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NATURAL GAS PROJECTS IN TÜRKİYE
RECENT DEVELOPMENTS

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ABOUT BOTAŞ

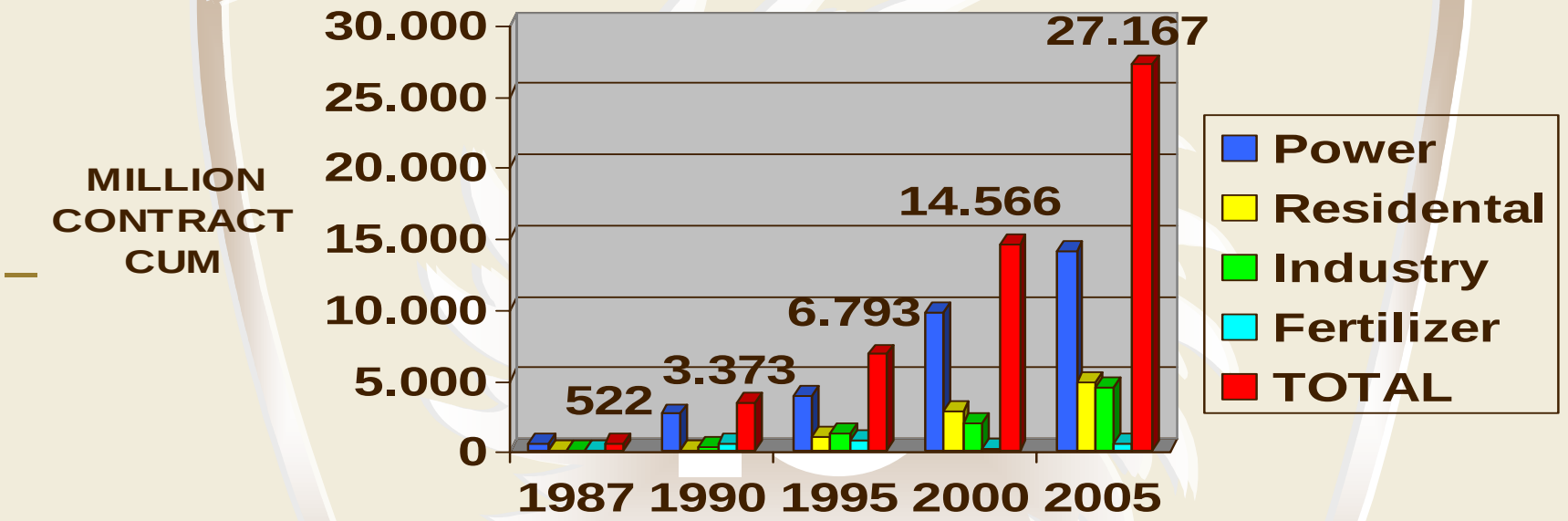
- BOTAŞ was founded in August 1974 in order to transport Iraqi crude oil to World markets via the Kirkuk-Ceyhan Crude Oil Pipeline.
- Since 1987 BOTAŞ has expanded its original mission of transporting crude oil via pipelines to cover the natural gas transportation and trade activities
- In 1995, the company was restructured as a State Economic Enterprise (SEE) considering the company's task at present and in the future.
- Monopoly rights of BOTAS on natural gas import, distribution, sales and pricing under the Decree No. 397 have been abolished by the natural Gas Market Law No 4646 that was enacted on May 2000.

- BOTAS, having over thirty years experience in the business, steps further and accelerates the studies on re-structuring liberalized natural gas market in the country.
- BOTAS will be restructured as trade, transmission and storage companies after the year 2009.

