

# COUNTRY ANALYSIS BRIEFS

## Syria

Last Updated: March 2008

### Background

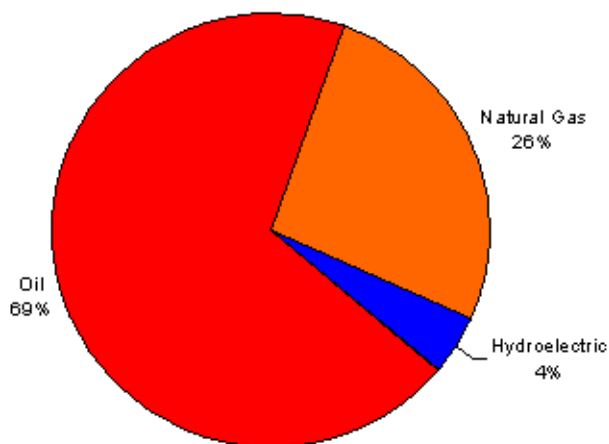
**Syria produces and consumes modest quantities of energy, but occupies a strategic location in terms of regional security and prospective energy transit routes.**

Syria is the only significant crude oil producing economy in the Eastern Mediterranean region, which includes Jordan, Lebanon, Israel and the Palestinian territories. Regional integration, particularly in the energy sector, while increasing, is complicated by the ongoing Arab-Israeli conflict.



In 2005, Syria's total energy consumption was primarily made up of petroleum, followed by natural gas. Hydroelectricity, the sole source of renewable energy, accounts for a small percentage of total energy consumption.

**Total Energy Consumption in Syria, by Type (2005)**



Source: International Energy Annual 2005

According to the [International Monetary Fund](#), despite declines in oil production, Syria has begun to recover from a pattern of low economic growth as a result of structural reforms and increased opening of the highly centralized economy. In addition, capital inflows from the large Iraqi refuge

community, growth in the non-oil sector, and high global oil prices for its modest quantities of oil exports buoyed the economy in the short-term. However, increasing imports of refined products is expected to offset much of the benefit of record crude prices in the near-term. Overall, oil revenue as a percentage of GDP fell by 10 percentage points to an estimated 4.5 percent between 2003 and 2006.

In May 2004, the U.S. government imposed unilateral economic sanctions against Syria, under the provisions of the Syria Accountability and Lebanese Sovereignty Restoration Act, although the direct economic effects have been modest, due to the small volume of U.S. trade and investment with Syria. (U.S. energy companies operating in Syria were not forced to divest their investments in Syria although some have chosen to do so). Increased international pressure on Syria, politically and economically, further deterred foreign investment from the West, particularly in the oil sector, although financial liquidity in the Gulf countries, China and Iran has offset this some.

## Oil

### Oil Sector Overview

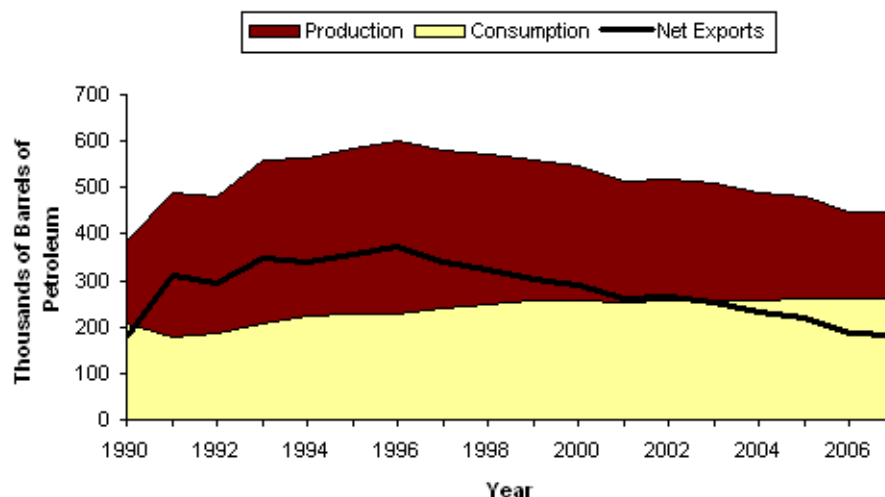
Syria's oil industry faces many challenges. Growing domestic demand for petroleum products continues to limit Syria's oil exports, while oil output is in decline due to technological challenges and depletion of reserves. According to the [Energy Information Administration \(EIA\)](#), since peaking at 582,000 barrels per day (bbl/d) in 1996, Syria's crude oil production, which is split between heavy and light grades, has steadily declined. In 2007, crude oil output fell below 400,000 bbl/d for the first time, reflecting declining production in fields such as Jebisseh, al-Thayyam and Omar. Crude oil production totaled an estimated 393,000 bbl/d (including lease condensate) and total liquids production was estimated to be 446,000 bbl/d. Syria has approximately 130 producing oil wells.

