



# **CURRENT STATUS OF THE BULGARIAN ENERGY MARKET**

## **REGIONAL CONCEPTS FOR THE ESTABLISHMENT OF A JOINED ENERGY MARKET FOR SOUTHEAST EUROPE**

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# **CURRENT STATUS OF THE BULGARIAN ENERGY MARKET**



## KEY STEPS IN THE PREPARATION FOR LIBERALIZATION OF THE MARKET

- Bulgarian Energy Strategy 17 July 2002.
- Energy Act – 26 November 2003, amend.– 08 September 2006.
- Adoption of set of rules and regulations for SCEWR in 2004.
- 16 September 2004 – registration of the first schedule for electricity supply based on liberalized prices.



## EUROPEAN UNION DIRECTIVES

New EU Directives from 26 June 2003:

- Directive 2003/54/EC (for electricity)
- Directive 2003/55/EC (for natural gas)

### **regulated:**

- ✓ Deadlines for complete liberalization of the market -  
*01 January 2007 for industrial consumers, and*  
*01 July 2007 for residential consumers;*
- ✓ Independence of system network operators and separation from the rest of the activities in the energy sector (production and supply) based on regulations and administrative decrees;
- ✓ Constant and active monitoring of the market by regulating agencies and introduction of public guidelines for energy companies.

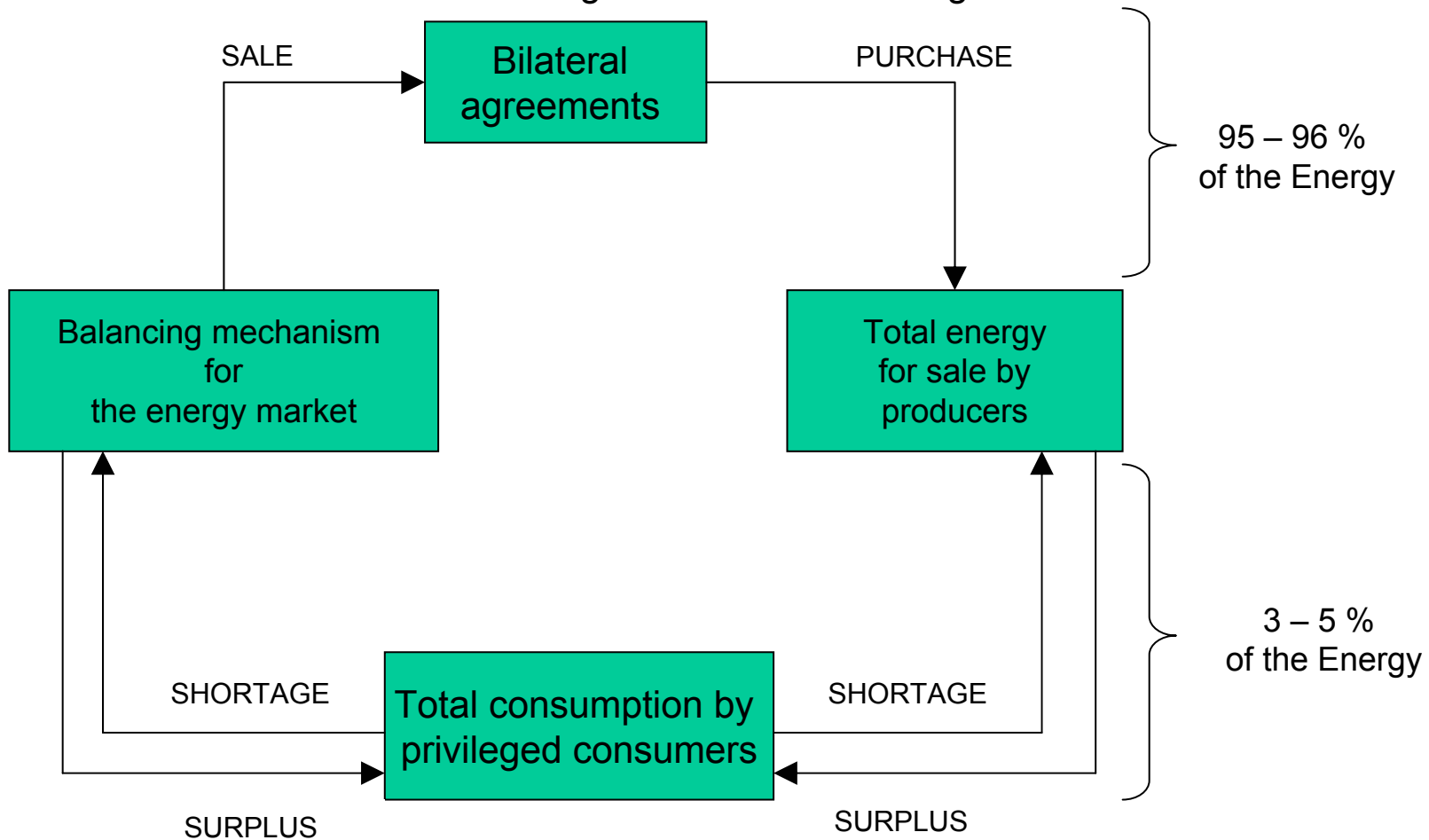
## **MODEL AND STAGE OF ENERGY MARKET LIBERALIZATION**

