SCREENING CHAPTER 21 Trans-European Networks

29 SEPTEMBER 2006 – TRANSEUROPEAN NETWORKS – ENERGY

GENERAL REMARKS

Located at a crucial geopolitical region, Turkey lies adjacent to regions possessing some 73 % of the world's proven oil reserves and 72 % of the world's proven gas reserves. The huge oil and gas reserves of these regions necessitated the initiation of projects to transport these resources to world energy markets. Turkey, which is located between the Caspian Basin and Middle East countries, puts full effort to transmit the aforesaid energy resources to the demand centers in a cost-effective and reliable manner.

In this context, Turkey supports realisation of the pipeline projects connecting the hydrocarbons in the neighbouring regions with the world markets, as a stable cross-road country in the region. The transit role of Turkey will gradually increase in the coming period.

Turkey supports several projects to meet its own gas demand and to serve for meeting the increasing gas demand of EU by opening several arteries via Turkey.

Turkey also attaches great importance to the international electricity interconnection projects with the neighbouring countries and regions to exploit the benefits of electricity interconnections. The interconnection of Turkish power system with the European Power Network (UCTE) is an utmost priority and concrete progress has been achieved recently. Although tie lines were built with all neighbouring countries, except Greece, none of these tie lines have been operated in synchronism and used only for energy exchange purposes with island supply and directed generation methods.

Turkey also has taken part in EIJLLST (Egypt, Iraq, Jordan, Lebanon, Libya, Syria, and Turkey) Interconnection Project, MEDRING Project, "Black Sea Regional Transmission Planning Project" (BSRTPP), and ECO Interconnection Project.

Due to the recent developments with respect to Turkey's connections to UCTE system, EIJLLST Project had turned out to be part of prospective Mediterranean Ring (MEDRING) and the interconnection of Turkey with the UCTE grid via Greece and Bulgaria is prerequisite for the feasibility of prospective Mediterranean Synchronous Ring.

Under BSRTPP initiative, interconnection of Black Sea Countries Power Systems is being studied.

Interconnection of the Turkish electricity grid with that of the UCTE and the ongoing gas projects will enable physical integration of Turkish electricity and gas markets with EU internal market.

- What are the likely investment needs in the various energy sub-sectors for the period after 2007? What type of financing is foreseen (public, private, PPP1[1])?
- What are the investment plans in the medium and long term in the various energy sub-sectors? What type of financing is foreseen (public, private, PPP)?

NATURAL GAS

In Turkey, natural gas consumption started in the mid 1970s with utilization of the limited indigenous natural gas production in a few industrial plants. In line with the policy of energy source diversification, environmental and economic reasons, natural gas use has gained pace in the energy sector.

	Indigenous Natural Gas Demand Projection					Export	General
			Power				
YEARS	Residential	Industry	Generation	Fertilizer	Total	Greece	Total
2005	5.268	5.398	14.285	514	25.465	0	25.465
2006	5.764	6.662	14.225	506	27.157	246	27.403
2007	6.388	8.791	15.192	543	30.914	492	31.406
2008	6.975	9.639	15.192	543	32.349	737	33.086
2009	7.683	10.527	15.192	543	33.945	737	34.682
2010	8.596	11.638	15.192	543	35.969	737	36.706
2011	9.750	12.870	15.192	543	38.355	737	39.092
2012	10.462	13.280	15.192	543	39.477	737	40.214
2013	10.747	13,613	15.192	543	40.095	737	40.832
2014	10.926	13.937	15.192	543	40.598	737	41.335
2015	11.115	14.266	15.192	543	41.116	737	41.853

Following table gives the sectorial natural gas demand projections in Turkey till 2015

The Turkish natural gas market activities are regulated by the Natural Gas Market Law (Law no 4646) of 2 May 2001. The Natural Gas Market was liberalised after 18-month transition period on 2 November 2002. The objective of the Law is to establish a competitive gas market, reduce state role in the sector and to harmonize the Turkish legislation with the EU legislation.