NG/LNG SALE AND PURCHASE CONTRACTS

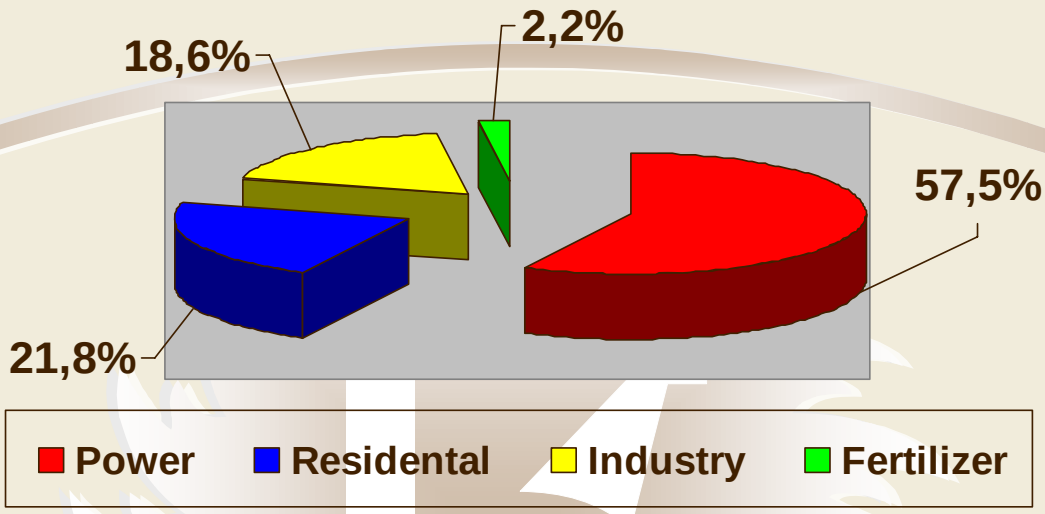
Existing Contracts	Volume BCMA	Date of Signature	Duration (Year)	Date of Operation
Russian Fed.(West)	6	Feb.1986	25	1987
Algeria (LNG)	4	Apr.1988	20	1994
Nigeria (LNG)	1.2	Nov.1995	22	1999
Iran	10	Aug.1996	25	2001
Russian Fed.(Black Sea)	16	Dec.1997	25	2003
Russian Fed.(West-Turusgaz)	8	Feb.1998	23	1998
Türkmenistan	16	May1999	30	-
Azerbaijan	6.6	Mar.2001	15	2007

NATURAL GAS CONSUMPTION



When we look at the future consumption of natural gas, it is estimated that the consumption level will be around 44 BCM in 2010 and 63 BCM in 2020 in our country

