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COUNTRY ANALYSIS BRIEFS

Eastern Mediterranean

Last Updated: October 2006

Background

While the countries of the eastern Mediterranean region produce and consume only modest quantities of energy, they occupy a strategic location in terms of regional security and prospective energy transit routes.

Although the countries of the Eastern Mediterranean (Israel, Jordan, Lebanon, the Palestinian Authority, and Syria) occupy a relatively small geographic area, they represent different economic and political systems. Regional integration, particularly in the energy sector, while increasing, is complicated by the ongoing Arab-Israeli conflict.

Israel has the largest and most developed economy in the region. In 2000, a period of renewed Israeli-Palestinian violence ushered in an economic contraction followed by period of low growth. However, a strong increase in exports of technology products, as well as a revival in tourism and private investment contributed to a recent recovery. Growth of real gross domestic product (GDP) in 2005 was 5.2 percent, and is forecast at 4.7 percent for 2006. However, security concerns such as armed hostilities in Lebanon could threaten sustained growth in the near term.

Between 2004 and end-2005, the economy of the Palestinian Authority (PA) showed strong recovery with GDP growth rates between five and six percent annually. However, the January 2006 election of a Hamas-led government and subsequent reduction of donor support, limited access to the international banking system, and cross-border travel restrictions, have been an economic setback for the PA. According to the World Bank, the economic contraction is causing an increase in unemployment, a large contraction in personal income and a significant rise in poverty rates. As few up-to-date figures are available, it remains unclear to what extent the current political situation, including re-engagement in Gaza, will effect the economy and attempts at economic reform in the near-term.

Jordan has experienced strong economic growth (more than seven percent annually) since 2004, and GDP is forecasted to grow another five to six percent in 2006. Much of this growth is due to rising exports, its location as a services hub to Iraq, and private capital inflows. However, in mid-2005 economic pressures started to build due to world oil prices and worsening terms of trade, as well as reduced grants and aid. Specifically, the loss of subsidized petroleum products from Iraq, Kuwait and Saudi Arabia has been a drain on the country's current account balance. In addition, an influx of displaced people following the war has put additional pressure on energy consumption, and costly fuel subsidies have pushed the oil bill to just under 20 percent of GDP. As part of a plan to reduce the fiscal burden and promote long-term economic stability, the Government of Jordan is focused on a $3-billion, 20-year national energy development plan, which includes privatization and the elimination of fuel subsidies by March 2007.

In Lebanon, the economic and political shock that resulted from the February 2005 assassination of former Prime Minister Rafik Hariri threatened to reverse several years of consistent growth (GDP grew five and six percent in 2003 and 2004, respectively). However, in the same year, the subsequent withdrawal of Syrian military forces and the election of democratic government helped to improve Lebanon's investment climate and resulted in economic stabilization, with moderate recovery in foreign investment, tourism and exports (GDP growth was one percent in 2005). In a turn of events, in July 2006, armed conflict broke out in the south of the country between Hezbollah and Israel, and has since caused billions in damage to the country's infrastructure as well as a large population displacement. In addition, Lebanon's large external debt (approximately 180 percent of GDP) and budget deficit present a pre-existing obstacle to growth.

Syria has continued a pattern of low economic growth in recent years, despite some limited attempts to reform and to open the highly centralized economy. High global oil prices for its modest quantities of oil exports continue to buoy the economy and offset problems in the non-oil sectors in the short-term. Real GDP growth in 2005 was 3.5 percent, and growth is projected at 3.7 percent in 2006. In May 2004, the U.S. government imposed unilateral economic sanctions against Syria, under the provisions of the Syria Accountability 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, has only further deterred much needed foreign investment, particularly in the oil sector.

Oil

Syria is the only significant oil producer in the Eastern Mediterranean, with crude oil production of an estimated 365,000 barrels per day (bbl/d) and total liquids production of 416,000 bbl/d in 2005. Israel and the Palestinian Authority, Jordan, and Lebanon import almost all of their petroleum requirements.

Israel

In 2005, Israel produced only minimal quantities of oil and imported approximately 249,000 bbl/d of crude oil and products to meet domestic needs. Traditionally, major oil import sources have included Egypt, the North Sea, West Africa, and Mexico. In recent years, however, Israel has increased imports from Russia and the Caspian and now reportedly buys three-fourths of its oil from this region. Israel has begun to import larger quantities of Azeri oil, which is lighter and sweeter than the Russian Urals crude, and easily transported through the newly-inaugurated Baku-Tiblisi-Ceyhan (BTC) pipeline. For more on this pipeline please see the Azerbaijan Country Analysis Brief. Overall, oil imports in Israel are declining, as the country looks increasingly to alternative forms of energy.

Although oil exploration in Israel has not proven successful in the past (current output is about 100 bbl/d from six fields), more than twenty small independent firms are active in hydrocarbon exploration throughout the country. Israel's Petroleum Commission has estimated that the country could contain 5 billion barrels of oil reserves, most likely located underneath natural gas reserves.

Overall, more than 470 oil wells have been drilled in Israel since the 1940s, with little success despite the country's location in the oil-rich Paleozoic petroleum system stretching from Saudi Arabia to the Mediterranean basin. Most recently, in May 2004, the Givat Olam Company reported a find of 980 million barrels of oil reserves at the offshore Meged-4 well near Kfar Sava, north of Tel Aviv. However, the company expects only 20 percent of the new reserves to be extractable. In April 2005, Zion Oil & Gas, Inc., based in Dallas and Tel Aviv, began drilling at the Ma'anit-1 well, located approximately 37.5 miles north-northeast of Tel Aviv. Operations were temporarily suspended in November 2005, although they are scheduled to restart in late-2006. Zion Oil holds exploration rights to more than 98,000 acres in central Israel until April 2007. U.S.-based Ness Energy International is also active in exploration in Israel.

Israel has sizeable deposits of oil shale, an estimated 14-15 billion metric tons and 600 million

tons recoverable. Oil shale, considered a non-conventional source of petroleum, is sedimentary rock containing organic material from which liquid fuel may be extracted, at a rate of perhaps 15-17 gallons of oil per ton of shale. Most of Israel's shale resources are located in the Rotem basin region of the northern Negev desert, near the Dead Sea. A minimal quantity of shale is burned directly for industrial power production. Currently Israel is trying to increase interest in production of shale resources. In consideration is a proposal from Haifa-based AFSK Hov Tom, to build a $270-million oil shale plant in Mishor Rotem that could produce an estimated 60,000 bbl/d (30 percent of Israel's imports) from six million tones of shale and two million tonnes of bitumen (from the Ashdod refinery). AFSK owns a patented process that employs catalytic conversion under low pressure, making production less energy intensive. However, oil shale processing is a water-intensive process and Israel's water scarcity remains a challenge to large-scale shale development.