Currently, the state-owned Petroleum Pipeline Corporation (BOTAŞ) is the sole natural gas importer and has de-facto monopoly of all gas supply in Turkey. Monopoly of BOTAS on the importation, transportation, sale and pricing, of imported natural gas was terminated in 2001 after the enactment of the Natural Gas Market Law. Under the Natural Gas Market Law, BOTAŞ will not enter into new purchase contracts until its share of imports falls to 20% of the national consumption. Every year starting from November 2002 and until the year 2009 at the latest until its share of imports falls to 20% of consumption, BOTAŞ is obliged to transfer the existing sales and purchase contracts to independent supply companies. The amounts transferred by BOTAŞ in each calendar year are, according to the Law, should be at least 10% of the total contracted amount.

From 2009 on, BOTAŞ, the vertically integrated state-owned gas company, is to be unbundled into separate companies providing the following services:

- □ trade (import and sale)
- □ transmission
- □ storage

In addition to these, Turkey has small proven gas reserves. At the end of 2003, the remaining recoverable reserves were 8 bcm. In 2003, Turkey's gas production totaled 0,6 bcm. TPAO and local and foreign private companies conduct gas exploration and production in Turkey.

LNG

In order to receive the LNG imported, BOTAŞ instigated in September 1989 the construction of the Marmara Ereğlisi LNG Import Terminal, which is regarded as a base load plant and a means of peak shaving, when required. The Terminal was put into operation on August 3, 1994.

The two main functions of the Marmara Ereğlisi LNG Import Terminal are;

- □ Storage of the LNG imported,
- □ Regasification of the LNG at required volumes to be sent out to the Russian Federation-Turkey Natural Gas Main Transmission Line.
- □ Reloading of LNG to the trucks.

STORAGE

Studies are proceeding for storing natural gas in underground storage facilities in order to regulate the seasonal, daily and hourly fluctuations in consumption.

The Salt Lake Natural Gas Underground Storage Project was developed to utilize salt domes in the Salt Lake Basin. The engineering studies of the project were initiated in July 2000. Positive Decision for EIA Report was granted to BOTAŞ. Within the context of this project, it is planned to store approximately 1 billion m³ of natural gas.

Another natural gas underground storage project is the Tarsus Natural Gas Underground Storage Project. It is planned to use salt caverns, which are being operated to supply raw material to the facilities of Turkey Şişecam Soda Sanayii A.Ş in Mersin, as underground storage facilities. Moreover, studies for using TPAO's Northern Marmara and Değirmenköy gas fields as underground gas storage facilities following their depletion are underway. Total storage capacity of the facilities will be 1,6 billion m³ of natural gas, of which 1,3 billion m³ in Northern Marmara and 0,3 billion m³ in Değirmenköy.

ELECTRICITY

In the frame of US-AID financed BSRTPP, in addition to existing 220 kV line with Georgia, construction of a new 400 kV transmission line and back-to-back station is under consideration. Realisation of an asynchronous connection of Georgian and Turkish power system is considered to be viable and feasible in the medium term, since Georgia is a member of the IPS/UPS system and synchronization of IPS/UPS power system with UCTE is foreseen to be realised in the long term due to difficulties deriving from magnitude of the geographical area to be covered and different standards they possess. However, for the final decision to be reached for such investment, it is necessary to carry out detailed feasibility studies.

Turkish section of the new 400 kV transmission line which is considered to be constructed between Georgia and Turkey will require an investment of approximately 2,3 million €.

• What is your policy, what are your plans on electricity, gas or oil exchanges and network interconnections with neighbouring countries and/or regions? What projects are being carried out as regards electricity and gas interconnectors? Who provides the funding and what agreements exist with respect to access to those networks?

OIL - NATURAL GAS

Like in many countries, oil and gas constitute the major share in energy consumption of Turkey. As the indigenous energy resources are not sufficient to meet the increasing energy demand, Turkey needs to import significant amount of energy.

In this regard, the main goal of Turkish energy polices has been set as the provision of required energy in a timely, reliable, cost-effective, environmentally sound and high-quality basis so as to support the envisaged development impetus and social progress. In doing so, utilization of domestic sources of the Country to an extent possible and diversification of imported sources form the basic pillars of Turkish energy concept.