Syrian oil production is expected to continue its decline over the next several years, while consumption rises, leading to a reduction in net oil exports. In December 2007, Syria's Oil and Mineral Resources Minister, Sufian al-Alaw, said that production is expected to drop by approximately 20,000 bbl/d a year in the near-term, or an estimated 360,000 bbl/d in 2008. To offset declining crude exports, growth in natural gas consumption - which will free crude oil for export - depends on Syria's ability to develop domestic resources and secure imports from Egypt, Iran and elsewhere.

According to the EIA, in 2007, Syria's net oil exports averaged an estimated 184,000 bbl/d of total oil and consumption reached an estimated 262,000 bbl/d, although estimates from other sources are as high as 280,000 bbl/d. According to the *Oil and Gas Journal* Syria has 2.5 billion barrels of petroleum reserves.

**Syria is the only significant oil producer in the Eastern Mediterranean region, although production has been in decline since the mid-1990s. With increasing demand and declining production, Syria could become a net oil importer around 2015.**

Syria's Total Petroleum Balance (1990-2007)



Source: EIA International Energy Annual

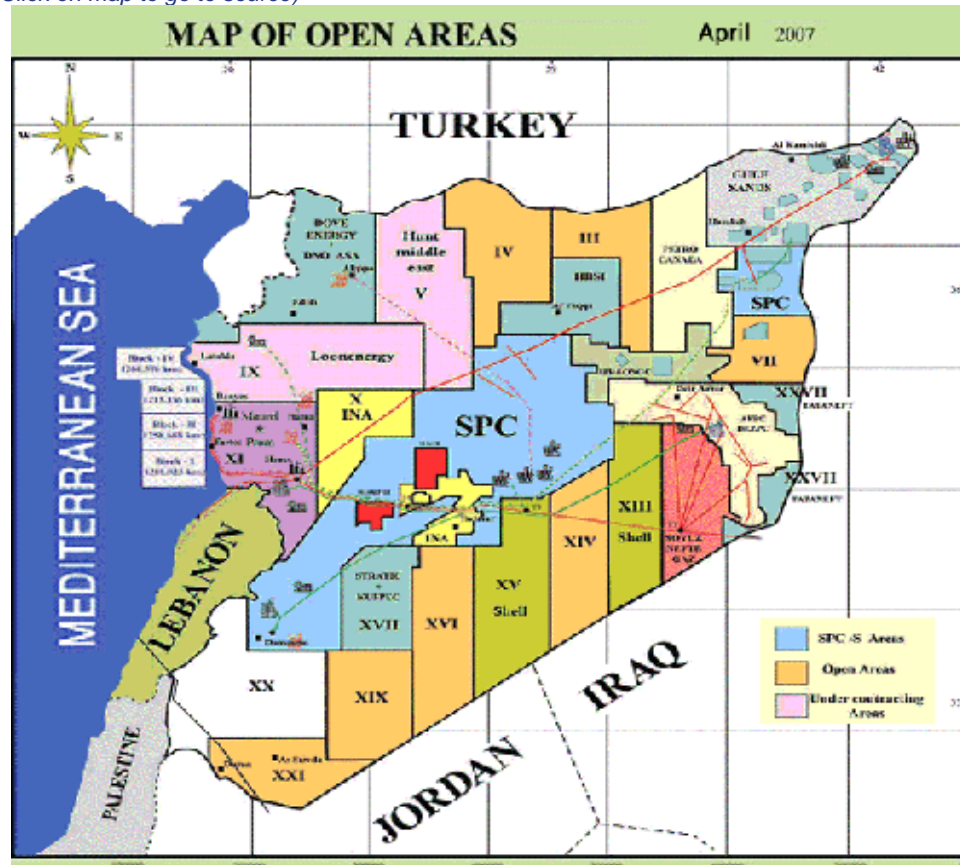
### Upstream Production and Development

Syria's upstream oil production and development has traditionally been the mandate of the [Syrian Petroleum Company \(SPC\)](#), an arm of the Ministry of Petroleum and Mineral Resources (MoPMR). The SPC currently produces an estimated 100,000 bbl/d from several fields, including Karatchok, Suweidiya, Rumailan, Alian and Jebissah, although these fields are in decline. The oil ranges from 18 to 48 degrees API. SPC fields produced around 160,000 to 140,000 bbl/d from development in the 1970's until around 2002.

The SPC has undertaken efforts to reverse the trend toward declining oil production and exports by increasing oil exploration and production in partnership with foreign oil companies. In 2001, the MoPMR offered the first in a series of block tenders to international oil companies (IOCs) for oil and natural gas exploration with production sharing agreements. Since this time, the majority of foreign investment in Syria's upstream oil and gas sector has been from smaller and medium-sized independent firms ("minnows"). Syria also aims to intensify oil production through enhanced oil recovery (EOR).

Since 2001, Syria has offered 5 onshore licensing rounds and one offshore round. The country is divided into 27 onshore and four offshore blocks, with the first awards made to IOCs in 2003. However, several of the blocks tendered remain vacant, and recent licensing rounds have attracted less interest than expected. In May 2007, Syria offered the first offshore licensing round although only a single bidder, a consortium of the U.K.'s Dove Energy and Norway's DNO, participated. The offshore blocks have yet to be awarded.

