



**Electricity**

**SCREENING CHAPTER 15**  
**ENERGY**

**AGENDA ITEM: CONVENTIONAL SOURCES OF ENERGY**

**Electricity**

**Country Session: The Republic of TURKEY**  
**14 - 15 June 2006**



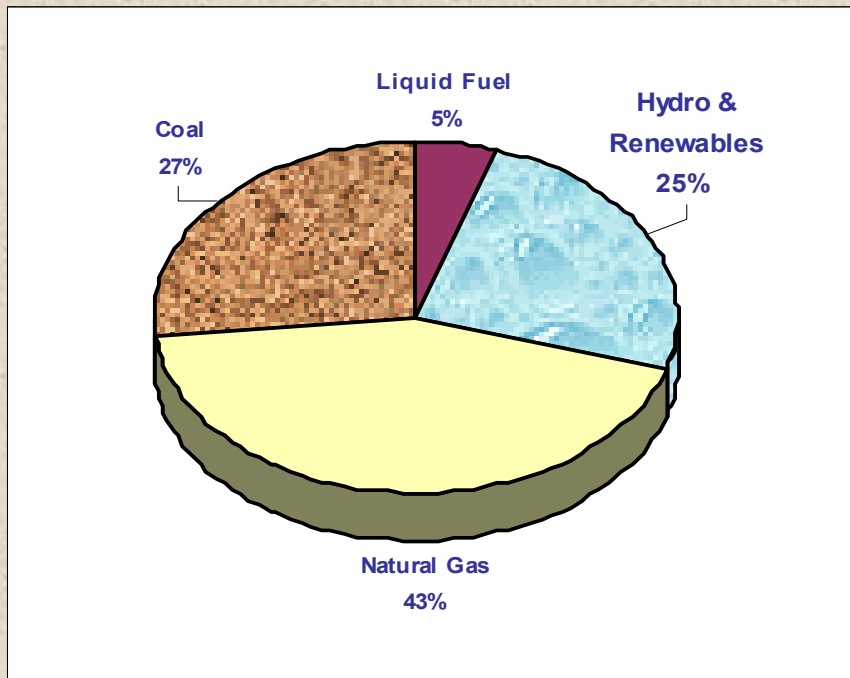
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- Overview
- Legal Framework

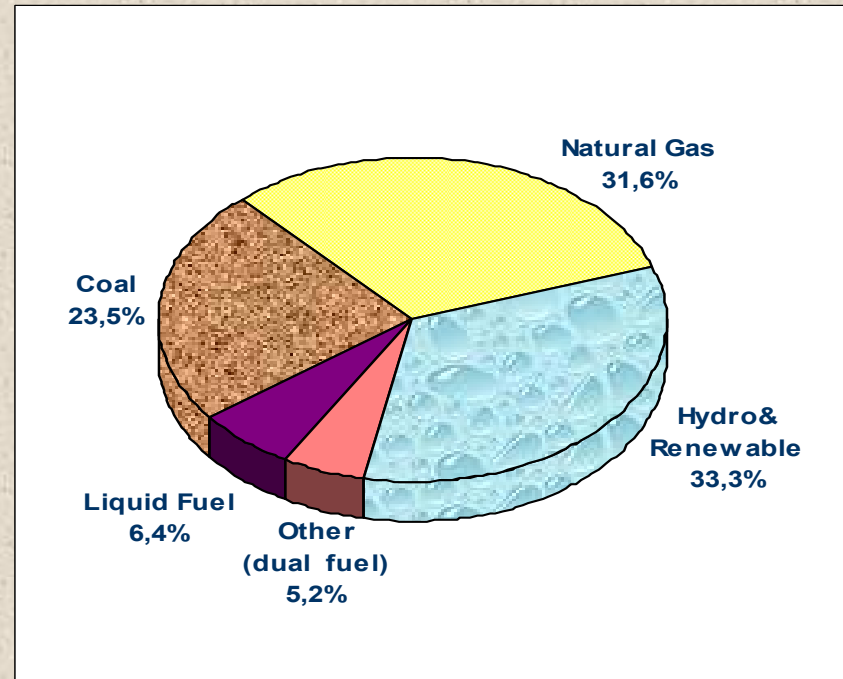
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### Electricity generation by resources, % (2005)