The domestic energy market is based on the bilateral agreement model.



## PRINCIPLE MARKET MODEL

Bilateral agreements + Balancing market





## MARKET STRUCTURE

Currently, there are two parallel segments on the electricity market:

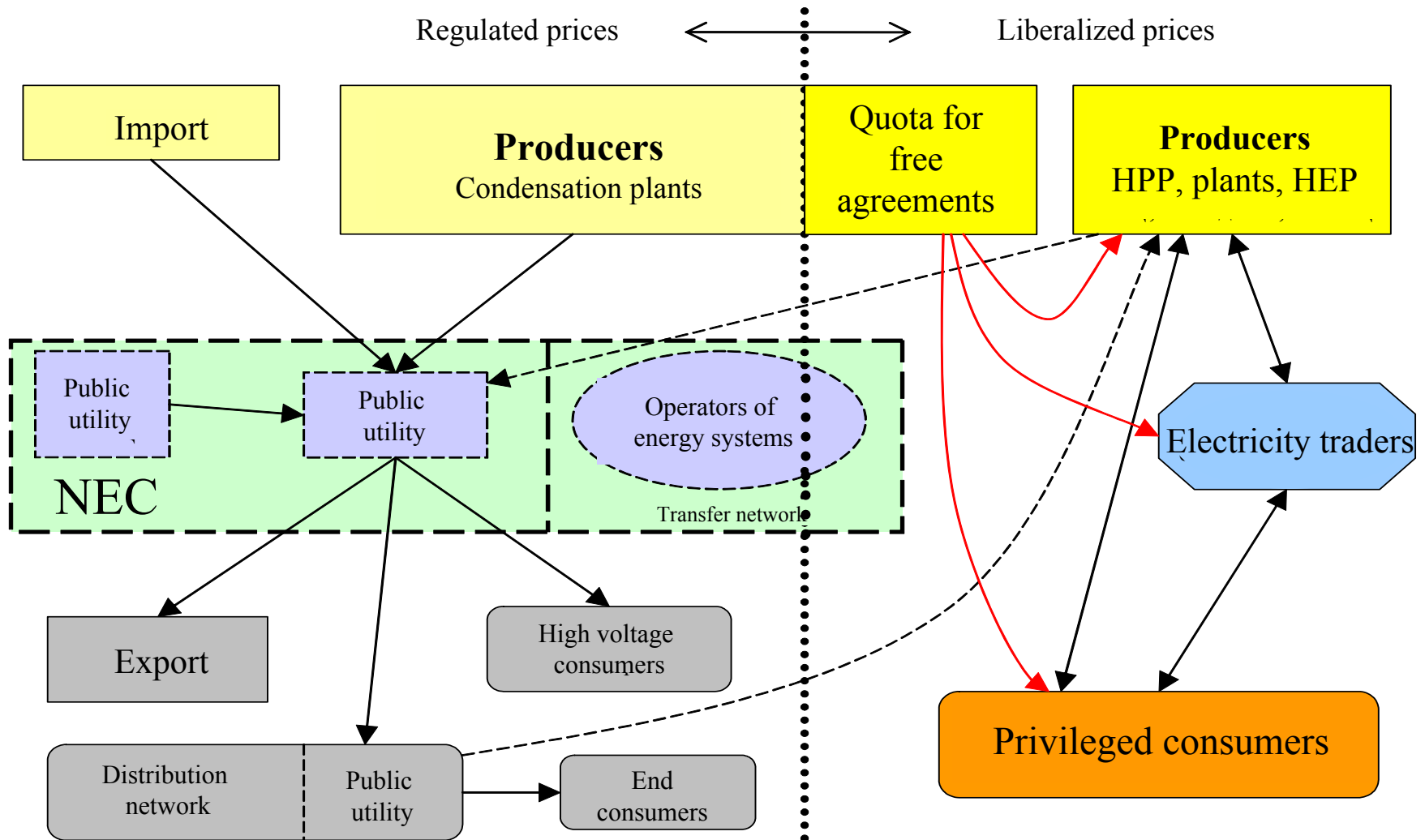
- market with regulated pricing, and
- market with liberalized pricing which will gradually grow until the complete liberalization of the market is achieved.

