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**POWER GENERATION IN
TURKEY: PROSPECTS**

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SECTION 1: TURKEY'S ENERGY ECONOMY

Introduction

1. Few countries enjoy Turkey's unique position at the crossroads between East and West, overlapping Europe and Asia geographically, economically, politically, and even spiritually, as a Muslim country that aspires to be part of the West since early 1920s. Its immediate region, stretching from Eastern Europe, the Caucasus and the Balkans to Central Asia and the Middle East, has been dramatically altered and re-defined in the aftermath of the Cold War. This entire region is highly strategic in geo-political terms and rich in energy resources. A quick glance at map shows that Turkey is situated, without question, in a rather tough neighbourhood, sharing as it does common borders with mostly "unfriendly" (Greece, Russia and Armenia) and "rogue" (Iraq, Syria and Iran) nations.

2. Turkey's *sui generis* position presents enormous opportunities, as well as political and business risks. To capitalise on Turkey's geographical, economic and political assets in this region, some U.S. firms are already working with Turkish firms for product distribution into regional markets and joint-ventures to compete for regional project opportunities in Russia, Central Asia and the Middle East. Turkey's handling of the tensions in its relations with East and West and a long-delayed re-engineering of its fragmented political structures are certain to affect its future economic development.

Economic Trends and Prospects

3. Turkey has many of the characteristics of a highly dynamic emerging economy; rapid growth; a large and fast-growing population (currently 63 mn); openness to global economic forces; and vast under-developed markets ripe for expansion. However, decades of economic mismanagement by a series of weak governments have led to monumental fiscal indiscipline and chronic heavy inflation, which have obscured many of the country's underlying strengths. In the last ten years stop-and-go cycles prevailed. Yearly average growth rate equalled 4.1% in the 1988-1996 period, although the growth rate ranged from 9.4% in 1990 to minus 6.1% in 1994. GNP per capita is estimated to have risen to \$3,331 in 1997 from \$2,022 in 1988 (the 1996 GNP size is approximately \$205bn). Turkey can arguably double its trend growth rate a year if it could tame inflation and complete the slow-pace reform process.

4. The reforms of the 1980s vastly reduced the central government's role in the economy. While the public sector's problems are preventing Turkey from reaching its full potential, private sector continues to prove its ability to thrive despite the odds. Today Turkey's dynamic private sector¹ dominates the economy and is the engine of economic growth. Besides directing output to exports in response to a shrinking domestic demand, private sector has also shouldered much of fixed capital investments which largely compensated the declining trend of public investments since 1990. Trade, transportation and manufacturing were the highest growing sectors. The success of energetic private sector is due, in part, to the underground or 'grey' economy, which has now grown so large that it would be impossible to understand the country's business and financial systems without reference to the parallel world of unrecorded exporters and tax evaders. Ankara remains an important factor to be reckoned with, however, both through its bureaucratic "red tape" requirements and as the source of the high interest rates, high

¹ The private sector is dominated by a number of large holding companies, whose upper management is controlled by prominent families. Most large businesses continue to float publicly only a small number of company shares in order to limit outside interference in company management.

inflation, and frequently changing policies, which hamper private sector business activity. It should also be kept in mind that the state directly controls a significant, though declining, share of economic activity.

5. The new Yilmaz government has pledged improved economic management, reduced inflation, and strengthened public finances. However, the shaky nature of the three-party (minority) coalition and the looming prospects for parliamentary elections, severely constrain the government's ability to address the underlying structural problems of the economy. Turkey's fundamental economic problem is a fiscal one², and the solution lies in implementation of tough structural reform measures including privatisation of money-losing state enterprises, improved efficiency of tax collection, and streamlining of the social security system.

6. Although the strong domestic demand and the introduction of the customs union contributed to the significant deterioration in foreign balances with trade deficit rising up to 10.4% of GNP, the Turco-EU customs union, in place since 1 January 1996, is still one of several factors which is generating optimism about the Turkish economy in the medium to long-term. The agreement covers industrial products and processed agricultural goods, and includes transitional protection for a short list of sensitive items. Turkey has also adopted the EU's Common External Tariff, resulting in harmonized commercial laws and regulations³.

7. Increased spending on infrastructure projects and private sector investment is expected to generate strong demand for a wide range of capital goods. Turkey's young population of 62 million is rapidly growing, both in numbers and in purchasing power. Recent export growth underscores the agility of Turkish entrepreneurs and the geographic advantage Turkey enjoys for sales into the European Union, Russia, Central Asia, and Middle Eastern markets. Turkey's outstanding growth prospects led to its designation by the U.S. Department of Commerce as one of the world's ten Big Emerging Markets. Turkey remains unexplored territory for most American companies outside the Fortune 500 and defence suppliers. The value of U.S. exports to Turkey exceeded total American sales to such markets as Russia, Sweden, India, and all of Eastern Europe. The value of total Turkish import demand is on par with markets like Brazil and Indonesia and is significantly higher than Argentina, Poland and South Africa.

Turkey's Energy Fundamentals

² Inflation, fuelled primarily by large public sector deficits, has averaged 76 % since prices began to escalate in 1988. While the rate of consumer price increases in 1996 at 79.8 % was little changed from the 1995 figure of 78.9 %, wholesale prices rose significantly: from 64.9 % to 84.9 %. Senior policy-makers put estimates for year-end 1997 inflation at 85 %. Inflation will be brought down to 3% by 2000, according to the government programme, a target which we find practically impossible to achieve. The Prime Minister admitted in February 1998 that even the target of 50% for this year would not be met.

³ Turkey is also a member of the World Trade Organization, signed a free trade agreement with the European Free Trade Association (1991) and with Israel (1996). It is currently negotiating free trade agreements with Central European countries. Turkey and ten other regional nations formed the Black Sea Economic Co-operation (BSEC) organization in 1992, but it is not yet clear what effect this grouping will have on Turkey's trade and business.

7. While heavily dependent upon external sources of energy, Turkey has a strategic location that enables it to serve as a natural "Energy Bridge" between major oil/gas producing areas in the Middle East, Central Asia and the Trans-Caucasus and consumer markets in Europe. (Note that more than half of Iraq's pre-Gulf War oil exports passed through Turkey via the Kerkuk-Ceyhan pipeline.) Due to the country's large population base and high economic growth patterns, Turkey constitutes a large energy market for future Caspian supplies of oil and gas (not only a transit country) and independent power producers.

8. The first characteristic of the Turkish energy situation is its high demand growth and heavy dependence on external supplies. Energy demand grew 4.4% per year between 1973 and 1995, while the electricity consumption increased at a dramatic pace of 9% per year. Domestic energy production is inadequate and consists mainly of lignite. As energy demand has increased quickly and production stabilized, imports -- mainly oil and natural gas -- are surging. Together with the increase in consumption, energy supply has diversified: natural gas consumption started in the mid 1980s and amounted to more than 9% of total supply in 1995, hydro increased its share from one percent in 1973 to 5% in 1995. Turkey plans to build a nuclear power plant at the beginning of the next century.

Organisational Structure/Main Features

9. Energy issues are under the responsibility of the Ministry of Energy and Natural Resources (MENR). The Ministry of Environment is the main co-ordinating body for energy-related environmental issues. The State Planning Organisation (SPO), which reports directly to the Prime Minister, evaluates Turkish energy needs, including production and imports, after consultation with relevant state economic enterprises. The SPO makes investment decisions on an annual basis after these consultations. The Privatisation Administration, which also reports to the Prime Minister, is responsible for enterprises, which are for sale, and prepares them for privatisation.

10. The Turkish energy sector is still mainly state-owned with state enterprises for electricity (TEAS for 75% of electricity generation and transport and TEDAS for distribution), oil (TPAO for the upstream sector, Tupras for refining and Petrol Ofisi for oil products distribution), coal (TKI for lignite and TTK for hard coal), and oil and natural gas transportation (Botas). These companies have a large market share but are not legal monopolies with the exception of Botas. Most of them have been dependent upon a capital endowment by the Treasury and state guarantees for investments. The state itself finances the building of dams.

11. Energy prices are either set or influenced by the Government, generally to achieve social objectives. They are also used to advance macroeconomic policies as, for instance, the price of oil products has been maintained at a low level with the hope of curbing inflation. In the oil sector, there have been cases where Tupras' oil product prices were set at levels below international oil product prices. These cases have taken place when domestic prices should have increased because of the falling rate of the TL against the \$ or because of a sharp rise in international prices. In the natural gas sector, there are cross subsidies in favour of households. Hard coal production is heavily subsidized. In the electricity sector, prices for households are almost at the same level as for industries. The overall level of prices does not allow energy enterprises to make enough investments in order to meet the demand growth. In the electricity sector, investments are far from meeting the demand growth. As a consequence, Turkey has not been able to avoid increased electricity shortages.

Reform Measures

11. The government has undertaken reforms to attract private capital and liberalise energy markets in order to solve the problem of social pricing and to improve operations and maintenance in energy enterprises. However, there have been frequent changes in the privatisation programme, partly due to court judgements, which have deemed some of the policies unconstitutional or illegal. These changes in regulations have been a disincentive to private investments, as they increase uncertainty in the investment climate.

