TURKEY

Review of the Investment Climate and Market Structure in the Energy Sector

2007

Energy Charter Secretariat
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Policy Conclusions to the In-Depth Report on the Investment Climate and Market Structure in the Republic of Turkey

The Charter Conference,

Having regard to the Report from the Investment Group with respect to the In-depth Review on Investment Climate and Market Structure of the Republic of Turkey,

NOTED

a) That the Republic of Turkey has recently gone through a profound reform programme and has been establishing a promising investment climate complemented by advanced level in market creation in its energy sector; and that the improved legal framework for foreign investors has boosted the investor confidence, and the legislative changes have constituted an adequate legal and regulatory basis for a competitive market structure in the energy sector,

b) In particular:

- Welcomed the achievement of the reform programs of the Republic of Turkey in the energy sector which already complies with the minimum standards of EU’s *aquis communautaire* regarding restructuring and liberalisation, even exceeding them in many instances;
- Took note with satisfaction that serious steps have been taken in the energy sector towards a regulatory system that is less prone to political interference, is more transparent, and is directed at the implementation of measures needed for the creation and effective regulation of a fully competitive energy market;
- Appreciated the fact that reform programmes have assured the attraction of local and foreign investors for new investments, and noted that Turkey has been one of the major supporters of the Athens Process, which has led to the establishment of an energy community in Southeast Europe;
- Encouraged the Turkish authorities to make further efforts to add to and achieve the effective implementation of the legislation in place, while addressing the room for furthering the reform activities towards good corporate governance and improved bureaucracy, which would help boost investor confidence;
- Noted with satisfaction that the privatisation process in the oil sector is complete and there is currently a liberal market regime already fully in place, and also that an ambitious restructuring and privatisation programme is pursued in the electricity sector, and that the privatisation of the natural gas sector is already established in certain segments and is continuing; encouraged the authorities to assure that delays in the privatisation of electricity distribution do not block the effective implementation of the reform programme and hamper investor confidence and the required new private investments under the market regime;
- Took note of the geographical importance of Turkey and its role in bridging the east and west in the energy sector, and in this respect acknowledged the role of the country as an energy corridor and a trading partner between the energy rich countries and the markets by referring to the projects already in service and the ones that are currently being developed, noting the importance of greater transparency and non-discrimination in such projects, including for transit-related issues;
– Acknowledged that it is a difficult task to strike a balance between competitiveness and supply security, and to make sure that an acceptable supply-demand balance is guaranteed on the emerging national liberalised and competitive markets, welcomed the efforts to address the potential energy supply-demand balance difficulties and appreciated the drive to realise new investments under the new liberal regime, while trying not to undermine supply security.

– Noted that demand-side measures regarding energy savings and efficiency should strongly be addressed in the energy policies, and welcomed the recent legislative efforts in this context.
Main Findings of the Secretariat

Investment Climate

Turkey views foreign direct investment as vital to the country's economic development and prosperity. Accordingly, Turkey has a liberal legal regime for FDI that has been further improved recently with the adoption of the new Foreign Direct Investment Law. The new Law guarantees to foreign investors national treatment and comprehensive investor rights. All companies established with a foreign capital contribution and under the rules of the Turkish Commercial Code (both existing and newly established) are regarded as Turkish companies. Equal treatment both in rights and responsibilities is applicable to all such companies (including national treatment, a guarantee against expropriation without compensation, transfer of proceeds, access to real estate and to expatriate personnel, and international arbitration or any other means of dispute settlement).

Entry conditions specific for foreign companies have been abolished and currently are identical to those for comparable local companies. There is no minimum amount of capital required. It is no longer obligatory to bring in a minimum of $50,000 in share capital. Any form of company included in the Turkish Commercial Code is acceptable. It is no longer obligatory to establish either a limited liability company or joint stock company. Areas open to the Turkish private sector are generally open to foreign participation and investment. Turkish law guarantees the free transfer of profits, fees and royalties, and repatriation of capital. There is no difficulty in obtaining foreign exchange, and there are no foreign exchange restrictions.

In addition to the introduction of a more investor-friendly new FDI Law, the Government of Turkey has established a Coordination Committee for the Improvement of the Investment Climate (YOIKK), composed of high-level representatives of relevant ministries, the private sector and NGOs, to help remove remaining bureaucratic obstacles to investment. The Government of Turkey has also set up a well-funded new Investment Promotion Agency to carry out a multi-year strategy to promote investment in Turkey.

Turkey has established an Investment Advisory Council with the aim of creating a forum which brings all major industry representatives and Turkish high level governmental authorities to discuss issues pertaining to foreign direct investment. Its target is the elimination of obstacles and the promotion of cooperation and understanding between the investors and the local bureaucracy.

Many of the recent legislative changes seek to harmonise Turkish legislation with EU law in view of Turkey’s future accession. In some instances, Turkish legislation already exceeds the minimum requirements of the acquis.

A snapshot of reforms within the framework of recent efforts to improve the investment climate would include inter alia:

- Tax policy reforms were introduced aimed at creating a simpler and more stable tax regime, more consistent with the EU norms;
- Corporate governance of companies in Turkey was strengthened, to increase their global competitiveness and enable linkages between local and foreign firms;
- Continuous reduction of administrative and bureaucratic barriers to investment, including streamlining work permit procedures;
Main Findings

- Increased efficiency and accelerated pace of court procedures;
- Reform of the social security system was accelerated;
- Intellectual Property Rights were protected more effectively.

In line with its liberalisation policy, Turkey has embarked upon an aggressive privatisation programme. Privatisation has peaked in 2005 to $8.2 billion, and foreign investors are welcome to participate in it, with few restrictions as notified in the Blue Book.

However, all investors – regardless of nationality – still face a number of challenges. These include excessive bureaucracy, weaknesses in the judicial system, high and inconsistently collected taxes, weaknesses in corporate governance, sometimes unpredictable decisions taken at the municipal level, and frequent, occasionally unclear changes in the legal and regulatory environment. Historically, investment has also been discouraged by high inflation and political and macroeconomic uncertainties.

In its programme for further improvement of the investment climate, the Government is looking at an action programme, which includes a variety of measures, such as the continuation of privatisation and deregulation to improve competition, the improvement of education and training and research and development, the upgrading of infrastructure, etc. Notably, the Government intends to accelerate the reduction of administrative barriers, particularly licensing requirements, R&D approval processes, limited access to land and restrictions on imports, increase the efficiency of judicial processes, and boost the efficiency and flexibility of the labour market. Of particular importance is the enhancement of corporate governance. Reform will continue in the social security system, the financial market development (including better access to finance), and efforts to reduce the informal economy.

Market Structure

In line with the liberalisation programme, Turkey has followed free market principles in the energy sector. The government has advanced considerably in liberalising the energy market. New legislation has reduced the role of the Government in energy markets and strengthened market forces:

- An independent regulator (EMRA) has been established;
- An ambitious energy privatisation programme has been announced and is underway;
- The United Nations Framework Convention on Climate Change (UNFCCC) has been ratified and the country is preparing legislation to address energy efficiency.
- A renewable energy law has been enacted, with some positive results especially in the small hydro investments.
- Important oil and gas transit pipeline projects are either completed (Baku-Tblishi-Ceyhan petroleum pipeline), or nearing completion (gas pipeline to bring Azeri gas of Shah Deniz to Turkey and Europe via Greece) or under way (Samsun-Ceyhan Petroleum Pipeline or Nabucco Gas Pipeline), which will improve the security of supply in Turkey as well as for Europe, and make it an important “energy corridor” between East and West.
- In the petroleum sector, upstream terms of access have been relaxed and a new Law is expected to be adopted soon, leading to improved investment climate. In downstream activities, the product market, imports and exports have been completely liberalised, while investments have been made to extend domestic gas infrastructure and upgrade refineries.
Main Findings

• Of paramount importance are the recently adopted Natural Gas Market Law (No. 4646), Electricity Market Law (No. 4628), and Petroleum Market Law (No. 5015), which, along with their implementing regulations and norms contained in other laws, have set up a comprehensive free market structure throughout most of the energy sector.

Nevertheless, Turkey still faces many challenges in many areas of its energy policy. Despite significant legislative efforts to liberalise the energy markets, Turkey’s state-owned companies still have a substantial dominance and seems to be relied for the policies of the near future. There has been more than 5 years since the establishment of a new market regime in theory, but this has yet to be proved in the field due to a variety of reasons. In fact, years 2002 and onwards provided a golden opportunity for Turkey to embark upon a speedy transition to establish its market regime. This was stemming from the fact that Turkey had huge excess in the balance due to previous years’ misleading demand analysis and expensive long-term BOT and BO contracts commissioned in early 2000s. The economic crisis also had effects on the energy demand and thus may have contributed to this.

Nevertheless, discussions mainly on the distribution privatisation blocked the effective implementation of the reform agenda. It was also part of the reason that the Government seemed to rely on state-owned companies for security of supply, including keeping large parts of the hydro generation facilities. It may though be understandable to some extend that the reform programmes—especially in developing countries—may need reasonable transition periods. It is also important to draw the attention to almost fixed price of the electricity for the last years, despite cost increases especially in the gas sector. Thus, the Government prefers using the hydro as a means to balance the price increases in other segments of generation range; and this clearly is viewed unfair by the gas-fired generation plant owners from the private sector. On the other hand, it was a necessity for the government to use state-owned hydro as a price balancing tool against the expensive BOT and BO contracts, with concerns over excessive energy prices for households and more importantly for the industry. The Government also seems to be concerned on the supply security under the new regime and this is also a reason for keeping state-owned energy companies. Therefore, it is vital for the Government to strike a balance between these concerns so to keep attracting private investors for the new capacity desired.

Lack of transparent criteria for the level of Government intervention may easily create uncertainties for new market entrants and potential investors. In this context, it is positive that EMRA has been given considerable powers such as setting the third-party access (TPA) tariffs, providing licences and making decisions not to be overruled by the government.

It may be criticised that Turkey’s energy policy has been highly supply-oriented, while energy efficiency has received little attention. In the recent decades more emphasis has been placed on stimulating new energy investments to ensure additional supply in order to meet the fast growing demand. According to some calculations there is an energy savings potential of 25-30% and to this end an Energy Efficiency Strategy was developed in 2004, also addressing some other vital issues like distribution privatisation. An Energy Efficiency Law is currently underway and expected to be enacted in the near future. Nevertheless, experts have claims that stronger policies beyond those in the law would still be necessary in the near future.

Turkey has made significant progress with regard to environmental protection but more still needs to be done. The UNFCCC entered into force in May 2004. The country is in the
Main Findings

process of developing its Climate Change Strategy and first national communication to the UNFCCC.

Sector-wise analysis reveals the true magnitude of change experienced by Turkey’s energy sector since the turn of the century:

- **The oil sector** has seen a profound change. In order to liberalise oil market activities, the Petroleum Market Law of 2003 introduced competition in the sector by abolishing price ceilings and removing import quotas on petroleum products at the beginning of 2005. TUPRAŞ (petroleum refinery corporation) and POAŞ (major petroleum product retailer) have been successfully privatised. EMRA has been assigned the responsibility to issue secondary regulations and licences, approve certain tariffs and carry out investigations concerning market activities. The recent introduction of a national chemical oil marker will help regulating the market activities and keeping the sector under control, securing quality and preventing smuggling. Also, there is currently a new draft petroleum law regarding new and substantial incentives for exploration and production of hydrocarbons.

- **The gas sector** reform is in full swing:
  - The full implementation of the 2001 Natural Gas Market Law will substantially modify the gas market by transforming the monopolistic market structure into a competitive one through encouragement of new market entry and investments. While most of the necessary secondary regulation has been issued by EMRA and, in principle, 80% of the market is free to choose suppliers, competition has not developed because of the Petroleum Pipeline Corporation’s (BOTAŞ’s) de facto monopoly in imports. Although the new Law envisages abolishing of the import monopoly by gas import contract transfers to private sector, this has yet to be realised. Nevertheless, a relatively significant volume of 4 bcm has already been transferred to the private sector, paving the way for further transfers. This partial contract transfer method, however, is criticised as not suitable for any significant contribution to secure competition on the import side. The requirement in the Law to reduce BOTAŞ’s share of imports to 20% is by now already unrealistic.
  - Gas demand has been growing rapidly, but the overestimated demand forecasts have led to some risk of oversupply. The Government has already had to renegotiate take-or-pay contractual obligations with a view to reduce the obligatory volumes and succeeded partly in some of them. The domestic gas network is being extended very rapidly to allow more consumers to access gas. It is noteworthy that the new distribution facilities are realised by the private sector based on licenses issued by EMRA through competitive tendering and thus without causing any infringement on the consumer interest or financial burden on the state budget. The new gas storage facilities are essential and can help to meet peak demand; yet there are currently not enough storage capacity available. Large-scale gas transmission projects will enhance supply diversity, security of supply and competition in Europe and Turkey.

- In the **coal sector**, Turkey has recently put greater emphasis on its vast lignite sources, especially after the price hikes in the gas fired power generations. Overall, the Government policy is to make use of the local lignite sources to the maximum extent with the view of meeting its security of supply concerns. This change in the policy is not only peculiar to the public sector: Private producers also started expressing their desire and increasing interest in diverting to lignite sources to balance their cost stemming from the existing gas plants. The Government has already taken measures
for more private sector participation in the lignite coal extraction by tendering available coal mines to the private sector on long term licenses. Nevertheless, state-owned companies still have a substantial role (75%) taking into account the current production levels. Furthermore, the highly costly hard coal production by the state enterprise still receives subsidies, since the policy is also closely related to social, regional and employment issues in the respective local area.

- In renewable energy sources, Turkey’s use of hydropower, geothermal and solar thermal energy has increased since 1990. However, the total share of renewables in primary energy supply has declined. The fixed feed-in tariffs and purchase obligation for distribution companies under the new Renewable Energy Law can encourage investments. There are increasing numbers of private investments recently, especially in the small hydro sector. In fact, the recent price increases in gas fired plants provoked renewable (hydro) investments of the private sector to allow for a better fuel mix economically. There is a large potential for use of heat from renewables (geothermal, solar thermal and biomass), and a projected regulation on co-generation plants is expected to increase heat trading. Large-scale hydropower plants, on the other hand, will continue to be dominated by state enterprises.

- In nuclear energy, Turkey has recently announced that it will reopen its nuclear programme in order to respond to the growing electricity demand while avoiding increasing dependence on energy imports, mainly on natural gas. The competitiveness of nuclear power in a liberalised electricity market in Turkey needs to be clarified. It is noteworthy to underline that the Government declared its willingness to realise the investment through private sector with some incentives similar to the renewable energy. Nevertheless, the existing Turkish Atomic Energy Authority (TAEK) is entrusted with a wide variety of responsibilities and it is advised that TAEK be restructured and empowered as an independent regulatory authority only in charge of regulation of the nuclear sector.

- In the electricity sector, the following highlights may be provided:
  - Turkey will soon need more capacity because electricity demand will continue to grow in line with the robust GDP growth. The recently launched rehabilitation programme for the thermal power plants to increase their efficiency is a prudent approach as it postpones the need to invest in new capacity. Nonetheless, new capacity will be needed in the next decade, which requires a good investment climate. Despite some reductions in distribution losses during the last couple of years, both technical and non-technical losses are still a concern. The recent announcement for privatisation of the three distribution regions would be a clear signal for further developments in the new market regime. It is not yet clear, though, what type of a privatisation strategy will be followed in distribution privatisation, that is, whether or not the emphasis will be on market creation or otherwise. Another notable development is the progress in the project to interconnect with the European Union for the Coordination of Transmission of Electricity (UCTE) network, which is scheduled for the near future.
  - The adoption of the 2001 Electricity Market Law has been a major milestone. It established EMRA, which has issued most of the necessary secondary legislation. The legislation has been supplemented by the 2004 Electricity Strategy. Despite the good legislative and regulatory framework, not much competition has developed for a number of reasons. There is a lack of consumer choice caused by the small number of market players; new entrants have difficulties competing with the state-owned incumbent who owns
competitive depreciated generation units, including hydropower. Furthermore, the current generation overcapacity and lack of cost-reflective prices, especially in the state-owned hydro power plants, have made new investment unattractive. In addition, the Build-Own-Operate (BOO) and Build-Operate-Transfer (BOT) schemes have a relatively high market share (with high guaranteed price) and only 29% of the market has been made eligible to choose suppliers. The Electricity Strategy contains the key elements for tackling these issues, including the privatisation of EÜAŞ and handling the stranded cost issues caused by the BOO and BOT schemes. However, it will also be important to consider if the share of the liberalised market can be increased sooner than planned and to ensure that the transmission system and market operator (TEİAŞ) is turned into an autonomous and strengthened organisation free from any interference in its daily operation. Establishment of an electricity exchange would facilitate trade and introduce more competition. Cost-reflective pricing will be vital. The most recent regulation on the Balancing and Settlement has already started giving market signals necessary for a functioning market structure and for the new private sector investments.

Reforming electricity and gas markets is not an easy task that can be handled in a short time. Therefore it makes no surprise to see time-lags while creating an efficient market regime. Turkey has been successful in putting forward its legislative framework for the market regime. It also liberalised its investment climate to a very great extend. What remains, is therefore to ensure that decisive action to be taken to see the process through to a successful conclusion. Especially important in this respect is, to improve further the investment climate alluring more private sector investment, thus ensuring private sector involvement for further investments, meeting the increasing demand for electricity energy.
I. Executive Summary

Turkey is a country of utmost strategic importance in the world with its geopolitical location, on the intersection point of Asia, Europe and Africa continents. It presents a unique opportunity to act as an “energy corridor” among Middle East, Caspian Sea and the Western energy markets. Notably the Baku-Tbilisi-Ceyhan petroleum pipeline project was commissioned as of July 2006, which is the first pipeline project that provides for a southern route for Caucasian hydrocarbon resources to reach the world markets in a relatively secure way. Another pipeline project envisages transportation of the natural gas from Asia and the Middle East to Europe via the well known Nabucco Project. Turkey also is a democratic and secular republic with long track record of stability in a chaotic region. Thus, the country is of vital importance with its role as introducing an example for a suitable investment climate in an energy rich region.

Turkey is a developing country with a very young and dynamic population. It has been ranked as one of the ten emerging markets and thus presents many opportunities especially for the international investors. Liberal economic policy has been decisively pursued over the last decades. This also manifests itself in the liberalised foreign investment regime. Due to efforts in the recent years, the investment climate for foreigners has become more liberalised.

In 2002-2006, Turkey experienced a strong recovery from a severe economic contraction that occurred in 2001. The key factors that contribute to high growth and improved macroeconomic stability include the following:

- Turkey has embarked upon a reform programme aimed at reducing public deficit, reforming the country's banking sector, accelerating privatisation of state-owned industries, lowering the inflation rate, reducing the country's heavy debt burden, and in general creating a stable macroeconomic environment conducive to economic growth. The involvement and participation of international investors is highly encouraged in the massive privatisation programme. Privatisation has peaked in 2005 to $8.2 billion.

- Within the context of the accession process to EU, Turkey experienced a vast transformation. The Constitution, numerous laws and regulations were amended to converge to the EU norms. In 2005, Turkey was recognised as a functioning market economy by the EU, and is now a candidate for full EU membership.

- The Government is keen on transforming all important economic sectors into fully competitive markets and assuring the independence of relevant regulatory and supervisory authorities.

- Concerning the energy sector, the Development Plan (2006-2013) highlights the privatisation of power generation facilities and the distribution system. It also puts importance stress on supply security, a more balanced resource diversification, with prospective increase in indigenous and renewable energy resources use:
  - The Plan gives priority to private sector in bridging a possible supply-demand electricity gap in the coming years. The Plan confirms the principle of avoidance of cross-subsidies in the electricity sector), so that market signals are transmitted to private investors. Nuclear energy will be developed in a free market environment. The Government declared its willingness to realise the investment through private sector with some incentives similar to those for the renewable
Executive Summary

energy. Electricity trade with other countries is expected to improve security of supply;

- In the gas sector, the Plan calls for the completion of the construction of transit pipelines, and become actively involved in gas sales to Europe;
- The Plan provides for the set-up of an agency to secure the adequacy of emergency oil stocks. Sufficient construction of oil and natural gas storage facilities will be ensured.

- The new Foreign Direct Investment Law is an integral part of a broader national reform programme that is laying the foundation for sustainable growth and development, driven by private investments in a transparent marketplace fully open to the world and supported by a smaller but more effective State. The Government of Turkey has also set up a well-funded Investment Promotion Agency simultaneously able to work inside government and draw on private sector knowledge and market skills, to carry out a multi-year strategy to promote investment in Turkey. Key features of the new Foreign Direct Investment Law include:
  - Freedom to invest by dropping all former FDI-related screening, approval, share transfer and minimum capital requirements;
  - Reassurance of existing guarantees to foreign investors of their rights in one transparent and stable document;
  - Upgrading to accepted international standards for definitions of ‘foreign investor’ (broadened to include Turkish national residents abroad and international organisations) and ‘foreign direct investment’ (broadened to include all possible types of assets); and
  - A policy shift from ex-ante control to a promotion and facilitation approach with minimal ex-post monitoring.

- Turkey has established an Investment Advisory Council (IAC) with the aim of creating a forum which brings major industry representatives and Turkish high level governmental authorities together to discuss foreign direct investment issues. At its third meeting held in June 2006, the Council members adopted a “Statement of Outcomes” in which they praised the achievements of the Government in implementing the reform programme.

- As stated in the IAC report of June 2006, investment climate improvement is a continuing activity. Although much has been done in Turkey for a better FDI climate, more steps are needed including the implementation of existing regulations. Some of the measures that might be put forward are:
  - Continue privatisation and deregulation to improve competition;
  - Increase of research and development, innovation, technology adoption and use of quality standards;
  - Continued liberalisation of the energy sector;
  - Access to and use of information and communication technology;
  - Accelerate the reduction of administrative barriers, particularly: licensing requirements, R&D approval processes, limitations access to land and restrictions on imports;
  - Increase the efficiency of judicial processes;
  - Enhance corporate governance;
Executive Summary

- Deepen financial market development, which includes increasing access to finance, strengthening the regulatory framework for the insurance sector and broadening the equity market;
- Improve investment promotion and communication activities;
- Continue efforts to reduce the informal economy.

The Ministry of Energy and Natural Resources (MENR) is responsible for the preparation and implementation of energy policies. It reports directly to the Prime Minister. The MENR has the following tasks and objectives:
- To determine and implement national energy policy objectives;
- To coordinate related institutions and other public and private entities;
- To prepare and/or supervise programmes in conformity with the energy policy;
- To supervise and control all exploration, development, production and distribution activities for energy and natural resources.

The Energy Market Regulatory Authority (EMRA) was established as independent regulatory authority for electricity by the Electricity Market Law in February 2001. After the enactment of the Natural Gas Market Law (December 2003), and LPG Market Law (March 2005) EMRA was also given responsibilities in the natural gas, oil and LPG sectors. EMRA is an administratively and financially autonomous public administration which is independent in its decision-making process. Its decisions are only to be challenged in Council of State. It receives no financing from the state budget but collects its revenues principally from electricity, gas, petroleum and LPG licensing fees and from a surcharge on the electricity transmission TPA tariff (maximum 1%).

The Turkish Competition Authority has rights to issue the authorisations with respect to any merger or acquisition to be carried out in the market under the scope of Article 7 of the Law on Protection of Fair Competition No. 4054.

The energy policy has the following pillars:
- Prioritising energy supply security to cope with the increasing demand and import dependence;
- Incorporating environmental concerns in all stages of the energy chain within the framework of sustainable development;
- Reforming and liberalising the energy sector to increase productivity and efficiency and to enhance transparency;
- Intensifying R&D on energy technologies; and
- Facilitating projects for the transportation of hydrocarbons in the context of the Energy Corridor and Terminal concept.

Turkey has enacted a new law concerning the use of renewable renergy for electricity generation, which entered into force in May 2005. Electricity generated from renewable energy resources will be granted a renewable energy resources certificate (“RER Certificate”), which will entitle such facilities to benefit from the incentives provided by the law. Electricity generation resources from wind, solar, geothermal, biomass, biogas, wave, current and tidal energy resources together with small hydro generation are supported. Large hydro power plants are not included in the support mechanism defined in the law. The fixed feed-in tariffs and purchase obligation for distribution companies under the new Renewable Energy Law can encourage investments. The level, the wholesale price in the market, is moderate as compared to
the levels in many European countries. Current experience of the private sector have shown that under the current prices the new Law seems to be suitable for provoking new investments for the small hydros but not necessarily for the wind power plants, which are still too expensive for the current price structure.

- The General Directorate of Electrical Power Resources Survey and Development Administration (EIE) is the main responsible body for energy efficiency and renewables. Nevertheless, energy efficiency concerns many other sectors and areas and cooperation and coordination of energy efficiency measures between the main stakeholders and institutions need to be improved. In this respect, a comprehensive Energy Efficiency Strategy was adopted by MENR in June 2004. New legislation setting a framework for the development and implementation of the energy efficiency strategy is currently on the way.

- Turkey has enacted comprehensive energy sector legislation and by-laws:
  - Under the Natural Gas Market Law of 2001 BOTAS will competitively tender and release the import contracts to new private entrants until its import share falls below 20% by the year 2009. A tender process was launched for 4 bcm for transfer to some private companies. Tenders are under evaluation. BOTAS will also undergo further restructuring, and separate companies will be established for trade, transmission, and storage after the year 2009. The 2001 Natural Gas Market Law also set the minimum annual consumption limit for qualification as an eligible consumer to 1 million cubic meters, which corresponds to a market opening of approximately 80%. However, the market opening remains largely theoretical since the de-facto monopoly of BOTAS on transmission and imports is still intact.
  - The Gas Network Code has been in force since September 2004. Principles and procedures pertaining to TPA are set out in the network code and capacity allocation is made in an entry-exit system. The principles for tariff setting have been published by EMRA for all the regulated natural gas activities. The tariffs for the transmission network were published for 2006. The principles for storage, LNG and distribution activities are currently being prepared.
  - The Natural Gas Market Law and secondary legislation impose public service obligations as envisaged by EU’s natural gas market directive. EMRA may impose additional public service obligations. For example, transmission and distribution companies are obliged to connect all customers to the system and import and wholesale companies are required to store 10% of the imported or sold natural gas.
  - In December 2003, a petroleum market reform bill was passed by the Parliament. The Petroleum Market Law aims to remove state controls, to liberalise pricing (and domestic content purchase requirements) of oil and oil products, end restrictions on vertical integration, and integrate pipeline, refining, and distribution functions. TUPRAS (Turkish Petroleum Refineries Corporation) and POAS (Petrol Ofisi, Turkey’s major petroleum product retailer) have recently been successfully privatised. The petroleum market is fully open and competitive.
  - Upstream oil and gas activities fall under the Petroleum Law of 1954 and a number of other acts. The main provisions of the Petroleum Law are:
    - The requirement of a license or lease for exploration and production of hydrocarbons.

- Foreign enterprises may invest in exploration and exploration activities except if they are controlled or owned by a foreign state (this restriction may be lifted by the Council of Ministers).
- Pipeline transportation and storage need approval by the Council of Ministers.
- Major legislative changes were made in 2003 with the adoption of the Petroleum Market Law. The objective of the law is to create a competitive market as the state is gradually withdrawing from the industry. All licensing issues and the regulation of the market have been handed over from the Ministry of Energy and Natural Resources to the Energy Market Regulation Authority.
- In regard to the coal sector in Turkey, one may point out to the following:
  - Lignite is and will remain a major energy source in Turkey. It is operating on market-based principles without subsidies.
  - There are no legal restrictions on operations by the private sector. Recent changes in the Mining Law enable leasing to private companies. However, about 75% of the coal production is still by state-owned enterprises. The state’s share will continue to be significant. Nevertheless, this ratio is projected to be lowered in the near future due to the change in policies towards a more private sector oriented approach recently employed.
- The Authority responsible for the nuclear safety is the TAEK which also has the responsibility for enhancing nuclear related activities in Turkey. TAEK undertakes all regulatory activities including licensing, drafting regulations, and inspections. There is currently no regulatory agency for nuclear power and it is envisaged to establish a separate regulatory body by restructuring of TAEK.
- The Electricity Market Law of 2001 covers generation, transmission, distribution, wholesale, retailing and retailing services, import and export activities, the establishment of an independent regulator (EMRA), and the privatisation of electricity generation and distribution assets. The main drive for private participation under the pre-2001 regime and for the liberalisation under the new regime is rapid growth in demand combined with the inability to meet that demand through public investments or Treasury guaranteed private investments because of the deteriorating fiscal situation.
- The degree of competition envisaged in the new framework is, in most respects, compatible with the EU Acquis Communautaire.
- The main challenge for the electricity sector is that the actual development of competition is likely to take some time because of the legacy of Turkey’s recent past: the current dominance of state-owned assets in generation and even more problematically, the uncompetitive tied-in contracts for the private generation plants. The new regime emphasises market competition. The main principles are:
  - Market Opening: on the demand side consumers using more than 9 GWh p.a. became “eligible” for choosing their suppliers from March 2003. EMRA has reduced the eligibility threshold gradually and it stands currently at 6 GWh p.a. This threshold corresponds to a 32% market opening. On the supply side, the Law envisages an authorisation-type licensing framework. Distribution companies may operate as retail sales companies in their regions by obtaining a retail sales license. They may establish joint ventures with generation companies or set up generation units. Transmission remains a state monopoly, but private generators can establish private direct transmission lines on certain conditions.
Unbundling: TEAS has been unbundled into the Turkish Electricity Generation Company (EUAS), Turkish Electricity Wholesale Company (TETAS), and Turkish Electricity Transmission Company (TEIAS), each organised as a separate legal entity. Under the new structure, EUAS will take over the existing state power plants that are not privatised. TETAS will carry out wholesale operations and will take existing Build Operate, Build Operate Transfer and Transfer of Operating Rights contracts from TEAŞ and TEDAŞ. TEIAS is responsible for transmission, system operation and maintenance, and, critically, for the balancing and settlement procedure among market participants, both physically and financially.

Third Party Access: EML requires the TPA regime for access to transmission and distribution.

Market Design: A ‘bilateral contracts market’ has been created in which generation companies contract with wholesale trade companies (TETAS and new entrants), distribution companies, independent retail companies, and eligible customers. On the generation side, EUAS has been divided into a hydro generator holding all state-owned hydro plants and six different portfolio generation companies holding the state-owned thermal plants which are expected to be privatised in line with market liberalisation. EUAS also will hold the physical assets associated with any TOOR (generation) contracts. Excess capacity and existing and new auto-producers will compete with other generators for sales contracts with distribution companies, independent retailers, and eligible consumers. In fact, dealing with stranded costs is one of the main reasons for the creation of TETAS.

The current market design does not envisage a centralised pool or power exchange. Therefore, dispatch is separated from the operation of the wholesale market. The actual real-time demand-supply balancing is made by the system operator through purchases and sales. The balancing market is the supplementary mechanism, and is considered to facilitate sound operation of the market. Most recently, the Balancing and Settlement mechanism has been put into effect and thus started reflecting market signals to potential investors. EMRA has recently announced new classification for the electricity consumers and this will result in less cross-subsidies.

Privatisation: In 2006, Turkey envisages the privatisation of some 20 electricity distribution companies. This will be followed by the privatisation of generation assets. The preparatory work for the privatisation of the distribution companies has been completed and the tender process launched. Tenders for three distribution regions were announced late August 2006. Transmission assets are to remain under state ownership. Foreign investors cannot obtain controlling interests in privatisation of generation and distribution.

Vesting Contracts: Vesting contracts are an initial set of bilateral contracts put in place by the government between companies it owns or between state-owned companies and private companies such as independent retailers. They serve to provide a smooth transition to competitive markets and predictable revenues during this transition. The contracts remain with the companies when they are privatised.

Public Service Obligations: The EML allows for subsidies to consumers “in cases where consumers in certain regions and/or in line with certain objectives need to be supported.” The mechanism for allocation of these direct cash
refunds are to be established by the Council of Ministers upon proposal by the MENR.

- Main Challenges: Most generation capacity is currently either under government ownership or tied up in take-or-pay contracts that leave no room for competition. Additional challenges lie in the financial difficulties that may persist in distribution. Also, liberalisation will entail significant tariff rebalancing. Privatisation has only just started in the distribution sector despite the many years that have passed since the new market regime was introduced. Among the main challenges are also the stranded costs, the “marketisation” of existing contracts, state dominance in the sector, almost depreciated generation and distribution assets that need rehabilitation, the insufficient metering and communication infrastructure, the need of training of market participants, the high losses in distribution, the lack of facility-based cost reflective generation prices, and the full implementation of cost-reflective end-user tariffs.

Overall, one may say that Turkey has embarked on a strategy targeting comprehensive liberalisation and the establishment of competitive markets in energy and an investor-friendly environment. There has been a considerable increase in the number of companies with foreign capital since the enactment of the new “Foreign Direct Investment Law” in 2003. The last three years an increase of 130% in FDI compared to those before June 17, 2003. Thanks to the new Foreign Direct Investment Law, FDI has increased by 250% to $9.6 billion in 2005 as compared to the previous year. Turkey views foreign direct investment as vital to the country's economic development and prosperity. Areas open to the Turkish private sector are generally open to foreign participation and investment. Companies receive full national treatment once established. More importantly, foreign companies are free to transfer their profits, fees and royalties, and repatriation of capital. There is full convertibility and foreigners face no difficulty in obtaining foreign capital due to the liberal policy. The new Foreign Direct Investment Law is an integral part of a broader national reform programme that is laying the foundation for sustainable growth and development. The growth in the energy sector and the maturity of the market provides good prospects for the potential investors to be interested in different segments of the Turkish energy market.
II. Introduction

II.1 Basic facts about Republic of Turkey

Turkey is a country of utmost strategic importance with its geopolitical location on the intersection point of Asia, Europe and Africa. Therefore, it has an increasingly important role to play as an “energy corridor” between the major oil and natural gas producing countries in the Middle East and Caspian Sea and the Western energy markets. It is also viewed culturally as a unique bridge between all faiths as well as Eastern and Western civilizations. Turkey is renowned for its strikingly rich historical past.

Turkey is linked to the oceans through the Black, Marmara and Mediterranean seas, which encircle it on three sides. It has been the epicenter of major trade and migration routes throughout history. The Black Sea is linked to the world via the Bosphorus and Dardanelles Straits and shipping routes pass through the Marmara sea to reach the Mediterranean. The country borders Georgia, Armenia, Azerbaijan and Iran to the east, Bulgaria and Greece to the west, and Iraq and Syria to the south.

Turkey is a member of international organisations such as the United Nations, the Council of Europe, the North Atlantic Treaty Organisation (NATO), the Organisation for Economic Cooperation and Development (OECD), the Organisation for Security and Cooperation in Europe, World Trade Organisation (WTO), the Organisation of Islamic Conference (OIC), the Black Sea Economic Cooperation Organisation, the Economic Cooperation Organisation, etc. In 2005, Turkey was recognised as a functioning market economy by the EU, and is now a candidate for full EU membership. Table 1 provides data on some basic features of the country and its economy.

<table>
<thead>
<tr>
<th>Table 1: Basic data on Turkey</th>
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<tbody>
<tr>
<td><strong>Location</strong></td>
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<tr>
<td><strong>Area</strong></td>
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<tr>
<td><strong>Border countries</strong></td>
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<tr>
<td><strong>Climate</strong></td>
</tr>
<tr>
<td><strong>Terrain</strong></td>
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<tr>
<td><strong>Population</strong></td>
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<tr>
<td><strong>Population growth rate</strong></td>
</tr>
<tr>
<td><strong>Age structure</strong></td>
</tr>
<tr>
<td><strong>Constitutional name</strong></td>
</tr>
<tr>
<td><strong>Establishment</strong></td>
</tr>
<tr>
<td><strong>Constitution</strong></td>
</tr>
</tbody>
</table>
II.2 Political and Administrative System

Turkey is a democratic, secular and parliamentary republic. The National Grand Assembly (Turkiye Buyuk Millet Meclisi) is unicameral and consists of 550 seats. Members are generally elected by popular vote from party lists (individual running-up is also allowed and thus not subject to the nationwide 10% threshold), based on the percentage parties gain of the overall vote in each of 81 provinces of different seats adjusted to the population of the respective province. Currently, however, the Election Law provides for a 10% national threshold applied for the sake of political stability. Members of parliament have a 5-year mandate, yet it has been a reality for the last decades to see elections earlier.

The prime minister is the head of government and is selected by the party or coalition that gains a majority of seats in Parliament. The prime minister has to be a member of the Parliament, but other ministers may be from outside, depending on the choice of the Prime Minister and approval of the President.

The president represents the Republic of Turkey at home and abroad. He is the commander in chief of the armed forces of the Republic of Turkey and heads its National Security Council. The president is elected by the Parliament among candidates of the political parties including from outside of the Parliament or individually amongst the parliament members, by 2/3rd majority in the first 2 rounds of voting and by simple majority at the remaining 2 rounds. The President has a term of 7 years, whose term is only for once.

General parliamentary elections were last held on 22 July 2007. The current President, Abdullah Gül, was elected on 28 August 2007.

The legal system is based on continental European legal system. Courts include the Constitutional Court; the High Court of Appeals (Yargıtay); the Council of State (Danistay); the Court of Accounts (Sayıstay); the Military High Court of Appeals; the Military High Administrative Court and local and appeals courts. The Constitutional Court plays an important role in balancing the political power as it hears cases for constitutionality of laws. Members of the Constitutional Court are appointed by the President until the retirement age (65). The President, parliamentary groups of the ruling party, main opposition party and a minimum of one fifth of the total number of members of the Parliament have the right to apply to the Constitutional Court for an annulment action of the laws. Furthermore, if a court trying a case finds that the law to be practiced is unconstitutional, or if it is convinced of the seriousness of a claim of unconstitutionality

<table>
<thead>
<tr>
<th>Political system</th>
<th>Multi-party Parliamentary Democracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official language</td>
<td>Turkish</td>
</tr>
<tr>
<td>Legal system</td>
<td>Civil law system derived from various European continental legal systems; member of the European Court of Human Rights (ECHR)</td>
</tr>
<tr>
<td>National currency</td>
<td>Turkish lira (YTL); old Turkish lira (TRL) before 1 January 2005 (1 YTL) = 100 kurus</td>
</tr>
<tr>
<td>Exchange rates</td>
<td>1 EUR = 2.0320 YTL (as of 05.07.2006)</td>
</tr>
<tr>
<td></td>
<td>1 USD = 1.5955 YTL (as of 05.07.2006)</td>
</tr>
<tr>
<td>Capital</td>
<td>Ankara (4,319,167 inhabitants (Province 5,153,000) (as of 2005))</td>
</tr>
<tr>
<td>Administrative divisions</td>
<td>81 provinces</td>
</tr>
</tbody>
</table>
submitted by one of the parties, it can file a lawsuit at the Constitutional Court. Danistay is the high court of appeals for administrative law disputes, members selected partly by the President and partly by the High Council of Judges.

The administration in Turkey is organised in central administration and local administrations. There is a unity of the legislative, executive, and judicial branches and the code of laws in the State. The central administration secures this unity. Turkey has adopted a unitary state model with local administrations, not a model of a centralised, single-structured unitary state. The administrative services of the country are carried out by individuals elected by the people in the different regions besides the central administration. Local administration organisations such as the provincial special administrations, municipalities and villages have their own public juridical personality, duties and authority and assets which are separate from the State.

