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Energy Market Regulatory Authority (EMRA)

[Dr. Zafer Demircan]

[21-25/07/2008]

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Presentation Outline

General Framework

- Energy Market Regulatory Authority
- Electricity Market Structure
- Natural Gas Market Structure
- Basic Data on Markets

Turkish Natural Gas Market Restructuring

- Secondary legislation
- Reforms
- Next Step

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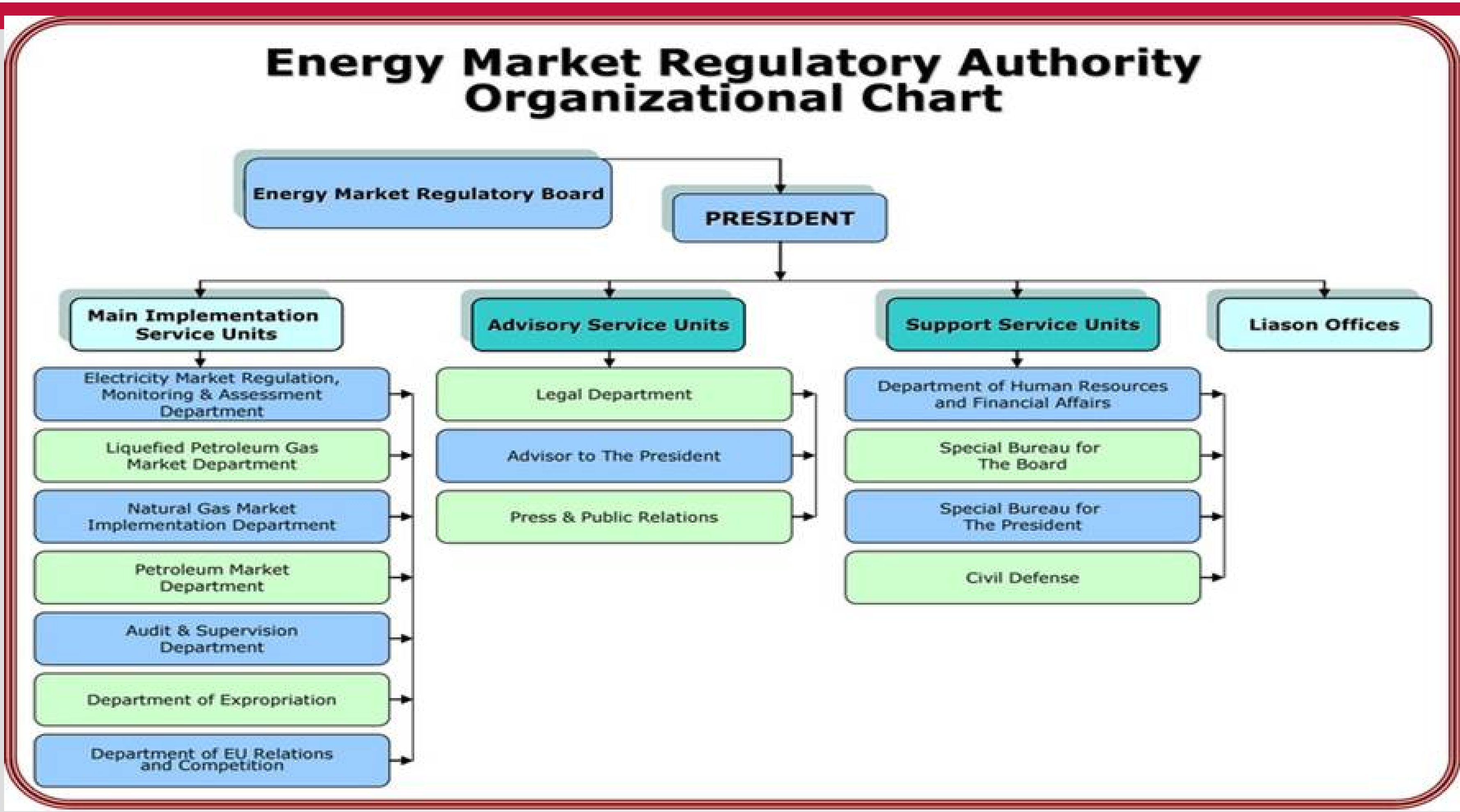

