 40 percent of Iran's proved natural gas reserves, was originally due to be developed with the involvement of international oil majors. However, following the tightening of sanctions Western companies withdrew from the scheme, which presently comprises 28 phases, the first 10 of which as well as Phase 12 have been completed.

10. See: <http://www.tehrantimes.com/economy-and-business/115588-chinas-cnpc-still-involved-in-north-azadegan-iran-oil-minister>

HE ENG. BIJAN NAMDAR ZANGANEH, MINISTER OF PETROLEUM, IRAN

Bijan Namdar Zanganeh is the Minister of Petroleum in Iran since August 2013. Previously, Zanganeh served in the following government posts: Deputy Minister, Cultural Affairs, Ministry of Islamic Guidance (1981-83); Member of the Central Council of Jihad Sazandegi (Construction Jihad) (1982-83); Member of the Economic Council (1981-2004); Member of the National Expediency Assembly (1997-2011); Minister of Jihad Sazandegi (1983-88); Minister of Energy (1988-97); Minister of Petroleum (1997-2005). Zanganeh is recognized for attracting foreign investment into Iran's oil and gas industries during his first time as minister of petroleum under President Mohammad Khatami. Zanganeh has also contributed to the expansion of petrochemical and gas sectors, and promoted the use of gas domestically. Zanganeh earned a graduate degree in civil engineering from the University of Tehran in 1977.

Source: <http://www.businessinsider.com/iran-is-offering-to-supply-gas-to-europe-if-a-russian-energy-embargo-goes-into-effect-2014-5>

Gas produced from the field is being processed onshore and pumped north to the main consumption centers through the country-wide Iran Gas Trunkline (IGAT) grid or used in petrochemical production, mostly located along the Gulf coast. Future South Pars phases have also been dedicated to the development of LNG export projects. In addition, South Pars will add significant volumes of condensate production.

Like in the oil sector, Iran will have to spend billions on upgrading and expanding its gas sector if it is to meet domestic requirements on the one hand and to meet its goal of becoming a world-scale LNG exporter on the other. Unless sanctions are shelved, it will be next to impossible for Iran to do so however.

STRUCTURAL PROBLEMS

In addition to the issues caused by financial constraints, limited or no access to technology and sanctions, the domestic oil and gas sector is facing a number of structural problems brought about by subsidies on natural gas and refined petroleum products, which have led to major inefficiencies and encouraged wastage.

"The substantial subsidizing of energy prices over the years has led to low productivity in the energy-intensive industries, deterioration of the environment in urban areas, and a huge burden on the government budget leading to macroeconomic disturbances," according to a 2013 report by the International Association for Energy

Economics (IAEE)¹¹.

"Iran's rapidly growing own energy consumption (about 6 percent per year for the past 30 years) has raised concerns about the country's ability to continue to export oil in the next decade."

Demand for heavily-subsidized gasoline in particular has been soaring, which in turn has driven up imports. Iran did manage to reduce gasoline imports, at least temporarily, due to a mix of increased domestic refining capacity and price hikes implemented under an energy subsidy reform introduced by former president Mahmoud Ahmadinejad's government in 2010.

Although the first phase of the subsidy reform is widely considered as having been relatively successful, the Islamic republic still has to import substantial quantities of gasoline – which has to be paid for in foreign currency on the international market. In 2010, the government had to draw on its Foreign Reserve Fund to import gasoline amid runaway domestic demand for the cheaply-priced fuel.

Iran's energy subsidies are as high as 12 percent of GDP, depending on the definition of the subsidy (direct or indirect) and world energy prices, placing a huge burden on the government's budget, according to the IAEE report. Thanks to a period of high oil prices until mid-2014, Tehran was able to offset some of the subsidy costs. However, with oil prices at levels around \$50 a barrel and no signs of recovery in sight, maintaining subsidies would be unsustainable, even more so with a deal that leads to the lifting of sanctions. ■



Buyback Vs. New Iran Petroleum Contract

A Winning Model?

The need for Iran to invest in its oil and gas sector to maintain and boost output is obvious. In a bid to create an environment more conducive to attracting foreign investment, the oil ministry has started working on a new contract model for international companies seeking to become involved in domestic oil field developments.

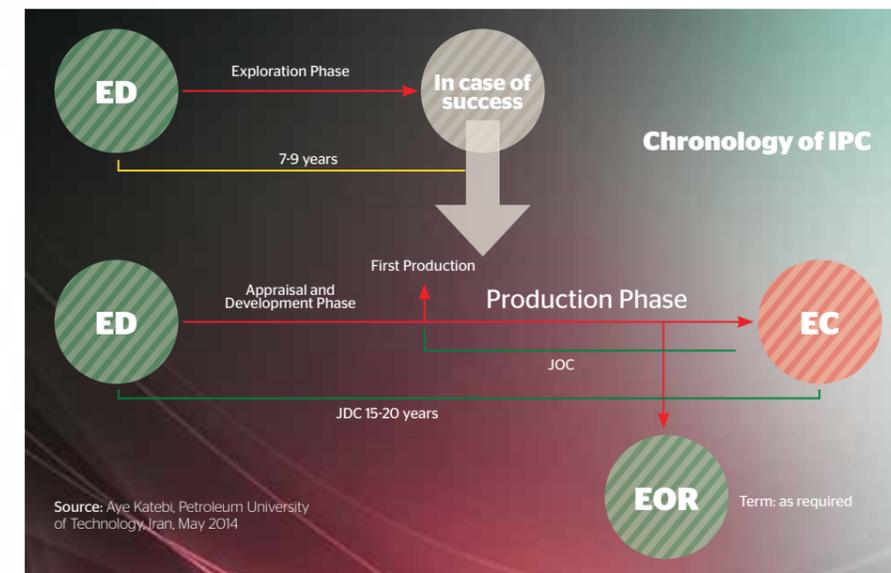
The Iran Petroleum Contract (IPC) is set to replace the traditional buyback scheme, which was first introduced in the 1990s in an attempt to bridge the gap between the country's need to attract foreign oil and gas investors, and a ban on private and foreign private ownership of natural resources under the Islamic republic's constitution.

The scope of Iran's buyback contracts covers both field exploration and development. They are essentially risk service contracts, under which the contractor is paid back by being allocated a portion of the hydrocarbons

produced as a result of providing services. The pay-back period tends to be short, ranging between five to seven years, after which a developed field will be handed over to NIOC. Buyback schemes are based upon a defined scope of work, a capital cost ceiling, a fixed remuneration fee and a defined cost recovery period.

Although Iran has updated the buyback model twice since it was first introduced the contracts have been widely unpopular with IOCs due to their inflexibility and limited returns. According to a note published by legal firm Clyde & Co. in May 2014¹², "the IOCs feel that the buyback model is prone to huge potential losses because the IOC has very limited options to put a ceiling on its capital costs. Additionally, the way that the contracts are structured means that at the time of signing, long term pre-defined operating targets are set that do not take account of prevailing market conditions, new drilling plans, reserve estimates, financing costs, etc."

FIGURE 6 NEW MODEL CONTRACT (IPC)



Source: Aye Katebi, Petroleum University of Technology, Iran, May 2014

NEW CONTRACT MODEL

The IPC will do away with many of these criticisms. Mohsen Shoar, Managing Director at Dubai-based Continental Energy DMCC and an expert on Iranian energy, says the new IPC model varies markedly from the existing buyback schemes in that it proposes the establishment of a joint venture between NIOC (or one of its subsidiaries) and a foreign partner for field exploration, appraisal, development and—for the first time since 1979—production.

There will also be a provision for the IPC to extend into enhanced oil recovery (EOR) phases¹³. According to the EIA, "this modification aims to rectify issues with field decline rates by including the IOC in the production and recovery phases, while optimizing technology and knowledge transfers."

Unlike the short nature of the buybacks, the IPC model will offer extended contract duration of 20-25 years, allowing for much longer cost recovery after first production. On top of this, there will be a risk-reward element linked to the complexity of fields that pays companies higher fees for 'very high risk' on- and offshore fields compared with 'low-risk onshore' fields.

The IPC is also designed to take advantage of foreign companies' marketing expertise and give Iran access to their supply network to find an export market, according to Clyde & Co, in particular at a time when the Islamic republic has lost some market share.

"This is important at this time as the global energy market is expected to face oversupply in the mid-term due mainly to the discovery and harnessing of shale gas in North America. Thus, having the assistance of an international company and its networks around the globe

will become an increasingly important resource for Iran."

While IOCs won't be able to book reserves under Iranian law, it is understood that the IPC will make some provisions allowing investors to incorporate revenues generated from Iranian oil and gas resources in their financial reporting, which for stock market-listed companies in particular would be an important incentive when mulling involvement in the country.

Other significant amendments versus the buyback model include an 'annual work program and budget' to be approved by a joint venture development committee (JDC) made up of officials from the partner companies, says energy expert Shoar. This is an important change as the fixed cost approach under the buyback model meant that cost for projects going above budget couldn't be recovered, thus eroding profitability.

Overall, the increased flexibility and improved terms offered under the IPC will provide some incentive for foreign investors to consider a return to Iran's oil and gas sector if and when sanctions are lifted. However, challenges remain. Continental Energy's Shoar says, among other issues, IOCs may be concerned over too much interference into operations by the local joint-venture party.

"Under the IPC, a foreign partner will be required to meet the Iranian local content requirement which will be 51% of the contract. This is, however, unlikely to deter too many foreign investors who are used to working in the region," according to Clyde & Co's legal note. "Another potential sticking point for international oil companies may be the fact that any dispute arising under the IPC will be subject to the exclusive jurisdiction of the Iranian courts. Many international companies may not feel comfortable with this and would probably prefer international arbitration." ■

12. "Iran's new Integrated Petroleum Contracts" by Clyde & Co LLP, Adrian Creed and Dr Amir Kordvani, May 2014
13. See Figure 6



Kurdistan - A Model For Iran? How Will Small To Medium Sized Independents Compete In Iran's Black Gold Rush?

There can be little doubt that interest among international firms in developing Iran's hydrocarbon resources post sanctions is enormous. A reopening of the country's energy sector would likely lead to a bonanza for oil companies not seen since the opening of Iraq in the post-Saddam Hussein era. The difference would be that the Islamic republic in many ways is a safer bet than Iraq given its politically stable environment and more diversified economy.

To be sure, the risks and challenges associated with becoming involved in Iran's energy sector would still be large – but likely to offer sufficient upside to attract international interest. In some way, Iran's new contract model resembles the one that has been successfully applied by the Kurdish Regional Government (KRG) in neighboring Iraq.

“Under the Iranian Constitution, ownership of the natural resources belongs to the ‘nation’ and cannot therefore be transferred. However, the IPC, for the first time, will include provisions allowing transfer of ownership of hydrocarbons to the foreign partner at defined delivery points. This is similar to the tried and tested production sharing agreements used in the UAE and Iraqi Kurdistan,” according to Clyde & Co.

Although the KRG remains locked in a dispute with the central Iraqi government in Baghdad over the sale and export of its resources, it has been successful in attracting some of the biggest names in world oil to the semi-autonomous region, signing oil production sharing agreements with ExxonMobil, Chevron, Gazprom and Total since late 2011. The deals followed the signing of dozens of production sharing deals with independent companies such as DNO, Oil Search Limited and Hunt Oil

that saw production in Iraqi Kurdistan ramp up significantly over the past 10 years.

While the environment in the KRG areas isn't comparable to that of Iran, independent oil companies with a higher tolerance for risk may take a similar approach to getting involved early in a post-sanction Islamic republic. Initial interest is also likely to be strong among companies from energy-hungry nations east of Iran, notably China and India.

“I would expect strong Chinese and Indian interest,” says Shoar, adding that ultimately energy companies across the board are likely to seek involvement. “Iran needs huge investments and the potential for rewards is huge, especially in the longer term. There is, for example, a lot of stranded and non-associated gas in Iran, so there is a lot of potential for gas projects in the form LNG and pipelines.”

For now, all eyes remain on the the final round of negotiations between the P5+1 and Tehran, which are due to be concluded by June 30. Iran's oil ministry has announced that it plans to unveil the IPC at a conference in London in September, which was originally due to be held in February but was postponed in light of the negotiations extension.

“Today, I can say with confidence that most major international oil corporations are aware about the new format of Iran's oil contracts,” Mehdi Hosseini, an adviser to Oil Minister Zanganeh and a key engineer behind the country's buyback deals, told Iran's Press TV on April 4.