(Click on map to go to source)



Source: Syrian Petroleum Company

Syria's largest foreign oil producer is [Al-Furat Petroleum Co. \(AFPC\)](#), a joint venture established in 1985 by the Syrian Petroleum Company (SPC), Shell and PetroCanada. AFPC also incorporated the fields belonging to the former al-Badiya (BOC) and al-Bishri (BAC) companies in the early 1990s. In 2005, PetroCanada's stake was bought by the India-based Oil and Natural Gas Corporation (ONGC) and the China National Petroleum Company (CNPC). AFPC operated three-dozen fields located primarily in northeastern Syria, where commercial quantities of oil were discovered in the late 1980s. It is estimated that the company will produce an estimated 170,000 bbl/d of high quality light crude in 2008, compared to an estimated 200,000 bbl/d in 2007. Shell is the largest single foreign investor in Syria's oil industry with a 37.5 percent share in the AFPC fields. AFPC's main oil field is al-Thayyem, although production has been in decline since 1991. Other AFPC fields include Azraq, al-Izba al-Ward, Maleh, Jido, Ishar East, Sijan, and Tanak.

In July 2007, minnow Tanganyika Oil Company announced results of newly inaugurated steam injection enhanced oil recovery operations at their heavy oil fields near Jbessa, announcing 16 percent improvement in recovery rates, as compared to 7 percent enhanced recovery using traditional EOR techniques.

Besides conventional oil reserves, Syria also has significant shale oil deposits, mainly the Yarmouk Valley, stretching into Jordan. In February 2006, the MoPMR announced a call for bids to develop the Darra oil shale deposit and Al-Bushri tar sand (west of Deir ez-Zour), although

foreign interest has been reported to be limited.

Click [HERE](#) to link to a chart of major upstream production and exploration projects by foreign operators in Syria:

## Downstream Sector

### Refining

Syria's two state-owned refineries are located at Baniyas and Homs. According to *Oil and Gas Journal*, total current capacity is 239,865 bbl/d (132,725 bbl/d and 107,140 bbl/d, respectively). Press reports indicate that Syria plans to upgrade its two existing refineries to process heavier crudes, including Iraqi, and replace output of fuel oil with lighter products and meet European Union (EU) standards for fuel imports. Syria's refineries produce a surplus of heavier products, including fuel oil, but fail to meet demand for lighter products, including distillates.