SECTORIAL NATURAL GAS CONSUMPTION BY 2005

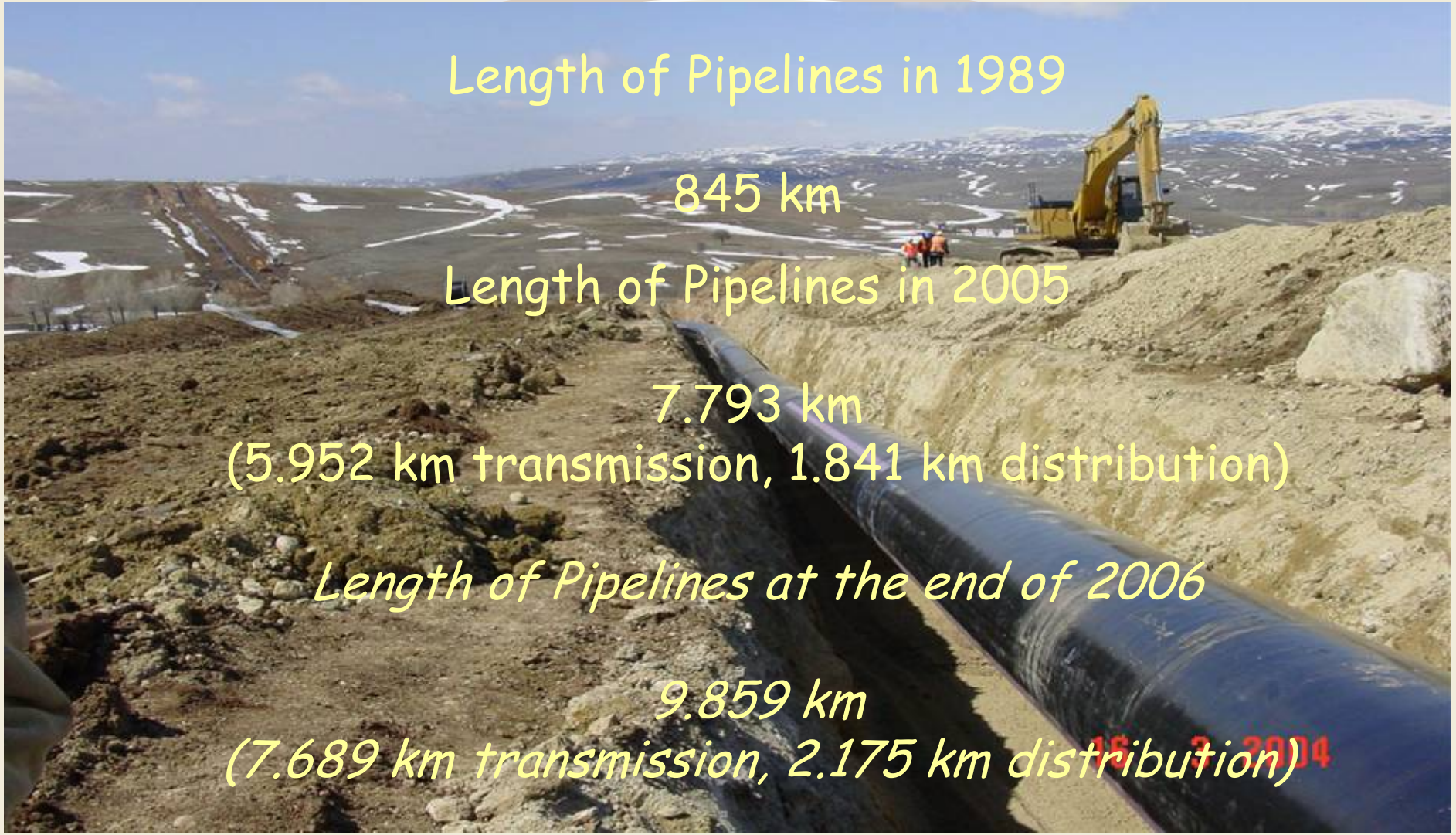


Currently 19 Cities have been using natural gas city distribution systems. The number of cities which use natural gas only in industry is 13. In addition there are alot of small towns using natural gas residentially and industrialy.

Power sector, with largest share in natural gas sales, accelerated development of natural gas industry in Turkish Demand. Natural gas in electricity production increased as the power generation facilities under BO and BOT methodologies were started being built. Currently, 4 BO, 4 BOT and 3 state power generation facilities are active and in 2005, the natural gas consumption in BO, BOT and state facilities reached to 10,9 bcm.

NATURAL GAS AND CRUDE OIL PIPELINES

PIPELINES



Length of Pipelines in 1989

845 km

Length of Pipelines in 2005

7.793 km
(5.952 km transmission, 1.841 km distribution)

Length of Pipelines at the end of 2006

9.859 km
(7.689 km transmission, 2.175 km distribution)

GAS TO EUROPE

GAS TO EUROPE

Türkiye-Bulgaria-Romania-Hungary-Austria Pipeline (Nabucco) Project

- The Nabucco Gas Pipeline Project will connect Turkey with Austria via Bulgaria, Romania and Hungary. 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.
- The project will ultimately transport up to 25.5 to 31 bcm/y of natural gas from sources to the east of Turkey especially Caspian Region and the Middle East through the transit countries of Bulgaria, Romania and Hungary and through Austria for onward transmission to the German border.
- On 15th of 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 EAD, S.N.TG.N Transgaz S.A, MOL, and OMV Gas GmbH have founded The Nabucco Company Pipeline Study GmbH on June 2004 to conduct a financing study, to market the project, to negotiate with possible shippers and promote the project at EU-level.

GAS TO EUROPE

Türkiye-Bulgaria-Romania-Hungary-Austria Pipeline (Nabucco) Project

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

According to feasibility report;

- Total length of pipeline will be approximately 3.282 km

Turkey(incl feeder lines)	:	1999 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 8 bcm/y for STAGE 1; 15.5 bcm/y for STAGE 2; 25.5 bcm/y for STAGE 3 and 31 bcm/y for STAGE 4 .

GAS TO EUROPE

Türkiye-Bulgaria-Romania-Hungary-Austria Pipeline (Nabucco) Project

- Feeder pipelines will transport natural gas from points on the Georgian-Turkish border and the Iranian-Turkish border to Horasan, where the main Nabucco pipeline will start.