“We have been engaged in negotiations with international corporations over the past year and they have welcomed Iran's new format of oil contracts. They are waiting for the sanctions to be removed as soon as possible so that they can return to Iran's oil sector projects.” ■

Iran: Interim Nuclear Agreement and Talks on a Comprehensive Accord

INTRODUCTION

Multilateral negotiations regarding Iran's nuclear program date back to 2003 after a pilot-scale clandestine gas centrifuge enrichment facility was revealed at Natanz. In October of that year, Iran concluded an agreement with France, Germany, and the United Kingdom that contained provisions designed to alleviate international concerns regarding Iran's uranium enrichment and heavy-water reactor programs. Iran temporarily suspended all enrichment and reprocessing operations and signed the IAEA Additional Protocol to its safeguards agreement, but also asserted its right to develop nuclear technology. Between 2003 and 2006, questions arose about undeclared nuclear activities in Iran. In January 2006, Iran broke international seals and restarted work on its commercial-scale enrichment plant. In June 2006, the P5+1 presented a proposal to Tehran that offered a variety of incentives in return for several Iranian confidence-building steps concerning those programs. Since then, the two sides have held multiple rounds of talks—some as recently as spring of 2013—without reaching agreement. Following the June 2013 election of Iranian President Hassan Rouhani, many observers expressed optimism that these negotiations would produce an agreement. After Rouhani took office in August 2013, Iran and the P5+1 met twice (once in October and once in November) prior to the talks that agreed on November 24, 2013, to the “Joint Plan of Action” (JPA, sometimes referred to in international documents as JPoA). The JPA set out an approach toward reaching a long-term comprehensive solution to international concerns regarding Iran's nuclear program.

As part of the diplomatic efforts cited above, the U.N. Security Council adopted several resolutions, the most recent of which (Resolution 1929) was adopted in June 2010. These resolutions require Iran to cooperate fully with an ongoing International Atomic Energy Agency (IAEA) investigation of its nuclear activities, suspend its uranium enrichment program, suspend its construction of a heavy-water reactor and related projects, and ratify the Additional Protocol to its IAEA safeguards agreement. Resolution 1929 also requires Tehran to refrain from “any activity related to ballistic missiles capable of delivering nuclear weapons” and to comply with a modified provision (called code 3.1) of Iran's subsidiary arrangement to its IAEA safeguards agreement.¹ Several of these resolutions imposed economic and other sanctions on Iran.

In addition to concluding the JPA, Iran signed a joint statement with the IAEA on November 11, 2013, describing a “Framework for Cooperation.”² According to the statement, Iran and the IAEA agreed to “strengthen their cooperation and dialogue aimed at ensuring the exclusively peaceful nature of Iran's nuclear programme through the resolution of all outstanding issues that have not already been resolved by the IAEA.” The IAEA has long sought to resolve some outstanding questions regarding Tehran's nuclear program, some of which concern possible Iranian research on nuclear weapons development.



MAJOR OUTSTANDING ISSUES

Several rounds of U.S.-Iran and P5+1 – Iran talks have been held in 2015, primarily in various cities in Switzerland. The most recent round of U.S.-Iran talks began on March 25, 2015, in Geneva, as the two sides seek to meet an end of March deadline for a framework accord. As of the conclusion of the latest rounds of talks, P5+1 and Iranian negotiators expressed optimism that an accord was in site, but that significant gaps remain. President Obama stated on March 8, 2015, that the P5+1 are willing to end the negotiations rather than conclude a “bad deal” that does not satisfy P5+1 conditions for ensuring that Iran's program is for purely peaceful purposes.

Technical Issues. A comprehensive agreement appears to hinge on the issue of the future size and scale of Iran's enrichment capacity and on the duration of that capacity, as well as the timeline for lifting sanctions. Although the specific remaining gaps in the two sides' positions have not been made public, press reports indicate that there has been progress on some areas, such as conversion of the Fordow underground enrichment facility into a small-scale research facility, technical changes to the Arak reactor so that it cannot produce large quantities of weapons-grade plutonium, and strengthened monitoring by the International Atomic Energy Agency (IAEA).³

1. Iran is a party to the nuclear Nonproliferation Treaty (NPT) and has concluded a comprehensive safeguards agreement with the IAEA. Such agreements are designed to enable the IAEA to detect the diversion of nuclear material from peaceful purposes to nuclear weapons uses, as well as to detect undeclared nuclear activities and material. For more information, see CRS Report R40094, Iran's Nuclear Program: Tehran's Compliance with International Obligations, by Paul K. Kerr.

2. Available at <http://www.iaea.org/press/?p=4018>.

3. “Effective Iran nuclear deal in sight” Arms Control Association Press Release, November 24, 2014.

GULF INTELLIGENCE RESEARCH

However, remaining unresolved issues could be significant. Iran's position has been to oppose any limitation on its centrifuge numbers because it claims to need a large-scale enrichment capacity for nuclear fuel production for its future reactor fleet. The United States and its partners want to limit enrichment capacity and tie the amount to Iran's practical nuclear fuel needs, which will be minimal in the near term. According to press reports, among the options being discussed are the duration of limits on Iran's enrichment capacity, reducing uranium stocks held in Iran, or provision of nuclear reactor fuel from an outside source. Some press reports in early November 2014 said that the P5+1 were ready to agree to a centrifuge limit of 4,500, if Iran agreed to ship its fuel stocks out of the country for storage in Russia. Other press reports indicate that the P5+1 might allow Iran to retain 6,000 or more operating centrifuges. Another unresolved question for negotiators is whether and to what extent Iran will be able to conduct research and development activities for more efficient centrifuges. Such research is currently allowed but limited under the JPA under IAEA supervision.

REGIONAL VIEWS⁴

A comprehensive nuclear agreement with Iran is likely to have profound implications for the Middle East, and particularly the states of the Gulf Cooperation Council (GCC: Saudi Arabia, Kuwait, Bahrain, UAE, Qatar, and Oman) which have been aligned with the United States to contain Tehran's regional influence. An Iran nuclear agreement has the potential to lower regional tensions that have, at times, threatened to boil over into military conflict. Governments generally friendly to Tehran, such as those of Iraq and Syria, are likely to welcome an agreement because an accord would substantially ease sanctions on Iran and thereby provide Tehran with additional resources to help those governments battle Sunni-led rebellions. One threat is common to Iraq, to Syria, to Iran, and to the Gulf states—that posed by the Islamic State organization that has captured substantial territory in both Iraq and Syria.

The nuclear negotiations have lowered Gulf tensions to the point where Foreign Minister Zarif has visited several of the GCC states and separately met with Saudi Foreign Minister Saud bin Faysal Al Saud. Oman has hosted recent sessions of the P5+1 talks and technical talks on an accord might return to Oman in early 2015, according to some P5+1 diplomats.

GCC officials—as well as those of Israel and other U.S. allies—have long expressed concern that closer U.S.-Iranian relations that might result from a nuclear accord could empower Iran to be more assertive in the Gulf region and broader Middle East. Among the GCC states, these fears are amplified at the moment by GCC perceptions, expressed particularly strongly by officials of Saudi Arabia, UAE, and Bahrain, of what they see as an expansionist, sectarian Iranian agenda aimed at empowering Shia Muslims in the region at the expense of Sunnis. Iranian leaders attribute similarly sectarian motives to their GCC counterparts. Analysts continue to debate whether Saudi Arabia would seek to acquire its own nuclear weapons capability if Iran did so. Some GCC officials have also expressed concerns about a “double standard” in which Iran would be allowed to continue enriching uranium, whereas the United States insists that civilian nuclear programs in the Gulf, such as that in UAE, not include indigenous production of nuclear fuel.⁵ Some experts assert that the GCC states, and other regional

states that cooperate closely with the United States on security matters such as Israel and Jordan, privately might question whether the nuclear negotiations with Iran represent a more fundamental U.S. shift away from the region. In citing evidence for a possible U.S. shift, leaders of some of these states conflate a potential deal with Iran with U.S. reticence to act to try to oust the government of Syrian President Bashar Al Assad, the U.S. pullout of all troops from Iraq in 2011, and U.S. assertions that it will not deploy any ground combat troops to battle the Islamic State organization in Iraq or Syria.

Still, it is likely that few, if any, regional states will sharply shift their defense and foreign policy postures. The GCC states are closely aligned on security issues with the United States and host significant numbers of U.S. troops and amounts of U.S. prepositioned military equipment—in large part due to contingency plans regarding a potential crisis with Tehran. These states have been at odds with the Islamic Republic since its 1979 Islamic revolution—and especially during the 1980-1988 Iran-Iraq war in which Iran attacked international shipping and some Gulf port facilities of Kuwait. Pro-Iranian Shia movements reportedly were responsible for acts of intimidation and terrorism in several of the GCC states during the 1980s and 1990s—an era that long predated international concerns about Iran's nuclear program.

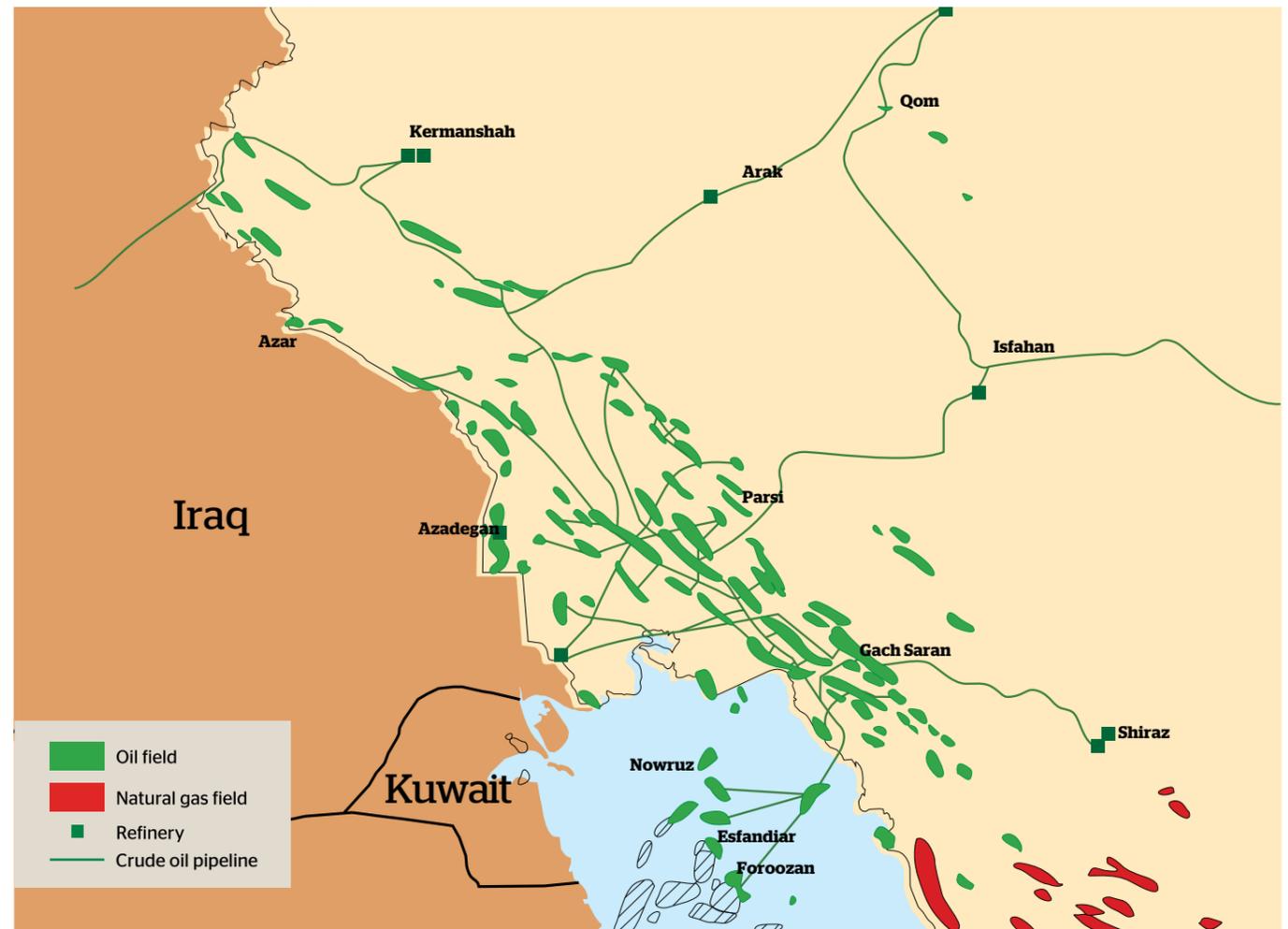
Still, the potential for a nuclear accord and improved U.S. relations with Iran have prompted a GCC examination of alternative security arrangements. In particular, Saudi Arabia has proposed greater political unity among the GCC states. Failing to achieve consensus on that idea, the GCC countries have announced plans—to be further formalized at the December 2014 GCC summit in Qatar—for greater military command integration and defense coordination.