Syria has announced plans to construct three new refineries and increase refining capacity by around 380,000 bbl/d by 2010-2011. In November 2005, the MoPMR reportedly signed a \$1.2-billion deal with China National Petroleum Corp (CNPC) for the construction of a 100,000-bbl/d, 50/50 light-heavy blend refinery in Deir ez-Zoar. The facility is planned to come online in 2010. A second light-heavy 140,000-bbl/d refinery planned for nearby in Abu Khashab, is a joint venture of Syrian and several Arab-owned companies, and will be financed by the Kuwait-based Noor Financial Company.

In late October 2007, the MoPMR (15 percent), Venezuela's PDAVSA (33 percent), the National Iranian Oil Refining and Distribution Company (NIORDC) (26 percent) and the Malaysian Al-Bukhari Company (26 percent) announced plans to construct a \$2.6-billion, 140,000-bbl/d refinery at Furqlus, near Homs. Reportedly, the refinery will be supplied by three of the signatory countries under a long-term contract, including 42,000 bbl/d crude from Venezuela, 28,000 bbl/d of crude from Iran, and another 70,000 bbl/d from the SPC fields. The Malaysian firm has been contracted for the facility's construction. The refinery is to produce almost 50 percent diesel (gasoil), which currently comprises the majority of Syrian petroleum product imports. However, a detailed development timeline and financing for both projects remain unclear. Talks with Russia's Stroytranzgas/North-West Oil Group/CreditLine and France's Total to build an integrated petrochemical plant and refinery at Deir ez-Zour and standalone refinery have reportedly been cancelled.

The [Syrian Company for the Distribution of Petroleum Products \(Mahrukaf\)](#) manages all aspects of marketing of Syrian oil products, including the majority of gasoline retail outlets.

### Domestic Pipelines

Syria has a developed domestic pipeline system for transporting crude and petroleum products managed by the [Syrian Company for Oil Transportation \(SCOT\)](#). Pipelines include the 250,000-bbl/d, 347-mile Tel Adas-Tartous crude line links SPC and Tanganyika fields to the port at Tartous and the refinery at Homs.

## Exports & Imports

In 2007, Syria's net petroleum exports were estimated to be 184,000 bbl/d, all of which was facilitated through Sytrol, Syria's state oil marketing firm. Exports are sold using one-year term contracts which include a clause preventing resale. The majority of Syrian crude is exported to the EU.

Much of Syria's domestic need for petroleum products, an estimated 262,000 bbl/d in 2007, is met through local production. However, Syria is a net importer of high quality light distillate products, primarily of gasoil (for heating), LPG and diesel fuel for transport. Syria also imports small quantities of heavy fuel oil, for power production, from Iraq. According to various sources, total product imports averaged around 100,000 bbl/d.

In terms of product exports, Syria primarily sends low-quality gasoline to Iraq via truck. However, according to statements made by Minister Sufian al-Alaw in 2007, unofficial "exports" from the resale of subsidized products on the black market are not captured in the official statistics.

### International Pipelines

Currently, most Syrian oil is moved by trucks and tankers. The 40-inch, 1.4-million bbl/d Iraqi Petroleum Company (IPC) pipeline between the Syrian port of Baniyas and the "Strategic Pipeline" in Iraq, which connects its northern and southern oil infrastructure, has been inoperative since the Iraq war began in March 2003 (then carrying only an estimated 100,000 to 200,000 bbl/d). In August 2007, it was reported that talks were underway between the two countries to refurbish and reopen the pipeline, which could be used to export production from Iraq's northern field. However, due to significant damage, degradation and ongoing security concerns, much of the pipeline will require replacement, and is not expected online in the immediate future.

Since the war, small quantities of Iraqi crude, between 7,000 and 10,000 bbl/d, have continued to be exported to Syria near Suweidiya through a ten-mile pipeline that carries crude from the northern Iraqi Ayn Zalah and Sufaya fields. At present time, however, the status of this pipeline is unknown, and may be undergoing repair.

#### Ports

Syria has three oil export/import terminals located at Baniyas, Tartous and Latakia, all on the Mediterranean Sea. Baniyas, with seven berths, and Tartous, with two berths, are larger ports, and are connected to refineries through the domestic pipeline network. Latakia handles smaller cargoes. The ports are also operated by SCOT.