EMRA was established with the Electricity Market Law numbered 4628-2001

- Board consists of 9 members, including 1 chairman and 1 vice-chairman.
- Board members are selected and appointed by the Council of Ministers.
- The term of office for the chairman and members of the Board is 6 years.
- Board members may be re-elected following the expiry of their terms of office
- Duties and responsibilities of EMRA have been extended to include Natural Gas Law 4646-2001, Petroleum Law 5015-2003 and LPG Law 5307-2005 markets by amendments.

- An independent, **administratively and financially autonomous** public institution.

- EMRA Board is the **representative and decision making body** of the Authority.

- EMRA is responsible mainly for;
  - ✓ Preparation of **secondary legislation**
  - ✓ Setting out the annual **eligibility limit**
  - ✓ Issuing **licenses**
  - ✓ Monitoring **market performance** and ensuring the conformity with 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
  - ✓ Taking necessary measures to support domestic and renewable resources.
  - ✓ Preparation of **annual market development report**.

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OBJECTIVE AND SCOPE OF EMRA

TO ESTABLISH

- ✓A Financially Viable,
- ✓Stable,
- ✓Transparent
- ✓Non-discrimination
- ✓Competitive

Energy Market

TO ENSURE

- ✓Adequate
- ✓Efficient,
- ✓Continuous-Regular
- ✓High Quality,
- ✓Low Cost
- ✓Competitive Prices
- ✓Environment Friendly

Supply Of Energy

SUBJECT TO

Independent

✓Regulation

- Supervision
- Guidance
- Surveillance

With Petroleum and LPG Law additionally;

- the transparent,
- non-discriminatory
- stable performance
- reliable,
- cost-effective manner
- competitive environment

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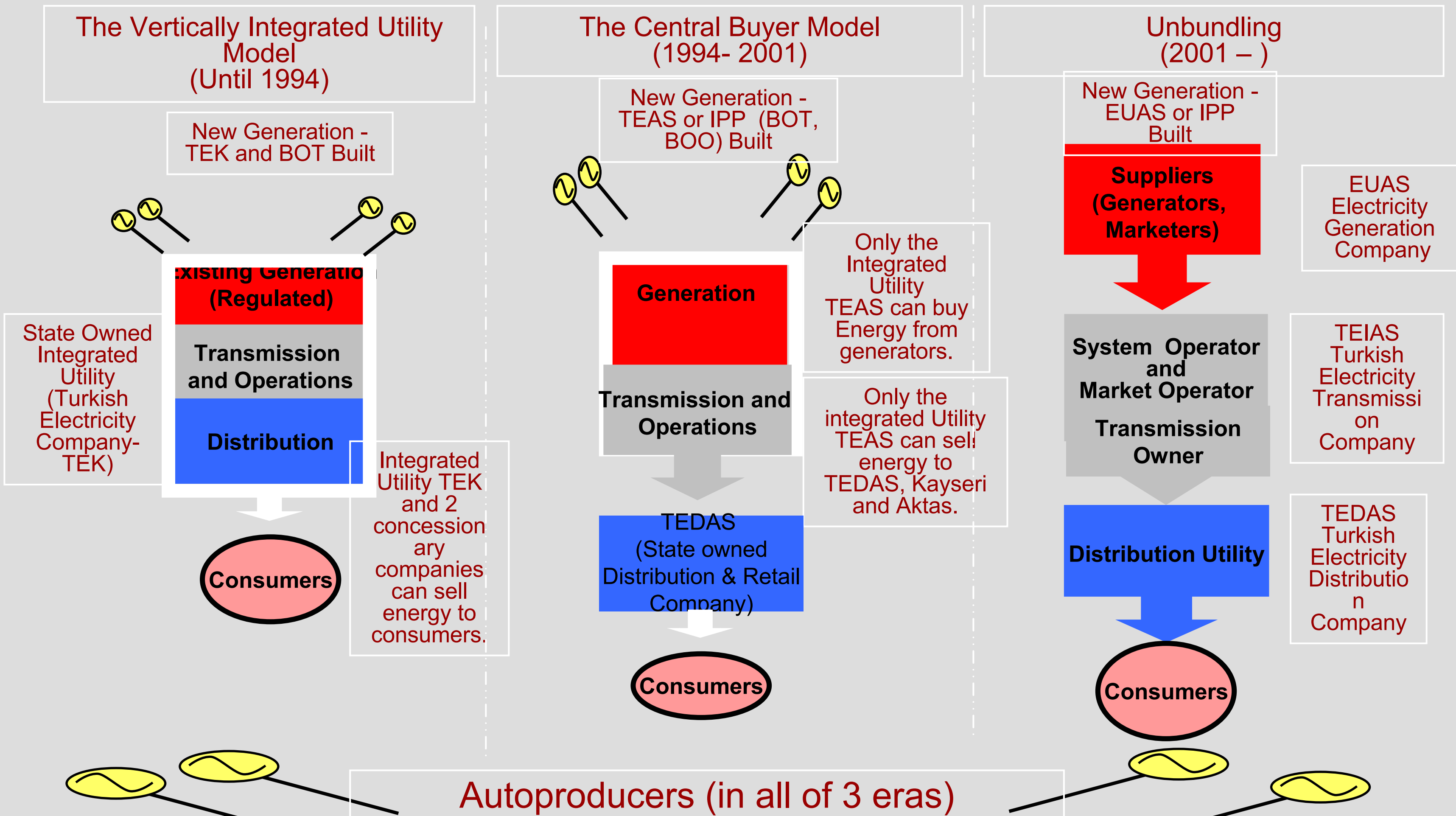
Electricity Market Structure(1)



