



Turkish Natural Gas Market: What is Next?

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Secretary General

About PETFORM



Established in 2000, PETFORM has played a crucial role in the transfer of private sector views to the public authorities regarding to Turkish energy legislation amendments. Member companies mainly have activities in 2 sectors:

- Exploration & Production Sector
- Natural Gas Market

Member Companies



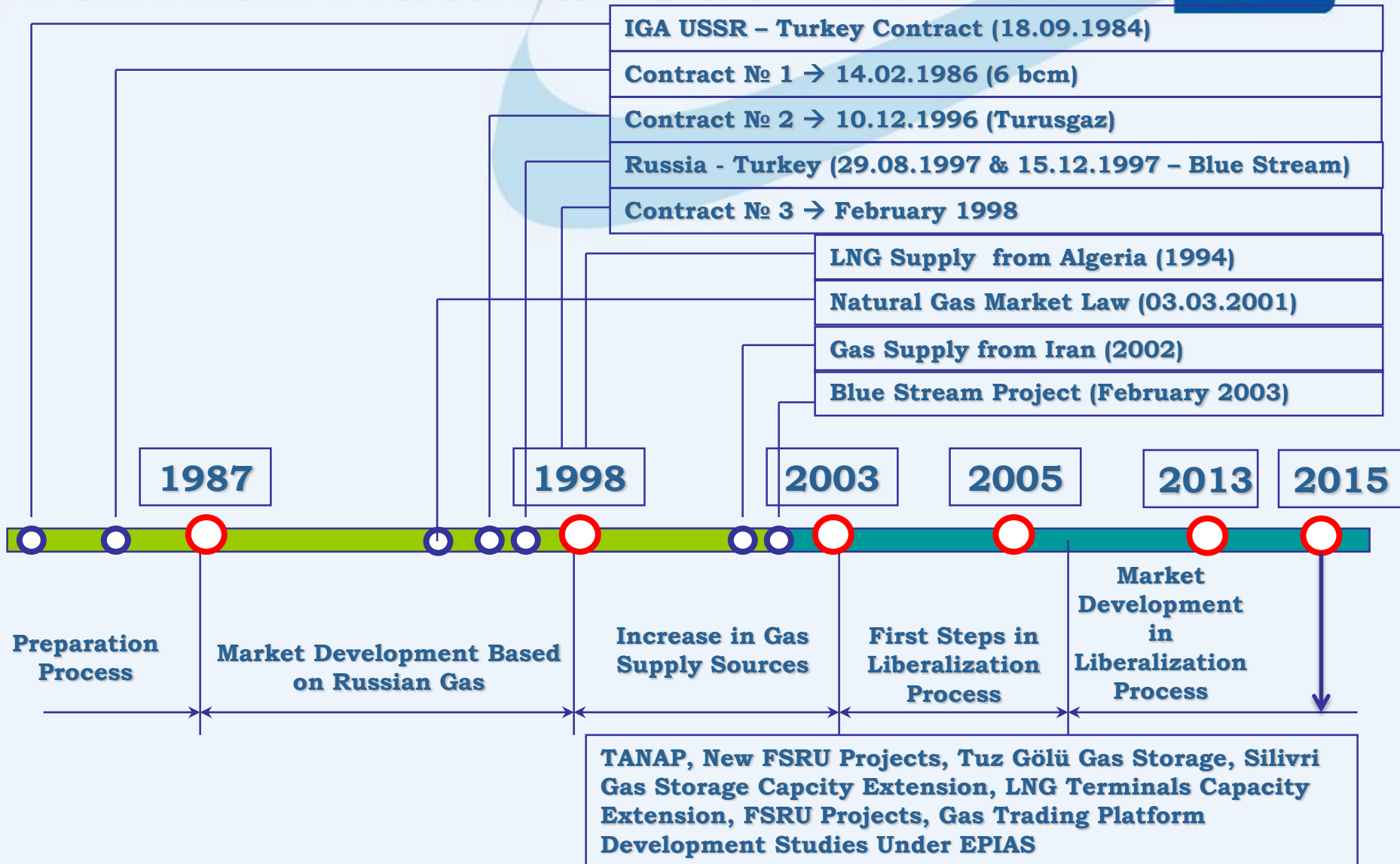
- AKENERJİ
- AKFEL
- AKSA
- ALADDIN MIDDLE EAST
- ANATOLIA ENERGY
- ANGORAGAZ
- ATTILA DOĞAN İNŞAAT
- AVRASYA GAZ
- AYGAZ
- BATI HATTI GAZ
- BM HOLDİNG
- BOSPHORUSGAZ
- BP
- ÇALIK ENERJİ
- DEMİRÖREN EGL
- DOĞAL ENERJİ
- DOĞAN ENERJİ
- EDISON
- EGEGAZ
- ENEL
- ENERCO ENERJİ
- ENERJİSA
- ENI
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- EWE ENERJİ
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- MARSA ENERGY
- MEDGAZ
- NATURGAZ
- OMV
- PALMET ENERJİ
- PERENCO
- POLMAK
- POZİTİF DOĞALGAZ
- SHELL ENERJİ
- SOCAR
- STATOIL
- TEKFEN İNŞAAT
- THRACE BASIN
- TIWAY
- TOTAL
- TRANSATLANTIC PETROLEUM
- TURCAS
- VALEURA ENERGY
- VALVITALIA
- ZMB GAZ DEPO
- ZORLU ENERJİ