#### Pricing

According to Syria's Oil and Mineral Resources Minister, rapidly rising demand for refined fuels, mainly due to population increases, reported smuggling, and higher input costs, has put pressure on the government of Syria to adjust fuel prices, which are both fixed and subsidized. According to the IMF, in 2007, total energy price subsidies (petroleum and natural gas) were estimated to be 13.2 percent of GDP, or nearly US\$5 billion dollars. The Syrian government estimated in 2008, subsidies will increase to 19 percent GDP, or around US\$7 billion (of a total budget of \$US12 billion). The price of gasoline was last raised in November 2007 by 20 percent, to approximately \$2.72 per gallon (SY£ 36/Liter). Diesel fuel retails for approximately \$0.53 per gallon (SY£ 7.3/Liter). [The Ministry of Economy and Trade](#) is calling for subsidies on all petroleum products to be removed over a five-year window, starting in 2008. In December 2007, the MoPMR began a feasibility study to investigate the adoption of a smartcard fuel rationing program, similar to Iran.

### Natural Gas

**Despite moderate gas discoveries, securing imports will be critical to meeting Syria's demand in the near future.**

According to the *Oil and Gas Journal*, Syria's proven natural gas reserves are estimated to be 8.5 trillion cubic feet (Tcf). An estimated three quarters of these reserves are owned by the Syrian Gas Company (SGC), including about 3.6 Tcf in several fields in the Palmyra area (including Arak, Ha'il, Dubayat, Nakib and Sokhne), 1.2 Tcf at Suweidiya, 0.8 Tcf at Jbessa (including al - Hol, Ghona and Marqada), and 0.7 Tcf near Deir ez-Zour. Another 1.6 Tcf is found at the oil fields operated by the Al-Furat and Deir ez-Zoar companies, including Omar. All of these fields are currently producing, but are in decline. The remaining reserves are found at undeveloped fields including Al-Sharifa, Al-Sha'er, and Hayan. About half of Syria's natural gas is non-associated, and the rest is associated with major oil deposits.

In 2006, Syria produced and consumed (net) an estimated 223 billion cubic feet (Bcf) of natural gas, down from peak production of 251 Bcf in 2004. Another estimated 25 percent of gross domestic production is used for re-injection in oil production, vented or flared. Production comes mainly from SPC and Al-Furat operated fields around Palmyra, Dier ez-Zour and al-Hasakan in the northeast. Syria has stated plans to increase domestic production to around 350 Bcf by 2010, by bringing several new fields online with the help of foreign partners, as part of a strategy to substitute natural gas for oil in power generation and industrial use while freeing up as much oil as possible for export. As with oil exploration, Syria has been working to adopt more investor-friendly policies to attract needed investment for gas development. Developing the Syrian gas sector is the providence of the Syrian Gas Company (SCG), established in 2003, which manages exploration, production sharing agreements, downstream processing and sector developments.

#### Upstream Exploration and Development

Syria's upstream exploration and development of natural gas reserves is active, although there have been few significant finds in the last decade. By 2010, Syria expects to bring an additional 194 Bcf of gas online through several projects, listed below. New gas additions are expected to rise to over 200 Bcf by 2012.

Click [HERE](#) to link to a chart of additions to Syria's natural gas production through 2010.

In September 2007, SGC reported a gas find with probable reserves of at least 177 Bcf at Brig, north of Damascus. In 2006, a significant discovery at Al-Bureij, near Damascus, was reported. The field contains an estimated 1.8 Tcf in natural gas reserves. However, development plans have not yet been announced and reserves are not yet confirmed.

In May 2006, Syria and U.S.-based Marathon oil signed a \$127-million gas and oil exploration agreement. Under the 25-year deal, Marathon Oil and its partners planned to develop Al-Sha'er and Al-Sharifa fields. In June 2006, Petro-Canada signed an agreement with Marathon for a 90 percent stake in the fields. Development of this region has been at the center of almost two decades of negotiation between Marathon and the government of Syria. PetroCanda originally divested Syrian holdings (including the Al-Furat Company) when it lost out the US\$850-million Palmyra fields development contract in early 2005 to Russia's Soyuzneftegaz.