Differences between the two segments:

- The prices on which electricity is traded (regulated rates and liberalized pricing);
- Specification of the quantities of electricity in agreements (monthly basis and hourly rates in liberalized agreements);
- Balancing participation in the liberalized market;
- Pricing for transfer and distribution (through individual agreements between producers and transfer and/or distribution company in the liberalized market).



## MARKET MODEL AT INITIAL LIBERALIZATION





## **PARTIES AND PARTICIPANTS**

**At this early stage of the establishment of the electricity market NEC participates as a Public Utility (PU) and as a transfer company. The functions of the Operator of the electricity market are part of the general functions of the Electricity System Operator (ESO) who according to the law is a unit in the Transfer company.**

**The Transfer company through ESO enters agreements for balancing energy with trade companies and PU. Trading participants are registered in accordance with the Rules for Trade with Electrical Energy (RTEE):**

- Producers of electrical energy;**
- Privileged consumers which have attained the status in accordance with the Rules & Regulations for Access to the Electricity Transfer and Distribution Networks (Rules & Regulations for Access) ;**
- Electrical trading company.**

**ESO organizes the electricity market based on the following functions:**

- Registers trading entities, weekly schedules for agreement-based deliveries, PU agreements and Public suppliers;**
- Creates priority lists of sources of balancing energy;**
- Enforces settlements between trading entities and PU;**
- Sets non-balance prices;**
- Maintains independent accounts for payments for balancing energy**
- Maintains a market data base.**

**PU is the main supplier of balancing energy through purchased available amounts from electricity plants and its own HPP and TPP.**





**The main principle of the model is that dispatching (the inclusion of any electricity plant in the system) should be based on the quantities provided in agreements between the suppliers and consumers of electricity.**

**BALANCING MARKET. PRINCIPLES.**

**1. General conditions:**

**When participants are in “Surplus” they sell the extra energy (purchased through bilateral agreements but not consumed or produced in addition to the negotiated amount) to the ESO.**

**When participants are in “Shortage” they purchase the needed energy (to reach the negotiated in bilateral agreements amount) from the ESO.**

**2. Participants which are not balanced:**

- **NPP (Nuclear Power plant), TPP and HPP, which sell electricity based on agreements with the Public Utility (PU) within the regulated market and do not take part in the balancing market.**

**3. Participants which are balanced:**

- **Privileged consumers;**
- **Producers, which sell energy at the liberalized market;**
- **Condensation power plants, which simultaneously supply energy on agreements with the PU and at the liberalized market;**
- **PU – under specific circumstances.**