- The feeder pipeline from Iraq is a possible future option, as well as the Arab pipeline entering Turkey from Syria.

- The total budget of the project is estimated as €4.6 billion.

- Milestones of the Project :

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

GAS TO EUROPE

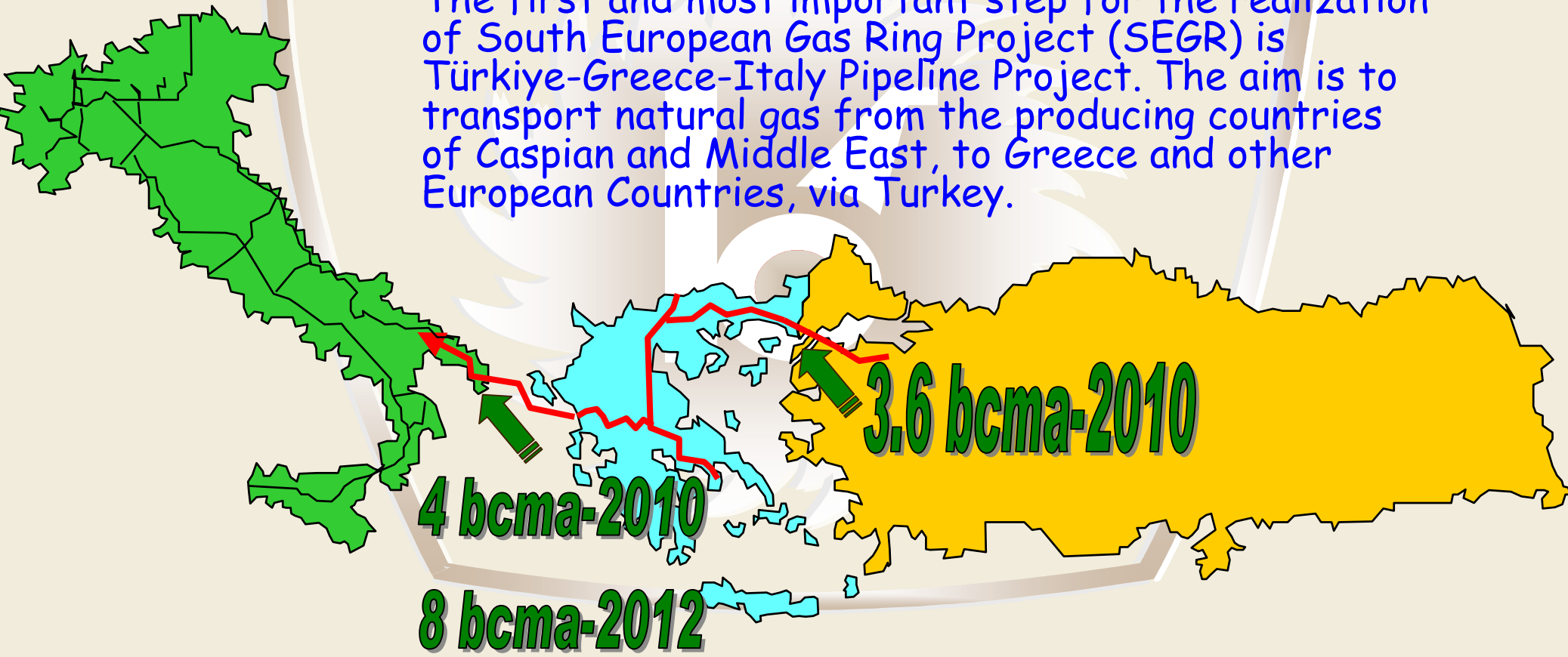
Türkiye-Bulgaria-Romania-Hungary-Austria Pipeline (Nabucco) Project

- In order to choose a general engineer for the Basic and Detailed Engineering works of Nabucco Project a pre-qualification tender was announced on 29/08/2005 via EU web page.
- Within the 26 candidates, only 9 engineering firms submited their documents on 23/09/2005.
- The results of evaluation works are not explained yet.