#### Imports and Exports

Currently, Syria has no net imports or exports of natural gas. However, in addition to developing indigenous resources, Syria plans to supplement future domestic production with imports from

Egypt, Iran, and possibly Iraq. An agreement was signed in January 2004 between Egypt, Jordan, Syria, and Lebanon for the construction of a 746-mile, 970-Mmcf/d capacity Arab Gas Pipeline (AGP) which will bring Egyptian gas into the signatory countries. In February 2008, the section of the pipeline running from Jordan to Tishreen and Deir Ali in Syria was reported completed. A longer continuation of this branch carries gas to a plant outside of Homs. A second stage, which will extend the AGP to Aleppo and into Turkey, is expected to be completed by mid to late-2008. Syria is expected to import 32 Bcf of gas from Egypt in the first year of operation. Imports are predicted to rise to 77 Bcf by 2012.

Syria has the infrastructure to export a small quantity of natural gas to Lebanon through the 53-Mmcf/d, 16-mile GASYLE-1 pipeline which runs from the port of Baniyas to the Dier al-Ammar/Beddawi power plant in northern Lebanon. The pipeline, completed in 2005, was originally conceived as conduit for Syrian gas exports. However, political, technical and economic considerations in both countries have precluded exports to date. The pipeline is expected to be used to transport Egyptian gas starting in mid-2008, as part of the AGP network. In April 2006, Lebanon announced plans to construct a second pipeline from Syria to the Zahrani power station in the south of Lebanon, which would double the pipeline capacity. However, plans are on hold due to the conflict with Israel.

In January 2008, Iran and Syria finalized a 25-year, US\$1-billion agreement for the latter to import 106 Mmcf/d (rising to 318 Mmcf/d) to commence in late-2009. The gas will be exported in the summer months, due to high demand in Iran in the cold-weather months. It will flow through the Iran (Tabriz)-Turkey (Erzurum) gas pipeline, which is expected to be linked to the Syrian portion of the AGP at Kilis, through a proposed 39-mile pipeline.

In January 2008, Iraqi press sources indicated that Syria (through the [Euro-Arab Mashreq Gas Market Project \(EAMGM\)](#)) and Iraq are in talks to promote the development of the 2.1-Tcf Akkas gas field in Iraq's western province of Al-Anbar, in part for export to Syria. IOCs, including Shell Oil, are reportedly interested the Akkas development and may be involved in the project. The parties discussed Iraq supplying Syria with at least 50 Mmcf/d of natural through a 10-inch wide 68-mile long pipeline between the two countries, for which a tender has reportedly been issued for the Iraqi portion. Ultimately, total exports from the field could reach 500 Mmcf/d, to be transited through Syria and the AGP for European consumption (potentially linking to the proposed Nabucco pipeline). Imports could begin as early as 2009.

#### *Domestic Pipelines*

The Syrian Company for Oil Transport (SCOT) operates an estimated 1250 miles of domestic gas pipelines. These pipelines carry gas from many of the largest producing fields, such as Omar and Palmyra, to gas processing plants and power plants throughout Syria.

#### *Gas Processing*

Syria has five gas processing plants, with a total capacity of approximately 1.1 Bcf/d. It has been reported that another three joint ventures with foreign firms which will increase downstream gas processing by an estimated 500 Mmcf/d, have been proposed or are underway.

## Electricity

### Electric Power Overview

As of January 2005, Syria's total installed electric generating capacity was an estimated 6.5 gigawatts (GW), including 11 natural gas and fuel oil fired thermal facilities and 1.5 GW of hydroelectric capacity provided by three plants on the Euphrates River. The state-run [Public Establishment for Electricity Generation and Transmission](#) (PEEGT) controls generation and transmission, while the [Public Establishment for Distribution and Exploitation of Electrical Energy](#) (PEDEEE) is responsible for sales and distribution. PEEGT reports that current government-owned generating capacity has grown to over 8 GW through expansion of generating capacity mainly at oil and gas processing installations. According to the EIA, in 2005, Syria produced 33 billion kilowatt-hours (Bkwh) and consumed 25 Bkwh of electricity.