Turkey's Overall Energy Balance (1990 – 2015)



	1990	2015	Change
Total Energy Demand (million toe)	52.9	125.2	↑ 118% ↑
Total Domestic Production (million toe)	25.6	32.9	↑ 26% ↑
Total Energy Imports (million toe)	30.9	92.3	↑ 192% ↑
Coverage of Domestic Production to Total Consumption	48%	28%	↓ - 42% ↓

Development Process of Turkish Natural Gas Market



Gas Imports by Source Country (2011 - 2014)



(bcm)	2011	2012	2013	2014	Share in Total (2014)
Russia	25.406	26.491	26.212	26.975	55 %
Iran	8.190	8.215	8.730	8.932	18 %
Azerbaijan	3.806	3.354	4.245	6.074	12 %
Algeria (LNG)	4.156	4.076	3.917	4.179	8 %
Nijerya (LNG)	1.248	1.322	1.274	1.414	2 %
Spot LNG	1.069	2.464	892	1.689	5 %
Total	43.874	45.922	45.270	49.262	

Gas Import Agreements



Contract	Date of Signature	Date of Operation	Duration (Years)	Volume (Plateau bcma)	Date of Expiration
Algeria (LNG)	Apr 1988	Aug 1994	20	4	2024 (extended)
Nigeria (LNG)	Nov 1995	Nov 1999	22	1.2	2021
Iran	Aug 1996	Dec 2001	25	10	2026
Russia (B.Stream)	Dec 1997	Feb 2003	25	16	2028
Russia (West)	Feb 1998	Mar 1998	23	4	2021
Azerbaijan	Mar 2001	Jul 2007	15	6.6	2022

Gas Trading Hub: Vision or Illusion for Turkey?



Physical Infrastructure

- Very well developed and maintained physical infrastructure
- No restrictions and congestions to meet peak demand
- Cross border capacity development with minimum congestion
- New storage and LNG facilities for supporting supply security to seasonal and peak demands

Regulatory Framework

- Policy drafting regulatory body should understand the real Dynamics of the Energy, TPA, Network Code, Independent TSO etc.
- Implementation of policies via EU directives.
- Monitoring of wholesale market integrity, competition (antitrust) and effective consumer interest protection is needed for competition
- Unbundling of transmission and counteraction of incumbents' vertical dominance

Independence of Transmission System Operator

- Appropriate capacity-booking model (entry/exit model, use it or lose it principle)
- Effective balancing mechanism
- Effective nomination processes
- Publicized imbalance charging structures (not overly punitive)
- Very well integrated storage injection and withdrawal processes to the transmission system
- Transparent tariffs for system entry and exit