Downstream Sector

Since 1998, Israel's government has advanced reforms to deregulate the highly centralized oil sector, particularly the gasoline industry. Among other things, the process has ended the old cost-plus basis system, eliminated price controls for end users of petroleum products, and created more competitive conditions in general. Israel has two major refineries, historically owned and operated by Oil Refineries Limited (ORL). The refineries, which are located at Haifa (130,000 bbl/d) and Ashdod (90,000 bbl/d), meet all of Israel and the Palestinian Authority's demand for refined oil products. In late July 2006, the Ashdod refinery was sold to Israel's largest fuel retailer Paz Oil Company, Ltd for $800 million, nearly four times higher than original estimates by Israel's Government Company Authority. The majority of shares in the Haifa refinery will be sold on the Tel Aviv Stock Exchange in a second phase, set for late-2006. In order to increase competition in the fuels sector, the largest domestic retailers (including Paz, Delek, Sonol and Dor Alon) are prohibited from participating in the Haifia refinery stock offering, but may be allowed to hold a minority share. Israel's Antitrust Authority has delayed the decision on the matter in the near term. Following the war with Lebanon, Israel's Natinal Infrastructure Ministry is reportedly considering moving the refinery and associated petrochemical facilities out of the port city due to environmental and security concerns should the facilities be targeted in the future.

Pipelines

Israel has one main operational oil pipeline, known as the "Trans-Israel Pipeline" or the "Tipline," built in 1968 to ship Iranian oil from the southern Red Sea port of Eilat to the northern Mediterranean port of Ashkelon, as a gateway to Europe. The pipeline went into disuse after relations with Iran soured in 1979. The 152-mile pipeline has a reported current capacity of 1-1.2 million bbl/d (having been expanded from 400,000 bbl/d) and 18 million barrels of storage capacity. Two smaller links feed Israel's refineries.

During 2003, the Eilat-Ashkelon Pipeline Company (EAPC) modified the pipeline to reverse flows on the 42-inch line, to facilitate Russian Caspian petroleum exports to Far East. In October 2003, it was first reported that Swiss trader Glencore would ship 1.2 million barrels of Kazakh CPC Blend crude and 600,000 barrels of sour Russian Urals through the line as an alternative to the Suez Canal, which can accommodate only smaller, "Suezmax" tankers. In July 2006, Israel also signed and agreement with the State Oil Company of Azerbaijan (SOCAR) to import and transport Azeri Light Crude through the pipeline.

A comprehensive settlement to the Arab-Israeli conflict could once again open up Israel as an alternative energy transportation corridor for Persian Gulf producers to the West. Currently Persian Gulf producers export oil via tankers that pass through Suez Canal or around the cape of Africa, by pipeline from Iraq to Turkey (design capacity 1.5-1.6 MMBD), or via the Sumed (Suez-Mediterranean) Pipeline (capacity 2.5 MMBD).

Palestinian Authority

Since 1994, Israel's Dor Alon Energy, a subsidiary of the Israel Oil Company, Ltd., has been the exclusive supplier of refined petroleum products and Liquid Petroleum Gas (LPG) to the Palestinian Authority, at about a half-million gallons per day in 2005. The company has a contract with the PA to supply more than 200 gasoline (and natural gas) filling stations.

Jordan

Jordan has yet to discover any significant petroleum resources of its own, and relies on imported crude oil and refined products to meet domestic demand (around 110,000 bbl/d in 2005). Like many oil-importing countries in the world, Jordan has felt increasing fiscal pressure from the sustained high price of crude oil. The macroeconomic impact of high oil prices has been

compounded by the loss of highly subsided (in part, free) crude and refined oil following the March 2003 invasion of Iraq. The end of oil grants has meant that Jordan has had to both seek alternative sources of supply (with Kuwait and Saudi Arabia emerging as Jordan's main oil suppliers since 2003) and incur the cost of importing oil at market prices. Press reports indicated that at although some of this Gulf oil was sold at discounted prices through the end of 2004, Jordan has been paying the full market prices in 2005, while still subsidizing refined products for end-users at ever-increasing cost (estimated seven percent GDP in 2005). As a result, the Jordanian Parliament has adopted an IMF-supported reform strategy that includes the gradual adjustment and liberalization of tariffs on select petroleum products. Beginning in July 2005, prices have been adjusted bi-annually with the goal of fully eliminating subsidies by March 2007.

In August 2006, the Iraqi Oil Ministry announced plans to resume oil exports (approximately 30-35,000 bbl/d) to Jordan as part of a series of bilateral economic agreements. The details and terms of the agreement remain undisclosed.

Upstream Sector

Jordan's state Natural Resources Authority (NRA) continues to promote oil exploration within the country. Jordan is divided into nine exploration blocks, of which six are open for private concession. Currently, TransGlobal Corporation holds a concession for the Wadi Araba (Dead Sea) area in Western Jordan. In December 2004, U.S. based-Sonoran Energy was awarded exploration and production rights for the Azraq Block, just east of Amman. In March 2006, the Jordanian parliament rejected a Production Sharing Agreement (PSA) signed between the NRA and Sonoran Energy in November 2005. Under the terms of the PSA, Sonoran was to have rights to develop and explore the Azraq Block and take over operation of Hamzah, Jordan's sole producing oil field, with production 30-40 bbl/d. The matter is currently in debate by the Parliamentary Energy Committee. In September 2005, London-based Petre reached and agreement with the Jordanian authorities to explore the East Safawi Block in eastern Jordan. East Safawi borders Saudia Arabia, Syria and the gas producing Jordanian Risha field, near Iraq.

Downstream Sector

Jordan has one refinery, at Zarqa, with a capacity of 90,400 bbl/d. The facility, owned by the Jordan Petroleum Refining Corporation (JPRC) is in need of major upgrades as it can no longer meet the fuel requirements of the domestic market. The refinery was designed to produce a product mix skewed toward heavy fuel oil (and particularly the processing of Iraqi crudes), which was originally needed to run electric power plants, but the local market is now in need of unleaded gasoline (leaded gasoline will be phased out by March 2008), kerosene and diesel, as electric power generation is switching over to natural gas. The MEMR is looking to attract $700 million for a modernization project that will also raise refining capacity to 130,000 bbl/d by 2010. As part of a national agenda to reform and deregulate the energy sector, JPRC's monopoly on petroleum refining and distribution operations in Jordan will end in 2008. At that time, the government of Jordan will open the downstream market to competition.

Oil Exports

In order to reduce petroleum imports, Jordan is promoting the exploration and development of oil shale resource. According to the NRA, Jordan has some 40 billion metric tons of proven oil shale reserves in 18 known deposits, which could yield as much as four billion tons of crude oil. In June 2006, the NRA signed an MOU with Royal Dutch Shell to test the extraction of deep oil shale resources using Shell's in-situ conversion process in the Azraq and Al-Jafr blocks of central Jordan. In April 2006, Jordan's Ministry of Planning and International Cooperation awarded a $310,000 - U.S. Trade and Development Agency (TDA) grant to US-based America Asia Petroleum for study of shale oil extraction and recovery. The MEMR is also planning on signing MOUs with companies to carry out feasibility studies on surface oil shale deposits in the Al-Lajoun block in the west. Based on the results of the studies the MEMR is expecting to open five blocks for bid: Wadi Magher, Sultani, Siwaqa, Jurf and Attarat Umm Ghudran. Currently, the Jordan Cement Company burns minimal quantities of oil shale directly for power generation.