***Syria's demand for electricity is growing rapidly and some liberalization in the power sector is starting to attract needed private capital to fund expansion of generating capacity.***

Major Thermal Power Plants	Installed Capacity	Fuel Source
	(MW)	
Aleppo-Palmyra	1000	gas
Banias	680	gas
Jandar	600	gas
Muharden	630	gas
Nasiriya	est. 600	gas
Tishreen	380	Fuel oil/gas
Zara	650	Fuel oil/gas
Zeinoun	380	Fuel oil/gas

With Syrian electric power demand reportedly growing at more than seven percent annually, and challenges including rolling blackouts during recent summer months, adding electricity supply capacity is a national development priority. According to recent statements made by Minister of Electricity Dr. Ahmad Khaled Al-Ali, Syria's electricity sector requires an estimated \$6 to \$8 billion to modernize and extend the national electricity infrastructure to meet increasing demand. According to the Ministry of Electricity, the country plans to add 3,500 MW of capacity by 2010.

Progress toward implementing the master plan has been slowed by a lack of investment capital, traditionally provided by loans from international development banks and foreign governments. In order to attract the necessary capital, Syria has opened the sector to Independent Power Projects (IPPs), despite the failure of similar reforms in the early 1990s. Funding for select projects (Deir ez-Zour and Deir Ali) has reportedly been provided by the European Union through the [Facility for Euro-Mediterranean Investment and Partnership \(FEMIP\)](#), an investment arm of the [European Investment Bank](#) and Gulf-based development agencies (including [the Islamic Development Bank](#) and the [Arab Fund for Economic Aid and Social Development](#)). Three projects, outlined below, have been announced by the Ministry to date.

IPP Project	Partners	Partner Country	Projected Capacity	Date Online	Fuel Source
			(MW)		
Suweidiya	Azrab Energy Industries Development Company	Iran	450	Mid-2009	natural gas
Deir az-Zour	Iberdrola Alstom	Spain Poland	750	Mid-2009	natural gas
Deir Ali	Siemens Koch	Germany	750	May-08	natural gas

In addition to new construction, Syria has converted several oil-fired power plants to natural-gas-fired plants, in order to free up oil for export. Currently, an estimated 50 percent of Syria's power plants run on natural gas. Converted plants include Palmyra-Aleppo, Banias and Muharden, near Homs. Natural gas for these plants comes from the Palmyra fields, including Abu Rabah. Syria also increased natural gas usage at their dual-capacity (fuel oil or natural gas) plants, including Tishreen power plant in Damascus, Zeinoun and Suweidiya. Gas for Tishreen comes from the Omar treatment plant, while Suweidiya operates mainly on associated gas from the nearby giant oil fields. According to the press reports, Syria aims to convert all thermal power plants to natural gas-fired by 2014.

According to a June 2006, interview with the Minister of Energy, Syria's master electricity plan aims to produce five percent total electrical energy production from renewable sources by 2010. Reportedly, a program of wind turbine development and installation of 20 meter stations for testing was proposed. It was originally reported that the projects would generate 50 and 100 MW of energy by the end of 2007, although no increase in generation capacity due to renewable sources has been corroborated. Syria has also expressed support for collaboration with the EU on solar technology.

**Pricing**

Highly subsidized fuel and power prices have impacted Syria's electricity demand growth. In September 2007, Syria inaugurated a new electricity sliding tariff scale based on consumption, ranging from \$0.005 to \$0.08 cents per kilowatt-hour, in order to encourage more efficient consumption.

**Power Imports and Exports**

Even with the challenges of increasing demand, Syria is a net exporter of electricity. The country's power grid is linked up with those of several neighboring countries, including Jordan, Lebanon, and Turkey as part of a grid that runs from Libya through Egypt northward. Syria is also considering increased interconnection projects with Turkey and an initial link with Saudi Arabia to facilitate the import and export of electricity. The revival of a connection with Iraq's national grid is also under consideration. Syria has exported power intermittently to Iraq since 2003. In November 2007, Syria and Turkey renewed a deal for 100 to 400 MW/day of occasional electricity exports to Syria.

In 2007, Syria experienced power failures and outages reportedly due to demand surges and drought conditions at the Tabqa and Tishreen hydroelectric power stations on the Euphrates River, and reportedly suspended electricity exports to Lebanon and Iraq. In January 2008, it was reported that Syria agreed to continue an estimated 200 MW of daily electricity exports to Lebanon until the end of this year.