Turkey's unique geo-strategic location serves for the transportation of energy sources of the Caspian Basin, the Middle East and the Central Asia to Europe and further to the world markets via safe, cost effective, and environmentally conscious ways thereby leading to the formation of the East – West Energy Corridor.

Within the concept of East-West Energy Corridor, Turkey currently undertakes two major Projects which would serve for the energy security of the European and world markets. These are the Baku-Tbilisi-Ceyhan Main Export Oil Pipeline Project, which is commercially commissioned by realizing the opening ceremony in Ceyhan on 13 July 2006, and the Baku-Tbilisi-Erzurum-BTE (South Caucasus Pipeline) Natural Gas Pipeline Project that is envisaged to bring Shah Deniz gas to Turkey officially due to be completed in the last quarter of 2006. The BTE Project is not only important from the perspective of meeting the domestic gas demand of Turkey but also in meeting the certain amount of European Union's fastly growing gas need, thereby enhancing the security of supply.

While on one hand Turkey develops projects to meet its own gas demand, on the other hand, it also envisages to serve for meeting the European Union's increasing demand for gas by opening several other arteries to the continent via Turkey. With our aim of transporting natural gas to Europe, two projects have been developed.

The first of these is the Turkey-Greece Natural Gas Pipeline Project which is then planned to be extended up to Italy. Interconnection of the Turkish-Greek Natural Gas Pipeline grids is due to be completed in 2006 with some initial deliveries.

The other route is the Turkey-Bulgaria-Romania-Hungary-Austria line which is so called as Nabucco Project. Studies are well underway among the respective institutions of the Countries for the realization of the Project.

It should however be noted that these two projects are not competing ones but rather complementary to each other. In this context, Enlarged European Union will need approximately 300 billion m³ gas additionally that is not contracted yet. It is estimated that as much as 100 billion m³ gas can be supplied through Turkey in the long term and Turkey has been studying on pipeline projects to transit around 40 billion m³ natural gas to Europe in short to medium term.

In addition those, we're also negotiating on the related terms and conditions for the extension of Arab Gas Pipeline to Turkey with final destination to Europe. We believe that with this project Turkey will further have a chance to enhance its security of supply together with its partners. Intergovernmental negotiations together with the technical studies among the respective national gas companies are being continued.

Also it is known that since 2003 Turkey has received natural gas from Russian Federation via Blue Stream Pipeline. Transporting that natural gas to Ceyhan terminal by constructing a pipeline and an LNG Terminal at Ceyhan are two important topics in our agenda.

As mentioned previously, currently, the state-owned Petroleum Pipeline Corporation (BOTAŞ) is the sole natural gas importer and has de-facto monopoly of all gas supply in Turkey. Therefore BOTAŞ is owner of all these above mentioned natural gas pipelines and provides the funding. However, according to the Natural Gas Market Law (Law no 4646), which regulates the Turkish natural gas market activities, private enterprises can access those networks provided that they comply with the provisions of the Law.

ELECTRICITY

At present, Turkey has 154 kV and 34,5 kV links with Nahcivan Autonomous Region of Azerbaijan, 220 kV line with Georgia, 2 separate 400 kV lines with Bulgaria, 154 kV and 400 kV (currently energized at 154 kV voltage level) lines with Iran, 400 kV lines with Syria and Iraq (currently energized at 154kV voltage level). Currently, Azerbaijan, Georgia, Bulgaria, Iran, Syria and Iraq lines are operable while Turkey-Greece 400 kV line is still under construction.

At present, Turkish transmission system does not have synchronous parallel operation with any other system. The main operation mode for the existing interconnections is mostly passive island mode, but directed unit mode can also be implemented. Currently, under the Trade Agreements made between public utilities, the tie lines with Georgia and Iran (to transfer Turkmenistan electricity via Iran system) are in operation. Furthermore, a tie line with Iraq is also in operation to provide the electricity transfer from Turkey to Iraq by a wholesale private Turkish company.