12. The government wants to move toward a reform of the electricity sector by: (i) ensuring that energy prices cover the full cost of supplies and progressively eliminating regional and customer cross-subsidies; (ii) establishing a stable and coherent legal and commercially realistic framework for BOT/BOO projects and the transfer of TEAS and TEDAS facilities; (iii) enunciating a view of the long-term evolution and structure of the electricity supply industry; unbundling the accounts of electricity companies to guarantee transparency in costs and prices; (iv) corporatising state companies, if they are not privatised; (v) establishing an independent regulator to handle regulatory and pricing issues for both state-owned and private companies; (vi) enhancing conditions for competition in electricity generation and distribution, particularly those related to autoproduction and grid access; (vii) progressively withdrawing from generation planning, shifting this function to TEAS and successor companies; (viii) strengthening the independent organisational structures needed to ensure the safety of facilities related to the nuclear power programme; and (ix) continuing efforts toward gaining public acceptance. These are plausible goals, but it is far from certain, especially in view of the past experience, that the government will be able to implement these reform measures.

SECTION 2: THE FOREIGN INVESTMENT CLIMATE

General Framework

13. Foreign investment and the establishment of offices in Turkey are governed by "The Law Concerning the Encouragement of Foreign Capital" (dated January 18, 1954) and the "Foreign Capital Framework Decree" (dated March 4, 1992). Under these regulations, foreigners may invest in Turkey, engage in commercial activities, participate in partnerships, purchase shares, open branch offices, and establish liaison offices. The General Directorate of Foreign Investment (GDFI) of the Undersecretariat of the Treasury is responsible for implementing foreign investment regulations. A foreign company is free to choose between a corporation (Anonim Sirket--A.S., or "Societe Anonyme" type corporation), private limited company (limited liability company), or branch office as the form for its operations in Turkey. The 'A.S.' form is more suitable for larger projects, since corporations can attract a large number of shareholders and are preferred by banks for credit purposes. The limited company form is more convenient for sales and distribution enterprises.

14. Once the plants are commissioned, responsibility for their operation is handed over to TEAS. Every year, TEAS and TEDAS investment plans are submitted to the MENR for approval. Programmes are then submitted to the State Planning Organisation (SPO) which discusses them with the two companies. The SPO evaluates the needs of the electricity sector for new investments and has the final say in investment decisions. Independent experts call for the establishment of an independent regulator

to handle regulatory and pricing issues for both state-owned and private companies. It is also considering setting up an independent regulator in charge of implementing regulations, controlling the functioning of the sector and setting tariffs for transmission and distribution.

Right to private ownership and establishment

15. Foreign investors are subject to some restrictions on establishments in certain sectors. Establishments in financial services, including banking and insurance, and in the petroleum sector require special permission from the government. The equity participation ratio of foreign shareholders is restricted to 20% in broadcasting, and 49% in aviation and maritime transportation. Beyond these areas, private entities may freely establish, acquire, and dispose of interests in business enterprises and foreign participation is permitted up to 100%. They receive full national treatment. Competitive equality is the standard applied to private enterprises with respect to access to markets, credit, and other business operations. Turkey is adopting the EU's competition policy; a "Competition Board" was established in early 1997 to implement the 1994 Competition (anti-monopoly) Law.

Property rights

16. There is a legal system that protects and facilitates acquisition and disposition of all property rights -- land, building and mortgages, without discrimination. Protection of intellectual property (IP) rights, however, does not meet Western standards. Because of its deficiencies in this regard, Turkey is on the US "priority watch list" of countries, which fail to protect American firms' IP rights. IPR violations are estimated by US agencies to cost U.S. business close to \$200 mn in 1995. Passage of new laws (1995) including new patent, trademark, industrial design and geographic indicators laws, and amendments to the copyright law, in anticipation of EU customs accession, have considerably improved the legal framework for IP protection, but complaints still continue about uneven enforcement. Several U.S. companies succeeded in defending their rights in Turkish courts last year. Pressure from the European Union appears increasingly successful in helping Turks develop IPR protection. Turkey adhered to a number of international conventions, including the Stockholm Act of the Paris Convention, the Patent Cooperation Treaty, and the Strasbourg Agreement.

Performance requirements

17. There are no requirements imposed as a condition for establishing, maintaining or expanding an investment. There are no requirements that nationals own shares in investments by foreigners, that the share of foreign equity be reduced over time, or that the investor transfer technology on certain terms. Investors need not purchase from local sources or export a certain percentage of output. Access to foreign exchange has no relation to exports. There are no government-imposed conditions on permission to invest, including location in specific geographical areas, specific percentage of local content -- for goods or services -- or local equity substitution for imports, export requirements or targets, employment of host country nationals, technology transfer, or local financing. Turkey grants all rights, incentives, exemptions and privileges available to national capital and business to foreign capital and business, on a MFN basis. Foreign firms can participate in government financed and/or subsidized research and development programs on a national treatment basis. There are no discriminatory or excessively onerous visa, residence, or work requirements for foreigners locally employed. Turkey has a liberal foreign trade regime, with no discriminatory or preferential export or import policies affecting foreign investors.

Transparency

18. Bureaucratic procedures related to the establishment of a foreign investment are, in general, streamlined and transparent. Turkey's foreign investment regime is among the most liberal in OECD countries. However, particularly beyond the establishment phase, bureaucratic "red tape" remains a significant problem. Obtaining approval of both national and local officials for essential permits is a time-consuming and often frustrating process. The Treasury screens foreign investments in a routine and non-discriminatory mechanism. They do not serve as an impediment to investment, limit competition or protect domestic interests.

19. However, because domestic investment proposals are not routinely screened, it is possible to say that foreign investors are not accorded national treatment in the pre-establishment phase. Investors are not requested to disclose proprietary information, other than publicly available information, as part of the regulatory approval process. Enterprises with foreign capital must send their activity report, submitted to the general assembly of shareholders, auditor's report and balance sheets to the Treasury every year by May. National treatment is granted to foreign investors in privatization programs through block sales, public offerings, and/or a combination of both. Hostile take-overs are relatively unknown in Turkey⁴.

Corruption

20. Turkey has a wide variety of laws, regulations and penalties banning corruption, which appears to be most pervasive in government procurement. Giving or accepting a bribe is illegal in Turkey. Fines imposed in corruption cases focus on the amount of the bribe received and attempt to recover as much of losses incurred as possible from the financial assets of the person convicted. Bribes cannot be deducted from taxes as a business expense. The government publicly supports the OECD initiative against bribery of foreign officials, and has committed itself to amend applicable laws to explicitly provide that foreign, as well as domestic, bribes are illegal and not tax deductible. Nevertheless, corruption and bribery are difficult to eradicate in Turkey, where public civil servants are poorly paid.

Local partners

21. Most foreign investment in Turkey is in the form of joint-venture/licensing operations. Basic infrastructure for a specific industry usually exists within the operation of the potential local licensee or joint venture partner who also has easy access to the market. Most Turkish companies prefer to establish joint ventures with U.S. suppliers to overcome European competition. Especially in view of higher customs taxes applied to U.S. products vis-a-vis European-origin goods (because of the EU customs union), local production is a natural choice an U.S. firm can make to profitably penetrate the market. Unless an U.S. firm's interests are large enough to warrant opening an office in the country, the most effective means of selling in Turkey is through a reliable and qualified local representative. When dealing with government tenders, an agent is an absolute necessity in view of complicated bureaucratic procedures

⁴ There has been only one attempt at a hostile takeover by either international or domestic parties in recent memory. There are no laws or regulations which specifically authorize private firms to adopt articles of incorporation or association to limit or prohibit foreign investment, participation or control. Nor is there any attempt by the private sector or government to restrict foreign participation in industry standards-setting consortia or organizations.

and the language barrier. An U.S. firm should carefully investigate the reputation and possible conflicting interests of any prospective agents before signing agreements.

Dividend repatriation and currency conversions

22. The Turkish Lira (TL) has been fully convertible since 1990. For the most part, the market determines exchange rates. The Central Bank often intervenes to dampen short-term fluctuations. From 1989 to January 1994, the government pursued a "strong lira" policy, which generally kept the rate of depreciation of the lira below inflation. Following the 1994 economic crisis, the lira depreciated by about 18 % in real terms. The government's stated policy has since been to allow the TL to depreciate in line with inflation. Because of Turkey's high inflation, the TL depreciates in nominal terms on an almost daily basis. The government's monetary policy aims to maintain the real value of the TL against a trade-weighted basket of the dollar and DM; a significant devaluation against the U.S. dollar is not likely in the near future. There are no known foreign-exchange limits placed on importers by the government, and there are no restrictions on the transfer of funds in or out of the country. Although the TL is fully convertible, most international transactions are denominated in U.S. dollars or German marks due to these currencies' universal acceptance and the continuing monetary uncertainty caused by high inflation rate. Banks are allowed to deal in foreign exchange and to borrow and lend in foreign currencies.