Jordan is also a central transit point of the 500,000-bbl/d Trans Arabian Pipeline ("Tapline"), which was originally constructed in the 1940s as the main means of exporting Saudi oil to the West (via Jordan to the port of Haifa, then part of Palestine). The founding of Israel resulted in diversion of the Tapline's terminus from Haifa to Sidon, Lebanon (through Syria and Lebanon). Partly as a result of turmoil in Lebanon, and partly for economic reasons, oil exports via the Tapline were halted in 1975. In 1983, the Tapline's Lebanese section was closed altogether. Since then, the Tapline has been used exclusively to supply oil to Jordan, although Saudi Arabia terminated this arrangement temporarily to display displeasure with perceived Jordanian support for Iraq in the 1990/1 Gulf War.

Despite these problems, the Tapline remains a potential export route for Persian Gulf oil exports to Europe and the United States. Since early 2005, rehabilitation of part of the Tapline at an estimated cost of $100 to $300 million has been one of the strategic options being considered by the Jordanian government to meet oil needs.

Jordan has announced plans to tender construction on a 27-mile, 150,000- bbl/d capacity pipeline from the Saudi town of Rashediah to Jordan's port of Aqaba. The pipeline project will include the construction of a 24-inch pipeline, a storage facility and truck unloading facility. The project will cost an estimated $65 million. The timeline of the project is unknown.

Jordan is also looking to revive discussion with Iraq on a potential190-mile pipeline which would run from Haditha in Iraq to Zarqa, and potentially to the export terminal at Aqaba. The proposed $2 billion project would have a capacity of 1.2 million bbl/d, and would facilitate imports from Iraq once additional production capacity is developed. Due to security concerns, it is likely that near-term Iraqi fuel exports will continue to be transported in trucks.

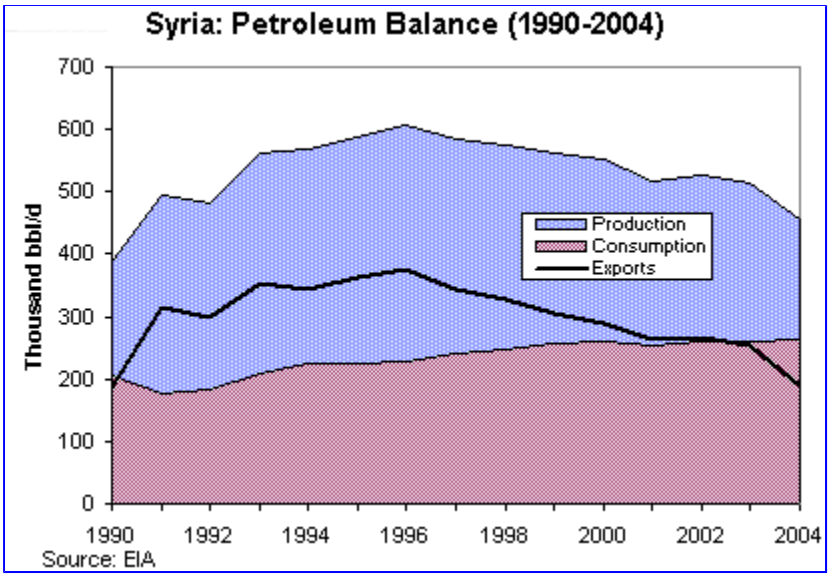
Lebanon

Lebanon currently imports all of the oil it consumes, approximately 108,000 bbl/d (in 2005), in the form of refined products. The Kuwait Petroleum Corporation is a key supplier. As a result of its geographic location, Lebanon was once a refining center for crude oil that was exported from Iraq and Saudi Arabia by pipelines to two Lebanese coastal refineries, Zahrani in the south, and Tripoli in the north. Due to years of internal and regional political unrest, these refineries have not been operational for several decades. In April 2006, Lebanon and Qatar Petroleum International signed an MOU to study the feasibility of building refinery with a capacity of 150,000 – 200,000 bbl/ d. Due to renewed tensions with Israel, interest in reviving the sector is on hold indefinitely.

Syria

Syria's oil industry faces many challenges. Oil output continues to decline due to technological problems and depletion of reserves. Since peaking at 590,000 bbl/d in 1996, it is estimated that Syria's average crude oil output will fall below 400,000 bbl/d in 2006, as older fields, especially Jebisseh and Omar, reach maturity. Syrian oil production is expected to continue its decline over the next several years, while consumption rises, leading to a reduction in Syrian net oil exports. If this trend continues, it is possible that Syria could become a net oil importer within a decade.

Syria aims to reverse the trend toward declining oil exports through intensified oil exploration and production efforts, enhanced oil recovery (EOR) techniques, and a switch from oil-fired to natural-gas fired electric power plants. In 2001, Syria's Petroleum and Mineral Resources Ministry offered the first in a series of block tenders to IOCs for oil and natural gas exploration using production sharing agreements.



The first of these awards was made in January 2003, with Shell receiving exploration rights in the

Damascus-Palmyra area and India's ONGC Videsh receiving another onshore block. Independents Ocean Energy and Stratic Energy also received awards. In 2003, three new exploration deals were announced, with Canada's Tanganyika and PetroCanada, China's CNPC, and US-based Devon Energy and Gulfsands Petroleum receiving awards. Another round of awards took place in January 2004, with companies involved including U.S. independent IPR Transoil, India's ONGC, and Croatia's INA Naftaplin. In May 2005, Gulfsands Petroleum purchased Devon Energy's 80 percent stake in Block 26, then sold a 50 percent stake in the project to Soyuzneftegaz of Russia. Gulfsands remains as operator of the project with a 50 percent ownership stake. INA Naftaplin reported a discovery of oil at the Jihar field in September 2004, which it expects to produce 5,000 bbl/d once it is developed. In November 2005, blocks were awarded to Midway Oil, Tatneft, And Norway's Inseis Terra, and Soyuzneftegaz, among others. Most recently, in a fifth licensing round held in April 2006, nine blocks were offered in the eastern Deir el Zour region, for which 23 bids from 13 companies were received. In late July 2006, Shell was awarded two blocks, while two other blocks went to small firms: the Ukrainian Ukna Nadan and France's Maurel and Prom. The unawarded blocks are expected to be offered in the sixth licensing round, along with offshore blocks in late 2006.

Syria's largest foreign oil producer is Al-Furat Petroleum Co. (AFPC) a joint venture established in 1985 by the Syrian Petroleum Company (SPC), an arm of the Ministry of Oil and Mineral Resources; Shell (majority stake holder), and PetroCanada. 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 controls 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 is currently producing about 150,000 to 180,000 bbl/d of high quality light crude.