II.3. Economy

II.3.1. Macroeconomic Situation

II.3.1.1. General Overview

Turkey experienced a strong recovery from a severe economic contraction that occurred in 2001 due to a devastating financial and currency crisis. In 2005 Turkey's real gross domestic product (GDP) grew by 7.4% following another impressive growth of 8.9% in 2004, with an inflation rate of 7.7%, down from 9.3% in 2004. For 2006, real GDP growth is forecast at 5.0%.

In early 2002, the IMF and Turkey agreed to an $15.8 billion "Stand-By" assistance package. On May 11, 2005, the two parties agreed to a further $10 billion, 3-year package. In line with the reform programme undertaken by the Government of Turkey, IMF’s financial assistance provides support for implementation of a variety of reform measures aimed at addressing the root causes of the country's economic problems. Among other things, Turkey has embarked upon a reform programme aimed at reducing public debt, reforming the country's banking sector, accelerating privatisation of state-owned industries, lowering the inflation rate, reducing the country's heavy debt burden, and in general creating "a stable macroeconomic environment conducive to economic growth." In May 2005, the IMF stated that "Turkey's economic performance is the strongest in a generation." The IMF underlined the importance of measures ranging from "continued independence of the central bank" to "full inflation targeting" in order to "facilitate further reductions in interest rates and generate sustained growth."

As for the fiscal policies, primary surpluses of 6.4%, 7%, and 6.2% of GNP were attained in 2003, 2004, and 2005 respectively and 6.5% is targeted for the subsequent years. Budget deficit is expected to be brought below the Maastricht-defined threshold in 2006. The debt stock is expected to keep both decreasing in volume and improving in quality (decreasing real interest rates and increasing maturities). In terms of public debt stock, the Maastricht-defined criterion has already been attained. Markets are optimistic about a possible upgrade of Turkey’s current ratings.

Despite the positive progress seen in the recent years, Turkey continues to face numerous economic challenges, including: a large unregistered economy, income inequality, large trade deficits, complicated legal and administrative procedures, and lastly a promising but only recently improved foreign investment climate. The Turkish economy has been among the most affected countries in the latest turbulence experienced in emerging market currencies
and asset prices, reflecting Turkey’s comparatively large current account deficit as well as adverse inflation outcomes in April and May. However, Turkish policymakers have reinforced their fiscal stance with measures to rein in government spending, whilst the central bank acted to tighten monetary conditions. Recently the macroeconomic indicators are mostly stabilised and returning back to the levels before the turbulence.

### Table 2: Basic economic indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GNP</strong></td>
<td>$361 billion (current prices, 2005) (sixteenth biggest economy among 30 OECD countries with respect to GNP)</td>
</tr>
<tr>
<td><strong>Growth rate</strong></td>
<td>7.0% (2005, based on real GNP) 7.4% (2005, based on real GDP)</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>72 million (2005-estimate)</td>
</tr>
<tr>
<td><strong>GDP per capita</strong></td>
<td>$5,016 (2005)</td>
</tr>
<tr>
<td><strong>Inflation rate (CPI)</strong></td>
<td>7.7% (Dec 04-Dec 05)</td>
</tr>
<tr>
<td><strong>Central Bank</strong></td>
<td>(Main objective is to achieve and maintain price stability. ‘No lending to the Government’ is an important policy tool)</td>
</tr>
<tr>
<td><strong>Foreign exchange rates</strong></td>
<td>YTL 1.6934 = $1 (June 25, 2006) YTL 2.1246 = €1 YTL 3.0864 = £1</td>
</tr>
<tr>
<td><strong>Foreign exchange regime</strong></td>
<td>Floating Exchange Rate Regime (Exchange rates are determined by demand and supply conditions. The Central Bank may hold auctions and intervene voluntarily)</td>
</tr>
<tr>
<td><strong>Inflation targeting</strong></td>
<td>Formal Inflation Targeting as of 2006 (Implicit inflation targeting before end-2005) (Main policy tool is short term interest rates, which are based only on inflation outlook)</td>
</tr>
<tr>
<td><strong>Current account balance</strong></td>
<td>-$22.9 billion (2005)</td>
</tr>
<tr>
<td><strong>Exports-in goods</strong></td>
<td>$109.2 billion (2005)</td>
</tr>
<tr>
<td><strong>Imports-in goods</strong></td>
<td>$76.6 billion (2005)</td>
</tr>
<tr>
<td><strong>Exports-in services</strong></td>
<td>$11.9 billion (2005)</td>
</tr>
<tr>
<td><strong>Imports-in services</strong></td>
<td>$25.9 billion (2005)</td>
</tr>
<tr>
<td><strong>Consolidated budget balance</strong></td>
<td>-6% of GDP (2005)</td>
</tr>
<tr>
<td><strong>Consolidated budget primary surplus</strong></td>
<td>5.6% of GDP (2005)</td>
</tr>
<tr>
<td><strong>Public Sector Primary Surplus (IMF Definition)</strong></td>
<td>6.5% of GDP (2005)</td>
</tr>
<tr>
<td><strong>Consolidated Budget External Debt Stock</strong></td>
<td>$64.5 billion (end-December 2005)</td>
</tr>
<tr>
<td><strong>Consolidated Budget Domestic Debt Stock</strong></td>
<td>$182.4 billion (end-December 2005)</td>
</tr>
<tr>
<td><strong>Central Government External Debt Stock</strong></td>
<td>$65.4 billion (end-February 2006)</td>
</tr>
<tr>
<td><strong>Central Government Domestic Debt Stock</strong></td>
<td>$187.9 billion (end-February 2006)</td>
</tr>
<tr>
<td><strong>International (net) reserves</strong></td>
<td>$52.4 billion (end-2005)</td>
</tr>
<tr>
<td><strong>Central Bank Interest Rates</strong></td>
<td>Borrowing Lending Overnight 17.25% 20.25% Late Liquidity 13.25% 23.25% (as of June 25, 2006)</td>
</tr>
<tr>
<td><strong>Change in stock-market (IMKB)</strong></td>
<td>+62.6% in $ terms (2005)</td>
</tr>
<tr>
<td><strong>Population aged 15 and over</strong></td>
<td>51.2 million (2005) (about 71% of total population)</td>
</tr>
<tr>
<td><strong>Civilian Force</strong></td>
<td>24.03 million (December 2005)</td>
</tr>
<tr>
<td><strong>Civilian Employment</strong></td>
<td>21.33 million (December 2005)</td>
</tr>
<tr>
<td><strong>Civilian Unemployment rate</strong></td>
<td>11.2% (2005)</td>
</tr>
</tbody>
</table>

(*) International Reserves=Central Bank’s “Gross Reserves + Gold - Overdrafts” + Banks’ “Net Reserves”

(**) $: US Dollars

Last updated 25 June 2006

Source: London Embassy of Turkey, Office of Economic Counsellor
II.3.1.2. Past developments
For some decades, Turkish economy used to be characterised by the followings and the economic conditions worsened much especially in the early 1990s: Long-time high inflation rates, high public borrowing requirements leading to high borrowing costs (characterised by soaring real interest rates, very short maturity periods) and crowding-out of private sector direct investments, lack of fiscal discipline in the public sector, lack of transparency and accountability in the public sector, serious structural problems in a wide range of economic sectors such as banking, dominance of the inefficient public sector in major economic sectors, instable political environment, severe economic recessions in 1994, 1999 and 2001, lack of the Central Bank independence by year 2001, economic instability and highly volatile environment.

II.3.1.3. Successful achievements in recent years
The economic programme implemented after the 2001 crisis envisaged comprehensive measures and yielded significant results:

- Many structural reforms regarding banking, telecommunication, energy (electricity, gas, and petroleum) sectors, public procurement, tobacco and alcoholic beverages were implemented; independent regulatory and supervisory authorities were set-up.
- As part of the banking reform launched in the early 2000’s, the Banking Regulatory and Supervisory Authority was set up; the State Banks were restructured; these measures yielded favorable outcomes in a very short time: the capital adequacy ratio of the banking system surmounted 30%; the banking sector gained comparatively significant profits for the four consecutive years 2002-2005.
- The functions of the Central Bank of the Republic of Turkey (CBRT) were enhanced. The CBRT was made independent in May 2001 and floating exchange rate regime was introduced. Thus, exchange rates have been determined by market conditions with interventions by the CBRT foreign exchange auctions where needed time to time. By end-2005, the CBRT started implementing implicit inflation targeting, in which main policy tool is short-term interest rates for which decisions are to be based only on inflation outlook. As of 2006, formal inflation targeting has been started.

| Table 3: Selected Medium-term Macroeconomic Indicators |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|
| GNP Growth                      | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Investment (% of GDP)           | 18.4 | 16.7 | 15.6 | 17.9 | 17.9 | 18.3 | 18.7 |
| Public                          | 5.7  | 5.4  | 4.2  | 3.7  | 3.7  | 3.8  | 3.9  |
| Private                         | 12.7 | 11.4 | 11.4 | 14.1 | 14.2 | 14.5 | 14.8 |
| CPI Inflation                   | 68.5 | 29.7 | 18.4 | 9.3  | 8.0  | 5.0  | 4.0  |
| Nominal Interest Rate           | 99.1 | 63.5 | 44.1 | 24.9 | 16.5 | 13.8 | 12.8 |
| Real Interest Rate1/            | 35.5 | 30.3 | 30.2 | 14.2 | 9.5  | 9.0  | 8.5  |
| Current Account (billion $)     | 3.4  | -1.5 | -8.0 | -15.5| -21.3| -22.0| -20.8|
| Exports (f.o.b)                 | 34.4 | 40.1 | 51.2 | 67.0 | 76.1 | 82.6 | 90.6 |
| Imports (f.o.b)                 | -38.1| -47.4| -65.2| -90.9| -108.1| -117.0| -124.5|
| Capital Account (billion $)     | -14.6| 1.2  | 7.1  | 17.0 | 27.4 | 31.5 | 21.7 |
| FDI                             | 2.8  | 0.9  | 1.2  | 1.9  | 3.7  | 8.2  | 5.3  |
| Overall Balance (billion $)     | -12.9| -0.2 | 4.1  | 4.3  | 11.4 | 9.3  | 0.9  |

1) Computed as the average of the monthly rates deflated by 12 month ahead CPI inflation-Source: World Bank

- After the new elections in 2002, the new Government devoted itself to fiscal discipline and economic reforms as well as active constructive international affairs. EU accession was targeted by the Government as the policy of first priority. Participation of social partners in decision making and policy formation processes was encouraged. Better coordination among economic institutions was enabled. Re-inventing the Government,
enhancing the private sector participation in all economic sectors, and privatisation became three of the high-priority issues on the agenda of the Government.

- The policymakers in public sector successfully worked with international organisations such as IMF and the World Bank. The last Stand-by Agreement with IMF was successfully implemented.¹

- Within the context of the accession process to EU, Turkey experienced a vast transformation. The Constitution, hundreds of laws, lots of regulations were amended to converge to the EU norms. Turkey met all of the Copenhagen Criteria, the political criteria which are the pre-requisites and negotiations towards full EU membership started on October 3, 2005. Turkey expects to be entitled to a full-membership within 7-to-10 years.

Turkey has been on a promising trend of growth in the last 4 years. In 2005, GDP was $361 billion, which suggests that the Turkish economy became the sixteenth biggest economy among 30 OECD countries. GNP per capita in 2005 was $5,016. Real economic growth rate (based on GNP- production approach) was 7.6% in year 2005. Thus, a cumulative growth rate of more than 34% attained in the period 2002-2005 is the biggest four-year-period growth figure in last couple of decades. The real GNP based growth figures in 1971-2005 suggest that GNP grew by 322%; the industry sector grew by 628% whereas the services sector grew by 451%. Unfortunately, the agriculture sector grew by just 51% in the referred 35 years.

In the past four years Turkey has also experienced remarkable disinflation (from an average of 70.4% in the period of 1993-2002 to single-digit rates) as well as a marked decline in the volatility of inflation. Inflation rate, measured by the consumer price index, declined from an average of 70.4% in the period of 1993-2002 to 7.7% at the end of 2005, the lowest reading in over three decades. Nevertheless, the most recent developments in the economy hint that the inflation figure may exceed the official target of 5%. The sharp decline in the inflation rate may also be observed clearly in the graphics below.

**Figure 1: Inflation rates**

¹ It is important to note that Turkey experienced 17 unsuccessful Stand-by arrangements before the 18th one which was successfully completed in February 2005. This last arrangement also is one of the most successful Stand-by implementations IMF has ever experienced. Currently the 19th arrangement is being implemented and will be finalised in the first quarter of 2008.
As for the balance of payments, increases in imports and exports in 2005 were slower than those in 2004. Thus, the foreign trade deficit, which was USD 23.9 billion in 2004, was on the increase at USD 32.6 billion in 2005. The rise in tourism revenues restricted further expansion of the current account deficit. Accordingly, the current account deficit increased to USD 22.9 billion in 2005.

Increase in imports mainly stemmed from imports of intermediate goods including fuels. The increase in textile exports in 2005 was 7.5%. Both exports and imports were highly influenced by price increases in 2005. Export prices increased by 4.7 %, while import prices rose by 7 % compared to the previous year. The real increase in exports and imports, on the other hand, became 8.1% and 10.7%, respectively. The impact of prices was much stronger in crude oil, the metal industry, communication devices and food sectors due to their comparatively higher shares in trade.

Excluding IMF loans and official reserve changes (CBRT + banks), capital inflow amounted to $44.3 billion in 2005. In this period, portfolio investments, long-term credits used by the private sector and banks and trade credits became the primary determinants of the financing structure.

FDI (net) inflow in 2005 reached $9.7 billion. In this period, net long-term and short-term capital inflows, excluding portfolio, direct investments and IMF loans, were realised as $13.4 and $8.6 billion, respectively. As a result, the Central Bank’s reserves increased by $17.8 billion while the banks’ reserves grew by $0.3 billion in 2005.2

2 Republic of Turkey, London Economic Counselor website.
II.3.1.4. Future perspectives

Pursuant to the Government's EU pre-accession strategy issued in November 2004 and the budget for 2005-2007, the Government is committed to maintain prudent fiscal policies. It is keen on a robust monetary framework to maintain price stability, floating FX regime, and successfully implementing formal inflation targeting. The Government has vowed to deepen the structural reforms, some of which are outlined below:

- Coping with informal sectors (unregistered economy): Unregistered economy accounts for up to 30-40% of the volume of registered economic activities. Coping with the unregistered economy is of high priority; leading to increased tax revenues and social insurance contributions, and hence improved public finance as well as enhanced competition and fair trade.

- Enhancing private sector participation and privatisation: Privatisation proceeds of about US$20 billion in 2005 surpassed total privatisation revenues obtained in last 20 years. State stakes in Turkish Telecom, Turkish Oil Refineries Company (TUPRAS), National Steel and Iron Production Company (ERDEMIR) and cement factories were all privatised in 2005. Privatisation of the ports of Turkey started in 2005. The tender for TELSIM, the second largest mobile operator of the country, was concluded in 2005. In near term, many valuable assets including electricity generation and distribution assets, public banks, National Lottery, etc. will be privatised and an all-time privatisation revenue record is expected.

- Monetary policies: The Government is very keen on the independence of the Central Bank (CBRT) and CBRT will continue to play its key role in Turkish economy. The free floating exchange rate regime will be maintained.

- Handling the current account deficit: The Government is aware of the significance of the level of current account deficit and is expected to take necessary measures to bring this parameter down to reasonable levels.

- The Government is also keen on transforming all important economic sectors into fully competitive markets and assuring the independence of relevant regulatory and supervisory authorities.

- Foreign direct investments and portfolio investments (net inflows) in Turkey are expected to increase substantially in near and medium terms. An FDI inflow of approximately $25-30 billion is estimated in 2006-2007.³

II.3.1.5. Development Plan (2006-2013)

In terms of macroeconomic targets of development, Turkey has committed itself to tight monetary, fiscal and income policies, and had adopted a determined attitude towards structural reforms. Since 2002, GDP grew at an annual average at 7.5%, thus increasing per capita income from $2,979 in 2000 to $5,042 in 2005. Economic growth was driven by the private sector, with productivity increases playing the dominant role. The Development Plan outlines the major steps for further development.

Concerning the energy sector, the Development Plan highlights the privatisation of power generation facilities and the distribution system. It also puts stress on supply security, a more balanced resource diversification, with prospective increase in indigenous and renewable energy resources use.

³ Source: Undersecretariat of Treasury.
The Plan gives priority to private sector in bridging a possible supply-demand electricity gap in the coming years. As a principle, the Plan has adopted the avoidance of cross-subsidies in the electricity sector, so that fair market signals are transmitted to private investors. Nuclear energy will be developed in a free market environment. Electricity trade with other countries is expected to also improve security of supply.

In the gas sector, the Plan calls for the taking of the necessary measures to complete the construction of transit pipelines, and become actively involved in gas sales to Europe.

The Plan provides for the set-up of a stock agency to protect the adequacy of emergency supply stocks in oil. Sufficient construction of natural gas storage facilities will be ensured.

The Plan addresses the demand side as well, by following the principle of shifting towards higher value-added industries and services.

**II.3.2. Foreign Direct Investment**

**II.3.2.1. Overview**

There has been a considerable increase in the number of companies with foreign capital since the new “Foreign Direct Investment Law” came into force on June 17, 2003. Those established between this date and June 2006 shows an increase of 130% compared to those before June 17, 2003.

According to data, 7,153 out of 13,351 companies are of EU origin, in which Germany leads with 2,338 companies followed by the United Kingdom with 1,147 companies, and Holland with 1,052 companies. On the other hand the total amount of FDI inflows in 2005 reached $9.65 billion, with an increase of 239%, compared to $2.85 billion in 2004. For the period between January and June 2006, total FDI flows into Turkey have already reached $8.8 billion, i.e. a sixfold increase relative to the same period of 2005, when inflows were $1,215 million.

The involvement of foreign capital is highly encouraged in Turkey's privatisation programme, South-East Anatolian Project (GAP) and major infrastructure projects. Petroleum and natural gas pipelines from the Russian Federation and CIS countries place Turkey at the crossroads of world's future energy resources. Turkey invites international investors from all countries and business sectors to take place in such a promising investment environment.

Turkey views foreign direct investment as vital to the country's economic development and prosperity. Accordingly, Turkey has one of the most liberal legal regimes for FDI in the OECD. Areas open to the Turkish private sector are generally open to foreign participation and investment.

The equity participation ratio of foreign shareholders is restricted to 25% in broadcasting and 49% in aviation and maritime transportation. However, companies receive full national treatment once they are established. Establishment in financial services, including banking and insurance, and in the petroleum sector requires special permission from the government for both domestic and foreign investors. In practice, regulators have not restricted foreign ownership in the financial sector: in 2005 and the first half of 2006 a series of foreign acquisitions in the sector were approved, and several foreign financial houses had longstanding operations in Turkey.
Turkish law guarantees the free transfer of profits, fees and royalties, and repatriation of capital. There is no difficulty in obtaining foreign exchange, and there are no foreign exchange restrictions. Therefore, regarding the capital transfers there is no reasonable ground for the investors to be concerned of.

II.3.2.2. The New Foreign Direct Investment Law

The new Foreign Direct Investment Law is an integral part of a broader national reform programme that is laying the foundation for sustainable growth and development, driven by private investments in a transparent marketplace fully open to the world and supported by a smaller but more effective State. To ensure that Turkey’s bold fiscal adjustment and ambitious structural reforms translate into substantial investments, the Government of Turkey is focusing on improving the investment climate as one of the main pillars of its economic programme. In addition to the introduction of a more investor-friendly new Law, the Government of Turkey has established by decree an inter-governmental Coordination Committee for the Improvement of the Investment Climate (YOIKK), composed of high-level representatives of relevant ministries, the private sector and NGOs to help remove remaining bureaucratic obstacles to investment. The Government of Turkey has also set up a well-funded new Investment Promotion Agency simultaneously able to work inside government and draw on private sector knowledge and market skills, to carry out a multi-year strategy to promote investment in Turkey.

The Turkish Investment Support and Promotion Agency will determine the support and promotion strategies aimed at encouraging investments in Turkey in order to increase the investments required for the Turkish economic development. The agency, which will work as an institution relevant to the Prime Ministry, will determine and implement the investment support and promotion strategy at national level in cooperation with the development agencies and other related institutions. It will design and present the information and guidance services for the investors. It will provide all information and data which will facilitate investments in Turkey.

Key features of the new Foreign Direct Investment Law include:

- Freedom to invest by dropping all former FDI-related screening, approval, share transfer and minimum capital requirements;
- Reassurance of existing guarantees to foreign investors of their rights in one transparent and stable document;
- Upgrading to accepted international standards for definitions of ‘foreign investor’ (broadened to include Turkish national residents abroad and international organisations) and ‘foreign direct investment’ (broadened to include all possible types of assets); and
- A policy shift from ex-ante control to a promotion and facilitation approach with minimal ex-post monitoring to continuously improve an investor-friendly climate for growth and development.

The new Law guarantees national treatment and comprehensive investor rights. All companies established with a foreign capital contribution and under the rules of the Turkish Commercial Code (existing and newly established foreign companies) are regarded as a Turkish company. Therefore equal treatment both in rights and responsibilities as stated in the Constitution and other laws is applicable to all such companies (including national treatment, a guarantee against expropriation without compensation, transfer of proceeds,
access to real estate and to expatriate personnel, and international arbitration or any other means of dispute settlement).

Entry conditions specific for foreign companies have been abolished and currently are the same as for comparable local Turkish companies. There is no minimum amount of capital required. It is no longer obligatory to bring a minimum of $50,000 in share capital. Any form of company included in the Turkish Commercial Code is acceptable. It is no longer obligatory to establish either a limited liability company or joint stock company.

Companies having a legal entity with foreign capital in Turkey have the same rights to own or use land as domestic investors. The new Law reassures these rights. However, the principle of reciprocity is still valid for foreign real persons.

II.3.2.3. Investment Advisory Council (IAC)

Turkey has established an Investment Advisory Council with the aim of creating a forum which brings all major industry representatives and Turkish high level governmental authorities to discuss issues pertaining to foreign direct investment. It is targeted to eliminate obstacles and promote cooperation and understanding between the investors and the local bureaucracy.

The first meeting of the Investment Advisory Council for Turkey (IAC) brought together the heads of 19 international companies, the country’s four leading business associations, the World Bank Group and the International Monetary Fund to share perspectives with the Prime Minister and relevant ministers on how Turkey could enhance its competitive position in the world economy on March 15th, 2004. In line with the priorities set by the IAC, a discernible progress has been made in improving the investment climate.

The second meeting, attended by CEOs of 19 multinational companies from 11 countries, was held in Istanbul on April 29th, 2005. The IAC meeting received a wider attention worldwide and was attended by guests from the major international organisations such as the president of IMF, the deputy president of World Bank and the president of European Investment Bank. The third IAC meeting was held in Istanbul on 29 June 2006.

In its 2005 meeting IAC advised on over a dozen key areas that need to be addressed to improve the investment environment. The IAC report of 2005 expressed satisfaction with the outcomes of policies implemented in line with the IAC suggestions. Significant achievements included:

- Unprecedented success in implementing the privatisation programme, resulting in record high levels of revenues;
- Acceleration of comprehensive tax policy reforms;
- Passage of landmark social security reform legislation;
- Reduced administrative barriers to investment, particularly the streamlining of work permit procedures for foreign investors;
- Progress in establishing an investment promotion agency.

These policies were expected to bring about an upswing in international investment. The results have far exceeded the expectations. International direct investment in Turkey soared to US$9.7 billion in 2005, compared to an annual average of US$1.1 billion in the decade

The Investment Advisory Council of Turkey met for the third time on June 29, 2006, under the chairmanship of Prime Minister Mr. Recep Tayyip Erdogan. The meeting brought together IMF’s First Deputy Managing Director, the World Bank’s regional Vice President, the President of the EIB, along with the heads of 18 multinational companies and Turkish leading business associations.

At the end of the meeting, the Council members declared an unanimously agreed “Statement of Outcomes” to the public. In the declaration, the Council members praised the achievements of the Government on implementing the reform programme. The Council Members stated their confidence in the Government’s commitment to maintain a favorable investment climate and reaffirmed their intentions to further increase their investment and growth plans in Turkey.

II.3.2.4. A Snapshot on the Recent Implementations within the FDI Reform Context:

Tax policy reforms were introduced aimed at creating a simpler and more stable tax regime more consistent with the EU norms:

- A Tax Council consisting of members from government agencies, universities, and non-governmental institutions has been established to help develop a comprehensive tax reform.
- The corporate tax rate has been reduced from 30% to 20% in 2006 and Turkey’s competitiveness in terms of corporate tax rates has been strengthened.
- Application rules on the new legislation allowing taxpayers to deduct 40% of R&D expenses directed exclusively at new technologies and knowledge have been determined.
- 13 more provinces have been added into the incentive scheme whereby entrepreneurs who invest and produce, have some special rights like the reduction of tax and insurance premiums, energy support and free land allocation.

Corporate governance of companies in Turkey was strengthened, to increase their global competitiveness and enable linkages between local and foreign firms:

- Turkey, issuing “Corporate Governance Principles” aligned with those of the OECD, has been listed among the fifteen top reformer countries in the area of investor protection by the World Bank’s “Doing Business” Report.
- The companies listed in the Istanbul Stock Exchange are required to issue their “Corporate Governance Compliance Report” in their annual reports.
- The Board of the Istanbul Stock Exchange is developing of Corporate Governance Index for the listed companies which comply with the principles of corporate governance.
- Turkey has been selected as a pilot country in the OECD Pilot Study of Corporate Governance.
- The companies listed in the Istanbul Stock Exchange are required to comply with the International Standards of Financial Reporting.

4 Source: Undersecretariat of Treasury.
• The Steering Committee of the Coordination Council for the Improvement of the Investment Environment (YOIKK) set up a new Technical Committee to work on corporate governance under the chair of the Capital Markets Boards of Turkey.

**Continuous reduction for administrative and bureaucratic barriers to investment including streamlining work permit procedures:**

• New regulations on “Opening a Business Place and Work License” have reduced the required number of documents from 52 to 6 for licensing of sanitary business place and from 43 to 7 for licensing of non-sanitary business place.

• The Environmental Impact Assessment (EIA) Report and affirmatory EIA document issued for the business facilities which require EIA have accepted to replace the required Site Selection and Facility Establishment Report.

• The number of documents required to obtain an Opening License has been reduced from 18 to only 2.

• The law on establishment of development agencies regulating the formation of the Investment Support Offices which will assist investors in obtaining necessary permissions and provide coordination in legal procedures, entered into force in February 2006.

• The law concerning the establishment of Investment Promotion and Introduction Agency of Turkey has entered into force on July 4, 2006;

• Regarding foreign employees’ work permits, works aiming at reducing the evaluation period of the work permit applications and decentralising the authority of issuing work permits, are in progress.

**Privatisation programme was accelerated:**

• Turkey has implemented a total of US$8.2 billion worth of privatisations in 2005.

• Oger Telecoms Joint Venture Group submitted the highest bid for Turk Telekom with US$6.55 billion for 55% of the shares.

• The Koc-Shell Consortium bid US$4.14 billion for 51% of the shares of TUPRAS.

• Oyak Group gave the highest bid with US$2.77 billion for 46.12% of the shares of ERDEMIR.

**Increased efficiency and accelerated pace of court procedures:**

• The new Turkish Commercial Code has been drafted and submitted to the Grand National Assembly of Turkey.

• By the end of 2006, the National Judicial Network Project (UYAP) will be completed within the framework of the automation and integration process of the judiciary units.

**Liberalisation programme in the energy sector was continued:**

• The enforcement of the provisional contracts which is to be signed with 21 regional based distribution groups is being regarded as one of the most important topics in the liberalisation process of the energy sector in 2006. Those contracts were signed in June 2006.

• Legal amendments in Electricity Market Law have been made to facilitate the way for privatisation in this sector.
• Liberalisation process of the natural gas market started in 2001 and continues;
• The completion of the Turkey-Greece and Turkey-Bulgaria-Romania-Hungary-Austria (NABUCCO) natural gas pipelines will result in the first international interconnection of natural gas through Turkey.

Reform of the social security system accelerated:
• In the framework of social security reform process, a package of three reform law has been prepared. The Laws on Social Security Institution and Pension and General Health Insurance have been approved by the Grand National Assembly of Turkey in April 2006. Works are underway on the draft law of Social Benefits and Services.

Research and Development base of the country has been strengthened:
• The “Science and Technology Policies Implementation Plan” adopted by the Supreme Council for Science and Technology describes seven strategic targets for the period of 2005-2010.
• The 2006 budget of the Scientific & Technological Research Council of Turkey (TUBITAK) has been increased to US$715 million for 2006, representing a 63% increase when compared to the budget of the previous year.
• The amount of direct supports given by TUBITAK for R&D projects has been increased to US$266 million for the year 2005.
• In 2005, US$68 million was allocated to universities as Scientific Research Project Support.

Further Investment in education and training:
• Education has received the highest budget allocation in 2006 among all public services like in 2005 and has been allocated 12.4% of total public expenditures.
• In 2004-2005 term, an increase in the schooling rates has been attained.
• Starting from the 2005-2006 term, secondary schooling period has been increased to 4 years.
• A Draft Bill on the establishment of 15 new universities was approved by the Grand National Assembly of Turkey.
• The number of schools and institutions with internet access has reached to 21,000 as of December 2005, representing a seven-fold increase when compared to March 2004.

Intellectual Property Rights were protected more effectively:
• Appointment of judges trained in Intellectual Property Rights (IPR) issues to the specialised IPR courts along with new legislative amendments in 2004 made the courts more effective in combating against piracy in Turkey.
• Original products which were licensed for the first time in the Customs Union area after January 1st, 2001, and have neither a patent nor a generic application in Turkey have been given the right of data exclusivity for 6 years.
The SME supply chain was improved by enabling better access to (and diversification of) SME support mechanisms:

- The study on the definition of small and medium sized enterprises (SMEs) has been finalised and a definition in line with the EU legislation has been adopted.
- A web portal for the SMEs was launched in February 2005.
- To give a strategic insight to SMEs, Small and Medium Industry Development Organisation (KOSGEB) initiated a Strategic Road Map Application.
- To improve the technological base of SMEs, cooperation has been initiated with the universities.

II.3.2.5. Tax Regime

In Turkey, a multi-tax system is applied. The Turkish tax regime can be classified under three main headings:

A) Income Taxes:
- Corporate Income Taxes
- Individual Income Taxes

B) Taxes on Expenditure:
- Value Added Tax
- Special Consumption Tax
- Banking and Insurance Transaction Taxes
- Stamp Duty
- Special Communication Tax
- Tax on Wagering
- Tax on Customs

C) Taxes on Wealth
- Inheritance and Gift Taxes
- Property Tax
- Motor Vehicle Tax

Recent legislative changes have been introduced to pursue a tax policy reform aimed at creating a simpler and more stable tax regime more consistent with the EU. The Ministry of Finance has started works on redrafting the tax laws with a different perspective in order to have a more modern and efficient tax system. The main objectives of these works are:

- to fight against an informal economy that destabilises the competitive environment;
- to make the tax system simple, comprehensible and predictable;
- to stabilise tax policies.

Recognising that the informal economy causes unfair competition, prevents a reduction of the general tax burden and distorts market forces, the Government has taken a number of measures aimed at reducing informality:
• The 10 point reduction at corporate tax rate aims in part to prevent the informal economy and increase the competitive power of private businesses.

• While the tax laws are being redrafted, works to integrate the tax security institutions within the existing system are underway.

• In order to raise public support for measures to prevent the informal economy, activities are being organised in cooperation with public institutions to establish and develop a social consciousness on tax issues, to provide a more sound base upon which the relations between tax administration and taxpayers are founded, and to strengthen the habit of tax payment among all segments of the society.

The problems in the economy caused by informality are priority issues on the public and private sectors’ agenda. All means of cooperation between the public and private sectors are being activated on measures to fight against informality.

• The Tax Council has been established to reflect views and recommendations of all relevant stakeholders on the formulation and implementation of taxation policies. The Council, which has 50 members from government agencies, universities and nongovernmental institutions, contributes to the government’s efforts to develop a comprehensive tax reform aimed at achieving a simple, predictable and systemised tax system.

• The corporate tax rate which had been reduced by 3 points as of January 1, 2005 to 30%, has been reduced to 20% (representing a reduction of 10 points) as of the beginning of the year 2006. The new Law enacted in June 2006 reduces the corporate tax rate from 30% to 20% while re-regulating the earnings exempt from tax and the reductions. The new arrangement, providing Turkey a better ranking among competing countries in terms of corporate taxation rates, aims at decreasing the tax burden on investors and provides a disincentive to taxpayers who had hitherto leaned towards informality because of the high corporate tax rate.

• The highest rate in the personal income tax, 40% has been reduced to 35%. Effective after January 2006, the personal income taxation scheme has also been redefined. The scheme applied to income and other types of taxation has been unified and previously applied five tax brackets have been reduced to four.

According to the new taxation regime which came into force as of January 1st, 2006, the gains derived from the alienation and the retention of the marketable securities and other capital market instruments, and the interest income from bank deposits, repo gains and the income that is derived from the private finance institutions are being taxed at a flat rate (15%) by withholding. For purposes of this taxation regime, there is no distinction between the resident and non-resident taxpayers. Nevertheless, after the most recent turbulence in the Turkish economy in line with the world markets, this policy has been revised to exclude the foreigners to be subject to 0% withholding tax for capital market gains while keeping the previous rate for nationals, thus creating a special favorable regime for the foreigners.
The latest amendment in the Income and Corporate Tax Law which went into effect on July 31st, 2004 enables the deduction of R&D expenses from the income/corporate tax base. This new legislation allows taxpayers to deduct 40% of R&D expenses directed exclusively at new technologies and knowledge from income, declared in their annual statement.

Table 4: Tax brackets

<table>
<thead>
<tr>
<th>Scale</th>
<th>Tax Rate (%)</th>
<th>Scale</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTL 0-6,600</td>
<td>20</td>
<td>Up to YTL 7,000</td>
<td>15</td>
</tr>
<tr>
<td>YTL 6,600-15,000</td>
<td>25</td>
<td>From YTL 7,001 to 16,000</td>
<td>YTL 1,050 + 20% of the excess over YTL 7,000</td>
</tr>
<tr>
<td>YTL 15,000-30,000</td>
<td>30</td>
<td>From YTL 16,001 to 40,000</td>
<td>YTL 2,850 + 27% of the excess over YTL 16,000</td>
</tr>
<tr>
<td>YTL 30,000-78,000</td>
<td>35</td>
<td>Over YTL 40,000</td>
<td>YTL 9,330 + 35% of the excess over YTL 40,000</td>
</tr>
</tbody>
</table>

Regulation for implementation was promulgated in February 20th, 2005. In February 2006, a Declaration of Taxpayers’ Rights was published for the first time ever in Turkey. The Declaration affirms the Turkish Revenue Administration’s devotion to work with the principles of respect and honesty, within the concept of taxpayer-focused and qualified service, and to solve problems in order to satisfy everyone who receives service with the...
consciousness that tax paying is not only a responsibility but also conveys rights to citizens, including a right to inquiry.

In addition to the 36 provinces with a income per capita below US$1,500, where entrepreneurs who invest and produce, have some special rights like reduction in tax and insurance premiums, energy support and free land allocation, 13 more provinces have been covered by this same incentive scheme through a new legislation that went into effect in May 2005. With the entry of the relevant regulation into force, now 49 provinces in total benefit within the framework of these incentive schemes.

Turkey has double taxation avoidance agreements in force with 61 countries. New agreements with Morocco, Lebanon, South Africa, Bosnia-Herzegovina, Qatar, Portugal, Ethiopia, Serbia and Montenegro, Yemen, Bahrain have been signed recently and these agreements are expected to enter into force soon. Effort to enlarge the network of double taxation agreements continue with ongoing negotiations with additional eight countries.

II.3.2.6. Bilateral Free Trade Agreements

As of today, Turkey has signed preferential trade agreements with 19 countries. In accordance with the provisions of the Association Council Decision No.1/95 dated 6 March 1995, Turkey shall align itself progressively within five years starting from 1.1.1996, with the Preferential Customs Regime of the EU, which is based on sets of autonomous regimes and preferential agreements. Article 16 of the Association Council Decision and its Appendix No. 10 set out the rules and modalities for this alignment. They also stipulate that Turkey take the necessary measures and negotiate agreements on a mutually advantageous basis with the countries concerned. Turkey will give priority to setting up preferential agreements with countries where existing agreements with the EU are already in place. Within the context of the Association Council Decision, Turkey has stated that priority will be given to preferential agreements with the following countries: Hungary, Bulgaria, Poland, Romania, Slovakia, the Czech Republic, Israel, Estonia, Latvia, Lithuania, Slovenia, Morocco, Tunisia, Egypt and Malta.

To date, The Turkish Government has signed 19 preferential trade agreements. The Free Trade Agreement between Turkey and the EFTA States which came into force in April 1992 was the first step on the way to the adoption of the preferential regimes of the EU.

Other FTAs (Free Trade Agreements) are listed chronologically as follows: Israel (May 1997), Romania (Feb. 1998), Lithuania (March 1998), Hungary (April 1998), Estonia (July 1998), the Czech Republic (Sept. 1998), Slovakia (Sept. 1998), Bulgaria (Jan 1999), Poland (May 2000), Slovenia (June 2000), Latvia (July 2000), Macedonia (Sept. 2000), Croatia (July 2003), Bosnia and Herzegovina (July 2003), The Palestine Autonomous Administration (June 2005), Tunisia (July 2005), and Morocco (January 2006). The FTA with Morocco was signed in Ankara on 7th April 2004. The Association Agreement establishing a Free Trade Area between Turkey and the PLO for the benefit of the Palestinian Authority was signed in Istanbul on 20th July 2004, before the Fourth Euromed Trade Ministerial Conference. The Association Agreement establishing a Free Trade Area between Turkey and Tunisia was signed on November 25, 2004. The Association Agreement establishing a Free Trade Area between Turkey and the Syrian Arab Republic was signed on December 22, 2004. The FTA with the Arab Republic of Egypt was signed in Ankara on December 27, 2005.

As a result of the accession of Lithuania, Hungary, Estonia, the Czech Republic, Slovakia, Poland, Slovenia and Latvia as full members of the EU, FTAs between Turkey and these countries came to an end after April 30, 2004.
FTA negotiations still continue with Egypt, the Faroe Islands, Lebanon, Albania, and the Republic of South Africa.

II.3.2.7. Bilateral Investment Treaties

Bilateral Investment Treaties (BITs) were signed from 1962 onwards to protect the interests of Turkish investors abroad and attract and promote FDI into the country. The basic aim of the BITs signed by Turkey is to create a favorable investment climate by determining conditions related to direct investments located within the boundaries of the contracting countries.

Turkey has signed bilateral investment treaties with 78 countries and has initiated negotiations with nine countries. Sixty-two of these agreements are now in force, including with the United States, United Kingdom, Germany, the Netherlands, Belgium, Luxembourg, Denmark, Austria, Sweden, Switzerland, Spain, Finland, Italy, Portugal, Hungary, Poland, Romania, Tunisia, Kuwait, Bangladesh, China, Japan, South Korea, Indonesia, Croatia, Cuba, the Czech Republic, Estonia, Russian Federation, Azerbaijan, Kazakhstan, Georgia, Tajikistan, Ukraine, Uzbekistan, Belarus, Lithuania, Latvia, Slovakia, Macedonia, Pakistan, Turkmenistan, Moldova, Kyrgyzstan, Albania, Bulgaria, Argentina, Bosnia, Malaysia, Egypt, Mongolia, Greece, Israel, Afghanistan, Ethiopia, Iran, Lebanon, Slovenia, Syria, Jordan, Morocco, and Serbia.5

II.3.2.8. Outcome of the Legislative Reforms and Implementations - FDI Data

FDI Inflow

According to the balance of payment statistics of the Central Bank of Turkey, total value of inflow reached to $9,650 million in 2005, with a 239% increase relative to the 2004 value of $2,847 million. This also represents an amount six-fold higher than the yearly average of FDI received by Turkey over the previous decade. Detailed information in the table below also illustrates the FDI figures starting from 1995.