**Total: ~ 161,9 billion kWh**

### Installed capacity by resources, % (2005)



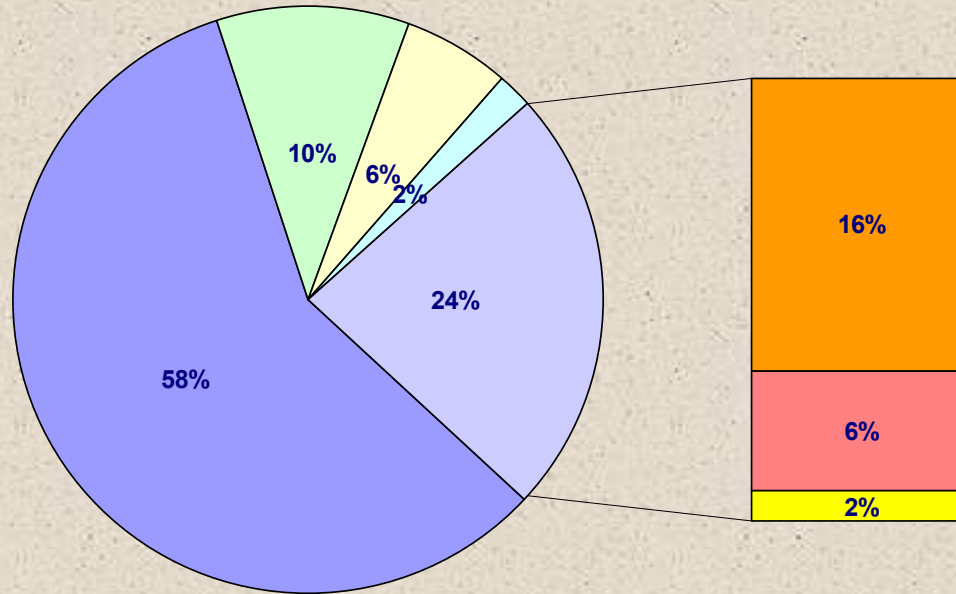
**Total: ~ 38,800 MW**

Source: TEIAS



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# Installed capacity by generators (2005)



