



25th world gas conference
"Gas: Sustaining Future Global Growth"

RESTRUCTURING PROCESS OF TURKISH NATURAL GAS MARKET AND TODAY

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1.INTRODUCTION

- The first economical natural gas discovery in Turkey was made in 1970 by Turkish Petroleum Corporation (TPAO) and started being used in Cement factory in 1976.

Years	Natural Gas Production Of Türkiye Based On Years (Cubic Meter)
1999	731.098.727
2000	639.222.969
2001	311.562.545
2002	378.402.738
2003	560.633.511
2004	707.008.763
2005	896.424.950
2006	906.587.974
2007	893.055.000
2008	1.014.530.570
2009	729.414.369
2010	725.993.340

Figure 1 Natural Gas Production Of Turkey Based On Years

<http://www.pigm.gov.tr/uretim.php>

2. SUPPLY

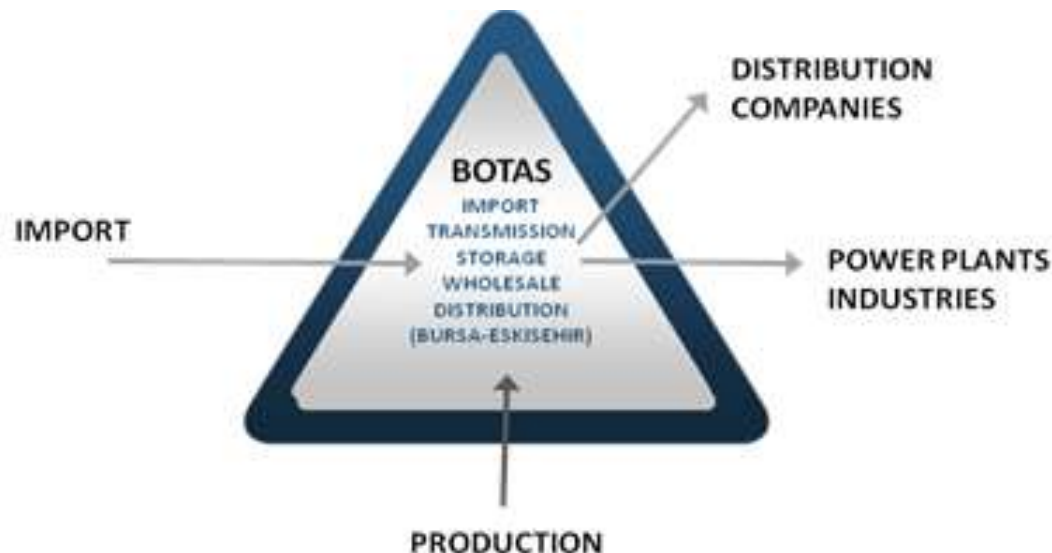
- Natural gas export-import agreement for 25 years was undersigned by and between Turkey and USSR in 1986
- Natural gas use was introduced to houses and industry in Ankara in October 1988, Istanbul in January 1992.
- Turkey signed eight long term contracts with seven different supply sources. The next contract to expire will be the Algerian LNG contract in 2014.

AGREEMENTS	Volume(bm ³ /year)	Date	Duration (Year)	Status
RUS.FED. (WEST)	6	14.Feb.86	25	In operation
ALGERIA (LNG)	4	14.Apr.88	20	In operation
NIGERIA (LNG)	1,2	09.Nov.95	22	In operation
IRAN	10	08.Agu.96	25	In operation
RUS.FED (BLACKSEA)	16	15.Dec.97	25	In operation
RUS.FED. (WEST)	8	18.Feb.98	23	In operation
TURKMENISTAN	16	21.May.99	30	-
AZARBAICAN	6,6	12.Mar.01	15	In operation