1. The projects within the scope of TEN-E priority projects:

a. Synchronous Interconnection of the Turkish Power System with the Western European Electricity Networks (UCTE)

Turkey's priority has always been the realisation of synchronous connection with the UCTE system. In this respect, three projects have been developed by TEIAS and financed by EC under EU-Turkey Financial Cooperation:

- i. **"Complementary Technical Studies for Synchronization of Turkish Power System with UCTE Power System"** Project is financed within 2003 Programme for the purpose of determining the technical conditions under which the Turkish power system may be synchronized with the UCTE power system. The project is underway and expected to be finalized in 2007.
- ii. **"Improvement of the Frequency Performance of the Turkish Power System in accordance with the UCTE Criteria"** Project is financed within 2004 Programme for the purpose of improving the frequency control performance of the Turkish power system to the level required by the UCTE. Consultations with relevant institutions are still underway for the finalisation of contracting procedures.
- iii. **"Improvement of the Conditions for Cross Border Electricity Trade in Turkey in Compliance with the Best Practice in EU**" Project is supported within the 2006 Programme for the purpose of improving the conditions for the functioning of crossborder electricity trade in Turkey by removing administrative and legislative obstacles and enhancing the operation and maintenance performance of the Turkish electricity transmission system in conformance with the best practices in EU. The project is foreseen to be carried out with an EU member country TSO as a twinning partner.
 - b. Black Sea Regional Transmission Planning Project (BSRTPP)

The Project of the Interconnection of Power System of BSEC Member Countries was launched under BSEC by 1990's. However, relevant feasibility study was unable to be commenced due to the bottleneck in financing.

Against the recommendations of Turkish part depending upon the experiences gained from SECI Project, BSEC participating countries decided to launch Regional Transmission Planning Project with the financial support of USAID for the identification of a suitable model to investigate the possibilities of regional energy trade and energy exchange among BSEC member countries.

In the frame of US-AID financed BSRTPP, in addition to existing 220 kV line with Georgia, construction of a new 400 kV transmission line and back-to-back station is under consideration. Due to the difficulties deriving from magnitude of the geographical area to be covered and different standards they possess, realisation of an asynchronous connection of Georgian and Turkish power system is considered to be viable and feasible in the medium term. In accordance with this consideration, the TSO's from Turkey, Georgia and Russian Federation decided to evaluate the realisation of this new interconnection jointly.

Currently, Under BSRTPP the studies are ongoing.

c. New Connections in the Mediterranean Electricity Ring (France- Spain- Morocco-Algeria- Turkey- Greece- Italy)

MEDRING Project has started to perform detailed studies with the financial support of EU; and the studies which are being carried out by a Consortium formed by the participation of Italy, France, Greece, Spain, Algeria, Morocco, Tunisia, Egypt, Jordan, Syria and Turkey contains all the Mediterranean Countries including Libya.

As per the results of the studies, it has been decided that the applicable measures would be investigated from technical-economical points of view and appropriate additional investments would be determined to allow the usage of the interconnection lines approximating to respective capacities.

UCTE comments that the studies performed on MEDRING are of pre-feasibility nature and detailed studies should be performed.

2. Other planned or ongoing electricity interconnections projects with neighbouring countries and regions:

a. Seven Countries (Egypt, Iraq, Jordan, Lebanon, Libya, Syria and Turkey) Interconnection (EIJLLST Project)

The studies for the interconnection of 400 kV electrical systems and electricity exchange among Egypt, Iraq, Jordan, Lebanon, Libia, Syria and Turkey have been performed.

Synchronous parallel operation between Egypt, Jordan and Syria has already been initiated.

Due to the recent developments with respect to Turkey's connections to UCTE system, EIJLLST Project had turned out to be part of prospective Mediterranean Ring (MEDRING) and the interconnection of Turkey with the UCTE grid via Greece and Bulgaria is prerequisite for the feasibility of prospective Mediterranean Synchronous Ring.

b. Economic Cooperation Organisation Interconnection Project (ECO Project)

Economic Cooperation Organisation is founded by Turkey, Iran and Pakistan and extended to 10 countries by the participation of the Central Asian countries.