**Profile**

**Energy Overview**

<b>Proven Oil Reserves (January 1, 2008E)</b>	2.5 billion barrels
<b>Total Oil Production (2007E)</b>	446 thousand barrels per day
<b>Crude Oil Production (2007E)</b>	393 thousand barrels per day
<b>Oil Consumption (2007E)</b>	262 thousand barrels per day
<b>Net Petroleum Exports (2007E)</b>	184 thousand barrels per day
<b>Crude Oil Distillation Capacity (2007E)</b>	240 thousand barrels per day
<b>Proven Natural Gas Reserves (January 1, 2008E)</b>	8.5 trillion cubic feet
<b>Natural Gas Production (2006E)</b>	223 billion cubic feet
<b>Natural Gas Consumption (2006E)</b>	223 billion cubic feet
<b>Coal Production (2006E)</b>	0 million short tons
<b>Coal Consumption (2006E)</b>	0 million short tons
<b>Electricity Installed Capacity (2005E)</b>	6.5 gigawatts
<b>Electricity Production (2005E)</b>	33.0 billion kilowatt hours
<b>Electricity Consumption (2005E)</b>	24.7 billion kilowatt hours
<b>Total Energy Consumption (2005E)</b>	0.8 quadrillion Btus*, of which Oil (69%), Natural Gas (26%), Hydroelectricity (4%), Nuclear (0%), Coal (0%), Other Renewables (0%)
<b>Total Per Capita Energy Consumption (2005E)</b>	42.9 million Btus
<b>Energy Intensity (2005E)</b>	36,086 Btu per \$2000-PPP**

**Environmental Overview**

<b>Energy-Related Carbon Dioxide Emissions (2005E)</b>	49.8 million metric tons
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**Per-Capita, Energy-Related Carbon Dioxide Emissions (2005E)** 2.7 metric tons

**Carbon Dioxide Intensity (2005E)** 2.3 Metric tons per thousand \$2000-PPP\*\*

## Oil and Gas Industry

**Organization** Upstream and downstream oil and gas sectors controlled by the state-owned Syrian Petroleum Company (SPC) and the Syrian Gas Company (SGC), and part of the Ministry of Petroleum and Mineral Resources. Since 2001, Syria has re-opened upstream oil and gas exploration to international oil companies through production sharing agreements. Investments in downstream infrastructure increasingly open to foreign investment, particularly from China, Russia and Arab investors.

**Major Oil/Gas Ports** Baniyas, Tartous and Latakia

**Foreign Company Involvement** Shell Oil, Total, Stroytransgaz, Soyuzneftegaz, ONCG, CPNC, INA Naftaplin, Petro-Canada

**Major Oil and Natural Gas Basins** Palmyra, Suweidiya, Deir ez-Zoar, Jbessa

**Major Pipelines (capacity)** Iraq-Syria-Lebanon Pipeline (1.4 million bbl/d, not functioning), Arab Gas Pipeline (970 Mmcf/d)

**Major Refineries (capacity, bbl/d)** Baniyas (132,725), Homs (107,140)

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

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

## Links

### EIA Links

[EIA: Country Information on Syria](#)

### U.S. Government

[CIA World Factbook - Syria](#)

[U.S. State Department - Consular Information Sheet - Syria](#)

[U.S. State Department - Country Commercial Guide - Syria](#)

[U.S. State Department Background Notes on Syria](#)

### Other Links

[Al-Furat Petroleum Company \(Syria\)](#)

[ArabNet: Syria](#)

[Daily Star](#)

[MENA Petroleum Bulletin](#)

[Middle East North Africa Financial Network](#)

[Public Establishment for Distribution and Exploitation of Electrical Energy \(PEDEEE\)](#)

[Public Establishment for Electricity Generation and Transmission \(PEEGT\)](#)

[Syrian Company for Oil Transport \(SCOT\)](#)

[Syrian Company for the Storage and Distribution of Petroleum Products \(Mahrukat\)](#)

[Syrian Petroleum Company \(SPC\)](#)

[Syrian Arab News Agency \(SANA\)](#)

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APS Review Oil Market Trends

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Syrian News Digest  
U.S. Energy Information Administration (EIA)  
Upstream  
Wall Street Journal  
Washington Post  
World Bank  
World Gas Intelligence  
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