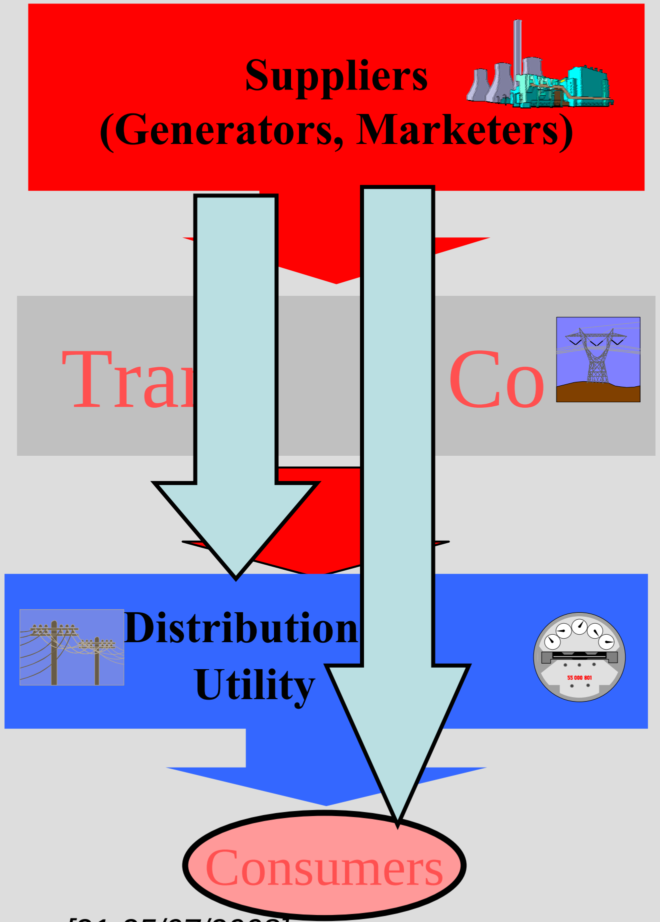
Electricity Market Structure(2)

The market is based on voluntary bilateral contracts with residual balancing pool

All generation must be sold to **traders and consumers**.

TransCo operates the **balancing market** that allows buyers to adjust their schedules by buying and selling.

The balancing price will be **marginal price** of excepted bid and offer prices.