A pre-feasibility study for the parallel functioning of the power networks of the ECO member states is currently being performed by a consultation firm.

3. Project Funding

Babaeski–Filippi 400 kV connection line between Greece and Turkey, which is the third line between Turkey and UCTE countries, is projected to be completed by the end of 2006. The necessary funds for the construction of the Turkish segment (about 50 km) were secured through a World Bank loan.

By the participation of the most of the BSEC countries, "Regional Transmission Planning Project" was launched with the financial support of USAID considering the experiences gained from the project having the same heading as "Regional Transmission Planning Project" performed under SECI.

MEDRING Project is implemented with the financial support of EU.

As summarised below, a series of projects of developed by TEIAS for the UCTE interconnection power system are financed by EC under EU-Turkey Financial Cooperation Programme.

ECO Interconnection Project pre-feasibility study is being performed within the financial support of the Islamic Development Bank (IDB).

• Indicate your country's relation with the Trans-European Energy (TEN-E) priority projects concerning electric and gas interconnections (cf. Decision 1229/2003 and Regulation (EC) 807/2004 for Community financial aid in the field of trans-European networks). Recent relevant Commission documents are the proposal for a revision of the TEN-E guidelines (COM (2003) 742) and the Communication "Energy Infrastructure and Security of Supply" (COM (2003) 743). Indicate your country's relation with the Quick-start projects in Energy Networks specified in the Communication "European Initiative for Growth" (COM (2003) 690). What are the current and future facilities for import/export of energy and what is their capacity/annual throughput?

As it was requested by the EC representatives in the Explanatory Meeting of this chapter, the following projects are elaborated according to the draft text revising the Decision of the European Parliament and of the Council laying down guidelines for Trans-European Energy Networks.

NATURAL GAS

Under the heading "Caspian Sea countries – Middle East – European Union" (NG.3.) of the Annex I of the Decision of the European Parliament and of the Council laying down guidelines for Trans-European Energy Networks, new natural gas pipeline networks to the European Union from new sources, including the "Turkey – Greece, Greece – Italy, Turkey – Austria, and Greece – Slovenia – Austria (via the western Balkans) Natural Gas Pipelines" have been adopted as a priority project. And also **"Turkey-Greece-Italy Gas Pipeline"** and

"Turkey – Austria Gas Pipeline" projects have been identified as Projects of European interest under the same priority project.

Additionally, under the heading "Mediterranean Member States – East Mediterranean Gas Ring" (N.G.6.), "Establishing and increasing natural gas pipeline capacities between the Mediterranean Member States and Libya – Egypt – Jordan – Syria – Turkey" has been adopted as a priority project. In this context, Arab Gas Pipeline (AGP) – Turkey Interconnector Project serves the objective of this priority.

In general terms, Turkey's energy strategy is set to supply energy in a timely, reliable, costeffective, environmentally sound and high-quality basis. For this purpose, several crossborder energy projects have been introduced and executed so far, with ultimate aim of forming an energy bridge between the producers and consumers. The current and future natural gas, LNG, and natural gas storage facilities of Turkey and their capacities are given below.

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NATURAL GAS						
Existing Agreements	Amount (Bcma)	Signature Date	Period (Year)	Operation Date		
Russian Fed. (West)	6	February 1986	25	June 1987		
Algeria (LNG)	4	April 1988	20	August 1994		
Nigeria (LNG)	1,2	November 1995 22		November 1999		
Iran	10	August 1996 25		December 2001		
Russian Fed. (Black Sea)	16	December 1997 25		February 2003		
Russian Fed. (West)	8	February 1998 23		March 1998		
Turkmenistan	16	May 1999	30			
Azerbaijan	6,6	March 2001 15		2006		
LNG						
Project Name	Send	d-out capacity O		peration Date		
Marmara Ereğlisi	68	5.000 m³/hr A		ugust 1994		
İzmir	-		-			
Ceyhan Terminal	-		-			
STORAGE						