Commercial and Market Conditions

- Formation and active promotion of common pricing reference
- Free day ahead and intraday price assessment mechanism
- Standard and commonly expected physical contracts
- No barrier for new entries
- No destination clauses
- Transparent price-discovery mechanisms / platforms ,functioning forward market
- Good synchronization between balancing, nearby and forward markets
- Stable financial and credit environment and mechanisms

Private Players' Entrance into the Market



Contract Release (2007)

Enerco Enerji	2.50
BosphorusGaz	0.75
AvrasyaGaz	0.50
Shell Enerji	0.25
	+

4 bcm

Contract Renewal (2013)

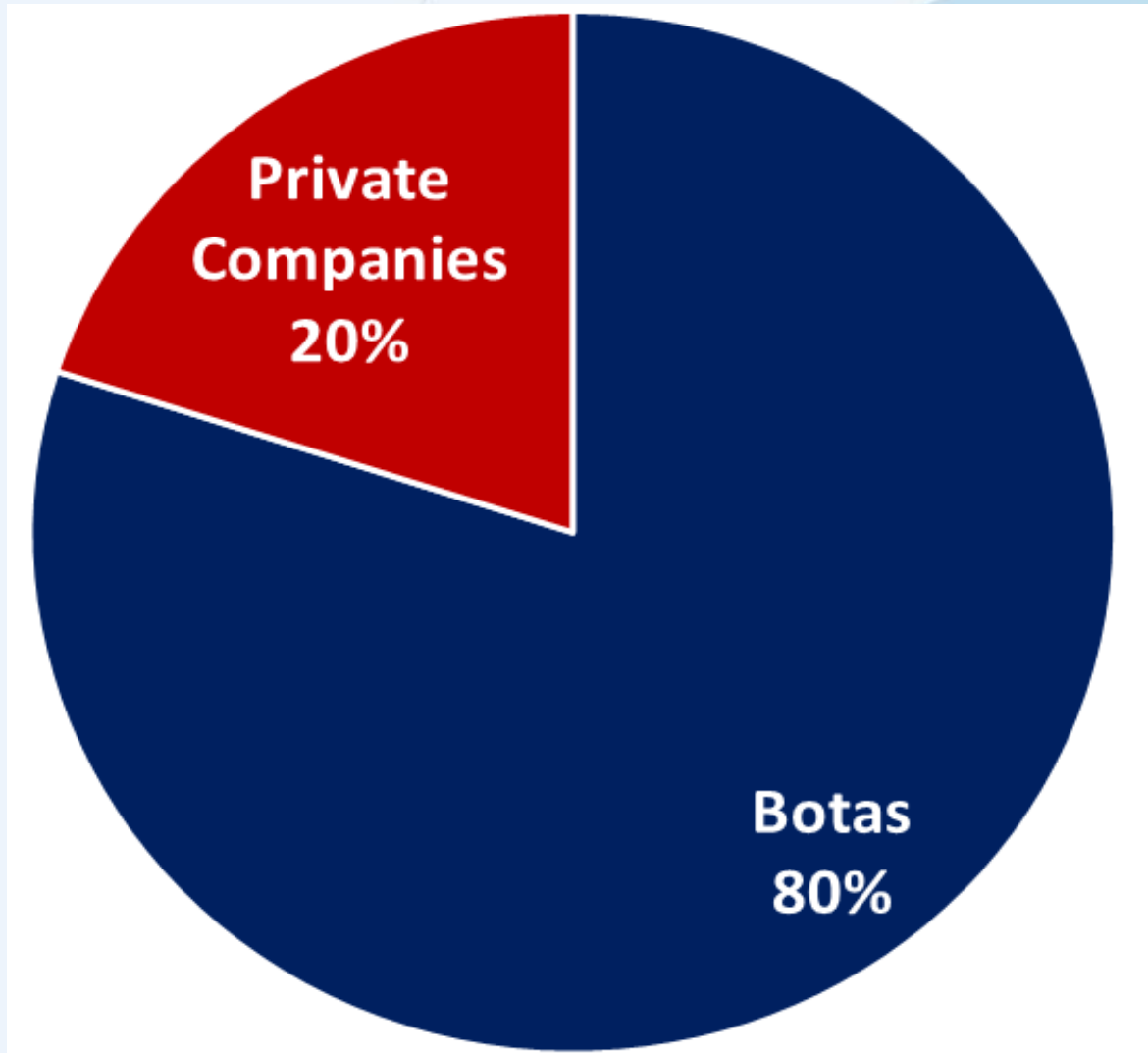
Akfel Gaz	2.25
BosphorusGaz	1.75
Kibar Enerji	1.00
Batı Hattı	1.00
	+