<table>
<thead>
<tr>
<th>Year</th>
<th>Equity Capital Inflow</th>
<th>Outflow</th>
<th>Net</th>
<th>Other Capital*</th>
<th>Real Estate (Net)</th>
<th>TOTAL (Net)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>934</td>
<td>-49</td>
<td>885</td>
<td></td>
<td>-</td>
<td>885</td>
</tr>
<tr>
<td>1996</td>
<td>914</td>
<td>-192</td>
<td>722</td>
<td></td>
<td>-</td>
<td>722</td>
</tr>
<tr>
<td>1997</td>
<td>852</td>
<td>-47</td>
<td>805</td>
<td></td>
<td>--</td>
<td>805</td>
</tr>
<tr>
<td>1998</td>
<td>953</td>
<td>-13</td>
<td>940</td>
<td></td>
<td>-</td>
<td>940</td>
</tr>
<tr>
<td>1999</td>
<td>813</td>
<td>-30</td>
<td>783</td>
<td></td>
<td>-</td>
<td>783</td>
</tr>
<tr>
<td>2000</td>
<td>1,707</td>
<td>-725</td>
<td>982</td>
<td></td>
<td>-</td>
<td>982</td>
</tr>
<tr>
<td>2001</td>
<td>3,374</td>
<td>-22</td>
<td>3,352</td>
<td></td>
<td>-</td>
<td>3,352</td>
</tr>
<tr>
<td>2002</td>
<td>622</td>
<td>-5</td>
<td>617</td>
<td></td>
<td>520</td>
<td>1,137</td>
</tr>
<tr>
<td>2003</td>
<td>745</td>
<td>-8</td>
<td>737</td>
<td></td>
<td>17</td>
<td>998</td>
</tr>
<tr>
<td>2004</td>
<td>1,245</td>
<td>-100</td>
<td>1,45</td>
<td></td>
<td>359</td>
<td>1,343</td>
</tr>
<tr>
<td>2005</td>
<td>8,432</td>
<td>-346</td>
<td>8,086</td>
<td></td>
<td>-241</td>
<td>1,841</td>
</tr>
</tbody>
</table>

Source: Central Bank of the Republic of Turkey (CBRT)

Notes: * Credits which companies with foreign capital take from foreign partners

There has been a considerable increase in the number of companies with foreign capital since the Foreign Direct Investment Law No.4875 came into power on June 17, 2003 (Table 7). EU

5 Undersecretariat of Treasury.
is taking the lead in terms of the FDI in Turkey by far (Table 8). The number of companies with foreign capital established between June 17, 2003, and June 30, 2006, is 130% higher than that of the previous years’ total.

Table 7: Number of companies with foreign capital registered by period of time

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4,192</td>
<td>455</td>
<td>484</td>
<td>495</td>
<td>1,105</td>
<td>2,129</td>
<td>2,825</td>
</tr>
</tbody>
</table>

Table 8: Breakdown of foreign capital companies by country of origin

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>End-2005*</th>
<th>Jan-March 2006*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUROPEAN UNION (25)</td>
<td>6,151</td>
<td>445</td>
<td>6,610</td>
</tr>
<tr>
<td>Germany</td>
<td>2,035</td>
<td>140</td>
<td>2,175</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>927</td>
<td>80</td>
<td>1,007</td>
</tr>
<tr>
<td>Netherlands</td>
<td>920</td>
<td>45</td>
<td>965</td>
</tr>
<tr>
<td>France</td>
<td>458</td>
<td>32</td>
<td>490</td>
</tr>
<tr>
<td>Italy</td>
<td>416</td>
<td>27</td>
<td>443</td>
</tr>
<tr>
<td>Other European Countries</td>
<td>1,399</td>
<td>121</td>
<td>1,521</td>
</tr>
<tr>
<td>Other European Countries (excluding EU)</td>
<td>1,430</td>
<td>91</td>
<td>1,521</td>
</tr>
<tr>
<td>Russia</td>
<td>469</td>
<td>27</td>
<td>496</td>
</tr>
<tr>
<td>Switzerland</td>
<td>313</td>
<td>11</td>
<td>324</td>
</tr>
<tr>
<td>Ukraine</td>
<td>106</td>
<td>11</td>
<td>117</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>105</td>
<td>7</td>
<td>112</td>
</tr>
<tr>
<td>Turkish Republic of Northern Cyprus</td>
<td>106</td>
<td>7</td>
<td>113</td>
</tr>
<tr>
<td>Other</td>
<td>331</td>
<td>28</td>
<td>357</td>
</tr>
<tr>
<td>NORTH AFRICA</td>
<td>160</td>
<td>11</td>
<td>171</td>
</tr>
<tr>
<td>OTHER AFRICAN COUNTRIES</td>
<td>67</td>
<td>3</td>
<td>70</td>
</tr>
<tr>
<td>NORTH AMERICA</td>
<td>685</td>
<td>27</td>
<td>712</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>625</td>
<td>25</td>
<td>650</td>
</tr>
<tr>
<td>Canada</td>
<td>60</td>
<td>2</td>
<td>62</td>
</tr>
<tr>
<td>CENTRAL AMERICA and CARIBBEAN</td>
<td>64</td>
<td>2</td>
<td>66</td>
</tr>
<tr>
<td>SOUTH AMERICA</td>
<td>13</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>NEAR and MIDDLE EASTERN COUNTRIES</td>
<td>2,172</td>
<td>117</td>
<td>2,289</td>
</tr>
<tr>
<td>Iran</td>
<td>702</td>
<td>32</td>
<td>734</td>
</tr>
<tr>
<td>Iraq</td>
<td>333</td>
<td>17</td>
<td>350</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>259</td>
<td>27</td>
<td>286</td>
</tr>
<tr>
<td>Syria</td>
<td>216</td>
<td>7</td>
<td>223</td>
</tr>
<tr>
<td>Israel</td>
<td>155</td>
<td>10</td>
<td>165</td>
</tr>
<tr>
<td>Other</td>
<td>507</td>
<td>27</td>
<td>527</td>
</tr>
<tr>
<td>OTHER ASIAN COUNTRIES</td>
<td>802</td>
<td>33</td>
<td>835</td>
</tr>
<tr>
<td>China</td>
<td>240</td>
<td>5</td>
<td>245</td>
</tr>
<tr>
<td>South Korea</td>
<td>103</td>
<td>1</td>
<td>104</td>
</tr>
<tr>
<td>Japan</td>
<td>82</td>
<td>3</td>
<td>85</td>
</tr>
<tr>
<td>Pakistan</td>
<td>50</td>
<td>--</td>
<td>50</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>38</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>290</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>AUSTRALIA and NEW ZEALAND</td>
<td>47</td>
<td>5</td>
<td>52</td>
</tr>
<tr>
<td>OTHER COUNTRIES of OCEANIA and POLAR</td>
<td>90</td>
<td>6</td>
<td>96</td>
</tr>
<tr>
<td>Total</td>
<td>11,691</td>
<td>745</td>
<td>12,436</td>
</tr>
</tbody>
</table>

The Turkish Treasury Undersecretariat has published the FDI statistics for the first half of 2006. Data showed that the number of companies with foreign capital reached 13,351 at the
end of first half of 2006. Majority of the total 13,351 companies with foreign capital is in wholesale and retail trade sectors, while manufacturing, real estate renting and other business activities follow. Textile goods production leads the manufacturing sector investments followed by chemicals and food beverage products. According to data, 7,156 out of 13,351 companies are of EU origin, in which Germany leads with 2,338 companies followed by the United Kingdom with 1,147 companies. On the other hand, total value of FDI inflow in the first half of 2006 reached $8.8 billion, which represents an increase of 626.6% compared to $1.2 billion in the same period of 2005.

<table>
<thead>
<tr>
<th>Years</th>
<th>Million USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>885</td>
</tr>
<tr>
<td>1996</td>
<td>722</td>
</tr>
<tr>
<td>1997</td>
<td>805</td>
</tr>
<tr>
<td>1998</td>
<td>940</td>
</tr>
<tr>
<td>1999</td>
<td>783</td>
</tr>
<tr>
<td>2000</td>
<td>982</td>
</tr>
<tr>
<td>2001</td>
<td>3,352</td>
</tr>
<tr>
<td>2002</td>
<td>1,137</td>
</tr>
<tr>
<td>2003</td>
<td>1,752</td>
</tr>
<tr>
<td>2004</td>
<td>2,883</td>
</tr>
<tr>
<td>2005</td>
<td>9,805</td>
</tr>
<tr>
<td>Jan-June 2005</td>
<td>1,215</td>
</tr>
<tr>
<td>Jan-June 2006*</td>
<td>8,828</td>
</tr>
</tbody>
</table>

* Provisional Data (Source CBRT)

II.3.2.9. Agenda for Future

As clearly identified in the IAC report of June 2006, investment climate improvement in line with the world standards is a continuing activity. Although there has been much already done in Turkey for a better FDI climate, there are obviously more steps to be taken, as well as implement the existing regulations to foster FDI in Turkey. Some of the measures that might be put forward are:

- Continue with privatisation and deregulation to improve competition
- Improve education and training to ensure better alignment with the needs of the private and public sectors
- Increase research and development, innovation, technology adoption and use of quality standards
- Improve infrastructure with a focus on:
  - Logistics: transport and customs processing
  - Continued liberalisation of the energy sector
  - Access to and use of information and communication technology
- Accelerate the reduction of administrative barriers, particularly: licensing requirements, R&D approval processes, limited access to land and restrictions on imports
- Increase the efficiency of judicial processes
- Enhance the efficiency and flexibility of the labour market
- Enhance corporate governance
- Continue the reform of the social security system
• Deepen financial market development, including increasing access to finance, strengthening the regulatory framework for the insurance sector and broadening the equity market
• Improve investment promotion and communication activities
• Continue efforts to reduce the informal economy.

II.3.3. Privatisation

II.3.3.1 Overview

Privatisation endeavour of Turkey has been a strong and sustained commitment of the country dating back decades ago. The striking economic shifts of the 80’s ushered a new era for the world economy, where privatisation became one of the most essential and indispensable financial reforms on the economic agendas of many nations. As one of the fundamental tools of the free market economy, privatisation has been on Turkey’s agenda since 1984.

Privatisation in Turkey not only aims at minimising state involvement in economic activities and relieving the financial burden put by State Economic Enterprises (SEE) on the national budget, but also contemplates the development of capital markets and the re-channelling of resources towards new investments. Turkey has positioned itself as an attractive and promising investment environment through the implementation free trade principles and establishment of dynamic capital markets as well as offering liberal incentives facilitating transactions for international investors and exporters.

The fundamental transformation in Turkish economy has moved the country from an inward-focussed import substitution model towards an export led growth and industrial one. The East-West expansion of the world’s geopolitical horizons has opened up a new era for Turkey with many promising opportunities for international investors. The investment opportunities in Turkey are particularly attractive in the framework of country’s ongoing ambitious privatisation agenda. The involvement and participation of international investors is highly encouraged in the massive privatisation programme. The privatisation process in Turkey, with a view of relieving the burden of state economic enterprises on the national budget, has proved to be an important source of funds for the government and brought tangible results and progress within this philosophy. Although this task has not been easy, many state-owned companies have been transferred to the private sector.

II.3.3.2. Legal Framework

The principles, procedures, authorised agencies and other issues regarding privatisation are set out in the Privatisation Law No. 4046, dated 1994. The Privatisation Law in essence, regulates the principles of privatisation namely:

• expands the scope of assets to be privatised,
• provides adequate framework, funds and appropriate mechanisms to speed up the privatisation and restructuring processes,
• establishes a social safety net for workers who lose their jobs as a result of privatisation,
• establishes Privatisation High Council and the Privatisation Administration to facilitate the decision making process in the privatisation endeavour.
The ‘Law Regarding Making Amendments in Some Laws and in the Decrees With The Force of Law Dealing With Establishment and Duties of the General Directorate Turkish National Lottery’ numbered 4971, prepared in order to speed up privatisation, has been put into effect by being published on the 15th of August 2003. In the framework of the aforementioned Law, stipulations have been placed in order to accelerate privatisation applications through the arrangements that have been made to the Law No. 4046.

This new Law contains the provisions related to;

- The establishment of the "PHC (Privatisation High Council)" and the "PA (Privatisation Administration)" and the determination of their duties, responsibilities, and rights;
- The establishment of the "Privatisation Fund" and the determination of the resources and utilisation fields of such fund;
- The supply of financial and social rights to the personnel contracted at organisations included under the scope of privatisation who might become unemployed as a result of privatisation;
- The personal and social rights of the public employees working for the organisations included within the scope of privatisation;
- Paying "Redundancy Compensation" in addition to other indemnities foreseen in the collective bargaining agreements and/or in the existing laws in relation with potential employment reductions that may occur;
- Not using the proceeds of privatisation for general budget expenditures and/or investments;
- Preventing the negative effects resulting from a monopolistic structure that may occur;
- Procuring of a shareholders' group capable of undertaking the responsibility and authority of management, as well as the expansion of the ownership;
- Creating privileged State shares for strategic fields;
- Not allowing for transfers to public institutions, organisations and to the local administrations during privatisation, unless the necessitated by the sake of national security and/or the best interest of the public.

Under the Privatisation Law No. 4046, privatisation process is carried out by two bodies:

- Privatisation High Council
- Privatisation Administration.

The Privatisation High Council (PHC) is the ultimate decision-making body for privatisation in Turkey. The Council, headed by the Prime Minister, is comprised of four ministers from the Cabinet.

PHC nominates the organisations for privatisation through taking state-owned economic enterprises in and out of the privatisation portfolio and is responsible from the methodology and timing of the privatisation procedures by approving the final transfer procedure of the organisations to real people or/and legal entities.

The Privatisation Administration (PA) is the executive body for the privatisation process. It is a legal public entity with an exclusive budget, reporting directly to the Prime Minister.
PA’s major duties include the execution of PHC's decisions, advising the PHC in matters related to the transfer of SEE's into or out of privatisation portfolio and restructuring and rehabilitation of SEE's in order to prepare them for privatisation.

II.3.3.3. Principles and Priorities of Privatisation Implementations

PA attaches utmost attention to the expectations and requirements of the public and investors while undertaking privatisation. Within this framework, PA aims at:

- easing the negative effects of unemployment due to privatisation, through a social safety net (employment guarantee);
- increasing participation in the privatisation implementations;
- enhancing transparency of privatisation activities;
- protecting free market from anti-competitive mechanisms and preventing negative effects of possible monopolies;
- enhancing the diffusion of capital into the layers of the society and deepening of the capital markets by increasing the number of participants;
- prioritising the privatisation of state banks;
- securing “public interest” through establishment of “golden shares” in strategic enterprises;
- privatising natural resources exclusively through transfer of management rights.

Entities subject to the Privatisation Portfolio:

- SEE's, their enterprises, associated corporations, operations, operational units and assets, as well as the public shares in their participants, e.g. Etibank, Sümer Holding and Turban;
- Public shares and shares in commercial organisations that are not SEE’s but those where the majority shares rest with the state;
- Public shares and shares belonging to the Treasury;
- Organisations producing goods and services with national and supplemental budgets and their assets (dams, lagoons, highways, hospitals, ports, etc.).

II.3.3.4. Privatisation Mechanisms

Privatisation Methods: Companies within the privatisation portfolio are privatised through the use of one or more of the methods mentioned below:

- Sale: Transfer of the ownership of companies in full or partially, or transfer of shares of these companies through domestic or international public offerings, block sales to real and/or legal entities, block sales including deferred public offerings, sales to employees, sales on the stock exchanges by standard or special orders, sales to investment funds and/or securities investment partnerships by taking into consideration the prevailing conditions of the companies.
- Lease: Grant of the right of use of all or some of the assets of the companies for a defined period of time.
- Grant of Operational Rights
- Establishment of Property Rights other than Ownership
- Profit Sharing Model and other Legal Dispositions Depending on the Nature of the Business.
**Privatisation of Public Services:** Notwithstanding with the provisions of Law No. 4046, governing the strategic sectors, the operational rights of the following can be transferred:

- Administrations with national and supplemental budgets and their properties (dams, lagoons, highways, hospitals, ports, etc.)
- Public Economic Enterprises offering public services as a monopoly
- Enterprises with national and supplemental budgets that are in the form of an exclusive monopoly and/or Public Economic Enterprises serving within the framework of their original establishment tasks.

In order to be able to privatisate the above mentioned public service organisations through a transfer of ownership, separate laws should be adopted for each.

**Other Governmental Bodies in charge of Privatisation:** privatisation of some specific sectors are undertaken by different governmental bodies.

**Value Assessment and Tender Phases of Privatisation:**
Value Assessment Commissions: Value Assessment Commissions are established before each tender according to the provisions set out in Law No. 4046. Value Assessment Commissions employ at least three value assessment methodologies using various criteria regarding the organisation such as its industrial, commercial and social features, service distinction, sector and market specifications, potential future cash flows, production methods, technological structure, movables and immovables and quotation of its stocks in the several exchanges.

Tender Commissions:
Tender Commissions are established before each tender according to the provisions set out in Law No. 4046. The Tender Commission may decide to employ one or more of the tender methods listed below:

- Sealed Bid
- Negotiation
- Public Auction
- Sealed Bid Among Designated Bidders.

**II.3.3.5. Assuring Competition**

To protect consumers, to ensure a well-functioning of market, to meet economic needs of society and for the sake of public benefits, the Turkish Competition Authority is asked for its view on the privatisation transactions to ensure that any violation of competition will not occur after the privatisation.

A pre-notification to the Competition Authority is made in advance of the announcement of tender conditions:

- where the market share of the entity to be privatised exceeds 20%
- where the turnover of the same entity exceeds 20 trillion Turkish Liras
- even though the aforesaid limits are not exceeded, where the entity to be privatised does have judicial or de facto special rights.
In addition to this, the company which takes over any entity shall obtain a permit from the Competition Board before beginning its activities where:

- acquiring parties’ total market share in the relevant product market exceeds 25%;
- acquiring parties’ turnover exceeds 25 trillion Turkish Lira.

Moreover, if the organisation to be privatised operates in one of the following market categories, then PA collaborates with the corresponding regulatory and supervisory authority to ensure the well-functioning of the market after the privatisation:

<table>
<thead>
<tr>
<th>Category</th>
<th>Relevant Regulatory and Supervisory Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>Banking Regulation and Supervision Agency</td>
</tr>
<tr>
<td>Electricity, gas, petroleum</td>
<td>Energy Market Regulatory Authority</td>
</tr>
<tr>
<td>Capital Markets</td>
<td>Capital Markets Board</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>Telecommunications Authority</td>
</tr>
<tr>
<td>Tobacco &amp; Alcoholic Bev.</td>
<td>Regulatory Authority for Tobacco, Tobacco Products &amp; Alcoholic Beverages</td>
</tr>
</tbody>
</table>

According to the Privatisation Law, if more than 49% of the capital shares of the state economic enterprises (SEEs) listed below are decided to be privatised, preference shares must be established in them: Turkish Airlines (THY), Turkish Ziraat Bank, Turkish Halk Bank, TMO (Soil Products Office) Alcoholid Factory, Turkish Petroleum (TPAO refineries).

In addition, the followings are deemed to be ‘concession’ and any contracts relating to these activities (concession contracts) are to be in line with the provisions of the relevant laws: Monopolistic ‘goods and services production’ activities of the organisations with general and annexed budgets and their revolving-fund subordinates; and ‘Goods and services production’ activities of the Public Economic Organisations (PEOs), which are within the context of the relevant establishment laws.

II.3.3.6. Privatisation Implementations

Privatisation in the period of 1985-2005:
Since 1985, state shares in 243 companies, 29 energy generation and distribution units, 4 power generators, 22 incomplete plants, 6 toll motorways, 2 Bosphorus bridges, 1 service unit and 353 real estates and 6 ports have been taken into the privatisation portfolio. Later, 38 of the companies, 4 power generators and 4 real estates were excluded from the portfolio for various reasons. Currently there are 17 companies in the privatisation portfolio.

Finalised Transactions: Privatisations have started in 1984 with the transfer of incomplete plants of the SEE’s to the private sector for completion. In this juncture, 6 plants were
sold to different investors and 9 plants were transferred to municipalities or to state enterprises on book value.

In 1986, implementation has gained momentum and since then, 195 companies have been privatised and no more government shares exist in 186 of these.

Since 1985 until today, total proceed from the privatisation implementations is recorded as USD 25 billion. Total revenue generated from entities within the privatisation programme between 1985-December 2004, together with USD 2.3 billion dividend income and USD 3.4 billion other income, has amounted to USD 14.3 billion. In the same period, total privatisation expenses were USD 13.9 billion. The largest item in privatisation expenditures (with about 98%) is the transfer to Treasury and financing of the companies in the privatisation portfolio in the form of capital increases and loans. Since 1986, more than half of the total privatisation revenue has been achieved in the last two years. As a result, the Privatisation Agency has transferred $6.67 billion to the Treasury out of privatisation proceeds, with the aim of contributing to reducing public debt stock.

Table 11: Privatisation revenue by method deployed

<table>
<thead>
<tr>
<th></th>
<th>1986-2004</th>
<th>2005</th>
<th>2006</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Sale</td>
<td>3,926,793,478</td>
<td>7,054,000,000</td>
<td>7,178,000,000</td>
<td>18,158,793,478</td>
</tr>
<tr>
<td>Asset Sale</td>
<td>1,870,966,352</td>
<td>434,285,986</td>
<td>441,601,123</td>
<td>2,746,853,461</td>
</tr>
<tr>
<td>Public Offering</td>
<td>2,860,019,875</td>
<td>273,719,603</td>
<td>207,820,151</td>
<td>3,341,559,629</td>
</tr>
<tr>
<td>I.S.E. Sale</td>
<td>800,819,126</td>
<td>460,234,642</td>
<td>0</td>
<td>1,261,053,768</td>
</tr>
<tr>
<td>Incomplete Asset Sale</td>
<td>4,368,792</td>
<td>0</td>
<td>0</td>
<td>4,368,792</td>
</tr>
<tr>
<td>TOTAL</td>
<td>9,462,967,623</td>
<td>8,222,240,231</td>
<td>7,827,421,274</td>
<td>25,512,629,128</td>
</tr>
</tbody>
</table>

Figure 2: Privatisation revenue by year
Considering the privatisation implementations for the last 15 years, it can be observed that:

- State completely withdrew from cement, animal feed production, milk-diary products, forest products, civil handling and catering services and petroleum distribution sectors.
- More than 50% of the state shares were privatised in tourism, iron and steel, textile, sea freight and meat processing sectors.
- State has partially withdrawn from the ports and petroleum refinery sector.
- Privatisation of public banks has commenced with Sümerbank and continued with Etibank, Denizbank and Anadolu Bank. The international and domestic offering of the 12.3% state shares in İş Bank in May 1998, has been the largest public offering in Turkey until that time and recorded as one of the largest privatisation proceeds among the emerging European markets.
- Public shares in Netaş and Tofaş were issued to foreign investors through international public offering for the first time, which served as a driving force of the integration of Istanbul Stock Exchange’s (ISE) with foreign capital markets.
- Public shares in many companies were issued to the public, particularly in the beginning of this decade and this enhanced the institutionalisation of Istanbul Stock Exchange.

II.3.3.7. Privatisation Procedure

Basic steps to be followed for privatisation are well-defined and clearly sequenced in the Privatisation Law. The figure overleaf (Figure 3) sketches out the main phases in privatisation.
Figure 3: Privatisation process flow

1. **INCLUSION OF THE COMPANY TO THE PRIVATISATION PORTFOLIO (PHC)**
   - INCLUSION OF THE COMPANY TO THE PRIVATISATION PROGRAMME (PHC)
   - PREPARATION / REHABILITATION OF THE COMPANY (PAC determines the organisations to be assigned)

2. **INCLUSION TO THE PRIVATISATION PROGRAMME**
   - REMOVING THE COMPANY from the PRIVATISATION PORTFOLIO

3. **COLLECTION AND ANALYSIS OF DATA ON THE COMPANIES (PA)**
   - TRANSFER OF THE COMPANY, PREPARATION and APPROVAL of the MAIN CONTRACT (If necessary PA)

4. **SELECTION OF THE ADVISORS (Financial, legal, etc.) (PA)**
   - ADVISORY WORK (3-12 months)

5. **DETERMINATION OF THE PRIVATISATION STRATEGY and IMPLEMENTATION (4-9 months) (PHC)**

6. **SALE**
   - LEASE
   - TRANSFER OF OPERATIONS RIGHTS
   - OTHER

7. **TENDER PROCEDURES, APPROVAL, CLOSING OF DEALS (1-4 months) (PA)**

8. **FOLLOWING UP THE PRIVATISED COMPANIES (PA)**
II.3.3.8. Social and Economic Rights

To prevent social unrest in society which could emerge as a result of privatisation, to prepare workers to better adapt to the post-privatisation conditions and to help workers find good jobs, privatisation law envisages social and economic rights for the employees. Employees who work in organisations in the scope of privatisation (excluding the participations) and whose contracts are terminated in due respect are entitled to redundancy payments in accordance with labour laws and their current collective bargaining agreements. They are paid a special ‘job loss compensation’ under the Privatisation Law in addition to the redundancy payment envisaged by relevant regulations and contracts. Furthermore, they are also given priority for new job opportunities or for training.

II.3.3.9 Upcoming Privatisation Activities in the Energy Sector

In 2006, Turkey envisages the privatisation of 20 electricity distribution companies, to be followed by the privatisation of generation assets. The preparatory work for the privatisation of the distribution companies has been completed and the tender process is to be launched in the second half of 2006. Tenders for three distribution regions have already been announced by late August 2006. A significant portion of the state owned generation assets are also going to be privatised.

II.3.4. Energy Policy

II.3.4.1. Energy Policy Administration

The Ministry of Energy and Natural Resources (MENR) is responsible for the preparation and implementation of energy policies, plans and programmes in coordination with its dependent and related institutions and other public and private entities. It reports directly to the Prime Minister. The MENR has the following tasks and objectives:

- To determine and implement national energy policy objectives.
- To coordinate between the dependent and related institutions and other public and private entities.
- To prepare and/or supervise programmes in conformity with the energy policy.
- To ensure the implementation of the programmes.

The Strategy Development Unit of MENR coordinates the activities of the dependent and related institutions and executes national energy policy.

The General Directorate of Energy Affairs (EIGM) of MENR issues licenses for oil exploration and production. The General Directorate of Petroleum Affairs (GDPA) issues to petroleum right holders all permits related to their activities, including those related to import and export of equipment.
The Electrical Power Resources Survey and Development Administration (EIE) of MENR is assigned to identify the energy potential of water resources and to prepare dam and hydropower plant projects. The EIE carries out various activities in relation to energy efficiency and renewable energy resources. The National Energy Conservation Centre (NECC) within the EIE is responsible for energy efficiency.

State Hydraulic Works (DSI) is the state water agency responsible for the development of all water resources in the country. DSI implements surface and ground water projects and plans, designs, constructs and operates dams and hydroelectric power plants for multi-purpose use.

The Turkish Atomic Energy Authority (TAEK) is responsible for determining the basis of the national policy and the related plans and programmes regarding the peaceful utilisation of nuclear energy; giving approval, permission and license related to the site selection, construction, operation of nuclear installations; executing and supporting research, analyses and studies related with the utilisation of atomic energy.

The State Planning Organisation (DPT) is an advisory body of the Government. It assists the government in determining economic and social objectives and the policies to be adopted. In practice, its major activities concerning the energy sector are the preparation of the five-year development plans together with the MENR and industry and preparing energy demand projections.

The Undersecretariat of Treasury is responsible for coordinating the finance and funding needs of the SEEs in the energy sector, as well as also being authorised to provide state (Treasury) guarantees for the SEEs’ foreign borrowings and under the BOT, BO and TOOR energy contracts previously applied.

After the new market regime was introduced in Turkey, the administrative structure has been evolved. There is a new regulatory organisation as ‘an independent administrative authority’ and there are also several regular administrative institutions in charge of energy which are in the general budget. The Energy Market Regulatory Authority (EMRA) was established as the independent regulatory authority for electricity by the Electricity Market Law in February 2001. After the enactment of the Natural Gas Market Law (May 2001), the Petroleum Market Law (December 2003), and LPG Market Law (March 2005) EMRA was also given responsibilities in the natural gas, oil and LPG sectors.

In addition, the Turkish Competition Authority has rights to issue the authorisations with respect to any merger or acquisition to be carried out in the market under the scope of Article 7 of the Law on Protection of Fair Competition No. 4054.

II.3.4.2. Energy Policy Objectives

Turkey has for a long time been producing five-year development plans for directing its activities in coordination and coherence. Every five years the State Planning Organisation, with the assistance of different ministries and expert organisations from all sectors, including the energy sector, prepares a Development Plan. The most recent one is the Ninth Development Plan for the period 2006-2013. The energy policy objective of this plan, largely unchanged from the previous ones, is to ensure sufficient, reliable and economic energy supplies in order to support economic and social development. (Details given in Section II.3.1.5).
In line with the above, the energy policy has the following pillars:

- Prioritising energy security activities to cope with the increasing demand and import dependence,
- Taking into account the environmental concerns in all stages of the energy chain within the framework of sustainable development,
- Reforming and liberalising the energy sector to increase productivity and efficiency and to enhance transparency,
- Intensifying R&D on energy technologies, and
- Facilitating projects for the transportation of hydrocarbons in the context of the Energy Corridor and Terminal concept.

II.3.4.3. Overview of the Energy Sector and Energy Security

Energy demand in Turkey has been increasing at a rate of 3-4% per annum over the past decades. Turkey has been able to keep supply up with the country’s increasing demand. The government emphasises the importance of ensuring energy security and improvement of environmental quality while encouraging investments in the energy sector. The MENR considers energy security to continue to be a high priority issue for the following reasons:

- The limited domestic energy sources and the (still) limited production capacity of these resources,
- The growing energy demand, and
- The high level of dependence on energy imports, primarily oil and gas.

Net energy imports have been increasing considerably and import dependence is becoming an important issue for Turkey. By the end of 2005, 28% of total primary energy supply was met by indigenous resources. To reduce the supply risks caused by increasing imports, encouraging the use of domestic energy resources is a high priority on the agenda. Another priority is the further diversification in import sources, both in terms of type of energy and its origin. Turkey aims at keeping the import dependency at the current level by 2020.

Figure 4: Supply, Demand and Import Dependency in Turkish Energy Sector

Source: MENR
Table 12: Turkey’s energy balances, 1973-2020

<table>
<thead>
<tr>
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<th></th>
<th></th>
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<td>Hydro</td>
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<td>1.98</td>
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<tr>
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<tr>
<td>Net imports</td>
<td>2.96</td>
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<td>11.25</td>
<td>24.31</td>
<td>37.63</td>
<td>51.98</td>
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</tr>
<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td>0.03</td>
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<td>0.20</td>
<td>0.06</td>
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<td>n/a</td>
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<tr>
<td>Net imports</td>
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<td>0.26</td>
<td>0.18</td>
<td>-0.10</td>
<td>1.40</td>
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<td>-0.12</td>
<td>0.49</td>
<td>-0.30</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Total supply (TPES)</td>
<td>24.51</td>
<td>52.99</td>
<td>74.71</td>
<td>74.28</td>
<td>91.58</td>
<td>126.27</td>
<td>222.43</td>
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<tr>
<td>Coal</td>
<td>5.24</td>
<td>16.38</td>
<td>22.93</td>
<td>21.60</td>
<td>25.56</td>
<td>35.68</td>
<td>80.60</td>
</tr>
<tr>
<td>Oil</td>
<td>12.60</td>
<td>23.90</td>
<td>30.35</td>
<td>30.14</td>
<td>31.14</td>
<td>41.18</td>
<td>60.92</td>
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<tr>
<td>Gas</td>
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<td>n/a</td>
<td>n/a</td>
<td>23.41</td>
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<td>Comb. renewables &amp; wastes</td>
<td>6.41</td>
<td>7.21</td>
<td>6.98</td>
<td>6.72</td>
<td>5.33</td>
<td>4.42</td>
<td>3.93</td>
</tr>
<tr>
<td>Nuclear</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>8.23</td>
<td></td>
</tr>
<tr>
<td>Hydro</td>
<td>0.22</td>
<td>1.99</td>
<td>3.63</td>
<td>2.98</td>
<td>3.40</td>
<td>4.90</td>
<td>9.42</td>
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<tr>
<td>Geothermal</td>
<td>0.05</td>
<td>0.43</td>
<td>0.66</td>
<td>0.69</td>
<td>1.00</td>
<td>1.98</td>
<td>4.81</td>
</tr>
<tr>
<td>Solar/wind/other</td>
<td>n/a</td>
<td>0.03</td>
<td>0.21</td>
<td>0.24</td>
<td>0.39</td>
<td>0.92</td>
<td>1.58</td>
</tr>
<tr>
<td>Electricity trade</td>
<td>n/a</td>
<td>-0.06</td>
<td>0.26</td>
<td>0.18</td>
<td>-0.10</td>
<td>n/a</td>
<td>1.40</td>
</tr>
</tbody>
</table>

| Shares (%) | | | | | | | |
| Coal | 21.4 | 30.9 | 30.7 | 29.1 | 27.9 | 28.2 | 36.2 |
| Oil | 51.4 | 45.1 | 40.6 | 40.6 | 34.0 | 32.6 | 27.4 |
| Gas | 5.9 | 13.0 | 15.8 | 27.2 | 29.5 | 23.2 | |
| Comb. renewables & wastes | 26.1 | 13.6 | 9.3 | 9.0 | 5.8 | 3.5 | 1.8 |
| Nuclear | n/a | n/a | n/a | n/a | n/a | n/a | 3.7 |
| Hydro | 0.9 | 3.8 | 4.9 | 4.0 | 3.7 | 3.9 | 4.2 |
| Geothermal | 0.2 | 0.8 | 0.9 | 0.9 | 1.1 | 1.6 | 2.2 |
| Solar/wind/other | n/a | 0.1 | 0.3 | 0.3 | 0.4 | 0.7 | 0.7 |
| Electricity trade | n/a | -0.1 | 0.3 | 0.2 | -0.1 | n/a | 0.6 |

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Source: Ministry of Energy and Natural Resources, WTO Document WT/TPR/S/125, pp. 94-95

Turkey has diversified oil import sources. Turkey is importing gas from four countries (Russian Federation, Iran, Algeria and Nigeria) at present through six different contracts. Azerbaijan will become the fifth supplier of gas into the Turkish natural gas system upon the completion of the Baku-Tbilisi-Erzurum (BTE) Pipeline by the end of 2006. Coal, principally hard coal, is
imported from diversified sources while domestic production, particularly of lignite, makes a
significant contribution to total coal supply, particularly in the electricity sector.

Turkey has achieved significant progress in establishment of competition oriented sector
structures over the past years. The legal and regulatory framework governing the markets has
been developed in parallel to the EU legislation. The private sector participation is deemed as
an essential tool in achieving the sustainability in growth of the energy sector.

Turkey has been actively participating in initiatives to establish regional markets, such as the
Energy Community of South East Europe and the Med-Ring Project. These initiatives are
expected to increase cross-border electricity and gas trading. Synchronisation of the Turkish
electricity grid with UCTE is expected in 2007. With regard to interconnections with the
neighboring gas markets, the Turkey-Greece inter-connector will be commissioned in 2006.
These projects will enable physical integration of Turkish energy system into the EU internal
market, given the progress achieved so far in establishment of competitive market structures
in electricity and gas.

Fuel switching in power generation has been significant over the past two decades as coal-
fi red plants have increasingly been replaced by gas-fired ones. The gas transmission and
distribution infrastructure is being improved and extended to new areas, which enables
industry and households to progressively switch from oil and coal to gas. Forty-six
distribution zones exist in Turkish natural gas market by August 2006, and this number will
increase as a result of the new tenders to be conducted by EMRA. The new distribution
licensees are private investors. Being provided with a transparent, stable and reliable market
environment, the investors are willing to engage in distribution activity and this is expected to
accelerate the expansion of the distribution pipeline network. Natural gas storage
infrastructure is being developed to ensure supply during the winter season and peak hours; at
present, the major flexibility mechanism is the interruptible consumers.

Ensuring a secure electricity supply requires adequate and timely investments in electricity
infrastructures and generating capacity. The government emphasises the importance of
having sufficient reserve margins when preparing forecasts and estimating needs for
generation expansion. According to the most recent electricity demand projections, a supply
shortfall could occur by 2010 if new power plants are not built in addition to those under
construction and already licensed. This issue is currently being addressed in the framework of
the new legislative proposals by the MENR.

Therefore, the government is taking an active role in maintaining a supply and demand
balance. Some measures already taken are the refurbishment of some coal-fired power plants
and the reduction of technical losses in the distribution networks. The reformed electricity
market is expected to attract new investments in generating capacity ensuring sustainability.
Turkey would put in place the tendering procedure in line with the EU acquis to ensure
security of electricity supply. Demand side policies and measures has a potential role to play.
Transmission infrastructure will be strengthened to allow for the expansion of distributed and
intermitted generation such as renewables.

The Petroleum Market Law stipulates that Turkey must keep oil emergency stocks
corresponding to 90 days of oil consumption based on the previous year’s average
consumption. The legislation is in conformity with the EU requirements
II.3.4.4. Energy Taxation

Turkey’s main tax on oil products is the fuel consumption tax (FTC). The FTC rates for various oil products are given in the table below. To alleviate the effects of oil price fluctuations and the pronounced exchange rate fluctuations of the Turkish lira against the dollar on domestic oil prices, the government linked the FTC to a pre-existing mechanism called the Fuel Price Stabilisation Fund (FPSF) in 2000. The FPSF was financed through a compensatory FPSF tax. The tax fluctuated and was inversely proportional to developments in the international oil prices and the exchange rate of the Turkish lira against the dollar. The tax did not apply to fuels used in generating electricity. While this tax was abolished and replaced with the Automatic Pricing Mechanism (APM), the APM was also abolished at the beginning of 2005. Oil products are also subject to a value-added tax (VAT) of 18%.

In January 1996 Turkey signed the Customs Union Agreement with the EU, whereafter customs duties are applied only to oil product imports from non-EU countries.

The FTC is applied also for natural gas. VAT rate for natural gas is 18%.

Electricity prices are subject to several taxes and levies. Although the Electricity Market Law prohibits inclusion of any costs on electricity prices that are not directly related to electricity market activities, with the exception of EMRA’s surcharge on electricity transmission TPA tariffs, a 2% levy for Turkish Radio and Television Corporation is imposed on end-user electricity prices. Electricity prices are subject to the municipality consumption tax, which is 1% for industry and 4% for household consumers. The VAT rate for electricity is 18%. No excise taxes are applied for coal. The only tax is the VAT of 18%.