Project NameCapacityOperation DateThe Salt Lake Natural Gas
Underground Storage Project1 billion m³2006 (planned)

The Tarsus Natural Gas Underground Storage Project	-	-
Northern Marmara and Değirmenköy gas fields	1,6 billion m ³	2006 (planned)

In this respect, detailed information is provided below on projects which are within the scope aforementioned priority projects:

a. Turkey – Greece - Italy Gas Pipeline Project (N.G.3)

The first and most important step for the realization of South European Gas Ring Project (SEGR) is Turkey-Greece-Italy Pipeline Project. The aim is to transport natural gas from the producing countries of Caspian and Middle East, to Greece and other European Countries, via Turkey.

The engineering and EIA studies were conducted. Half cost of these studies was received grant from EU TEN funds. Basic and Detailed Engineering Studies of the project were completed in 2003.

Natural Gas Sales and Purchase Agreement was signed on 23 December 2003 in Ankara by BOTAS and DEPA. Accordingly, the initial delivery volume by the line will be 750 MCM and it is envisaged to increase to 12 BCMA in 2012 of which 8 BCMA for Italy market and the rest to Greece market. First gas delivery is envisaged to be realized by the end of 2006.

Turkey Section:

Bursa/Karacabey-Greece Border, 36", 211 km. pipeline (off-shore part is 17 km.)

Budget: €135 mil.

Finance: For technical works (feasibility, engineering, EIA): EU (TEN) 50%,

	BOTAS 50%
For construction	: BOTAS 100%
Construction Price for on-shore	: \$ 17.9 mil. (pipes are supplied by BOTAS)
Construction Completion Date	: October 2006 (15 months)
Construction Price for off-shore	: \$ 55 mil. (pipes are supplied by BOTAS)
Construction Completion Date	: November 2006 (12 months)

Greece Section:

Turkish Border- Alexandroupolis-Komotini route, 85 km. pipeline

Budget: €118 mil

Finance: For technical works (feasibility, engineering, EIA): EU (TEN) 50%,

For construction

: EU (CSFIII) 29%, Greece Government 29%, Others 42%

DEPA 50%

Moreover, there are studies undertaken by EDISON of Italy and DEPA, jointly regarding the extension of the line to Italy. DEPA and Edison-Gas have launched tender for the feasibility study for Greece-Italy section and technical feasibility study was completed on 30 December 2004.

b. Turkey-Bulgaria-Romania-Hungary-Austria Natural Gas Pipeline (Nabucco) Project (N.G.3)

Results of the studies conducted for Turkey-Greece Natural Gas Pipeline Project performed by various research institutions and energy companies, as well as the European Union itself, proved the possibility of additional significant amounts of gas supply via Turkey to the European countries in the near future.

Within this context, studies were initiated for another route to reach the European internal market. This route is planned to pass through Bulgaria, Romania and Hungary to reach Austria.

The Co-operation Agreement was signed among the associated companies of respective countries on 11 October 2002. Five companies, namely BOTAS (Turkey), Bulgargaz (Bulgaria), Transgaz (Romania), MOL (Hungary) and OMV Gas (Austria) have launched a study for a pipeline to transport natural gas from points on the eastern border of Turkey, through Bulgaria, Romania and Hungary to facilities at Baumgarten in Austria. On 15 July 2003 the application for the feasibility funding from TEN program of EU is accepted and cost of the feasibility study is decided to be half granted.

The Nabucco Consortium partners BOTAS, Bulgargaz, Transgaz, MOL, and OMV Gas have founded The Nabucco Company Pipeline Study GmbH in June 2004 to conduct a financing study, to market the project, to negotiate with possible shippers and promote the project at EU-level. The company was converted to Nabucco International Company in October of 2005.

Technical Feasibility Study of Nabucco Pipeline Project was completed by CB&I John Brown in December 2004.