TransCo bills network users for use of the grid

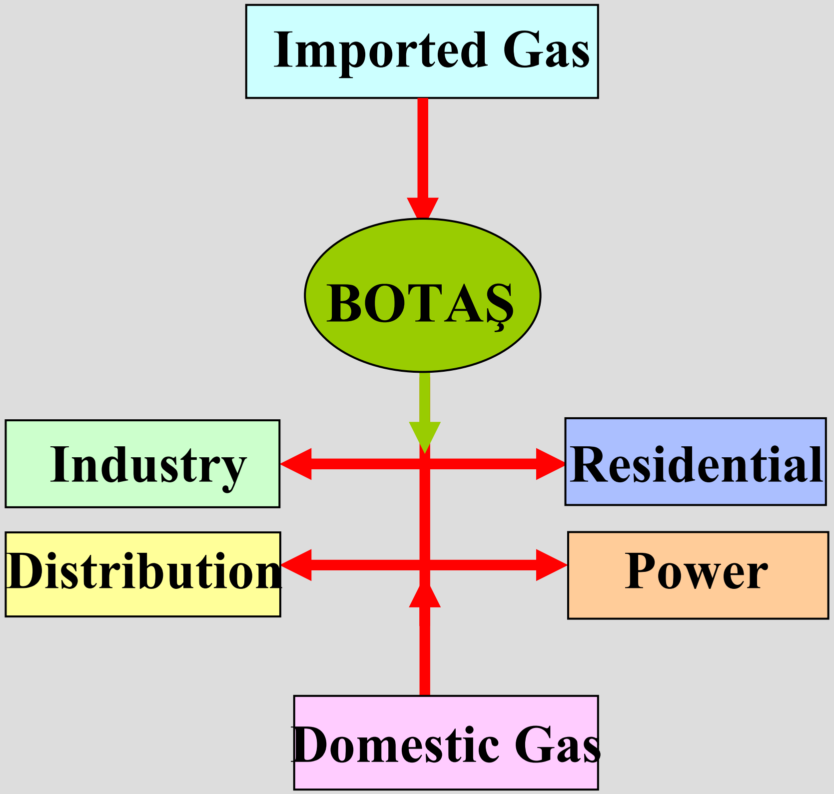
DistCo bills network users for use of the grid

ELECTRICITY MARKET

- 40.539 MW of Installed Capacity.
- 190 Billion Kwh of Consumption in 2007
- %8,5 demand growth
- Peak demand 29200 MW (27 Dec 2007)
- 20+1 (private): 21 Distribution Companies
- 1 TSO/MO: State Monopoly
- Privatization of state generation portfolio and distribution operations are in progress.
- Eligibility threshold is 1,2 million Kwh, market opening ratio is 41%

22.770 MW aggregate capacity worth of licenses have been granted since 2002
11.153 MW of aggregate additional capacity is forecasted to be in operation by 2013.

