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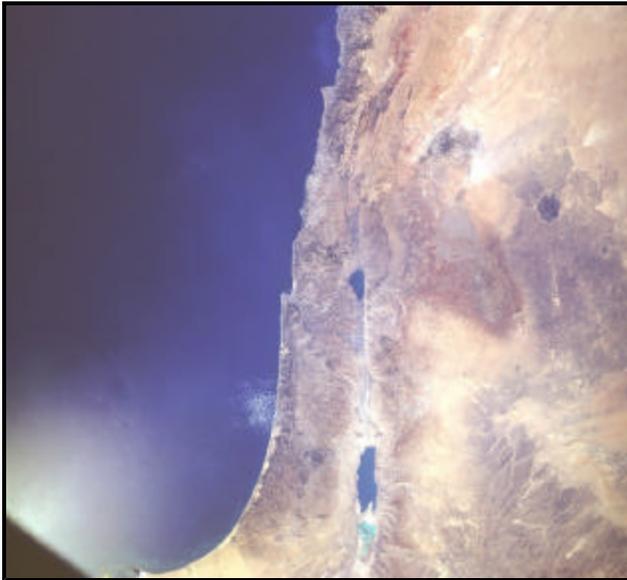
**April 2003**

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## Israel

*Although Israel does not produce significant amounts of energy, it is located strategically for regional energy transit and also is an important variable in the Middle East security situation.*

*Information contained in this report is the best available as of April 2003 and is subject to change.*



### GENERAL BACKGROUND

Israel currently is facing significant political and economic challenges, and its short-term economic outlook looks difficult at best. A combination of sluggish global economic conditions, a slump in the world high-technology sector (which is very important in Israel), lower foreign investment levels (only about \$20 million in 2002) and Israeli consumer demand, the two-year Palestinian uprising, lack of progress towards peace, and sharply decreased tourism are all hurting the Israeli economy. Prime Minister Ariel Sharon, who was reelected in January 2003, has said that tackling Israel's economic problems will be the top priority of his new coalition government, sworn in by the parliament (Knesset) on February 27, 2003. Finance Minister Benjamin Netanyahu is focused on an emergency economic plan for the country, in

coordination with Bank of Israel governor David Klein. Meanwhile, the United States has indicated that it may provide a significant increase in economic and military aid to Israel, partly in response to the war with Iraq. Israel has requested a \$12 billion package of additional aid and loan guarantees from the United States.

Most importantly, the severe flareup in Palestinian-Israeli violence since September 2000 has cost Israel hundreds of lives and battered its economy, which had experienced a high-tech-driven boom and 6% annual real economic growth for much of the 1990s. For 2003, the Israeli economy is expected to remain roughly flat, following declines of 0.9% and 1.0% in 2001 and 2002, respectively. Israel's economy also continues to be adversely affected by slowdowns in the global high-technology sector and in the world economy in general. Israel's unemployment rate has risen sharply since 1991, topping 10% in the fourth quarter of 2002, and projected at 11.5% for 2003.

In response to a widening budget deficit (to around 4% of gross domestic product -- GDP -- in 2002) caused by increased military spending, reduced tax receipts, and increased welfare spending due to

the weak economy, Israel is operating under an austerity budget that has reduced subsidies and welfare payments and has raised taxes. Still, Israel's government is looking at even further spending cuts (possibly 11 billion shekels -- around \$2 billion) due to revenue shortfalls and a goal of reducing the budget deficit to 3.0% of GDP in 2003. This budget austerity is not likely to help pull the economy out of its recession. On the other hand, the Bank of Israel cut its key lending rate in April by 0.2%, to 8.7%, despite concerns over higher inflation (5.7% in 2002, up from 1.1% in 2001).

Prior to the current round of Palestinian-Israeli violence, Israel had undertaken important structural reforms (such as privatization and reduced controls on foreign currency exchanges and profit remittances by foreign companies), although public spending still accounts for more than half of the country's GDP and the top marginal income tax rates exceed 60%. Israel also had been making great progress in attracting tourism and foreign investment, but both of these are now down sharply -- around two-thirds compared to 2000. Finally, Israel had been making halting progress towards privatizing government-owned companies, including banks, the state telecommunications company (Bezeq), and others. Given the ongoing Palestinian-Israeli turmoil, privatization and economic reform in general are now essentially on hold.