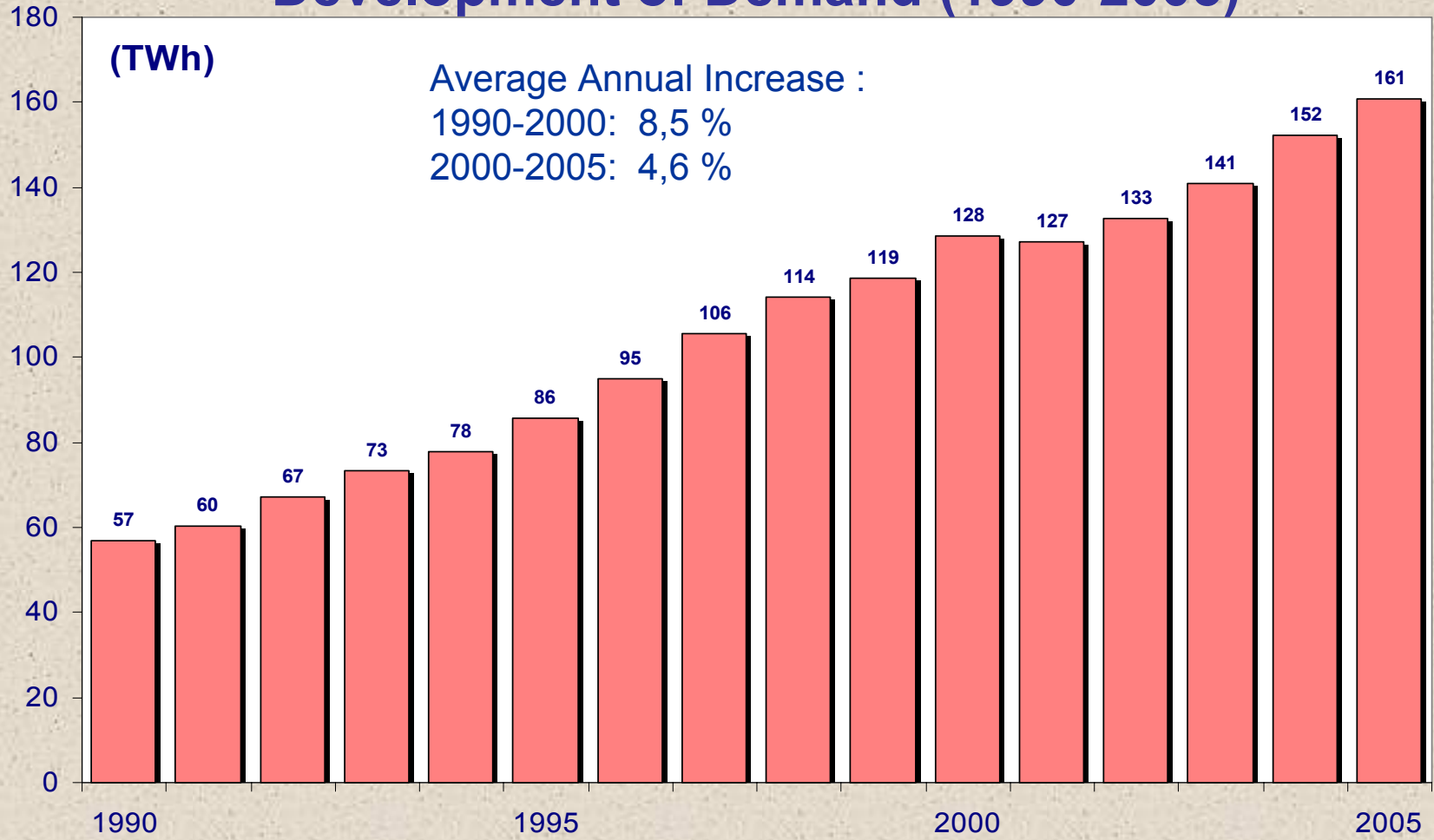
- State Owned (EUAS)
- Autoproducers (Private)
- Private Generators
- Mobile Plants
- BOO
- BOT
- TOOR

Source: TEIAS



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# Development of Demand (1990-2005)