Table 13: Fuel taxation

<table>
<thead>
<tr>
<th>Fuel Product</th>
<th>Excise tax (YKR)</th>
<th>VAT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unleaded gasoline (per litre) 95 octane</td>
<td>136,25</td>
<td>18</td>
</tr>
<tr>
<td>Naphtha</td>
<td>-</td>
<td>18</td>
</tr>
<tr>
<td>Kerosene (per litre)</td>
<td>76,05</td>
<td>18</td>
</tr>
<tr>
<td>Jet fuel (per litre)</td>
<td>-</td>
<td>18</td>
</tr>
<tr>
<td>Diesel oil (other qualities) 7000</td>
<td>83,45</td>
<td>18</td>
</tr>
<tr>
<td>Heating oil (per kg)</td>
<td>47,60</td>
<td>18</td>
</tr>
<tr>
<td>Fuel oil (1% sulphur, per kg)</td>
<td>23,70</td>
<td>18</td>
</tr>
<tr>
<td>Fuel oil (3.5% sulphur, per kg)</td>
<td>20,40</td>
<td>18</td>
</tr>
<tr>
<td>LPG (bottled) propane, butane (per kg)</td>
<td>74,33</td>
<td>18</td>
</tr>
<tr>
<td>LPG (Automotive, per kg)</td>
<td>86,20</td>
<td>18</td>
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<tr>
<td>LPG (Heating, per kg)</td>
<td>74,33</td>
<td>18</td>
</tr>
<tr>
<td>Propane (fuel per kg)</td>
<td>74,33</td>
<td>17</td>
</tr>
<tr>
<td>Natural gas (per m³)</td>
<td>2,10</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: GDPA

II.3.4.5. Forecasts

MENR prepares energy demand forecasts using a detailed bottom-up methodology that relies on projections of a range of economic and demographic variables and relationships. MAED (Model of Analysis of Energy Demand) is used for demand forecasts. The inputs are a
combination of forecasts from the SPO based on macroeconomic projections and consideration of other related parameters. MENR carries out supply side studies using some of the ENPEP modules.

Furthermore, according to the Electricity Market Law of 2001, distribution companies are obliged to prepare their demand forecasts and submit them to the TSO, the Turkish Electricity Transmission Company (TEIAS). TEIAS is entrusted with the duty of preparing its transmission planning and capacity generation projection on the basis of these demand forecasts and submit it to the regulator for approval. In fact, the Law envisages that the demand forecast should be based on the distribution company input data, which is assumed to reflect the realistic expectations in the market and therefore not necessarily relying on the administrative or political interference, and thus limiting the likelihood of inaccurate estimations. Nevertheless, for this optimistic picture it should be first to see the privatisation of distribution companies which are currently state-owned. According to the available information, the Government is just about to expedite the procedures for an urgent privatisation of the distribution assets (see privatisation section). EMRA published a demand forecasting regulation in which principles and procedures to be followed by distribution companies and TEIAS are laid down. Although the distribution companies will start forecasting the demand in their distribution region for 2007, it is apparent that once the distribution assets are privatised, the forecasts will be based on the market perception of the future demand in electricity, and will be assumptively more reliable through an efficient market structure and future contracts in electricity trading.

II.3.4.6. Renewable Energy

Renewables have an important role in energy supply. Renewables constitute 12% of total primary energy supply and 25% of gross electricity generation at present.

Turkey has recently enacted a new law, namely Law No. 5346 Concerning the Use of Renewable Energy Resources for Electricity Generation (the “Law”), which entered into force on 18 May 2005.

The Law provides that the facilities which generate electricity from renewable energy resources will be granted a renewable energy resources certificate (the “RER Certificate”), which will entitle such facilities to benefit from the incentives provided by the Law. EMRA is the competent authority to grant the RER Certificates.

According to the Renewable Energy Law (No 5346), the electricity generation resources suitable for wind, solar, geothermal, biomass, biogas, wave, current and tidal energy resources together with hydraulic generation plants either canal or run of river type or with a reservoir area of less than 15 square kilometers are defined as renewable energy resources (RES) to be supported. Large hydro power plants are also considered as renewable source, but they are not included in the support mechanism defined in the Law.

There is a purchase obligation for the retail licensees in the market for RES based electricity generation. If RES certified electricity is sufficient in the market, purchase obligation ratio shall not be lower than 8% of the previous year's sales. Public owned retail licensees are exempted from this obligation until 01 January 2007. This has been criticised for creating inequalities between public and private distribution companies and lessening the underlying incentive provided by such provision. The reasoning of that article states that the purpose of such exemption is to facilitate the privatisation of TEDAS. However, this provision provides an exemption only to the public companies, which means that such companies will not be
entitled to benefit from the exemption after their privatisation. Since no private retail licensee is operating in the market, such criticism is not valid.

The Law provides also the following incentives to entities generating electrical energy from renewable energy resources:

1) In the public areas or the lands owned by the Treasury, no housing plans can be prepared in a way to adversely affect the utilisation and productivity of renewable energy resources.

2) Until the end of year 2011, the price of the electrical energy generated from renewable energy resources, which is to be purchased pursuant to the provisions of the Law, shall be the average electricity wholesale price of the previous year to be determined by EMRA. The Council of Ministers is authorised to increase such price by 20% at the beginning of each year.

3) The Law provides a 7-year price guarantee for entities generating electricity from renewable energy resources. After the end of year 2011, the above-stated price determination mechanism will not be applicable to the entities holding a RER Certificate which are in operation for more than 7 years. However, after the end of year 2011, the retail sale license holders will be obliged to purchase energy under the Law from the RER Certificate holders which are in operation for less than 7 years at an average electricity wholesale price of the previous year, and only if the amount of energy so purchased is below the limit of their purchase requirement, such license holders would be obliged to purchase electricity from the RER Certificate holders operating for a period of more than 7 years without a price guarantee.

4) There are certain incentives concerning the investment periods of the projects. For example, the service fees will not be collected from the individuals or legal entities willing to construct generation facilities to meet their own energy needs from renewable energy resources for the preparation of final project, planning, master plans, initial examination and initial studies to be performed by the State Hydraulic Affairs General Directorate or the Electricity Affairs General Directorate. In addition, the investments for energy generation facilities, procurement of electro-mechanic systems within the country, research, development and production investments concerning solar energy units, and research and development investments for biomass energy may benefit from the incentives upon a Council of Ministers’ Decree.

5) The need for heat energy in the municipalities or governorates having sufficient geothermal energy resources will be primarily met by geothermal and solar thermal energy resources.

6) In the event that the forests and the lands under private ownership of the Treasury or under the control or disposal of the State are utilised for the generation of electricity from renewable energy resources, such lands shall be leased to or right of way or usufruct rights thereof shall be granted to the relevant entities. During the investment period, the fees for the granting of such rights will be discounted by half. In addition, certain duties will be waived for lands in forestry areas.

In addition to the support mechanisms in Law on Utilisation of Renewable Energy Resources for the Purpose of Generating Electricity Law No. 5346, there are certain support mechanisms in the electricity related secondary legislation.

According to Article 5(p) of EML, one of the duties of EMRA is to take necessary measures for encouraging the utilisation of renewable and domestic energy resources and to
initiate actions with relevant agencies for provision and implementation of incentives in this field. The support mechanisms defined in the electricity market secondary legislation are given below:

a. The legal entities applying for licenses for construction of facilities based on domestic natural resources and renewable energy resources shall only pay one percent of the total licensing fee (Art. 12),
b. The generation facilities based on renewable and domestic energy resources shall not pay annual license fees for the first eight years following the facility completion date inserted in their respective licenses (Art. 12),
c. The legal entities engaged in generation activity at facilities based on renewable energy resources may purchase electricity from private sector wholesale companies on the condition not to exceed the annual average generation amounts indicated in their licenses in a calendar year (Art. 17),
d. The retail licensees shall be obliged to purchase electricity based on renewables for the purposes of re-sale to the non-eligible consumers, provided that the price of electricity generated at generation facilities based on renewable energy resources is equal to or lower than the sales price of TETAS and if there is no cheaper alternative (Art. 30),
e. TEIAS and/or distribution licensees shall assign priority for system connection of generation facilities based on domestic natural resources and renewable resources (Art. 38),
f. Until the By-Law on Balancing and Settlement takes effect, Article 6 of Communiqué on the Principles and Procedures of Financial Settlement in the Electricity Market which mentions the legal entities subject to settlement, shall not apply to wind generation facilities and canal-type hydroelectric generation facilities which sell the electricity they generate to wholesale and retail licensees (Provisional Art. 4),
g. Generation facilities listed below are exempt from the liability of being a Balancing Mechanism entity unless otherwise requested by them:
   • Canal or river type hydroelectric generation facilities,
   • Generation facilities based on wind power,
   • Generation facilities based on solar energy,
   • Generation facilities based on wave,
   • Generation facilities based on tidal energy,
   • Cogeneration facilities,
   • Generation facilities based on fluidised bed technology.

Although geothermal energy is also covered by the Law, a separate draft Law on Geothermal Energy has been prepared by the Ministry of Energy and Natural Resources (“MENR”) and transferred to the Parliament for enactment, which is currently under discussion in the relevant committees.

II.3.4.7. Climate Change Mitigation Policies

When the UNFCCC was adopted in 1992, as being an OECD country Turkey was included among the so-called Annex I and Annex II countries where the former requires taking steps to reduce emissions and the latter requires taking steps to provide financial and technical
assistance to developing countries. However, due to the relatively early stage of industrialisation and economic development, Turkey was not given a quantified emissions reduction or limitation objective in the Kyoto Protocol. In 2001 Turkey was removed from the list of Annex II countries but remained as Annex I country, with the condition that Turkey should enjoy favorable conditions considering differentiated responsibilities. This led to an official acceptance of the UNFCCC by the Turkish Grand National Assembly in October 2003, followed by its enactment in May 2004.

Throughout this process, the government carried out a number of studies on the implications of climate change and its mitigation. The first efforts were undertaken by the National Climate Coordination Group in preparation for the 1992 Rio Earth Summit. Following this, a National Climate Programme was developed in the scope of the UNFCCC. In 1999, a specialised Commission on Climate Change was established by DPT in preparation of the Eighth Five-Year Development Plan (2001-2005). The Five-Year Development Plan was the first planning document to contain proposals for national policies and measures to reduce greenhouse gas (GHG) emissions, and funding for climate-friendly technologies.

Following the ratification of the UNFCCC, a number of working groups were set up with the objective to define a climate change mitigation strategy and compile the country’s first national communication to the UNFCCC. These included two separate working groups on mitigation in the energy and the transport sectors. The strategy aims to reduce GHG emissions through the implementation of appropriate measures and the development of climate-friendly technologies. Energy efficiency and the development of renewable energy sources are two important components of the strategy. However, the strategy will not include any policies that directly target GHG emissions, such as carbon taxation or emissions trading. It also does not include a specific target for emissions reductions. The first national communication will be conveyed to the UNFCCC Secretariat within 2006.

Turkey has not yet signed the Kyoto Protocol. In line with Turkey’s accession process with the EU, a process of screening and approximation has already begun. The Kyoto Protocol, as a part of the EU’s acquis communautaire, may lead to considerations for policy adjustments regarding emissions reduction in the future. The relatively high growth in energy demand of Turkey might urge for options within the framework of “common but differentiated responsibilities”.

II.3.4.8. Energy Efficiency Policy

The government recognises the potential of energy efficiency in meeting its goal of satisfying demand while not hampering economic growth and protecting the environment. The official studies have demonstrated that there is 25-30% energy conservation potential.

General Directorate of Electrical Power Resources Survey and Development Administration (EIE) is the main responsible body for energy efficiency and renewables. EIE has total staff of about 860, about 550 in the central and about 310 in local offices. The EIE’s budget for energy efficiency activities was US$0.65 million in 2005 and 31 staff have been employed for energy efficiency activities in EIE. These activities include the following:

- Training consumers on energy conservation measures and raising consumer awareness on energy efficiency.
- Preparing energy efficiency publications for all sectors.
- Conducting energy audits in industry.
• Consultation process with the industrial and building sectors in the formulation of energy efficiency measures.
• Maintaining energy manager databases and energy consumption statistics for the industrial sector and public buildings.
• Coordination of the dialogue and cooperation with the related governmental institutions, private sectors, universities, research institutes and manufacturing associations within the Energy Conservation Coordination Board.

Nevertheless, energy efficiency has many other sectors and areas beyond the MENR constituency, therefore cooperation and coordination of energy efficiency measures between the main stakeholders and institutions need to be improved for an efficient policy. In this respect, a comprehensive Energy Efficiency Strategy was adopted by the MENR in June 2004.

Turkey ratified the Energy Charter Treaty and the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects in February 2000. Some of the main objectives of these international agreements are to maximise energy efficiency and to protect the environment. In this context, efforts have been made to develop policies and programmes to increase energy efficiency and establish an appropriate legal framework; the development of the new Energy Efficiency Law is part of this process. In 2003, the Energy Charter Secretariat reviewed Turkey’s energy efficiency policies.

Various international donors have provided financing for energy efficiency projects and programmes in the country. These activities were mostly technical in nature and focused on energy audits, staff training and energy efficiency policy development. Turkey has been eligible to receive EU financing only since 2002 and the financial assistance from EU sources has so far been limited with the exception of financing the Energy Efficiency Strategy.

There are no direct tax incentives to encourage end-use energy efficiency, nor any other kind of direct financial incentives. There exists, however, an Investment Encouraging Programme that encourages investments, especially in less developed regions, and a regime of aid to small and medium-size enterprises. Energy saving is not covered specifically by these initiatives, which aim to encourage productive investment, but they do have an indirect positive impact on energy efficiency through, for example, manufacturing of energy efficient equipment.

A new legislation to set a framework for the development and implementation of the Energy Efficiency Strategy is currently on the way, and the new Energy Efficiency Law is planned to be issued in the near future. Prior to the introduction of the new law, Turkey has had no general legal framework for energy efficiency matters and the current activities are carried out in accordance with a few regulations issued by MENR and the EIE.

II.3.4.9. Draft Energy Efficiency Law

The objective of the law is to increase the efficient use of energy and energy resources to reduce the burden of energy cost on the economy and to protect the environment.

The main priorities covered by the draft Law, inter alia, are the following:

• Increasing awareness: The EIE and universities will provide training for energy managers and the staff of future energy service companies. Public institutions will be obliged to provide training for their own personnel. The general public will be informed about
energy efficiency through professional associations, chambers, unions, manufacturing associations, state and private primary and high schools and the media.

- Improved administrative structure: An Energy Efficiency Coordination Board (EECB) will be established to carry out energy efficiency activities nationally and to monitor the results. The EECB will include representatives from all the relevant ministries and the EIE will work as its secretariat. To increase energy efficiency in industry and residential buildings, a wide network of public and private organisations will be engaged to conduct site surveys, audits and training for energy managers. Third-party financing will be introduced for all sectors and voluntary agreements will be introduced for industrial plants. It is planned to set up the financial sources mechanisms for the energy efficiency investments.

The draft law includes several concrete measures and policies, e.g., energy manager obligation will be extended to non-industrial establishments, including public and commercial buildings exceeding a certain size; industries or public offices using more than the threshold amount of energy will have to report to EIE their excessive consumption to facilitate its energy efficiency analysis and forecast. The draft also covers certain incentives for investments oriented towards energy efficiency projects, as well as incentives for voluntary agreements in order to reduce energy intensity, treasury support for energy efficiency projects and efficient co-generation systems.
III. Legislative Framework for the Private Sector Participation in Energy Sector

III.1. Background of Private Sector Participation in the Electricity Sector

III.1.1. Overview and First Privatisation Efforts (BOT, BO and TOOR models)

Beginning in the 1980s, the government sought to attract private participation in the industry. Its motivation was both the general disposition toward the private sector that emerged in the 1980s and fiscal constraints, purportedly to ease the investment load on the general budget. This effort was constrained, however, by the constitutional regime that interpreted the provision of electricity as a public service—that is, something that had to be supplied by the government. Instead of responding directly by seeking to remove this constitutional challenge, the governments of the 1980s and 1990s chose to create shortcuts through various private sector participation models short of privatisation.

The first law setting up a framework for private participation in electricity was enacted in 1984 (Law No. 3096). This law forms the legal basis for private participation through build-operate-transfer (BOT) contracts for new generation facilities, transfer of operating rights (TOOR) contracts for existing generation and distribution assets, and the auto-producer system for companies wishing to produce their own electricity. Under a BOT concession, a private company would build and operate a plant for up to 99 years (later reduced to 49 years) and then transfer it to the state at no cost. Under a TOOR contract, the private enterprise would operate (and rehabilitate, where necessary) an existing government-owned facility through a lease-type arrangement.

In 1994 Law No. 3996 and Implementing Decree No: 5907 were enacted to enhance the attractiveness of BOT projects. The laws authorised the Undersecretariat of the Treasury to grant guarantees and provided tax exemptions (as well as extended the purview of the model to other public services such as water and wastewater, transport, and communications).

An additional law was enacted in 1997 for private sector participation in the construction and operation of new thermal power plants through a licensing system rather than concession award. The build-operate-own (BOO) law (Law No. 4283) again provided guarantees by the Treasury, making it basically not much different than the BOT model in its essence.

Under the BOO model, investors retain ownership of the facility at the end of the contract period. A typical BOT, BOO, or TOOR generation contract, signed between the private party and Ministry and/or TEAS or TEDAS, includes exclusive “take-or-pay” obligations with fixed quantities and prices (or price formulas) over 15–30 years. Thus it does not provide a framework for competition in the market, but only potentially for competition for the market if the contracts are granted through a competitive process in which the lowest-cost proposals are accepted. The main benefits, in principle, of such private sector participation contracts arise from (1) accessing strong and effective private sector commercial and managerial skills for reduced operational costs and improved service quality, and (2) spurring adoption of innovation at both the design and implementation phases of projects. Such efficiency-related benefits are only likely to arise, however, from competitively tendered projects.

Unfortunately, no rigorous framework was in place to ensure implementation of competitive tendering. On the contrary, under the Turkish BOT model there was no requirement for
prequalification, nor for a competitive open tender, nor even for a closed tender (the “method of sealed bid from selected companies” merely requires that at least three interested companies submit their offers). Unsolicited bids could be brought forward and negotiated solely on the basis of an investor-completed feasibility study (through “the method of negotiation”). Compounding these problems, under the Turkish BOT, BOO, and TOOR generation models the government has retained most of the commercial risks while providing the private sector with substantial rewards. Under these contracts, the Treasury has provided guarantees to cover critical commercial take-or-pay payment obligations, such as minimum electricity generation levels and minimum quantities of gas in power station gas purchase contracts, at associated predetermined prices in U.S. dollars over the life of the contracts (more strikingly, such contracts even had provisions for escalation indexed to US inflation figures despite the fact that this was also applied to the financing of the project which had the its interest component to counter the inflation effect, and that much of the construction was realised through local supplies not necessarily affected by the US prices).

Although the fixed-price nature of the contracts creates incentives for cost efficiencies (with the assumptive competitive bidding in place), the contracts preclude any possibility of making consumers share in any efficiency gains: all cost savings are appropriated by the generator. In addition to the relatively high electricity cost of many of these projects, the BOT and TOOR contracts are heavily front-end loaded with higher capacity charges in the first years of operation to allow for early recovery of investment costs. As discussed below, the current structure of these contracts acts as a major barrier to the development of competition in the generation sector.

III.1.2. International Arbitration

A large number of BOT proposals or projects have not been completed. Initially, the main constraint was the prevailing interpretation of Turkey’s Constitution—that is, that even though Law No. 3996 and Law No. 3096 stated that BOT contracts would be subject to private law, the Constitutional Court decided that electricity was a public service and that therefore the BOTs were to be considered as concessions under public administrative law, a view also shared and supported by the Danistay, the Council of State. This ruling meant that the development and eventual completion of a BOT contract required intervention and approval from a multitude of government agencies, including the Ministry of Energy and Natural Resources (MENR), the High Planning Council (referred to by its Turkish initials, YPK), the State Planning Organisation (SPO), and the Treasury. In addition, the public law character of the contract meant that investors did not have recourse to international arbitration and that contracts had to be reviewed by Danistay, which was alleged to a lengthy process. This has created an immediate concern mainly from a financier point of view and caused slowing of the development in private sector energy initiatives. In fact, three HPPs (Hasanlar, Kısık, Aksu-Caykoy) came to fruition before 1995, but no BOT project in the energy sector was implemented since the Constitutional Court decision of 1995 till the very radical shift towards Constitutional change in 1999. Yet, to the surprise of many, no major BOT project was realised afterwards.

III.1.3. Constitutional Amendments

In August 1999, a Constitutional amendment opened the way for privatisation in the electricity sector, for the application of private law to contracts, and for limits to the scope and duration of the Danistay review. Although the Constitutional amendment (and the subsequent Law No. 4501 of January 2000, which implemented these changes) simplified the
legal framework for private participation, the new immediate obstacle to the development of BOT contracts was the unwillingness of the Treasury to provide new guarantees in light of the implied contingent liabilities.

By the end of the 1990s, it had become clear that quasi-privatisation with Treasury guarantees was not going to be feasible because of the rapidly deteriorating fiscal stance and the detrimentally severe effects of the substantial financial contingencies that could arise out of the excessive number of energy contracts. In addition, there was wider appreciation that these types of contracts, which locked generation companies into long-term exclusive sale agreements with predetermined, fixed prices, did not serve the overall objective of developing competition in electricity markets. Several government agencies (e.g., MENR, SPO, and the Treasury) were already working on the design of a competitive electricity sector regulated through an independent agency. In 2001 Law No. 4628 (the electricity market law, or EML) provided a new and radically different legal framework for the design of electricity markets and established a new, independent Energy Market Regulatory Authority (EMRA).

### III.2. Market Laws

Only a short while after the Constitutional amendments, the country was subject to a severe economic crisis that led to a re-evaluation of the energy demand due to the sudden decrease in energy demand expectations over the following years. There has also been severe criticism from the IMF and the World Bank that the then current structure of too many BOT contracts already signed and waiting for completion posed an unnecessary burden on the economy by providing excess capacity and thus likely to trigger the contingent liabilities on the Treasury. As a result, despite the new Constitutional era allowing for existing BOT contracts to enjoy international arbitration, there has been a sharp policy change in favor of a sudden and urgent transition to a market model and the Parliament enacted a law creating a market regime and thus limiting the success of the previously signed BOT contracts to reach conclusion. The new Electricity Market Law, enacted in 2001, sets out a contemporary market model based on bilateral contracts supplemented by the Balancing and Settlement Mechanism. Law aims at market competition in line with the EU experience.

The Natural Gas, Petroleum and LPG Market Laws were also enacted to establish competitive market structures in the energy sector. The objective of these Laws is to establish a financially viable, stable and transparent energy market, which will function as per the provisions of private law and within a competitive environment to ensure the independent regulation and supervision of the market in order to provide sufficient electricity, natural gas, petroleum and LPG of good quality to consumers, at low cost, in a reliable and environment friendly manner.

### III.2.1. Institutional Framework (EMRA)

The Electricity Market Regulatory Authority was established in March 2001 as per Electricity Market Law (No. 4628) (EML) and it was later renamed as ‘Energy Market Regulatory Authority’ (EMRA) as per the provisions of Natural Gas Market Law (No. 4646). EMRA became operational in November 2001. With the enactment of the Petroleum Market Law (No. 5015) and Liquefied Petroleum Gas (LPG) Market Law (No. 5307), the Authority has been commissioned to regulate and supervise the petroleum and LPG markets. Members of the Energy Market Regulatory Board assumed duty on November 19, 2001. EMRA’s decision-making body is its board. It is composed of nine members, including a chairperson and a vice chairperson.
EMRA’s Board members are selected and appointed by the Council of Ministers. The term of office for the chairperson and the members of the Board is 6 years. Board members may be re-elected following the expiration of their terms of office. The duties and the responsibilities of EMRA have been extended by amendments to the Law to include the natural gas, petroleum and LPG markets.

EMRA is an administratively and financially autonomous public administration which is independent in its decision-making process. It is related to the Ministry of Energy and Natural Resources. It receives no financing from the state budget. EMRA collects its revenues principally from electricity, gas, petroleum and LPG licensing fees and from a surcharge on electricity transmission TPA tariff (maximum 1%). According to Article 4, paragraph 3, of the Law (No. 4628), “The headquarters of the Authority shall be located in Ankara and the ministry to which it is related shall be the Ministry of Energy and Natural Resources. The Authority may establish representative offices in distribution regions in order to carry out customer relations. Most of the technical specialists have so far been recruited from various public administrations, including the Ministry of Energy and Natural Resources, BOTAS, the former Turkish Electricity and Transmission Company (TEAS), the Treasury, and public banks. In the recent years it also reinforced its personnel base with additional junior staff through a series of highly competitive exams. According to the annual report for 2005, by end of 2005, its overall personnel, including support staff, totaled 296.

EMRA is authorised to impose administrative sanctions/penalties in cases of breach of legislation. EMRA may initiate preliminary investigation or inquiry, and legal actions against Board Decisions are to be heard in the Council of State.

III.2.2. Sectoral Framework

III.2.2.1. Electricity

The scope of the Electricity Market Law (No. 4628) is comprehensive: it covers generation, transmission, distribution, wholesale, retailing and retailing services, import and export activities, rights and obligations of natural and legal persons, the establishment of an independent regulator (Energy Market Regulatory Authority – EMRA), and the privatisation of electricity generation and distribution assets. The Law defines “activities” – generation, transmission, distribution, wholesale trade, retail trade and retail sale services, and import and export.

The Law requires licenses for many activities: generation, transmission, distribution, wholesale trade, retail sale, auto-producing of power, and auto-producing of power in groups. The Law defines specific rules and principles applicable to licenses. Separate licenses are required for each activity and for each facility, if the relevant market activity is to be performed at more than one facility. Legal or account unbundling must be implemented among activities.

Licenses are issued for a period of up to 49 years, with a minimum term for generation, transmission and distribution licenses of 10 years. The facilities, books and records of account must be kept available to EMRA’s inspection and audit, and licensees must provide any information and documents to EMRA upon its request.

The minimum set of common provisions that must be contained in all licenses includes an indication of the type of activity, obligations related to non-discriminatory third party access,
pricing principles, obligation to provide information, provisions for cancellation, modification and expiration of the license, license fees, dispute settlement, and technical requirements.

In generation, the Law introduced a number of specific requirements with the objective of securing competition and stability. The unbundled state-owned generation company EUAS, other state-owned generation companies formed by restructuring EUAS, private sector generation companies, autoproducers and autoproducer groups can operate generation facilities, and sell the capacity and the electricity generated. EUAS is entitled to build, lease and operate new generation facilities, if deemed necessary, in accordance with the generation capacity projection approved by EMRA’s Board, and with due regard to the investments in generation by the private sector.

Autoproducers can sell up to 20% of their yearly generation on the market. EMRA has the right to determine and to increase this ratio by 50%. However, the total market share of generation facilities operated by a particular private sector generation company and its affiliates may not exceed 20% of the total installed capacity in the preceding year.

Isolated generation (distributed generators not connected to the grid) is not subject to licensing.

Generation companies may enter into affiliate relationships with distribution companies, but without acquiring control power. Generation companies may not engage in any market activities other than those described above.

In transmission, a single company was set up (Turkish Electricity Transmission Co. -TEIAS). The Law assigned to TEIAS the responsibility for transmission network planning construction and operation, power system control and operation, market balancing and settlement, preparation of the transmission, connection and use of system tariffs and of the Grid Code, international interconnection activities, preparation of generation capacity projection, and establishment of private direct transmission lines. TEIAS may not engage in any activity other than transmission activity. Third party access to the network is regulated.

The Law makes distribution companies responsible for distribution network planning, construction and operation and assigns to them the responsibility of “supplier of last resort”. Distribution companies may engage in retail business and/or retail sale services for consumers, and generation activities (subject to a separate license and account separation). Distribution companies must prepare regional demand forecasts, and submit to TEIAS. Distribution companies may purchase electricity from a generation company or companies which they own or are affiliated with, on the condition that the price may not exceed the country-wide average wholesale power price. Distribution companies may not engage in any activity other than those defined above. Third party access to distribution networks is regulated.

The Law defines the parties to the wholesale power market as the Turkish Electricity Trading and Contracting Co. (TETAS) and private sector wholesale companies. TETAS took over and executes the power sale and purchase contracts which were signed before the enactment of the Law. It is required to primarily purchase electricity from EUAS, but can make new annual purchase contracts to meet contractual obligations to distribution companies (subject to an approval from EMRA). TETAS and other wholesale companies can sell to eligible consumers, but TETAS is not allowed to sell to any new eligible consumers. Electricity can be exported to or imported from any country meeting the international interconnection conditions. The total market share of any private sector wholesale company (together with its affiliates) may not exceed 10% of the total electricity consumed during the preceding year.
The Law defines the actors on the retail power market as retail sale companies and distribution companies holding retail sale licenses. Retail sale or retail sale service activities may be carried out without any limitation on a regional basis. Retail market entities may import electricity via networks operating at distribution voltage level.

In import and export of electricity, the Law assigns the right to enter into import/export contracts to TETAS (restricted to existing contracts), private sector wholesale companies, retail companies, and distribution companies. Further requirements regarding import and export of power are contained in the By-Law on Import and Export (Official Gazette dated September 7, 2005). The By-Law defines the principles and procedures pertaining to the activities of import and/or export of electricity, allocation and use of interconnection capacity for cross-border trade, in the electricity market, and allocation and use of interconnection lines. TEIAS and holders of distribution licenses must provide the required information concerning interconnection line capacity. In determination and implementation of the capacity allocation method, TEIAS and the distribution license holders must act in a non-discriminatory way and by abiding to the competition principles.

The Law provides some special rules applicable to Organised Industrial Zones (OIZ). In such zones, distribution and/or generation activities may be carried out to meet the demands of their participants, who are deemed as eligible consumers without limits of consumption. Participants in OIZ who exceed the eligible consumer limit have the right to choose their supplier.

Power market balancing and settlement are defined in Article 15.b of the Law. The rules and procedures of the Market Financial Settlement Center are defined in the By-Law on Balancing and Settlement. This Center is operated by TEIAS.

Autoproducers and autoproducer groups may generate electricity for their own needs and operate in parallel to the transmission and/or distribution system. Autoproducer groups supply electricity to their shareholders and can sell up to 20% of the electricity generated. EMRA has the right to determine and to increase this ratio by 50%, and exercised this right and increased the limit to 25%.

The Law directed the establishment of an independent, administratively and financially autonomous public institution as a market regulator (Energy Market Regulatory Authority, EMRA). EMRA’s Board is defined in the Law as the representative and decision making body of the Authority. EMRA is responsible mainly for the preparation of secondary legislation, the setting out the annual eligibility limit, the issuing of licenses, the monitoring of market performance and ensuring compliance to the market rules, drafting, amending, enforcing and auditing performance standards, distribution and customer services codes, approving the regulated tariffs, setting out the pricing principles for regulated tariffs, the taking of necessary measures to support the development and use of domestic and renewable resources, and the preparation of an annual market development report.

Electricity tariffs are set (regulated) by EMRA’s Board. The types of tariffs in EMRA’s domain of authority are connection and use-of-system tariffs, transmission tariff, distribution tariffs, wholesale tariff (only for TETAS), and retail tariffs applied to captive consumers. Tariffs must be prepared annually by October 31 and submitted to the Board for approval. The Board’s approval is due by December 31 of the same year. In tariff setting, the Board is directed by the Law to abide by the principle of non-discrimination. The Law was amended as described below for allowing distribution companies refraining from applying tariffs as set forth in the Law during a transitional period ending by 2010.
Tariffs and consumer support are considered together in the context of consumer protection. In cases where consumers in certain regions and/or in line with certain objectives need to be supported, such subsidy is provided in the form of direct cash refunds to consumers, without affecting the prices. The Law stipulates that the amount, principles and procedures of the subsidy are determined by the Council of Ministers. The measures to protect consumers against the harmful effects of low quality of power supply or interruptions of electricity supply are imposed as a part of the license requirements, according to the By-Law on Electricity Market Customer Services.

The Law contains special provisions regarding expropriation, right of easement, and permit to use and rent assets (Article 15 (c,d), as amended by Law 5496). EMRA is the entity which decides on expropriation and usage rights or rent, and performs expropriation activities. Any costs involved are paid by the license holders. The ownership of expropriated immovables reverts to the Treasury. Expropriation procedures for state-owned companies are performed by these entities.

The Law deals extensively with privatisation in the power industry. Privatisation of electricity assets is to be executed by the Privatisation Administration according to the provisions of Privatisation Law No. 4046. In order to define a transitional period and to accelerate privatisation in electricity sector, the High Planning Council has adopted a Strategy Paper (17 March 2004) providing a road map for establishing the technical and legal infrastructure for privatisation, and revealing the technical and financial status of the entities to be privatised. The Strategy Paper envisages that privatisation will start in the distribution sector, where 21 distribution regions have been defined. Privatisation of generation assets is to be the next step. A tariff equalisation mechanism will be applied during the transitional period. Transitional power purchase agreements for the transitional period are signed between state-owned generation, distribution and wholesale companies before privatisation.

In its provisional articles, the Law required TEAS to assume all tasks and obligations assigned to the EUAS, TEIAS and TETAS until the actual establishment of these companies, appointed the first members of EMRA’s Board, and defined the tasks to be performed during the transition period (18 months).

The Law vested unto TEDAS, the state owned distribution company, the ownership and operation of the distribution system until privatised. Other private retailers may perform retail activities in the distribution regions.

The Law dealt with regulations related with sales by EUAS to TETAS, determined the initial limit for eligible customers (9 GWh, currently 6 GWh).

A special article was added later by Law No. 5496 regarding the implementation of a price equalisation mechanism on a temporary basis (until 31 December 2010). The same Law added an article dealing with transitional contracts among TETAS, EUAS, the distribution companies holding retail sale license, and the companies to be formed as a result of the restructuring of EUAS. It also added an article regulating the right of land use for existing BOT contracts.

Other important amendments to the Law were introduced by the Liquid Petroleum Gas Market Law and Law on Amendment of the Electricity Market Law No. 5307 (Official Gazette: 13 March 2005, no 25754). By virtue of the amendments, until the privatisation of EUAS is completed, EUAS is allowed to sell electricity to wholesale companies for export on the basis of bilateral agreements and in foreign currency. The sale price in any contracts shall
not be below the average annual production cost of EUAS. TETAS is authorised for electricity sales for re-export purposes and to determine the related wholesale tariff.

Since the adoption and enactment of the Law, several important milestones have been passed:

- Licensing Day was 3 September 2002;
- Eligible Consumers Day was 3 March 2003;
- Financial Settlement Day was 1 December 2003;
- Balancing and Settlement Day was 1 August 2006.

III.2.2.2. Natural Gas

The new natural gas market law (Law No. 4646) was adopted on May 2, 2001 which envisaged for significant reforms in the gas sector. The law came into force immediately, but its implementation was subject to a 12-month transition period, extendable to a maximum of 18 months. The transitional period was in fact extended until November 2002. Implementing legislation on gas market licensing was issued in September 2002.

The current legal framework for the gas sector (except exploration and production) is defined by the following laws and regulations:

- Law on Natural Gas Market No.4646 (Official Gazette 2 May 2001, No. 24390)
- By-law on Licensing
- By-law on Tariffs
- By-law on Internal Installations
- By-law on Certificate
- By-law on Transmission Network Operation
- By-law on Distribution and Consumer Services
- By-law on Facilities
- Various Communications and Board Decisions

The objective of the Law on the Natural Gas Market No. 4646 is to establish a liberal, financially sound, stable, transparent and competitive national gas market with independent regulation. The Law strives to assure natural gas supply of good quality, in an economic, reliable and environmentally friendly way. The Law covers all gas market activities except exploration and production: import, transmission, distribution, storage, marketing, wholesale and export activities.

According to the provisions of Law No. 4646, except for distribution activities, the vertically integrated legal entity nature of BOTAS shall continue until the year 2009. After this date, BOTAS shall be restructured into a horizontally integrated legal entity. Among the legal entities to be formed as a result of the restructuring, only the company which has the gas purchase and sale contracts and which will perform import activities shall represent BOTAS and shall be called BOTAS. Among the companies to be formed as a result of restructuring, the companies, other than the one involved in transmission activities, shall be privatised within two years. The separation of accounts of BOTAS regarding the transmission, storage, sales and import activities, shall be realised within twelve months following the end of the preparation term. At that point, the various components (except for transmission) are to be privatised. BOTAS, starting from the end of the preparation period, cannot execute a new
natural gas purchase contract until its import volume falls down to twenty percent of national consumption. Until the aggregate of its annual import amount falls down to twenty percent of annual national consumption, i.e. until the year 2009, BOTAS shall execute tenders for the partial or full transfer of the existing natural gas purchase or sale contracts together with all their rights and obligations, with the participation of interested companies that have both been pre-qualified to get import license and obtained the prior consent of the seller company regarding contract transfer.

The Law establishes the rights and the obligations of natural and legal persons engaged in gas sector activities. In particular, legal entities must obtain the relevant licenses from the EMRA for import, export, transmission, storage, wholesale trade and distribution of natural gas.

For import of natural gas, a separate license is required for each import contract. The entity which applies for a license must have the technical and economical capability for import and provide information and guarantee regarding the source, reserves, production facilities and transmission system of the natural gas to be imported. A separate guarantee must be provided to store a volume corresponding to 10% of the natural gas to be imported every year, on the national territory. Import companies must inform EMRA about the term of a contract, the extension of a term, the envisaged annual and seasonal import volumes and any changes in these volumes, and system security related obligations. To assure competition and improve reliability of supply, the annual volume of natural gas procured through import by any import company shall not exceed 20% of the national gas consumption forecast determined by EMRA.

The Law defines system operation requirements for transmission companies, which include the safe, secure and effective gas transmission, cost-effective operation, approval of transmission investment plans by EMRA, and an obligation to connect any user upon demand within 12 months. The connection criteria are set by EMRA and connection disputes are settled by EMRA.

For gas storage operations (above ground or underground or LNG), the Law defines requirements for technical and economical capability of licensees, who must contribute to the safe and coordinated system operation and storage capacity management. Storage must be operated on the condition of non-discriminatory service (subject to system capacity availability), and storage capacity access disputes settled by EMRA.

For gas wholesale operations, import companies do not have to obtain a separate wholesale trade license. The volume of gas sold by each wholesale company shall not exceed 20% of national consumption forecast. Wholesale companies have an obligation to store gas in order to meet maximum seasonal natural gas demand of the customers.

For gas export transactions, the Law requires technical and economic capability of the exporter, the provision of information on destination country and means of transportation, and an obligatory insurance coverage.

While gas production is not regulated by the Law on Natural Gas Market (2001), it nevertheless foresees that production companies that hold wholesale gas trade license may sell gas to wholesale companies, import companies, distribution companies and eligible consumers (up to 20% of the annual consumption forecast). However, companies that produce in Turkey may sell over 20% of the national natural gas consumption forecast. Production companies holding an export license may engage in export activity.
Natural gas distribution licenses are granted via a tender for a specific territory. Companies may only hold licenses for up to two cities. The overall number of licenses may be increased, and the distribution zones may be expanded by EMRA. Currently the limit of distribution licenses which a company may have is eleven licenses. EMRA may also divide a city in more than one distribution zone with predetermined borders and tender out each zone separately. Distribution companies must connect all willing customers to the system (connection disputes are settled by EMRA). Distribution companies are required to provide service in every region in their respective territories within five years, and also to purchase natural gas from at least two different sources, and provide proof that they purchase from the cheapest source. Distribution companies must construct distribution dispatch centers in order to perform gas scheduling and system balancing in accordance with the seasonal changes.

The Law deals extensively with competition, data submission, and unbundling of accounts. It upholds freedom of competition, non-abuse of dominant position, and prohibits mergers and acquisitions that lead to uncompetitive markets. License holders must provide information on activities and the use of confidential information is prohibited. License holders must keep separate accounts for each market activity. Account unbundling is required between all natural gas market activities and also between the activities of BOTAS. Distribution companies shall purchase maximum 50% of natural gas from one legal entity annually.