Transfer and compensation

23. Turkish law guarantees the free transfer of profits, fees and royalties, and repatriation of capital. This guarantee is reflected in Turkey's Bilateral Investment Treaty with the United States, which mandates unrestricted and prompt transfer in a freely usable currency at a legal market clearing rate for all funds related to an investment. There is no difficulty in obtaining foreign exchange. There are no limitations on the inflow or outflow of funds for remittances. Under the Treaty, expropriation can only occur in accordance with international law and due process. Expropriations must be for public purpose and non-discriminatory. Compensation must be reasonably prompt, adequate and effective. U.S. investors have full access to the local court system and the ability to take the host government directly to third party international binding arbitration to settle investment disputes. There is also a provision for state-to-state dispute settlement. As a practical matter, the Government occasionally expropriates private property for public works or for state enterprise industrial projects. The Government agency expropriating the property negotiates and proposes a purchase price. If the owner of the property does not agree with the proposed price, he can go to court to challenge the expropriation or ask for more compensation.

Taxation

24. Tax evasion is rampant in Turkey. The government admits that around one-quarter of total taxes are uncollected; even this figure is probably conservative. Turkey's tax revenues equal about 22 % of GNP, well below the OECD average of 39 %. Overhaul of the tax system is a top priority for the present government. A tax reform proposal was submitted to Parliament in January 1998, which envisages a widening of the income tax base and taxation of all spending and savings. Income, corporate and inheritance tax rates would be decreased with those in the lowest income tax bracket seeing a 10 % decrease in their tax rate, while those in the highest bracket a 15 % decrease. Investment in capital markets will also be taxed, as well as revenues obtained from stock earnings. Foreign investors, who are involved in BOT investments, will be able to revalue their currencies. The tax draft also intends to implement fines on tax evaders equal to the amount evaded and to announce the names of evaders publicly. The

government is considering changing the taxation system for energy products. Taxes on oil products, excluding the VAT, would be set at fixed values and the excise and price stabilisation fund taxes would be merged. There are no customs duties and Price Stabilisation Fund taxes for the other fuels. There are no excise taxes on coal and natural gas and a lower VAT on natural gas. At present, the government does not consider implementing CO₂ taxation to internalise costs. See Table below for taxes on electricity.

Taxes on Electricity, 1996 (%)

	<i>Electricity</i>	
	Industry	Households
Excise	1	5
VAT	15	15

Source: MENR.

Attitudes to Foreign Investors

25. Turkey has pursued liberal and outward-oriented economic policies since the 1980s, currently enjoying one of the most liberal investment regimes of the OECD. Given the inadequacy of domestic funds and technology, the government views foreign direct investment as vital to the country's economic development and prosperity. Almost all areas open to the Turkish private sector are also fully open to foreign participation and investment. While government policies do not discriminate against foreign investment, all companies -- regardless of ownership-- are subject to the political uncertainties, excessive bureaucracy, and sometimes-unclear legal environment that are prevalent in Turkey. For instance, although the government and the public strongly support new foreign investment in Turkey's energy sector, successive court rulings have delayed many projects for years. The necessary amendments to the legislation could not be effected to date due to the political logjam in the agenda.

Availability of Financing and Guarantees

26. Turkey has vast infrastructure needs, but the state's deteriorating finances and the country's poor international credit ratings have prevented sufficient private and public investment in power stations, roads or telecommunications for the best part of a decade. Legal challenges, political intrigue and bureaucratic inertia have blocked all but a few privately financed infrastructure projects. Most of major projects are financed by sovereign debt. The Ministry of Energy and Natural Resources has forecast that Turkey needs to invest almost \$100bn over the next 20 years in the electricity industry alone. A major dilemma now faced by Turkey is how to increase investment in new energy capacity while at the same time adhering to IMF-mandated fiscal policies. Turkey's financial system benefits from strong and profitable banks, a number of well-run and research-driven brokers, active participation from foreign institutions adding liquidity and inculcating international competitive practices and a vibrant and modern Stock Exchange. Internationalisation is likely to be a major theme in Turkish financial markets for some years to come.

27. Foreign investors receive equal access to credit on the local market⁵. Legal, regulatory, and accounting systems are generally transparent and consistent with international norms. There is an effective regulatory system established to encourage and facilitate portfolio investments. Credit in Turkey is allocated according to market terms. Because of high inflation and high public-spending requirements, the cost of local currency funds is very high. Therefore, both foreign and local investors frequently seek credit from international markets to finance their activities.

28. The total assets of all Turkish banks reached \$84.5bn or 59% of GNP at year-end 1996. The banking sector's total profits increased last year by 31% in real terms to approximately \$2.4bn. Non-performing assets (equalled 0.3% of total banking sector assets) as a percentage of total loans declined, from 2.8% of total loans to 2.0%. Even though still dominated by a few large state and commercial banks--some 60 % of all assets are held by the seven largest banks--the banking system offers the same services found in Western Europe in terms of project finance, letters of credit, and correspondent relationships. There are around 68 banks⁶ in Turkey. Twelve of these are investment and development banks, and 56 are commercial banks. Banks are permitted to engage in regular banking, securities brokering, and other businesses. Corporation/banking relationships are close.

Unconventional project financing

29. Suppliers also look for unconventional project financing packages (e.g., forfeiting, factoring, and utilization of third-country export credits) when bidding on major government infrastructure projects. Financing costs and foreign exchange rate risks, wherever applicable, should be factored into the project price. There is a large number of leasing companies in Turkey. Most of them are owned by Turkish banks and finance purchases of expensive capital goods such as aircraft, auto fleets, or special equipment. Financial leasing used to account for only 1 to 2 % of capital expenditures in Turkey vs. 20 % in developed countries. The terms of leasing are usually four years, with a balloon payment at the end. Turkish leasing companies are eager to work with U.S. counterparts. Factoring companies (again, usually offshoots of banks) generally belong to the International Factors Group based in Belgium. Like leasing companies, all factoring and forfeiting companies are having funding difficulties. Both factoring and forfeiting maximize cash flow, reduce transaction risks, and may enhance competitiveness by offering flexible payment terms to the buyer. Foreigners traded in the Istanbul Stock Exchange a total of \$9.3bn in 1997, but only added \$76mn to the Turkish equity market.

External financing and insurance

30. Turkey offers numerous major project opportunities in telecommunications, energy, transportation, and building of infrastructure projects such as dams, airports, harbours, roads, and water

⁵ Locally, commercial banks account for about 80 % of the credits outstanding in the financial system. However, given the continuing gap between Turkey's extensive needs and its limited internal resources, external financing of public and private project investment will be a crucial factor in the coming years. By the late 1990s contractors were paying Libor plus 2.85 % for three-year loans. In addition to short-and medium-term credits available from commercial banks in local and foreign currencies, lower-cost TL credits are also available from Turkish Eximbank.

⁶ US and US-affiliated banks in Turkey include: American Express International Banking Corporation--Koc American Bank, Bank of New York, Banker's Trust, The Chase Manhattan Bank, Citibank and Saudi American Bank.

and sewerage systems. Supplier financing is the key to winning these large projects. U.S. Eximbank established a project financing office in Turkey (1994) to provide financing on project basis. Traditionally, U.S. Eximbank financing, along with OPIC and TDA programs⁷, are available to U.S. suppliers. International financing institutions such as the World Bank and Overseas Economic Co-operation Fund of Japan (OECF) have also been providing large amounts of funds for major Turkish projects. The OPIC offers a full range of programs in Turkey, including political risk insurance for U.S. investors, under its bilateral agreement with Turkey. OPIC is also active in financing private investment projects. In 1987, Turkey became a member of the Multinational Investment Guarantee Agency (MIGA).

Government incentives

31. Turkey provides investment incentives including exemptions on corporate and value-added tax, customs fees, and duties, as well as soft loans for research and development investments. Investment incentives for foreign investors are clearly specified in regulations. They have been harmonised with procedures in most western economies and are compatible with the EU's rules on state aid, which Turkey adopted as part of the customs union. Companies no longer receive government cash subsidies but are entitled to waivers of import duty; investment allowances, mainly exemption from corporate tax ranging from 30% to 100%, depending on location; and deferral of VAT on imported machinery. Taxes are also waived during the implementation phase of a new project. Subsidised government loans are available for R&D, and for investments in environmental protection projects. In order to take advantage of investment incentives, an investor must obtain an "incentive certificate" from the Treasury. The size of the incentive depends upon the geographic location, sector, and value of the investment. Investment incentives are greater in "priority" (less developed) regions or sectors and eligibility depends on a minimum value. According to the current incentive regime, a minimum investment of approximately \$40,000 is required for priority development regions and \$70,000 for other regions; these minimums are halved for investments in R&D and environment.

Sanctity of contracts

32. In Turkey there has not been any major investment disputes, including outstanding expropriation/nationalization cases, since 1990. The only investment dispute in recent memory involving an U.S. firm concerns a failed attempt by the municipal authorities in Iskenderun to expropriate facilities owned by Macandrews and Forbes, a New Jersey firm. The firm's beach front property had appreciated considerably since the facilities were established more than 100 years ago, but the authorities were willing to pay only a fraction of its real value. A Turkish court decided in favour of Macandrews and Forbes in 1989. There are effective means for enforcing property and contractual rights in Turkey. Although there is no visible government interference in the court system, judges/lawyers often complain about the difficulty of maintaining their judiciary independence due to role of government in promotions and appointments. Judgements of foreign courts need to be re-considered by local courts before they are

⁷ The US Eximbank offers a variety of credit facilities to U.S. firms exporting to Turkey as well as providing project financing for U.S. investments. The U.S. Trade and Development Agency (TDA) is active in financing pre-feasibility and feasibility studies and pre-design work for major government projects, while the OPIC insures and provides investment credit financing to many U.S. investments in Turkey. A Treasury guarantee is necessary to obtain Eximbank project financing. U.S. Eximbank signed a protocol with Turkish Eximbank in May 1995 to develop export credit facilities for the purchase of U.S. and Turkish goods for the joint-venture projects in Central Asia.

accepted and enforced. Turkey has a written and consistently applied commercial and bankruptcy law. Monetary judgements are usually made in local currency but there are provisions for incorporating exchange rate differentials in claims.