According to feasibility report;

- Total length of pipeline will be approximately 3.282 km
- Transportation Capacity : 25,5 31 BCMA of gas.
- Turkey (incl. feeder lines): 999 km
- Bulgaria : 392 km
- Romania : 457 km
- Hungary : 388 km
- Austria : 46 km
- 56 inch diameter pipeline for all onshore sections of the main pipeline
- The offshore section across Marmara Sea will be twin 36 inch pipelines
- The optimum design pressure is 90 barg

• The pipeline system will be constructed in four stages. The transmission capacity per stage excluding fuel is

0	STAGE 1: 8	BCMA;
0	STAGE 2: 15	5,5 BCMA;
0	STAGE 3: 25	5,5 BCMA;
0	STAGE 4: 31	BCMA.

- The total budget of the project is estimated as \notin 4,6 billion.
- Milestones of the Project :

Detailed Technical Design / EIA Study	:2006-2007
Construction Phase Completion	:2010
Start of Operation	:2010-2011

In order to choose a general engineer for the Basic and Detailed Engineering works of Nabucco Project, a pre-qualification tender was announced on 29 August 2005 via EU web page. Within the 26 candidates, 9 engineering firms submitted their documents on 23 September 2005. The results of evaluation works are not completed yet.

BOTAS is to receive \in 394.880 for feasibility study of the Project from EU TEN Program Fund.

Also OMV of Austria has applied for Basic Engineering Study of the Project on behalf of five partners. The estimated budget for basic engineering is € 16 million, 30% of which is to be received from TEN Program.

c. Arab Gas Pipeline (AGP)-Turkey Interconnector Project (within the scope of N.G.6.)

A Frame Agreement signed by the Energy and Natural Resources Minister of the Republic of Turkey H.E. M. Hilmi Güler and the Oil Minister of the Arab Republic of Egypt H.E. Sameh Fahmy in 2004 foresees natural gas imports by BOTAŞ from the Egypt Natural Gas Company (EGAS) and transit of Egyptian natural gas across Turkey to Europe. The project is envisaged to be completed by the end of 2008. A Memorandum of Understanding (MoU) was singed between parties on 16.02.2006.

In addition to abovementioned gas interconnection projects which are within the scope of TEN-E priority projects, the following projects should also be considered as potentially beneficial to the objectives of the TEN-E policies:

- Baku-Tbilisi-Erzurum (Shah Deniz) Natural Gas Pipeline Project:
 - It will be operational by the end of 2006.
 - Infrastructure will be ready for the future flow of Caspian gas to Europe.
- TransCaspian Turkmenistan-Turkey-Europe Natural Gas Pipeline Project, The Project is still pending, but if realised, will contribute to energy security of Europe. For this reason, it deserves more EU interest and stake.

• Iraq-Turkey Natural Gas Pipeline Project. The Project is still being evaluated, but if realised, will be very beneficial in economic and geopolitical perspectives.

ELECTRICITY

In the axes for priority projects defined in the Annex I of the Decision of the European Parliament and of the Council laying down guidelines for Trans-European Energy Networks, "Greece-Balkan Countries-UCTE System" (EL.4.) electricity network including "Philippi (GR) – Hamidabad (TR) line as a project of European interest has been adopted as a priority project.

This line was also included in the Quick-start projects in Energy Networks specified in the Communication "European Initiative for Growth". Philippi-Hamidabad line is a crucial step for the realisation of the objective of synchronization of Turkish power system with the UCTE system. as it will strengthen the synchronous parallel interconnection of Turkish power system with the UCTE system. Since the Turkish section of the line commences from Babaeski, it is better to revise the name the Project as "Babaeski-Philippi Project".

The "Construction Agreement" regarding Turkey (Babaeski) - Greece (Philippi) 400 kV Interconnection Line was signed on 1 May 2003. It is expected to be completed by the end of 2007.

Furthermore, under the heading "Mediterranean Member States – Mediterranean Electricity Ring" (EL.9.) of the Annex I of the Decision of the European Parliament and of the Council laying down guidelines for Trans-European Energy Networks, "Increasing electricity interconnection capacities between Mediterranean Member States and Morocco – Algeria – Tunisia – Libya – Egypt – Near-East countries – Turkey" has also been adopted as a priority project.