Eligible consumers are defined as consumers purchasing more than 1 million m³/year of natural gas and user unions, companies purchasing natural gas for electricity generation, cogeneration facilities (combined heat and power producers), and companies producing natural gas in Turkey. EMRA is the entity which determines eligibility threshold annually, until all consumers become eligible.

Third party access (TPA) is regulated. Access to the transmission and distribution systems is a right for all parties. However, a connection request may be turned down in case of insufficient system capacity, failure in performing obligations upon entry into the system, and financial difficulties arising from existing contracts. Connection disputes are settled by EMRA. System entry cannot be rejected if the user requesting system entry undertakes the necessary expenses to eliminate the lack of capacity or connection.

The Law allows several types of tariffs: connection tariffs, transmission and supervision of conveyance tariffs, storage tariffs, wholesale tariffs, and retail sale tariffs. Transmission and supervision of conveyance tariffs and retail sale tariffs are set by EMRA (for the time being, all tariffs are approved by EMRA until sufficient competition is in place).

According to NGML, BURSAGAZ and ESGAZ were separated from BOTAŞ and restructured as separate companies. These companies were privatised by the Privatisation Administration in accordance with the terms of reference prepared based on the criteria defined by EMRA. AGDAŞ was privatised by a tender conducted by the Adapazarı Metropolitan Municipality. EGO, İGDAŞ and İZGAZ will be privatised within three years, upon clearance of their debt to the Treasury.

The Law (as amended by Law No. 5367) mandates that BOTAS shall not enter into new import contracts (but allows the finalisation of the contract for purchase of Egyptian gas initiated by BOTAS), until its share in imports falls to 20% of annual national consumption (expected by 2009). In the meantime, BOTAS must conduct tenders for contract release for at least 10% of its existing contractual obligations each year until 2009 from the effective date of Law No. 4646. In case a contract release is not possible, then another tender for volume release must be held.
The legal unbundling of BOTAS as the System Operator and the separation of its activities into transmission, storage and trade is foreseen by the Law within two years as of 2009. At the same time, privatisation of the storage and trade businesses of BOTAS must be implemented.

Among other things, the Law will abolish the BOTAS monopoly, separating the company into units for natural gas import, transport, storage, and distribution by 2009. At that point, the various components (except for transport) are to be privatised. In the meantime, BOTAS is supposed to sell off at least 10% of its market share every year, eventually getting it down from 100% to 20% by 2009. Later in 2004, MENR proposed reducing the share of gas contracts that BOTAS would have to transfer to the private sector; 25% by 2009 instead of 80%; but the bill was withdrawn a few weeks later in response to domestic and foreign criticism.

The Law is intended to establish a competitive gas market and to ensure independent regulation of the sector. The law also seeks to harmonise Turkish legislation with EU law in view of Turkey’s future accession. The new legislation goes even further than the laws in force in many EU countries.

The main features of the Law are the following:

- All legal entities can carry out import, export, wholesale trade, transmission, distribution, storage (including LNG activities), and CNG transmission and distribution activities under license from the energy market regulator.
- The natural gas activities of BOTAS are to be unbundled. According to Law No. 4646, BOTAS will be restructured into a horizontally integrated legal entity after 2009. The two local distributors owned by BOTAS, in Bursa and Eskisehir will later be corporatised and privatised (these two have already been privatised recently).
- No importer will be allowed to import more than 20% of Turkey’s gas consumption during any one year. BOTAS will be required to sell part of its gas import contracts to comply with this provision. This sale will be accomplished through a series of annual competitive tenders to sell existing import contracts to new importers for no less than 10% of total imports each year. No new gas purchase contracts can be executed by any import company with the countries which has already signed contracts with BOTAS, until the expiration of the term of these contracts. New import contracts can be executed for the same amounts following the expiration dates of such existing contracts. However, new gas purchase connections can be established with such countries with the purpose of export or in case lack of national natural gas supply occurs.
- No legal entity is allowed to sell more than 20% of annual gas consumption. Only national gas producers may sell more than 20% of annual gas consumption in the domestic market, provided that the amount sold directly to eligible consumers does not exceed 20%. The remaining gas could be sold through importers, distributors, or wholesalers.
- Gas companies will not be allowed to establish another company in the same field of activity, but will be allowed to own participations in a company operating in another field. They may not, however, directly or indirectly hold the majority of the capital or commercial assets, nor do they have the right to use the majority of voting rights of the company. The rights of BOTAS on existing participations are preserved.
- To ensure security of supply, gas importers and wholesalers must inform the EMRA about the source and security of their gas imports, and they must store 10% of the gas
they import in five years. Importers also must prove that they can contribute to the improvement and security of the national transmission system.

- Transportation companies that own transportation networks and the owners and operators of LNG and storage facilities are to offer services at non-discriminatory conditions.

- Third parties also will be allowed to build pipelines. BOTAS, and other potential grid operators are to undertake investment, which is subject to the EMRA’s approval. The regulatory agency is to control this investment, along with service quality. Existing and planned national transmission networks as well as transmission networks under construction remain under the ownership of BOTAS.

- Eligible consumers will be free to select the supplier of their choice. Eligibility will be determined by the regulator. Consumers purchasing more than 1 million cubic meters of natural gas a year and users unions (consortia), power generators, and co-generators are considered eligible at present.

- Distribution rights of the distribution zones must be awarded under a tender. The bids in the tender shall be evaluated based on the unit service and depreciation charge, which shall be proposed as a single charge for supplying one kWh of natural gas to consumers. The bids shall be ranked based on the unit service and depreciation charges offered, the three lowest bids shall be determined and the relevant bidders shall make discounts off their bids. The Board shall either determine, as a result of the discount process, the bidder with the lowest bid, who shall be the company which acquires the right to be granted a distribution license and the companies ranking in second and third places; or cancel the tender if it does not deem the bids appropriate.

- The unit service and depreciation charge, which shall be set in the distribution tendering process, shall be in effect throughout the period set forth in the relevant tender documents which is eight years up till now. Following the completion of such period, the unit service and depreciation charge to be determined by the Board in accordance with the price cap method shall be used.

- The procedures and principles regarding the tariffs issued to be approved by the Board under this Law, the determination and application of tariffs are as follows:

  a. Connection Tariffs: The connection tariff principles to be determined by the Authority shall include the terms and conditions based on the principle of non-discrimination among free consumers which have equal standings for the connection to a transmission or distribution system which shall be included in the relevant connection agreements. The fees shall be freely determined by the parties within the framework of these principles. The fixed connection tariffs determined between the Authority and the distribution company shall apply to the subscribers.

  b. Transmission and Storage Tariff: The Authority shall determine the tariffs regarding the transmission and supervision of conveyance. In the tariffs, the Authority shall take into consideration the transmission distance, the amount of transmitted gas and other factors it shall envisage. The legal entities performing the transmission and supervision of conveyance service shall notify then-tariffs to the Authority within the period specified by the Authority. The Authority shall determine new tariffs based on the tariffs notified to itself and the principles stated in this Article.

    - The transmission tariff to be prepared by the Authority shall include prices, terms and tariff conditions applicable without discrimination among all users with equal standings, benefiting from the transmission facility for the conveyance of the generated, imported or exported natural gas.
- The Authority shall be authorised to determine the transit transmission tariffs according to procedures and principles different from those applicable to local transmission tariffs for the purposes of encouraging the transit transmission of the natural gas.
- The storage tariffs shall be determined freely between the companies involved in storage business and the legal entities receiving the storage services.
- The transmission and storage companies must prove to the Authority that they provide economical, effective and safe operation services.

c. Wholesale Tariff: The Authority shall determine the principles and conditions to be taken as basis for the natural gas sale tariffs. The sale prices, on the other hand, shall be determined freely within the framework of such principles by the parties involved in natural gas purchase and sale.

d. Retail Sale Tariff: Distribution companies must prove that they obtain gas from the cheapest source and that they operate effectively and safely; and they must fulfil this obligation within the license term. The retail sale prices and tariff principles consisting of unit purchase price of the natural gas, unit service cost, depreciation costs of the distribution company and other factors, shall be determined by the Authority. No price under any name can be requested from the consumers except for the retail sale price so established. The retail sale tariffs can be redetermined by taking into consideration the inflation and other issues, upon application of the distribution companies to the Authority.

- Prices will be negotiated by the trading parties, albeit subject also to the regulator’s oversight. Distribution companies must prove that they provide gas from the cheapest source, and they must operate efficiently and safely during their license period.

In September 2002, EMRA issued a regulation on principles and procedures pertaining to connection, transmission and dispatch, storage, and wholesale and retail sale tariffs. In January 2003, the new transmission tariff was announced. The tariff - the maximum that system operator BOTAS, can charge to shippers - is a flat rate postal tariff equivalent to $0.4 per million Btus. This tariff is lower than many expected, indicating that EMRA seriously intends to create a competitive market and that the prices for industrial consumers will probably go down as a result of liberalisation. Secondary legislation on licensing procedures and on network operation rules to be determined by transmission companies was also adopted.

III.2.2.3 Petroleum Products

In December 2003, a petroleum market reform bill was passed by the Parliament. The Petroleum Market Law aims to remove state controls on the sector, to liberalise pricing (and domestic content purchase requirements) of oil and oil products, end restrictions on vertical integration, and integrate pipeline, refining, and distribution functions. TUPRAS (Turkish Petroleum Refineries Corporation) and POAS (Petrol Ofisi, Turkey’s major petroleum product retailer) have recently been successfully privatised.

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7 In this Section, text is used from “Institutional Endowment and Regulatory Reform in Turkey’s Natural Gas Sector” by Maria Rita Mazzanti and Alberto Biancardi, WB Publication, 2003; and World Bank Turkey Gas Sector Note, Report No. 30030-TR, 2004; and EIA Turkey Country Analysis Brief, www.eia.doc.gov.
TUPRAS does not have any legal monopoly on any segment of the oil business and is, similarly to private Turkish and foreign companies, subject to Energy Market Regulatory Authority (EMRA) control and regulation. Because domestic oil production is limited in Turkey, most of the demand must be imported, mainly from the Gulf region, the Caspian Sea area, Libya, Algeria and Russia.

Refining in Turkey is wholly dominated by TUPRAS, which owns all operating oil refineries in Turkey. Oil distribution is carried out by private companies, among which POAS has the biggest station network (3,999 stations) and market share (almost 40%). Its biggest competitors are Shell, BP and Total but also Turkish-owned OPET and TURCAS.

For details, see sections on market structure and privatisation.
IV. Market Structure and Privatisation

IV.1. Oil and Gas

Oil and gas activities fall under the Petroleum Law No. 6326 (1954), Law No. 6556 (1955), Law No. 6987 (1957), Law No. 1702 (1973), Law No. 2808 (1983), Natural Gas Market Law No. 4646 (2001), and Petroleum Market Law No. 5015 of 2003. Additional Decrees also contain important regulations, in particular the Petroleum Regulation (Official Gazette: 17 July 1989, No. 20224 – aka Decree 20). The main provisions of the Petroleum Law No. 6326 regarding establishments in the sector are the following:

- To engage in exploration and production of hydrocarbons, enterprises need a special permission (a license or a lease).
- Foreign enterprises may invest in exploration and exploration activities only if they are not controlled or owned by a foreign State (this restriction may be lifted by the Council of Ministers).
- Transportation through pipelines and storage, is required approval by Council of Ministers.

In December 2003, a petroleum market reform bill was passed by the Parliament. The Petroleum Market Law No. 5015 aims to remove state controls on the sector, to liberalise pricing (and domestic content purchase requirements) of oil and oil products, end restrictions on vertical integration, and integrate pipeline, refining, and distribution functions. TUPRAS (Turkish Petroleum Refineries Corporation) and POAS (Petrol Ofisi, Turkey's major petroleum product retailer) were privatised. Also, as a result of this Law, price ceilings and import quotas on petroleum products were lifted in early 2005.


However a draft petroleum law was prepared, The provisions of Petroleum Law No. 6326 regarding exploration and production of hydrocarbons, as well as some other regulations were amended by this draft

IV.1.1. Oil and Gas Exploration and Production

The main provisions of the current petroleum legislation regarding exploration and production of hydrocarbons are the following:

- Since 1978, the country has been divided into 18 petroleum districts (Figure 5). The size of a licensed area cannot exceed 50,000 hectares except outside of a petroleum district in the offshore; the size of an area leased cannot exceed 25,000 hectares. The maximum holdings of any entity in any district cannot exceed 150,000 hectares at any point of time. An entity can simultaneously hold a maximum of 8 licenses, except for the state-owned Turkish Petroleum Corporation (Türkiye Petrolleri Anonim Ortaklığı, TPAO), which can hold up to 12 licenses in a petroleum district. But the number of licences held by TPAO
cannot exceed 180 licences at any time. An area which is not licensed or leased may be offered to bidding for lease by decision of the Council of Ministers. By a decision of the Council of Ministers, an entire district or part of it may be declared open to license or lease, or an open area may be modified or may be closed in whole or in part.

- Onshore exploration licences are granted for up to 4 years and can be extended twice for up to two years per extension; the terms of exploration licences in offshore areas can exceed those in onshore areas by 50%.
- Production leases (both onshore and offshore) are granted for up to 20 years and can be extended twice for up to ten years per extension.
- Licences are granted with a minimum work programme obligation. Operators must drill a well by the end of the third year of the first exploration period, and spud a new well in the same district within six months from the completion of a well.
- Licensees pay a rental fee ($15-45 per license), royalty of 12.5% and tax (subject to general tax regime, but not to exceed 55% of total income).
- Licensees have an obligation to sell the oil produced in the fields discovered before January 1st, 1980 to the local market (at least 65% of production from onshore fields, and at least 55% of production from offshore fields). Sales on the domestic market are at world market prices.
- Licensees have to provide education and training to Turkish employees. At least 25% of the personnel must be Turkish nationals.

**Figure 5: Hydrocarbon exploration and production areas in Turkey**

For tax purposes, depreciation of fixed assets of companies under the framework of a decree or under Law No. 6326 (petroleum) is disallowed to the extent that the assets are not covered by the investment permit. Hydrocarbons are the property of the state and therefore cannot be acquired or depreciated by private taxpayers. However, license values are subject to depreciation at rates determined jointly by the Ministry of Finance and the Ministry of Industry and Commerce. Oil well installations are depreciated as tangible fixed assets, and
any remaining book value may be written off at any time that extraction ceases for economic reasons. The costs of exploratory drillings are expensed as incurred.

A provision in Law No. 6326 limits the total effective rate of income taxes on earnings from oil companies to 55%. Since the maximum combined effective rate of corporate tax and fund payments is presently expected to be 40.37% (in case corporate withholding tax is determined as 10%), this provision has no current relevance to foreign shareholders. Petroleum companies may, however, deduct exploration costs (except for tangible fixed assets, such as casing) as they are incurred, provided they are stated as expenses in the books of account. Similarly, they may also write off any remaining book values of wells and other installations when production ceases to be economical.

Under Decree No. 20, a regulatory fund premium is levied at the rate of 10% on the wellhead price of crude oil at the production stage. However, the regulatory fund premium is not levied until the amortisation of expenditures for projects related to the following:

1) Crude oil produced in fields explored after January 1, 1980.
2) Heavy crude oil with a gravity of 16° API or less.
3) Light crude oil obtained as a sub-product through natural gas production process (condensate, etc.).
4) Crude oil produced at a field where secondary production techniques are to be applied with the approval of the General Directorate of Petroleum Affairs (GDPA).

Exploration costs of oil-producing companies may be offset first against Decree No. 20 payments, effectively resulting in exploration costs being borne by the government and not the company. However, any excess exploration costs over available Decree No. 20 payments at the year-end may not be carried forward to the following year.

As of mid-2005, a new Petroleum Law was drafted, which provides substantial incentives for exploration and production of hydrocarbons:

- The duration of exploration and production licenses in both onshore and offshore areas will be increased:
  - Exploration licenses onshore may be granted for up to 5 years, with two extensions of two years each (maximum nine years), and for up to 8 years offshore, with two extensions of up to three years each (maximum 14 years).
  - Production licenses both onshore and offshore may be up to 30 years, with two extensions of up to ten years each (maximum 50 years).
- The number of exploration and production districts will be reduced from 18 to just two onshore and offshore. Onshore license areas would be up to 100,000 hectares, and offshore license areas can be up to 1,000,000 hectares, much bigger than the current maximum acreage of 50,000 hectares. The restriction on the number of license areas that a company may hold at any one time will be completely removed.
- Royalty will be paid on a sliding scale depending on daily production volumes, instead of the current fixed rate of 12.5%, and may be as low as 2% for production of less than 500 bpd of oil onshore and 20,000 bpd offshore, and 3% for production of less than 85,000 m³/day of gas onshore and less than 3,300,000 m³/day offshore. For oil and gas, the maximum royalty rate will be set at 12%, both offshore and onshore. In offshore areas, royalty relief will be provided for deeper areas (up to 30% royalty reduction).
Royalty relief will also be provided for extra heavy oil (50% royalty reduction for oil gravity less than 16° API) and for enhanced oil recovery projects approved by GDPA (25% royalty reduction).

- Obligatory work programme requirements are to be reduced. Operators must file a drilling programme by the end of the fifth year of the first exploration period, but can walk away from the work programme by paying a 2% penalty on the value of any uncompleted part of the proposed work programme.

- Net income tax would be set at maximum 40%.

- The domestic market sales obligation for any crude oil and natural gas produced will be removed and operators will be able to export all of their oil and gas production.\(^8\)

Table 14 lists data for oil and gas production in Turkey.

Table 14: Indigenous oil and gas production in Turkey

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude oil (thousand metric tons)</td>
<td>2749</td>
<td>2551</td>
<td>2442</td>
<td>2375</td>
<td>2276</td>
<td>2281</td>
<td>1076</td>
</tr>
<tr>
<td>Natural gas (billion cubic meters)</td>
<td>0.639</td>
<td>0.312</td>
<td>0.378</td>
<td>0.561</td>
<td>0.707</td>
<td>0.896</td>
<td>0.461</td>
</tr>
</tbody>
</table>

Three companies account for the majority of Turkey’s oil production; TPAO, and foreign operators NV Turkse Perenco and Petroleum Exploration Mediterranean Inc. and Dorchester Master Ltd. In 2005, oil consumption of Turkey realised 30 million tons with 15% of which was met by domestic production. TPAO alone met 12% of Turkey’s oil and gas demand by its domestic and international production with 72,000 bbl/day in 2005.

TPAO is structured as a 100% government-owned shareholding company with four subsidiaries and an associated company:

- Turkish Petroleum International Co. (TPIC) was established as a subsidiary of TPAO in 1988 and operates in all hydrocarbon subsectors both inside and outside Turkey. The company is active in Iraq, Syria, Libya, Sudan, Yemen, Russia, Azerbaijan, Turkmenistan, and Kazakhstan (oilfield services). A branch office is located in Georgia. In Turkey, TPIC provides bunkers in the Bosphorus and Ceyhan areas, drilling services, storage at Dortyol’s BOTAS facility and at Habur, distribution (particularly of diesel fuel), and is engaged in oil products trading (including substantial sales of products into Iraq). The company plans to become a major participant in the Turkish distribution/marketing sector and has initiated a restructuring programme for this purpose. In 2005, TPIC acquired a license for storage and distribution activities under the Petroleum Law of 2003.

- Turkish Petroleum Overseas Co. LTD (TPOC) is a subsidiary of TPAO established in Jersey (Channel Islands) in 1996 for all hydrocarbon activities. TPOC holds interest in two PSAs in offshore Azerbaijan – Shah Deniz (9%) and Alov (10%). TPOC is also operator of three PSA blocks in Libya (NC-188 and NC-189 with 51% share in both of them and NC-147/3-4 with 100% share). In addition, TPOC holds a 13.5% share in the PSA covering Blocks IIA, IIB and III in the Georgian offshore in Black Sea, with Anadarko, BP and ChevronTexaco as partners. Turkish Petroleum Early Oil Financing Co. LTD (TPEOFC) was established as a subsidiary of TPOC in Jersey.

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\(^8\) Source: GDPA (2005).

\(^*\) For the period of first six months.
Market Structure and Privatisation

- Turkish Petroleum BTC LTD (TPBTC) is a subsidiary of TPAO incorporated in 2002 in the Cayman Islands with the task of participating in the Baku-Tbilisi-Ceyhan pipeline project (BTC) on behalf of TPAO. The company holds a 6.53% share in the BTC project.
- Turkish Petroleum SCP LTD (TPSCP) is a subsidiary of TPAO incorporated in 2002 in the Cayman Islands with the task of participating in the South Caucasus Pipeline project (SCP) on behalf of TPAO. The company holds a 9% share in the SCP project.
- Kazakhturkmunai (KTM) LTD joint company was established in 1993 by TPAO (49%) and Kazazarubezhgeologia (KZBG) State Enterprise of the Ministry of Geology and Earth preservation of Kazakhstan (51%). KTM currently holds interest in seven PSA blocks in four basins in Kazakhstan. Production is carrying on in Block IV - Aktau (2,700 bpd) and Block II-a and South Karatobe in the Aktubinsk Region with 1,450 bpd and 3,100 bpd accordingly.

Besides, TPAO has ventured into international activities via its subsidiaries (listed above) to contribute to supplying part of Turkey’s oil and gas demand, TPAO has become a shareholder in the Azeri-Chirag-Guneshli (ACG) project initialised in 1994 in Azerbaijan, with 6,75% share. Operator is BP. The field has 5.4 billion barrels of recoverable oil. The daily production, which was 353,4 thousand barrels at the end of 2005, is estimated to go up to 1.1 million barrels in 2010.

Turkish oil fields are generally small, and scattered around the country. Oil fields in the country's southeast (Turkey's main oil producing area) are old and expensive to exploit. In addition to the southeast region, Turkey contains oil prospects in its European provinces, in the Black Sea shelf region, and in other oil basins in southern and southeastern Turkey. Potential oil reserves in the Aegean Sea have not been explored due to conflicting Greek claims over the region.

In December 2003, TPAO stated that it was planning large-scale exploration for oil and gas in the Black Sea, Mediterranean, and Aegean Seas besides southeastern Turkey. Until the end of 2004, 1,685 exploration and appraisal wells have been drilled in Turkey. As a result of the exploration activities until the end of 2004, 139 fields (103 oil, 32 natural gas and 4 CO₂) were discovered in Turkey, of which 88 by TPAO (60 oil fields, 6 joint oilfields, 18 natural gas fields and 4 CO₂ fields). Recent exploratory activity has involved the drilling of the first offshore wells in the Black Sea (including deep water), and in 2004 the TPAO-Toreador-Stratic JV declared a gas field discovery on the shelf of the Western Black Sea.

In 2005, TPAO initiated a farm-out round on joint venture terms (50-50) for its Black Sea deepwater blocks (AR/TP3920, AR/TP3921 and AR/TP3922), where licence was granted to TPAO in mid-2004 (Figure 6). The large offshore blocks are split into smaller ones of about 1,000,000 hectares each. A “Model Joint Exploration and Development Agreement” (1984) between TPAO and international companies exists, but the terms of the farm-out have been updated to reflect contemporary oil industry practices. Even though the current petroleum legislation only allows 2+2 year extension right to the original 4-year license, TPAO is offering 3+3 year extensions upon the provision of a guarantee. The farm-out is complete in two blocks (AR/TP3920 and AR/TP3922), where on August 17, 2006 a Joint Operating Agreement was signed between TPAO and Petrobras. TPAO already has joint ventures in the deepwater Black Sea in block TP/BP/3534 with BP and Chevron Texaco, and holds the fifth deepwater block in the Black Sea (AR/TP/3923).

On the other hand, in order to match the seasonal variations in Turkey’s natural gas consumption, TPAO is realising one onshore and another offshore gas storage project in
Thrace Region which is going to be the first in Turkey, with a total active gas capacity of 1.6 billion m$^3$. These storages will be ready for use by the end of 2006.

Despite the implementation of recent active exploration, development and EOR programmes, oil and gas production in Turkey is by far insufficient to meet domestic demand. For this reason, TPAO has engaged in a number of international ventures. Apart from the activities carried out via subsidiaries and affiliated companies as listed above, TPAO has itself directly engaged in investigating opportunities in Algeria, Libya, Kazakhstan, Syria, Brazil and Indonesia, Sudan, Egypt, Yemen, Tunisia, India and Ukraine. TPAO holds currently 100% interest in the PSA covering Block 147 in Libya. The company has set an ambitious goal of eventually producing 300,000 bpd oil equivalent, directly and via its affiliates. As domestic production will continue to decline, this goal is only achievable if foreign ventures bring success. Figure 7 illustrates the expected production of TPAO in Turkey and other countries.

**Figure 6:** Joint Venture Activities of TPAO in Turkey

**Figure 7:** TPAO’s production history and forecast

*Source: TPAO*
IV.1.2. Oil Refining, Storage, Distribution

Petroleum refining is regulated by the Petroleum Law No. 6326 of 1954. Major changes to legislation were introduced in 2003 with the adoption of the Petroleum Market Law. The objective of the Law is to create a competitive market as the state is gradually withdrawing from the industry. The Law seeks to enhance the role of supporting industry, regulate and monitor the market within the framework of international rules. By virtue of this new Law, all licensing issues and the regulation of the market have been handed over from the Ministry of Energy and Natural Resources to the newly established Energy Market Regulation Authority, which is financially and administratively independent.

Sectoral Structure

The Law designates the EMRA as the regulator for the Turkish petroleum markets. Activities in the petroleum market are subject to the obtaining of the appropriate refinery licence, distributor licence, free consumer licence, processing licence, lubricants production licence, storage licence, transmission licence, transportation licence, bunker delivery licence, and dealer licence.

Liberalisation

The Petroleum Market Law reduced government intervention in oil price. The automatic pricing system was abolished as of December 30, 2004. The prices are now formed based on free market conditions.

Under the previous law, some import restrictions applied to distributors, which were required to procure at least 60% of their supply from national sources. This restriction has been lifted by the Petroleum Market Law.

Apart from these, the refineries are now allowed to own distribution companies. In general terms, the conditions for starting a new distribution business in the petroleum market have been lowered by the Petroleum Market Law.

New regulatory requirements

A new communiqué regarding the national marker requirements has been issued by EMRA. Refineries and distributors must add a marker to petroleum products sold in Turkey. The marker must be added at the exit of the oil from the refinery and at Customs entry points. The previous attempts by EMRA for the marker tender has failed so far for several reasons, yet it is to be re-launched again and to be finalised in the near future.

The petroleum market share of a distributor cannot exceed 45% of the total Turkish petroleum market.

The distributors can operate their own oil stations, however, the sales made through these stations cannot exceed 15% of a distributor's total sales.

In accordance with the International Energy Agency's requirements, the Petroleum Market Law sets out the obligation for the distributors to keep a petroleum stock of 90 times the average daily consumption of the previous year.

Under the current system, oil commerce between distributors is subject to EMRA permission. EMRA has regularly issued such permissions, which have applied on a national level.
Recent developments

While the Turkish Petroleum Corporation (TPAO) is responsible for oil exploration and production activities, the Turkish Petroleum Refinery Corporation (TÜPRAŞ) is in charge of most refinery works in Turkey. In 2000, 35% of TÜPRAŞ was privatised by sales of shares through the stock market. On April 6 2005, the Privatisation Administration (PA) adopted a decision to privatise TÜPRAŞ further through a block sale of a 51% stake via a competitive bid tender. The winner was a joint venture of the Koc group of companies and Shell.

The Koc Group formed a consortium with Shell to participate in the tender. The Consortium was awarded the bid and the share purchase agreement was signed on January 26 2006. Finally, the share transfer was concluded and the Consortium paid the purchase price to the Turkish Treasury. However, the Union of Petroleum Workers had filed three administrative lawsuits with the Council of State as a result of which the Council of State rendered that the tender specifications and the PA's decision to conclude the sale were not in compliance with the Privatisation Law, so that their execution shall be stayed. In the light of the previously concluded sale, this has raised a legal discussion but to see an approval by the Danistay (cf. below section on competition).

The Petroleum Distribution Company (POAS) was privatised by a 51% block sale of shares in 2000, and 6% of the remaining shares have already been privatised by sales through the İstanbul Stock Exchange, while the remaining 43% being still held by the Privatisation Administration. In July 2002, Turkey's government announced that it would sell its 25.8% share in POAS to the majority shareholder, Is Dogan Petrol Yatirimlari AS ("Dogan"). The announcement came amidst calls by the IMF for an acceleration in Turkey's privatisation process. In October 2004, Dogan announced that it had dropped plans to sell its 47% stake in the company to foreign investors after failing to receive adequate offers. In June 2005, POAS applied for pre-qualification on a bid for TÜPRAŞ, but did not win the tender.

One of Turkey's next priorities for privatisation in the energy sector is the country's largest petrochemical producer, Petkim. In August 2003, Turkey announced the opening of a tender for sale of an 88% stake in Petkim after canceling another possible sale, for $605 million to a Turkish conglomerate. In April 2005, 35.4% of the state shares in Petkim were sold, mainly to foreign investors, for $267 million.

Turkey has a nameplate refining capacity of 32 million tons per year at 5 refineries. TÜPRAŞ has a combined capacity of 27.6 MT/Y (86% of Turkish refining capacity) while ATAŞ has a capacity of 4.4 MT/Y (14% of total). In 2004, the ATAŞ refinery was converted to storage operations only, and thus the refining capacity was reduced to 27.6 MT/Y, with TÜPRAŞ now holding 100% of the market. The issue of market power surfaced in 2005 in the process of TÜPRAŞ's privatisation (cf. section on competition below).

TÜPRAŞ dominates refining and other downstream operations. It has four main refining complexes: Batman in the southeast, Aliaga near Izmir, Izmit near Istanbul (the country's largest refinery, damaged during the August 1999 earthquake), and the Central Anatolian Refinery at Kirikkale near Ankara. TÜPRAŞ is planning a fifth refinery - a $700-$800 million facility near Yarimca in western Turkey -- to be completed by 2007. In 2001, the Yarimca facilities, the first complex set up by PETKİM (Petrochemicals Holding), was turned over to TÜPRAŞ and renamed Körfez Petrochemicals and Refinery Complex.

TÜPRAŞ has a modernisation programme designed to switch output at its refineries towards lighter products and to meet European standards. In late June 2005, TÜPRAŞ was granted a
$128 million loan by the Turkish Treasury Undersecretariat to upgrade the Kirikkale refinery so it meets EU regulations.

Until the privatisation of TÜPRAŞ in 2005, Turkey's sole private refinery was ATAŞ, with a nameplate capacity of 88,000 bbl/d, located near Mersin on the Mediterranean coast, a joint venture of ExxonMobil (51%), Shell (27%), BP Amoco (17%), and local company Marmara Petrol ve Rafineri İşleri AS (5%). In 2004 ATAŞ was shut down and converted to storage operations only, due to profitability concerns.

In 2002, TÜPRAŞ share of the Turkish fuels and lubricants market was around 78% (more in refining), with other major retailers including BP, ExxonMobil, TotalFinaElf, Agip, and ConocoPhillips. In recent years, the share of TÜPRAŞ on the domestic market decreased somewhat. About 70% of product demand on the domestic market is now met by TÜPRAŞ from its refineries, and the rest from imports.

### Table 15: Refined Products Output

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Refinery Fuel Gas</td>
<td>414.968</td>
<td>633.508</td>
<td>556.982</td>
<td>629.803</td>
<td>576.531</td>
<td>595.793</td>
</tr>
<tr>
<td>LPG</td>
<td>676.330</td>
<td>748.449</td>
<td>669.642</td>
<td>739.636</td>
<td>757.509</td>
<td>760.616</td>
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<td>Naphta</td>
<td>1,465.315</td>
<td>1,450.804</td>
<td>1,851.164</td>
<td>1,453.384</td>
<td>1,353.966</td>
<td>1,574.723</td>
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<tr>
<td>Normal Gasoline</td>
<td>1,569.244</td>
<td>2,109.592</td>
<td>959.072</td>
<td>286.279</td>
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<td></td>
</tr>
<tr>
<td>Super Gasoline</td>
<td>1,042.365</td>
<td>1,343.450</td>
<td>917.650</td>
<td>993.348</td>
<td>1,119.446</td>
<td>630.395</td>
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<td>Unleaded gasoline</td>
<td>10,812</td>
<td>166.702</td>
<td>801.164</td>
<td>2,428.974</td>
<td>2717947</td>
<td>2849007</td>
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<tr>
<td>Solvent</td>
<td>7.236</td>
<td>2.833</td>
<td>2.772</td>
<td>2.787</td>
<td>2.376</td>
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<tr>
<td>Jet Fuel</td>
<td>618.898</td>
<td>1,146.055</td>
<td>1,023.526</td>
<td>1,181.393</td>
<td>1,289.707</td>
<td>1,384.386</td>
</tr>
<tr>
<td>Kerosene</td>
<td>166.890</td>
<td>78.327</td>
<td>26.241</td>
<td>40.363</td>
<td>75.751</td>
<td>53.523</td>
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<tr>
<td>Diesel Oil</td>
<td>6,359.381</td>
<td>7,706.617</td>
<td>6,646.908</td>
<td>7,461.455</td>
<td>7811040</td>
<td>7431534</td>
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<tr>
<td>Spe heat Oil</td>
<td>218.497</td>
<td>73.364</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating Oil</td>
<td>318.140</td>
<td>1,554.185</td>
<td>1,458.968</td>
<td>1,160.477</td>
<td>1,176.060</td>
<td>867.628</td>
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<tr>
<td>Fuel Oil-5</td>
<td>1,073.285</td>
<td>13.172</td>
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<td></td>
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<tr>
<td>Fuel Oil-6</td>
<td>7,094.476</td>
<td>7,769.507</td>
<td>6,563.104</td>
<td>6,809.005</td>
<td>6,863.027</td>
<td>6,977.586</td>
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<tr>
<td>Asphalt</td>
<td>720.806</td>
<td>980.311</td>
<td>1,282.265</td>
<td>1,245.574</td>
<td>1,410.054</td>
<td>1,390.574</td>
</tr>
<tr>
<td>Lube Oil</td>
<td>282.300</td>
<td>293.628</td>
<td>317.323</td>
<td>298.594</td>
<td>279.728</td>
<td>291.621</td>
</tr>
<tr>
<td>HVGO</td>
<td>360.796</td>
<td>456.007</td>
<td>485.025</td>
<td>224.951</td>
<td>431.913</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>137.345</td>
<td>93.173</td>
<td>113.952</td>
<td>129.253</td>
<td>130.362</td>
<td>132967</td>
</tr>
<tr>
<td>Total</td>
<td>22,169.052</td>
<td>26,528.966</td>
<td>23,646.710</td>
<td>25,345.335</td>
<td>25,788.866</td>
<td>25,374.642</td>
</tr>
</tbody>
</table>

One of Turkey's next priorities for privatisation in the energy sector is the country's largest petrochemical producer, Petkim. In August 2003, Turkey announced the opening of a tender for sale of an 88% stake in Petkim after canceling another possible sale, for $605 million to the Uzan group. In April 2005, 35.4% of the state shares in Petkim were sold, mainly to foreign investors, for $267 million.

The output of petroleum products reached 25.4 million tons in 2004, while petroleum products consumption in the same year was 30.6 million tons. Turkey’s petroleum products imports increased from 2.2 million tons in 1990 to 9.7 million tons in 2004. During the same period exports increased from 2.1 million tons to 3.8 million tons. Imports from abroad are carried out by the retailing organisations of fuel distribution companies. At the end of 2004, 18 fuel distribution companies were active across Turkey which had a product storage capacity of 2,405,554 tons. Detailed yearly data are given below.
The main policy of the refining sector is to satisfy Turkey’s need for petroleum products safely and economically. For this purpose existing and/or new firms in this field may set up, purchase and operate petroleum refineries and new units both in Turkey and abroad. Also improving product quality and achieving compliance with EU specifications are the main objectives of the ongoing investments. Another basic policy is to encourage the construction of a new refinery plant in order to meet petroleum products requirements of the country.  

### Table 16: Consumption of refined products

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Refinery Fuel Gas</td>
<td>414.968</td>
<td>633.508</td>
<td>556.982</td>
<td>629.803</td>
<td>576.533</td>
<td>595.791</td>
</tr>
<tr>
<td>LPG</td>
<td>1,565.986</td>
<td>2,362.412</td>
<td>4,546.884</td>
<td>3,500.383</td>
<td>3,551.623</td>
<td>3,943.484</td>
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<tr>
<td>Naphtha</td>
<td>1,554.709</td>
<td>1,582.021</td>
<td>1,562.018</td>
<td>1,678.374</td>
<td>1,551.867</td>
<td>1,496.548</td>
</tr>
<tr>
<td>Normal Gasoline</td>
<td>1,685.894</td>
<td>2,343.185</td>
<td>1,200.003</td>
<td>470.832</td>
<td>90</td>
<td>24</td>
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<tr>
<td>Super Gasoline</td>
<td>1,002.758</td>
<td>1,441.842</td>
<td>1,068.236</td>
<td>933.200</td>
<td>1,161.365</td>
<td>758.412</td>
</tr>
<tr>
<td>Unleaded gasoline</td>
<td>10.415</td>
<td>161.091</td>
<td>1,387.639</td>
<td>1,699.819</td>
<td>1,796.888</td>
<td>2,203.594</td>
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<tr>
<td>Solvent</td>
<td>144.022</td>
<td>267.179</td>
<td>208.530</td>
<td>289.238</td>
<td>338.899</td>
<td></td>
</tr>
<tr>
<td>Jet Fuel</td>
<td>292.223</td>
<td>867.237</td>
<td>970.995</td>
<td>1,199.223</td>
<td>1,314.199</td>
<td>1,526.855</td>
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<tr>
<td>Kerosene</td>
<td>183.689</td>
<td>91.887</td>
<td>36.577</td>
<td>30.540</td>
<td>60.215</td>
<td>35.864</td>
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<tr>
<td>Diesel Oil</td>
<td>7,193.181</td>
<td>8,100.884</td>
<td>8,774.281</td>
<td>9,063.456</td>
<td>9,536.335</td>
<td>10,347.405</td>
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<tr>
<td>Heating Oil</td>
<td>1,464.170</td>
<td>1,318.510</td>
<td>1,392.197</td>
<td>914.945</td>
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<td></td>
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<tr>
<td>Fuel oil-6</td>
<td>6,738.459</td>
<td>8,026.886</td>
<td>6,202.133</td>
<td>6,824.004</td>
<td>6,661.619</td>
<td>6,386.723</td>
</tr>
<tr>
<td>Asphalt</td>
<td>694.630</td>
<td>969.525</td>
<td>1,247.415</td>
<td>1,238.357</td>
<td>1,404.254</td>
<td>1,389.844</td>
</tr>
<tr>
<td>Lube Oil</td>
<td>292.014</td>
<td>338.805</td>
<td>489.841</td>
<td>412.162</td>
<td>489.893</td>
<td>562.655</td>
</tr>
<tr>
<td>Others</td>
<td>93.205</td>
<td>97.105</td>
<td>115.626</td>
<td>127.033</td>
<td>123.186</td>
<td>126.613</td>
</tr>
<tr>
<td>Total</td>
<td>21,722.131</td>
<td>27,160.410</td>
<td>29,889.979</td>
<td>29,334.226</td>
<td>29,909.502</td>
<td>30,627.656</td>
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### Table 17: Imports and exports of refined products (tons)

<table>
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<tr>
<th>Years</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2,168.471</td>
<td>2,075.379</td>
</tr>
<tr>
<td>1995</td>
<td>2,978.728</td>
<td>1,686.440</td>
</tr>
<tr>
<td>1996</td>
<td>5,094.274</td>
<td>1,630.949</td>
</tr>
<tr>
<td>1997</td>
<td>4,602.959</td>
<td>1,629.439</td>
</tr>
<tr>
<td>1998</td>
<td>5,022.724</td>
<td>2,326.769</td>
</tr>
<tr>
<td>1999</td>
<td>5,585.111</td>
<td>2,751.992</td>
</tr>
<tr>
<td>2000</td>
<td>8,622.152</td>
<td>1,550.983</td>
</tr>
<tr>
<td>2001</td>
<td>5,791.746</td>
<td>2,349.893</td>
</tr>
<tr>
<td>2002</td>
<td>7,534.685</td>
<td>2,768.513</td>
</tr>
<tr>
<td>2003</td>
<td>8,111.499</td>
<td>3,556.306</td>
</tr>
<tr>
<td>2004</td>
<td>9,715.103</td>
<td>3,824.246</td>
</tr>
</tbody>
</table>

Source: GDPA (years 2003-2004)

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Pricing

The daily prices of crude oil on the world markets are adopted by the authorities in Turkey. For products, until 2004 an Automatic Pricing System was in place. Refineries used to set their sales prices in parallel with the international prices of oil products. In practice, Turkish refineries were allowed to set their prices freely within a price corridor of plus or minus 3% of the average of the CIF Med product prices published in the Mediterranean Italian markets over the last five days. Since 2004, petroleum product pricing is free and prices change daily based on supply and demand.