Settlement of disputes

33. The Turkish Government accepts binding international arbitration of investment disputes between foreign investors and the state. Turkey is a member of the International Center for the Settlement of Investment Disputes (ICSID)-- also known as the Washington Convention--and the New York Convention of 1958 on recognition and enforcement of foreign arbitrage awards. Turkey ratified the Convention of the Multinational Investment Guarantee Agency (MIGA) in 1987. By withdrawing its general derogation to "codes of liberalization of capital movements and invisible transactions (OECD Codes)," capital movement and invisible transactions have been liberalized to a great extent. Since 1985, Turkey has been negotiating and signing agreements for reciprocal promotion and protection of investments. As of May 1996, Turkey has signed or initiated negotiations on bilateral investment treaties with 53 countries. Twenty of these agreements are now in force with the United States (since 18 May 1990), United Kingdom, Germany, Holland, Belgium-Luxembourg, Denmark, Austria, Switzerland, Finland, Hungary, Poland, Romania, Tunisia, Kuwait, Bangladesh, China, Japan, South Korea, Kazakhstan, and Uzbekistan. Avoidance of double taxation agreements has been signed with 42 countries. Turkey is participating in the OECD's negotiations on a multilateral agreement on investment, which, if and when adopted, will further liberalize foreign investment regulations.

Major Political Issues Affecting Turkey's Business Climate

Political instability

34. The Turkish political system, as defined by the 1982 Constitution, is a secular, parliamentary democracy with separate executive, legislative and judicial branches⁸. There is certain predictability to Turkish politics, for all its sudden twists and turns. Struggles among populist leaders, rather than policy disputes among opposing parties, provide the fundamental theme running through politics today, just as they have for generations. The appeal of populism seems to be receding because of growing disillusionment among voters with the corruption and ineptitude of their leaders. Yet populism remains powerful, largely perhaps because poverty and ignorance still afflict such large numbers of people. Turkey has managed its inherently unstable state of affairs for decades and the military remain the undisputed ultimate arbiters of political power. They led three *coups d'état* between 1960 and 1980, each time returning power to civilians soon afterwards, only to see the old political order rapidly reassert itself. To its considerable credit the private sector has managed to grow in this unstable political atmosphere. Business executives often say that perhaps the only predictable thing in Turkey is its very unpredictability and that 'long-term' may mean a few quarters, sometimes less.

⁸ The executive branch includes a President, who serves as chief of state, the Prime Minister, who heads the government, and the Council of Ministers (or Cabinet). The legislative branch of the government is the Turkish Grand National Assembly, which consists of 550 deputies elected in national elections at least every five years. Elections are by proportional representation. The last national elections were held in December 1995. Local elections are held every five years as well, most recently in March 1994.

Islamic fundamentalist threat?

35. The rise of political Islam, in a country governed for over 70 years as a secular state, further highlighted the populism at the heart of the political system. The Islamist Refah Party (RP) was founded in 1983 by Necmettin Erbakan. The party promotes Islamic values and supports stronger ties with the Islamic world. It scored strongly in the March 1994 local elections, and holds the mayoral positions in Turkey's largest cities, Istanbul and Ankara. In the December 1995 general elections, it emerged as the most popular party with 21.4 % of the overall vote, winning 158 parliamentary seats. Erbakan, who had served as deputy Prime Minister in the mid-1970s and had been jailed by the military in 1980, took office as Turkey's first Islamist Prime Minister⁹ in July 1996, in coalition with True Path Party. He promised to establish Islam as the guiding principle of the Turkish state, but turned out to be as much of a populist as, possibly even more so than, his secularist adversaries. Erbakan resigned in June 1997 under the pressure of secularist forces in the country including the military and a month later Mesut Yilmaz, pulling ahead of his rival Ciller after years in opposition, was appointed prime minister at the head of yet another broad coalition of the left and right. The Constitutional Court dissolved the main opposition Refah Party on 19 January 1998 because of evidence confirming its actions against the secular republic and slapped a five-year political ban on Erbakan and his close associates.

Separatist terrorism

36. The Kurdistan Workers' Party (PKK) is a threat primarily in Southeastern Turkey, although the PKK has planted several bombs in the urbanized west and coastal resorts to harm the Turkish tourism industry. For the past thirteen years, the PKK, by using terrorist attacks as one of its principal tools, has sought to establish an independent Kurdish state in southeastern Turkey. The separatist organisation targets Turkish security forces, state facilities and infrastructure, and those who support the government's efforts against the PKK. Foreign oil majors such as Shell and Mobil had to scale down their operations in that region. The government is currently engaged in a large counter-insurgency operation, and has met with success in returning a sense of security to the region's urban areas. Left-wing terrorists operate on a much smaller scale in western Turkey. A prominent Turkish businessman (Sabanci) was assassinated in his office in Istanbul by left-wing terrorists in January 1996. Some terrorist groups have also targeted the personnel and property of organizations with official and commercial ties to the United States.

Turco-U.S. Relations

37. The United States maintains a diverse relationship with Turkey, with important political, military, economic, cultural, and social aspects. Both countries are seeking to broaden their bilateral relationship through expanded economic and trade cooperation and increased high-level political consultation. During the December 1998 visit of Energy Secretary Federico Pena to Ankara, a "Joint Statement on Energy Cooperation Between Turkey and the United States", aimed at establishing a bilateral dialogue on the broad range of energy policy issues of mutual interest, including: "ensuring global energy diversity and supply,

⁹ The Welfare Party came to power as the head of the coalition through a fair constitutional process—one in which Welfare was freely elected by the people and democratically selected by the representatives of the people in the Turkish Parliament. Keep in mind that this is not the first time Mr. Erbakan has been in power; in fact, he has served as Deputy Prime Minister in other coalition governments in 1973 through 1975, in 1977 and in 1979.

helping to diversify Turkey's gas supplies, fostering regional co-operation, transporting regional oil and gas resources through Turkey to international markets, co-operating to find optimum solutions for the realization of energy projects in Turkey (including but not limited to, the BOT, BOO and TOR projects)". The U.S.-Turkey Bilateral Investment Treaty has been in place since 1986. A Bilateral Tax Treaty was signed in March 1996 and will be implemented in 1998 assuming both sides ratify the treaty this year. The volume of bilateral trade--over \$4 bn--strongly favours the United States. Turkey exported \$1.6 bn to the United States in 1996, with apparel and textiles, tobacco and iron & steel dominating. U.S. exports to Turkey in 1996 totalled \$3.2 bn and were led by aircraft and spare parts, engines and chemical products. The United States is among the largest foreign investors in Turkey with an estimated \$1.5 bn in direct investment.

SECTION 3: OPPORTUNITIES IN TURKISH POWER GENERATION

Foreign Investment and Privatisation

38. Foreign investment has never played as important a role in Turkey as it has in many other developing economies. The stock of foreign investment, even when defined on the most generous criteria, is probably no higher than \$20bn. The service industries are the largest recipients of foreign investment, accounting for over 80% of investment approvals in 1996. Manufacturing industry attracted only 16% of foreign investment. Inward investment rose rapidly during the late 1980s, only to stagnate at the relatively low level of about \$1bn by the mid-1990s. Due to political and economic instability, the positive effect of the customs union on foreign investment fell short of expectations. The stalling of the privatisation programme, especially in relation to transferring infrastructure to private investors, also has contributed to reducing the already small volumes of foreign investment to a trickle, at a time when global capital flows have risen substantially. Turkey ranked among the top 10 developing countries receiving FDI in 1996, a year in which private capital transfers to emerging markets rose by 19% to \$231.5bn¹⁰. Further privatisation is expected to attract substantial foreign capital, first to purchase, and then to modernise and expand, languishing state assets.

Privatisation policy

39. The Turkish government plans to privatise the majority of state enterprises under a 1986 privatisation law, modified in November 1994. The pace of privatization has increased under the present government, with nearly all of Turkey's cement industry and the operation of ports being privatized. The government target of \$10bn revenue from privatisation this year, however, is unlikely to be met. Even the Privatisation Office estimates that only \$6.8 bn would be feasible and \$1.8 bn of this is likely to come from the energy sector. Even this amount seems high to us because of legal debates both in parliament and in the constitutional court. Revenues from sale of state-owned businesses have totalled \$3.25 bn since 1986, with remaining state enterprises valued at \$60 bn. The process will continue to be piecemeal and

¹⁰ According to Treasury data, as of May 1996, 3,754 foreign firms had invested and were operating in Turkey. Total authorized capital was \$21.1 bn and actual inflows reached \$9.7 bn (as of end-1996). EU countries accounted for 64.3% of cumulative foreign investment, OECD countries for 90.7% and Islamic countries for 5.7%. France (24%) is the top source of foreign investment in Turkey.

somewhat erratic. Privatisation is gradually becoming less of an obligatory rhetorical flourish for governments and more of a question of financial necessity and, ultimately, of political survival as the Treasury's financial constraints grow more severe. It seems likely that privatisation of the really important state companies such as Petkim, TT or Tupras will only take place once the political environment becomes clearer. Turkey's succession of weak, divided coalition governments can hardly be expected to carry out an ambitious and politically revolutionary reform programme, given that experience of reform in other countries show that this will take the kind of tough, committed leadership which Turkey lacked for most of the 1990s.