AFPC's main oil field is al-Thayyem, where production has declined since 1991. Another important field -- Omar/Omar North began production in February 1989 at 55,000 bbl/d. Shortly thereafter, operator Shell was pressed by the cash-strapped Syrian government to step up production to 100,000 bbl/d. The result was serious reservoir damage, and in April 1989, output plummeted to 30,000 bbl/d. Currently, Omar produces about 15,000 bbl/d from natural pressure and 30,000 bbl/d from water injection. Other AFPC fields include Azraq, al-Izba (light oil), al-Ward, Maleh , Jido, Ishar East, Sijan, and Tanak.

SPC's fields include:

1) Karatchuk -- Syria's first discovery, located near the border with Iraq and Turkey;

2) Suwaidiyah -- a giant heavy oil field located south of Karatchuk in the Hassakeh region (and extending into northwestern Iraq) which currently produces around 85,000-90,000 bbl/d; and has been partially redeveloped;

3) Jibsah -- a major field producing both oil and gas;

4) Rumailan -- a small field near Suwaidiyah which produces heavy oil; and

5) Alian, Tishrine, and Gbebeh (Kebibe) -- three small, depleting fields producing heavy oil. China's CNPC signed a contract with SPC in March 2003 to undertake an enhanced oil recovery project (EOR) for Gbebeh, which is to increase production from the current 4,500 bbl/d to 10,000 bbl/d. Tanganyika will undertake EOR on Tishrine, Oudeh and Shiek Mansour, Sheikh Sulaiman and Jeribe, attempting to enhancing output from around 8,700 barrels per day to 17,000 barrels per day by the end of 2006, and eventually a reported 30,000 bbl/d.

Besides conventional oil reserves, Syria also has major shale oil deposits in several locations, mainly the Yarmouk Valley stretching into Jordan. In February 2006, the Ministry of Petroleum and Mineral Resources (MOPMR) announced call for bids to develop the Darra oil shale deposit and Al-Bushri tar sand (west of Der-Al Zour).

Downstream Sector

Syria's two refineries are located at Banias and Homs. Total current production from these refineries is a reported 239,865 bbl/d (132,725 bbl/d and 107,140 bbl/d, respectively). It is also reported that Syria is planning to construct a third and possibly a fourth refinery at Deir ez-Zour to supply products to the eastern part of the country. Development plans remain unclear. A

feasibility study on for the larger facility (and a petrochemical plant) project was awarded in 2005 to Russia's Stroytransgas, but the MOU was cancelled in May 2006. In November 2005, the MOPMR reportedly signed $1.4 billion deal with CNPC for the construction of a 70,000-bbl/d refinery Deir al-Zor. However, in May 2006, the ministry said that it was in talks with France's Total for a refinery with capacity of 70,000 bbl/f to be located either at Deir al-Zor or east of Homs. The ministry also stated that plans were underway for a separate 140,000 bbl/d refinery.

It is also reported that Syria plans to upgrade its two existing refineries, both of which are in urgent need of overhauling, to process heavier crudes and replace output of fuel oil with lighter products. It is rumored that a $130-million overhaul of the Homs facility was being considered, although the Ministry of Petroleum and Mineral Resources denied such a program was underway in May 2006.

Currently most Syrian oil is exported by trucks. The 1.4 million bbl/d pipeline between the Syrian port of Banias and the "Strategic Pipeline" in Iraq, which connects its northern and southern oil infrastructure, has been inoperative since the war began in March 2003.

Oil	Proven Reserves (1/1/06E)	Production (2005E)	Consumption (2005E)	Imports (2005E)
	Million barrels	*Thousand barrels per day**		
Israel	2	0	249	249
Jordan	1	0	110	110
Lebanon	0	0	108	108
Syria	2500	420	265	(155)
Total	**2503**	**420**	**732**	**312**

* Under 100 barrels/day listed as zero, does not include refinery gains

Natural Gas

The demand for natural gas in the Eastern Mediterranean is growing at an exponential rate as electricity generation is converted from the more expensive fuel oil, diesel and coal. Despite moderate gas discoveries, facilitating imports from Egypt will be critical to meeting regional demand in near future.

Israel and the Palestinian Authority

Israel plans to increase the share of natural gas in its fuel mix (especially for electricity generation) for energy security, economic, and environmental reasons. Demand for natural gas is expected to reach 282.5 billion cubic feet (Bcf) by 2010 (ten times consumption in 2004) and increase significantly thereafter. Israel is developing various supply options including imports from Egypt's Nile Delta and domestic offshore reserves.Production in 2004 was estimated at 2.8 million cubic feet.

The East Mediterranean Gas (EMG) Company, a consortium of the Egyptian General Petroleum Corporation (EGPC), the Merhav group of Israel, and Egyptian businessman Hussein Salem, was established in 2001 to allow the import of Egyptian natural gas. A government-to-government agreement, which was signed in June 2005 calls for seven Bcf per year of Egyptian gas to be imported to Israel for fifteen years. Deliveries would be expected to begin in 2008 with a possibility of a five year extension (1.7-2 Bcf is contracted to the Israel Electric Corporation, and EMG is also negotiating with private power producers). A $300 million, 80.8-mile marine pipeline with a maximum capacity of 247.2 Bcf per year, is being planned from El Arish on Egypt's Sinai Peninsula to the Israeli coastal city of Ashkelon, with delivery and receiving facilities in both Egypt and Israel. Anticipating future needs and the potential for disruption of imports from within the region, Israel is also considering building a Liquefied Natural Gas (LNG) re-gasification facility or an underwater pipeline from Turkey.

Over the past several years, in an important development for a country with few energy resources, several energy companies have discovered small but commercially viable quantities of natural gas off the coast of Israel and the Gaza Strip. Israel's and the Palestinian Authority's offshore gas reserves are under concession to two main groups: 1) the Yam Thetis group (comprising the US-based Nobel Energy, Israel's Avner Drilling, and Delek Exploration); and 2) a British Gas (BG) partnership with US-based Isramco and others.

Yam Thetis operates Israel's two largest gas fields, Mari and Noa (Border), which have estimated

combined reserves of 1.5-1.7 Tcf. Yam Thetis is currently the sole domestic supplier of natural gas to Israel's two natural-gas run power plants, with deliveries from the Mari field beginning in February 2004. In July 2006, YamThetis signed an agreement that augments an 11-year deal to supply natural gas to Israel Electric Corporation (IEC) and the Ashdod refinery. The new agreement will increase quantities delivered significantly above the current 64 billion Bcf/year, and also support a second gas-fired power plant near Tel Aviv. Excess gas will eventually supply the Hagit and Gezer power plants, scheduled to convert to natural gas in 2007. According to press reports, the price for the initial quantities of gas is $2.75 per MMBtu, while the additional quantity is priced at $4 per MMBtu.