## **ENERGY**

Until recently, with a significant offshore natural gas discovery, Israel has had essentially no commercial fossil fuel resources of its own, and has been forced to depend almost exclusively on imports to meet its energy needs. Israel has attempted to diversify its supply sources and to utilize alternatives like solar and wind energy. Traditionally, Israel has relied on expensive, long-term contracts with nations like Mexico (oil), Norway (oil), the United Kingdom (oil), Australia (coal), South Africa (coal), and Colombia (coal) for its energy supplies. Israel also has pursued other, cheaper sources of energy, like Egyptian gas, and hopes to expand natural gas significantly as a percentage of its energy mix in coming years.

Although the Israeli government in principle favors privatization of state-owned companies, the energy sector remains largely nationalized and state-regulated, ostensibly for national security reasons. In fact, little progress on energy sector privatization has been made since the late 1980s, when Paz Oil Company (the largest of three main oil-marketing companies in Israel) and Naphtha Israel Petroleum (an oil and gas exploration firm) were sold to private investors. Meanwhile, other energy companies such as the Oil Refineries Company, which operates Israel's two refineries (at Haifa and Ashdod), and the Oil Products Pipeline Company, which operates Israel's oil pipelines, remain state-owned, with no definite plans to privatize them in the near future (although the current Israeli government appears to favor such privatization, at least in principle). In early 1996, the Israel Electric Company's (IEC)'s monopoly was extended for another 10 years.

In February 2000, Israel and the United States signed an energy cooperation agreement. The agreement includes cooperation in the fields of gas, coal, solar power technology, and electric power generation. In addition, the two countries signed a letter of intent with Israel's Atomic Energy Commission to expand cooperation on nuclear non-proliferation and arms control issues. In May 2001, the Bush Administration announced that it would honor this agreement.

## **OIL**

Israel produces almost no oil and imports nearly all its oil needs (around 237,000 barrels per day -- bbl/d -- in 2002). Traditionally, major oil import sources have included Egypt, the North Sea, West Africa, and Mexico. In recent years, however, Israel has stepped up its imports from Russia and the Caspian region (Kazakhstan, Turkmenistan, etc.) and now reportedly gets a majority of its oil from the former Soviet Union. In December 2002, Israel's Oil Refineries Ltd. (ORL) reportedly was negotiating with Mexico for annual supplies of around 3.7 million barrels (10,000 bbl/d). In late November 2002, ORL also signed a deal to purchase around 10,000 bbl/d from Angola at a cost of \$100 million per year.

Although oil exploration in Israel has not proven successful in the past (current output is less than 1,000 bbl/d), drilling is being stepped up. Israel's Petroleum Commission has estimated that the country could contain 5 billion barrels of oil reserves, most likely located underneath gas reserves, and that offshore gas potentially could supply Israel's short-term energy needs. Geologically, Israel appears to be connected to the oil-rich Paleozoic petroleum system stretching from Saudi Arabia through Iraq to Syria.

Overall, around 420 oil wells have been drilled in Israel since the 1940s, with little success. In late September 2000, a contract was signed between U.S.-based Ness Energy International and Lapidoth Israel Oil Prospectors Corp. to commence further work on the Har Sedom 1 well. In 1994, Enserch Corp. of Dallas signed an agreement with two Israeli companies to examine a 1,500 square mile area on the Mediterranean coast. Isramco (a private company which absorbed the Israel National Oil Company when it was privatized in 1997), Delek, and Naphtha Israel Petroleum Corp. are partners in the Gevim 1 oil well being drilled near Sderot in the Negev desert. Isramco has stated that it is optimistic that the Gevim field will yield significant amounts of oil. Meanwhile, oil was discovered near the Dead Sea town of Arad in August 1996, and is currently flowing at the rate of about 600 barrels per day. In October 2001, Ness Energy announced that it was exploring for oil in the Masada Lease near the Dead Sea. Finally, Givat Olam Oil has drilled several wells -- Megeg 1-4 -- based on the company founder's reading of Deuteronomy 33. To date, no oil has been discovered by Givat Olam.

Israel has sizeable deposits of oil shale, perhaps 600 million tons recoverable, with average production of about 9,000 bbl/d. Most of Israel's shale oil resources are located in the Rotem basin region of the northern Negev desert near the Dead Sea. Oil shale 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.