Independent power producers

40. In the energy sector, the privatisation programme aims at (i) increasing budget revenues; (ii) greater private capital participation in the investments needed to meet the projected demand, thus supplementing public enterprise investments; and (iii) improving management and reducing the cost of supplying energy. The electricity sector, which is over 90% state owned, is a chief target of the privatization efforts. Turkey's privatisation programme in the power sector, designed to transfer large portions of state assets to the private sector, is based on the realisation that TEAS and TEDAS have not had adequate financial strength to fund the expansion of the electricity supply and that public funds have been declining. Electricity generation, transport and distribution are primarily dominated by large public enterprises¹¹. In 1994, the Turkish Board of Electricity (TEK) was separated into two different companies, TEAS and TEDAS, both reporting to the MENR. TEAS owns about 74% of electricity generation capacity with the remainder owned by private enterprises or under the control of the Privatisation Office. At the top of the TEAS privatization list are ten large thermal power stations and eight lignite-fired plants, along with seven distribution companies. State petroleum distribution and refining industries are also on the privatization block.

BOT concept: how it operates

41. The BOT model for infrastructure projects was first developed in Turkey in the mid-1980s. According to the June 1994 BOT law, the Turkish government can have private firms and foreign firms make investments on a BOT basis for bridges, tunnels, dams, irrigation, potable water, treatment plants, sewage systems, telecommunications, power generation, transmission, distribution, mining, environmental prevention investments, ports and airports. The concept involves offering foreign companies the opportunity to participate as investors in large infrastructural projects. The underlying formula is that parties interested in contracting, engineering or other aspects of a major project should come in as investors. It allows an investor or a group of investors to recover their costs for building a plant through operating it for operate the project for a pre-agreed period (usually 15 to 25 years) corresponding to the economic life of the asset, before handing it over to the state.

42. Originally introduced in June 1984, the financing scheme has been plagued by legal problems about its status. The impossibility of recourse to international arbitration due to the constitutional court decision deeming these projects as concessions has been one of the main reasons for the slow progress.

¹¹ The total amount of electricity generated by private companies, authorised to generate, transport, distribute and trade electricity, is currently about 5%. Cukurova Elektrik (580 MW, i.e. six hydro units totalling 480 MW and one oil power plant totalling 100 MW), Kepez Elektrik which operates four hydro plants totalling 127 MW.

Concerned at the growing risk of power shortages, ministers drafted new rules to surmount legal obstacles by allowing operators to construct projects, with no requirement that they be transferred to the state. However, the courts ruled that these "build-operate" regulations also violated the constitution and in 1997 the government put the bidding process on hold pending a further ruling. Notwithstanding legal obstacles, BOT and BOO projects are expected to play a major part in the restructuring of the power industry. The challenge for Turkish authorities is to reassure foreign lenders that the complex financing structures required for these projects would be honoured and protected.

Current BOT projects

43. The government has considered proposals from several different international consortia for BOT oil and gas plants, coal-fired plants, and hydroelectric-electric power station projects, but only three of the sixteen projects that have met legal approval are currently under construction. BOT investments are currently the preferred procurement/finance method of the government in power projects. Parliament passed new laws in 1994 to encourage investments in BOT projects through measures such as exemptions from certain duties and the Treasury guarantee for the execution of the purchase power agreement. At end 1996, six power plants totalling about 328 MW of capacity were run by private companies under BOT programmes and 11 plants¹² totalling 2.100 MW were planned to be built under BOT programmes.

44. In addition, two tender procedures for the building of 7,2000 MW (56 plants) were launched. Three main plants being built under a BOT scheme are the following: the 672 MW Birecik hydro plant (to be completed in 2002); a 478 MW gas-fired CCGT plant at Marmara Ereğlisi (to be completed in 1999); a second 478 MW gas-fired CCGT plant at Marmara Ereğlisi (to be completed in 1999). Thus far, three BOT projects have been approved. The MENR also collected bids for total 44 BOT model new hydroelectric power plant (HEPP) projects as well as for the 19 semi-finished HEPPs. However, not many bids have been submitted for the HEPP projects, especially not from the foreign firms. Therefore, MENR is considering to re-tender most of the BOT HEPP projects.

BOO model

45. In June 1996, MENR introduced the BOO financing model. Developers retain ownership of the plant, and they would be given the option to sell the power produced to an end-user, to the state-owned electricity authority or directly into the national grid. Hydroelectric, nuclear and geothermal projects are excluded from BOO financing. A law for BOO projects was enacted in July 1997. The state would also not have to assume ownership of the plants as under the BOT scheme. MENR issued tenders for six "emergency" plants to be financed under BOO and to be commissioned between 2000 and 2005. By the end of the December 1996 deadline 57 of over 130 bidders had prequalified, but in early 1997 Turkey's supreme administrative court (Danıştay) issued stop-action orders on BOO projects. The MENR plans to appeal the rulings, but the future of the projects is clouded. In the next three years, the MENR is planning

¹² Five large build operate (BO) type power plant projects seem to be the most attractive ones. When implemented, these five large power plants will have a total generation capacity of 5.200 MW (almost a quarter of the current generation capacity of Turkey.) These projects, valued at over \$4 bn, will have an important growth impact on the size of the market for the next 3-4 years. Out of the five power plant projects, 15 of the 29 bids were received from consortia with American firms as partners. Winners were expected to be announced in the fall.

to announce BO tenders for seven other new large thermal (natural gas or imported coal fired) power plants with a total generation capacity of 5,500 MW.

Transfer-of-Operating Rights

46. The government is transferring the operating rights of TEAS and TEDAS to the private sector as part of its privatisation programme, hoping to raise Turkey's annual electricity generation by 5 bn kWh. The sale of the ownership itself no longer takes place. This change was implemented because the previous method involved constitutional problems and could not be implemented quickly. Operating rights of 12 existing thermal plants have been transferred in October 1997 to the private sector for 20 years. Most of these power plants require flue gas desulphurization units and upgrading. Electricity produced by these plants is sold to TEAS. Privatization is also taking place in distribution of electricity on a regional basis. TOR tenders were made for 25 regional electric distribution networks. The government has already established seven regional distribution companies, which will be privatized initially. Distribution concessions are already given to small electricity distributors in a few areas covering about 6% of 1995 consumption. Private generators are allowed to build their own distribution lines to supply their customers. The MENR has received over 130 bids for the six "emergency" BOO projects it announced in June 1996. There are four 700 mw gas-fired plants, one 1,400 MW gas-fired plant, and a 1,000 mw plant that will utilize imported coal. The plants are all to be commissioned by 2005. The MENR also has plans for seven additional BOO plants with total capacity of 5,500 MW, of which five will be gas-fired, and the others will use imported coal.

47. The companies had pledged to invest an initial total of \$385.3 mn in the power plants to increase their output by 28%. But an administrative court ruled to cancel the tenders because of a procedural problem. The following is a list of the plants whose privatization has been cancelled by the court decision in February 1998: Tuncbilek Thermal Plant by TEMTAS A.S.; Kangal Thermal Plant by Koc Holding-Demir Export-NRG-Peabody consortium; Orhaneli Thermal Plant by Suzer Holding; Soma A-B Thermal Plant by Suzer Holding; Cayirhan Thermal Plant by Park Enerji A.S.; Yatagan Thermal Plant by Bayindir Insaat-National Power-Mimag Insaat-Pacificorp consortium; Yenikoy-Kemerkoym Thermal plant by Bayindir Insaat-National Power-Mimag Insaat-Pacificorp consortium; and Catalagzi B Thermal Plant by Korona Muhendislik-Avrupa Amerika Holding-Ege Metal consortium. In 1994, seven distribution groups were created within TEDAS with the aim of privatisation totalling \$1.61 bn. Half of this amount (\$805mn) will be paid in advance, whereas the rest will be paid in two separate annual instalments. Winners of the remaining smaller scale 18 tenders will be announced later. All consortiums are required to establish new companies for carrying out tender related operations. The tender procedure is based on the lowest operating cost. When the procedure is completed, TEDAS is expected to be a control body. In the longer-term, the government plans to create a market for electricity. Seven major networks' tenders were finalised by the Ministry of Energy

Turkey's Energy Matrix

48. Increasing the country's electricity generating capacity continues to be a top priority for Turkey. Electric power demand has been steadily growing, averaging 11% annual growth over the last 40 years, and projections by TEAS indicate 8% annual growth over the next 15 years. Production lagged far behind demand growth. The 5.6 Mtoe capacity (1995) is nearly seven times higher than in 1973 - the largest

increase among all OECD countries. Power consumption is projected to more than triple by 2010 to 240 bn kWh with industrial sector accounting for about 55% of total consumption (expected to increase to 63% in 2000) -- a higher share than the OECD average of 43%. The MENR has drawn up plans to install 33 lignite-fired units, 27 natural gas-fired units, 12 coal-fired plants, 2 nuclear power plants, and 113 hydroelectric units to meet these needs. This will require an estimated \$35-\$50 bn in new investments over the next 10 years. Turkey has also recommissioned three lignite-fired plants, which were originally closed over environmental concerns.