In 1999, BG first discovered gas in the Palestinian Authority's territorial waters with its Gaza Marine-1 well. BG signed a 25-year contract to explore for natural gas and set up a distribution network in the territory. The drilling confirmed findings from the Marine-1 well, which had flowed at 37 Mmcf/d, indicating possible reserves of around 1.4 Tcf (estimated 10 years of domestic supply). Although Israel's previous government rejected a BG plan to import natural gas from the Gaza fields, Prime Minister Ehud Olmert's government has reconsidered importing the gas for economic and logistical reasons. Several parties have been involved in the on-again off-again negotiations. Participants include the Israeli ministries of finance, national infrastructure and the prime ministry; British government officials and BG (representing the Palestinian Authority); and minority shareholder Athens-based Consolidated Contractors International Co. (CCC), owned by the Khoury family of Lebanon. As of June 2006, negotiations were underway, with Israel reportedly guaranteeing the purchase of 53 Bcf per to be bought by private power producers at a price reported to be more than $4 per MMBtu. In May, talks were postponed when BG rejected an initial offer from the Israeli government that set a low price for gas and did not guarantee a long-term customer base. BG is also considering the option to export gas to LNG plants in Egypt for sale to Europe and North America. Security concerns and political issues threaten to delay field development in the near-term.

In March 2005, Isramco announced independent plans to drill in the Med Ashdod lease (Gad 1 well) with US based-Palace Petroleum Corp (30 percent shareholder) and several Israeli partners. Isramco also has a stake in the Med Yavne license, operated by BG. There are no development plans as yet for Med Yavnem, which contains the productive Or-1 well.

Israel's Ministry of Infrastructure has recently revived plans to construct and license a national gas distribution system (excluding the Palestinian Authority), expected to be completed in 2010. In April 2002, Belgium's Tractebel indicated that it was withdrawing from the $400 million project, reportedly due to security concerns. In 2004, after a series of delay, the Ministry of National Infrastructure granted Israel National Gas Lines (INGL), a state-owned company, a license for the construction and operations of the natural transmission system. In June and July 2006, the Infrastructure Ministry reported that contracts had been awarded for the first several stages of construction of the transmission system, which would begin in late-2006.

Jordan

Jordan has 230 billion cubic feet (Bcf) of natural gas and has developed one gas field, at Risha in the eastern desert near the border with Iraq. The current output of around 25 million cubic feet per day (Mmcf/d) from the field is used to fuel one nearby power plant, which generates about eight percent of Jordan's electricity. Jordan's National Petroleum Corporation (NPC), which operates the field, believes that the resource is underdeveloped and has the potential to produce 100-150 Mmcf/d. Jordan is currently looking for investors.

Natural gas consumption has tripled since 2003, due to conversion of electric power plants from diesel-powered to natural gas (consuming some 56 Bcf in 2005, according to the Ministry of Energy and Mineral Resources). In August 2003, Jordan received imports of natural gas from Egypt through a newly built pipeline (Jordan Gas Transportation Pipeline), from El-Arish in Sinai to Aqaba .The second phase of the project, connecting the Rihab power plant in northern Jordan, began operations in February 2006. A May 2001 agreement guarantees 100 Mmcf/d of gas supplied by Egypt for 30 years. Regional governments continue to discuss extending the project, dubbed the "Arab Gas Pipeline" (AGP), to Syria and Lebanon, with a possible extension to Turkey, Cyprus and southern Europe.

Jordan is also working on building a gas distribution network to supply select industrial consumers, first in Aqaba, and later in Amman and Zarqa, by 2008. In August 2006, the Jordanian-Egyptian company Al-Fajr, which transports and supplies natural gas, broke ground on a 15-mile pipeline to supply the Al-Rashadiyya Cement Factory with gas. The plant is expected to

start using the natural gas by early 2007.

Lebanon

Although Lebanon has no known gas reserves of its own, the country is in the process of converting its power generating plants from oil to natural gas. To help meet this demand, the 26-mile natural GASYLE gas pipeline linking the Baniyas plant in Syria to the Deir al-Ammar-Beddawi power plant in northern Lebanon, was completed in March 2005.

In February 2006, Syria agreed to supply 1.5 million cubic feet per day, beginning in late-2007, for ten years. However, imports are limited by growing domestic needs and limited production in Syria itself. Lebanon expects that in the future, Syrian imports will be supplemented by additional imports from Egypt and delivered through the so-called “Arab Gas Pipeline.” In April 2006, Lebanon announced plans to construct a second pipeline from Syria to the Zahrani power station in the south of Lebanon. Plans are on hold due to the recent conflict with Israel.

Syria

Syria's proven natural gas reserves are estimated at 8.5 trillion cubic feet (Tcf). An estimated three quarters of these reserves are owned by SPC, including about 3.6 Tcf in several fields in the Palmyra area, 1.6 Tcf at the al-Furat fields, 1.2 Tcf at Suwaidiyah, 0.8 Tcf at Jbessa, 0.7 Tcf at Deir ez-Zour, and the remainder at al-Hol, al-Ghona, and Marqada. About half of Syria's natural gas is non-associated, and the rest is associated (i.e. with oil). Syria’s newest gas discoveries include the modest strike at Hayyan (in the Palmyra area) by the Croatian company INA Naftaplin. The field has estimated reserves of 530 Bcf. In 1999, SPEC discovered Borth al-Faydh, which reportedly has production potential of 35 million cubic feet per day (Mmcf/d).

In 2004, Syria produced about 251 Bcf of natural gas, up from 205 Bcf in 2002. Syria has stated plans to increase this production over the next several years to 350 Bcf as part of a strategy to substitute natural gas for oil in power generation and free up as much oil as possible for export (also, around 25% of domestic production is used for re-injection in oil production). As with oil exploration, Syria has been working to adopt more investor–friendly policy to attract needed investment for gas development.

In May 2006, Syria and US-based Marathon oil signed a $127-million gas and oil exploration agreement. Under the 25-year deal, Marathon Oil and its partners will develop Al Shae'r and Al Sharyfa fields in the Homs region. After initial tests, the field is expected to produce 71 MMcf s of gas and 5,000 barrels of oil per day. In June 2006, Petro-Canada signed an agreement with Marathon for a 90% 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.

Syria is planning to supplement domestic production with imports from Egypt. In 2001, Syria first signed agreements with Egypt, Jordan, and Lebanon in early 2001 to construct a portion of the "Arab Gas Pipeline." The section of the pipeline running from Egypt to northern Jordan currently is in the final stages of construction. An agreement was signed in January 2004 between Egypt, Jordan, Syria, and Lebanon for the extension of the pipeline into Syria and Lebanon. Syria issued an invitation for bids for the extension project in June 2005. Meanwhile, Syria has begun exporting a small quantity of natural gas to Lebanon.

A number of new gas-fired power projects are currently under construction or being planned. In September 2001, a new, integrated natural gas project (called "Desgas") was completed in the Deir ez-Zour region, three years since a $430 million service agreement was signed between SPC and ConocoPhillips and TotalFinaElf. The complex utilizes approximately 175 Mmcf/d of previously-flared, associated natural gas, in the more than 20 Deir ez-Zour oil fields. However, Conoco divested in September 2005, and their stake taken up by SPC. The Deir ez-Zour complex now includes a natural gas gathering system and processing plant, plus a 155-mile pipeline to carry 150 Mmcf/d of natural gas to the power plants serving western Syria. Liquid Petroleum Gas (LPG) and condensate is collected from that Total’s Tabiyeh fields and sent to market via rail and the Banias pipeline respectively. Other state-owned gas plants that will supply power plants throughout the country include Jbessa, Suweidiya, Palmayra and Omar. Planned facilities include plants at Homs and As-Sawra.