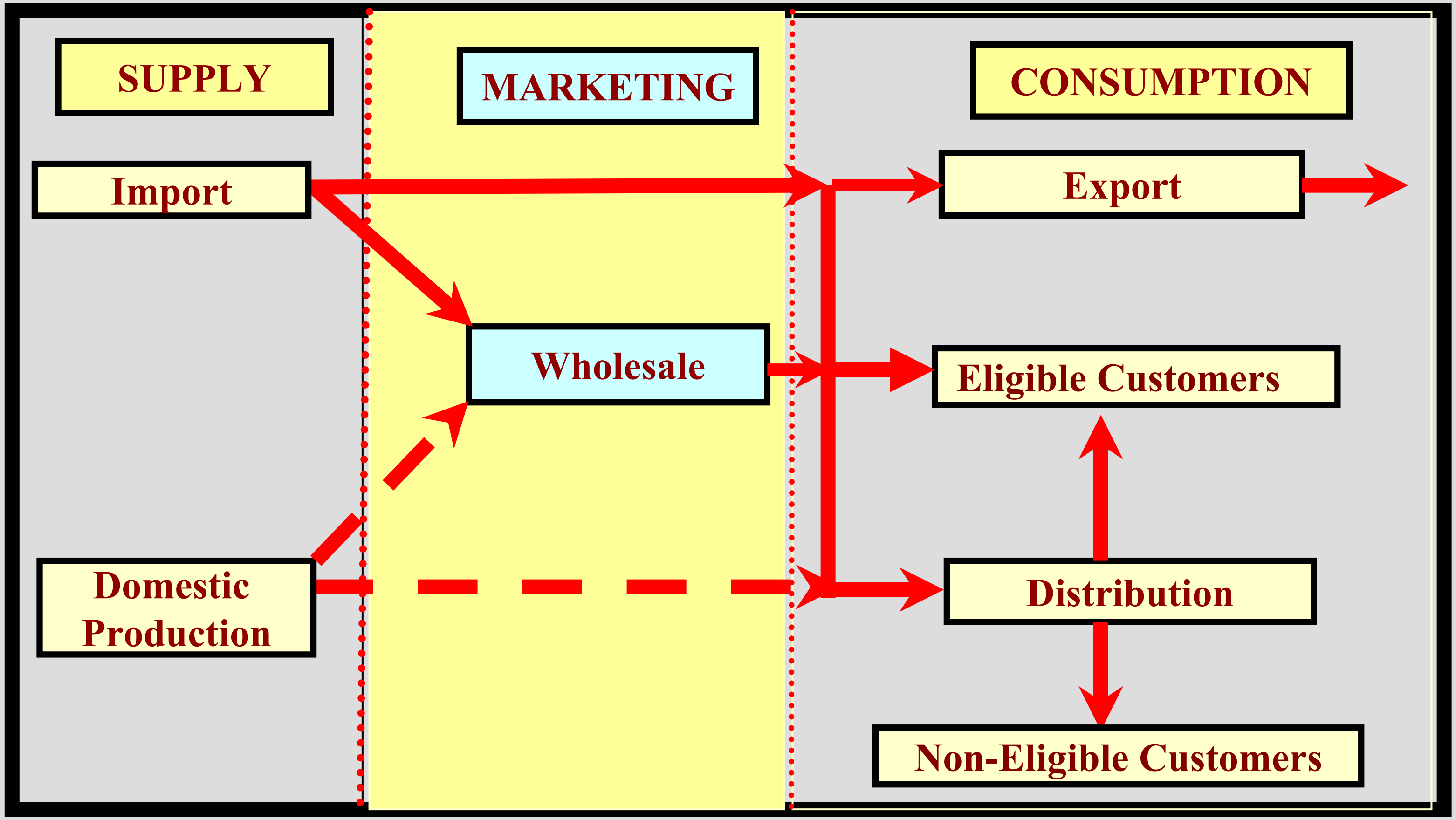
PREVIOUS GAS MARKET STRUCTURE IN TURKEY



State owned Comp. **BOTAŞ** was as a monopoly on;

- Import,
- Transmission,
- Distribution,
- Sale and determination of sales prices of imported natural gas