### **Downstream**

Israel's oil sector remains highly centralized, but since 1988, the government has been moving to change this. Among other things, the process has ended the old cost-plus basis system, ended price controls for end users of petroleum products, and created more competitive conditions in general. Still, Israel has a ways to go in deregulating and privatizing the country's oil refining and distribution sectors, with ORL remaining a monopoly, for instance.

Israel has two major refineries, both run by ORL, located at Haifa (130,000 bbl/d) and Ashdod (90,000 bbl/d). The \$1.3 billion, 100,000-bbl/d, Egyptian-Israeli joint venture MIDOR (Middle East Oil Refinery Ltd.) refinery in Alexandria, Egypt began operations in April 2001. The ultra-modern, environmentally-advanced facility includes a 25,000-bbl/d hydro cracker. In early June 2001, Israel's Merhav confirmed that it had sold its 20% share in MIDOR to the National Bank of Egypt, making the refinery 100% Egyptian owned. Merhav's sale effectively marked the end of what had been the largest Arab-Israeli joint venture to date. Although Merhav claimed that the sale was made solely for business reasons, most outside observers and analysts believed that political considerations were a major factor.

Although Israel itself produces almost no oil, a comprehensive settlement of the Arab-Israeli conflict could affect Middle East oil flows significantly. Israel's geographic location between the Arabian peninsula and the Mediterranean Sea offers the potential for an alternative oil export route for Persian Gulf oil to the West. At present, these oil exports must travel either by ship (through the 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).

Utilization of the Trans-Arabian Pipeline (Tapline) could offer another potentially economic alternative. The Tapline was originally constructed in the 1940s with a capacity of 500,000 bbl/d, and intended as the main means of exporting Saudi oil to the West (via Jordan to the port of Haifa, then part of Palestine, now a major Israeli port city). The establishment of the state 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 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. At least one analysis indicates that the transportation cost of exporting oil via the Tapline through Haifa to Europe would cost as much as 40% less than shipping by tanker through the Suez Canal.

In April 2003, there was some discussion of "reopening" the old oil pipeline from Mosul in northern Iraq to Haifa. The line, which was built in the 1930s, carried 100,000 bbl/d at its peak, but has been closed since Israel's establishment in 1948. Today, however the Mosul-Haifa pipeline is in extremely poor condition (the Iraqi section is completely rusted and the Jordanian section was sold as scrap metal several years ago), and reportedly would require hundreds of millions of dollars to repair/rebuild, even if this were politically feasible. Along those lines, Jordan has strongly denied any interest in rebuilding this pipeline at the present time, stating that "the pipeline no longer exists in Jordanian territory."

In the meantime, Israel has one main operational oil pipeline, known as the "Tipline," built in 1968 to ship Iranian oil from the Red Sea port of Eilat to Haifa (via the Mediterranean port of Ashkelon). As of March 2003, the Eilat-Ashkelon Pipeline Company (EAPC) reportedly was working to reverse flows on the 1.2-million-bbl/d line, so that oil would run from the Mediterranean to Eilat. Russia's Tyumen Oil Company reportedly was interested in the possibility of pumping Russian crude leaving Black Sea ports through the Israeli line to Eilat, where it could be loaded onto tankers for shipment to markets in Asia.