Figure 2 Natural Gas Purchase contracts www.botas.gov.tr

3. MARKET STRUCTURE PRIOR TO THE NATURAL GAS ACT

- The legal process regarding the natural gas sector in Turkey began with the entry of Decree Law (DL) No 350 which came into force in 1988.
- BOTAŞ's monopoly rights on natural gas import, distribution, sales and pricing that was granted by the Decree of Natural Gas Utilization No. 397 dated February 9, 1990.
- BOTAŞ's monopoly rights on natural gas import, distribution, sales and pricing that were abolished by the Natural Gas Market Law No 4646. Until that date BOTAŞ also made distribution in Bursa and Eskişehir. In Ankara (EGO), İstanbul (IGDAŞ) and in İzmit (İZGAZ) gas distribution was made by municipality owned companies.



4. TARGETED STRUCTURE OF GAS MARKET

- Western European countries made legal and administrative arrangements to reduce the social welfare losses caused by monopoly firms and to establish a efficient competitive environment in the energy markets.

Turkey's ongoing energy reform is based on Natural Gas Market Law No 4646.

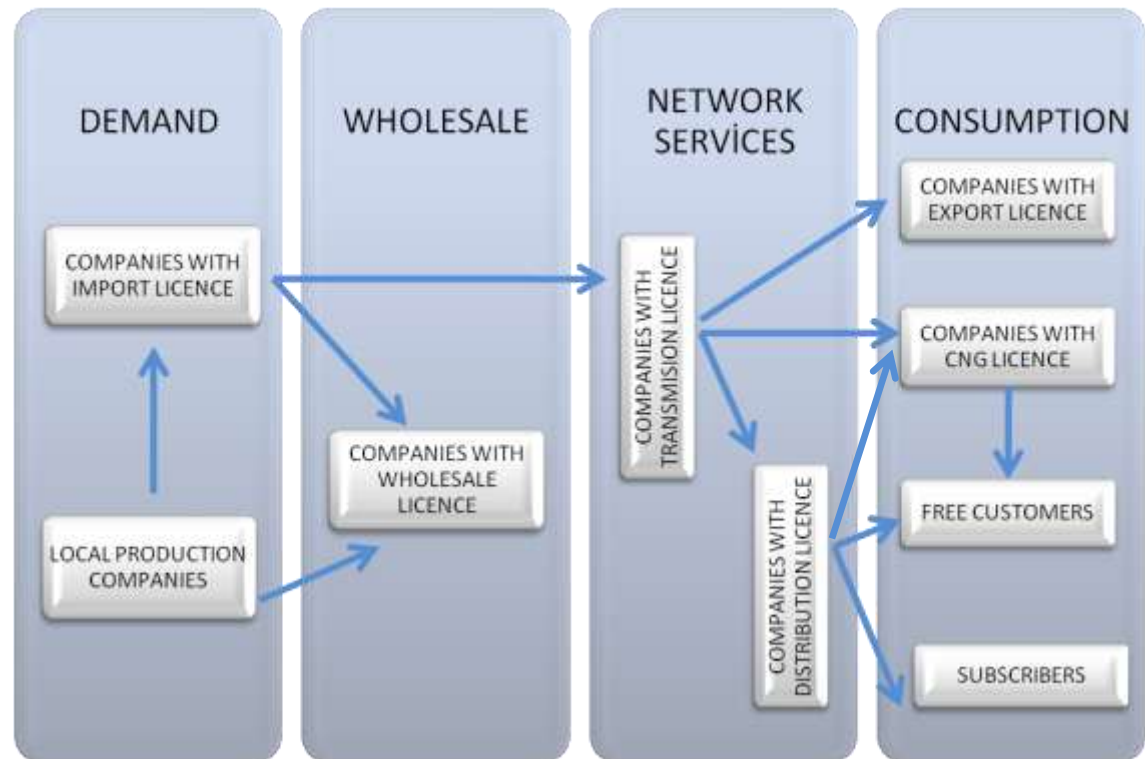


Figure4 Targeted structure of the market after Law No 4646 www.epdk.gov.tr

5. REGULATORY FRAMEWORK

- The Natural Gas Market law which is regulated in May 2001 via article 4646 opens up the other areas of the sector to the competition. The Law meets the requirements of the 2003 EU Gas Directive. The objectives of the Law are;...
- EMRA also has formed the secondary legislation with Rules and Notifications.
Enactment of secondary legislation;