Israel's leaders routinely assert that their country is uniquely threatened by the possibility that Iran might eventually obtain nuclear weapons, despite limitations and safeguards in any comprehensive accord. Israeli Prime Minister Binyamin Netanyahu, most recently in a speech to a Joint Session of Congress on March 3, 2015, has repeatedly warned of the alleged perils of a deal that would in any way ease the international sanctions regime against Iran and would accept Iran's retention of enriched uranium or of infrastructure potentially usable for the generation of fissile material. Netanyahu appears to believe that his criticisms could cause P5+1 negotiators to stiffen their terms for a final deal. He might also be attempting to cultivate support from key audiences such as Congress and broader U.S. public opinion—particularly in connection with potential legislative initiatives relating to the imposition and/or lifting of sanctions. However, as for a potential Israeli military strike on Iranian nuclear facilities, many—if not most—observers deem it unlikely while P5+1 hopes remain for a diplomatic solution.⁶

IMPLICATIONS FOR U.S.-IRAN RELATIONS⁷

Many of the reported regional concerns about a potential comprehensive agreement assume that a deal will produce a breakthrough in U.S.-Iran relations, potentially at the expense of close U.S. relations with its allies in the region. Iran and the United States have been mostly at odds since the February 1979 Islamic revolution, and came into limited naval conflict during the 1980-1988 Iran-Iraq war, when U.S. forces defended the GCC states from attack by Iran. In 1984, the United States placed Iran on its list of “state

MAJOR IRANIAN OIL FIELDS



Source: EIA

sponsors of terrorism” and has accused Iran of numerous acts of terrorism against the United States and its interests.

Yet, at times during the several years prior to the JPA, the United States and Iran have cooperated in the region when doing so has suited their mutual interests. U.S. diplomats negotiated with Iranian officials to form the post-Taliban government in Afghanistan in late 2001, and Iran and the United States have tacitly cooperated in the formation of virtually all post-Saddam governments in Iraq.

The JPA was, in part, a product of quiet U.S.-Iran negotiations brokered by Oman, a GCC state that maintains excellent relations with Iran, in 2013.⁸ The U.S.-Iran talks accelerated after the June 2013 election of President Hassan Rouhani, who unexpectedly won election on a platform of ending Iran's international isolation and obtaining relief from international sanctions. The potential for rapprochement appeared to improve as the U.N. General Assembly meetings convened in New York in September 2013. President Obama, in his September 24, 2013, speech, confirmed that he had exchanged letters with Rouhani stating the U.S. willingness to resolve the nuclear issue diplomatically,⁹ and restated that the United States is not seeking regime change in Iran. The Administration signaled that the President would be open to meeting Rouhani during the gatherings; a meeting did not occur, but a September 27, 2013, phone call President Obama placed to Rouhani represented the first direct contact between presidents of the two countries since the 1979 Islamic revolution. In remarks after JPA was announced, President Obama said that “we can begin to chip away at the mistrust between our two nations.”¹⁰

Iranian leaders, apparently to mollify hardliners who believe that a nuclear deal will increase U.S. cultural, political,

social, and economic influence in Iran, have denied that a comprehensive nuclear agreement will produce a dramatic breakthrough in U.S.-Iran relations. Anticipation of a possible broader breakthrough has been fed by the fact that Secretary of State John Kerry has had substantial interaction with Iranian Foreign Minister Zarif in the course of the nuclear talks, including separate bilateral meetings on regional and other issues. U.S. officials acknowledge that bilateral meetings have discussed the threat posed by the Islamic State organization, the situation in Bahrain, and the fate of three American nationals confirmed or believed held by Iran. On Iraq, the United States and Iran are indirectly cooperating to support the Shiite-dominated government of Prime Minister Haydar Al Abbadi against Islamic State forces. On Syria, Iran continues to support the government of President Al Assad, although some U.S. diplomats are said to perceive that Iran might yet be persuaded to help move Assad aside in order to blunt the appeal of the Islamic State. U.S. diplomats who take this position note that Iran helped oust Iraqi Prime Minister Nuri al-Maliki, who was perceived as an obstacle to winning back Iraqi Sunni support to the government side, in August 2014.

A possible hindrance to any post-nuclear agreement U.S.-Iran rapprochement will be remaining U.S. sanctions and issues unrelated to proliferation. U.S. officials have stressed that no sanctions that address long-standing U.S. concerns about Iran's use of terrorism or its human rights abuses will be eased as part of a nuclear deal with Iran. U.S. officials also maintain that a nuclear deal will not cause the United States to cease its public criticism of Iran's human rights practices and its detention of U.S. citizens. ■

Source: Congressional Research Service, *Congress Interim Report*, March 2015

4. Some material in this section was provided by Christopher M. Blanchard and James Zanotti, Specialists in Middle Eastern Affairs.

5. Author conversations with Gulf diplomats, 2011-2013.

6. See, e.g., Amos Harel, “With Iran deal sealed, don't expect Israel to send out the air force,” Ha'aretz, November 25, 2013.

7. For detail on U.S.-Iran relations, see CRS Report RL32048, *Iran: U.S. Concerns and Policy Responses*, by Kenneth Katzman.

8. http://blog.foreignpolicy.com/posts/2013/11/26/who_is_the_shadow_sultan_that_shepherded_the_nuclear_deal_with_iran.

9. Remarks by President Obama in Address to the United Nations General Assembly, September 24, 2013.

10. Statement by the President on the First Step Agreement on Iran's Nuclear Program, November 23, 2013.



NIOC SUBSIDIARIES

NIOC subsidiary	Main objectives
Iranian Central Oil Fields Company (ICOFC) <i>Salb Ali Karimi, Managing Director</i>	Iranian Central Oil Fields Company, established in 1999, is the largest gas producer in Iran and mainly controls production in the south and central areas of the country. It produces gas and oil through 68 reservoirs including 43 gas fields and 25 oil fields. It produces non-associated natural gas from Aghar, Dalan, Homa, Kangan, Khangiran, Nar, Qeshm, Sarajeh, Sarkhon, Shanol, Tabnak, Tange Bijar, and Varavi.
Iranian Drilling Services Company (IDSC) <i>Heider Bahmani, Managing Director & Member of the Board of Directors</i>	IDSC was established in early 2004 and provides wellhead and well work services.
Iranian Fuel Conservation Company (IFCO) <i>Nosratollah Seifi, Managing Director</i>	IFCO was established in 2000 with the objective of optimizing energy consumption, protecting the environment, and increasing energy efficiency.
Iranian Offshore Oil Company (IOOC) <i>Saeid Hafezi, Managing Director</i>	IOOC controls all upstream activities in offshore fields, including Salman, Sirri, Doroud, and Balal. The subsidiary was founded with the goal of optimizing offshore production, safeguarding oil and gas reservoirs in the Persian Gulf, and preventing oil and gas migration.
Iranian Oil Terminals Company (IOTC) <i>Mousa Souri, Managing Director</i>	Accepts deliveries and stores crude oil, petroleum products, and condensates for exports.
Manufacturing Support and Procurement Kala Naft Company (Kala Naft) <i>Ezatollah Akbari, Chairman</i>	Manufactures equipment for the oil, gas, and petrochemical sectors since 1983 and is tasked with distributing needed equipment among producers and operational centers.
Khazar Exploration and Production Company (KEPCO) <i>Ali Osuli, CEO</i>	Established as an exploration and production company in the Caspian Sea region and has recently undertaken drilling at the Sardare Jangal discovery.
Karoon Oil and Gas Production Company (KOGPC) <i>Mohsen Dahhazadeh, Managing Director</i>	Operating in Khuzestan, the company operates 538 wells and delivers natural gas to NIGC.
North Drilling Company (NDC) <i>Hedayatollah Khademi, Managing Director</i>	Established in 1999 to develop internal expertise needed for complex oil and gas drilling.
Naftiran Intertrade Company (NICO) Sarl <i>Seyfollah Jashnsaz, CEO</i>	Established in 2003 and its activities include investment and financing of Iranian oil, gas, and petrochemical trade.
National Iranian Drilling Company (NIDC) <i>Heidar Bahmani, Managing Director & Member of the Board of Directors</i>	Conducts most of the onshore and offshore drilling in Iran and handles related technical services and well control operations.
National Iranian Oil Refining and Distribution Company (NIORDC) <i>Alireza Zeighami, Managing Director</i>	Engaged in exports of petroleum products, mainly fuel oil, and is in charge of eleven subsidiaries that control the refining sector, pipelines, telecommunications, and oil products distribution.
National Iranian South Oil Company (NISOC) <i>Bijan Allipour, CEO</i>	Controls oil and gas upstream activities in the south and southwest of the country. It produces approximately 80 percent of all crude oil produced in Iran.
National Iranian Tanker Company (NITC) <i>Ali-Akbar Safaei, Managing Director</i>	Delivers crude oil and petroleum products and its fleet consists of 43 crude tankers, three oil product tankers, and one liquid gas vessel.
Petroleum Engineering and Development Company (PEDEC) <i>Abdolreza Haji-Hosseini, Managing Director</i>	Responsible for carrying out all engineering and development projects conducted by NIOC, including designing, engineering, construction, and implementation operations.
Pars Oil and Gas Company (POGC) <i>Ali Akbar Shaban Por, Managing Director</i>	Established in 1998, its objective is the development of the South and North Pars gas fields, as well as the Golshan and Ferdowski fields.
Pars Special Economic Energy Zone (PSEEZ) <i>Mehdi Yousefi, Managing Director</i>	Established in 1998 and promotes use of South Pars oil and gas resources.

Source: U.S. Energy Information Administration, FACTS Global Energy, Arab Oil and Gas Directory, National Iranian Oil Company.

TIMELINE OF UN, US & EU SANCTIONS ON IRAN

United Nations
<p>Since 2006, the UN Security Council has approved four series of sanctions:</p> <ul style="list-style-type: none"> Resolution 1737 (December 23, 2006) imposes economic and commercial sanctions against 10 entities linked to Tehran's nuclear and ballistic programs. The assets of these entities and of 12 prominent figures are frozen. Resolution 1747 (March 24, 2007) freezes the assets of 13 new entities linked to the nuclear program or the Iranian Revolutionary Guards. There is also an embargo on Iranian arms purchases and restrictions on loans to Iran. Resolution 1803 (March 3, 2008) hits more entities and individuals with a foreign assets freeze and travel ban. It also bans the supply of dual use items (civil and military) to Iran. Resolution 1929 (June 9, 2010) places new restrictions on Iranian investments and bans the sale to Iran of certain heavy arms (tanks, combat planes and helicopters). More names added to sanctions list.
United States
<p>Washington first imposed sanctions in the aftermath of the 1979 Islamic revolution, banning businesses and individual Americans from trading with Iran except with Treasury Department approval.</p> <ul style="list-style-type: none"> In 2008, the US introduces further financial restrictions by banning American banks from acting as an intermediary for the transit of funds to and from Iran In July 2010, a law targets the supply of petrol to Iran, which is highly dependent on refined products, and punishes foreign groups investing in the Iranian oil sector. In November 2011, Washington beefs up its sanctions against individuals supporting the development of Iran's oil sector. In December 2011, the assets of foreign financial institutions that trade with the Iranian Central Bank in the petrol sector are frozen. July 31, 2012: President Obama imposes new economic sanctions on Iran's oil export sector and on a pair of Chinese and Iraqi banks accused of doing business with Tehran. June 3, 2013: Washington announces new sanctions focused on the rial currency for the first time and also the auto sector. July 31, 2013: Three days before the investiture of new president Rouhani, the US House of Representatives approves new sanctions which would slap strict limits on Iran's oil industry, the automobile and mining sectors. The legislation has yet to pass the Senate.
European Union
<ul style="list-style-type: none"> July 26, 2010, the EU goes further than the UN, banning technical assistance or the transfer of oil technologies to Iran and the activity of some Iranian banks and adds names to the United Nations list of individuals banned from travelling. The measures focus on the Iranian Revolutionary Guards. In May and December 2011, the assets of 243 Iranian entities and around 40 more individuals are frozen and visa bans imposed. January 23, 2012. The EU agrees on a ban on Iran oil imports, effective July 1, and freezes the assets of the Iranian Central Bank. October 15, 2012: A new package of sanctions targets EU dealings with Iran's banks, shipping and gas imports. A government minister is on the list. December 21, 2012: The EU adds 18 companies or institutions and one person to a blacklist of those targeted by an asset freeze and travel ban.