## **NATURAL GAS**

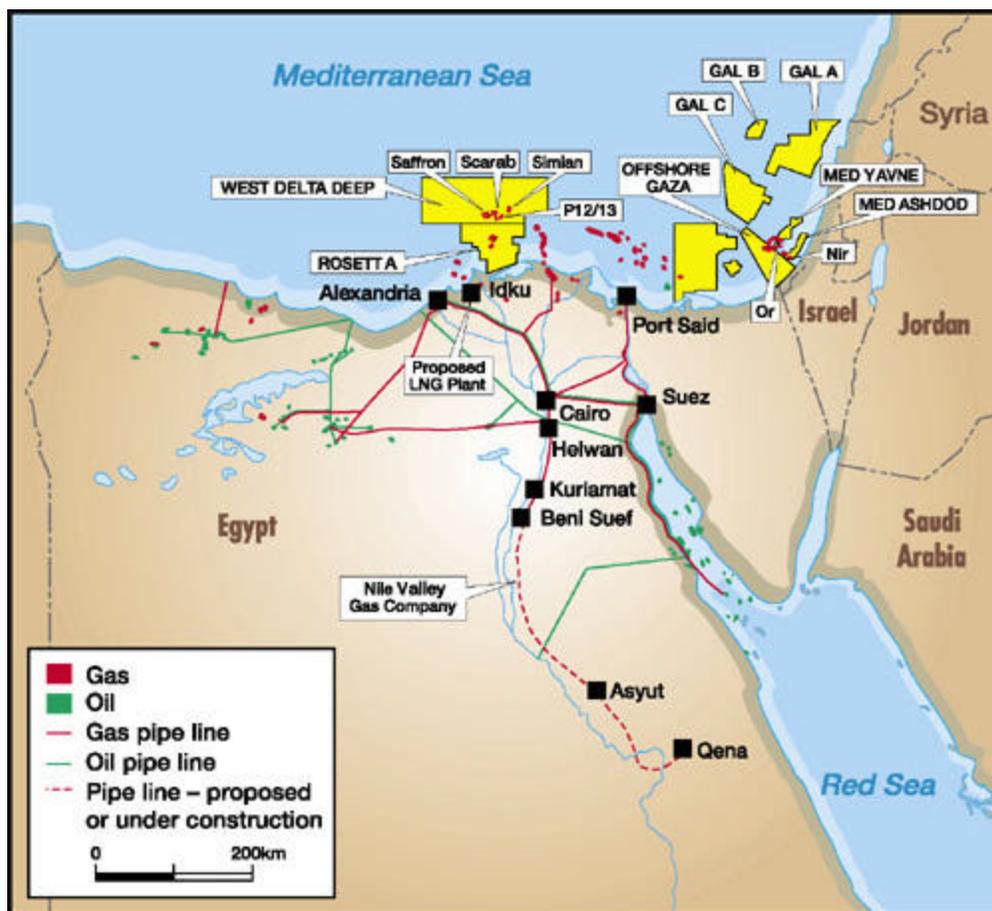
Israel hopes to increase the share of natural gas in its fuel mix (especially for electricity generation, currently dominated by coal-fired plants) for energy security, economic, and environmental reasons, and has been looking at various options in recent years. One possibility is gas imports from Egypt's Nile Delta and offshore regions, either overland across the Sinai peninsula, or via underwater pipeline to the Israeli coast. Another strong possibility, which has arisen only in the past year or so, is using Israel's own, newly-discovered offshore gas resources.

As far as Egyptian gas is concerned, the East Mediterranean Gas (EMG) Company (a consortium of EGPC, Merhav of Israel, and Egyptian businessman Hussein Salem) has been set up to pursue this option. ENI, a major gas producer in Egypt, is nearly through construction on a \$150-million gas pipeline from offshore fields north of Port Said, Egypt through the Sinai to El-Arish, near the border with the Gaza Strip, and only about 30 miles from Israel. Using Egyptian gas for power generation in the Palestinian Authority reportedly would cost 3.5 cents per kilowatt-hour, about half the price charged by the IEC. Currently, Gaza is almost totally dependent on the IEC for its electricity needs. Although Egypt and Israel announced a deal in early 2001 whereby Egypt would supply \$3 billion worth of gas to Israel through 2012, in recent months the likelihood of Egyptian gas exports to Israel has decreased due to political factors, specifically the continuing Israeli-Palestinian conflict. There are also national security concerns in Israel over becoming too dependent on energy imports, especially from any one source. Egypt is now talking about exporting its gas directly to Jordan via 'Aqaba, although without Israel, the major potential regional market for Egyptian gas exports, the economics of this appear questionable.

Over the past three years, in an important development for a country which has never had significant domestic energy resources, several energy companies (Israel's Yam Thetis group, Isramco, BG, and U.S.-based Samedan) have discovered significant amounts of natural gas off the coast of Israel (and even more off the Gaza Strip). Initial estimates of 3-5 trillion cubic feet (Tcf) in proven reserves would be enough potentially to supply Israeli demand for years, even without natural gas imports, although this now seems

optimistic. Israel's new offshore gas reserves belong mainly to two groups: 1) the Yam Thetis group (comprising the Avner Oil, Delek Drilling, and Noble Affiliates' Samedan subsidiary); and 2) a BG partnership with Isramco and others. In August 2000, Isramco/BG announced that it had discovered a large gas field 12 miles offshore at its Nir-1 well. The field reportedly contains gas reserves of 274 Bcf, and represents the third gas field discovered offshore Israel during 2000 (the largest two being Mary and Noa, with combined reserves of nearly 1.5 Tcf). In early September 2001, Isramco announced that BG was abandoning the Tommy, Orly, Shira and Aya concessions after analyzing geological and geophysical findings.