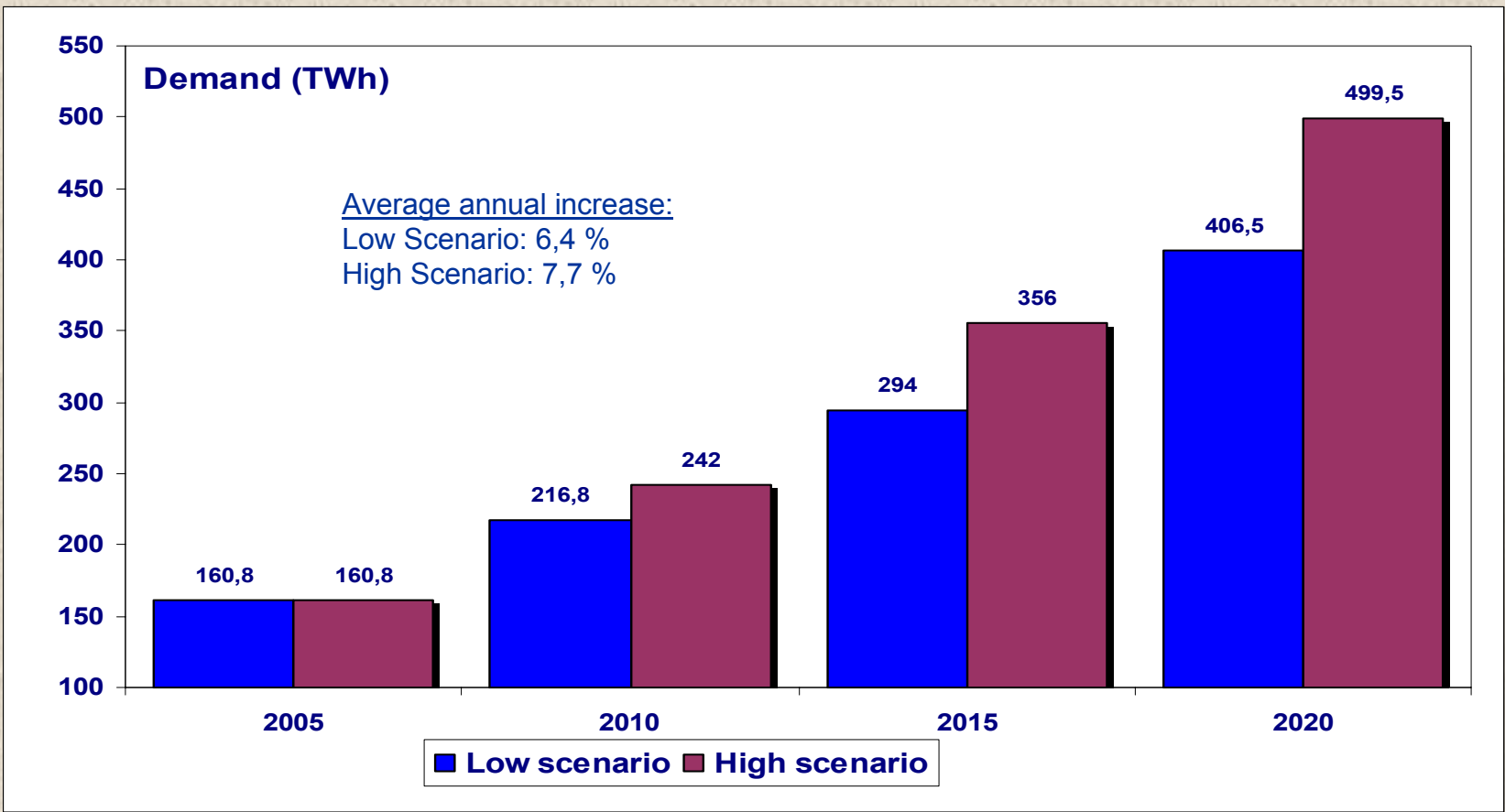


Source: TEIAS



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# Electricity demand projection (2005-2020)



Source: MENR

## Long Term Capacity Projection (2020)

### High scenario

- ~ 54.000 MW additional capacity need

### Low scenario

- ~ 42.000 MW additional capacity need

Source: TEIAS



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## Conventional energy resources for electricity generation

SOURCE	PROVEN CAPACITY (MW)	PROVEN POTENTIAL (billion kWh/year)	IN OPERATION (MW)	UNDER CONSTRUCTION (MW)	REMAINING (MW)
LIGNITE	18.790	120	6.520	2.200	10.070
HARD COAL	1.755	11	555	-	1.200
HYDRO	36.355	130	12.578	3.254	20.523
<b>TOTAL</b>	<b>56.900</b>	<b>261</b>	<b>19.653</b>	<b>5.454</b>	<b>31.793</b>





## LEGAL FRAMEWORK

- **Electricity Market Law No.4628** (Official Gazette: 03 March 2001, no. 24335)
  - By-Law on Tariff
  - By-Law on Licensing
  - By-Law on Distribution
  - By-Law on Eligible Consumer
  - By-Law on Customer Services
  - By-Law on Demand Forecast
  - By-Law on Grid
  - By-Law on Import and Export
  - By-Law on Balancing and Settlement
  - By-Law on Electricity Transmission System Supply Reliability and Quality
  - Communiqué Regarding the Meters to be used in the Electricity Market
  - Communiqué Regarding Connection to and Use of Transmission and Distribution Systems in the Electricity Market



## LEGAL FRAMEWORK (CONT'D)

- Communiqué Regarding Preparation of Retail Contract in the Electricity Market
- Communiqué Regarding Regulation of Market Management Revenue
- Communiqué Regarding The Principles and Procedures of Financial Settlement in the Electricity Market
- Communiqué Regarding Regulatory Accounting Guidelines
- By-Law on Principles and Procedures for Granting Guarantee of Origin for renewable resources