Fuel switch in power generation

49. Together with the increase in electricity generation, Turkey has been diversifying its fuel mix. In 1995 the output share of hydro was the highest (41.2%), followed by coal, mainly lignite, (32.5%), and natural gas (19.2%); oil provided 6.7% of generation. Natural gas has become an important fuel, but Turkey has constraints in the supply of natural gas. New pipeline and LNG terminal construction and the upgrading of existing pipelines are a must in the implementation of new large power plants. Turkey is currently a very minor gas producer (only 2.8% of its consumption requirements) and its gas infrastructure is far from comprehensive -- but it has embraced the fuel with an enthusiasm, which surpasses even that of Europe's other southern states. Gas consumption is projected to rise to 60 bcm/y (burning nearly as much gas as Algeria currently produces) by 2010 from the present level of 9 bcm/y. Two new generating plants are already under construction, and the authorities have called for tenders for six more, with a combined capacity of 5,200 MW, to be constructed on a BOT basis. Plans call for the construction of at least 13 plants in total, with a combined capacity of 10,700 MW.

Gas sources

50. A large portion of the increased natural gas imports will feed into electricity generation, and the proposed new LNG terminals will also be attached to new IPP gas-fired generation facilities. Turkey has signed agreements with Bulgaria, Georgia and Iran to increase imports of electricity from these countries¹³. In recent years, Turkey has succeeded in substantially increasing natural gas imports from diversified sources and in building gas transport and distribution infrastructure in the main consuming areas. This has brought great benefits to Turkey, including: better energy availability to its fast growing economy; increased fuel diversification and security of supply; lower emissions of pollutants and greenhouse gases to the extent that gas has replaced more carbon-intensive and polluting fuels such as oil and lignite. The country's gas import ambitions appear to be boundless; but Turkey should also be seen as a supply "bridge", linking the large gas reserves of its easterly neighbours with the big consuming countries of northwest Europe¹⁴.

¹³ Since 1990 Turkey has been a net exporter of electricity, mainly to Azerbaijan after having been an importer between 1975 and 1990. However, electricity trade is small compared with domestic demand. There are few links with neighbouring countries. The Turkish system is not fully integrated for synchronous operation with neighbouring systems, so only limited exchanges are possible. In 1995, exports amounted to about 700 Gwh (Azerbaijan:495 Gwh, Georgia:178 Gwh and Iraq:23 Gwh), i.e. about 1% of consumption. An agreement was signed in 1989 to build a regional grid between Turkey, Syria, Egypt, Jordan and Iraq, scheduled for completion by the turn of the next century. There are also studies for the construction of a 400 kV Hamitabat-Thessaloniki line with Greece.

¹⁴ Currently the main supplier of natural gas is Russia (nearly 85%), which began supplying Turkey with 200 bcf of gas annually in 1987 through Bulgaria and agreed last year to increase gas supplies to 280 bcf beginning in 1998. Also, Turkey reached an

LNG vs. pipeline gas

51. Turkey has also looked to other sources to increase and diversify its gas supplies. In February 1996, a deal was signed for bringing Turkmen gas to Turkey beginning in 1998 at about 70 bcf per year, and reaching 530 bcf by 2020. The two countries will jointly build a 300-km pipeline needed for the supplies. Turkey also has a controversial \$20 bn (22-year) deal with Iran. Initial deliveries of 105 bcf/y of gas are scheduled to begin in 1999, and eventually reach 350 bcf by 2005. This deal has brought criticism from the United States, which views the deal as supporting the current Iranian regime, and as a possible violation of the Oil Sanctions Act.

52. In addition to pipeline gas, Turkey plans to utilize imports of LNG to help meet demand requirements. It began receiving 70 bcf of LNG from Algeria in 1994 at the terminal at Marmara Ereğlisi (105 bcf per year capacity) as part of a 20-year deal reached in the mid-1980s. The terminal has received spot-shipments of LNG from Australia. Furthermore, Turkey has signed agreements with Nigeria, Qatar, Egypt and Yemen to receive supplies of LNG¹⁵. Turkey experienced two cases of natural gas supply disruption. At the start of 1994 (i.e. before the commissioning of the LNG plant), daily deliveries of Russian gas were reduced by about 50% due to transit problems with Ukraine. As natural gas consumption had to be cut off, priority was given to residential consumers. In early March 1995, one of the existing gas-fired power plants had to switch the majority of its input to fuel oil and two fertilizer plants were put on standby. Turkey is still vulnerable to natural gas supply disruptions, even though LNG supplies from Algeria and the LNG terminal allowing spot imports have increased Turkish gas security of supply. The new gas storage capacity being envisaged, the new LNG terminals as well as new natural gas suppliers will diminish the impact of a possible disruption in supply.

Share of coal to decline

53. Coal is currently a major fuel source for power generation because the country is a large producer of lignite (brown coal), which comes predominantly from deposits in the southwest and the southeastern Afsin-Elbistan basin. Lignite extraction is expected to increase as the government feels pressure to close down unprofitable hard coal mines in the southeastern Zonguldak region. In addition to their low levels of production, these mines are geologically difficult, increasing the cost of extraction. Furthermore, they have a poor safety record. In the past, for reasons of supply security, the government encouraged

agreement with Tbilisi to receive additional Russian gas through Georgia. The accord entails the construction of a 30 km pipeline extension to the Turkish border, with initial shipments of 106 bcf per year. Expansion and rehabilitation of the Georgian pipeline will increase the annual gas flow capacity to 318 bcf. Russia also wants to increase exports to Turkey to 1,060 bcf by 2010. In January 1997, Gazprom announced that its board of directors had approved a new export pipeline ("Blue Stream") to Turkey. The \$2.5 bn, 1,200-km pipeline would run from Izobilnoye in southern Russia, to Dzhugba on the Black Sea, then under the Black Sea to the Turkish port of Samsun, and finally to Ankara. When completed the line would be the world's deepest underwater gas pipeline. Both sides signed an agreement to this effect in December 1997 in Ankara.

¹⁵ Nigeria will ship 32 bcf of LNG annually beginning in 1999. Qatar will supply 70 bcf per year over a 25-year period commencing in 1999. Yemen's 25-year deal calls for exports of nearly 90 bcf of LNG per year starting in 2001. Shipments of LNG from Oman are also being considered. New LNG terminals are also being planned. Plans call for a new terminal adjacent to the existing Ereğlisi facility, a second at Aliaga, near Izmir on the Aegean Sea, and a third at Iskenderun on the Mediterranean. The Izmir facility is part of a \$4 bn agreement signed between Turkey and Egypt in November 1996, calling for exports of nearly 350 bcf of LNG from fields offshore the Nile Delta, with first deliveries expected to commence in 2000.

production of domestic lignite for electricity, but recently it revised downward its plan to increase substantially lignite production for power generation, given that lower cost solutions exist. To supplement its supply, Turkey imports significant amounts of hard coal, mainly from Australia, the US, South Africa, and the former Soviet Union. This coal is used mainly to supply Ankara and three other large municipalities, all of which have chosen to use hard coal rather than lignite as a source of heat and power in order to reduce the pollution that result from lignite burning.

Hydro, geothermal and nuclear

54. Large hopes are pinned on Turkey's Southeastern Anatolian Project (GAP)¹⁶, which plans to produce 27.3 TWh of hydroelectricity annually, when completed. In 1996, seven dams were under construction: 15 others are planned to be built. Among the projects achieved within the framework of GAP is the 2,400 MW Ataturk Dam, which is the sixth largest rockfall type dam in the world. Although geothermal power in Turkey could amount to 31.5 GW, little progress has been made on exploiting this potential due to technical, financial, and administrative problems. Also, plans to build the country's first nuclear plant, a 1,200 MW facility to be built at Akkuyu, on the southern Mediterranean coast, has run into opposition. The South Korean Atomic Agency has been chosen for consultancy services for the project, but Turkey's environmentalist groups have been wary of nuclear power since the April 1986 Chernobyl accident. The US Secretary of Commerce lobbied during his January 1998 visit to Turkey for gaining a larger share for American companies in Turkey's power sector contracts including the Akkuyu nuclear power plant (an Westinghouse-led consortium including Mitsubishi, ENKA, MNG is interested and Turks are inclined to favour a non-European group as they want to use the trade diplomacy as an effective instrument in their relations with the EU.

Electricity pricing

55. Risk analysts agree that Turkey remains one of the most profitable markets¹⁷, more than compensating for the risk of operating in an unstable environment. Companies already operating in Turkey and accustomed to instability are able to adjust as quickly and efficiently to shifts in the market as domestic companies. Price is the most important consideration in government tenders. Electricity tariffs are not formally set by the government, but prices determined by TEAS and TEDAS have been influenced, to a considerable degree, by government policies.