All else being equal, Israel appears to prefer utilizing domestic gas resources as opposed to imports from Egypt. Meanwhile, Israel's Yam Thetis gas consortium reportedly has been lobbying against Egyptian gas imports. In a related development, in June 2001, the Israeli Supreme Court ruled that Yam Thetis did not have a vested right to build a gas pipeline from its offshore reserves to IEC coastal power facilities, leaving open the option for possible competitors. In early May 2002, however, Noble Energy announced that it had obtained a license from the Israeli government to construct a pipeline from Mary-B to Ashdod. Field development and the pipeline are scheduled for completion by late 2003. Flow rates of 600 million cubic feet per day of natural gas are possible.



Several groups have been competing to supply gas to the IEC, including Yam Thetis and Isramco/BG, plus EMG and local group Sdot Yam. In January 2001, IEC said that it would award EMG a significant share of its gas contracts, in large part because EMG's prices, at around \$2.50 per 1,000 cubic feet, reportedly were 20%-30% below other offers. In May 2001, EMG reportedly was in an advanced stage of negotiations with IEC on supplying around 60 Bcf of gas per year for 10-15 years. However, as of June 2001, gas supplies from EMG were in doubt due to reports that Egypt was considering backing out of any gas deal with Israel. In March 2001, IEC

announced that remaining gas supplies would come from Yam Thetis. In February 2001, Egypt's oil minister denied that any agreement had been reached on Egyptian gas sales to Israel. In early May 2002, IEC announced that it could begin taking delivery of natural gas from Yam Thetis as early as the second half of 2003. The gas would be delivered to IEC's Ashdod power station, which is being converted from fuel oil to natural gas. IEC also agreed to purchase half of its natural gas requirements from the Yam Thetis consortium, at a cost of \$1.5-\$2.5 billion over 11 years.

The other half remains uncertain, particularly since Belgium's Tractebel indicated in April 2002 that it was withdrawing from a \$400 million project to construct a natural gas distribution grid in Israel, ostensibly due to security concerns. Tractebel, which had held a 60% stake in the project consortium, had been the only bidder on the project, which was awarded in December 2001, and its expertise was considered crucial to the project. Following Tractebel's withdrawal, Israel's National Infrastructure requested that Israeli companies Paz Oil and Africa-Israel Investments, each of which held a 20% stake in the Tractebel consortium, come up with a replacement for Tractebel by mid-May. In July 2002, BG decided not to join, dealing a major blow to the project, and triggering cancellation of the tender. Israel's gas law requires that an experienced foreign company hold at least a 10% stake in the project. In August 2002, an Israeli consortium of Paz Oil, Africa-Israel Investments, and Batemen Engineering proposed adding a new foreign partner, Itera, which is affiliated with Russia's Gazprom. In September 2002, in yet another twist to the saga, IEC was authorized to build the entire grid, but in April 2003, Israel's cabinet decided to reverse course and prevent IEC from building the grid. The cabinet reportedly was concerned that IEC should not be a monopoly in both electricity and in natural gas.

Meanwhile, gas has been discovered not only on Israel's side of the border, but also in areas that appear to lie in Palestinian territorial waters off the Gaza Strip. BG, which first struck gas in this area with its Gaza Marine-1 well in August 1999, has signed a 25-year contract to explore for gas and set up a gas network in the Palestinian Authority. In December 2000, BG successfully completed drilling a second gas well offshore Gaza. The drilling confirmed findings from the Marine-1 well, which had flowed at 37 million cubic feet per day, indicating possible reserves of around 1.4 Tcf. BG reportedly plans to invest \$400 million in its offshore Gaza gas finds, which could be used to supply Israel, along with other sources.