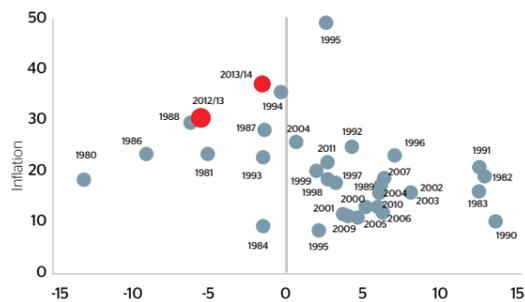
Source: AFP

INTERNATIONAL MONETARY FUND COUNTRY REPORT: ISLAMIC REPUBLIC OF IRAN A BRIEF LOOK AT ECONOMIC DEVELOPMENTS OVER THE PAST THREE YEARS

Macroeconomic performance worsened markedly following the subsidy reform in late 2010 and the intensification of sanctions in 2012.

The economy slowed down markedly following the subsidy reform launch in December 2010. A large relative price change brought a significant deceleration in economic activity, particularly in the industrial sector. Real non-oil GDP growth decelerated from about 7½ percent in the quarter prior to the reform to about 2 percent a year later. From the demand side, the sources of growth also narrowed, with growth exclusively led by private consumption, as investment declined sharply.

FIGURE 1 GROWTH AND INFLATION, 1980-2013
(IN Y-O-Y PERCENT CHANGE)



Source: Iranian authorities

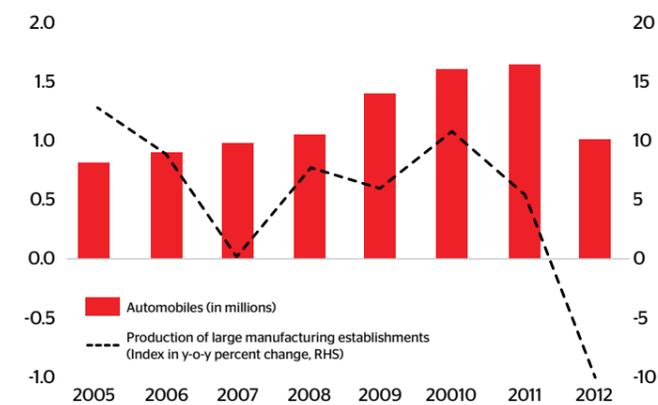
Twelve-month inflation doubled in 2011. It accelerated from about 13 percent on the eve of the subsidy reform to about 22 percent by December 2011. This owed much to the passthrough from the adjustment in subsidized prices for food and energy, as producer price inflation rose from 12 percent to 39 percent (y/y) during the same period. This relative price change also took place against a backdrop of administrative measures, such as price monitoring and the use of strategic inventories of key staples, as well as some tightening of macroeconomic policies, which helped limit the pass-through.

• Since early 2012, international trade and financial sanctions brought renewed shockwaves and pushed the economy into a deep contraction. A series of sanctions restricting oil exports, the supply chain of some key sectors (like automobiles), and transactions of international and domestic banks, impaired Iran's ability to conduct international current and capital transactions and brought a sharp decline in income. Oil production fell to a 20-year low, oil-export proceeds declined by more than half (by about 15 percent of GDP), and the rial lost about 80 percent of its value in the bureau/parallel market. Key sectors, such as automobiles, experienced severe

disruptions in production, including from administered-price policies. These shocks imparted significant contractionary effects on the economy, with real GDP declining by almost 6 percent in 2012/13. During the first half of 2013/14, real GDP is estimated to have declined by about 2½ percent, compared with the same period in the previous year.

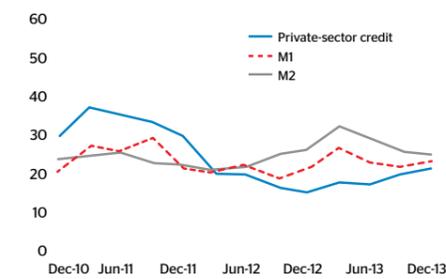
• The authorities abandoned their managed exchange rate regime. Following a sharp depreciation in the bureau/parallel market in September 2012, the Central Bank of Iran (CBI) introduced a new Foreign Exchange center (FX center), mostly supplied with hydrocarbon export receipts. The CBI initially offered foreign exchange for most current transactions at an official rate of 2 percent below the rate offered in the bureau/parallel market, while maintaining the previous official exchange rate for basic necessities. With the bureau/parallel market rate continuing to depreciate, the 2 percent target was eventually abandoned, with three exchange rates (an official for basic necessities, one for other current transactions (FX center), and a bureau/parallel market rates) available for transactions. With the premium in the foreign exchange market (between the bureau/parallel and the FX center rates) still high, at around 50 percent, loose monetary conditions, and new sanctions being introduced in early 2013, the authorities eventually unified official exchange rates in June 2013. Market conditions have stabilized since the Presidential elections in mid-June, with the rial appreciating by about 20 percent in the bureau/parallel market and the premium declining to about 20 percent in recent months.

FIGURE 2 MANUFACTURING AND AUTOMOBILE PRODUCTION



Source: International Organization of Motor Vehicle Manufacturers (OICA); and Central Bank of Iran

FIGURE 3 MONEY AND CREDIT GROWTH
(IN Y-O-Y PERCENT CHANGE)

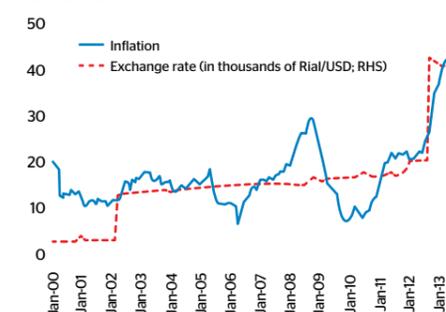


Source: Iranian authorities

• Throughout these shocks, monetary conditions were relatively accommodative and inflation continued to accelerate. In the wake of the subsidy reform, the CBI tightened base money but did not succeed in reducing money growth significantly, as specialized and other banks continued to expand credit to the private sector at rates exceeding 30 percent in 2011. Domestic interest rates became increasingly negative, the exchange rate premium began to widen, and domestic asset prices continued to rise rapidly (Figure 4). In January 2012, the CBI decided to increase its rate for participation papers and for other short-term rates. But lending and deposit rates were subsequently kept fixed as part of the government and Money and Credit Council's (MCC) credit policies. M2 growth accelerated toward 30 percent, with M1 declining markedly in real terms by end-2012/13. Twelve-month inflation rose to 45 percent due to loose monetary conditions and the unification of the official exchange rates, reflecting a trend visible during the last decade, when macroeconomic policies contributed to keep tradable and nontradable inflation at high levels. More recently, the CBI has kept a lid on base money growth thanks to tighter credit to the banking system and some fiscal consolidation, the exchange rate in the bureau/parallel market has appreciated, and 12-month inflation has declined to about 29 percent in January 2014.

• The fiscal position deteriorated significantly. Facing about 10 percentage point of GDP decline in total revenues since 2010/11, the authorities cut spending by close to 6 percentage points of GDP (with capital spending comprising about two-thirds of the cut). As a result, the overall fiscal balance shifted from a surplus of 3 percent of GDP in 2010/11 to an estimated deficit of 1 percent of GDP in 2013/14 (Tables 3 and 4). The cash deficit of the Targeted Subsidies Organization (TSO) remained high, at an estimated 1–2 percent of GDP in the same period, bringing the expanded overall deficit to about 2¼ percent of GDP in 2013/14.

FIGURE 4 INFLATION AND THE EXCHANGE RATE
(IN PERCENT)



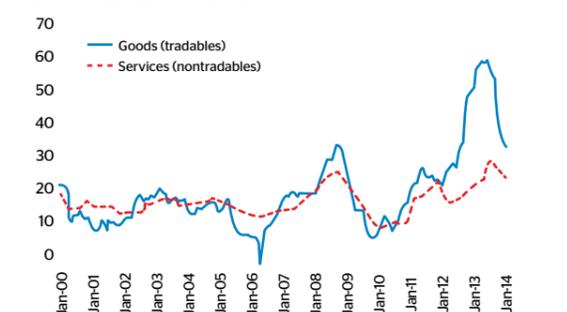
Source: Iranian authorities

• The financial system was also adversely affected. Banks' asset quality and profitability have been significantly affected by the combination of sanctions and rigid government credit policies. Reported nonperforming loans (NPLs) peaked at 17 percent of total loans in 2012/13 (almost 10 percent of non-oil GDP), largely mirroring external trade and cash flow problems in the corporate sector, particularly state-owned enterprises (SOEs). Credit to the private sector grew by 21 percent (year-on-year) in December 2013, implying a decline of about 6 percent in real terms. Lending activity of state-owned banks was the most sluggish, as these banks were heavily exposed to weak corporate borrowers. Despite these challenges, private sector deposit growth (year-on-year) outpaced credit growth by 6 percentage points as of December 2013.

• The balance of payments remained in surplus, but external arrears emerged as international sanctions impaired access to foreign exchange. Iran's current account surplus declined to 6½ percent of GDP in 2012/13, almost halving from the year before. The sharp fall in oil exports was the main factor, partly offset by import compression. The deficit of the capital account remained contained, leaving the overall balance of payments in a surplus of 3½ percent of GDP in 2012/13. Gross foreign assets of the CBI rose to about \$104 billion by end-2012/13. The liquidity of official reserve assets remained tight, and some external creditors have reported rising public and private external arrears, mostly related to lack of access to hard currencies for repayment.

• There was a limited and temporary easing of economic sanctions in November 2013. Under the interim agreement with the P5+1 in November 2013, Iran's crude oil sales would be allowed to stabilize at the level of around 1 million bpd and Iran could access US\$4.2 billion of its own funds held abroad in the six months, following the agreement taking effect on January 20, 2014. Sanctions on Iran's petrochemical exports, the automobile industry, and on the trading of gold and precious metals, were also waived temporarily, potentially providing US\$1.5 billion in revenue. The United States and the European Union have also committed to establish a financial channel to facilitate humanitarian trade with Iran, including for civil aviation needs and to enable payment of tuition fees for Iranian students abroad. All in all, Iran would be able to dispense about US\$6–7 billion (2 percent of GDP) during the six months following its implementation on January 20, 2014. The interim agreement maintained the sanctions against the Central Bank of Iran and other domestic financial institutions. ■

FIGURE 5 CPI INFLATION
(IN Y-O-Y PERCENT CHANGE)



Source: Iranian authorities

Parameters for a Joint Comprehensive Plan of Action Regarding the Islamic Republic of Iran's Nuclear Program

U.S. Department of State: Office of the Spokesperson, Washington, DC, April 2, 2015

Below are the key parameters of a Joint Comprehensive Plan of Action (JCPOA) regarding the Islamic Republic of Iran's nuclear program that were decided in Lausanne, Switzerland. These elements form the foundation upon which the final text of the JCPOA will be written between now and June 30, and reflect the significant progress that has been made in discussions between the P5+1, the European Union, and Iran. Important implementation details are still subject to negotiation, and nothing is agreed until everything is agreed. We will work to conclude the JCPOA based on these parameters over the coming months.

ENRICHMENT

- Iran has agreed to reduce by approximately two-thirds its installed centrifuges. Iran will go from having about 19,000 installed today to 6,104 installed under the deal, with only 5,060 of these enriching uranium for 10 years. All 6,104 centrifuges will be IR-1s, Iran's first-generation centrifuge.
- Iran has agreed to not enrich uranium over 3.67 percent for at least 15 years.
- Iran has agreed to reduce its current stockpile of about 10,000 kg of low-enriched uranium (LEU) to 300 kg of 3.67 percent LEU for 15 years.
- All excess centrifuges and enrichment infrastructure will be placed in IAEA monitored storage and will be used only as replacements for operating centrifuges and equipment.

- Iran has agreed to not build any new facilities for the purpose of enriching uranium for 15 years.
- Iran's breakout timeline – the time that it would take for Iran to acquire enough fissile material for one weapon – is currently assessed to be 2 to 3 months. That timeline will be extended to at least one year, for a duration of at least ten years, under this framework.
 - Iran will convert its facility at Fordow so that it is no longer used to enrich uranium
- Iran has agreed to not enrich uranium at its Fordow facility for at least 15 years.
- Iran has agreed to convert its Fordow facility so that it is used for peaceful purposes only – into a nuclear, physics, technology, research center.
- Iran has agreed to not conduct research and development associated with uranium enrichment at Fordow for 15 years.
- Iran will not have any fissile material at Fordow for 15 years.
- Almost two-thirds of Fordow's centrifuges and infrastructure will be removed. The remaining centrifuges will not enrich uranium. All centrifuges and related infrastructure will be placed under IAEA monitoring.
- Iran will only enrich uranium at the Natanz facility, with only 5,060 IR-1 first-generation centrifuges for ten years.
- Iran has agreed to only enrich uranium using its first generation (IR-1 models) centrifuges at Natanz for ten years, removing its more advanced centrifuges.