GAS TO EUROPE

Türkiye-Greece-Italy Pipeline Project

The first and most important step for the realization of South European Gas Ring Project (SEGR) is Türkiye-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 project is composed of two parts as ITG and IGI

GAS TO EUROPE

Türkiye-Greece-Italy Pipeline Project

- The engineering and EIA studies were conducted. Half cost of these studies were 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 December 23, 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 will be realized at the end of 2006.

- DEPA and Edison-Gas have launched tender for the feasibility study of the project and technical feasibility study was completed on 30 December 2004.

GAS TO EUROPE

Türkiye-Greece-Italy Natural Gas Pipeline Project

Turkish 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%, BOTAŞ 50%
For construction BOTAŞ 100%

Construction Price for on-shore : 17.9 mil $ (pipes are supplied by BOTAŞ)

Construction Completion Date : October 2006 (15 months)

Construction Price for off-shore: 55 mil $ (pipes are supplied by BOTAŞ)
Construction Completion Date : November 2006 (12 months)

GAS TO EUROPE

Türkiye-Greece-Italy Natural Gas Pipeline Project

Greece Section:

Turkish Border- Alexandroupolis-Komotini route, 85 km pipeline
Budget :118 mil €
Finance : For technical works (feasibility, engineering, EIA)
EU(TEN) 50%, DEPA 50%
For construction EU(CSFIII) 29%, Greece Gov.29%, Others 42%

Türkiye-Greece-Italy Natural Gas Pipeline Project

Italy section :

The 592 km onshore pipeline between Komotini and Stravrolimenas in Greece and 212 km off-shore pipeline passing through Adriatic Sea, starting from the point that is around 1.5 km far Stravrolimenas and reaches to Otranto/Italy.

According to Feasibility Study cost of;

Additional Investments inTürkiye: 650 mil €

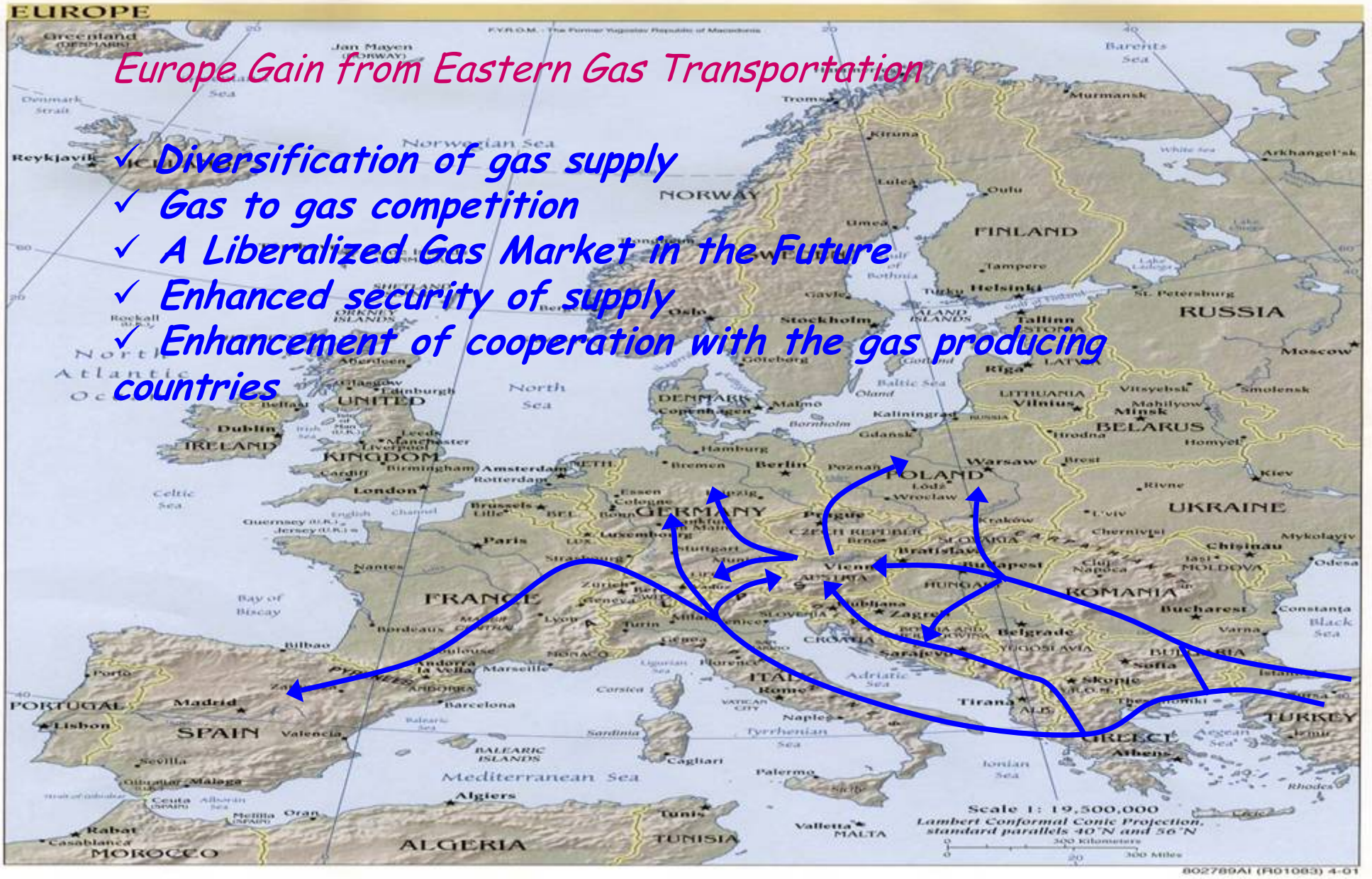
-621 km pipeline (63 km 48" and rest 36" loops)