## **COAL**

Israel meets approximately 32% of its energy demand requirements from coal (primarily for electric power generation). The National Coal Supply Corporation (NCSC) is the majority government-owned (74%) company, established in 1981, solely responsible for securing the country's coal imports. In March 2001, the Israeli government approved the sale of NCSC to the IEC, which already owns 26% of the company. Israel's coal supplies are all imported. In 2002, about 45% of these imports came from South Africa, with the rest from Colombia (25%), Australia (13%), Indonesia (12%), and others like Poland and China (5%).

Overall, Israel is expected to import around 12.5 million short tons (Mmst) of coal in 2003. Growth in coal demand (and imports) is being driven mainly by rapid growth in electricity demand. A new coal terminal opened at Ashkelon in 2000 to handle coal imports for Israel's two coal-fired power plants located there.

## **ELECTRICITY**

According to the IEC (Israel's monopoly national utility), Israel had about 9.1 gigawatts (GW) of installed electric generating capacity (at 20 power stations, including 7 major thermal plants) as of 2001, with nearly 70% accounted for by coal-fired plants, 25% by fuel oil-fired units, and the remainder by gasoil and independent power producers (IPPs). Israel also is a world leader in solar technology and relies heavily on solar energy for water heating (around 80% 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, and serves 2.1 million customers, of which 1.8 million are residential.

Prior to the country's recent economic difficulties, electric power consumption had been increasing rapidly (around 4%-5% annually; 13% in 2000), and the IEC had estimated that this growing power demand would require an increase in production capacity to nearly 15 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. However, in January 2003, following financial difficulties which resulted in a downgrade of the

company's credit rating, IEC reportedly was reviewing its development strategy. More rapid privatization is one option, as Israel attempts to gradually liberalize its power sector. In April 2003, Israel's government approved a reorganization of the IEC in preparation for its privatization over the next few years. The current goal is that no single company will control more than 50% of Israeli production or transmission by 2010.

As part of an effort to increase privatization of the country's power sector, Israel's Ministry of Energy has directed IEC to purchase at least 900 MW of power from IPPs by the year 2005 (of which possibly 150 MW are expected to come from solar and wind facilities, with the rest mainly natural gas-fueled). Israel's goal is for 10%, or possibly as high as 20%, of all electricity to be produced by IPPs. In June 1997, IEC announced the first tender for a large-scale private power plant in Israel -- a 375-MW, dual-fired, combined-cycle plant to be built at Ramat Hovav (by a consortium of PSEG Global and the OPC energy company) in the Negev Desert. In February 2003, OPC reportedly decided to drop out due to difficulties in financing the \$250 million project. A second IPP in which OPC is involved, a 370-MW plant at Mishor Rotem, reportedly has not been affected. Also, in February 2003, EAPC and a group of private investors announced plans to build a \$450 million, 450-MW private power plant in Ashkelon, and to sell power at a lower price than the IEC.

The IEC is converting its oil and diesel-fired generators to natural gas, and hopes to generate 40% of its electricity from gas by 2006. Natural gas would serve at least three goals: increased diversity in energy sources; benefits to the environment; and reductions in IEC's electric generation costs. In December 2002, IEC announced plans to acquire three new gas generating turbines, at a cost of \$230 million, from Siemens AG of Germany and Alstom of France. The turbines will boost IEC's generating capacity by 650 MW.

Israel's fourth coal plant, the Rutenberg facility at the Mediterranean Sea port of Ashkelon, was inaugurated on June 29, 2000. Rutenberg is the first power plant in Israel to have sophisticated anti-pollution scrubbers (Israel intends to install scrubbers at its two coal-fired plants in Hadera as well). In total, Rutenberg is to have four 550-MW generators, for a total production capacity of 2,200 MW. Meanwhile, a new coal dock at Ashkelon began operating in late 2000, saving IEC around \$40 million a year in coal transportation costs. Previously, coal was shipped to another port, Ashdod, unloaded, and sent by rail to Ashkelon.

In December 2002, the Israeli government granted final approval for construction of the country's fifth coal-fired plant at Ashkelon. The 1,200-MW plant, which was originally approved in 2001, could enter service in 2009 (following a recent two-year postponement) at a cost of \$1.3 billion. When finished, the plant will consume around 3 million tons of coal per year.