## **CONSUMER PARTICIPATION IN THE COMPETITIVE MARKET**

### **Rules & Regulations for the Access to Electricity Transfer and Distribution Network (SG, issue 67/2004)**

**According to article 7, section 1 Rules & Regulations for Access a privileged consumer is n entity which meets the set by article 6,and:**

- 1. Has annual consumption of electricity during the different stages of the opening of the market not less than:**
  - Before 01 July 2004 – 100 GWh;**
  - Between 01 July 2004 and 30 June 2005 – 40 GWh;**
  - Between 01 July 2005 and 30 June 2006 – 20 GWh;**
  - Between 01 July 2006 and 31 December 2006 – 9 GWh;**
  - Between 01 January 2007 and 30 June 2007 – all non-residential consumers;**
  - After 01 July 2007 – all consumers.**
- 2. There are no pending dues to the public utility and/or the public suppliers based on electricity trade agreements.**

**In order to have a realistic idea for the expected consumption from privileged consumers SCEWR requests a list from „NEC” SA and the electricity distribution companies containing information on: the industrial consumers, their annual consumption for the previous year and summary of amounts sold to them.**





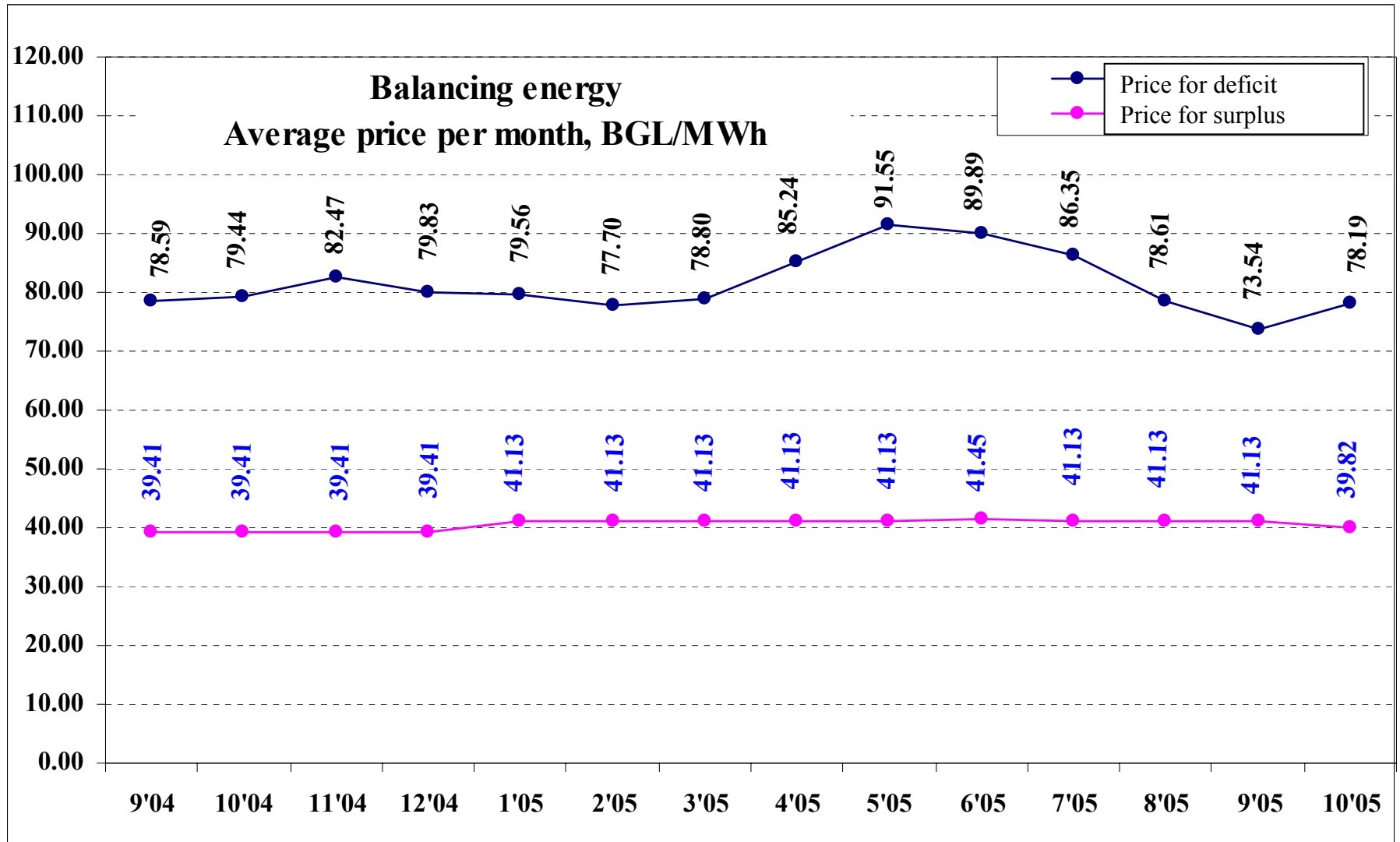
According to article 3 of the adopted by SCEWR Rules & Regulations for the Access to Electricity Transfer and Distribution Network the liberalization of the electricity market is expected to happen following these stages:

1. Before 30 June 2004 - up to 18,9 %;
2. Between 01 July 2004 and 30 June 2005 – up to 22 %;
3. Between 01 July 2005 and 30 June 2006 – up to 25 %;
4. Between 01 July 2006 and 31 December 2006 – up to 28 %;
5. Between 01 January 2007 and 30 June 2007 – up to 60 %;
6. After 01 July 2007 – full liberalization.

Based on the stated by the Government readiness of the country to join the European Union as of 01 July 2007 the provisions of Directive 2003/54/EC for the stages of the electricity market liberalization will be implemented.



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## CURRENT STATUS OF THE ELECTRICITY MARKET

**Regulated market:** Public utility – 1, public suppliers – 8

**Liberalized market:**

Electricity trading operator

Registered trade entities - 26

- producers - 6
- consumers - 14
- traders - 5
- NEC AS - 1

Volume of the liberalized electricity market:

as of 31 December 2005 – 2 711 609 MWh

Volume of the balanced electricity market

as of 31 December 2005 – 290 602.58 MWh

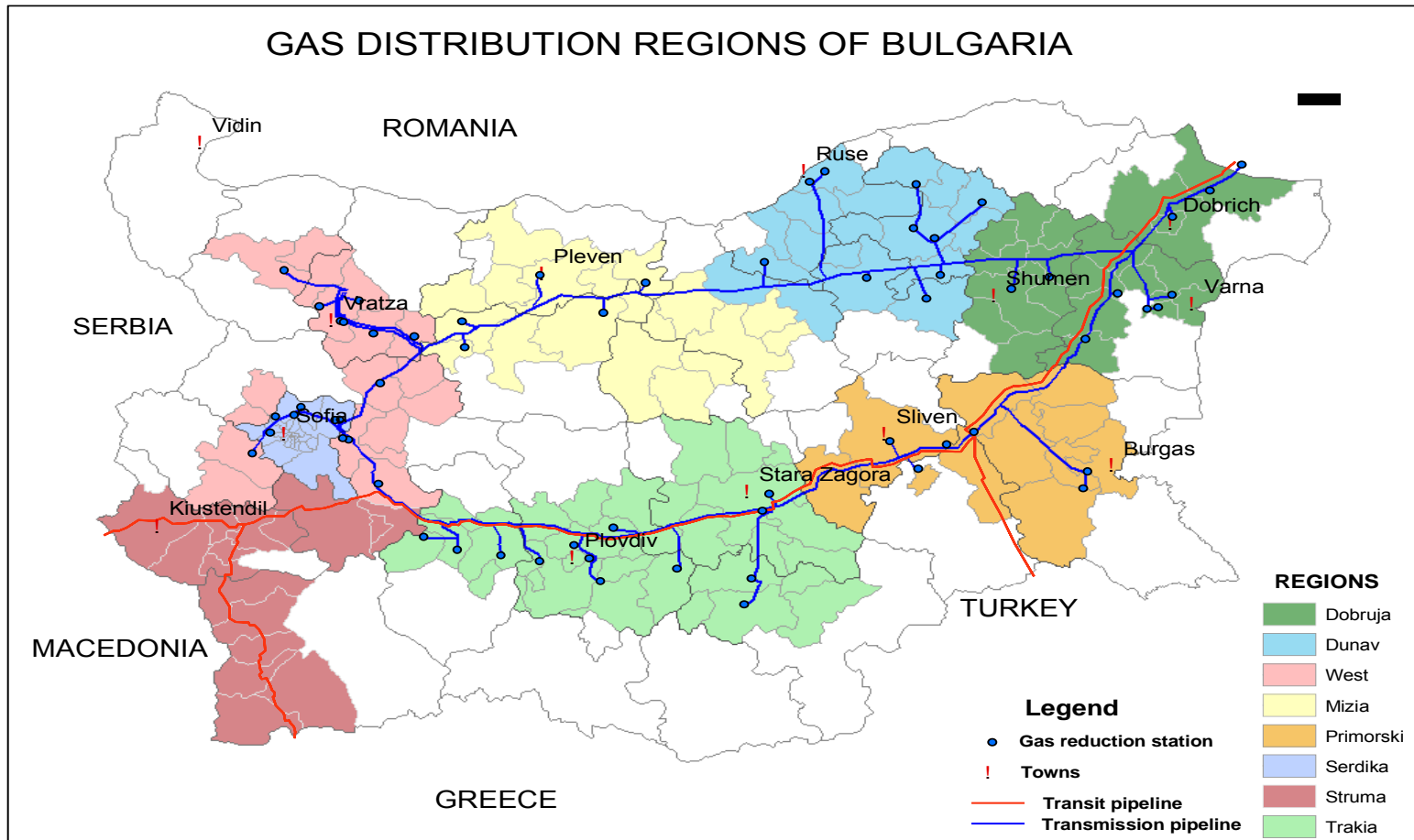
Real liberalization of the electricity market

as of 31 December 2005 – 13 %

Transfer of electrical power for a third party during this initial stage is conducted only through the transfer network.



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## STRUCTURE OF THE GAS MARKET

- **Liberalization of the market – 85%, associated with the structure of consumption**
- **Guarantees for consumer protection – regulated prices for transfer, market rules and supervision by SCEWR**
- **The market liberalization steps are in accordance with EU Directive 2003/55 on natural gas**
- **Privileged Consumer Criteria – 20 million m<sup>3</sup> annual consumption.**



## **SECURITY OF GAS SUPPLY**

### **Diversification of supply:**

- 1. Import from Turkmenistan and Iran through Turkey – “Nabucco” Project**
- 2. Increase local extraction – “Galata” – 2 billion m3 (0.5 billion m3 )**
- 3. Integration of the Bulgarian transfer network with the European transfer network.**
- 4. Storage of natural gas.**