Natural Gas	Proven Reserves (1/1/06E)	Production (2004E)	Consumption (2004E)	Imports (2004E)
	Trillion cubic feet (Tcf)	*Billion cubic feet (Bcf)*		
Israel	1.4	28	28	0
Jordan	0.2	11	50	39
Lebanon	0.0	0	0	0
Syria	8.5	251	251	0
Total	**10.1**	**290**	**329**	**39**

Electricity

Demand for electricity is growing at a steady pace throughout the region. Regional interconnection could improve the collective capacity to improve service at lower costs, but may be precluded by political conflict in the near-term.

Israel

As of December 31, 2005, the Israel Electricity Corporation (IEC), Israel's monopoly national utility, reported 10,040 Megawatt (MW) of installed electric generating capacity (at 17 power stations) with 83 percent generated by coal, 7 percent by natural gas, 6 percent by fuel oil (down from 17 percent in 2003), and 6 percent by gas oil. Israel also is a world leader in solar technology research, and relies heavily on solar energy for water heating (around 80 percent of Israeli homes have solar water heaters). The 1,645-mile, IEC transmission grid is a closed loop system connecting power stations to major load centers throughout Israel and to the Palestinian Authority. The system includes EHV-400 KV transmission and 161 KV sub-transmissions systems.

According to the IEC, from 1995 to 2005, Israel's aggregate demand for electricity grew at an average rate of more than 5 percent. The IEC has estimated that growing power demand will require an increase in production capacity to nearly 15 Gigawatt (GW) by 2010. To meet this increased demand, IEC is aiming to raise $1.2-$1.3 billion a year in financing for generation, transmission, and distribution systems.

The IEC is converting its coal and oil-fired generators to natural gas, and plans to generate 50 percent of its electricity from gas by 2010. Natural gas will serve at least three goals: diversity in energy sources; benefits to the environment; and reductions in IEC's electric generation costs. In February 2004, IEC's Eshkol (Ashdod) plant was the first to convert from fuel oil to natural gas. In July 2006, the 450-MW Reading power plant in Tel Aviv switched over to partial production from natural gas (50 percent coal, 50 percent natural gas). Also in February 2004, IEC received a $380 million loan to build gas-fired power plants near Tel Aviv and Haifa, plus natural gas turbines for plants near Ashdod and Afula. IEC is also constructing a $2 billion combined-cycle plant that will be operational in 2007.

In July 2006, construction began on the country's first solar power facility, a 100-MW plant at Ashalim in the Negev desert. The plant, which is being built by Israel's Solel Solar Systems Ltd, will have an initial capacity of 100 MW but is expected to supply 500 MW after several stages of expansion. The plant is expected to become operational in 2008.

The IEC currently operates four coal power plants at Hadera and Ashkelon. The four plants have a combined capacity of 4,850 megawatts. In December 2002, the Israeli government granted final approval for construction of the country's fifth coal-fired plant at Ashkelon at a cost of $1.3 billion. The 1,100-MW plant will consume around 3 million tons of coal per year. In March 2005, however, it was announced that the construction is three to four years behind schedule. The plant is not expected to begin supplying electricity until 2012.

At the present time, Israel has no nuclear power plants, although the country operates a reactor at Dimona, in the Negev Desert 25 miles west of the Jordanian border, as well as a smaller research facility at Nahal Sorek south of Tel Aviv. In December 2002, Israel's Infrastructure Ministry announced that it was proceeding with plans to study construction of a 1,200-MW nuclear plant at Shivta, in the Negev Desert near the border with Egypt. The Ministry has set 2020 as a target date for the plant.

Deregulation

Privatization of the power sector has been a government objective since 1996 amidst reports of

operational inefficiencies and financial difficulties (IEC's credit rating was downgraded in 2003). However, reform plans have been delayed for ten years due to disagreements among several government ministries, IEC leadership and union officials. In June 2006, widespread power outages that crippled the country for days brought renewed attention to the issue.

According to revived reform plans put forward by the Ministry of Infrastructure, the IEC is to be split into several subsidiaries based on business function (generation, transmission and distribution) along with the establishment of two private companies to operate the diesel-fired Alon Tover and Gezer power plants (460 MW and 592 MW installed capacity). In the second phase of reform, the subsidiaries would then be broken up into smaller firms and then partially privatized. The government remains committed to beginning restructuring by March 2007. In June, the IEC chairman again proposed postponing privatization until at least 2010. IEC has also proposed an alternative reform plan in which IEC would remain government owned with four partially privatized generation companies, five IEC controlled distribution companies and two subsidiary companies focusing on related activities. The chairman has since resigned.

Previous attempts by the private sector to break the IEC's monopoly and to increase overall capacity failed owing to the inability of these firms to secure funding. A target has been set to increase the generation of electricity by independent power producers (IPPs) from the current less than one percent of installed capacity to 20 percent, but previous efforts to expand the provision of IPPs faced numerous delays and it may be some time before this target is met. In January 2005, new regulations opening the market to competition were passed. The regulations allow private power producers to build power plants and sell electricity directly to end users rather than IEC. They also allow companies to build private cogeneration plants and to sell the excess electricity to consumers at lower prices. This law is expected to largely temper the IEC's monopoly as new power producers begin competing with the IEC over the next few years.

Plans for the first IPP tender -announced in 1997 -for a 375-MW, dual-fired, combined-cycle plant to be built at Ramat Hovav, fell apart in 2004. In April 2006, it was announced that the Delek Group Ltd was expected to bid on the project, which is expected to cost $60-70 million. However, Delek, a minority shareholder in the Yam Thetis gas consortium may be prohibited from partnership in power generation by the Public Utilities Authority. If allowed to participate in the sector, Delek is also reportedly considering building a 400-MW power station in Ashdod at a cost of $250 million.

In July 2005, Israel's Finance Ministry and the Public Utilities Authority recommended the cancellation of the 400-MW MishorRotem private power tender, awarded in 2003 to OPC, a joint venture of the Ofer family and Germany's Siemens (OPC had previously been interested in Ramat Hovav). Reportedly, an error in the terms of agreement would have proved costly for the government of Israel. The OPC has reportedly taken the matter to court.

Regional Propspects

One area of potential regional cooperation involves integration of individual national power transmission grids into a regional power network. Such a network would, among other benefits, allow power companies to take advantage of differences in peak demand periods, reduce the need for (and the costs associated with) installation and maintenance of reserve generating capacity, and provide outlets for surplus generating capacity (mainly from Israel to Jordan). The two countries also have talked about linking their power grids and have discussed several proposed joint power stations, including a $1 billion, 1,000-MW plant to be located on the two countries' border, a 100-MW wind farm, and an 800-MW plant in Jordan that would supply power to Israel. Regional tensions have precluded progress in this area.