## **ELECTRICITY MARKET LAW No.4628**

### **OBJECTIVE, SCOPE and DEFINITIONS (Article 1)**

#### **OBJECTIVE**

##### **TO ESTABLISH**

**A FINANCIALLY VIABLE,  
STABLE,  
TRANSPARENT  
COMPETITIVE ENERGY  
MARKET**

##### **TO ENSURE**

**ADEQUATE  
EFFICIENT,  
CONTINUOUS  
HIGH QUALITY,  
LOW COST  
ENVIRONMENT FRIENDLY  
SUPPLY OF ELECTRICITY**

##### **SUBJECT TO**

**INDEPENDENT REGULATION  
AND SUPERVISION,**

#### **SCOPE**

**Generation, transmission, distribution, wholesale, retailing and retailing services,  
import and export activities,**

**Rights and obligations of real and legal persons,**

**Establishment of 'Energy Market Regulatory Authority',**

**Privatization of electricity generation and distribution assets,**



## ELECTRICITY MARKET LAW No.4628 (CONT'D)

### ELECTRICITY MARKET ACTIVITIES AND GENERAL TERMS AND TYPES OF LICENSES (Articles 2 and 3)

#### ACTIVITIES

- Generation
- Transmission
- Distribution
- Wholesale
- Retail and Retail Sale Services
- Import and export

#### TYPES OF LICENSES

- Generation License
- Transmission License
- Distribution License
- Wholesale License
- Retail Sale License
- Autoproducer license
- Autoproducer group licenses



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## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **GENERATION (Articles 2(a) and 3(c1)) (Amended by the Law no. 5496)**

- State owned generation company EUAS, other state owned generation companies formed by restructuring of EUAS, private sector generation companies and autoproducers – autoproducer groups can operate generation facilities, and sell the capacity and electricity generated.
  - EUAS shall be entitled to build, lease and operate new generation facilities, if deemed necessary, in accordance with the Board-approved generation capacity projection and with due regard to the generation investments by the private sector.
  - Autoproducers can sell up to 20% of their yearly generation to the market. EMRA has the right to determine and to increase this ratio by 50%.
  - Total market share of generation facilities operated by a particular private sector generation company and its affiliates shall not exceed 20% of the total installed capacity in the preceding year.
  - Isolated generation is not subject to licensing.
  - Generation companies may enter into affiliate relationships with distribution companies without control power.
  - Generation companies shall not engage in any market activities other than those described above.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **TRANSMISSION (Articles 2(b) and 3(c2))**

#### **Turkish Electricity Transmission Co. (TEIAS)**

- Transmission network planning construction and operation
- Power system control and operation
- Market Balancing and Settlement
- Preparation of the transmission, connection and use of system tariffs and Grid Code
- International interconnection activities
- Preparation of generation capacity projection
- Establishment of private direct transmission lines
- Shall not engage in any activity other than transmission activity.
- Regulated third party access



## **ELECTRICITY MARKET LAW No.4628 (CONT'D) DISTRIBUTION (Articles 2(c) and 3(c3)) (Amended by the Law no. 5496)**

### **Distribution companies**

- Distribution network planning construction and operation
- Supplier of Last Resort
- May engage in retail business and/or retail sale services for consumers
- Preparation of regional demand forecasts
- May engage in generation activities (separate license, account separation)
- May purchase electricity from generation company or companies they own or affiliated with, with the price not exceeding country average wholesale price.
- Shall not engage in any activity other than those defined above.
- Regulated third party access



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## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **WHOLESALE (Articles 2(d) and 3(c4)) (Amended by the Law no. 4694)**

- Turkish Electricity Trading and Contracting Co. (TETAS) and private sector wholesale companies.
- TETAS
  - takes over and executes the existing energy sale and purchase contracts
  - shall primarily purchase electricity from EUAS
  - can make new yearly purchase contracts to meet contractual obligations to distribution companies (subject to the approval of EMRA)
- Wholesale companies can also sell to eligible consumers (TETAS is not allowed to sell to any new eligible consumers).
- Electricity can be exported to or imported from any country meeting the international interconnection conditions.
- Total market share of any private sector wholesale company together with its affiliates shall not exceed 10% of the total electricity consumed during the preceding year.





## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **RETAIL (Articles 2(e) and 3(c5))**

- Retail sale companies and distribution companies holding retail sale licenses
- Retail sale or retail sale service activities without any limitation on a regional basis.
- Right to electricity import via distribution voltage level.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **IMPORT and EXPORT (Article 2(f))**

TETAS (restricted to existing contracts), Private sector wholesale companies, Retail companies, Distribution companies holding retail licenses can engage in import and export activities.