6 bcm

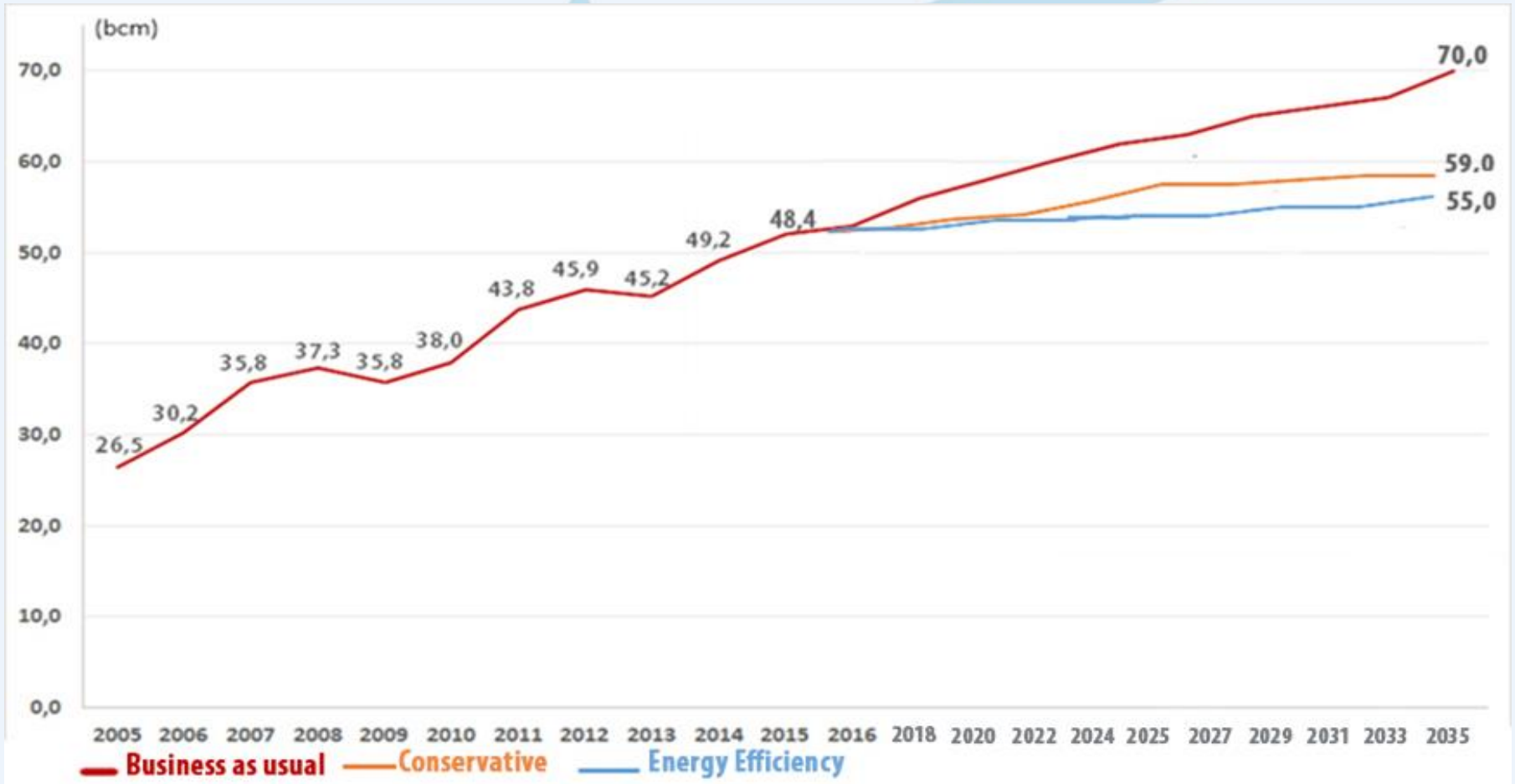
TR – AZ Agreement (2013)