Palestinian Authority

The Palestinian Authority (PA) is traditionally served by three power companies, with the majority of their energy needs being satisfied by imports from neighboring Israel. There are no power plants in the West Bank. Rather, the Jerusalem District Electric Company (JDECO) serving the Jerusalem-Jericho-Ramallah-Bethlehem area; and National Electric Company (NEC) serving the northern West Bank; purchase electricity in bulk from the Israel Electric Corporation (IEC), and transmit power over a grid that is also owned by IEC. Approximately 95 percent of the electric power used in the West Bank is imported from Israel while the remaining five percent is provided by standalone diesel generators. In late August 2006, Jordan.signed a deal with the Palestinian Authority to provide the Jericho region with power imports. Jericho will import power from the theSuwayma plant near the Dead Sea through an 18.6 mile power line, the agency said.

The Gaza Strip has the single diesel-fired power plant at Nusseirat which was crippled in a July 2006 bombing. The Gaza plant reportedly supplies two-thirds of Gaza's power needs, and is expected to be offline for several months. The US-based Morganti Group, a subsidiary of Lebanese-owned CCC, which has a 33 percent share in the plant, is planning to repair the 140-MW facility at the cost of $10 million. The Nusseirat plant began operations in 2002, reaching full capacity in March 2004. Gaza Power Generating Company (GPGC), wholly owned by Palestinian Electric Company (PEC), is the holding company for the project. Since 1999, PEC has been the sole provider of electricity to the Gaza Strip. The Palestinian Energy Authority has negotiated with Cairo to provide a short- term solution to Gaza's power shortages. Some 17 MW of electricity is temporarily being supplied to Gazathrough a 22-kV cable link at Rafah. A permanent link is also under discussion.

Electrification is not universal in the Palestinian Authority and improving coverage while reducing dependency on electricity imports remains an important goal. Consumers in the Palestinian Authority reportedly pay some of the highest electricity costs in the world (more than 11 cents/Kwh). According to CCC, the conversion to natural gas (found off Gaza's coastline) could cut end-user costs by two-thirds.

Jordan

The majority of electricity production in Jordan is managed by the National Electric Power Company (NEPCO), a state-owned utility, and its subsidiaries the Central Electric Generating Company (CEGCO) and distribution companies Electric Distribution Company (EDCO) and Irbid District Electricity Company (IDECO). Only the Jordan Electric Power Company (JEPCO), which has the greater Amman and central Jordan concession, is both privately owned and a significant player in Jordan's electricity sector.

In 2005, the total generating capacity in Jordan was approximately 1.9 GW and the total installed capacity was 2.0 GW, according to NEPCO. An estimated 95 percent of power is generated by more than a dozen power plants, the remainder being produced by large industrial companies. The three main power generation facilities are the Hussein power plant in Zarqa, with a capacity of 400 MW, the Aqaba power plant, with a capacity of 650 MW, and the Rihab facility with a capacity of 360 MW. Much of Jordan's power generation has been switched over from fuel oil powered to natural-gas fired, since Egyptian gas imports became available in 2003.

Deregulation

According to Jordan's Ministry of Energy and Mineral Resources (MEMR) Jordan's electricity demand is forecast to grow at more than six percent annually through the end of the decade. Since 2000, the Jordanian government has been pursuing privatization and deregulation as a way to attract foreign capital to fund additional capacity. Under Jordan's proposed privatization scheme NEPCO will maintain ownership of transmission assets, but rely on the network of privatized power generation and distribution assess. Under a modified decision adopted by the Jordanian cabinet in March 2004, NEPCO's distribution subsidiaries including the 100 percent government-owned EDCO and majority government-controlled (55.4 percent) IDECO will be sold off, along with a 51 percent stake in CEGCO.

In 2005, an initial call for CEGCO bids failed to produce any qualified investors. However the bid was re-announced earlier this year and the privatization committee is now in talks with prospective investors including Amman-based JD Capital, Kuwait's Kharafi National, and Dubai-based Abraaj Capital. It is expected that a contract will be awarded by end-August 2006.

At the same time, Jordan has attempted to award contracts to independent power producers (IPP) to build new capacity, although progress has been slow going and several potential projects have collapsed. In late 2005, Jordan announced the first successful IPP concession for the Amman East -Al-Manakher area combined cycle power plant with a planned generating capacity of 280-400 MW. The concession was awarded to Dubai bases AES Oasis and the Japan based Mitsui & Company. This $280 million project is expected to add capacity by 2008. The government of Jordan is seeking another $1 billion investment for four new power plants, with a total capacity of 1500 MW to be online by 2015. According to the Ministry, plans are in place for a second IPP, which will have a 280-400 MW and will be operational by 2010.

However, private investment alone is not expected to meet electricity demand growth in the near-term. For that reason, the government has funded generation projects which include CEGCO's

completed conversion of Rehab power station and linkage to the gas pipeline in March 2006. This combined cycle set began operation in the second quarter of 2005, raising the total capacity of the station to 360 MW, of which 300 MW is combined cycle unit and the remainder is two gas turbines of 30 MW each. In addition, Al-Risha power station was upgraded to 150-MW capacity (although reports indicate the Risha field is not producing sufficient gas to power the added capacity). The 200-MW gas-fired Is-Samra power plant (originally an IPP) came online in September 2005, and is currently undergoing an upgrade that will include at least one additional 100 MW steam turbine, to be online by 2008. The contract for the expansion of the facility was awarded to US-based General Electric. Is-Samra has also begun distribution of power under the subsidiary distribution company SEPGCO, established in 2003. SEPGCO will reportedly be privatized through competitive tender.

During 2005, NEPCO also expanded and upgraded the national network of 132kV and 400kV transmission lines, increasing connections to the national grid as well as 33 major of substations throughout the country. It services 99.9% of the population.

An area of regional cooperation involves integration of individual national power transmission grids into a regional power network, with Jordan at the crossroads of the connection. The government of Jordan supports the proposed, Seven Countries Electric Interconnection Project (EIJLLST) which aims to connect the electric networks of Egypt, Iraq, Jordan, Lebanon, Libya, Syria and Turkey. The connection of the electric networks in Jordan, Egypt, Syria and Libya has been only accomplished to date. Israel, for the time being, has been excluded from the grid linking projects, but has continued discussions with Jordan on the subject and may join the network in the event that political hurdles related to the Arab-Israeli peace process are overcome.

In October 1998, the Egyptian and Jordanian power grids were linked via an underwater cable between Aqaba and Taba, across the Gulf of Aqaba in Sinai. In 2005, Jordan imported 741 Gigawatt-hours (Gwh) from Egypt (of the 8.4 billion kilowatt hours consumed), according to the NEPCO annual report. Syria and Jordan linked electric grids in 2004 through which Jordan reportedly imported 241 Gwh of electricity last year. Studies support the linking of the Iraqi and Jordanian grids from Al-Qaim to Risha respectively.