### **By-Law on Import and Export (Official Gazette: 07 September 2005)**

- The principles and procedures pertaining to the activities of import and/or export of electricity, allocation and use of interconnection capacity for cross border trade in the electricity market and allocation and use of interconnection lines.
- TEIAS and Distribution licensees announce the necessary information concerning interconnection line capacity
- In determination and implementation of capacity allocation method, TEIAS and distribution licensee should act in accordance with non-discrimination conduct and development of competition principles.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **ORGANIZED INDUSTRIAL ZONES (OIZ) (Article 2(g))**

(Amended by the Law no. 5496)

- Distribution and/or generation activities to meet the demands of their participants.
- Deemed as eligible consumers without taking into consideration their amounts of consumption.
- The participants in OIZ, exceeding the eligible consumer limit have right to choose their supplier.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **AUTOPRODUCER AND AUTOPRODUCER GROUPS (Articles 2(a3) and 3(c6))**

- Generate electricity for their own needs and operate in parallel to the transmission and/or distribution system.
- Autoproducer groups supply electricity to their shareholders.
- Autoproducers can sell up to 20% of the electricity generated. EMRA has the right to determine and to increase this ratio by 50%.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **GENERAL TERMS AND TYPES OF LICENSES (Article 3)**

#### **RULES AND PRINCIPLES APPLICABLE TO LICENSES (Article 3(a))**

- Separate license for each activity (for each facility if the relevant market activity is to be performed in more than one facility)
- Account unbundling among activities
- Licenses are issued for a period of up to 49 years
- The minimum term for generation, transmission and distribution licenses is 10 years
- Keeping facilities, books and records of account available to EMRA inspection and audit
- Provide any information and documents upon request by EMRA



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **MINIMUM COMMON PROVISIONS APPLICABLE TO ALL LICENSES (Article 3(b))**

- Types of activities
- Obligations related non-discriminatory third party access
- Pricing principles
- Obligation to provide information
- Provisions for cancellation, modification and expiry of the licenses
- License fees
- Dispute settlement
- Technical requirements



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **ENERGY MARKET REGULATORY AUTHORITY (Article 4)**

(Amended by the Law no. 4646, Official Gazette: 18 April 2001, no. 24390)

- 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.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **THE ENERGY MARKET REGULATORY BOARD (Article 5)**

- EMRA 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, petroleum and LPG markets by amendments.





## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **ADMINISTRATIVE AND PROCEDURAL PROVISIONS OF EMRA (Articles 6-9)**

- Prohibitions and Dismissal from Office (Article 6)
- Oath and Declaration of Property (Article 7)
- Board Working Principles, Board Approvals, Annual Reporting and Audit (Article 8)
- Staff related provisions (Article 9)



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **REVENUES AND ASSETS OF THE AUTHORITY (Article 10)**

(Amended by the Law no. 4646, Law no. 5015, Law no.5307)

#### **Revenues related to Electricity Market :**

- Fees collected for license applications, renewals, modifications, license copies and annual license fees.
- Publications and other revenues.
- Grants by international organizations and institutions.
- 25 % of the administrative fines imposed by the Board.
- Transmission surcharges up to 1 % of the transmission tariff



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **SANCTIONS AND PROCEDURES OF IMPOSITION OF SANCTIONS (Article 11)** (Amended by the Law no. 4646)

- The fines and sanctions imposed by the Board.

### **RIGHT TO LEGAL ACTION (Article 12)**

- Any lawsuit against the decisions of the Board is submitted to the Council of State.



## ELECTRICITY MARKET LAW No.4628 (CONT'D)

### TARIFFS AND CONSUMER SUPPORT (Article 13)

#### TARIFFS

- Tariffs subject to Board regulation
  - The connection and use of system tariffs
  - Transmission Tariff
  - Distribution Tariffs
  - Wholesale Tariff (only for TETAS)
  - Retail tariffs
- Tariffs are prepared before the end of October 31 of every year, and submitted for the Board's approval.
- Board's approval before December 31 of the same year.
- Non-discrimination principle.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **TARIFFS AND CONSUMER SUPPORT (Article 13) (CONT'D)**

#### **CONSUMER SUPPORT AND PROTECTION**

- In cases where consumers in certain regions and/or in line with certain objectives need to be supported, such subsidy is provided in the form of direct cash refunds to consumers without affecting the prices.
- Amount, principles and procedures of the subsidy are determined by Council of Ministers.
- The measures to protect consumers against the harmful effects due to low quality or interruptions of electricity supply are imposed as a licence requirement (By-Law on Electricity Market Customer Services).