Besides fossil fuels, Israel also has looked to expand the utilization of other indigenous options, such as solar power. In early 2002, the IEC approved construction of Israel's first solar power station, a 100-MW plant to be built in the Dimona area of the Negev Desert for \$250 million. In September 2002 the IEC issued a report which concluded that solar power had become uneconomical, but in January 2003, reports indicated that Israel would still move ahead with the plant.

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.

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). Israel and Jordan held talks in October 1999 regarding possible cooperation on a shale-oil-fired plant as stipulated in the two countries' peace treaty. 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, a 150-MW solar thermal plant in the southern Arava desert near Eilat, and an 800-MW plant in Jordan that would supply power to Israel. In addition, IEC has developed plans for potential joint wind power development with Syria in the Golan Heights region should a peace treaty be signed. IEC estimates that up to 10% of future electric supplies could come from outside the country.

IEC plans to spend about \$1 billion over the next ten years to help reduce emissions from its power plants. New coal plants are to be equipped with flue gas desulphurization and combustion systems, and most of IEC's existing gas turbines have been retrofitted with low nitrogen combustion systems. Most of the coal ash waste produced by IEC's three coal-fired power plants is sold to the cement industry.

*Sources for this report include: AP Worldstream; Agence France Presse; Associated Press, BBC Summary of World Broadcasts; CIA World Factbook 2002; Coal Week International; Dow Jones News Wire service; Economist Intelligence Unit; Electricity Daily; Energy Compass; Financial Times; Global Insight; Global Power Report; Ha'aretz; Hart's Africa Oil and Gas; International Herald Tribune; Israel Business Arena "Globes"; Jerusalem Post; Middle East Economic Digest; Nefte Compass; New York Times; Nucleonics Week; Oil and Gas Journal; Petroleum Intelligence Weekly; Petroleum Review; Platt's International Coal Report; Platt's Oilgram News; PR Newswire; U.S. Energy Information Administration, World Markets Research Centre.*

## **COUNTRY OVERVIEW**

**President:** Moshe Katzav (*elected on July 31, 2000 to a 5-year term, replacing Ezer Weizmann, who resigned*)

**Prime Minister:** Ariel Sharon (*Elected on 2/6/01, re-elected 1/28/03*)

**Independence:** May 14, 1948 (from League of Nations)

**Population (7/02E):** 6.0 million

**Location/Size:** Eastern Mediterranean/8,019 sq. miles, slightly smaller than New Jersey

**Major Cities:** Jerusalem (capital), Tel Aviv, Haifa

**Languages:** Hebrew (official), Arabic, English

**Ethnic Groups (1996E):** Jewish (80%), Arab and other (20%)

**Religions (1996E):** Jewish (80%), Muslim (15%), Christian (2%), Druze and other (3%)

**Defense (1998E):** 175,000 regular forces (army: 134,000, navy: 9,000 air force: 32,000); 430,000 reserves

## **ECONOMIC OVERVIEW**

**Finance Minister:** Binyamin Netanyahu

**Currency:** New Israeli Shekel (NIS)

**Market Exchange Rate (4/22/03):** US\$1 = NIS 4.60

**Gross Domestic Product (GDP) (2002E):** \$102.7 billion

**Real GDP Growth Rate (2001E):** -0.9% **(2002E):** -1.0% **(2003F):** 0.4%

**Per Capita GDP (2002E):** \$15,622

**Inflation Rate (consumer prices, 2001E):** 1.1% **(2002E):** 5.7% **(2003F):** 4.4%

**Major Trading Partners:** USA, European Community

**Merchandise Exports (2002E):** \$27.4 billion

**Merchandise Imports (2002E):** \$31.2 billion

**Major Export Products:** Machinery and equipment, cut diamonds, chemicals, textiles and apparel, agricultural products

**Major Import Products:** Military equipment, investment goods, rough diamonds, oil, consumer goods  
**Current Account Balance (2001E):** -\$2.3 billion **(2002E):** -\$2.1 billion  
**Number of Tourists (2000E):** 2.65 million **(2001E):** 1.22 million **(2002E):** 0.86 million  
**Unemployment Rate (2001E):** 9.4% **(2002E):** 10.3% **(2003F):** 11.5%  
**Total External Debt (2002E):** \$66.2 billion  
**Direct Investment Inflow (2002E):** \$1.5 billion (down from \$4.5 billion in 2000)  
**Foreign Exchange Reserves (excluding gold) (3/03E):** \$23.5 billion