SOCAR	1.20
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Market Shares



Natural Gas Demand Projection



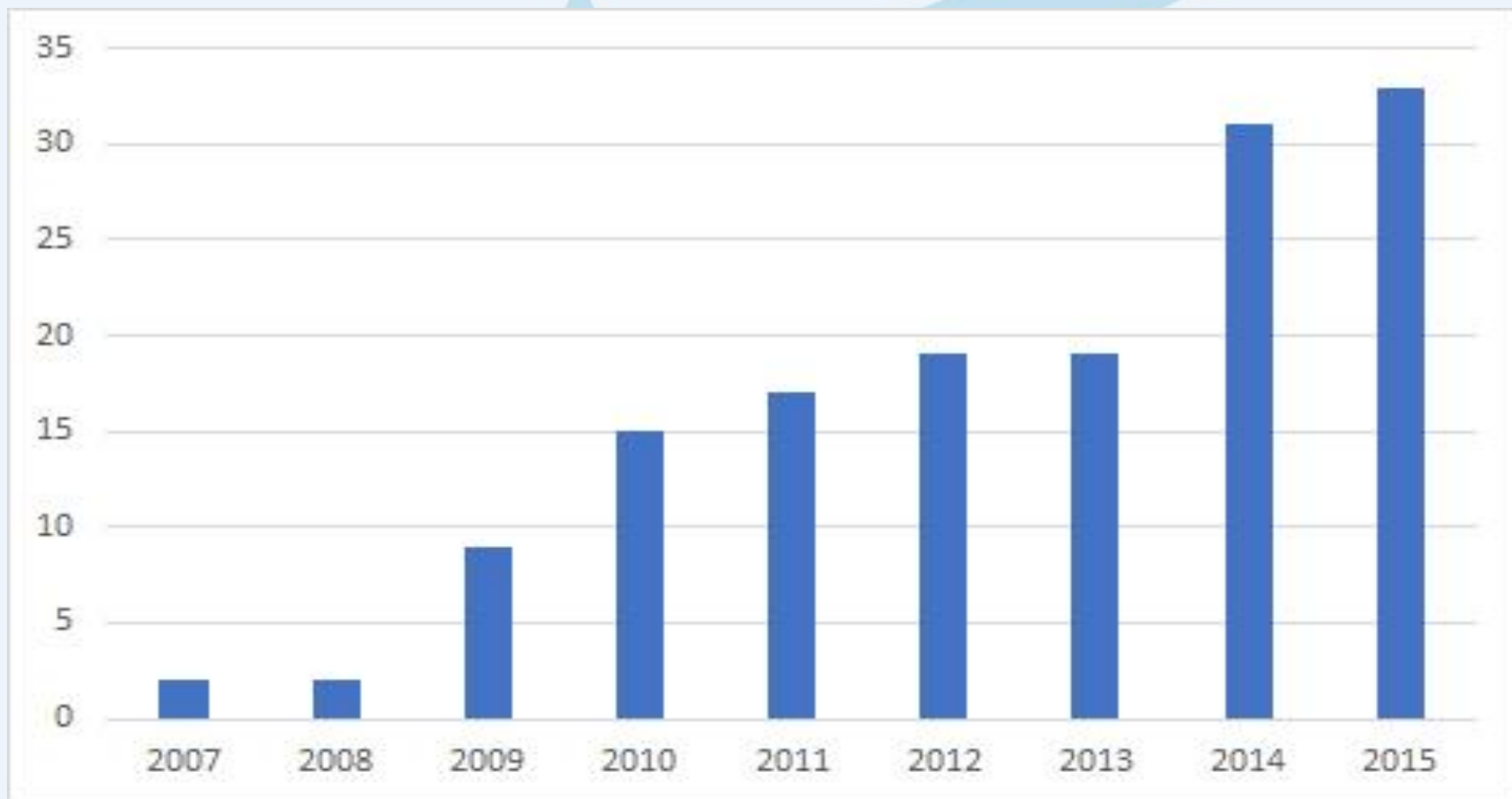