- Iran will remove the 1,000 IR-2M centrifuges currently installed at Natanz and place them in IAEA monitored storage for ten years.
- Iran will not use its IR-2, IR-4, IR-5, IR-6, or IR-8 models to produce enriched uranium for at least ten years. Iran will engage in limited research and development with its advanced centrifuges, according to a schedule and parameters which have been agreed to by the P5+1.
- For ten years, enrichment and enrichment research and development will be limited to ensure a breakout timeline of at least 1 year. Beyond 10 years, Iran will abide by its enrichment and enrichment R&D plan submitted to the IAEA, and pursuant to the JCPOA, under the Additional Protocol resulting in certain limitations on enrichment capacity.

INSPECTIONS AND TRANSPARENCY

The IAEA will have regular access to all of Iran's nuclear facilities, including to Iran's enrichment facility at Natanz and its former enrichment facility at Fordow, and including the use of the most up-to-date, modern monitoring technologies.

- Inspectors will have access to the supply chain that supports Iran's nuclear program. The new transparency and inspections mechanisms will closely monitor materials and/or components to prevent diversion to a secret program.
- Inspectors will have access to uranium mines and continuous surveillance at uranium mills, where Iran produces yellowcake, for 25 years.
- Inspectors will have continuous surveillance of Iran's centrifuge rotors and bellows production and storage facilities for 20 years. Iran's centrifuge manufacturing base will be frozen and under continuous surveillance.
- All centrifuges and enrichment infrastructure removed from Fordow and Natanz will be placed under continuous monitoring by the IAEA.
- A dedicated procurement channel for Iran's nuclear program will be established to monitor and approve, on a case by case basis, the supply, sale, or transfer to Iran of certain nuclear-related and dual use materials and technology – an additional transparency measure.
- Iran has agreed to implement the Additional Protocol of the IAEA, providing the IAEA much greater access and information regarding Iran's nuclear program, including both declared and undeclared facilities.
- Iran will be required to grant access to the IAEA to investigate suspicious sites or allegations of a covert enrichment facility, conversion facility, centrifuge production facility, or yellowcake production facility anywhere in the country.
- Iran has agreed to implement Modified Code 3.1 requiring early notification of construction of new facilities.
- Iran will implement an agreed set of measures to address the IAEA's concerns regarding the Possible Military Dimensions (PMD) of its program.

REACTORS AND REPROCESSING

- Iran has agreed to redesign and rebuild a heavy water research reactor in Arak, based on a design that is agreed to by the P5+1, which will not produce weapons grade plutonium, and which will support peaceful nuclear research and radioisotope production.
- The original core of the reactor, which would have enabled the production of significant quantities of weapons-grade plutonium, will be destroyed or removed from the country.
- Iran will ship all of its spent fuel from the reactor out of the country for the reactor's lifetime.

- Iran has committed indefinitely to not conduct reprocessing or reprocessing research and development on spent nuclear fuel.
- Iran will not accumulate heavy water in excess of the needs of the modified Arak reactor, and will sell any remaining heavy water on the international market for 15 years.
- Iran will not build any additional heavy water reactors for 15 years.

SANCTIONS

- Iran will receive sanctions relief, if it verifiably abides by its commitments.
- U.S. and E.U. nuclear-related sanctions will be suspended after the IAEA has verified that Iran has taken all of its key nuclear-related steps. If at any time Iran fails to fulfill its commitments, these sanctions will snap back into place.
- The architecture of U.S. nuclear-related sanctions on Iran will be retained for much of the duration of the deal and allow for snap-back of sanctions in the event of significant non-performance.
- All past UN Security Council resolutions on the Iran nuclear issue will be lifted simultaneous with the completion, by Iran, of nuclear-related actions addressing all key concerns (enrichment, Fordow, Arak, PMD, and transparency).
- However, core provisions in the UN Security Council resolutions – those that deal with transfers of sensitive technologies and activities – will be re-established by a new UN Security Council resolution that will endorse the JCPOA and urge its full implementation. It will also create the procurement channel mentioned above, which will serve as a key transparency measure. Important restrictions on conventional arms and ballistic missiles, as well as provisions that allow for related cargo inspections and asset freezes, will also be incorporated by this new resolution.
- A dispute resolution process will be specified, which enables any JCPOA participant, to seek to resolve disagreements about the performance of JCPOA commitments.
- If an issue of significant non-performance cannot be resolved through that process, then all previous UN sanctions could be re-imposed.
- U.S. sanctions on Iran for terrorism, human rights abuses, and ballistic missiles will remain in place under the deal.

PHASING

- For ten years, Iran will limit domestic enrichment capacity and research and development – ensuring a breakout timeline of at least one year. Beyond that, Iran will be bound by its longer-term enrichment and enrichment research and development plan it shared with the P5+1.
- For fifteen years, Iran will limit additional elements of its program. For instance, Iran will not build new enrichment facilities or heavy water reactors and will limit its stockpile of enriched uranium and accept enhanced transparency procedures.
- Important inspections and transparency measures will continue well beyond 15 years. Iran's adherence to the Additional Protocol of the IAEA is permanent, including its significant access and transparency obligations. The robust inspections of Iran's uranium supply chain will last for 25 years.
- Even after the period of the most stringent limitations on Iran's nuclear program, Iran will remain a party to the Nuclear Non-Proliferation Treaty (NPT), which prohibits Iran's development or acquisition of nuclear weapons and requires IAEA safeguards on its nuclear program. ■

Iran Tangible Steps of Engagement over the past 12 months

IRAN OUTLINES PLAN TO WIN BACK WESTERN OIL INTEREST

REUTERS

Iran is planning to offer international companies more lucrative contracts to attract at least \$100 billion worth of investment in its oilfields over the next three years, the Financial Times reported on Monday. An adviser to Iran's oil minister, Mehdi Hosseini, was quoted in the Financial Times article as saying the Islamic republic would scrap its current system of "buyback" contracts, which do not allow foreign companies to book reserves or take equity stakes in Iranian projects.

<http://www.reuters.com/article/2013/10/28/us-iran-oil-idUSBRE99R13M20131028>

IRAN SAYS SEALS GAS EXPORT DEAL WITH OMAN

REUTERS

Iran has sealed an agreement to export 10 billion cubic meters of gas per year to Oman, Iran's state news agency IRNA said on Wednesday, in a deal that also involves building a pipeline across the Gulf at a cost of about \$1 billion. The accord, signed during Iranian President Hassan Rouhani's first visit to Muscat since his election last year, came out of a memorandum of understanding between the countries in August for the sale of Iranian gas to Oman from 2015, in a 25-year deal valued at around \$60 billion.

<http://www.reuters.com/article/2014/03/12/us-iran-oman-gas-idUSBREA2B24K20140312>

IRAN TO REVIVE OIL SWAP PROJECT

SHANA

Iran's Petroleum Minister Bijan Namdar Zanganeh has ordered the resumption of talks for the country to resume crude oil swap operations with neighboring countries, an aide to the minister said.

"The petroleum minister has ordered the revival of swap operations and negotiations have started for the resumption of swap operations," Mahmoud Astaneh said.

<http://www.shana.ir/en/newsagency/222861/Iran-to-Revive-Oil-Swap-Project>

IRAN'S OIL INDUSTRY IS TRYING FOR A COMEBACK

WASHINGTON POST

Iran's oil exports are being ravaged by sanctions, but there are signs under the new president, Hassan Rouhani, that efforts to attract old clients may be boosting the country's most essential economic lifeline. China, India and Japan, which together account for half of Iran's oil exports, have increased their purchases over the past several months, offering some hope to Iran and complicating U.S.-led efforts to put pressure on the country over its disputed nuclear program by attempting to cut off its main source of income.

http://www.washingtonpost.com/world/irans-oil-industry-is-trying-for-a-comeback-ack/2013/10/27/001747b2-3caa-11e3-b0e7-716179a2c2c7_story.html

IRAN, RUSSIA WORKING TO SEAL \$20 BLN OIL-FOR-GOODS DEAL - SOURCES

REUTERS

Iran and Russia have made progress towards an oil-for-goods deal sources said would be worth up to \$20 billion, which would enable Tehran to boost vital energy exports in defiance of Western sanctions, people familiar with the negotiations told Reuters. In January Reuters reported Moscow and Tehran were discussing a barter deal that would see Moscow buy up to 500,000 barrels a day of Iranian oil in exchange for Russian equipment and goods.

<http://www.reuters.com/article/2014/04/02/iran-russia-oil-idUSL5N0MN4UT20140402>

IRAN'S HASSAN ROUHANI SEALS GAS DEAL DURING VISIT TO OMAN

FINANCIAL TIMES

President Hassan Rouhani of Iran has concluded an official trip to Oman by signing a long-awaited deal to supply natural gas to its closest Gulf ally. The visit is Mr Rouhani's first to an Arab neighbour since he was elected president in August. Sultan Qaboos bin Said al-Said, Oman's ruler, was the first foreign leader to visit Tehran following the election of Mr Rouhani who pledged to improve strained relations with neighbouring countries, notably Saudi Arabia.

<http://www.ft.com/intl/cms/s/0/8bd1daa-aaba-11e3-be01-00144feab7de.html#axzz3DTx0Bob>

ZANGANEH CALLS FOR DEVELOPING GAS FIELD SHARED WITH QATAR

IRNA

Oil Minister, Bijan Namdar Zanganeh on Monday called for development of South Pars gas field phase 12 Iran shares with Qatar.

He assigned the National Iranian Gas Company (NIGC) to speed up executive operation of Phase 12 of the giant reservoir which Iran shares with Qatar.

http://irna.ir/en/News/80932845/Economic/Zanganeh_calls_for_developing_gas_field_shared_with_Qatar

IRAN OIL MINISTER IN TALKS WITH WESTERN ENERGY FIRMS

REUTERS

Iran has begun talks with potential investors in its energy industry, oil minister Bijan Zanganeh told the Financial Times, after Tehran struck a nuclear deal that may help western oil giants move back into the country someday. Iran is home to some of the world's largest oil and gas reserves, but U.S. energy firms have been barred by Washington from Iran for nearly two decades.

<http://www.reuters.com/article/2013/11/27/us-iran-oil-minister-idUSBRE9AQ09X20131127>

IRAN, MEXICO TO ESTABLISH JOINT BUSINESS COUNCIL

TEHRAN TIMES

Iran and Mexico have signed a memorandum of understanding to establish a joint business council in a bid to boost their bilateral trade ties.

<http://tehrantimes.com/economy-and-business/118422-iran-mexico-to-establish-joint-business-council>

IRAN-OMAN GAS SUPPLY TO BE READY 'SOON' DESPITE NO PIPELINE

IRAN EYE

Iran will "soon" begin supplying Oman with 20 million cubic metres of natural gas, marking the culmination of increasingly close ties between the two countries. "Gas negotiations with Oman are over and as both sides have agreed, Iran will export 20 million cubic metres of gas per day to Oman in the near future," Iranian Oil Minister Bijan Namdar Zanganeh said on Saturday. <http://www.middleeasteye.net/news/iran-oman-gas-supply-be-ready-soon-despite-no-pipeline-706664614#sthash.9h3EEpjh.dpuf>

IRANIAN, CHINESE FMS VOW TO EXPAND BILATERAL TIES

FARS NEWS AGENCY

Iranian Foreign Minister Mohammad Javad Zarif and his Chinese counterpart Wang Yi in a meeting in Dushanbe vowed to broaden mutual cooperation. During the meeting in the Tajik capital on Thursday, the Iranian and Chinese foreign ministers discussed bilateral ties and the latest regional and international developments. <http://english.farsnews.com/newstext.aspx?nn=13930621000756>

IRAN-IRAQ TO FINALIZE MOU ON JOINT BANK

TASNIM NEWS

Iran and Iraq are in talks to finalize a draft MoU for the establishment of a joint bank to ease commercial barriers and facilitate monetary transactions between the two neighbors. <http://www.tasnimnews.com/English/Home/Single/484977>

IRAN, QATAR PLANNING TO LAUNCH DIRECT SHIPPING LINE

FARS NEWS

Tehran and Doha are planning to set up a direct shipping line in the Persian Gulf waters in the coming months, a senior trade official announced on Wednesday. "We will launch a direct shipping line to Qatar with Doha's approval in the near future," Head of Iran's Trade Promotion Organization (TPO) Valiollah Afkhamirad said in a meeting with Qatar's Deputy Economy Minister in Tehran on Wednesday. <http://english.farsnews.com/newstext.aspx?nn=13930619000963>

EIGHT IRANIAN BANKS READY FOR FINANCIAL TRANSACTIONS WITH QATAR

IRNA

Head of Iran Trade Promotion Organization Valiollah Afkhami-Rad emphasizing promotion of trade cooperation between Iran and Qatar said currently eight Iranian banks not included in the sanctions list can become active in financial transactions with Qatar. https://www.zawya.com/story/Eight_Iranian_banks_ready_for_financial_transactions_with_Qatar-ZAWYA20140911051952/