Fuel oil and LPG distributors determine local retail sales prices under free market conditions by taking into account the prices calculated by adding the applicable taxes and funds’ charges.

Oil Stocks

Turkey is a member of the International Energy Agency and regularly informs the Secretariat of the agency about oil stocks. All emergency preparatory measures are undertaken by the General Directorate of Petroleum Affairs which is responsible for the monitoring and control of petroleum stocks. Petroleum Market Law No. 5015 (2003) set up a National Oil Stock Commission (NOSC) to take decisions concerning to the actual number of days, the liabilities, term, type, quantity and the locations, the procurement of petroleum and services, the sales from the national petroleum stocks, and other decisions and measures. NOSC is responsible to the Council of Ministers.

The laws and regulations related to oil stocks are the following:

- Petroleum Market Law No 5015 (Official Gazette: 20 December 2003, no. 25322). The Law requires the accumulation of 90 days oil stock to provide a sustainable oil market, to prevent the risks in crises or extraordinary cases and to meet the requirements of international agreements.
  - National oil stock is kept in an amount of at least 90 days’ amount of the net import in the previous year’s average daily consumption. The national oil stock is accumulated by the refinery, fuel and LPG distribution licensees, eligible consumers and the government.
  - Loaded tankers in territorial waters must be transferred to refineries and storages, and crude oil and semi-products in refineries are deemed to be part of the national stock.
  - The national oil stock might be kept tax-free, depending on its status.
  - Refinery, fuel and LPG distribution licensees are obliged to keep minimum 20 times of the average supplied daily product volume at their own storage or at licensed storage facilities. Eligible consumers that use 20 thousand tons or more of each type of liquid fuel per year, must keep 15 days of their consumption as a stock. The remaining portion of stocks to cover 90 days of demand is kept by refineries on behalf of the state.
  - Financing, stockpiling and maintenance costs of stocks are covered by a mark-up added to consumer prices and by the income from refining. In the event of imports not intended for refining, importers must pay a fee to the refineries. Refineries must provide to EMRA information regarding the accounting of this income every year. The amounts may be set by EMRA at a maximum of 10 US Dollars/ton for oil and LPG importers.
- A number of laws and regulations provide measures to mitigate the effects of difficulties in supply of crude oil and petroleum products. These laws and regulations give the Turkish National Emergency Sharing Organisation (NESO) wide-ranging authority for emergency management and control of the oil industry (Province Administrations Law

- Stock draw-down
- Demand restraint measures
- Driving restraints
- Odd and even plate number restriction
- Weekend and short distance driving bans
- Fuel quotas
- Price adjustments
- Crude oil production increase
- Fuel switching.

- LPG Market Law No 5307 (Official Gazette: 13 March 2005, no. 25754)
- By-law on Petroleum Market Licence (Official Gazette: 17 June 2004, no. 25495)

**IV.1.3. Oil and Gas Pipelines**

**Oil Pipelines**

The Petroleum Law No.6326 (1954) and Petroleum Market Law No.5015 (2003) regulate oil pipeline transportation and transit. The major pipeline company is BOTAS (Petroleum Pipeline Company), which also owns and operates the gas pipeline system.

BOTAS (Petroleum Pipeline Corporation) was established as an affiliated company of Turkish Petroleum Corporation (TPAO) on August 15, 1974 for the purpose of transporting Iraqi crude oil to the Gulf of Iskenderun. In 1995, the company was restructured as a State Economic Enterprise (SEE).

BOTAS's business in transportation of crude oil by pipelines expanded to cover natural gas transportation and trade activities as well (since 1987). The monopoly rights of BOTAS on natural gas import, distribution, sales and pricing under Decree No.397 have been abolished by the Natural Gas Market Law No.4646 (2001, see below the section on gas).

Oil transportation activities are carried out by various pipelines. The main crude oil pipelines are Baku-to-Ceyhan (BTC), Batman-Dörtçöl, Selmo-Batman, and Yumurtalik-Kirikkale. After the commissioning of BTC (July 2006), the total length of the crude oil lines in Turkey reached 3,368 km and the nominal capacity is 130.2 MTY.

- The BTC main export pipeline is designed with a nominal capacity of 50 MT/Y. It originates in Azerbaijan and is intended to transport Caspian crude oil to the deepwater port of Ceyhan. The pipeline was commissioned in mid-2006. The BTC line stretches 1,768 km through Azerbaijan, Georgia, and Turkey. The BTC pipeline allows oil to bypass the crowded Bosporus and Dardanelles Straits and is also the first pipeline able to

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10 Source: Screening Chapter 15 (Hydrocarbons – Oil: Stocks and Upstream).

11 Source: BOTAS.
export oil from the Caspian Sea that does not cross Russian soil. The pipeline is owned and operated by a consortium\textsuperscript{12} led by BP that expects regular tanker loadings from the fourth quarter of 2006. Turkey is expected to earn billions of dollars in transit revenues from the pipeline over its lifetime. In May 2006, Kazakhstan formally joined the BTC project as delivering 20 MT/Y Kazak crude oil via tankers to the Baku.

- The Batman-Dörtyol Pipeline is owned and operated by BOTAS and has a capacity of 3.5 MT/Y. It and serves the TÜPRAŞ refinery at Batman.

- The Iraq-Turkey Pipeline System (ITP) has two strings of 40 and 46 inch, originating at Kirkuk in Iraq. The lines are about 940 km long (~650 km on Turkish territory) and have a combined annual capacity of 70.9 MT/Y, but have recently been largely underutilised. The system is designed to transport Iraqi crude oil to the deepwater port of Ceyhan and is owned and operated by BOTAS. The port terminal at Ceyhan (Ceyhan Marine Terminal) is a large modern deepwater terminal on the Mediterranean Sea. The terminal has 1,770,000 m\textsuperscript{3} of storage, of which 1,620,000 m\textsuperscript{3} for ITP and the rest for the Ceyhan-Kirikkale pipeline. The terminal jetty can accommodate four 150.000-300.000 DWT tankers simultaneously.

- The Yumurtalik-Kirikkale Pipeline is owned and operated by BOTAS. It has a capacity of 5 MT/Y and serves the TÜPRAŞ refinery at Kirikkale.

- The Selmo-Batman oil pipeline system is essentially a local crude oil gathering system of limited capacity that brings oil from the fields to the Batman refinery.

<table>
<thead>
<tr>
<th>PIPELINE</th>
<th>LENGTH, km (in Turkey only)</th>
<th>SIZE, inch</th>
<th>CAPACITY, MTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITP 1. Line</td>
<td>641</td>
<td>40&quot;</td>
<td>46,5</td>
</tr>
<tr>
<td>ITP 2. Line</td>
<td>656</td>
<td>46&quot;</td>
<td>24,4</td>
</tr>
<tr>
<td>Ceyhan-Kirikkale</td>
<td>447</td>
<td>24&quot;</td>
<td>5</td>
</tr>
<tr>
<td>Batman-Dörtyol</td>
<td>511</td>
<td>18&quot;</td>
<td>3,5</td>
</tr>
<tr>
<td>Selmo-Batman</td>
<td>42</td>
<td>6&quot;-8&quot;-12&quot;</td>
<td>0,8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2297</td>
<td></td>
<td>80,2</td>
</tr>
</tbody>
</table>

Turkey has raised concerns about the ability of the narrow and twisting Bosporus Straits to handle additional tanker traffic that will be necessary to conduct the planned volume of oil to be exported via the CPC pipeline originating in Kazakhstan and ending at Russia’s Black Sea port of Novorossiysk, in addition to other oil shipments. Specifically, Turkey is concerned that a major accident and environmental disaster could take place right next to Istanbul, the country's largest city of more than 10 million inhabitants. For this reason, a number of bypass oil pipelines originating in the Black Sea have been proposed:

- One possibility is a 1.2-million bbl/d, $400-$900 million line running from Kiyikoy on Turkey's Black Sea coast to Ibrikbaba on the Aegean Sea coast near the border with Greece. Russia's Transneft had the lead on this project, but announced in March 2005 that it was pulling out. In addition, the Kiyikoy-Ibrikbaba line is opposed by environmentalists, since Ibrikbaba lies in a national park and the pipeline would pass near coral reefs in the Saronic Gulf.

\textsuperscript{12} BP (leader and operator) – 30.1%, SOCAR – 25%, Chevron – 8.9%, Statoil – 8.71%, TBBTC/TPAO – 6.53%, ENI – 5%, Total – 5%, Itochu – 3.4%, Amerada Hess 2.36%, Inpex – 2.5%, and ConocoPhillips – 2.5%.
- A rival option to the Kiyikkoy-Ibrikbaba pipeline, led by Houston-based Thrace Petroleum, involves a similar route, from Igneada on the Black Sea to Saros Bay on the Aegean Sea.

- Proposals for Bosphorus bypass routes include a 1.54-million-bbl/d line (2015 plateau level) from the central Black Sea port of Samsun in north of Turkey to Ceyhan.\(^\text{13}\)

- The Turkish Calik Group and Italian ENI have announced that they intend to undertake construction and operation of ~545 km the Samsun-Ceyhan Crude Oil Pipeline (Trans-Anatolian Pipeline - TAP). Turkish authorities have recently declared that the consortia was issued the right to realise the project. The investment will be realised through a license model, whereby the investors will build the pipeline with their own finance and operate it for a number of years.

For the time being, none of these bypasses have acquired sufficient support and their implementation is yet to be decided. Nevertheless, Italian ENI and Turkey’s Calik groups have been awarded a license in 2006 to construct the Samsun-Ceyhan petroleum pipeline and currently declared that they will be constructing the pipeline despite concerns over throughput guarantee from producers in the region.

**IV.1.4. Gas Imports, Distribution and Utilisation**

In 2005, total gas consumption (include indigenous production) was around 27 billion m\(^3\). Currently 31 cities have city distribution systems. 40 cities use natural gas only in industry. In addition, there are a number of small towns that use natural gas residually and industrially. The power generation sector is the largest consumer of natural gas, but industrial consumption has also been growing strongly. Natural gas demand for power generation is driven by power plants constructed under BO and BOT contracts. Currently, 4 BO, 4 BOT and 3 state-owned power generation facilities use gas. In 2005, natural gas consumption in BO, BOT and state-owned power plants reached to 15.8 bcm. Gas consumption for power generation was 57.9% of total gas demand. Residential gas consumers used 20.9% of total gas delivered, industry used 19.1%, and non-fuel use of gas (at fertiliser plants) constituted 2.1% of demand.\(^\text{14}\) Albeit less buoyant than before, projections still forecast very healthy growth of gas demand in Turkey – to 44 bcm in 2010 and to 63 bcm in 2020. Higher gas consumption will further be aided by the widening of gas networks in new districts via fast and successful new distribution network licenses by the EMRA under a highly competitive bidding structure, which saw the distribution fees reduced to lower than expected levels compared to previous monopolistic networks mainly in the big cities.

The Directorate General for BOTAŞ (Petroleum Pipeline Corporation) is a State Economic Enterprise (SEE). Until 2001 BOTAS had the status of a monopoly for the import, pricing and transport of natural gas. However, even before 2001 there was no legal barrier to foreign and/or private sector agencies to be active in natural gas distribution.

BOTAS International Ltd. was established in 1996 as a subsidiary of BOTAS for the purpose of participation in international energy projects. BOTAS also has a 35% stake in TURUSGAZ, which imports gas from the Russian Federation. Table 19 lists the current contracts of BOTAS (an agreement for import of gas from Egypt has not yet been concluded).

\(^{13}\) Source: US DOE (EIA).

\(^{14}\) Ibid.
Table 19: Gas import contracts of BOTAS

<table>
<thead>
<tr>
<th>Existing Contracts</th>
<th>Quantity BCM/year*</th>
<th>Date of Signature</th>
<th>Term (years)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>9.6</td>
<td>1996</td>
<td>25</td>
<td>In operation (2001)</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>6.6</td>
<td>2001</td>
<td>15</td>
<td>2006</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>15.6</td>
<td>1999</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Algeria (LNG)</td>
<td>4.4</td>
<td>1988</td>
<td>20</td>
<td>In operation (1994)</td>
</tr>
<tr>
<td>Nigeria (LNG)</td>
<td>1.3</td>
<td>1995</td>
<td>22</td>
<td>In operation (1999)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>67.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: BOTAS *All values based on 9,000 kcal/m³

Figure 8 provides data on the natural gas market in Turkey in 2005 by sub-sector.

**Figure 8:** Gas demand in Turkey by subsector (2005)

Source: BOTAS

Figure 9 provides data on the number of licenses in the gas market of Turkey as of mid-2006, with a breakdown by type.

**Figure 9:** Gas market licenses issued in Turkey (mid-2006)

Source: EMRA

Natural Gas Market Law No. 4646 Temporary Article 2 obliges BOTAS not to enter into new purchase contracts until its share of imports falls to 20% of the national consumption. The
law envisages to transfer the existing natural gas sales and purchase contracts until the year 2009 at the latest or until its share of imports falls to 20% of the national consumption. Due to the difficulties arised by the nature of such contracts, MENR formulated an amendment to the Law No.4646 for gas release related aspects. However, the draft is still pending in the Parliament.

In this context, the process of gas release was started by BOTAS in Nov.2004.

In this context, a contract transfer tender was launched with the Tender Announcement published in the Official Gazette dated 22.09.2005 within the same context of transfer of all the rights and obligations of BOTAS to third parties in lots consisting of 250 million contract m³/year. The evaluation phase is ongoing.

Gas Storage

Over the recent years, gas consumption has increased in Turkey at annual rates as high as 24%. At the same time, the country still does not have the ability to store gas as either a buffer for meeting seasonal and daily variations of demand (especially on cold winter days), or as a back-up in case of interruptions of supply. In 2005, the Gas Sector Development Project was launched with the help of the World Bank. Under the Project, a $325 million loan will be used to construct underground gas storage (UGS) and improve gas pipeline facilities. The objective is to increase the reliability and stability of gas supply in Turkey by implementing critically needed gas storage and network infrastructure, and support BOTAS in strengthening its operations as a financially stable and commercially managed corporation.

The Gas Sector Development Project has two major components:

1) A gas storage facility, to be constructed in an underground salt formation located close to Tuz Golu, a salt lake in South Central Turkey. The facility will have 12 caverns which will be solution-mined in phases of four caverns each. The facility, upon completion, will have a storage capacity of about 1BCM million cubic meters of working gas and 460 million cubic meters of cushion gas.

2) The financing of two compressor stations for BOTAS at Erzurum and other network infrastructure. This station is required to help transmit the increasing volumes of gas expected to be imported into Turkey from existing and new sources. The Erzurum station will enable the import of gas from Azerbaijan and Iran.

Upon completion, the Tuz Golu UGS will have the ability to store less than 4% of Turkey’s annual gas consumption. In comparison, countries typically store enough gas to meet 20 to 30% of their gas requirements. Turkey’s goal is to meet a more modest 10% of its requirements. Although this project will fall below this target, it is a good start. Nevertheless, there are also suggestions that unlike many European countries which are in the downstream, Turkey’s unique situation as ‘transmission country’ for major pipelines and its proximity to major exporting countries, the storage ratio may be considered to be set much lower than the standards for other countries.

Studies have also been conducted by TPAO for the conversion of the Northern Marmara and Degirmenkoy gas fields to underground gas storage facilities upon their depletion. The studies are going to complete at the end of September 2006 and the storage facility will be in operation in winter time.
**LNG**

Imports of natural gas to Turkey began in 1987 by pipeline from Russia via the Western Route across Ukraine, Moldova, Romania and Bulgaria. Soon afterwards, studies were carried out regarding natural gas supply diversification, and a decision was made to construct a LNG port and re-gasification facility at Marmara Ereğlisi, not far from Istanbul. LNG imports began in 1994 (from Algeria) and soon increased. A second contract was signed with Nigeria in 1999. Liquefied natural gas is unloaded from tankers to the LNG Import Terminal at Marmara Ereğlisi. The terminal has a re-gasification capacity of 685,000 m³/hour. The gas is fed into the main line. In 2005, Turkey imported 3.85 billion cubic meters of gas from Algeria and 1.03 billion cubic meters of gas from Nigeria.

**Gas pipeline system development plans**

The main pipeline system of Turkey is already well developed (see Figure 10). At the end of 2006, BOTAS operated about 8000 km of main pipelines and 2400 km of distribution lines. The effort is now directed to high pressure system expansion plans, as well as to the construction of connections to users and to gas distribution systems.

The current system expansion plans aiming at connecting consumers in Turkey include the following:

- **The Eastern Black Sea Natural Gas Transmission Project** Natural gas is aiming at bringing natural gas to Rize via Bayburt and Gumushane by constructing a branch line from the Eastern Anatolia Natural Gas Main Transmission Line. The pipeline between Trabzon and Rize will be 233 km long with a diameter of 24 inch. The branch lines to Gumushane and Bayburt will be 75 km long with a diameter of 12 inch. Construction activities have been continued to commission the system in 1H of 2007.

- **Eskipazar–Karabük and Zonguldak–Çaycuma–Bartın Natural Gas Pipeline Project** consists of two sub-projects:
  - Eskipazar–Karabük NGPL: The 34,958 meter line with 12 inch diameter will originate at 179+908m km of Sungurlu-Çankırı-Gerede-Bolu-Düzce Pipeline and end at Karabük Pig Station.
  - Zonguldak–Çaycuma–Bartın NGPL: The 98,733 m line with 16 inch diameter will originate at 187+560th km of existing Karadeniz Ereğli Pipeline and end at Bartın Pig Station.

- **Çankırı–Gerede–Bolu–Düzce Natural Gas Pipeline Project** has two sub-projects;
  - Çankırı–Eskipazar NGPL: The 77,126 m line with 24 inch diameter will originate at the end point of Sungurlu–Çankırı Pipeline and end at Eskipazar Pig Station.
  - Eskipazar–Gerede–Bolu–Düzce NGPL: The 169,560 m. line with 24 inch diameter will originate at Eskipazar Pig Station and end at 130+630 th km of existing Karadeniz Ereğli Natural Gas Pipeline.

- **Kilis and Nevşehir Natural Gas Pipeline Project** has two sub-projects;
  - Kilis NGPL: The 93,478 m. line with 36 inch diameter originating at a suitable point on Gaziantep–Mersin Pipeline and ending at Turkey-Syria Border and the 1.165 m Kilis branch with 8 inch diameter.
  - Nevşehir NGPL: The 58,343 m line with 12 inch diameter will originate at a suitable point on existing Konya–Seydişehir Pipeline and end at Nevşehir Pig Station.

- **Amasya–Tokat–Merzifon–Erzincan Natural Gas Pipeline Project** has three sub-projects;
  - Amasya–Turhal–Tokat NGPL: The 118,164 m line with 14 inch diameter, originating at the Pig Station to be constructed on the 124+610 th km of existing Samsun -
Ankara Pipeline and ending Tokat Pig Station and the 3,538 m. Amasya branch with 14 inch diameter.

- Merzifon NGPL: The 12,169 m line with 10 inch diameter will originate at a suitable point on existing Samsun-Ankara Pipeline and end at Merzifon Pig Station.

- Erzincan NGPL: The 21,100 m line with 10 inch diameter will originate at the Pig Station to be constructed on the 181+520 th km of existing Erzurum-İmranlı Pipeline and end at Erzincan Pig Station.

- Çorum Compressor Station

The Çorum Compressor Station will be constructed on the Samsun-Ankara (Blue Stream) Natural Gas Transmission Pipeline System, approximately 25,5 km before the Samsun/Ankara Natural Gas Transmission Pipeline System and (Sungurlu)-Çankırı-Kastamonu-Tosya Natural Gas Transmission Pipeline System connection point according to the gas flow direction, at KP=255+485 of Blue Stream Pipeline System (inlet point of the gas is assumed as KP=00+000), at an average height of 820 m above sea level.

- Erzurum Compressor Station

The Erzurum Compressor Station will be located on the East Anatolian (Erzurum-İmranlı) Natural Gas Transmission Pipeline System, approximately 328 km after the inlet point of the gas from Iranian border at an average height of 1,800 m above sea-level.

![Figure 10: Oil and gas pipelines in Turkey](source: BOTAS)

The international gas pipeline projects have undergone considerable evolution over the last few years. Prior to Turkey's severe economic problems (plus price deregulation moves) in 2001, Turkish natural gas demand had been projected to increase very rapidly in coming years, with the prime consumers expected to be natural gas-fired electric power plants and industrial users. In the aftermath of that crisis, however, BOTAS revised its natural gas demand growth projections down sharply, from about 1.6 trillion cubic feet (Tcf) in 2005 to under 0.9 Tcf in that year, a 45% downward revision. Many analysts now believe that, given lower Turkish natural gas consumption forecasts, only one of the main import options under development (i.e., Blue Stream, Trans-Caspian Pipeline - TCP, Shah Deniz) - can be supported for some time.

This sharp downward revision in Turkey's projected natural gas demand means that Turkey has signed contracts for far more natural gas than it is expected to need. By 2010, pipelines...
will be providing the majority of its gas needs; over 31% of Turkey's gas imports are to be supplied from Russia via the Black Sea ("Blue Stream"), more than 27% from Russia via Bulgaria, about 19% from Iran, about 13% from Azerbaijan while the remainder via LNG from Algeria and Nigeria.

Turkey is expected to become an important trade and transit center for natural gas exports. The following international pipeline projects have been discussed in this context:

- Natural gas could be transported from Turkey to Central and Western Europe via Bulgaria, Romania, Hungary, and Austria (the Nabucco Pipeline Project). The Cooperation Agreement for the Nabucco Gas Pipeline Project was signed among the associated companies of the respective countries in 2002. The five companies, namely BOTAS (Turkey), Bulgargaz (Bulgaria), Transgaz (Romania), MOL (Hungary) and OMV Gas (Austria) then launched in 2003 a feasibility study for the pipeline with 50% funding for the study from EU’s TEN programme. To assure proper project management and facilitate the funding of the project, the Nabucco Consortium Partners founded the Nabucco Company Pipeline Study GmbH in 2004 to conduct a financing study, to market the project, to negotiate with possible shippers, and to promote the project. Based on the positive results of the studies, in September 2005 the partners announced a pre-qualification tender for Basic and Detailed Engineering Works via EU’s web page. The Basic and Detailed Technical Design / EIA Study is to be carried out in 2006-2007, the construction to be completed by 2011, and operations to begin in 2011. The ~3281 km main and feeder pipeline system will ultimately transport up to 25.5 (Base Case) to 31 bcm/y (High Case) of natural gas from the eastern borders of Turkey (from the sources of the Caspian Region/Central Asia and the Middle East) through the transit countries and Baumgarten Hub Point in Austria for onward transmission to the German border. The energy ministries of the five partner countries were signed “Joint Ministerial Statement” as governmental intent for supporting the project. The project is probably one of the most important ones in Europe from the point of view of diversifying the sources of gas supply, improving energy security, and bringing to markets additional resources that are currently difficult to access. The project is also one of the most important stages of Turkish East-West Energy Corridor & Hub strategy. The route of the project is illustrated on Figure 11.

**Figure 11: Nabucco Pipeline Project Route**

Source: BOTAS

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15 Cf. US EIA / DOE Country Analysis Brief (with minor amendments).
The Turkey-Greece-Italy Natural Gas Pipeline Project was developed as a result of studies for the interconnection of the natural gas grids of Turkey and Greece and the eventual creation of a South Eastern European Gas Ring (SeEGR). A feasibility study for the project was conducted with the financial support of EU-TEN Funds and DEPA (Greece). The project was listed in the priority category of EU’s TEN Programme. An Intergovernmental Agreement was signed on 23 February 2003. A Natural Gas Sales and Purchase Agreement was signed on December 23, 2003 in Ankara. According to the Agreement, the initial volume delivered by the line will be just 0.75 bcm per year (to Greece only), but it is expected to increase to 11 bcm/y in 2012, of which 8 bcm/y to Italy and the remainder to Greece. The line is to be constructed in stages. First, a 296 km (of which 211 km in Turkey), 36 inch section is to be built between Karacabey in Turkey and Komotini in Greece (see Figure 12), at a cost of around $250 million. This stage of the project is due for completion in Q4 of 2006. Second, a much more ambitious 804 km line (including a 212 km crossing of the Adriatic Sea) is to be constructed between Komotini in Greece and Otranto in Italy (see Figure 13). During the second stage of the project, more than 600 km of loop lines will also have to be constructed in Turkey (~540 km of 36 inch loops and a 63 km, 48 inch section). Thus the total length of pipeline to be constructed during the second stage is over 1,400 km, at a total cost around $1.5 billion. The second stage is expected to become operational in 2010-2011. The project MoU agreement is expected to be signed in 2H of 2006.

Azerbaijan-Turkey Natural Gas Pipeline Project (aka South Caucasus Pipeline, SCP) will transport gas produced in Azerbaijan (primarily at the BP-operated Shah Deniz non-associated gas and gas condensate field) to Turkey. Negotiations were finalised in March 2001, and an Intergovernmental Agreement was signed by the Ministry of Energy and Natural Resources of Turkey and the Deputy Prime Minister of Azerbaijan. A Natural Gas Sales and Purchase Contract was signed by BOTAS and SOCAR (SOCAR transferred all their rights and obligations of the natural gas sales and purchase contract to Azerbaijan Gas Supply Company AGSC in 2003) at the same time. According to the Contract; natural gas delivery will be over 15 years, to start at 2 bcm/y in 2006 and reach 6.6 bcm/y by 2010. The pipeline is under construction. Eventually, the capacity of 42” the pipeline could be increased up to 22 18-20 bcm/y with the installation of additional compression. In Turkey, the delivery point would be the Turkish/Georgian border. BOTAS is responsible for the construction and operation of the line within Turkey. The Turkish section of pipeline and related above ground installations are under construction and commissioning is expected in Q4 of 2006. The pipeline is quite important in the sense that the associated contracts do not have destination clauses and restrictions on re-exports,

![Figure 12: Turkey-Greece Italy Pipeline Project (Stage One) (Source: BOTAS)](image)

![Figure 13: Turkey-Greece-Italy Gas Pipeline (Stage Two) (Source: BOTAS)](image)
which allows SCP to act as feeder line for the pipelines linking Turkey and Europe (Nabucco and the Turkey-Greece-Italy line).

- In 2000, a Protocol for cooperation regarding oil and gas issues was signed in Ankara between Turkey and Egypt. The parties declared their intention to transport 4 bcm/y of gas from Egypt to Turkey by a pipeline crossing the Mediterranean Sea. Egypt nominated the Eastern Mediterranean Gas Company (EMG) as the authorised company to export natural gas to Turkey. BOTAS and EMG initialed a Natural Gas Sale and Purchase Contract on March 31, 2001. In 2004, a Frame Agreement was signed by the Energy and Natural Resources Minister of the Republic of Turkey H.E. M. Hilmi Gülter and the Oil Minister of the Arab Republic of Egypt H.E. Sameh Fahmy. The Agreement foresees natural gas imports by BOTAS from the Egypt Natural Gas Company (EGAS) and transit of Egyptian natural gas across Turkey to Europe. In this context, Syrian gas could also be directed to Europe via Turkey, with an extension from the Arab Gas Pipeline entering Turkey from Syria. On 15 February 2006, a Memorandum of Understanding was signed between the Energy and Natural Resources Minister of the Republic of Turkey H.E. M. Hilmi Gülter and the Oil Minister of the Arab Republic of Egypt H.E. Sameh Fahmy aiming at the establishment of a company, namely TERGAS, to carry out the related procedures in order to transport the Egyptian natural gas to Europe via Turkey. Despite the obvious potential of these projects, however, they are currently making little progress due to factors specific to the region and beyond the control of Turkish parties.

- BOTAS has a long-standing project to take 10 bcm/y of gas from Iraq. The respective ministers of Iraq and Turkey signed a Frame Agreement on December 26, 1996 in Ankara. On the Turkish side, the parties involved were BOTAS-TPAO and TEKFEN. As a result of the evaluation of the proposals of the interested companies in the Project; ENI-Agip was designated as the coordinator for the upstream activities, while GDF was assigned as the coordinator for the midstream activities. Studies were to be conducted for the preparation of a Frame Agreement, a Natural Gas Sale and Purchase Agreement, a Production Sharing Agreement, and the negotiation and the establishment of a Joint Operation Company and the Consortium to steer the Project. The implementation of the Project was stalled for many years, due to the imposition of UN sanctions on Saddam Hussein’s regime in Iraq. On the other hand; the Natural Gas Market Law enacted in 2001 does not involve this Project. However, natural gas transmission to Europe via Turkey will be evaluated with this project in mind, after the studies mandated by this Law are finalised. With the emergence of a new Iraqi government, this project is likely to come onto the scene again, with a new direction towards Europe. In this context, BOTAS-TPAO-TEKFEN and Shell companies established a joint working group under the frame of Iraq-Turkey Gas Export Project (ITGEP) to examine the export conditions of large amount of associated and non-associated Iraqi gas to the western market.

- Studies on the transportation of Turkmen gas to Turkey and Europe by a convenient route and without any restriction have been underway for since 1991. Since then the parties signed various protocols, memoranda of understandings and agreements. A frame Agreement was signed by the Presidents of Turkmenistan and Turkey in Ankara on October 29, 1998. The parties agreed to sign a Natural Gas Sale and Purchase Agreement for 16 bcm/y and a Natural Gas Pipeline Agreement, and to prepare a Host Government Agreement between the governments and the pipeline operators on the route by May 30, 1999. BOTAS and The Competent Body for the Use of Hydrocarbon Resources at the President of Turkmenistan signed a 30-year Natural Gas Sale and Purchase Agreement on May 21, 1999. Accordingly, 16 bcm/ya of Turkmen gas were to be supplied to Turkey, with gas delivery starting in 2002-
2004. Under this agreement, natural gas was to be purchased at the Turkey-Georgia border and Turkmenistan took the entire responsibility for the construction and operation of the pipeline between Turkmenistan and Georgia. On the other hand, Turkey was to be responsible for the construction and operation of the pipeline section on Turkish territory. In this regard Turkey, fulfilled most of its obligations derived from the contracts about engineering, procurement and construction aspects, by increasing the pre-determined diameter of the Iran-Turkey pipeline from 40 inches to 48 inches and initiating the construction accordingly. The Turkish side fulfilled all its obligations arising from the Agreement signed on October 29, 1998. On February 13, 1999, the Turkmen authorities declared that a consortium led by Pipeline Solutions Group (PSG) formed by General Electric Capital and Bechtel will undertake the Projects. Shell joined the consortium in August 1999. The Mandate Letter that was given to PSG expired on February 19, 2000. As the Turkmen authorities failed to extend the mandate, General Electric Capital and Bechtel withdrew from PSG. Therefore, any development on the project has stopped for the time being.\textsuperscript{16} In 2006, there have been performed several feasibility studies related to both Kazakhstan-Azerbaijan and Turkmenistan-Azerbaijan interconnections, for exporting Caspian/Central Asian gas to Europe via the Trans-Caspian Pipeline and then Turkey.

The recent EU documents assess the strategic importance of Turkey in diversification of EU gas imports. The aforementioned gas projects are expected to have a significant role in this context.\textsuperscript{17}

\textbf{IV.1.5. Competition in the Oil and Gas Sector}

While the establishment of competition is the responsibility of EMRA, the protection of established competition falls under the domain of the Competition Authority. The Competition Authority, having a public legal personality and an administrative and financial autonomy, is established in order to ensure the formation and development of a free and sound competitive environment. The Authority is independent in fulfilling its duties. The main tasks of Authority are as follows:

\begin{itemize}
  \item to carry out, upon application or on its own initiative, examination, inquiry and investigation about the activities and legal transactions;
  \item to permit mergers and acquisitions;
  \item to monitor legislations, practices, policies regarding to competition.
\end{itemize}

\textbf{Oil}

With the Petroleum Market Act No. 5015, barriers to entry stemming from legislation have been removed via means such as the elimination of the obligation for distribution firms to procure a certain proportion of their consumption from domestic refineries, and the liberalisation of import. Under the activities of “Licensed Warehouse Operator’s Business” introduced again with the Act No. 5015, it is understood that storage activities would increasingly develop when it is taken into consideration that besides distribution companies, undertakings whose sole work is to store petroleum products shall emerge and licensed warehouse operators shall operate such that they serve all distribution companies. These

\textsuperscript{16} Source: BOTAS.
issues came up in the context of the Privatisation of TÜPRAŞ, the only refinery operator in Turkey, in 2005. In its meeting on 21.10.2005, the Competition Board authorised that Türkiye Petrol Rafinerileri A.Ş. (TÜPRAŞ) (Turkish Petroleum Refineries Inc.) be transferred to KOÇ-SHELL Joint Venture Group which was the highest bidder in the privatisation tender. It was seen that TÜPRAŞ which mainly operates in the refining market, is also active in markets related to petrochemicals due to its involvement in the Gulf Petrochemicals Complex, and that it also operates in the field of transport when the activities of DÎTAŞ (Deniz İşletmeciliği ve Tankerciliği A.Ş.) (Marine Operation and Tanker Business Inc.) are taken into consideration.

The issues of concentration and dominant market position were therefore seen as very much relevant. It was taken into consideration that the transfer of TÜPRAŞ, the only refinery company operating in Turkey, to the private sector via the method of privatisation is a transfer transaction subject to the authorisation of the Competition Board as regards both the market share and the turnover thresholds. KOÇ Group, which took place in the highest bidder joint venture group (together with Shell) in the privatisation tender, operates with OPET Petrolculuk A.Ş. (OPET) (OPET Petroleum Business Inc.) in the Turkish liquid fuel markets and with AYGAZ A.Ş. (AYGAZ Inc.) in the LPG markets. OPET engages in retailing and wholesale activities in the liquid fuel distribution market together with its participations, produces and markets mineral oils, and deals with the international trade in marine fuels and petroleum products. OPET, whose terminal capacity (storage) is above 351,343 cubic meters, is a liquid fuel company which has the second largest storage capacity in Turkey. AYGAZ, which is in the position of the leading LPG distribution company of Turkey, serves residences, commercial and industrial customers in providing, stocking, filling and distributing LPG. Shell Overseas B.V. (SHELL), which is the other party to the joint venture group, is an energy firm with a global scale, and operates in the Turkish energy markets with its side organisations, the distribution of black and white products, LPG and mineral oils being in the lead.

In assessments made under the competition law, the refining market, where TÜPRAŞ, the subject of transfer, operated was considered as the relevant product market; however, the affected markets were separately identified to be used in assessments of the transfer transaction as regards vertical integration. The affected markets in question were the following:

1. The distribution of land vehicle fuels sold at liquid fuel and autogas (LPG) stations, such that they include gasoline, diesel fuel and autogas (LPG);
2. The distribution of household and business fuels, composed of heating fuel, fuel oil No. 6, natural gas, LPG in containers, and coal;
3. The distribution of jet fuel;
4. The distribution of kerosene;
5. The distribution of light paraffin fuel;
6. The distribution of mineral oil.

In assessments made under article 7 of the Act, the structure of the KOÇ-SHELL partnership that was to acquire TÜPRAŞ formed the first important point. Namely, it was established that SHELL had only a 10% share in the partnership in question, and even though it had a right to appoint one member to the Board of Directors with this share, a veto right (that would have indicated the existence of joint control) was not granted to SHELL. The conclusions was
therefore, that merely the integration of the KOÇ group and TÜPRAŞ was required to be taken into consideration in assessments directed at the concentration issues.

The acquisition transaction was subsequently handled under article 7 of the Act with this finding in view. The evaluations were that the import of refined products was competing with the production of TÜPRAŞ and in this regard, OPET and AYGAZ were directly competing with TÜPRAŞ with the import-oriented storage capacity held and import realised by them, and that therefore, the existing dominant position of TÜPRAŞ would strengthen with the acquisition of TÜPRAŞ by KOÇ. However, it was concluded that the integration in question would not result in a significant decrease of competition with regard to the supply of liquid fuel products (refining and product import). The reasons for reaching such finding may be listed as follows:

- The market for the distribution of liquid fuel products has a competitive structure: POAŞ which was a public undertaking in the past and which has the most widespread dealership network and at the same time storage capacity throughout Turkey is in the position of the market leader. Furthermore, there exist in the market BP, SHELL and TOTAL which have a long history in the Turkish market and which continue their activities in the world petroleum industry in a vertically integrated structure. Within this structure, OPET has the 4th largest market share in white products and the 2nd largest market share in black products pursuant to 2004 data.

- When one looks at the market of existing storage capacities, firms having small shares in the distribution market such as Aytemiz and Delta have a storage capacity larger than some leading undertakings in the market share order.

Despite the fact that the Board reached the conviction that the acquisition transaction would not result in a significant decrease of competition in the relevant markets in respect of the liquid fuel supply, it only authorised the acquisition transaction conditionally regarding the LPG market. LPG imports take place at the İzmir Refinery, and it is useful to have a look at the findings regarding the LPG markets.

LPG is mainly an intermediate product for TÜPRAŞ, different from the other liquid fuel products, as it is offered to the market as a final product to the extent that its availability exceeds refinery requirements. During the past years TÜPRAŞ came on the forefront in the LPG sector with its importer identity rather than in production. However, during the recent years the propensity of the LPG distribution companies to import LPG directly has caused a fall in LPG imports by TÜPRAŞ. At this point, when one looks at which firms (other than TÜPRAŞ) carried out LPG imports to the country in 2004, it is seen that the largest importer firm was AYGAZ.

The conclusion reached was that despite the fact that the share of TÜPRAŞ in imports increasingly diminished vis-à-vis the large LPG distributors, the position of TÜPRAŞ did not change in the LPG import directed at the Aegean Region in particular as a result of logistic problems which had emerged in the LPG supply in the past and that the integration of TÜPRAŞ and AYGAZ would result in a significant decrease of competition in the LPG supply in this region in case no measures were taken. That was why the condition that the facilities for the LPG import at TÜPRAŞ İzmir Refinery be opened to use such that they also
enabled distribution companies to make direct import during 3 years following the transfer transaction was imposed as a condition for KÖÇ-SHELL partnership to acquire TÜPRAŞ.\textsuperscript{18}

**Gas**

In addition to the market opening provisions discussed in Section VI.2.4 above, the following major steps have been taken to assure competitive environment in the natural gas sector:

BOTAS’s monopoly rights to natural gas import, distribution, sales, and pricing, granted by Decree No. 397 of February 9, 1990, were abolished by the Natural Gas Market Law (No. 4646) enacted on May 2, 2001, to establish a stable and transparent natural gas market based on competitive rules. The Law covers the import, transmission, distribution, storage (LNG activities), wholesale trading, and export of natural gas, and the transmission and distribution of compressed natural gas (CNG), as well as the rights and obligations of all real and legal persons related to these activities.