5. REGULATORY FRAMEWORK

■ 5.1. Monopoly Break Up and Unbundling

The law with the exception of “national transmission line” included breaking of the monopoly rights of government owned BOTAS and issued separate licenses for import, production, transmission, storage, wholesale, export and distribution activities.

■ 5.2. Licensing

According to the Law No 4646 licenses are required in order to engage in any natural gas market activity. Separate licenses are required for each market activity and each facility.

Types of Licenses		
1	Total Import Licenses	42
	a) Import Licenses	12
	b) SPOT LNG	30
2	Export	4
3	Wholesale	37
4	Storage	4
5	Transmission	1
6	Transmission (LNG)	22
7	Total CNG Licenses	71
	a) CNG Sale	46
	b) CNG transmission and distribution	25
8	Distribution	62
	TOTAL	245

Figure5 Licensed Companies in Gas Market

5. REGULATORY FRAMEWORK

5.3. Infrastructure and Third Party Access

- Turkey has had a transmission system of about 13.000 km of high pressure grid. As the owner of the transmission system BOTAS is responsible of allocating capacity of entry and exit points. BOTAS publishes an electronic bulletin to provide market information on reserved and suitable capacities. Capacity transfers are managed through this bulletin.
- To ensure competition in natural gas market, third-part access (TPA) to transmission and distribution infrastructure was also regulated.

5. REGULATORY FRAMEWORK

■ 5.4. Storage

Turkey has two depleted gas fields in use as underground storage which have a capacity of 2.6 bcm. It has 14 mcm injection capacity and 17 mcm withdrawal capacity per day. It was taken into use in July 2007.

Another facility in Tuz Golu (Salt Lake) is also being planned. This facility would provide potentially up to 5 bcm storage capacity.

There are two LNG degasification terminals in Turkey.



5. REGULATORY FRAMEWORK

■ 5.5. Wholesale

Competition in the wholesale market has not been procured yet. This is mainly because Turkey signed long-term agreements.

The contract release program of BOTAS has not been fast as wanted.

For BOTAS to reduce the size of the market share to 20 percent in such a short time does not seem realistic.



5. REGULATORY FRAMEWORK

5.6. Consumption

Turkey's gas consumption has increased rapidly and in 2011 reached 39,9 bcm. Natural gas consumption in the last twenty years has increased ten times.