SOUTH AFRICA WANTS TO RESUME OIL IMPORTS FROM IRAN

IRAN OIL & GAS

South Africa wants to resume oil imports from Iran, once its biggest supplier, and hopes to resolve "sanction issues" that have blocked purchases within the next three months, its deputy foreign minister said on Tuesday. South Africa bought around 68,000 barrels of oil per day (bpd) from Iran in May 2012, a month before it halted crude purchases as Western countries pressured Tehran over its nuclear program. That was well down from peak purchases in 2011. <http://www.iranoilgas.com/news/details2/?type=news&p=current&newsID=13272&restrict=no>

IRAN VETTING OIL CUSTOMERS

UPI

Countries willing to buy oil from Iran usually don't have enough money in their federal energy coffers to buy it, the Iranian oil minister said. Iran can sell about 1 million barrels of oil per day on the international market under the terms of an agreement reached with Western powers in exchange for a commitment to curb nuclear research activity. http://www.upi.com/Business_News/Energy-Resources/2014/08/28/Iran-vetting-oil-customers/1651409233159/#ixzz3DU40VFN7

CHINESE FINANCIERS OPEN €2 BILLION LC FOR IRAN'S ENERGY PROJECTS

AZERNEWS

Chinese financiers have opened a two billion euro line of credit for Iran's petrochemical projects. Iran's Deputy Oil Minister Abbas She'ri-Moghadam said that the Central Bank of Iran needs to approve the financiers' certain guarantees, Iran's SHANA News Agency reported on August 20. <http://www.azernews.az/region/69889.html>

DAVID CAMERON AND HASSAN ROUHANI MEET IN UN AMID SIGNS OF THAW

FINANCIAL TIMES

British prime minister David Cameron on Wednesday met Hassan Rouhani, the Iranian president, the first such encounter between leaders of the two countries since the 1979 revolution in Iran. The meeting, which was first revealed on Mr Rouhani's Twitter account, was the latest sign of a thaw in the relationship between the two countries after the UK closed its embassy in Tehran three years ago following an attack by a mob.

WORLD POWERS, IRAN REACH FRAMEWORK FOR NUKE DEAL BY JUNE 30

PBS

After marathon negotiations, the United States, Iran and five other world powers announced an agreement Thursday outlining limits on Iran's nuclear program to block it from developing atomic weapons and directing negotiators toward a final accord this summer. <http://www.pbs.org/newshour/rundown/iran-nuclear-talks-progress-two-days-deadline/>

MAJOR NATIONS HOLD TALKS ON ENDING U.N. SANCTIONS ON IRAN - OFFICIALS

Reuters

Major world powers have begun talks about a United Nations Security Council resolution to lift U.N. sanctions on Iran if a nuclear agreement is struck with Tehran, a step that could make it harder for the U.S. Congress to undo a deal, Western officials said. The talks between Britain, China, France, Russia and the United States — the five permanent members of the Security Council — plus Germany and Iran, are taking place ahead of difficult negotiations that resume next week over constricting Iran's nuclear ability. <http://www.reuters.com/article/2015/03/12/us-iran-nuclear-idUSKBN0M82IS20150312>

IRAN NUCLEAR DEAL MAY OPEN OIL TAPS IN MONTHS, NOT WEEKS

Reuters

A possible deal over Iran's nuclear program that would phase out economic sanctions against Tehran is unlikely to flood world markets with more oil any time soon, despite Iran's declared intention to claw back market share lost because of the curbs. Negotiators are still working out details of the deal they aim to seal by the end of June, but it would almost certainly lift sanctions only in stages, deferring even a partial return of Iranian crude exports until at least 2016, according to market experts, former U.S. officials, and Western diplomats. <http://www.reuters.com/article/2015/03/17/us-iran-oil-sanctions-analysis-idUSKBN0MD0DJ20150317>

WHAT IS KHAMENEI THINKING ON REMOVING SANCTIONS?

Al-Monitor

The issue of removing international sanctions on Iran is one of the most important aspects of the nuclear negotiations between Iran and the five permanent members of the UN Security Council plus Germany (P5+1). While the nuclear talks are confidential, there have been conflicting reports about how the sanctions can and should be removed in return for Iran reducing their nuclear program. During his March 21 Iranian New Year's speech, Ayatollah Ali Khamenei, the supreme leader who has final say on the nuclear program, discussed his positions on the nuclear talks and sanctions removal. <http://www.al-monitor.com/pulse/originals/2015/03/iran-khamenei-nowruz-speech-sanctions-nuclear.html#>

IRAN AGREES TO DETAILED NUCLEAR OUTLINE, FIRST STEP TOWARD A WIDER DEAL

New York Times

Iran and the United States, along with five other world powers, announced on Thursday a surprisingly specific and comprehensive understanding on limiting Tehran's nuclear program for the next 15 years, though they left several specific issues to a final agreement in June. <http://www.nytimes.com/2015/04/03/world/middleeast/iran-nuclear-talks.html>

IRAN Projects

Year Started	Month Started	Status	Project	Description	Client	Contractor/s	Sector	Value (Millions)	Scope	Sources
1968	N/A	Ongoing	Reshadat Oil Field	The Reshadat renovation and development project is part of Iran's plan to increase production capacity of the Persian Gulf Oil Fields	Iranian Offshore Oil Company (IOOC)	AMID Engineering and Pegasus-Qeshm Iranian Offshore Engineering and Construction Company (IOEC) SADRA EPCI	Oil	N/A	22,000 barrels per day (bpd) in 2013 and 75,000 bpd by 2016	http://www.offshore-technology.com/projects/reshadat-oil-field-redevelopment-persian-gulf/
1969	N/A	Completed-Upgrading	Tehran Refinery	The project will Change the Refinery feed to blend of Iranian North Dezful & Maroon	National Iranian Oil Engineering & Construction (NIOEC)	Ehsan Joint Venture	Refinery	\$1 billion	720 tons per day	http://abarrelfull.wikidot.com/tehran-refinery-project http://www.zafaran.net/projects.php?id=tehran_oil_refinery
1975	N/A	2007	Bushehr Nuclear Power Plant (BNPP)	Bushehr would be the first plant, and would supply energy to the inland city of Shiraz	Iran Government	Siemens and KraftWerk, then Atomstroyexport	Nuclear	\$4-6 billion	N/A	http://en.wikipedia.org/wiki/Bushehr_Nuclear_Power_Plant
1975	N/A	Completed	Hengam Oil and Gas Field	The oil and gas field, covering an area of 288km², straddles the sea border between Iran and Oman.	National Iranian Offshore Oil Company (NIOOC)	TASDID Deep Ocean Technology (DOT) Naft Sazeh Qeshm (NSQ)	Oil & Gas	N/A	45,000 bpd	http://www.offshore-technology.com/projects/hengam-oil-gas-field-persian-gulf/
1980	N/A	Mitsui to Quit Iran Project, September 1, 1988	Iranian Petrochemical Complex	N/A	National Iranian Oil Company (NIOC)	N/A		\$4.5 billion	N/A	http://www.nytimes.com/1988/09/01/business/mitsui-to-quit-iran-project.html
1980	N/A	Ongoing	Isfahan Esfahan Refinery	The project is to Stabilize Capacity On 360,000 BPSD, Upgrade existing refinery in order to increase production of light products, Maximize Gasoline Production, Minimize Fuel Oil Production and to Meet the Environmental Protection Obligations	National Iranian Oil Company (NIOC)	National Iranian Oil Engineering and Construction Company (NIOEC)	Refinery	\$2.7 billion	18.0 million tons/annum & 360,000 bbl/day	http://abarrelfull.wikidot.com/isfahan-refinery-project
1985	N/A	Completed 2013	Siah Bisheh Pumped Storage Power Plant	The power plant, when fully operational, will generate more than 1GW of hydroelectricity during peak hours and consume 940MW of electrical power for pumping operation during low-load hours.	Iran Water and Power Resources Development Corporation	Voith Hydro Holding	Power Plant	\$1 billion	4.3million cubic meters of water	http://www.power-technology.com/projects/siah-bisheh-pumped-storage-power-plant-chalus/
1993	N/A	Phase 1 Completed 2011	Shazand Arak Refinery Project	Increase throughput of the Refinery from 170,000 BPSD to 250,000 BPSD. Change the Refinery feed from Ahwaz Crude Oil to a blend of Ahwaz and certain Iranian mixed crude oil.	National Iranian Oil Refining and Distribution Company (NIORDC)	Sinopec Engineering, Sazeh, ODCC	Refinery	\$2.4 billion	8.5 million tons/annum & 170,000 bbl/day	http://abarrelfull.wikidot.com/shazand-arak-refinery-project
1999	N/A	Ongoing/will begin production next year (March 2015-16)	Azadegan Oil Field Development Project	The Project purpose is to produce 260,000 barrel per day crude oil during 8 years.This oil field is located 100 Km from Ahwaz in Khoozestan province. The main contractor of the project is a joint venture between INPEX from Japan and NICO from Iran.	National Iranian Oil Company (NIOC)	N/A	Oil	\$500 million	North Azadegan field once this phase becomes operational 75,000 bpd will be added to Iran's oil output capacity	Weekly Iranian Oil, Gas and Economic Digest 23 July 2014
1999	November	N/A	Soroush and Nowruz	N/A	National Iranian Oil Company (NIOC)	Royal Dutch Shell/Japex	Oil	\$800 million	190,000 bpd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.japex.co.jp/english/business/oversea/iran.html
1999	March	Ongoing	Doroud	To develop the Doroud oil field, off the coast of Kharg Island	National Iranian Oil Company (NIOC)	Elf Petroleum Iran Agip Dorood BV	Oil	\$1 billion	205,000 bpd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://defenddemocracy.org/total-sa/
1999	April	N/A	Balal	N/A	National Iranian Oil Company (NIOC)	Elf Bow Valley Italian Agip	Oil	\$300 million	40,000 bpd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.payvand.com/news/04/may/1110.html
2000	April	Statoil and Norsk have left theproject	Anaran Bloc	N/A	N/A	Norsk Hydro/Statoil/Gazprom/Lukoil	Oil	\$105 million	65,000	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014
2000	July	N/A	South Pars - Phase 4 and 5	The onshore facilities of phases 4 & 5 are located in the Pars Special Economic Energy Zone (PSEEZ), and the 24 offshore wells, are situated approximately 100km south east of Assaluyeh. Natural gas is transported from the offshore facilities to an onshore refinery located in the said phases via a 32 inch pipeline	N/A	NaftIran Intertrade Company (NICO) Agip Petropars	Gas	\$1.9 billion	2 billion cfd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.petropars.com/CompletedProjects/SouthParsGasFieldPhases45.aspx
2001	March	N/A	Caspian Sea Oil Exploration	Construction of Submersible drilling rig for Iranian partner	N/A	GVA Consultants	N/A	\$225 million	N/A	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014
2002	September	N/A	South Pars Phase 9 and 10	The upstream portion of the phases includes two offshore gas production platforms, 24 gas wells, and two 32-inch-diameter, 105-kilometer subsea pipelines to shore	National Iranian Oil Company (NIOC)	GS, OIEC and IOEC	Gas	\$1.6 billion	2 billion cfd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.subseaiq.com/data/PrintProject.aspx?project_id=284&AspxAutoDetectCookieSupport=1
2002	October	N/A	South Pars Phase 6,7,8	Construction and installation of three production platforms, the drilling and hook-up of 30 wells, and the installation of three 32-inch-diameter, 105-kilometer subsea pipelines to shore.	N/A	StatoilHydro	Gas	\$750 million	3 billion cfd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.subseaiq.com/data/PrintProject.aspx?project_id=284&AspxAutoDetectCookieSupport=1