New Supply Opportunities



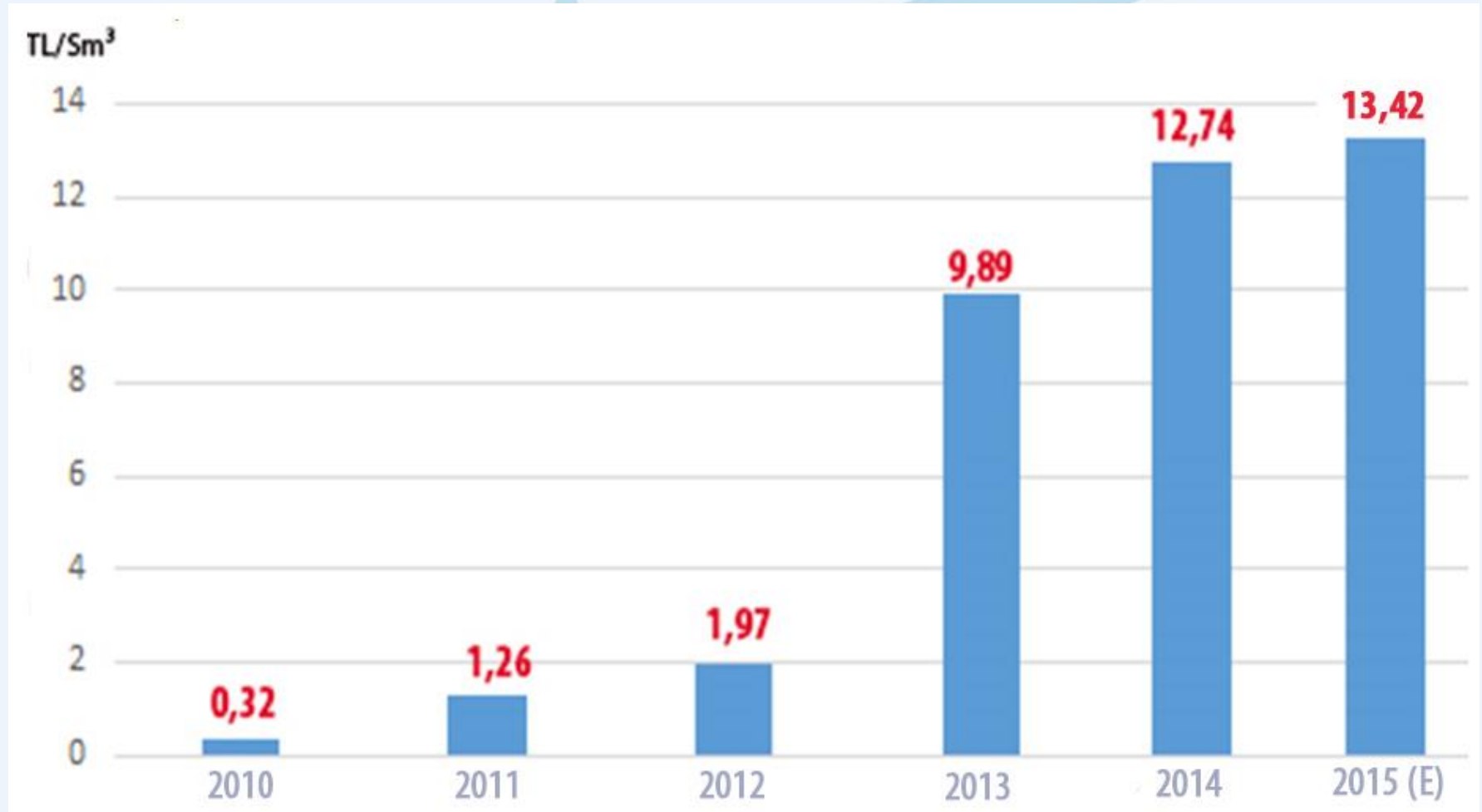
Changing Gas Demand Dynamics (2007 – 2016)