In addition, in Annex II of the Decision of the European Parliament and of the Council laying down guidelines for Trans-European Energy Networks which lays down additional criteria for identifying Projects of common interest, within the context of developing electricity connections with the non-Member States, and more particularly with the candidate countries, the operational reliability and dependability of the electricity grids or the supply of electricity within the European Community, **"Black Sea Electricity Ring: Russia – Ukraine – Romania – Bulgaria – Turkey –Georgia"** and **"Mediterranean Electricity Ring: France – Spain – Morocco – Algeria – Tunisia – Libya – Egypt – Near Eastern countries – Turkey – Greece – Italy"** have been identified as projects of common interest.

• Could you briefly describe the legal, procedural, technical and environmental frameworks for authorisation of networks? What is the average timescale to complete procedures governing authorisation for the construction of power and gas installations/networks etc.? Do you have plans to improve the timescale and address the difficulties; if so, when and how?

The planning, construction, operation and maintenance of the transmission system together with system and market operation are under the responsibility of state-owned Turkish Electricity Transmission Company (TEIAS) as the Turkish TSO according to the Electricity Market Law dated 2001 and No:4628 and the related secondary legislation prepared by Electricity Market Regulatory Authority (EMRA). TEIAS is responsible for realisation of the tasks foreseen in the transmission licence issued by EMRA. In this respect, there exists no difficulty for authorization of networks. Transmission projects (transmission lines, transformer substations etc.) are realised by TEIAS in compliance with the Turkish environmental legislation.

Currently, the state-owned Petroleum Pipeline Corporation (BOTAŞ) is the sole natural gas importer and has de-facto monopoly of all gas supply in Turkey. Monopoly of BOTAS on the importation, transportation, sale and pricing, of imported natural gas was terminated in 2001 after the enactment of the Natural Gas Market Law (No:4646).

In Turkey, natural gas consumption started in the mid 1970s with utilization of the limited indigenous natural gas production in a few industrial plants. In line with the policy of energy source diversification, environmental and economic reasons, natural gas use has gained pace in the energy sector.

In addition, the gas transmission network of Turkey is composed of approximately 7 000 km of transmission/distribution lines. Table below shows the existing pipelines as well as those under construction or planned. The total length of the network will reach about 10 000 km with the completion of lines under construction and planned.

Pipelines	Length	Diameter	Date of Operation		
Existing National Pipelines					
Russian Federation-Turkey Main NGTI	842 km	36"-24"	June 1987-August 1988		
Pazarcik-Karadeniz Eregli NGTL	209 km	24"-16"	January 1996		
Bursa-Can NGTL	208 km	24"-8"	July 1996		
Can-Canakkale NGTL	107 km	12"	July 2000		
Eastern Anatolia Main NGTL	1491 km	48"-40"-16"	December 2001		
Karacabey-Izmir NGTL	241 km	36"	April 2002		
Samsun-Ankara NGTL	501 km	48"	February 2003		
Southern (Sivas-Malatya-Gaziantep- Mersin) NGTL	569 km	40"	May 2005		
Konya-İzmir (Konya-Isparta-Nazilli- İzmir) NGTL	427 km	40"	July 2005		
*The total length of Konya-Isparta-Naz					
km. Construction works of Konya-Nazilli have already completed					

Pipelines	Length	Diameter	Date of Operation	
and this part is ready for operation.				
Tendering process of Nazilli –İzmir sec				
Pipelines Under Construction				
Georgia Border – Erzurum NGTL	225 km	42"		
Inter-connector Turkey – Greece NGTI	210 km	36"		
Eastern Black Sea Region NGTL	254 km	18"-16"-24"		
Adıyaman - Ş.Urfa - Elazığ -	272 km	40"		
Diyarbakır NGTL	2/2 1111	10		
Ordu – Giresun NGTL	158 km	10"-14"		
Planned Pipelines				
Nazilli- İzmir NGTL	198 km	40"		
Kdz. Ereğli – Bartın NGTL	141 km	16"-12"		