IRAN Projects												
Year Started	Month Started	Status	Project	Description	Client	Contractor/s	Sector	Value (Millions)	Scope	Sources		
2004	January	CNPC took majority stake in South And North Azadegan fields January 2009. Iran cancelled South Azadegan contract April 2014	Azadegan - South and North	N/A	National Iranian Oil Company (NIOC)	Inpex/CNPC	Oil	\$200 million (Inpex) \$2.5 billion (china)	260,000bpd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.irantracker.org/global-business-in-iran/projects/cnpc-nioc-south-azadegan-field-development		
2004	August	N/A	Tusan Block	N/A	National Iranian Oil Company (NIOC)	Petrobas	N/A	\$178 million	No production	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://archives.mees.com/issues/393/articles/16459		
2004	October	Ongoing	Yadavaran Field	Yadavaran deal calls for the Chinese company to invest in developing the oilfield in two phases, with the first phase to produce 85,000 barrels per day to be carried out in four years. The second phase, to produce an additional 100,000 barrels per day, is to be completed in another three years, Xinhua said, citing Nozari.	National Iranian Oil Company (NIOC)	Sinopec	Oil	\$2 billion	300,000 bpd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014; http://usatoday30.usatoday.com/money/economy/2007-12-09-23119728_x.htm http://www.irantracker.org/global-business-in-iran/projects/sinopec-nioc-yadavaran-oil-field		
2006	N/A	Expected completion November 2015	Kish Gas Field	Development phases two and three of the field will produce one billion cubic feet of gas per day each when completed.	National Iranian Oil Company (NIOC)	Arya Petro Gas National Iranian Drilling Company (NIDC)	N/A	\$10 billion	85 million cubic metres of gas and 30,000 barrels of gas condensates per day.	http://www.offshore-technology.com/projects/-kish-gas-field-iran/		
2006	July	Work may have taken over or continued by Hyundai Heavy Industries (S.Korea)	Arak Refinery Expansion	N/A	National Iranian Oil Refining and Distribution Company (NIORDC)	Sinopec Engineering, Sazeh, ODCC	N/A	\$959 million	250,000 BPSD	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://archives.mees.com/issues/277/articles/11225 http://abarrelfull.wikidot.com/shazand-arak-refinery-project		
2007	N/A	Completed	Jofeir Oilfield Development	N/A	Petroleum Engineering and Development Company (PEDEC)	Belpars Petroleum Company Ltd.	Oil	\$500 million	2.1 billion barrels of heavy crude. Output could reach 30,000 barrels per day.	http://www.irantracker.org/global-business-in-iran/projects/belarus-iran-jofeir-oilfield-development		
2007	January	N/A	LyondellBasell-Gharb Petrochemical Plant	To build a new 300 KT/year high density polyethylene plant.	Gharb Petrochemical Complex	LyondellBasell	N/A	N/A	N/A	http://www.irantracker.org/global-business-in-iran/projects/lyondellbasell-gharb-petrochemical-plant		
2007	January	N/A	Kerman Water Supply	Underground tunnel to supply the city of Kerman with water from the Rabur river	Kerman Regional Water Authority	Selitunnel	Water	\$189 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/seli-iran-kerman-water-supply		
2007	February	N/A	LNG tanks at Tombak Port	Contract to build three LNG tanks at Tombak, 30 miles north of Assaluyeh Port	N/A	Daelim	N/A	\$320 million	200,000 ton capcity	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2007	February	September 2009, State Department said Royal Dutch Shell and Repsol will not pursue project any further	South Pars - Phase 13, 14	N/A	N/A	Royal Dutch Shell/Repsol	N/A	\$4.3 billion	N/A	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2007	February	Completed	Daelim - Storage Tankers, LNG Project	South Korea's Daelim has signed a deal with NIOC to build three LNG tanks, with a capacity of 200,000 tons total.	National Iranian Oil Company (NIOC)	Daelim Industrial Corp.	Gas	\$320 million	200,000 tons	http://www.irantracker.org/global-business-in-iran/projects/daelim-storage-tankers-lng-project		
2007	March	Completed	Armenian-Iranian Gas Pipeline Project	Construction of a natural gas pipeline from Iran	National Iranian Gas Export Company (NIGEC)	N/A	Gas	N/A	2.3 billion cubic meters of gas a year	http://www.irantracker.org/global-business-in-iran/projects/armenian-iranian-gas-pipeline-project		
2007	April	In 2009, OMV decided to withdraw from the project due to depressed gas and oil prices. Iran has decided to press forward with the project even without OMV's investment.	South Pars	Development of phase 12 of the South Pars gas field and building a liquefaction plant for natural gas	Iranian Government	Samsung and Sadra	Gas	\$770 million	40,000bpd of gas	http://www.irantracker.org/global-business-in-iran/projects/omv-south-pars-deal		

IRAN Projects												
Year Started	Month Started	Status	Project	Description	Client	Contractor/s	Sector	Value (Millions)	Scope	Sources		
2007	June	Two years after exploration began, however, Petrobras announced that the oil was not commercially viable, and was mainly gas. Petrobras has since pulled out.	Caspian Sea Development	To develop blocks 6 and 29 in Iran's section of the Caspian Sea	National Iranian Oil Company (NIOC)	Petrobras	Oil	\$470 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/petrobras-caspian-sea-development		
2007	July	N/A	South Pars Phase 22, 23, 24	Pipeline to transport Iranian Gas to Turkey, and on to Europe and building three power plants in Iran. Contract to finalize date.	N/A	Turkish Petroleum Company (TPAO)	Gas	\$12 billion	\$2 billion cfd	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2008	N/A	Ongoing	Darkhovin Nuclear Power Plant	The plant is going to be Iran's first indigenously designed and built nuclear power plant besides the research reactor of IR-40	Nuclear Power Production & Development Co. of Iran	N/A	Nuclear	\$2 billion	N/A	http://en.wikipedia.org/wiki/Darkhovin_Nuclear_Power_Plant		
2008	N/A	Ongoing	Lavan Gas Field Development	Poland will invest \$2 billion in the Lavan gas field. The gas field holds an estimated at 10 trillion cubic feet of natural gas.	Iranian Offshore Oil Company (IOOC)	PGNIG (Poland)	Oil & Gas	\$2 billion	10 trillion cubic feet of natural gas.	http://www.irantracker.org/global-business-in-iran/projects/pgnig-iooc-lavan-gas-field-development		
2008	N/A	Ongoing	Ferdousi and Golshan natural gas fields	The deal includes the development of the Ferdousi and Golshan natural gas fields, as well as the construction of a 20 million ton/annum LNG plant. This is the first time a Malaysian firm contracted for midstream activities.	National Iranian Oil Company (NIOC)	SKS Group	LNG	\$14 billion	20 million ton/annum	http://www.irantracker.org/global-business-in-iran/projects/nioc-sks-group-natural-gas-development-ferdousi-and-golshan		
2008	N/A	Ongoing	Resalat Oilfield development	To develop the Resalat Oilfield. In July 2009, Amona was joined by two Chinese companies. COSL and CNOOC will provide financing. Daily output will be raised at Resalat from 12,000 to 47,000.	National Iranian Oil Company (NIOC)	Amona Group (Malaysia)	Oil	\$1.46 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/nioc-amona-develop-resalat-oilfield		
2008	January	N/A	Edison E&D Dayyer Block	To help develop oil exploration in the Dayyer offshore block in the Gulf.	National Iranian Oil Company (NIOC)	Edison SpA	Oil	\$107 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/nioc-edison-ed-dayyer-block		
2008	February	N/A	Zorya Mashproekt - MAPNA, 100 Turbo-Compressors	To provide 48 25mw turbo-compressors	Iranian Power Plant Project Management (Mapna)	Zorya Mashproekt (Ukraine)	Gas	\$470 million	48 25mw turbo-compressors	http://www.irantracker.org/global-business-in-iran/projects/zorya-mashproekt-mapna-100-turbo-compressors		
2008	March	N/A	Danan Field	Drilling of three exploratory wells	National Iranian Oil Company (NIOC)	Petro Vietnam Exploration and Production Co.	Oil	\$2 billion	N/A	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://edition.presstv.ir/detail/65144.html		
2008	April	N/A	Iran's Kish Gas Field	Includes pipeline from Iran to Oman	Petroleum Engineering and Development Company (PEDEC)	N/A	N/A	\$7 billion	66 trillion cubic feet of in-situ gas and 514 million barrels of condensates	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://gulfnnews.com/business/oil-gas/oman-and-iran-will-complete-kish-gas-field-development-by-2012-1.131034		
2008	June	N/A	Iran - Armenia Pipeline	The 140 km pipeline will provide Armenia with gas from Iranian gas fields.	N/A	Gazprom	Gas Pipeline	\$200 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/gazprom-investment-iran-armenia-pipeline		
2008	August	N/A	Aluminium Factory	To set up an aluminum refinery in Andhra Pradesh and a smelter facility along with a captive power plant in Orissa	Kerman Development Organisation (KDO)	National Aluminum Company Ltd. (NALCO)	Aluminum	\$1 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/indias-nalco-build-aluminium-factory-iran		
2008	August	N/A	IsDB - Islamic Republic of Iran Railways, Quetta-Taftan Line	Quetta-Taftan line of the Istanbul-Tehran-Islamabad project	Islamic Republic of Iran Railways	Islamic Development Bank (IDB)	Railway	\$545 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/isdb-islamic-republic-iran-railways-quetta-taftan-line		
2008	November	In progress	Farsi Gas Field Block	To develop gas fields in Iran's Farsi block	N/A	Indian Oil and Natural Gas Corp, Oil India Ltd, ONGC Videsh Ltd.	Gas	\$3.01 billion	12.8 trillion cubic feet gas reserves	http://www.irantracker.org/global-business-in-iran/projects/indian-consortium-develops-farsi-gas-field-block		
2008	November	N/A	Kish Oil Field Pipeline	Iran and Oman have agreed to a project to supply 28 million cm/day natural gas via pipeline	National Iranian Oil Company (NIOC)	Oman Oil Company	Gas	\$12 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/nioc-ooc-develop-kish-oil-field-pipeline		
2009	N/A	N/A	Abadan Refinery Expansion	Sinopec is working on an MOU to expand refining capacity at Abadan, including increasing gasoline production at the facility by 29 percent.	National Iranian Oil Refining and Distribution Company (NIORDC)	Sinopec	Refinery	\$6 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/sinopec-niordc-abadan-refinery-expansion		
2009	N/A	Ongoing	Armenia - Iran to Construct Railway from Sevan to Meghri	The project is estimated to take 5 years and cost between \$1.2 billion-1.8 billion. The venture seeks to connect Armenia's rail network to Iran's Persian Gulf ports.	Islamic Republic of Iran Railways	Armenian Railways	Railway	\$1.5 billion	470 km railway	http://www.irantracker.org/global-business-in-iran/projects/armenia-iran-construct-railway-sevan-meghri		