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **PRIVATIZATION (Article 14) (Amended by Law 5496)**

- Privatization of electricity assets is to be executed by the Privatization Administration according to the provisions of Privatization Law No:4046
- In order to define transitional period and accelerate the privatisation process in electricity sector, the High Planning Council has adopted a Strategy Paper on 17 March 2004 providing a road map for
  - establishing the technical and legal infrastructure for privatisation
  - revealing the technical and financial properties of the entities to be privatised



## ELECTRICITY MARKET LAW No.4628 (CONT'D)

### PRIVATIZATION (CONT'D)

- the Strategy Paper envisages that;
  - Privatization will start in the distribution determined as 21 regions,
  - Privatization of generation assets will be the next step,
  - Tariff equalization mechanism will be applied during the transitional period,
  - Transitional power purchase agreements for the transitional period will be signed between state owned generation, distribution and wholesale companies before privatization.



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **BALANCING AND SETTLEMENT (Article 15.b)**

- Rules and procedures of Market Financial Settlement Center determined by By-Law on Balancing and Settlement
- Center to be operated by TEIAS

### **EXPROPRIATION, RIGHT OF EASEMENT AND PERMIT TO USE AND RENT (Article 15(c,d)) (Amended by the Law 5496)**

- EMRA decides expropriation and usage right or rent and performs expropriation activities,
- Costs are paid by licence holders
- Ownership of expropriated immovables belong to Treasury.
- Expropriation procedures for state-owned companies are performed by these entities.





## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **PROVISIONAL ARTICLES**

#### **Article 1**

All tasks and obligations assigned to the EUAS, TEIAS and TETAS are assumed by TEAS until these companies are actually established.

#### **Article 2**

Appointment of the first members of EMRA Board

#### **Article 3**

Definition and tasks to be performed during the transition period (18 months).

#### **Article 4**

Validity of the contracts of TOOR Projects (cancelled by Constitutional Court decision no. 2001/9 on 27 October 2001)



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **PROVISIONAL ARTICLES (CONT'D)**

#### **Article 5**

Until privatized, TEDAS, state owned distribution company, owns and operates the distribution system. Other private retailers may perform retail activities in these distribution regions.

#### **Article 6**

Regulates the sales of EUAS to TETAS

#### **Article 7**

Determines the initial limit for eligible customers. (9 GWh, currently 6 GWh)

#### **Article 8**

Validity of the Treasury Guarantees for the existing BOT projects (cancelled by Constitutional Court decision no. 2001/9 on 27 October 2001).



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **PROVISIONAL ARTICLES (CONT'D)**

#### **Article 9** (Added by Law 5496)

Implementation of “price equalization mechanism” (temporary, until 31 December 2010)

#### **Article 10** (Added by Law 5496)

Transitional contracts among

TETAS,

EUAS,

Distribution companies holding retail sale license,

the companies to be formed as a result of the restructuring of EUAS.

#### **Article 11** (Added by Law 5496)

Right of land use for existing BOT Contracts

#### **Article 12**

Certain tax exemptions for the privatization of distribution assets



## **ELECTRICITY MARKET LAW No.4628 (CONT'D)**

### **LIQUEFIED PETROLEUM GAS MARKET LAW AND LAW ON AMENDMENT OF ELECTRICITY MARKET LAW No.5307**

(Official Gazette: 13 March 2005, no 25754)

#### **PROVISIONAL ARTICLE 6**

- Until the privatization of EUAS is completed;
  - EUAS is allowed to sell electricity to wholesale companies for export on the basis of bilateral agreements and in foreign currency.
  - The sale price shall not be below the average annual production cost of EUAS.
- TETAS is authorized for electricity sales for re-export purposes and to determine the related wholesale tariff.



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**Thank you for your attention**