56. Private power utilities can apply to the MENR to sell electricity directly to sell their electricity in excess either to TEAS, TEDAS and its affiliates or to utilities at a price which does not exceed 70% of the average selling price of the electricity sold by distribution companies to end-consumers after a 12.5% deduction from different funds and contributions. They are allowed to use transmission and distribution

¹⁶ The \$32 bn Southeast Anatolia Project (GAP) hydropower and irrigation project, when completed, will include 21 dams, 19 hydroelectric plants and a network of tunnels and canals for irrigation.

¹⁷ In the Turkish market, profit margins are known to be surprisingly high. According to a survey, non-Turkish companies earned returns on assets of 18.7% and return on equity of 39%. Margins on sales were reportedly 10%.

lines. Transmission prices are set by the MENR, in proportion to distance through a stepped formula: 3% of the amount of electricity transmitted up to 100km, 1.5% for each additional 100 km and 10.5% for any distance above 600 km. Distribution prices are 6.5% of the electricity transmitted, independent of the distance customers at a negotiated price. Private distributors are expected to set their tariff rates in compliance with TEDAS tariffs.

Electricity Prices for Households and Industry
(**\$ Per MWh including tax**)

	Industry	Households
1990	83	51
1992	93	92
1994	77	76
1995	76	76
1996	85	87

Source: IEA, Prices and Taxes, 1997

57. The selling price of electricity does not allow TEAS and TEDAS to make the necessary investments, plus more than 7% of electricity consumption is not paid for by customers, and this proportion is growing. Electricity tariffs applied in the underdeveloped eastern part of Anatolia (involving about 10.4% of total electricity consumed in Turkey) are 14% below the national rates. Rates for industry are on the average slightly above household rates, but household electricity prices have increased more quickly than those for industry and at a higher pace than inflation. Overall, prices are too low for electricity enterprises to make necessary investments. The prevailing view among investors is that the government should move toward a reform of the electricity pricing system in order to ensure that prices cover the full cost of supplies and progressively eliminate regional and customer cross-subsidies.

Energy Prices for Electricity Generation, 1995-1996

(Thousand TL/toe)

	Heavy Fuel Oil		Natural Gas		Lignite	
	Incl. Taxes	Excl. Taxes	Incl. Taxes	Excl. Taxes	Incl. Taxes	Excl. Taxes
1995	8 312	4 653	8 229	7 620	4 091	3 558
1996	15 609	9 209	15 386	14 246	7 146	6 215

Source: IEA, Prices and Taxes, 1997

Demand Outlook and Generation Plans

58. Years of under-investment have led to a large pent-up demand, which is further amplified by a growing, urbanising and increasingly wealthy population; so power projects are potentially very profitable. Investment banks estimate the rate of return for power industry projects at about 27-30% a year and place Turkey close to the top of the list of lucrative markets¹⁸ for international energy projects. The government forecasts that electricity consumption will continue to grow at the same pace as the previous years. As a consequence, electricity capacity is expected to grow from 21 TW to 30 TW in 2000 and 61 TW in 2010. Blackouts and brownouts are frequent occurrences in Eastern Turkey, and scheduled blackouts could soon begin in Ankara and Istanbul. In response to this situation, Turkey has planned major new investment in its domestic power infrastructure and pursued new supply sources abroad. Electrical energy demand is growing by approximately 8 % a year, projected to reach 130 bn kWh by 2000, more than double consumption in 1993. Even if all the current hydroelectric potential (120 bn kWh) can be used, total output will be far from sufficient to meet anticipated requirements by 2000.

59. Major opportunities exist in thermal and hydropower projects as well as in the privatization of existing power plants. Currently, 14 BOT projects are being negotiated by U.S. firms, with an investment value of over \$7 bn. The government is also planning to privatize four thermal power plants as a first step. These are: Yenikoy Thermal Power Plant (lignite fired with an installed capacity of 2X210 MW, near Milas in Mugla); Soma Thermal Power Plant (lignite fired with an installed capacity of 6X165 MWe and 2X22 MWE, near Soma in Manisa); Kemerkoym Thermal Power Plant (lignite fired with an installed capacity of 3X210 MWE, near Marmaris in Mugla). Others will follow. TEAS has over 25 thermal and over 30 hydro power plants with a total installed capacity of 22,000 MW.

Growth Sectors

60. Industrial products make up 86 % of Turkey's exports, followed by agricultural products with 12 %, and mining and minerals with 2 %. The largest export sector is apparel and textiles, followed by iron & steel, and fruits & vegetables. Turkey's main export markets are Germany, taking 22%, the United States, taking \$1.6 bn, or 7% of the total, Russia, Italy, and the UK. The most important import sectors are machinery, iron & steel, electrical equipment, crude oil, and motor vehicles. Major export-oriented growth sectors include: telecommunications (In 1993 Turkey had a telephone exchange main line capacity of approximately 12.7 mn and telephone subscriber density of 21 lines per 100 persons.

61. By 2002, Turkey aims to increase its subscriber line capacity to 20 mn from its present level of 12.7 mn); environment (New regulations regarding sewage, medical waste and power plant emissions, among others, will add to the growth of this sector.); transport (Although most state investments were put on hold since 1994, the government has recently resumed planning and construction of many airport,

¹⁸ At present, new power plants to be completed before 2000 have a total capacity of less than 5 TW (including 10 plants with a total capacity of 1.4TW being built under BOT programmes, i.e. much less than would be needed to meet the expected demand). However, tenders are being offered to private companies for new generating plants. In addition, new investments in environmental control systems are planned: notably, the plants at Yatagan, Yenikoy, Gokova and Orhaneli are in the process of getting new FGD systems. A 1996 estimate by TEAS was that \$1.2 bn would be needed for environmental projects at existing plants up to 2000.

port and highways projects.); textiles (Turkey's largest manufacturing industry, and its largest export sector. The removal of quotas on to the EU - part of the customs union - has improved growth prospects.

The global phase-out of textile quotas called for in the Uruguay Round also increases this sector's potential. Other principal growth sectors are building products, tourism, automobiles and electronics. Implementation of infrastructure projects will require massive investments in power generation, telecommunications, pollution control, medical, airport, and architecture/engineering equipment and services.

Investment Needs

62. Experts estimate that an investment of \$100 bn will be necessary to meet Turkey's predicted demand for electricity by 2020 (quoted in the Turkish Daily News, 25/02/1998), when electricity consumption -- currently 105 bn kWh -- is expected to rise to 547 bn kWh. Half of investment is expected to come from private sources. Much of the 51,100 MW Turkey will need by 2010 will be available to the private sector. In addition to the 5,650 MW of private power project deals already signed or under negotiation, the government has raised to slightly over 14,000 MW the amount of additional projects it will likely offer to the private sector in the near term¹⁹. According to official forecasts, electricity consumption is likely to continue to grow at about the same pace to reach 130.4 TWh in 2000 and 271.5 TWh in 2010. TEAS calculates that electricity capacity will have to rise from 21 TW in 1995 to 30 TW in 2000 and 60.8 TW in 2010. Most of the increase will be hydro, followed by lignite and gas. A nuclear power plant is planned to be commissioned at the beginning of the next century. In principle, new capacities will be built mainly near consuming areas.

Forecasts for Required Electricity Capacities (TW)

	1995	2000	2010
Hydro	9.9	12.9	23.4
Thermal	11	17.1	37.4
Coal	11,5	9	21.1
Oil	1.4	1.7	1.7
Natural Gas	2.9	6.5	12.6

¹⁹ 1997 has been the year of power plant tenders in Turkey. Evaluations of most of these tenders are continuing and contract awards will soon be announced. Construction and equipment orders for these large projects may start toward the end of 1998. "Portable" power generators will be used to prevent the shortages of electricity that increase with the winter cold, according to TEAS. These "portable" power plants have limited capacity but are easily built and will support the present system. In three months time, plants capable of producing 700-800 MW of power are scheduled to come on line. The portable plants will use natural gas and fuel oil and will be constructed in the neediest regions. The assembly process is expected to be completed in May or June 1998 to be prepared for the winter of 1999. Construction of the plants was bid on last year along the BOT model. The plants in Ankara, Gebze, Adapazari and Aliaga will use natural gas and the Iskenderun plant will use imported coal. American companies are playing an important role in most of the power plant projects in Turkey. This trend is expected to continue at least for the next five years to meet Turkey's additional capacity demands of an average 2,500 MW annually until 2010.

Geothermal	15 (MW)	15 (MW)	15 (MW)
Nuclear	0	0	2
Total	21	30	60.8

Source: MENR

Forecast Demand for Electricity, 2000-2020

	Total Demand (bn kWh)	Consumption per capita (kWh)
2000	134.3	1,800
2005	199.6	2,600
2010	289.8	3,500
2015	398.2	4,400
2020	547.1	5,500

Source: TEAS

Suggestions

Turkish partner

63. Like in most other Asian countries, face-to-face meetings and personal links are essential in Turkish business culture. Istanbul is the country's commercial center, followed by Izmir and Adana, with the capital Ankara a necessary stop for those pursuing government-sponsored infrastructure projects. It is advisable to take counsels and promises from Turkish partners and consultancy companies with a pinch of salt. A thorough investigation about possible local partners is necessary in order to choose a well-established company with a long proven track record of achievements. Statistics are often reliable, but for a realistic assessment of market opportunities it is preferable to have a specific research conducted.