IRAN Projects												
Year Started	Month Started	Status	Project	Description	Client	Contractor/s	Sector	Value (Millions)	Scope	Sources		
2009	N/A	Ongoing	Iran Farzad gas field output	India's state-run Oil and Natural Gas Corp and Indian Oil Corp each hold a 40 percent interest in the block, and smaller outfit Oil India Ltd controls 20 percent. The potential gas production over 30 years is 9.7 TCF.	National Iranian Oil Company (NIOC)	Indian Oil Corporation and Oil and Natural Gas Corp (ONGC)	Oil & Gas	Amount Unconfirmed	9.7 trillion cubic feet (TCF) of gas in 30 years	http://www.irantracker.org/global-business-in-iran/projects/ongc-india-oil-corp-develop-farzad-b		
2009	N/A	Completed	Rosatom-Atomstroyexport, Bushehr Nuclear Power Plant	The project is considered unique in terms of its technology, the political environment and the challenging physical climate. It is the first civilian nuclear power plant built in the Middle East.	Atomic Energy Organization of Iran	Rosatom	Nuclear Power Plant	\$700 million and \$1.2 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/rosatom-atomstroyexport-bushehr-nuclear-power-plant		
2009	N/A	Completed	Rosatom-Atomstroyexport, Bushehr Nuclear Power Plant	N/A	Atomic Energy Organization of Iran	Rosatom	Nuclear	\$900 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/rosatom-atomstroyexport-bushehr-nuclear-power-plant		
2009	January	N/A	Bushehr polymer Plants	Production of polyethelene at two polymer plants in Bushehr Province	N/A	Sasol	N/A	N/A	1 million tons/yr	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2009	March	January 7, 2014 Gao report says ONGC Videsh has withdrawn from Iran, but project continued by NIOC subsidiary Petropars. Field began producing in March 2014	South Pars Phase 12	N/A	N/A	taken over by Indian Firms (ONGC Videsh, Oil India Lt., India Oil Corp. Ltd. In 2007) ; may also include minor stakes by Sonagol (Angola) and PDVSA (Venezuela)	Gas	\$8 billion (India) \$1.5 billion (Angola) \$750 million (PDVSA)	20 million tonnes of LNG annually in 2012	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2009	March	N/A	South Pars Phase 12 LNG	The project seeks to increase Iran's natural gas production by 10.5 million tons annually.	Petropars	N/A	LNG	\$3.39 billion	10.5 million tons annually	http://www.irantracker.org/global-business-in-iran/projects/chinese-consortium-south-pars-phase-12-lng-partnership		
2009	April	N/A	South Pars Phases 13 and 14 LNG	The project involves the construction of LNG trains with a combined capacity of 8.1 million tons annually.	National Iranian Gas Export Company (NIGEC)	Sinopec	LNG	\$2 billion	8.1 million tons annually	http://www.irantracker.org/global-business-in-iran/projects/sinopec-nigec-south-pars-phases-13-and-14-lng-minority-stake-discus		
2009	April	N/A	Iran-Kuwait Gas Pipeline	Construction of a 570 kilometer pipeline to export gas from the Islamic Republic to the gulf state	N/A	N/A	Pipeline	N/A	N/A	http://www.irantracker.org/global-business-in-iran/projects/iran-kuwait-gas-pipeline		
2009	May	N/A	Darkhovin (Phase 3)	N/A	National Iranian Oil Company (NIOC)	ENI	Oil	\$1.5 billion	260,000 barrels/day (bpd)	http://www.arabianoilandgas.com/article-5521-eni-signs-15bn-deal-for-irans-darkhovin-field/		
2009	June	N/A	South Pars Phase 11	To develop Phase 11 of the South Pars gas project.	National Iranian Oil Company (NIOC)	CNPC	Gas	\$4.7 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/nioc-cnpc-south-pars-phase-11		
2009	June	Completed	Mehr Petrochemical Plant	N/A	Iran Oil and Gas Resources (RAMPCO)	Mitsui Petrochemical Industries, Ltd.		\$230 Million	N/A	http://www.irantracker.org/global-business-in-iran/projects/rampco-mitsui-companies-complete-mehr-petrochemical-plant		
2009	July	N/A	Abadan Refinery Expansion	To expand refining capacity at Abadan, including increasing gasoline production at the facility by 29 percent.	National Iranian Oil Refining and Distribution Company (NIORDC)	Sinopec	Gas	\$3.76 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/sinopec-niordc-abadan-refinery-expansion		
2009	July	N/A	Farzad-B	N/A	National Iranian Oil Company (NIOC)	Indian Oil Corporation and Oil and Natural Gas Corp (ONGC)	Gas	\$5 billion	9.7 TCF	http://www.irantracker.org/global-business-in-iran/projects/ongc-india-oil-corp-develop-farzad-b		
2009	July	N/A	Tecnimont South Pars 12 LNG	An Italian-Iranian consortium led by Italy's Technimont will construct a natural gas-treatment plant for the Iranian firm Petropars	Petropars	Maire Technimont S.p.A.	LNG	\$1.8 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/petropars-tecnimont-south-pars-12-lng		
2009	July	N/A	Resalat Oilfield	To develop the Resalat Oilfield.	National Iranian Oil Company (NIOC)	Amona Group (Malaysia)	Oil	\$1.46 billion	12,000 to 47,000 daily output	http://www.irantracker.org/global-business-in-iran/projects/nioc-amona-develop-resalat-oilfield		
2009	July	N/A	Offshore Rig Construction, South Pars	Shanghai Zhenhua Heavy Industry (ZPMC) Spanish ADHK have signed a deal worth \$2.2 billion with Iranian Offshore Engineering and Construction Company to construct 10 jack-up drilling units, seven land rigs and two floating cranes	Iranian Offshore Engineering and Construction Company (IOEC)	Shanghai Zhenhua Heavy Industry (ZPMC)/ Spanish ADHK	N/A	\$2 Billion	10 jack-up drilling units, 7 land rigs, 2 floating cranes	http://www.irantracker.org/global-business-in-iran/projects/adhk-china-offshore-rig-construction-south-pars		
2009	July	N/A	Neka - Jask Pipeline	Pipeline to connect Oman and the Caspian region. "The pipeline would carry Russian, Azeri, Kazakh and Turkmen crude oil."	National Iranian Oil Company (NIOC)	Gazprom and Tatneft	Pipeline	\$2 Billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/gazprom-ooc-nioc-neka-jask-pipeline		
2009	August	N/A	South Pars Phases 9 & 10 Completion	To develop South Pars Phases 9 and 10	Oil Industries Engineering Company (OIEC) and Iranian Offshore Engineering & Construction Company (IOECC)	GS Engineering & Construction Co.	N/A	\$2.1 Billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/gs-engineering-oiec-south-pars-phases-9-10-completion		
2009	August	N/A	Daewoo-Oil Tanker Contract	To build 10 more large oil tankers.	National Iranian Tanker Company (NITC)	Daewoo Shipbuilding	Oil	\$384 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/daewoo-oil-tanker-contract		

IRAN Projects												
Year Started	Month Started	Status	Project	Description	Client	Contractor/s	Sector	Value (Millions)	Scope	Sources		
2009	August	In progress	North Pars Oil and Gas Field Development	LNG plant	National Iranian Oil Company (NIOC)	CNOOC	LNG	\$16 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/cnoc-nioc-north-pars-oil-and-gas-field-development		
2009	September	N/A	Armenia - Iran to Construct Railway from Sevan to Meghri	Iran and Armenia agreed on the joint construction of a 470 kilometer (292-mile) railway, passing through Armenian territory.	Islamic Republic of Iran Railways	Armenian Railways	Railway	\$1.2 and 1.8 billion	470 kilometer railway	http://www.irantracker.org/global-business-in-iran/projects/armenia-iran-construct-railway-sevan-meghri		
2009	N/A	N/A	Tombak LNG	LNG plant in the southern port of Tombak. The facility will refine gas from the nearby South Pars gas field.	Petropars	Maire Tecnimont S.p.A.	LNG	\$281 million	N/A	http://www.irantracker.org/global-business-in-iran/projects/maire-tecnimont-tombak-lng		
2009	October	Contract signed but abrogated by S. Korean firm	South Pars Gas Field - Phases 6-8 Gas Sweetening Plant	Construction of a \$1.83 billion plant to process gas from Phases 6-8 of the South Pars gas field development	National Iranian Oil Company (NIOC)	G and S Engineering and Construction	Gas	\$1.4 billion	N/A	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2009	November	N/A	South Pars: Phase 12 - Part 2 and Part 3	N/A	N/A	Daelim/Tecnimont	N/A	\$4 billion (\$2 billion each part)	N/A	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2009	November	N/A	Arash Gas Field	N/A	Iranian Offshore Oil Company (IOOC)	Khafji Joint Operations	Gas	N/A	20 trillion cubic feet	http://www.irantracker.org/global-business-in-iran/projects/kuwait-saudi-arabia-iran-arash-gas-field http://www.arabianoilandgas.com/article-8140-iran-begins-drilling-for-gas-in-giant-arash-field/		
2009	November	N/A	Iran - Turkey, Oil Refinery	To build a crude oil refinery in Northern Iran.	National Iranian Gas Export Company (NIGEC)	Sam Petrol Company	Refinery	\$2 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/iran-turkey-oil-refinery		
2009	November	N/A	South Pars Phases 6, 7, 8	The project includes three platforms 100 km from shore, and a 32-inch pipeline from the platforms to a gas treatment plant at Assaluyeh.	Pars Oil and Gas Company	Petropars Statoil	Pipeline	\$2.6 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/statoil-asa-petropars-south-pars-phases-6-7-8 http://www.offshore-technology.com/projects/southpars/		
2009	December	N/A	South Pars	To develop South Pars Phase 11. Previously the contract was with Total SA, worth \$7.5 billion.	National Iranian Oil Company (NIOC)	CNPC	Gas	\$4.7 billion	40,000 barrels of condensate a day	http://www.irantracker.org/global-business-in-iran/projects/total-sa-nioc-south-pars-phase-11-discussions		
2009	December	N/A	Golshan and Ferdowsi Fields	Development of Iran's Golshan and Ferdowsi offshore oil and gas fields.	National Iranian Oil Company (NIOC)	SKS group	Oil & Gas	\$20 billion	50 trillion cubic feet (Golshan), 10 trillion cubic feet (Ferdowsi)	http://www.irantracker.org/global-business-in-iran/projects/sks-ventures-golshan-and-ferdowsi-fields		
2010	February	CNPC pulled out in October 2011	South Pars: Phase 11	N/A	N/A	CNPC	N/A	\$4.7 billion	N/A	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014		
2010	February	N/A	Shahnazi-Zadeh Pipeline	Armenia and Iran agreed to the construction of a 217 mile oil pipeline from the Tabriz refinery in Iran to Mughri in Armenia.	N/A	Gazprom	Pipeline	\$350 million	70,000 bbpd	http://www.irantracker.org/global-business-in-iran/projects/armenia-iran-shahnazi-zadeh-pipeline		
2010	March	Complete	Iran-Pakistan Pipeline Deal	Iran will provide Pakistan 750 million cubic feet of gas per a day from its South Pars gas field for twenty-five years. The gas will be piped through Balochistan before reaching Pakistan's gas grid at Nawabshah.	National Iranian Gas Company (NIGC)	Sui Northern Gas Pipeline (SNGPL), Sui Southern Gas Company Limited (SSGCL)	Pipeline	\$7.5 billion	750 million cubic feet of gas per a day	http://www.irantracker.org/global-business-in-iran/projects/iran-pakistan-pipeline-deal		
2010	March	N/A	Iran-Russia, Qazvin Rasht Astara Railroad	To upgrade and invest in the Qazvin-Rasht-Astara railway which runs between Iran and Azerbaijan	Islamic Republic of Iran Railways	Russia Railways	Railway	N/A	N/A	http://www.irantracker.org/global-business-in-iran/projects/iran-russia-qazvin-rasht-astara-railroad		
2010	August	In progress	South Azadegan Field Development	N/A	National Iranian Oil Company (NIOC)	China National Petroleum Corporation	Oil	\$2.05 billion	N/A	http://www.irantracker.org/global-business-in-iran/projects/cnpc-nioc-south-azadegan-field-development		
2010	January	N/A	Bid Boland II	To design, construct, and operate a gas treatment facility in the Khuzestan province of Iran	National Iranian Gas Company (NIGC)	Costain Group	Gas	\$1.46 billion	56 million m3 of gas per day	http://www.irantracker.org/global-business-in-iran/projects/bid-boland-ii http://www.itp.net/482858-costain-wins-billion-dollar-bid-boland-construction-contract		
2011	N/A	N/A	Azar Gas Field	N/A	National Iranian Oil Company (NIOC)	Gazprom	Oil & Gas	\$1.9 billion	50,000 and 65,000 barrels/day	http://arabianindustry.com/oil-gas/news/2011/oct/12/iran-suspends-cnpc-goes-it-alone-at-azar-field-3822442/#.VBVH9_mSzg8		

IRAN Projects											
Year Started	Month Started	Status	Project	Description	Client	Contractor/s	Sector	Value (Millions)	Scope	Sources	
2011	December	Preliminary deal signed December 18, 2011	Zagheh Oil Field	N/A	Iran's Petroleum and Engineering Development Co.	Tatneft	Oil	\$1 billion	7,000 barrels a day and output will rise to 55,000 barrels a day	Congressional Research Service: Iran Sanctions by Kenneth Katzman May 7, 2014 http://www.bloomberg.com/news/2011-12-18/iran-and-russia-s-tatneft-sign-1-billion-accord-to-restart-oil-field.html	
2012	N/A	Earlier National Iranian Oil Company (NIOC) announced that it has dropped Polish Oil and Gas Company (PGNIG) from Lavan gas field development project, replacing it with a consortium of Iranian companies.	Lavan Gas Field	Developing gas field, extracting gas and producing gas products as feedstock for downstream petrochemical industry of Lavan are among the project's objectives.	Iranian Offshore Oil Company (IOOC)	Sepehr Energy Corporation	Gas	\$1.1 billion	750 million cubic feet of natural gas and 11,000 barrels of condensate per day	http://www.irantoday.info/?_action=articleInfo&article=717	
2012	December	Under Construction	Bakhtiari River Dam	To construct the concrete dam on the Bakhtiari River in the Zagros mountains in Iran's southwestern Lorestan Province.	Khatam al-Anbiya (KAA)	N/A	Dam	N/A	315 meters tall and 434m. Long	http://www.jpost.com/Iranian-Threat/News/Iran-ready-to-construct-worlds-tallest-dam	
N/A	N/A	Completed	Bandar Abbas Refinery Project	Greenfield Condensate Splitter is being constructed to utilise Iran's abundant natural gas condensates and produce much needed gasoline. Construction of the condensate pipeline between Asaluyeh & Bandar Abbas that will be 420 km long 36" pipeline for carrying the feed of the Refinery	National Iranian Oil Refining and Distribution Company (NIORDC)	Saipem, EPC Consortium of Tehran Jonoob, Bina, LPEC (a subsidiary of China's Sinopec) & Golden Group	Refinery	\$3.24 billion	18.0 million tons/yr & 360,000 bbl/day in three modules	http://abarrefull.wikidot.com/persian-gulf-star-bandar-abbas-refinery-project	
N/A	N/A	Completed	Abadan Refinery Project	The addition of an FCC and related units tpo increase complexity and gasoline yield	National Iranian Oil Refining and Distribution Company (NIORDC)	N/A	Refinery	\$ 603 million	million tons/annum & bbl/day	http://abarrefull.wikidot.com/abadan-refinery-project	