## ENERGY OVERVIEW

**Infrastructure Minister:** Yossi Paritzky  
**Proven Oil Reserves (1/1/03E):** 3.8 million barrels  
**Oil Production (2002E):** 200 barrels per day (bbl/d)  
**Oil Consumption (2002E):** 273,000 bbl/d  
**Net Oil Imports (2002E):** 273,000 bbl/d  
**Crude Oil Refining Capacity (1/1/03E):** 220,000 bbl/d  
**Coal Consumption (2001E):** 10.9 million short tons (all of which is imported)  
**Natural Gas Reserves (1/1/03E):** 1,375 billion cubic feet (Bcf) (Note: This figure includes the major recent offshore gas find)  
**Natural Gas Consumption/Production (2001E):** 0.35 Bcf  
**Electric Generation Capacity (2000E):** 9.1 gigawatts (70% coal-fired; 25% fuel oil; 5% gasoil and IPPs)  
**Electricity Generation (2001E):** 42.2 billion kilowatthours

## ENVIRONMENTAL OVERVIEW

**Minister of Environment:** Yehudit Naot  
**Total Energy Consumption (2001E):** 0.8 quadrillion Btu\* (0.2% of world total energy consumption)  
**Energy-Related Carbon Emissions (2001E):** 16.3 million metric tons of carbon (0.2% of world total carbon emissions)  
**Per Capita Energy Consumption (2001E):** 122.8 million Btu (vs U.S. value of 341.8 million Btu)  
**Per Capita Carbon Emissions (2001E):** 2.5 metric tons of carbon (vs U.S. value of 5.5 metric tons of carbon)  
**Energy Intensity (2001E):** 7,381 Btu/ \$1995 (vs U.S. value of 10,736 Btu/ \$1995)\*\*  
**Carbon Intensity (2001E):** 0.15 metric tons of carbon/thousand \$1995 (vs U.S. value of 0.17 metric tons/thousand \$1995)\*\*  
**Fuel Share of Energy Consumption (2001E):** Oil (68%), Coal(32%)  
**Fuel Share of Carbon Emissions (2001E):** Oil (60.6%), Coal (39.4%)  
**Number of People per Motor Vehicle (1998):** 3.8 (vs U.S. value of 1.3)  
**Status in Climate Change Negotiations:** Non-Annex I country under the United Nations Framework Convention on Climate Change (ratified June 4th, 1996). Signatory to the Kyoto Protocol (signed December 16th, 1998- not yet ratified).  
**Major Environmental Issues:** Limited arable land and natural fresh water resources pose serious constraints; desertification; air pollution from industrial and vehicle emissions; groundwater pollution from industrial and domestic waste, chemical fertilizers, and pesticides.  
**Major International Environmental Agreements:** A party to Conventions on Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Nuclear Test Ban, Ozone Layer Protection, Ship Pollution and Wetlands . Has signed, but not ratified, Marine Life Conservation.

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

\*\*GDP based on EIA International Energy Annual 2001

## ENERGY INDUSTRIES

**Organization:** *Isramco* - private company, responsible for exploration and production; *Oil Refineries Limited* - Part privatized, runs Israel's 2 refineries at Haifa and Ashdod; *Paz Oil, Delek, and Sonol* - Israel's three largest oil retailers; *National Coal Supply Corporation* - government-owned company responsible for Israel's coal supply; *Israel Electric Corporation Ltd.* - state company responsible for Israel's electric power supply.

**Major Ports:** Ashdod, Haifa

**Major Oil and Gas Fields:** N.A.

**Major Pipelines:** Tipline - 800,000 bbl/d (Eilat-Ashkelon-Haifa); Tapline - closed (Ras Tanura - Haifa)

**Major Refineries (crude refining capacity):** Haifa (130,000 bbl/d); Ashdod (90,000 bbl/d)

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## LINKS

For more information from EIA on Israel, please see:

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Links to other U.S. government sites:

[CIA 2002 World Factbook - Israel](#)

[Israel, the West Bank and Gaza Consular Information Sheet](#)

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

[U.S. Department of Energy Office of Fossil Energy -- Israel Page](#)

[U.S. International Trade Administration, Country Commercial Guide - Israel](#)

[U.S. Embassy in Israel](#)

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[Address and Phone information for the Ministry of Energy and Infrastructure](#)

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