Under the law, BOTAS, will competitively tender and release the import contracts to new private entrants until its import share falls below 20% by the year 2009. The company must auction at least 10% of its gas purchase rights a year, starting from the enactment date of the law. BOTAS, will also undergo further restructuring, and separate companies will be established for trade, transmission, and storage after the year 2009.

The 2001 Natural Gas Market Law also set the minimum annual consumption limit for qualification as an eligible consumer to 1 million cubic meters, which corresponds to a market opening of approximately 80% (European Commission 2003). However, opening remains largely a theory, since the de-facto monopoly of BOTAS on transmission and imports is still intact.

EMRA has begun to develop and implement the secondary regulation for the liberalisation of the energy sector. Principles and procedures related to price and tariff setting with respect to regulated tariffs have been determined and published for all kind of natural gas activities. The tariffs based on the entry-exit system for the transmission network has been published for the year 2006.

Secondary legislation on licensing procedures and on network operation rules to be determined by transmission companies was also adopted. Third party access (TPA) is regulated. Access to the system is a right for all parties. The Network Code has been in force since 1st September 2004. Principles and procedures pertaining to TPA are set out in the network code and capacity allocation is made on entry-exit system for one year base (based on Madrid Forum guidelines). The principle and procedures for storage, LNG and distribution (operation rules) activities are under preparation at the time being.

The Natural Gas Market Law and secondary legislation impose public service obligations as envisaged by Natural Gas Directive-2003/55/EC on the ensuring security of supply, the non-interruption, quality, efficiency, protection of the environment, safeguard measures, etc. EMRA may impose additional obligations on energy companies within the public service obligations. The transmission and distribution companies are obliged to connect all customers to system. Import and wholesale companies are required to store 10% of the imported or sold natural gas. Distribution companies are required to gasify every region in its territory in five

years and also are obliged to purchase natural gas at least from two different sources. In addition wholesale companies are obliged to prove that they purchase from the one of the cheapest source. Transmission and distribution companies are obligated to demonstrate EMRA that their operations are cost efficient, effective and reliable. Distribution companies are also obliged to construct a distribution dispatch centre in order to perform gas scheduling and system balancing in accordance with the seasonal changes.

The vulnerable customer issues are not part of this new legal structure. However, there are some studies done by distribution companies, EMRA and other relevant authorities in order to find a transparent way to protect vulnerable customers.

Even though Turkey is an emerging market, its industry structure does not differ considerably from that of other countries of the EU, including more mature markets. Furthermore, its new legislation goes even further than the laws in force in many EU countries. Although liberalisation was postponed in Greece and Portugal until 2006 and 2007, respectively, in Turkey the threshold of 1 million cubic meters per year for eligibility represents a market opening of approximately 80%. This figure may, however, be a result of the structure of the demand, mainly consisting of large consumers. The average market opening within the EU is about 78%.

As for unbundling, the obligation imposed on BOTAS to divest all distribution activities, in addition to separating trading and transmission activities, is more stringent that that found in other EU countries. In Italy, for example, ENI has substantial interest in distribution (100% of Italgas through Snam Rete Gas) and was not requested to divest its distribution arm, which owns 35% of the distributors. In Spain, Gas Natural is strongly linked to Enagas and Repsol. In Germany, Ruhrgas has a minority interest in regional companies and distributors at least sufficient to influence them. RWE Gas and E.ON cover the whole chain, including small production interests. In France, over 90% of distribution is undertaken by EdF-GdF. In Austria, the regional gas companies may be connected with their distributors.

The limit on BOTAS’s share of imports is much more stringent than what is imposed in Italy and in Spain. No limit was imposed in France or Germany. Likewise, the limit on BOTAS’s domestic market share is more stringent than what was imposed on Snam Rete Gas in Italy. The 10% storage obligation is similar to that existing in Italy. However, Turkey’s situation is different because it is a transit country that eventually will have access to much more gas than it consumes domestically, but it has little opportunity to create underground storage sites (which instead are available “downstream” in the Balkans).

The most interesting feature of the new gas law, however, is the gas release programme. If managed wisely, the programme has the potential to create real competition within the country. The natural gas law states (temporary article 2) that every year until the aggregate of the annual import amount falls to 20% of the annual consumption amount, BOTAS shall release part of its contracts to competitors by means of a tender. However, it is not yet clear how such a system will work in practice. Also, in view of the Italian experience, it would be preferable that the gas be released by means of a tendering procedure based on objective criteria.

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**IV.2. Coal**

Coal is important in Turkey, as it is the most abundant indigenous primary energy resource. Turkey has hard coal (anthracite and bituminous) resources of around 1 billion tons (of which over 80% anthracite), plus lignite resources of around 8 billion tons. Up to 85% of the lignite resources are believed to be economically feasible to extract, albeit lignite is mostly of low calorific value – 57% of reserves are below 1,500 kcal/kg. About a third of the lignite resources are located at active mines, and about 4% more are at mines under development. Turkey is generally ranked #7 globally in terms of lignite reserves and #6 in terms of lignite production. There are also asphaltite and bituminous schist resources. Table 20 provides data on coal resources in Turkey.

<table>
<thead>
<tr>
<th>RESERVES</th>
<th>POTENTIAL RESOURCES</th>
<th>TOTAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proved</td>
<td>Probable</td>
<td>Possible</td>
</tr>
<tr>
<td>Hard coal*</td>
<td>551</td>
<td>425</td>
</tr>
<tr>
<td>Lignite*</td>
<td>7060</td>
<td>759</td>
</tr>
<tr>
<td>Asphaltite*</td>
<td>43</td>
<td>29</td>
</tr>
<tr>
<td>Bituminous schist **</td>
<td>555</td>
<td>1086</td>
</tr>
</tbody>
</table>

* Source: TTK, TKI, MTA  

Around 40% of Turkey's lignite is located in the Afsin-Elbistan basin of southeastern Anatolia. Hard coal is mined only in one location – the Zonguldak basin of northwestern Turkey, in underground mines that are difficult and costly to operate. Lignite is produced in open pit mines. Figure 14 illustrates the location of coal mines in Turkey.

Three entities are responsible for about 90% of Turkey’s coal production. Turkish Hard Coal Enterprises (TTK) produces, processes, and distributes hard coal at Zonguldak, while the Turkish Coal Enterprises (TKI) produces most of Turkey's lignite. In addition, Turkey's Electricity Generating Corporation (EUAS) produces lignite for three power plants20 (cf. Table 21).

<table>
<thead>
<tr>
<th>Producer</th>
<th>Market share</th>
<th>Pricing of output</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkish Hard Coal Enterprises (TTK): hard coal</td>
<td>Sole producer of hard coal.</td>
<td>Prices set by TTK</td>
<td>Heavily subsidised</td>
</tr>
<tr>
<td>Electricity Generating Corporation (EUAS): lignite</td>
<td>Produces 23% of Turkish lignite</td>
<td>Prices set by EUAS</td>
<td></td>
</tr>
<tr>
<td>Turkish Coal Enterprises (TKI): lignite</td>
<td>Produces &gt;50% of Turkish lignite</td>
<td>Prices set by TKI</td>
<td></td>
</tr>
</tbody>
</table>


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20 Source: US DOE/EIA.
Coal production has been relatively stable and provides up to 48-50% of primary energy produced in Turkey and up to 24% of primary energy consumed in the country. Turkey also imports about 17 million tons per year (2005) of high-grade steam and coking coal from a number of countries (Russia, Colombia, Australia, South Africa, USA, Canada, China). Already by the beginning of the 90’s, it was evident that the heavily subsidised TTK and the inefficient, overstaffed and overstretched TTK would have to be reorganised and at least partially privatised, if the coal sector were to be kept on track.

Until 1989, TKI had a monopoly over the supply of lignite to power plants. In 1989, a process began of transferring some key lignite mines from TKI to the power generating company, EUAS. The Sivas Kangal mine was ceded to EUAS in 1989, the Afsin-Elbistan mine in 1995, and the Ceyhan mine in 2000. The cession led to a redistribution of control over lignite reserves, and EUAS got the largest share of resources (3.8 billion tons). Subsequently, EUAS transferred to the private sector two of its lignite mines (Sivas-Kangal and Ceyhan). Reserves at TKI’s mines are about 2.5 billion tons, and at private mines – 2 billion tons. TKI has kept so far its leading, albeit eroded, position as lignite producer (more than 50% of output, see Figure 15). In 2004; TKI, EUAS and private mines lignite production was 24.7 million tons, 13.8 million tons and 5.5 million tons respectively. There are some more private sector mining companies who work for the state-owned entities, TKI and EUAS, by leasing or other methods like Transferring of Operating Rights (TOR). Together with these companies, the share of private sector production in total reaches about 25%.

Between 1990 and 2006, the workforce of TKI was halved, from 32,993 to 11,665. A number of inactive mines were either leased or the licenses for them were handed back to the government. Overall productivity increased from about 1,117 to 2,372 tons per person-year between 1990 and 2005. Direct subsidies to TKI were eliminated and since 1995 it has been able to cover its costs and make some profit.
The early restructuring programme undertaken during the 90’s also resulted in the emergence of the EUAŞ-supplied power stations as a large consumer of lignite along the stations supplied by TKI (see Figure 16). At the same time, consumption by industries and households has been declining. Installed power generation using lignite is around 8,150 MW and the power sector currently consumes over 80% of lignite output (Figure 17).

With the adoption of the Electricity Market Law in 2001, it became evident that restructuring must continue in the coal sector as well, if the latter were to be viable in the long run. Already by the beginning of 2002, a wide-ranging sector restructuring programme was initiated, with the following major features:
At the beginning of 2002, TKI had 128 mines at 15 locations ("establishments"), of which thirty were active. Of these, 24 were operated by TKI and 6 were leased to private operators. TKI employed over 16,600 personnel. TKI’s lignite reserve base stood at 2.5 billion tons and production capacity was 40 million tons per year.

In June 2006, TKI had 46 coal deposits with operating licenses (15 active, 12 leased, 19 inactive mines). In order to create new job opportunities and re-utilise the reserves of the inactive mines, the policy of leasing to private sector or transferring these licenses back to the government office (if not successfully tendered) has been followed. The restructuring was achieved with only marginal loss of reserve base and almost no loss in production capacity.

Production activities at eight small mines of TKI were discontinued and the mines given to private sector by leasing between 2002 and 2006. One inactive mine was sold and three more inactive mines were leased to private sector for the purpose of electricity generation.

The number of branches ("establishments") was reduced to just four, but with greater freedom of operation ("decentralisation").

The number of employees dropped to around 11,665 by June 2006, and no new appointments were made upon retirement of personnel. Productivity in 2000-2005 was around 2,000 tons per employee/year.

**Figure 17: Lignite consumption in Turkey**

Source: Mücetta Ersoy and Selahaddin Anac: Restructuring of Turkish Coal Enterprises. UN ECE- Committee on Sustainable Energy, Ad Hoc Group Meeting of Experts on Coal and Thermal Power, 18-19 November 2002

*: EUAS and TKI.

Similar steps were taken in the coal sector of Turkey at large. Between 1990 and 2000, the number of workers in Turkey’s coal sector fell from 63,993 to 35,665, and this trend continues until now.

The restructuring of TKI is expected to provide following results:
• The impact of mine closures on output would be marginal;
• Resettlement and re-employment of inactive personnel at other establishments of TKI are expected to provide improvement of productivity and reduction of operating cost;
• The use of material and equipment from closed mines at other locations is expected to provide savings in investments;
• The sale and/or leasing of social and industrial plants, houses, land are expected to provide additional income;
• Productivity is expected to increase and operating cost to decrease, making it eventually possible to sell the product to customers cheaper than before.
• Opportunities for new jobs will appear and regional unemployment decrease.21

In summing up the status and the prospects of the coal sector in Turkey, one may point out to the following:

• Lignite is and will be a major energy source of Turkey. It is operating on market-based principles, without direct subsidies.
• There are no legal restrictions on operations by the private sector. Recent changes in the Mining Law No: 3213 of 4 June 1985 (amended by 26 May 2004/5177) enable leasing to the private sector. However, about 75% of coal production is at state-owned enterprises. The state’s share will continue to be significant.
• Progress in restructuring the coal industry, which began in the mid-80’s, is slow and uneven. The coal sector was affected directly by uncertainties and structural changes in its single most important customer – the electricity sector, where gas made significant inroads as the preferred fuel. Favouring gas-fired power stations over other solutions has affected seriously coal demand and will continue to do so. Another factor limiting the use of lignite is the import of high-grade coal, which has grown quite rapidly over the recent years.
• The increased use of domestic lignite resources is part of the government’s policies. But there are concerns on how to realise new coal and coal-related projects. One of the options that seems to work is the sub-leasing of mines under the terms of a 1994 Decree to private parties;
• Investments in the coal sector have declined sharply and are clearly inadequate to sustain the expansion of the sector, especially in the long run. Financial resources are also needed for replacing machinery and for providing better qualification to personnel at the existing mines.22 In the latter respect, the successful example of the rehabilitation of the Afsin-Elbistan A power plant with the help of a proposed €280 million World Bank loan may be used as a model for future rehabilitation projects.
• Environmental concerns are a major factor influencing decisions on the use of lignite as fuel in power plants in Turkey. Turkish power plants using lignite are usually only fitted with electrostatic dust precipitators (EDF), but exceed SO2 emissions limits. To comply with both Turkish and European emission standards, the power plants will have to have flue gas desulphurisation (FGD) units installed, a process that is both lengthy and costly. At the Afsin-Elbistan A power plant, the World Bank agreed to extend the time for FGD installation by 5 years, a decision which is in line with EU

practice (The EU has granted such transition periods to candidate members such as Romania (for 8 to 10 years) as well as newly joined members, such as Poland (for 5-12 years). The potential increase in greenhouse emissions (particularly CO$_2$) from lignite-fired power plants is also of concern.

**IV.3. Electricity**

**IV.3.1. Power Sector Overview, Generation Capacity (public and private)**

During the early period of the power industry in Turkey, electricity was generated and distributed locally by small-scale utilities. From 1935, state-owned entities dominated, but from 1952 concession agreements for hydro power generation and distribution were introduced, while all of them had local monopolies in their respective regions. Gradually, complete nationwide vertical integration was achieved in the hands of the state-owned monopoly TEK (established in 1970). In 1970, all generation, transmission, and distribution assets were transferred to TEK, except those owned and operated by municipalities and the state-owned Provinces Bank (Ilılar Bankası), and autoproducers. In 1982, all generation, transmission, and distribution assets were transferred to TEK, which also had monopoly on exports and imports of electricity power. However, auto-producers continued to exist.

During the 1980’s, power demand grew rapidly, necessitating the introduction of legal frameworks that would allow private investment in the sector. In 1984, Law No. 3096 was adopted (BOT Law, the first of its kind worldwide), in essence removing TEK’s monopoly by allowing private participation in generation (auto-producers continued to exist).

To provide further incentives to investors, Law No. 3996 (1994) allowed the granting of Treasury guarantees to parties wishing to execute BOT contracts. Also in 1994, in line with the recommendations from the World Bank towards sector restructuring, TEK was split into generation and transmission (TEAŞ) and distribution (TEDAŞ). Law No. 4283 (1997) allowed BOO, i.e. the possibility for investors to retain ownership over the generation asset. Further reform required constitutional amendments – in 1999 the concept of privatisation was introduced into the Constitution and at the same time international arbitration was allowed.

Thus, from 1994 the vertical monopoly of TEK (which co-existed with auto-producers, BOT in generation, and two concessionaries in distribution in Kayseri and Aktaş) was replaced by the single buyer model which existed until 2001. In the single buyer market, only TEAŞ could purchase power from generators, and only TEAŞ could sell power to TEDAŞ and the two concessionaries in Kayseri and Aktaş, where Akta’s concession was ceased by a court decision. In generation, TEAŞ was complemented by auto-producers and independent power producers (IPPs) on BOT, TOOR, and BOO terms.

In 2001, a milestone in reforming and liberalising Turkey’s power sector was passed with the adoption of the Electricity Market Law (No. 4628). The Law mandated the unbundling of TEAŞ into EÜAŞ (generation), TEİAŞ (transmission) and TETAŞ (wholesale), account unbundling of TEDAŞ as distribution and retail sale, and the establishment of an independent regulator (EMRA). Subsequently, a comprehensive secondary legislation was also enacted, including:

- By-Law on Tariffs
- By-Law on Licensing

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23 Cf. World Bank Report No: 35747-TU.
• By-Law on Distribution
• By-Law on Eligible Consumers
• By-Law on Customer Services
• By-Law on Demand Forecast
• By-Law on Grid
• By-Law on Import and Export
• By-Law on Balancing and Settlement
• By-Law on Electricity Transmission System Supply Reliability and Quality
• Communiqué Regarding the Meters to be used in the Electricity Market
• Communiqué Regarding Connection to and Use of Transmission and Distribution Systems in the Electricity Market
• Communiqué Regarding Preparation of Retail Contract in the Electricity Market
• Communiqué Regarding Regulation of Market Management Revenue
• Communiqué Regarding The Principles and Procedures of Financial Settlement in the Electricity Market (abolished)
• Communiqué Regarding Regulatory Accounting Guidelines
• By-Law on Principles and Procedures for Granting Guarantee of Origin for renewable resources

Figure 18 illustrates the evolution of the Turkish power sector from monopoly to single buyer model to the current liberalised market (see section on restructuring). Auto-producers have been in existence throughout.

Figure 18: Power market structure evolution

Source: EMRA

The overall progress of power sector liberalisation and major events along the timeline are illustrated in Figure 19.
IV.3.2. Restructuring in the Power Sector

Liberalisation of the electricity sector has been subject to country specific different motives. The EU, for example, was primarily concerned with creating an internal market while countries such as the United Kingdom were motivated by the inefficiency of public enterprises (the ownership dimension) and the opportunities generated by technological changes that made competition possible in generation (the market structure dimension). In Turkey, the main driver of and the public justification for private participation under the pre-2001 regime, and liberalisation under the new regulatory regime, were rapid growth in demand, combined with the inability of the government to meet that demand through public investments or Treasury guaranteed private investments because of the deteriorating fiscal situation.

The degree of competition envisaged in the new framework is, in most respects, compatible with (if not more competitive than) the level of competition in the EU Acquis Communautaire.

The main challenge for the electricity sector seems that, the competitive framework notwithstanding, the actual development of competition is likely to take some time because of the legacy of Turkey’s recent past: the current structure of ownership (dominance of state-owned assets in generation) and even more problematically the uncompetitive, tied nature of the contracts governing the privately operated assets.

The new regime contained in primary legislation and implementing regulations emphasises competition in ordering the market. The main principles of the EML are as follows:

**Market Opening**

On the demand side, customers that consume more than the eligibility threshold set by the EMRA are defined as eligible consumers. As a starting point of consumers consuming more

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24 Based mainly on “Competition and Regulatory Reform in Turkey’s Electricity Industry” by Izak Atiyas and Mark Dutz”, WB publication, 2005; and “Turkey’s Energy Perspectives in the EU-Turkey Context” by Yusuf Isik; WB web, May 2004.
than 9 GWh p.a. are designated as “eligible consumers”, and they began enjoying choosing their suppliers as of March 2003. The Board of EMRA reduced the eligibility threshold gradually, where it stands at 6 GWh p.a. This threshold corresponds to 32% market opening degree.

On the supply side, the Law envisages an authorisation-type licensing framework. It provides entry opportunities into the generation (independent power producers, or IPPs, and auto-producers who can sell up to a maximum of 20% of their annual production to consumers other than their shareholders), wholesale trade, distribution, retail trade, import, and export of electricity. Distribution companies may also operate as retail sales companies in their regions by obtaining a retail sales license and may import electricity if allowed in their license. Distribution companies may establish joint ventures with generation companies or set up generation units (not exceeding a market share of 20%, which has been removed by a most recent legislation in 2006). Transmission remains a state monopoly, but private generators can establish private direct transmission lines. The only limitation is that the EMRA’s granting of generation licenses is conditional on no congestion in the transmission-distribution link connecting the new plant to the grid or directly to customers.

According to EMRA, congestion in the transmission network is most likely to be resolved through some type of auctions among the companies that would benefit from the transmission investments.

**Unbundling**

TEAS has been further unbundled into the Turkish Electricity Generation Company (EUAS), Turkish Electricity Wholesale Company (TETAS), and Turkish Electricity Transmission Company (TEIAS), each organised as a separate legal entity. Thus, regarding management separation and unbundling of accounts, the degree of unbundling between generation, transmission, and distribution envisaged and carried out under the new regime has been realised in a manner that goes beyond the level in many industrialised countries.

Under the new structure, EUAS is established to take over, operate, or close down the state’s existing power plants that are not transferred to the private sector. TETAS is created to carry out wholesale operations. It took over all existing energy sale and purchase agreements from TEAS and TEDAS (distribution). TEIAS is responsible for transmission assets, for system operation and maintenance, for planning of new transmission investments and building of new transmission facilities, and, critically, for the balancing and settlement procedure that will balance the power transactions among parties, both physically and financially. Thus, TEIAS is the transmission system and market operator. It is envisaged that all transmission facilities owned and operated by other companies will be transferred to TEIAS under the EML. In line with this requirement, the transmission facilities that had been awarded to private investors through concessions to the two companies Kepes Elektrik (Antalya region) and Cukurova Elektrik, or CEAS (Adana, Mersin, Hatay, and Osmaniye regions), were handed over to TEIAS in June 2003.

**Third Party Access**

EML requires the TPA regime for access to transmission and distribution. An independent regulatory authority was created that, among other things, will settle disputes between parties.

**Market Design**

The new regime is based on a ‘bilateral contracts market’ in which generation companies contract with wholesale trade companies (TETAS and any eventual new entrants),
distribution companies, any new independent retail companies, and eligible customers. On the generation side, EUAS is likely to be split into a hydro generator (holding all state-owned hydro plants transferred from DSI, the Directorate General of State Water Works) and a small number of affiliate portfolio generation companies (holding the state-owned thermal plants and mobile plant contracts). EUAS also will hold the physical assets associated with any TOOR (generation) contracts. For any excess capacity, existing and new auto-producers (generation by industrial facilities for own use) will compete with other generators for contracts with distribution companies and independent retailers, and directly with eligible consumers. The dominant state-owned wholesaler TETAS also holds all previous BOO, BOT, and TOOR (generation) contracts and will assume other stranded costs such as the debts and employment liabilities of EUAS and TEIAS. In fact, dealing with stranded costs is one of the main reasons for the creation of TETAS.

As for end users, eligible customers may buy electricity from their regional distributor/retailer or TOOR distributor, but they also may buy directly from a wholesaler, from a new independent retailer, or from an independent generator. Captive customers, by contrast, must buy their electricity from a distributor/retailer in their region, but they have the right to buy from any retailer carrying out the same commercial activity in the region—that is, either their existing regional distributor or retailer or TOOR distributor or any other new retailer in the region.

The current market design does not envisage a centralised pool or power exchange. Therefore, dispatch is separated from the operation of the wholesale market. The actual real-time equality of demand and supply, given the bilateral contracts, will be carried out by the system operator through purchases and sales in a balancing market. For this purpose, a market System Balancing and Settlement Center is established within TEIAS. In principle, it is expected that the balancing market will make up a small percentage of total demand and will be used for adjustments at the margin.

**Privatisation**

The new regime envisages eventual direct privatisation in generation and distribution. Transmission assets are to remain under state ownership. Foreign investors cannot assume a sectoral controlling interest in the generation, transmission, and distribution sectors. The details of licensing procedures, market operation, tariffs, vesting contracts, privatisation, and stranded cost mechanisms have been left to secondary legislation and decisions.

**Vesting Contracts**

Vesting contracts are an initial set of bilateral contracts put in place by the government between companies it owns (or between state-owned companies and private companies such as independent retailers when the government decides the contract structure and when the retailer decides whether to buy it) to provide a smooth transition to competitive markets and to improve the predictability of revenues during this transition. The contracts remain with the companies when they are privatised—the private buyer pays for the company and its package of contracts. Vesting contracts are intended to cover a large portion of sales (90–100%) of each supplier initially. This share is reduced gradually in later years and replaced by freely negotiated bilateral contracts as the vesting contracts expire. Vesting contracts are expected to include purchases by TETAS from all EUAS hydro plants, sales from TETAS to all distribution companies and distribution TOORs to cover franchise captive consumer demand (with part of hydro capacity available for the balancing market), and sales from affiliate portfolio generation companies to all distribution companies.

The main objectives of vesting contracts are as follows:
• Avoid large physical imbalances or large financial risks to participants,
• Avoid chaotic prices,
• Ensure that distribution companies are not overexposed in the balancing market,
• Allow a period of time for learning how the bilateral market works before distribution companies undertake their own contracting,
• Allow companies to be privatised with a set of matching purchase and sale contracts so that potential buyers can value them,
• Allow government to influence the portfolio mix of generation purchased by each distributor to ensure reasonable regional balance,
• Allow determination of a reasonable flow of funds between companies (e.g., minimum sales levels for generation companies).

**Public Service Obligations**

The EML under the consumer support section of Article 13 and the tariff regulation under Article 20 allow for an explicit cash subsidy: direct cash refunds to consumers without affecting the price structure and the prices “in cases where consumers in certain regions and/or in line with certain objectives need to be supported.” The mechanism for allocation of these direct cash refunds (“amount, procedure and principles”) has not been defined in the primary legislation; to be established by the Council of Ministers upon proposal by the MENR.

**Main Challenges**

The actual development of competition in the Turkish electricity market is likely to take time because of various challenges and difficulties, especially those related to the exit from the old system. Primary among these challenges is the fact that most generation capacity is currently either under government ownership or tied up in take-or-pay contracts that leave no room for competition.

Among the main challenges on the road to full liberalisation of the power sector, one may specifically point out the handling of stranded costs, the “marketisation” of existing contracts, the insufficient metering and communication infrastructure, the need of training of market participants and establishing attitudes compatible with liberal market philosophy, the high losses and leakage rates in distribution systems, the lack of facility-based cost reflective generation prices, and the full implementation of cost-reflective end user tariffs.\(^{25}\)

The road map to the fully liberalised market includes a transition period for the wholesale electricity market. During this period, the market consists of bilateral contracts between the market participants, and a real-time system of balancing, operational and day-ahead planning mechanism operated by the Transmission System Operator – TEIAS/NLDC. The TSO procures balancing and other services for the market participants through a Real-Time Balancing Market (RTBM) and long term contracts for the provision of ancillary services. Figure 20 illustrates the wholesale market mechanism during the transition period.

Figure 20: Transitional wholesale market structure

Source: Osman Demirci, Ph.D: Tedas Privatisation (2006)

IV.3.3. Generation and Consumption

Between 1990 and 2000, power demand in Turkey increased at an annual rate of 8.5%, from 57 to 128 billion kWh. After a brief downturn during the times of the financial crisis, which embraced Turkey in the early 2000’s, demand growth resumed and is currently going up by about 10 billion kWh per year. In 2005, demand reached 161 billion kWh. Demand projections forecast a continued uninterrupted growth until 2020 at an annual rate of 6.4-7.9% (depending on scenario). Figure 21 illustrates the expected growth in demand for power in Turkey.

Historically, availability of generation capacity in Turkey has tended to be tight. This was especially valid during the 80’s, when demand actually exceeded installed capacity capabilities and necessitated imports. Recently, a trend to tight availability of capacity has re-emerged and some projections indicate that by 2008 the country may again experience a significant shortage of generation capacity (see Figure 21).

By far the greatest hopes for increasing generation capacity based on domestic primary energy are vested in the development of conventional resources – hydropower, hard coal, and lignite (Table 22). Expansion is also expected to bring onstream gas-fired plants and, eventually, nuclear energy. The role of other types of primary energy in electricity generation until 2020 is projected to be quite modest, although significant effort is directed to the development of windpower and geothermal energy.
Figure 21: Demand and capacity in power generation

Source: Osman Demirci, Ph.D: Tedas Privatisation (2006)

Table 22: Projected availability and use of domestic conventional primary energy resources in power generation

<table>
<thead>
<tr>
<th>Primary energy source</th>
<th>Proven capacity (MW)</th>
<th>Equivalent proven annual power generation (billion kWh/year)</th>
<th>In operation</th>
<th>Under construction</th>
<th>Remaining capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard coal</td>
<td>1,755</td>
<td>11</td>
<td>555</td>
<td>-</td>
<td>1,200</td>
</tr>
<tr>
<td>Lignite</td>
<td>18,720</td>
<td>120</td>
<td>7,150</td>
<td>1,500</td>
<td>10,070</td>
</tr>
<tr>
<td>Hydropower</td>
<td>37,520</td>
<td>129</td>
<td>12,906</td>
<td>4,114</td>
<td>20,500</td>
</tr>
<tr>
<td>Total</td>
<td>57,995</td>
<td>261</td>
<td>20,611</td>
<td>5,614</td>
<td>31,770</td>
</tr>
</tbody>
</table>


Figure 22: Power demand projections until 2020

Installed power generation capacity in Turkey at the end of 2005 was 38,800 MW. Hydropower and other renewable energy plants dominated generation, followed closely by natural gas-fired plants (Figure 23).

**Figure 23: Power generation capacity by type (2005)**

![Power generation capacity by type (2005)](image)

*Source: Screening Chapter 15 Energy. Agenda item: Conventional Sources of Energy Electricity. 14-15 June 2006*

The single largest power generation company is the state-owned EUAS (58% of installed capacity). However, the share of private generators has been rapidly growing and currently stands at over 40%, including private autoproducers, private generators, and various other arrangements (BOO, BOT, TOOR). Figure 24 illustrates generating capacity by type of generator.

**Figure 24: Share of generators in installed capacity (2005)**

![Share of generators in installed capacity (2005)](image)

*Source: TEIAS*

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26 BOO – Build, Operate, Own; BOT – Build, Operate, Transfer; TOOR – Transfer of Operating Rights.
The projected fast and continuous growth in power demand calls for a huge expansion in generation and other physical assets of the electricity supply system, if Turkey is to avoid large-scale imports of power and possible constraints on economic growth caused by lack of power. Based on scenarios developed by TEIAS, additions to generation capacity until 2020 should be 42-58,000 MW. Projections of required capacity additions by the Ministry of Energy and Natural Resources put the figure in line with the TEIAS mid-high case scenario, at around 51,400 MW (Table 23). This means 2,500-3,000 MW of generation capacity must be put in operation annually.

<table>
<thead>
<tr>
<th>Source</th>
<th>2005-10</th>
<th>2011-15</th>
<th>2016-20</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lignite</td>
<td>0</td>
<td>4,520</td>
<td>5,520</td>
<td>10,400</td>
</tr>
<tr>
<td>Hard coal</td>
<td>0</td>
<td>0</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Import coal</td>
<td>0</td>
<td>0</td>
<td>4,500</td>
<td>4,500</td>
</tr>
<tr>
<td>Natural gas</td>
<td>2,800</td>
<td>6,000</td>
<td>5,450</td>
<td>14,250</td>
</tr>
<tr>
<td>Hydro</td>
<td>542</td>
<td>6,811</td>
<td>7,782</td>
<td>15,135</td>
</tr>
<tr>
<td>Wind</td>
<td>500</td>
<td>625</td>
<td>625</td>
<td>1,750</td>
</tr>
<tr>
<td>Nuclear</td>
<td>0</td>
<td>4,500</td>
<td>0</td>
<td>4,500</td>
</tr>
<tr>
<td>Total</td>
<td>3,842</td>
<td>22,456</td>
<td>25,077</td>
<td>51,375</td>
</tr>
</tbody>
</table>

Source: Ministry of Energy and Natural Resources, November 2004

Hydropower and natural gas-fired plants are expected to provide the bulk of additions to generating capacity (about 28-30% each), and lignite-fired plants’ share in new capacity is projected to be around 20%.

The demand projections over the period 2005-2020 indicate that electricity demand will increase by 6.4% according to the low demand scenario and by 7.7% according to the high demand scenario. According to the projections, electricity demand will reach to 406 TWh in low scenario and to 500 TWh in high scenario by 2020. The supply side analyses reveal that total installed capacity requirement will be 80 GW according to the low scenario and 96 GW according to the high scenario by 2020.

20-32 GW of new capacity will be required until 2015. This implies a significant need for new investments on the generation side of the electricity market. The Electricity Market Law envisages new capacity additions to be realised by private sector within the competitive market structure, though the Law does not include any concrete provisions concerning the supply security. In this context, Turkey would consider tendering procedure in line with the EU acquis for new capacity.

During the preparation of the new legislative measures and the mechanisms therein, due consideration will be assigned in design of the mechanisms in a way that those mechanisms will not distort the competitiveness in the market. Purchase obligation for distribution companies can be one option in this context. The feed-in tariff instrument as implemented for the renewables based electricity generation can be extended in a way to cover all types of new generation investments under certain conditions. This approach would also enable the Government to direct the new investments in terms of generation technologies, in line with the strategies at macro level.

### IV.3.4. Electricity Transmission and Distribution Infrastructure

The high-voltage electricity transmission grid (≥66 kV), which covers the entire country, is owned and operated by state-run TEIAS. Most of the lines are overhead, rated at 154 kV
(about 31,000 km) and 400 kV (about 13,977 km). There are also 85 km of 220 kV lines and about 477 km of 66 kV lines. Most substations operate at 154 kV (about 907 substations with a capacity around 47,204 MVA). There are also about 135 400 kV substations (~27,740 MVA) and 57 66 kV substations rated at a total capacity of 678 MVA.

Cross-border interconnections link the Turkish high-voltage transmission system to neighboring countries:

- There are two lines to Azerbaijan, rated at 34.5 kV with a transfer capacity of 10 MW of power and 154 kV, with a transfer capacity of ~100 MW of power;
- A 220-kV line rated at a capacity of 300 MW leads to Georgia;
- The connection to Bulgaria is rated at 400 kV, with a capacity of 1250 MW;
- The connection to Iran is 154 kV, with a capacity of 100 MW and 400 kV (currently 154 kV), with a capacity of 500 MW;
- The link to Syria is 400 kV, with a capacity of 750 MW.
- The link to Armenia is rated at 220 kV, with a capacity of 300 MW;
- The interconnection to Iraq is rated at 400 kV (currently 154 kV), with a capacity of currently 200 MW.

At this moment, the connections to Bulgaria, Armenia and Syria are inactive. Limited-scale exports are carried out to Azerbaijan, Georgia and Iraq, and imports originate in Georgia and Iran. Given the scale of the Turkish market, the configuration of the grid and the distribution of demand load around the country, the cross-border interconnections are clearly of inadequate capacity and (in some cases) of limited use. Import power is available mostly from Bulgaria, Iran and Georgia (up to 800 MW), and exports are of marginal importance. The cross-border interconnections thus provide only limited service in load management and improvement of security of supply at present. There are plans to improve interconnections, particularly build new lines to Greece. In parallel to the UCTE Membership of Turkey, the cross-border exchanges are expected to have an important effect in the Turkish electricity market in terms of extended trade options.

TEIAS operates a National Load Dispatch Center in Ankara and nine regional load dispatch centers around the country. Already in the late 90’s, the equipment and the technologies deployed for load management were inadequate. In anticipation of future growth of both generation and demand of power, as well as the restructuring and liberalisation of the electricity market, the then-existing TEAS embarked on a programme of improving the national transmission grid with the help of a $270 million loan from the World Bank ($250 million to TEAS/TEIAS and $20 million to the Government).

The objectives of the National Transmission Grid Project are: (a) the development of adequate transmission capability in a timely manner; (b) establishment of the independent operation of the transmission grid system; and (c) maintenance of the financial viability of the state institution responsible for grid development and operation. The project components include: (a) development of a three-year time-slice of Turkish Electricity Generation and Transmission Corporation's (TEAS) grid investments (transmission lines, substations and load dispatch facilities) for the period 1999 through 2002; and (b) technical assistance for: (i) establishment of the independent operation of the transmission grid system; (ii) institutional development including environmental analysis of grid investments; and (iii) helping TEAS borrow from the international markets.
Upon the establishment of TEIAS, the company took over the project from TEAS. The project was restructured in the first quarter of 2002 to reflect the fact that TEAS, the original borrower under the project had been unbundled. The original loan of $270 million to TEAS was split into two loans, $250 million to the transmission company, TEIAS, and $20 million to the Government. The National Transmission Grid Project is due for completion in 2006.

The restructured project is designed to assist with the creation and organisation of the national transmission company (TEIAS) and provide investment funds for it. In particular, it provides funding for consulting services to assist with the organisation of the new company and development of its role as system operator and for further construction of the high voltage transmission network. The $20 million loan to the Government is designed to assist with establishing the new electricity market including providing funds for the regulator, EMRA, and other sector organisations such as TETAS and TEDAS which are not covered under the loan to TEIAS. The TEIAS loan provides funding for consulting services to establish an independent transmission company. It also provides funding for supply and installation of 380 KV and 154 KV transmission lines and substations and implementation of a load dispatch modernisation system. The Government Loan provides funding for technical assistance to help establish EMRA and to help restructure TEDAS and help TETAS.

Figure 25 illustrates the outlay of the high voltage transmission system in Turkey.

The Turkish Electricity Distribution Company (TEDAS), which has had a monopoly in the electricity distribution market, was slated for privatisation in April 2004. The World Bank supported the Electricity Sector Strategy Paper (2004), which foresaw privatisation of the distribution grid during 2005 and 2006. The plan calls for a maximum of 20 distribution regions to be privatised. The process has proceeded slowly and now a transition period to 2009 or 2010 is envisaged, during which a transitional national pricing regime will apply. The deadlines having slipped, privatisation of 20 of the 21 distribution regions is now due to start in the second half of 2006.28 (See section on privatisation).

Tariffs for non-eligible customers, and for wholesale by TETAS are regulated.29 Under the Electricity Market Tariffs Regulation and the related communiqués, tariffs must be cost-reflective and calculated on the basis of predetermined methodologies; costs not directly related to market operations must not be taken into account.30 Direct refunds may be granted to consumers in need without compromising the overall cost-based principle of the tariff structure. Once determined by companies, regulated tariffs are subject to review and approval by the EMRA. All tariffs are published in the Official Gazette and on the EMRA's website to ensure transparency.

The consumer price of electricity is subject to four different levies: (i) 1% for the Energy Fund Share; (ii) 2% for Turkish Radio and Television Corporation surcharge; (iii) the aggregated amount of the two preceding levies is then subject to the Municipality Consumption Tax (5% for households and 1% for industrial users); and (iv) 18% VAT.31

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28 Source: www.turkey-now.org.
29 Consumers with annual consumption above a threshold set by the Board, consumers purchasing natural gas for power generation, and local natural gas producers are considered as "eligible customers": they acquired the right to choose their suppliers. The others are "non-eligible customers".
30 Network losses and illegal consumption of electricity are important concerns: it is estimated that around 20% of electricity supplied to the grid is lost or illegally consumed by customers.
IV.3.5. Strategy Paper Concerning Electricity Market Reform and Privatisation

In line with the new market regime as foreseen by the EML (No: 4628) and following the 2001 economic crisis, a new policy was introduced in favor of privatising power generation and distribution facilities. In this respect, the Government issued a Strategy Paper Concerning Electricity Market Reform and Privatisation in March 2004, drawing the map for the privatisation of production and distribution sectors. The strategy outlines the major steps to be taken during the period up to 2012 and addresses various issues such as privatisation of distribution assets and power plants, transitional contracts and security of supply.