US companies currently favoured

64. Due to the strained relations between Turkey and the EU following the December 1997 Luxembourg summit, Turks tend to favour US (and Japanese) companies in public procurement and large infrastructure projects. Washington is also believed to be providing a strong political and (financing) backing to American company projects in Turkey. It is correct to say that US investors are relatively in an advantageous position to tap the opportunities in Turkish power industry.

Uncertainties and opportunities

65. Political and legal uncertainty puts off many potential investors at a time when energy shortages have already become a serious hindrance to the country's rapid economic growth. The problems usually stem from the fragile three-party (and minority) political coalition and the improper legal handling of projects. Following the legal procedures as described in relevant Turkish legislation is critically important. Otherwise, a procedural wrongdoing may lead to the delay or cancellation of the tenders. For instance, an administrative court annulled the privatization of 12 power plants (on 12 February 1998) because the MENR had no authority to open the tender process, which remained the purview of the Cabinet. Many specialist lawyers have concluded that BOT and BOO projects can only be placed on a firm legal footing if the constitution is amended, which would require a two-thirds majority vote in parliament. Given Turkey's fragmented political system, mustering such a majority could be difficult. In investment decision, this reality should be factored into the cost-benefit analysis.

SECTION 4: KEY DATA

Political Leadership

President: Suleyman Demirel (elected May 1993 for seven years)

Prime Minister: Mesut Yilmaz (July 1997)

Deputy Prime Minister: Bulent Ecevit

Location/Size: Southwest Asia/780,580 sq. km (301,930 sq. mi.), slightly larger than Texas

Major Cities: Ankara (capital), Istanbul, Izmir, and Adana

Religions: Muslim (99%, mostly Sunni), other 0.2%

Defence (1994): Army (393,000), Navy (54,000), Air Force (56,800), and Gendarmerie (50,000)

Economic Overview

Currency: Turkish lira (TL)

Market Exchange Rate (13/02/1998): \$1=222,855 TL vs. 133,000 TL on 21/04/1997

Gross National Product (GNP): \$205 bn (1997) (1996E, purchasing power equivalent): \$345.7 bn

Real GDP Growth Rate (1997): 6% and (1998E) 5%

Inflation Rate (1997): 95% (government target for 1998 is 50%, which seems unattainable)

Major Trading Partners: Germany, Italy, United States, Saudi Arabia, and Russia

Exports (1997): \$27bn

Imports (1997): \$50bn

Major Export Products: Agricultural, textiles, iron, steel

Major Import Products: Oil, machinery, chemicals, iron, steel

Unemployment Rate (1997): 6%

Total External Debt (1997): \$87bn

Foreign Exchange Reserves: \$33bn (excluding gold)

Energy Overview

Minister of Energy and Natural Resources: Cumhur Ersumer

Director-General of TEAS: Zeki Koseoglu.

Proven Oil Reserves (1/1/97): 260 mb

Oil Production (1996): 71,200 bd of which 67,200 bd is crude oil

Oil Consumption (1996E): 600,000 bd

Crude Oil Refining Capacity (1/1/97): 683,000 b/d

Net Oil Imports (1995): 557,000 bd

Natural Gas Reserves (1/1/97): 312 bn cubic feet (bcf)

Natural Gas Production (1995): 7.1 bcf

Natural Gas Consumption (1995): 250.7 bcf

Coal Production (1995): 59.7 mn short tons (95% lignite)

Coal Consumption (1995): 67.2 mn short tons

Estimated Recoverable Coal (1996): 8.2 bn short tons of lignite

Electric Generation Capacity (1/1/96): 20.9 mn kilowatts

Electricity Generation (1995): 82.9 bn kilowatt-hours

Electricity Consumption (1995): 76.4 bn kWh

Turkey

(IEA) Energy Balances and Key Indicators

Power Generation in Turkey

18 February 1998 27

		Unit: Mtoe						
SUPPLY		1973	1990	1994	1995	2000	2005	2010
TOTAL PRODUCTION		15.48	25.65	25.98	26.08	39.50	48.85	59.87
Coal ¹		5.21	12.41	12.11	12.08	24.41	29.18	35.18
Oil		3.59	3.79	3.78	3.59	1.63	0.72	0.31
Gas		-	0.18	0.16	0.15	0.17	0.17	0.17
Comb. Renewables & Wastes ²		6.45	7.21	7.14	7.01	8.11	7.97	7.83
Nuclear		-	-	-	-	-	1.83	3.66
Hydro		0.23	1.99	2.63	3.06	3.61	5.59	6.67
Geothermal		-	0.07	0.12	0.14	1.48	3.22	5.74
Solar/Wind/Other ³		-	-	0.05	0.05	0.09	0.17	0.31
TOTAL NET IMPORTS⁴		8.74	27.64	31.88	37.21	50.59	68.08	95.72
Coal ¹ Exports		-	-	-	-	-	-	-
Imports		0.01	4.21	4.01	4.48	2.77	9.55	26.56
Net Imports		0.01	4.21	4.01	4.48	2.77	9.55	26.56
Oil Exports		0.86	1.90	2.06	1.63	2.58	2.88	2.73
Imports		9.68	22.83	25.77	28.96	32.38	38.03	44.22
Bunkers		0.09	0.12	0.11	0.19	-	-	-
Net Imports		8.73	20.81	23.60	27.15	29.80	35.15	41.49
Gas Exports		-	-	-	-	-	-	-
Imports		-	2.68	4.32	5.65	18.02	23.38	27.67
Net Imports		-	2.68	4.32	5.65	18.02	23.38	27.67
Electricity Exports		-	0.08	0.05	0.06	-	-	-
Imports		-	0.02	0.00	-	-	-	-
Net Imports		-	-0.06	-0.05	-0.06	-	-	-
TOTAL STOCK CHANGES		0.11	-0.82	-1.10	-1.10	-	-	-
TOTAL SUPPLY (TPES)		24.32	52.46	56.76	62.19	90.08	116.92	155.59
Coal ¹		5.15	16.94	15.97	16.59	27.18	38.73	61.74
Oil		12.50	23.46	26.43	29.61	31.43	35.87	41.80
Gas		-	2.86	4.48	5.79	18.19	23.55	27.84
Comb. Renewables & Wastes ²		6.45	7.21	7.14	7.01	8.11	7.97	7.83
Nuclear		-	-	-	-	-	1.83	3.66
Hydro		0.23	1.99	2.63	3.06	3.61	5.59	6.67
Geothermal		-	0.07	0.12	0.14	1.48	3.22	5.74
Solar/Wind/Other ³		-	-	0.05	0.05	0.09	0.17	0.31
Electricity Trade ⁵		-	-0.06	-0.05	-0.06	-	-	-
Shares (%)								
Coal		21.2	32.3	28.1	26.7	30.2	33.1	39.7
Oil		51.4	44.7	46.6	47.6	34.9	30.7	26.9
Gas		-	5.4	7.9	9.3	20.2	20.1	17.9
Comb. Renewables & Wastes		26.5	13.7	12.6	11.3	9.0	6.8	5.0
Nuclear		-	-	-	-	-	1.6	2.4
Hydro		0.9	3.8	4.6	4.9	4.0	4.8	4.3
Geothermal		-	0.1	0.2	0.2	1.6	2.8	3.7
Solar/Wind/Other		-	-	0.1	0.1	0.1	0.1	0.2
Electricity Trade		-	-0.1	-0.1	-0.1	-	-	-

Please note: Forecasts are based on the 1994 submission.

Distribution: 4/29/97

Turkey

Energy Balances and Key Indicators

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Gas		-	0.18	0.16	0.15	0.17	0.17	0.17
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Hydro		0.23	1.99	2.63	3.06	3.61	5.59	6.67
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	Bunkers	0.09	0.12	0.11	0.19	-	-	-
	Net Imports	8.73	20.81	23.60	27.15	29.80	35.15	41.49
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Solar/Wind/Other ³		-	-	0.05	0.05	0.09	0.17	0.31
Electricity Trade ⁵		-	-0.06	-0.05	-0.06	-	-	-
Shares (%)								
Coal		21.2	32.3	28.1	26.7	30.2	33.1	39.7
Oil		51.4	44.7	46.6	47.6	34.9	30.7	26.9
Gas		-	5.4	7.9	9.3	20.2	20.1	17.9
Comb. Renewables & Wastes		26.5	13.7	12.6	11.3	9.0	6.8	5.0
Nuclear		-	-	-	-	-	1.6	2.4
Hydro		0.9	3.8	4.6	4.9	4.0	4.8	4.3
Geothermal		-	0.1	0.2	0.2	1.6	2.8	3.7
Solar/Wind/Other		-	-	0.1	0.1	0.1	0.1	0.2
Electricity Trade		-	-0.1	-0.1	-0.1	-	-	-

Please note: Forecasts are based on the 1994 submission.