Number of Private Wholesalers in the Market



Turkey Virtual Trading Point (UDN) Volumes



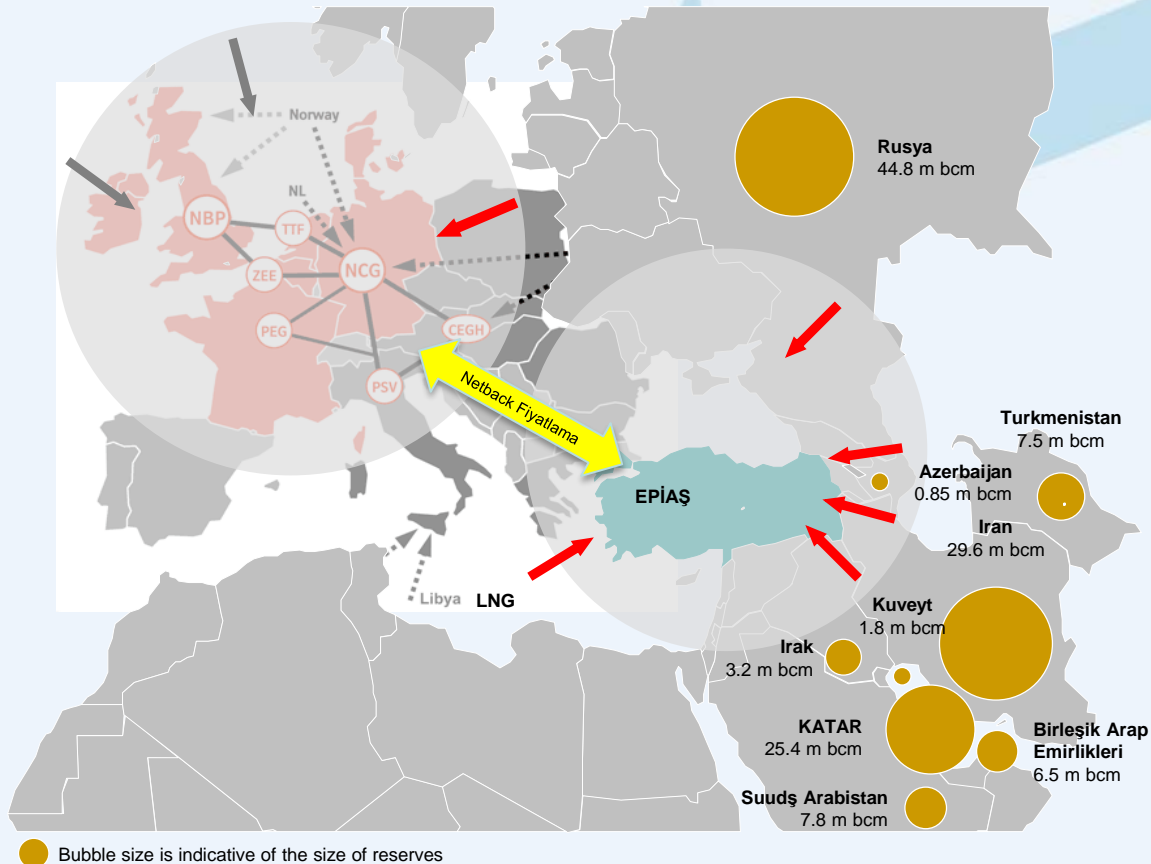
What Kind of a Gas Pricing System?



Comparison of Turkish spot, regulated prices and EU hub values
January 2015-June 2016



Integration of Turkey with European Hubs



- 8 Major European Trading Hub
- Trading on OTC's via Brokers
- Trading on Energy Exchanges

If Turkey can make necessary structural reforms, Turkish natural gas market will be integrated with European trading hubs and generate reference price for natural gas trade in the region.



THANK YOU...
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