According to the Strategy Paper; (i) privatisation activities will be performed by the Privatisation Administration, (ii) participation of financially strong companies able to achieve the objectives and principles of the programme will be encouraged, (iii) legislation will be modified to accelerate and facilitate privatisation of generation and distribution, (iv) privatisation will start from the distribution sector and generation will be privatised after completion of the privatisation of distribution, (v) privatisation approach will take existing public liabilities into account and will not permit additional state guarantees, and (vi) Turkish Electricity Transmission A.S. ("TEIAS"), which is the transmission system and market operator, will remain publicly owned.

IV.3.5.1. Objectives and Principles

The primary objective is to ensure the delivery of electricity (which has a significant role in our economic and social life) to consumers in an adequate, quality, continuous and low-cost manner.

In order to reach this primary objective and the target for adoption of the relevant EU Acquis, the liberalisation in the electricity sector will proceed. Following the completion of the necessary sector reforms and the restructuring of state-owned electricity enterprises the electricity generation and distribution assets will be privatised. Timely and successful privatisation of electricity generation and distribution is an essential element of market liberalisation.
The primary benefits expected from electricity sector reform and privatisation have been determined as follows:

a. Decreasing of costs through effective and efficient operation of electricity generation and distribution assets,

b. Increasing the supply quality and supply security in the electricity sector,

c. Decreasing the technical losses in distribution sub-sector to the level in OECD countries and prevention of theft (non-technical losses),

d. Ensuring that the required rehabilitation and expansion investments are performed by the private sector without creating any liabilities on the public institutions, and

e. Transferring to consumers the benefits obtained through competition in generation, trade of electricity, and regulation of quality of service.

As part of this programme, the steps required for creating confidence in local and international investors shall be taken immediately, while efforts will be made to minimise the cost of transition to liberal market model on the public institutions currently operating in the market.

In order to ensure that there are no supply constraints during the transition period, temporary measures shall be taken to obtain adequate additional capacity. Such measures will be complemented with other programmes, such as imports and rehabilitation of existing plants.

The main principle will be the implementation of cost reflective prices in the regulated electricity sectors, whereas the national tariff practice will be operational for the first tariff implementation period through establishment of a tariff equalisation mechanism that will prevent price differences for non-eligible consumer tariffs.

**IV.3.5.2. Basic Principles of Energy Privatisation**

The principles by which privatisation will be undertaken include:

a. The privatisation activities will be performed by the Privatisation Administration within the framework of the provisions of Law no. 4046,

b. The privatisation approach will not be solely aimed at the maximisation of privatisation income,

c. There will be utmost efforts to ensure that the privatisation does not lead to permanent increases in electricity prices,

d. The participation of financially strong companies able to achieve the objectives and principles of the programme will be encouraged in the privatisation process,

e. The mandatory investments and mandatory operational and maintenance activities will be performed independently from the privatisation process,

f. The related legislation will be modified, if required, by the Privatisation Administration in order to accelerate and facilitate the privatisation of generation and distribution assets as indicated in this strategy paper,

g. Since the distribution companies, holding retail licenses and operating in a liberal market, have to create confidence on investors engaged or to be engaged in generation activities, privatisation will start on the distribution side,

h. A competitive generation structure will be achieved through appropriately grouping generation assets prior to their privatisation. Seventeen hydropower plants, which total 7.055 MW of capacity will remain in government ownership,
i. The privatisation approach will take into account existing public liabilities and will not lead to additional state guarantees,

j. The transmission system and market operator, TEIAS, will remain in state ownership,

k. Only distribution companies are allowed to supply non-eligible consumers.

**IV.3.5.3. Privatisation – Preparatory Activities:**

Before the commencement of tender process for distribution privatisation:

1) The distribution companies’ tariffs for wire operation and retail will be set through finalisation of:
   a. Transition contracts between the distribution companies and the generation groups, or
   b. Transition contracts between the distribution companies and TETAS, and
   c. Transition contracts between the EUAS hydro generation and TETAS.

2) In order not to prevent the development of wholesale market, the transitional balancing and settlement mechanism for the wholesale market will be operational.

The privatisation of the generation assets will start after the Market Management System, to be established by TEIAS, is in effect and after distribution privatisation is substantially completed, which is expected to be by mid-2006. This will ensure that efficient trading arrangements are in place to enable privatised generators to sell their output.

**IV.3.5.4. Privatisation of Distribution Regions**

With due regard to the operational problems as a result of the geographical structure, the size of the region as compared to energy purchased and technical/financial characteristics, the “existing contracts”, and the current legal process in Turkey, the number of distribution regions have been determined at most 21 throughout the country. The regions and the provinces covered by these regions are presented in the following figure and table.
Table 24: Provinces included in distribution regions

<table>
<thead>
<tr>
<th>Dist. Region</th>
<th>The provinces included in the distribution region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Diyarbakır, Mardin, Siirt, Şanlıurfa, Batman, Şırnak</td>
</tr>
<tr>
<td>2.</td>
<td>Bitlis, Hakkari, Muş, Van</td>
</tr>
<tr>
<td>3.</td>
<td>Ağrı, Erzincan, Erzurum, Kars, Bayburt, Ardahan, Ağrı</td>
</tr>
<tr>
<td>4.</td>
<td>Artvin, Giresun, Gümüşhane, Rize, Trabzon</td>
</tr>
<tr>
<td>5.</td>
<td>Bingöl, Elazığ, Malatya, Tunceli</td>
</tr>
<tr>
<td>6.</td>
<td>Sivas, Tokat, Yozgat</td>
</tr>
<tr>
<td>7.</td>
<td>Adana, Mersin, Osmaniye, Hatay, Gaziantep, Kilis</td>
</tr>
<tr>
<td>8.</td>
<td>Kırşehir, Nevşehir, Niğde, Aksaray, Konya, Karaman</td>
</tr>
<tr>
<td>10.</td>
<td>Antalya, Burdur, Isparta</td>
</tr>
<tr>
<td>11.</td>
<td>İzmir, Manisa</td>
</tr>
<tr>
<td>12.</td>
<td>Balıkesir, Bursa, Çanakkale, Yalova</td>
</tr>
<tr>
<td>13.</td>
<td>Edirne, Kırklareli, Tekirdağ</td>
</tr>
<tr>
<td>14.</td>
<td>İstanbul Province Anatolian Side</td>
</tr>
<tr>
<td>15.</td>
<td>Sakarya, Bolu, Düzce, Kocaeli</td>
</tr>
<tr>
<td>16.</td>
<td>Afyon, Bilecik, EskİŞehir, Kütahya, Uşak</td>
</tr>
<tr>
<td>17.</td>
<td>İstanbul Province European Side</td>
</tr>
<tr>
<td>18.</td>
<td>Kayseri</td>
</tr>
<tr>
<td>19.</td>
<td>Aydın, Denizli, Muğla</td>
</tr>
<tr>
<td>20.</td>
<td>Adıyaman, Kahramanmaraş</td>
</tr>
<tr>
<td>21.</td>
<td>Amasya, Çorum, Ordu, Samsun, Sinop</td>
</tr>
</tbody>
</table>

Source: Privatisation Administration

Privatisation Method

The following principles shall form the basis for privatisation activities:

1) The license terms shall be maximum 49 years,
2) There will be multi-year tariff implementation periods and the first implementation period will be 5 years,
3) The tariffs applicable in the first implementation period and the other issues regarding service quality targets shall be determined before privatisation,
4) Distribution companies shall have supply contracts with suppliers for at least the equivalent of 85% of their forecasted load demand of non-eligible consumers in their regions,
5) The tender documents will include the following minimum conditions regarding the revenue requirement for the first tariff implementation period and approved tariffs, and the bids will be evaluated on the basis of the prices proposed:
   - Specific quality of service obligations with targets and penalties;
   - A pre-defined loss reduction profile,
   - Specific rehabilitation investments required,
   - A methodology for subsequent tariff reviews,
6) Only distribution companies will be allowed to sell to non-eligible consumers,
7) The eligible consumer limit will be fixed at 7.8 GW-hour until the beginning of 2009. Within the framework of schedule to be determined, the eligible consumer limit be decreased starting at the beginning of 2009 in line with the objective of opening the
whole market to competition by 2011. During such period, due consideration will be given to security of supply.

IV.3.5.5. Restructuring and Privatisation of Generation Assets through Grouping

Hydroelectric Power Plants

The energy generation parts (sections) of all hydroelectric power plants constructed, commissioned or to be commissioned by DSI and the inseparable immovables of these will be transferred to EUAS until May 2004 on the basis of their actual costs without paying any charges to DSI.

Definition of Portfolio Generation Groups

The generation facilities to be privatised will be identified and grouped on the basis of two main criteria: (i) prevention of creating market power; and (ii) financial viability.

IV.3.5.6. Market Implementation

The liberal market structure being implemented in Turkey is based on bilateral contracting between buyers and sellers, supplemented by a balancing and settlement regime. To achieve the objectives and principles of this strategy it is essential that the balancing and settlement regime acts as a market where uncontracted generation can be bought and sold. This will enhance security of supply because it facilitates participation of independent and relatively small generators.

The transition contracts will initially cover about 85% of the total demand of non-eligible consumers in the related distribution region. These transition contracts will be set at regulated prices and will last for a maximum of 5 years, except for TETAS contracts. As they run out such contracts will be replaced by market priced bilateral contracts and thus, will ensure a smooth transition to liberal market.

The balancing and settlement mechanism is in compliance with the objective of creating a spot market and includes price signals to attract new investments.

IV.3.5.7. Transition Period Practices

Transition Period Contracts

A. TETAS Purchases from Hydro and Existing Contracts

The generation of the hydro power plants that are not included within the generation groups (which will therefore remain as publicly owned) and are under the possession of EUAS shall continue to be sold to TETAS as long as it is deemed necessary to achieve an average TETAS sales price that reflects the expected market price. TETAS, can buy electricity at a low price from these plants to compensate for the additional burden caused by electricity purchases at prices exceeding the market price from the BOO and BOT schemes.

B. TETAS Sales Contracts with Distribution Companies

The energy purchased by TETAS through existing contracts and EUAS generation, will be allocated among the Distribution Companies through purchase agreements to be signed between TETAS and distribution companies.
In case TETAS is unable to recover adequate revenues to cover its liabilities arising from long term contracts, these excess liabilities will be recovered through a surcharge to be added on the transmission use of system charges.

C. Sales Contracts between Portfolio Generation Companies/Groups and Distribution Companies

These contracts should be put in place before distribution companies are privatised to give the generation companies/groups a track record prior to their privatisation. The contracts should continue after the privatisation to assure a predictable stream of revenues in the early years. The transitional contracts in the last two groups will initially cover about 85% of total demand of non-eligible consumers in each distribution region.

IV.3.6. International Trade and Transit in Electricity

International trade and transit in electricity is important for Turkey in terms of alleviating tightness in generation capacity, load management, and improvement of security of supply. It is also important in the context of Turkey’s strategy of acceding to EU. Turkey shares some of the concerns expressed by EU regarding cross-border electricity flows. For example, EU countries have reported many benefits from adopting the electricity directive, but some problem areas remain:

- **Differential rates of market liberalisation.** In this regards, Turkey is actually ahead of the current average EU rate of liberalisation.
- **Disparities in access tariffs between network operators.** The issue is yet to surface in Turkey, as there are no transit flows of electricity across the country.
- **The high level of market power among existing generating companies associated with a lack of liquidity in wholesale and balancing markets.** This issue is present in Turkey, where EUAS controls about 60% of the generation and its share is expected to only decline slowly and insignificantly before 2020.

A central implication of the full EU internal market is that an important source of competition in countries where the generation market is concentrated would be cross-border transactions. However, the ratio of import capacity to installed capacity is more than 25% in only four out of the 15 EU countries to date. In Turkey, it is only 1,840 MW, of which 340 MW is inoperative (to Armenia and Syria) and 500 MW only used for exports (to Iraq), yielding an available ratio to generating capacity of less than 3%.

A heavier reliance on cross-border transactions requires better cross-border arrangements. Turkey shares some problems with EU countries in insufficient interconnection infrastructure between member states and, where congestion exists, unsatisfactory methods for allocating scarce capacity. But it is encouraging that participants in the sixth Florence forum in September 2001 agreed on common guidelines on congestion management. There has been more progress on cross-border tariffication. Turkey is working towards the adoption of these principles and rules.

The European Commission remains worried about the pace of development of cross-border trade across the EU. By the end of 2000, four years after adoption of the electricity directive, the physical cross-border trade in electricity did not exceed 8% of total consumption, which left “the EU far from a real, competitive internal market”. In Turkey, imports are less than 1% of consumption, and exports are slightly over 1% of consumption.

Specific obstacles to increased cross-border trade in Turkey include:
• **Operating standards and interconnector capacity.** Currently, Turkey is not a member of the UCTE, hence does not comply with the main continental European UCTE (Union for the Coordination of Transmission of Electricity) operating standards, and therefore it cannot connect its network synchronously. However, in 2007 Turkey is expected to be part of the UCTE network. A 400-kilowatt overhead line to Greece is expected to be commissioned by 2006 (with a subsea cable connecting Greece with Italy and the Western Europe network). Two 400 kV connections exist with Bulgaria when a portion of the Turkish network in Thrace is disconnected (according to the OECD, imports from Bulgaria account for 3% of domestic consumption).

• **Cross-border transmission pricing and settlement coordination.** The tariff framework for cross-border transactions is not yet very well developed, so it is still organisationally and economically difficult for individual electricity customers to choose suppliers situated in another EU member state, although proposals for more refined systems of cross-border pricing are being developed. Nevertheless, the physical exchanges will become possible upon UCTE Membership. Turkey, however has already adopted clear cross-border transmission pricing mechanism and capacity allocation procedures (see below).

• **Technological transmission losses over distance.** Absent a DC (direct current) direct transmission link (like the one between Greece and Italy), the cost of running electricity through intermediary transmission networks makes shipping electricity from Turkey to France or the United Kingdom prohibitive. Therefore, trade in the medium term will remain fairly localised, possibly including Greece, Italy, and Bulgaria-Romania. Because Turkey has lower-cost endowments than neighboring countries, it is likely that the eventual flow will be from Turkey to neighboring countries, implying a gradual increase in Turkish prices as low-cost assets are fully utilised.

Without doubt, one of the most significant benefits of EU accession for Turkey in the electricity sector would be the stability provided by anchoring Turkish regulations and practices to EU norms and practices. The European anchor will provide a strong signal of discrete and irreversible regime change from past practices that may have caused concern among both foreign and domestic players in the electricity industry. The confidence-boosting effect on potential investors, who otherwise may continue to be reluctant to enter the Turkish electricity market, is likely to be significant.32

As of mid-2006, and a 400 kV line with Greece is under construction. The Turkish electricity system is not yet however synchronously connected with neighbouring systems. A study intended to synchronise Turkey with the UCTE control area is under way and its results are expected by the year 2007.

Electricity imports and exports are small. The rules for cross border trading are defined in the Electricity Market Import and Export Regulation. Capacity at the interconnectors is allocated through explicit auctions managed by the TSO which also publishes the estimated available capacity at the interconnectors four months ahead. At present congestion is solved through curtailment. Any revenues resulting from congestions are to be used in the establishment of new lines and for the increase of capacity at the existing lines. If the TSO intends to use congestion rents for other purposes it requires the approval of the energy regulatory authority.33

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32 In this and the next sections, extensive text is used from: Bernard Hoekman and Sübidey Togan (Eds.): Turkey: Economic Reform and Accession to the European Union. The World Bank, 2005.

**IV.4. Renewable Energy (Hydro, Wind, Biomass, Solar, Geothermal)**

**IV.4.1 Renewable Energy Law**

In 2005, a Law On The Utilisation Of Renewable Energy Sources For The Purpose Of Generating Energy (Law No. 5346 of 10.5.2005) was adopted by the Turkish National Assembly (Parliament). For details, see Section II.3.4.6. above. The execution of the Law is vested unto the Council of Ministers and the secondary legislation was put into place by the Ministry and EMRA.

**IV.4.2. Hydropower**

Hydro power constitutes roughly one third of the total installed capacity in Turkey at present. Turkey is in need of new capacity additions and the indigenous coal and hydro resources are attached priority in this context. Turkey already utilised around 35% of the total estimated hydro power potential. Ministry of Energy and Natural Resources aims at utilisation of the remaining hydro potential over the next 20 years period. Given the carbon-free characteristics of hydro power, this target will contribute in mitigation of GHG emissions in the power sector.

The Renewables Law covers the reservoir type plants having a reservoir area of less than 15 square kilometers and the run-of-river type plants within the framework of the renewables based electricity generation plants eligible for the support mechanisms as defined in the Law. The State Hydraulic Works, on the other hand, has enabled the transfer of hydro projects to the private sector. As of July 2006, the private sector license applications to EMRA for new hydro plants amounted to around 12000 MW. This figure indicates the significant progress achieved with regard private sector participation, taking into account the current installed hydro capacity which is around 13000 MW.

**IV.4.3. Wind Power**

In August 2006, five wind power plants with a total installed capacity of 50.1 MW are in operation and two wind power plants with a 69.6 MW total installed capacity are under construction. At the end of May 2006, EMRA had granted licenses for wind power plants of total 1,386 MW, and processing applications for licenses for wind power plants with total capacity of 4,076 MW. The majority of wind energy projects are concentrated in the Aegean and Mediterranean regions.

<table>
<thead>
<tr>
<th>Region</th>
<th>Annual average wind density (W/m²)</th>
<th>Annual average wind speed (m/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maramara</td>
<td>51.9</td>
<td>3.3</td>
</tr>
<tr>
<td>Southeast Anatolia</td>
<td>29.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Aegean</td>
<td>23.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>21.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Black Sea</td>
<td>21.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Central Anatolia</td>
<td>20.1</td>
<td>2.5</td>
</tr>
<tr>
<td>East Anatolia</td>
<td>13.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Average</td>
<td>24.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

The annual average wind speeds range from a low of 2.1 m/s in the East Anatolia region to a high of 3.3 m/s in the Marmara region. The most attractive regions for wind energy applications are the Marmara, the Aegean and east of Mediterranean regions. These regions are highly suitable for wind power generation, since the wind speed exceeds 3 m/s in most of these areas (see Table 25 and Figure 27, measurements at 10 m above the ground). The total technical wind energy potential in Turkey is estimated at 88,000 MW, and economical potential is estimated at 10,000 MW.

**Figure 27: Windpower potential distribution at 10 m above the ground**

<table>
<thead>
<tr>
<th>Sheltered terrain (m/sn)</th>
<th>Open plain (m/sn)</th>
<th>At a sea cost (m/sn)</th>
<th>Open sea (m/sn)</th>
<th>Hills and ridges (m/sn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red areas</td>
<td>5.0-6.0</td>
<td>6.5-7.5</td>
<td>7.0-8.5</td>
<td>8.0-9.0</td>
</tr>
<tr>
<td>Yellow areas</td>
<td>4.5-5.0</td>
<td>58.5-6.5</td>
<td>6.0-7.0</td>
<td>7.0-8.0</td>
</tr>
<tr>
<td>Green areas</td>
<td>3.5-4.5</td>
<td>4.5-5.5</td>
<td>5.0-6.0</td>
<td>5.5-7.0</td>
</tr>
<tr>
<td>Blue areas</td>
<td>&lt;3.5</td>
<td>&lt;4.5</td>
<td>&lt;5</td>
<td>&lt;5.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;7.0</td>
</tr>
</tbody>
</table>


**IV.4.4. Solar Energy - Residential Heating**

According to a study based on measurements taken from 1966 to 1982, the average sunshine hours in Turkey are 7.2 hours per day (2,640 per year), with an average solar irradiation intensity of 3.6 kWh/m²/day (1,311 kW/m²). The solar energy potential is greatest in the southeastern and Mediterranean regions of the country (2,993 hours/year and 2,956 hours/year accordingly). The Black Sea region has the lowest potential (1,971 hours/year).

Solar energy is already widely used in the country, primarily for water heating at houses and hotels. The surface area of flat-plate solar water collectors is approximately 10 million m², yielding savings in conventional energy equivalent to 0.38 million tons of oil. The government has a test facility for solar collectors.

Solar energy for electricity generation (with photovoltaics, PV) is mainly used in TV and GSM repeating stations, forest fire observer towers and also PV lighting units, PV water pumping and irrigation systems, PV grid connected systems and other domestic PV
applications. Total usage capacity is estimated as 500 kW. The government has demonstration projects for PV applications.

Some estimates put the total potential for solar energy applications at 38 million tons of oil equivalent. The country thus only uses around 1% of the solar energy potential at the moment, and further growth of solar energy use is well warranted, particularly in water heating and space heating systems.

**IV.4.5. Geothermal Energy - Power Production and District Heating**

In Turkey, around 600 geothermal prospects and 170 geothermal fields with a temperature range of 40-242°C have been discovered. The total proven geothermal electricity generation capacity is 200 MWₑ, while direct use proven capacity is 2,046 MWₜ. The proven potential increases by about 5% annually as a result of exploration and drilling activities. The estimated geothermal electric power and direct use thermal potential is reported as 4,500 MWₑ and 31,500 MWₜ, respectively. The potential of geothermal development in Turkey is generally considered large in terms of moderate and low temperature resources (<150°C). Therefore, the resources are mostly suitable for direct use applications.

High-temperature geothermal fields suitable for conventional electricity generation are Denizli-Kizildere (242°C), Aydin-Germencik (232°C), Aydin-Salavatli (171°C), Canakkale-Tuzla (174°C), Kutahya-Simav (162°C) and Izmir-Seferihisar (153°C). The other high temperature fields with electricity generation potential are Manisa-Salihli-Caferbeyli (150°C), Aydin-Yilmazkoy (142°C), Izmir-Dikili (130°C) and Izmir-Balcova (125°C). The assessment of the other fields is still in progress. The only operating geothermal power plant of Turkey is Kizildere, located near Denizli City in Western Anatolia. Kizildere geothermal power plant was installed in 1984 with a capacity of 20.4 MWₑ. The total capacity of the field is estimated at 200 MWₑ.

Direct use of geothermal resources has expanded rapidly for about 40 years now, from space heating of single buildings to district heating, greenhouse heating, industrial usage, modern balneology and physical treatment facilities. Before the 1960’s, geothermal resources were only used spontaneously in bathing and medical treatment in Turkey. The first space-heating application by geothermal energy was at a hotel in Gonen-Balikesir in 1964. Later, the first district heating system was built again in Gonen in 1987, with a capacity of 16.2 MWₜ supplying heat to 600 residences. After 1990, development of direct use applications increased steeply (by 185% from 1990 to 1995, 173.4% from 1995 to 1998, and 131.2% from 1998 to 2002). Geothermal district heating supplies energy to 32,000 residences now (540 MWₜ).

The first greenhouse geothermal heating system of 0.45 ha energy was constructed at the Denizli-Kizildere geothermal field in 1985 and has grown to 1.4 ha today. Recently, the area of greenhouses heated by geothermal energy has grown rapidly, reaching a total area of about 36 ha and a heating capacity of 81 MWₜ for an average heat load of 2.25 MWₜ/ha. However, if the potential of the country is taken into account, the utilisation of this form of energy is seen to be far below its potential.

Ground Source Heat Pump (GSHP) systems have been in service in residential buildings for heating and cooling in Turkey for 5 years now. There are a few Turkish companies importing GSHPs from abroad and making efforts to put them onto the Turkish market. But in reality, interest in GSHPs is growing very slowly. The first GSHP system was applied to two

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buildings with a total capacity of 26 kW, representing a total floor area of 596 m². It is estimated that around 65 GSHP units are presently installed in Turkey, representing a total capacity of 800 kW. In the year 2006, a sample building was constructed, where training and awareness activities in energy efficiency in buildings in the domain of General Directorate of Electrical Power Resources Survey and Development Administration are carried out. The heating and cooling needs of the building, which is constructed for the purpose of training certified energy managers and realising public awareness activities, are met by a 18 kW soil-sourced heat pump. At the same time, the heat pump system is used in training, awareness and dissemination activities. Considering the ongoing installations, it appears that the growth rate of GSHP systems use will increase in next years.

Industrial use of geothermal energy is not common in Turkey. The most well-known application is a liquid CO₂ and dry-ice production process located adjacent to the Denizli-Kizildere geothermal power plant (since 1986). The installed initial capacity was 40,000 tons/yr, but later the capacity was increased to 120,000 tons/yr (1999). Another industrial use in the region is at a textile industry using the chemical properties of geothermal fluid as a whitening agent. In Balikesir-Gonen, the wastewater of the geothermal district heating system has been used for process hot water supply to 54 tanneries.

The main conclusions that can be drawn regarding the utilisation of geothermal energy in Turkey are listed below.

- Since Turkey is an energy importing country, the use of renewable energy in general and geothermal energy use in particular is very important. Geothermal energy offers technically and economically feasible possibilities.
- GSHPs are economically preferable to the conventional space heating/cooling systems used in Turkey. The primary barrier to marketing GSHP systems in Turkey is the incremental cost of installing ground heat exchangers, which makes the total investment high. There is customer resistance to GSHPs technology in the country because Turkish heating systems differ in many respects from the ones in other countries and the first installation cost of GSHPs is relatively higher compared to the conventional systems.
- Up-to-date information on geothermal energy utilisation in Turkey is not easily and completely found. This means that, in general, good information systems for geothermal energy should be established in the country.
- New financing mechanisms are needed to promote investment in energy efficiency and renewable energy.
- Turkey has no specific laws for development of geothermal resources and no specific governmental support is available, yet direct use applications have been growing rapidly, underscoring the existing potential for geothermal applications.
- Geothermal development offers a viable alternative to fossil fuel. However, environmental and social dimensions of geothermal development must be carefully and properly managed. In the long term, geothermal energy will remain a viable option to furnish clean, reliable power in Turkey. It should be underlined that is already confirmed and proven that geothermal energy can be commercially competitive with other energy sources.\footnote{In this section, extensive text is used from: Gulden Gokcen, Gunnur Kocar, Arif Hepbasli: Year-end geothermal development status of Turkey, 2002. International Geothermal Conference, Reykjavik, Sept. 2003.}
### IV.5. Nuclear Power

The main laws and regulations governing nuclear power are the following:

- Decree Pertaining to Issue of Licenses for Nuclear Installations
- Decree on Radiation Safety
- Regulations on Radiation Safety
- Regulations on Quality Assurance and Inspection of Nuclear Installations
- Regulations on Physical Protection of Special Nuclear Materials
- Regulations on Nuclear Materials Accounting and Control
- Regulations on Safe Transport of Radioactive Materials
- Regulations on Nuclear and Radiological National Emergency Preparedness
- Safety Objectives for Nuclear Installations
- Fundamental Safety Principles for Nuclear Installations
- Specific Requirements for the Safety of Nuclear Power Plants
- Regulations for Quality Assurance Programme for Nuclear Installations
- Regulations on Quality Assurance for the Site Selection of Regulations for Quality Assurance Requirements in Scope of PSAR
- Regulations for Siting Activities of Nuclear Power Plants
- Regulations on General Project and Safety Criteria for Design and Construction of Nuclear Power Plants
- A Guide on the Earthquake Related Subject Requested in the Issuance of Limited Work Permit and Site License
- A Guide on Seismic Design and Qualification of Nuclear Installations
- A Guide on External Man-Induced Events in Relation to Nuclear Power Plant Design
- A Guide on Fire Protection in Nuclear Power Plants
- Specific Safety Principles for Research Reactors
- Reporting of Unusual Events for Research Reactors
- Records and Reports for Research Reactors
- Regulations on Operating Organisation, Personnel Qualification and Operating Personnel Licensing for Research Reactors

The Turkish Atomic Energy Authority (TAEK) is responsible for determining the basis of the national policy and the related plans and programmes regarding the peaceful utilisation of atomic energy; executing and supporting research, analysis and studies that might lead to nation’s scientific, technological and economical development related with the utilisation of atomic energy; establishing research and training centers, laboratories, test facilities, pilot plants without electricity producing purposes wherever it is needed in the country; educating the personnel in the nuclear field; giving approval, permission and license for the activities related to the site selection, construction, operation of nuclear facilities; enlightening public in nuclear matters; and regulating and enforcing the nuclear and radiological activities regarding to nuclear safety and security, radiation safety, waste and transport safety and safeguard. TAEK undertakes the research duty by performing experimental and theoretical studies at TAEK’s research centers in cooperation with the universities and other related institutions. The research infrastructure at the Çekmece Nuclear Research and Training
Center of TAEK is especially devoted to the research and development programmes addressing the issues for nuclear reactor and fuel technology.

The bodies of TAEK are:

- The Atomic Energy Commission,
- The Advisory Committee,
- The Specialised Departments, and
- The Affiliated Centers.

The Authority responsible for the enforcing nuclear safety is the TAEK. TAEK is the main driving force for enhancing and broadening of all nuclear related activities in Turkey. Besides her other duties, TAEK undertakes all regulatory activities including licensing, drafting regulations, and performing inspections for special nuclear materials, radioactive materials and nuclear facilities.

The Nuclear Safety Department (NGD) of TAEK is the responsible unit for the evaluation of licensing applications of nuclear installations under the coordination and supervision of the Vice President of TAEK responsible from Nuclear Power and Safety. “Decree Pertaining to Issue License for Nuclear Installations” regulates the application requirements and procedures of licensing activities for all nuclear installations and for all stages. The licensing of nuclear facilities is composed of three main stages. The first stage is the Site License. The second stage is the limited work permit and the Construction License. Final stage is composed of commissioning permit, permit for fuel loading and start up tests and the Operating License.

Any application for a license should be sent in written form to the Authority accompanied by all necessary supporting documents such as Site Report, Safety Analysis Report or other reports containing results of the inspections and/or tests performed at the proposed site or the installation. TAEK reviews and assess those submissions based on the established safety principles, criteria, regulations and guides. The decision is released to the applicant by TAEK. An affirmative notification is called permit or license (e.g. site license, limited work permit, construction license) and the conditions of the license/permit are given to the applicant as an appendix to the license/permit.

Studies to build a nuclear power plant (NPP) in Turkey were started in 1965. Later, between 1967 and 1970, a feasibility study was made by a foreign consultant company to build a 300-400 MWe NPP. The NPP would have been in operation in 1977. Unfortunately, because of the problems relating the site selection and other issues the project could not be realised.

In 1973, Turkish Electricity Authority (TEK) decided to build an 80 MWe prototype plant. However, in 1974 the project was cancelled due to reason that this project could delay the construction of a greater capacity nuclear power plant. Instead of this prototype plant, TEK has decided to build a 600 MWe NPP in southern Turkey.

Site selection studies have been made in 1974 and 1975 and the Gülnar-Akkuyu location was found suitable for the construction of the first NPP. In 1976, the Atomic Energy Commission granted a site license for Akkuyu. In 1977, a bid was prepared and ASEA-ATOM and STAL-LAVAL companies were awarded as the best bidders. Contract negotiations continued until 1980. However, in September 1980, due to Swedish Government’s decision to withdraw the loan guarantee, the project was cancelled.
The third attempt was made in 1980. Three companies were awarded to build four nuclear power plants (1 CANDU unit by AECL and 1 PWR unit by KWU in Akkuyu and 2 BWR units by GE in Sinop). Due to Turkey’s request to apply the BOT model, KWU resigned from the bid. Although AECL accepted the BOT model, it insisted upon the governmental guarantee on the BOT credit. The Turkish government refused to give the guarantee and as a consequence the project was cancelled.

In 1992, the Ministry of Energy and Natural Resources stated in a report that the country would face an energy crisis if the installation of new energy resources fails before 2010, suggesting that nuclear energy generation should be considered as an option.

In 1993, the High Council of Science and Technology identified nuclear electricity generation as the 3rd highest priority project of the country. In view of this decision, the Turkish Electricity Generation and Transmission Company (TEAŞ) included a NPP project in its 1993 investment programme. The bid process started in 1996 and three consortiums bidded in 1997: AECL, NPI and Westinghouse. After a series of delays, in July 2000, the Government decided to postpone the project.

In November 2004, The Turkish Electricity Transmission Company (TEİAŞ) prepared a report entitled “Electricity Energy Generation Planning Study for Turkey (2005-2020)”. This report is providing guidance for the decision makers, investors and market actors on the timing, composition and capacities of the additional electricity generation sources needed for the next 15 years period. According to this study, the demand is predicted to be 242 TWh in 2010, 356.2 TWh in 2015 and 499.5 TWh in 2020, according to the high demand scenario with 7.9% increase rate per year. Even in low demand scenario the annual demands will be as high as; 216.7 TWh in 2010, 294.5 TWh in 2015 and 406.5 TWh in 2020. These projections reveal the need for utilising nuclear energy so as to diversify the generation mix through a zero carbon technology.

According to the forecasts, nuclear power plants corresponding to a total of roughly 5000 MW will be integrated into the Turkish electricity grid until 2020. Studies are underway for completion of the necessary legal framework in this context. Nuclear energy will enhance the diversification in the electricity generation mix. Nuclear power option is also assessed an important role in the mitigation of the GHG emissions from the power sector.
Annex 1: COMPANIES/ENTITIES IN THE PRIVATISATION PORTFOLIO, AS OF AUGUST 2006

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Shares Owned by Privatisation Administration %</th>
<th>Field Of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPANIES/ENTITIES IN THE PRIVATISATION PROGRAMME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 SUMER Holding A.Ş.</td>
<td>100.00</td>
<td>Textile, leather, ceramics, a paper &amp; pulp production plant/port, phosphate facilities, sugar plants</td>
</tr>
<tr>
<td>2 TDI-Türkiye Denizcilik İşletmeleri A.Ş.</td>
<td>100.00</td>
<td>Maritime</td>
</tr>
<tr>
<td>3 TDCI-Türkiye Demir ve Çelik İşletmeleri A.Ş.</td>
<td>100.00</td>
<td>Iron and steel</td>
</tr>
<tr>
<td>4 TEKEL-Tütün, Tütün Mamülleri, Tuz ve Alkol İşl. A.Ş.</td>
<td>100.00</td>
<td>Tobacco products &amp; Salt Pans</td>
</tr>
<tr>
<td>5 TEDAŞ-Türkiye Elektrik Dağıtım A.Ş.</td>
<td>100.00</td>
<td>Electricity distribution (20 separate legal/joint stock companies wholly-owned by TEDAŞ)</td>
</tr>
<tr>
<td>6 HALKBANK-Türkiye Halk Bankası A.Ş.</td>
<td>99.99</td>
<td>Banking (As well as Other Financial Services such as Insurance &amp; Securities)</td>
</tr>
<tr>
<td>7 Karadeniz Bakır İşletmeleri A.Ş.</td>
<td>99.99</td>
<td>Copper</td>
</tr>
<tr>
<td>8 PETKİM Petrokimya Holding</td>
<td>61.32</td>
<td>Petrochemicals</td>
</tr>
<tr>
<td>9 THY-Türk Hava Yollar A.O.</td>
<td>46.43</td>
<td>Air transport</td>
</tr>
<tr>
<td>10 Arac Muayene İstasyonları</td>
<td></td>
<td>Motor Vehicle Inspection Stations / Services</td>
</tr>
<tr>
<td>11 Devlet Demiryollari’na ait Limanlar (Mersin, Iskenderun, Derince, Samsun, Bandırma, İzmir)</td>
<td></td>
<td>Seaports owned by State Railways</td>
</tr>
<tr>
<td>12 Foça Tatil Köyü, Hotel Çelik Palas BURSA</td>
<td></td>
<td>Tourism/A Hotel Complex &amp; A Holiday Village</td>
</tr>
<tr>
<td>13 Kayseri Şeker Fabrikası A.Ş.</td>
<td>10.00</td>
<td>Sugar Processing</td>
</tr>
<tr>
<td>14 Muhteşem Vartıklar / Taşımazlar</td>
<td></td>
<td>Miscellaneous Assets/Real Estate</td>
</tr>
<tr>
<td><strong>COMPANIES IN THE SCOPE OF PRIVATISATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 TŞFAŞ-Türkiye Şeker Fabrikaları A.Ş.</td>
<td></td>
<td>Sugar processing</td>
</tr>
<tr>
<td><strong>ENTITIES IN THE PRIVATISATION PROGRAMME</strong></td>
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<td></td>
</tr>
<tr>
<td>1 Manavgat Çayı İçecek Su İstasyesi</td>
<td></td>
<td>Fresh water production facilities</td>
</tr>
<tr>
<td><strong>ENTITIES IN THE SCOPE OF PRIVATISATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Highways</td>
<td></td>
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</tr>
<tr>
<td>Edirne-Istanbul-Ankara Otoyolu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pozantı-Tarsus-Mersin Otoyolu</td>
<td></td>
<td></td>
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<tr>
<td>Tarsus-Adana-Gaziantep Otoyolu</td>
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<td></td>
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<tr>
<td>Toprakkale Iskenderun Otoyolu</td>
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<tr>
<td>İzmir-Çeşme Otoyolu</td>
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<tr>
<td>İzmir-Aydın Otoyolu</td>
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<tr>
<td><strong>Bosphorus Bridges</strong></td>
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<tr>
<td>Boğazı Köprüsü</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatih Sultan Mehmet Köprüsü</td>
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<tr>
<td>3 Energy Assets</td>
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</tr>
<tr>
<td>Thermal power plants (11)</td>
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<td></td>
</tr>
<tr>
<td>Hydro-electric power plants (16)</td>
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<td></td>
</tr>
<tr>
<td>Stream (River) power plants (55)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COMPANIES TO BE PRIVATISED ACCORDING TO THEIR OWN LAWS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Türk Telekomünikasyon A.Ş.</td>
<td>45 % state-owned</td>
<td>Telecommunications</td>
</tr>
<tr>
<td>2 Milli Piyango İdaresi Genel Müdürlüğü</td>
<td></td>
<td>Lottery Games</td>
</tr>
</tbody>
</table>
Annex 2: EXCEPTIONS TO THE PRINCIPLE OF NATIONAL TREATMENT OF INVESTORS NOTIFIED BY TURKEY

COUNTRY: TURKEY

MEASURES

Privatisation Law (Law No 4046), Article 13, paragraph (b).

SECTOR

National Economy.

LEVEL OF GOVERNMENT

National.

DESCRIPTION

The Privatisation High Council is authorised to determine strategic subjects and organisations as well as to remove such sectors and organisations determined to be strategic from the scope of the Privatisation Programme.

In the event that the State’s shareholdings in organisations determined to be strategic fall below 50%, the Privatisation Council is authorised:

- to determine the number of preference shares granting special management and approval rights to the management bodies and the rights attaching to those shares which the State shall enjoy;

- to change the quantity of these shares and the rights attached thereto.

However, if and when more than 49% of the capital shares of the organisations listed below are decided to be privatised, preference shares must be established in them:

- Turkish Petroleum (TPAO, refineries).

PHASE-OUT

No plans at present.

OTHER EXCEPTIONS

None.
COUNTRY: **TURKEY**

**MEASURES**

Privatisation Law (Law No 4046), Article 14.

**SECTOR**

National Economy.

**LEVEL OF GOVERNMENT**

National.

**DESCRIPTION**

Sale and transfer of real estate to foreign natural or juridical persons within the framework of the privatisation process to be conducted in accordance with the provisions of this Law are subject to the provisions of the legislation in force on the basis of rules of reciprocity.

**PHASE-OUT**

No plans at present.

**OTHER EXCEPTIONS**

None.