The government of Jordan is also studying the commercial viability of large scale electricity generation from renewable resources, including wind, biogas, and solar energy. According to the Natural Resources Authority, Jordan has nearly unlimited generation capacity from renewable resources (particularly solar). The MEMR has targeted five percent of total energy needs to be derived from renewables by 2015. Presently, Jordan has a 1-MW biogas plant that recycles waste methane into electricity. CEGCO also produces approximately 2 MW of electricity from wind at Hofa and Al-Ibrahimiyah wind farms, in the north. The MEMR recently received a $350,000 grant from the Global Environment Facility (GEF) to study wind power development and energy efficiency.

Lebanon

Electricité du Liban (EdL), Lebanon's state-owned public utility, is operated under the Ministry of Energy and Water Resources and the Ministry of Finance. EdL is in charge of the majority of power generation, transmission, and distribution. The utility generates over 90 percent of Lebanon’s electricity. The reform and possible privatization of EdL, which is a major drain on state fiscal resources and is contributing to the growing public deficit, is being debated in parliament.

According to the IMF, EdL’s half-year performance was already on track for more than $1 billion in losses (1.5% GDP) by year-end (prior to renewed tensions with Israel in July 2006). EDL is calling also parliament for the adoption of an electricity tariff that reflects that high international prices of oil. Tariffs have not been raised since 1994. In 2005, the Ministry of Energy and Water Resources began to work on a five-year, emergency energy plan to reform EdL. If implemented, the plan will require a $1 billion investment to be funded by the World Bank and others.

Lebanon has seven thermal electricity generating plants, which have a total installed capacity of over 2,259MW. Zouk, Deir-Ammar Beddawi and Zahrani are the three largest. The Deir-Ammar Beddawi power station is expected to be the first to convert to natural gas in the near future.

Edl also purchases quantities hydroelectric power from the Litani, Al-Bared and Safa power plants (total installed capacity is 221 MW). There are four private and one public electricity distribution concessions in Lebanon. The transmission system measures approximately 1000 miles and there

are 58 major power substations in the country.

To complement planned new gas pipeline, the energy and water ministry planed to launch independent power plant (IPP) tender for a second combined-cycle gas-turbine (CCGT) plant at Zahrani, doubling its capacity.

Major Thermal Power Plants	*Installed Capacity (MW)*	*Fuel Source*
Zouk	607	fuel oil
Deir-AmmarBeddawi	435	fuel oil
Zaharani	434	fuel oil
Jiyyeh	346	fuel oil
Alhreesha	75	fuel oil
Tyre	70	fuel oil
Baalbek	70	fuel oil

All plants operate below their nominal capacity, and the recent outbreak of hostilities with Israel has further crippled electricity infrastructure. According to an early report prepared by Lebanon's Development and Construction Council losses in the electricity sector are estimated at $180 million, of which $80 million resulted from destruction of the airport's fuel depots and the Al-Jiyyeh plant in mid July 2006. The incident at Al-Jiyyeh also caused approximatly110,000 barrels of fuel oil to be spilled into the Mediterranean. The spill spread northwards and has reportedly contaminated 93 miles of the Lebanese seashore, reaching the southern Syrian coast. In addition, fuel shortages have lead to blackouts all over the country. In August 2006, the substation at Sohmor(IbrahimAbdelAal), which supplies most of the Bekaa Vally and southern Lebanon with electricity was also bombed. Losses in the distribution network were estimated at around $100 million.

In 2004, Lebanon imported 460 million kWh of electricity, including around 200 MW of electricity from Syria. This is down considerably from peak imports of 1.4 billion Kwh in 2000. Lebanon plans to draw more power from others in the Middle East region via the proposed seven-way international grid. This project could allow Lebanon to receive 300 MW in the short term and close to 600 MW in the medium to long term.

Syria

As of January 2005, Syria's total installed electric generating capacity was around 7.5 gigawatts (GW), with fuel oil and natural gas the primary fuels all 11 thermal facilities, and 1.9 GW of hydroelectric capacity provided by three plants on the Euphrates River. The state-run Public Establishment for Electricity Generation and Transmission (PEEGT) controls all aspects of generation and transmission, while the Public Establishment for Distribution and Exploitation of Electrical Energy (PEDEEE) is responsible for sales and distribution.

Syria's power grid is linked up with those of several neighboring countries, including Jordan and Lebanon, and is considering interconnection projects with Iraqand Turkey.

With Syrian electric power demand growing at more than seven percent annually, adding electricity supply capacity is a national development priority. According to the Ministry of Electricity, the country plans add 3,000 MW of capacity by 2010, at a probable cost of around $2 billion. Progress toward implementing these projects 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 IPPs (although similar reforms failed in the early1990s). In June 2006, Iran's Azrab Energy Industries Development Company signed a MOU to build and operate a 450-MW single cycle power plant in Sweidieh. The plant is expected to come online in mid-2009. Also, in March 2006, the Spanish/Polish venture of Iberola and Alstom Poland won a contract to build a 750-MW capacity combined-cycle power plant at Deir az-Zour, also expected to come online in 2009. A German joint venture between Siemens and Koch is currently constructing a 750-MW combined-cycle plant at Deir Ali. The plant is expected to come online in May 2008.

Major Thermal Power Plants	*Installed Capacity (MW)*	*Fuel Source*
Palmyra-Aleppo	1000	gas
Banias	680	gas
Mharden	630	gas
Tishreen	380	Fuel oil/gas
Zaisoun	380	Fuel oil/gas

In addition to new construction, Syria is in the process of converting oil-fired power plants to natural-gas-fired plants, in order to free up oil for export. Currently, about 50 percent of Syria's power plants run on gas. Recently converted plants include Palmyra-Aleppo Banias and Mharden in Homs. Natural gas for these plants comes from the Palmyra fields, including Abi Rabah. Syria also increased natural gas usage at their dual-capacity (fuel oil or natural gas) plants, including Tishreen power plant in Damascus, Zaisoun and Suwaidiyah. Gas for Tishreen comes from the Omar treatment plant, while Suwaidiyah operates mainly on associated gas from the nearby giant oil field.

According to a June interview with the Minister of Energy, Dr. Ahman Dhaled Al Ali, Syria's five-year plan aims to produce five percent total electrical energy production from renewable energies by 2010. A program of wind turbines is currently being developed and 20 meter stations have been installed for testing purposed. By the end of 2007, it is estimated that these projects will generate 100 MW of energy.

Electricity	**Installed Capacity (2004E)**	**Generation (2004E)**	**Consumption (2004E)**
	Gigawatts (GW)	*Billion kilowatt-hours (BKWH)*	
Israel	10.0	46.1	41.4
Jordan	1.8	8.4	8.4
Lebanon	2.5	9.8	9.5
Syria	6.5	29.6	27.6
Total	**20.8**	**93.9**	**86.9**

Links

EIA Links

EIA: Country Information on Israel
EIA: Country Information on Jordan
EIA: Country Information on Lebanon
EIA: Country Information on Syria

U.S. Government

CIA World Factbook - Israel CIA World Factbook - Jordan CIA World Factbook - Syria

Other Links

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Central Bureau of Statistics (Israel)- Energy Information
Israel Electric Corporation
The Center for Middle Eastern Studies - Israel
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