NEW GAS MARKET STRUCTURE



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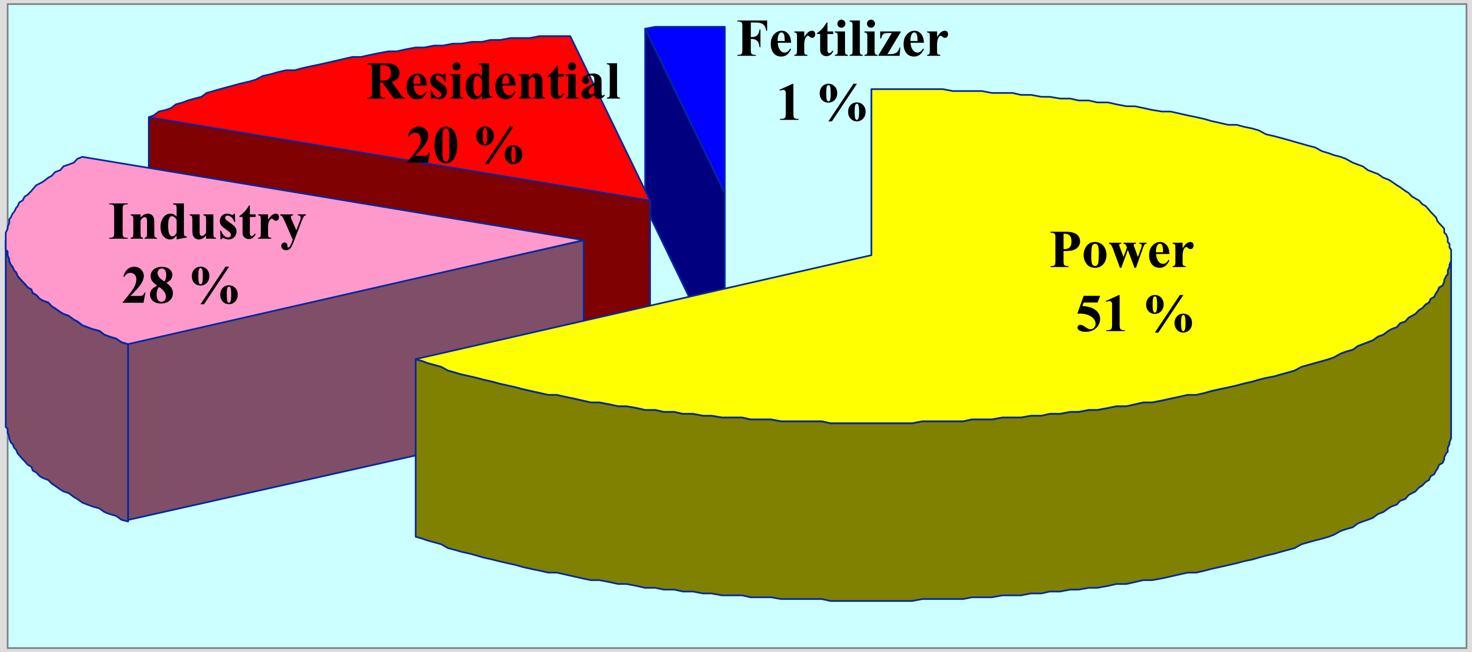
EXISTING NATURAL GAS SALE AND PURCHASE AGREEMENTS

EXISTING CONTRACTS	QUANTITY (BCM/YEAR)	DATE OF SIGNATURE	TERM (YEARS)	STATUS
RUSSIAN FED.	6	1986	25	In Operation (1987)
RUSSIAN FED.	8	1998	23	In Operation (1998)
RUSSIAN FED.	16	1997	25	In Operation (2003)
IRAN	10	1996	25	In Operation (2001)
AZERBAIJAN	6.6	2001	15	In Operation (2006)
TURKMENISTAN	16	1999	30	2006
ALGERIA (LNG)	4.4	1988	20	In Operation (1994)
NIGERIA LNG)	1.3	1995	22	In Operation (1999)
TOTAL	68.3			

Annual consumption forecast for 2008 ≅37,5 BCM



Licences in the Elec. Market

Type of License	Number of Licenses
Import	*1*
Wholesale	*29*
Transmission	*1*
Distribution	*20*
Generation	*833*
Retail and Ret.Sale Serv.	*4*
Export	*1*
Total	*889*

Licences in the N.G. Market

Type of License	Number of Licenses
Import	*11*
Wholesale	*26*
Transmission	*1 (PIPELINE)* *15 (LNG)*
Distribution	*57*
CNG	*45*
Storage	*4*
Export	*1*
Total	*160*

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Licences in the Petroleum Market

LICENSE TYPE	LICENSES
Refining	5
Processing	49
Lube oil production	137
Storage	74
Transmission	8
Bunkering & aviation fuel activities	57
Fuel distribution	49
Transportation	4.510
Vendor (retailing) activities	14.901
Eligible consumption	56
TOTAL	19.537

- 30 million tonnes of oil is consumed annually, TUPRAS has refined 26 million tonnes of oil 2007.
- Biggest distributor has 34% market share, top four distributors have 76% market share.

Licenses in the LPG Market

- ✓61 Distribution Licencees
- ✓82 Storage Licencees
- ✓38 Transportation Licencees
- ✓12 LPG Cylinder Producer Licencees
- ✓115 LPG Cylinder Maintanenence Licencees
- ✓6756 Autogas Vendor Licencees
- ✓3.525.167 tonnes of LPG consumption in 2007.