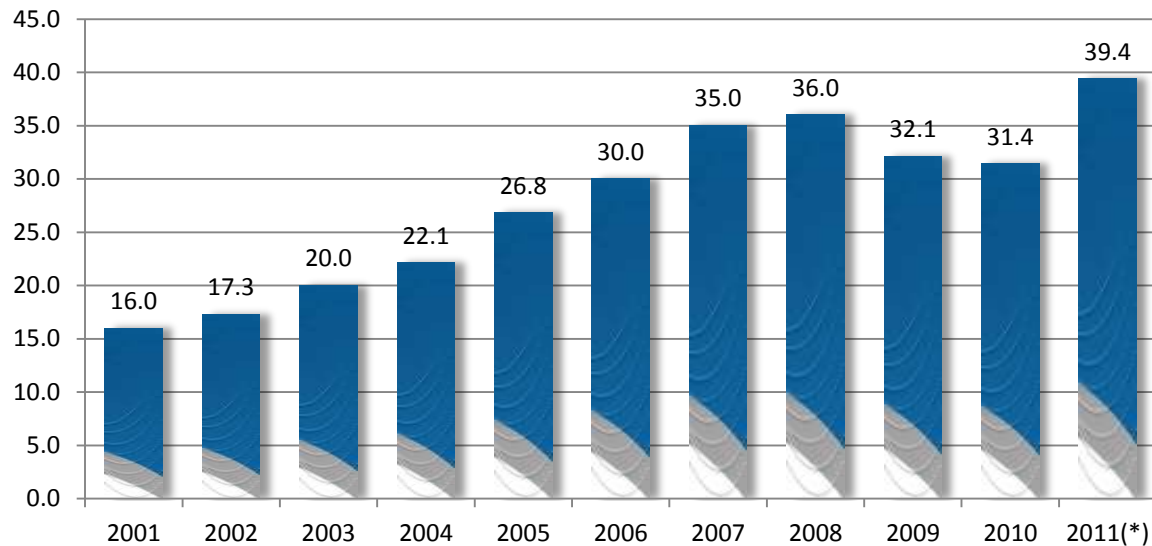


Figure6 Turkey's Annual Gas Consumption (billion cubic meters)

Increase in gas use is expected to continue in Turkey over the medium and long term to reach 61 bcm by 2020. The sectoral breakdown of consumption is expected to remain comparatively constant.

5. REGULATORY FRAMEWORK

■ 5.7. Distribution

- Primary parameter of the increase in gas consumption is the use of gas consumption being spread across the nation. In 2001 where there were only 5 cities offering natural gas versus 62 distribution regions has been tendered up to present 2012. Six of these licenses were privatisation of municipality companies in Turkey's biggest cities. Today only Ankara and Istanbul distribution systems remain to be privatised.



5. REGULATORY FRAMEWORK

■ 5.7. Distribution

EMRA's distribution licence tenders:

- Distribution licenses shall be granted through a tender process.
- Prequalification shall be based on financial strength and experience of the companies.
- Evaluation shall be based on the unit service and depreciation charge for supplying one kWh natural gas to consumers.
- Licenses shall be granted for a minimum of 10 and for a maximum of 30 years.
- Companies must purchase gas from at least two sources.



6. CONCLUSIONS

- Turkey's gas demand has risen very fast in the past ten years and it is set to continue rising. Gas imports are multiplied by 4 from 1998 to 2011. It is expected to increase by two-thirds from 2011 to 2020. Meeting this demand for natural gas to 2020 will require very heavy investments. Turkey is well placed geopolitically with respect to major gas reserves. Turkey does not want to remain as a transit country, but aims to take a part in trades dealing with Europe. In the last decade, Turkey has joined a number of multi-state energy projects in its goal of becoming a major energy transit hub and plans to join more. Turkey should continue to work with countries along the gas transport chain to facilitate the trans-border pipeline investment and to develop new supply and transit routes. In short term Turkey should ensure measures to increase system flexibility, such as fuel switching, increased storage capacity and spot LNG. On the other hand Turkey needs to increasingly focus on the demand side (energy efficiency) as well as on the supply side in its energy security policies.

6. CONCLUSIONS

- In the legal infrastructure, a remarkable progress has been made in terms of opening the sector to competition. An important part of the legal regulatory framework has been created.
- The adapted model used in privatization of gas distribution has been successful. In this way, tenders have been made in 62 regions in order to distribute the gas by private companies. EMRA also needs to ensure regulatory commitment; EMRA has to introduce all necessary measures to prevent regulatory capture and regulatory failure discussed before. Furthermore, it needs to prepare and publish a plan which specifies its short, medium and long term objectives in detail so as to strengthen regulatory commitment.
- The progress in some market activities remains slow than the electricity market. The market dominance of BOTAS with regard to pipeline imports and its control over the transmission line are likely to render these reforms insufficient. Implementation of contract release programme was slow and releases postponed many times. The government should revise the law to give volume transfer preference over contract transfer. Turkey Government should implement a new revised package of gas market reforms to effective unbundling of BOTAS and reduce BOTAS's market dominance.

Thank You



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