-242 MW compressor power(new and add.units)

On-shore pipeline in Greece : 594 mil €

Adriatic Sea off-shore pipeline : 358 mil €

GAS TO EUROPE-*An Indicative Map Showing Probable Routes*



DIVERSIFICATION OF GAS SUPPLY SOURCES

- Türkiye has very limited domestic gas reserves and indigenous gas production corresponds to 3% of the total demand.

  Total natural gas reserve (in place) of Türkiye is 20.1 bcm and recoverable total gas is 14.1 bcm. As of the end of 2003, cumulative production of natural gas was 6.2 bcm and the remaining recoverable gas is 8 bcm. Turkish Petroleum Corporation (TPAO) and local and foreign private companies involve in exploration and production activities in Türkiye. Although, there are 24 gas fields, natural gas is currently being produced from 22 fields.

- Nearly 97 % of the natural gas demand is imported by BOTAŞ, which is the sole natural gas importer for todays.

- At present, BOTAŞ has signed 8 long-term sales and purchase contracts with 6 different supply sources as shown in Slide 3. The gas trade has not started with Turkmenistan and Azerbaijan yet.

DIVERSIFICATION OF GAS SUPPLY SOURCES

SHAH DENIZ NATURAL GAS PIPELINE PROJECT-UNDER CONSTRUCTION

Azerbaijan-Türkiye Natural Gas Pipeline Project will transport Shah Deniz natural gas to Türkiye. Within the context of the Project 6.6 BCMA of natural gas will be transported by the year 2007.

Under the contract the delivery point would be Turkish/Georgian border. BOTAŞ would be sole responsible for the construction and operation of the line within the Turkish territories while SOCAR would be the responsible one for the section Azerbaijan through Georgia.

Turkish section of pipeline is under construction and divided into three phases:

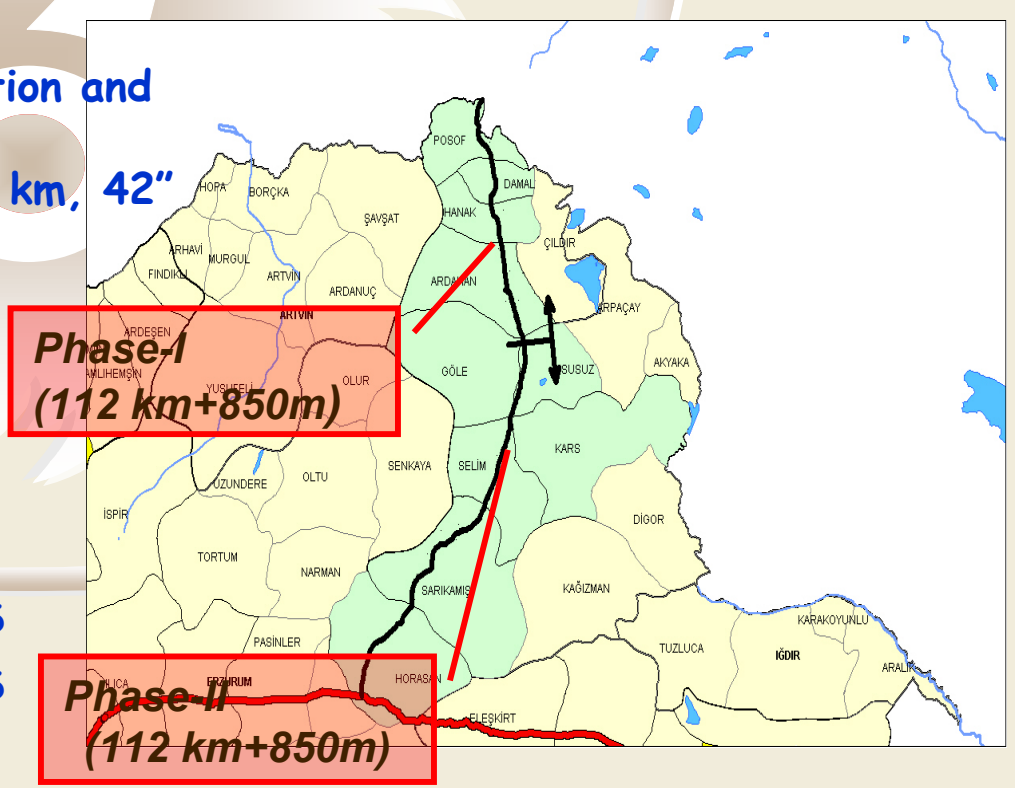
Phase 1 : Türkiye/Geo.Border-Horasan 113 km, 42"
Phase 2 : Horasan –Erzurum 113km, 42"
Phase 3 : Compressor and metering stations

<u>For both pipeline phases:</u>

Construction Contract Date : 04.05.2005
Commissioning Date : August 2006
Contract Price : 18.2 mil $

Phase 1: 9.3 mil$

Phase 2: 8.9 mil$



DIVERSIFICATION OF GAS SUPPLY SOURCES

- On the other side, a Natural Gas Sales and Purchase Contract for the delivery of 4 BCM/year Egyptian natural gas to Turkey by an offshore pipeline was initialled with **Egypt**.

- Furthermore, a Frame Agreement was signed by Energy and Natural Resources Minister of Republic of Turkey H.E. M. Hilmi Güler and Oil Minister of Arab Republic of Egypt H.E. Sameh Fahmy on March 17, 2004, comprising natural gas import of BOTAŞ from Egypt Natural Gas Company EGAS and transit of Egypt natural gas from Turkey to Europe. In this context, Syrian gas will also be directed to Europe via Turkey.

DIVERSIFICATION OF GAS SUPPLY SOURCES

- Also we have a Project to take 10 BCM gas from **Iraq**. Development of this project went slowly in line with the UN sanctions so far but with the new conditions in the region, this project is likely to come into scene with a new direction towards Europe.

DIVERSIFICATION OF GAS SUPPLY SOURCES

UNDERGROUND STORAGE FACILITIES

Underground natural gas storage facilities are planned to regulate fluctuations in consumption and to meet the natural gas supply deficit. There are three projects have been developed in such issue:

- Kuzey Marmara UGS Project,
- Tuz Gölü (Salt Lake) UGS Project,
- Tarsus UGS Project.

The "security of supply" and "supply diversification" issues have important effects on the trends in the energy markets. The new supply sources bring new supply routes into the scene and these will stimulate the integration of energy markets by prompting the cooperation. Improvement of the "energy supply and demand" balance is seen as a crucial issue by igniting cooperation on the way of integration of energy markets.

We all know that the Caspian Region and the Middle East are gaining more and more importance every other day for the energy world with their large hydrocarbon reserves and promising production estimates. I like to point out that Turkey's mission is to take the outcome of the hydrocarbon production projects to the western markets.

Thank you all for your kind interest.