Almost 80% of LPG was imported and 20% of total consumption was produced in Turkey.

Turkish Natural Gas Market Restructuring

Gas Market Restructuring

[Dr. Zafer Demircan] *[21-25/07/2008]*

Turkish Natural Gas Market Restructuring

- Enactment of the Natural Gas Market Law – May 2, 2001

  - ✓ To liberalize the natural gas sector
  - ✓ To create a financially sound, stable and transparent market
  - ✓ To establish an independent regulatory authority to supervise and monitor market
  - ✓ To ensure natural gas supply with a competitive prices to consumers
  - ✓ To maintain supply security

  Market Opening – November 2, 2002

Secondary legislation

- ✓ License regulation
- ✓ Certificate regulation
- ✓ City distribution & consumer services regulation
- ✓ Tariffs regulation
- ✓ Transmission network operation regulation
- ✓ Facilities regulation
- ✓ Internal installations regulation

Board decisions & communiqués

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Reforms Envisaged By Legislation (1)

- ✓ ***Market Control and Regulation***; All legal entities are required to obtain a license from EMRA
- ✓ ***Prevention of Monopoly***; No legal entity is allowed to sell more than 20% of the annual gas consumption
- ✓ ***Non discrimination***; Gas companies are not allowed to establish another company in the same field
- ✓ ***Legal Separation***; Legal separation is required for transmission and distribution companies
- ✓ ***Security of supply***; Import and wholesale companies are required to store 10% of the imported or sold natural gas supplies
- ✓ ***Eligibility;*** Power plants, gas production companies, consumers whose consumption are above the threshold ,currently 1 million m3/year)

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Reforms Envisaged By Legislation (2)

- ✓ ***Competition on transmission;*** Legal companies are allowed to build new pipelines
- ✓ ***Cross-subsides;*** Prohibition of cross subsidy and unbundling of BOTAŞ's activities as transmission, storage and trade within two years after 2009
- ✓ ***Monitoring;*** Transmission and distribution companies are obligated to demonstrate EMRA that their operations are cost efficient, effective and reliable
- ✓ ***Transparency;*** Electronic Bulletin Board (EBT) is required in the framework of the Network code

DISTRIBUTION LICENSE 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.

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DISTRIBUTION LICENSE TENDERS

- Before Natural Gas Market Law
- Privatised after Law
- Tendered after Law
- Announced
- Schduled

NATURAL GAS TARIFFS

Types of Tariffs;

- ✓Connection Tariffs
- ✓Transmission & Dispatch Control Tariffs
- ✓Storage Tariffs
- ✓Wholesale Tariffs
- ✓Retail Sale Tariffs

✓However, until sufficient competition is in place, all tariffs shall be determined by EMRA.

✓All determined tariffs are in the form of price ceilings and they are in place at the moment.

THIRD PARTY ACCESS AND NETWORK CODE

- ✓Transmission and distribution companies have an obligation to connect all users to the system.
- ✓In case of rejection of access to system, EMRA’s decision shall be final and binding.
- ✓Transmission and distribution companies are obligated to demonstrate EMRA that their operations are cost efficient, effective and reliable.

- ✓Network code has been in force since 1th of September,
- ✓Capacity allocation is made on entry-exit system for one year base.
- ✓In case of congestion, it is arranged proportionally (pro-rata) for the applications.
- ✓Capacity usage is based on use or loose it principle

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Privatization;

- ✓The existing distribution companies shall be privatized
- ✓The new distribution companies will be private companies
- ✓The trade, storage companies of BOTAS shall be privatized after 2009
- ✓BOTAS shall be involved only in transmission activities

What is expected for the next step?

- ✓ Reducing BOTAS's share in import
- ✓ Encourage the expansion of the gas distribution networks
- ✓ Make natural gas prices more cost-reflective for all consumer groups
- ✓ Eliminate cross-subsidies between different customers
- ✓ Develop and support mechanisms to transfer existing import contracts
- ✓ Privatization of the three state distribution enterprises
- ✓ Transit transmission tariffs

Full Competition in Market