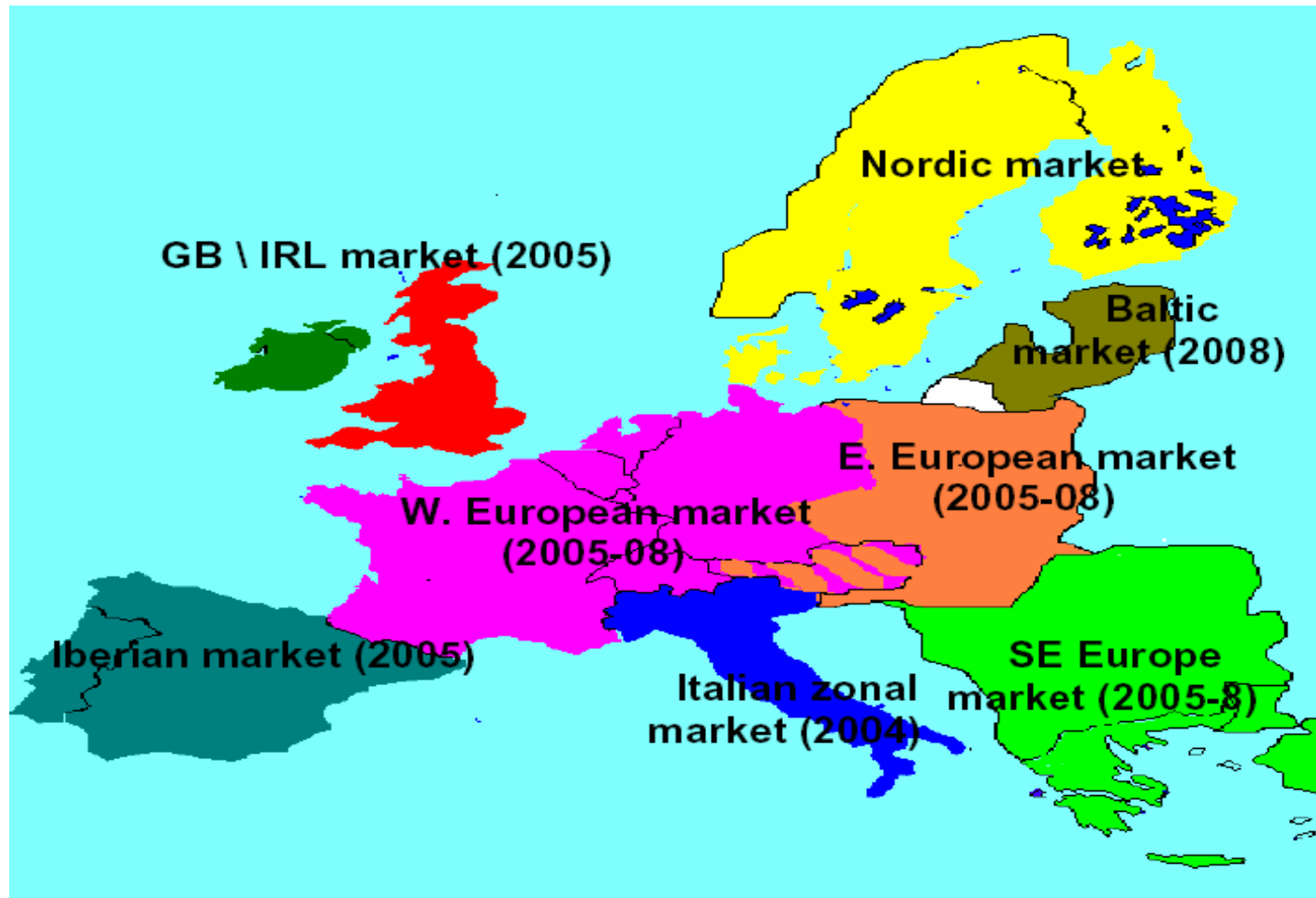
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# **REGIONAL CONCEPTS FOR THE ESTABLISHMENT OF A JOINED ENERGY MARKET FOR SOUTHEAST EUROPE**

October 6th 2006, Newark,  
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## 9 EUROPEAN ENERGY MARKETS





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## SOUTHEAST EUROPE ENERGY MARKET



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## SOUTHEAST EUROPEAN ENERGY COMMUNITY

**Signing countries:** Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Serbia, Montenegro, **Turkey\*** and the Temporary UN Missions in Kosovo.

**Participants (EU member countries):** Austria, Greece, Hungary, Italy and Slovenia.

**Monitoring countries:** Moldova, Ukraine and Norway.



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## INSTITUTIONS OF THE ENERGY COMMUNITY

<b>Policy Making &amp; Monitoring</b>	<b>Ministerial Council</b> Policy Development <ul style="list-style-type: none"><li>• Take measures</li><li>• Ann. Report to EP, and all SEE Parliaments</li></ul>	<b>PHLG</b> <ul style="list-style-type: none"><li>• Provides support to Council</li><li>• Take measures itself</li><li>• Directs Reg. Board</li><li>• Ensures compliance</li></ul>	<b>European Commission</b> <ul style="list-style-type: none"><li>• Coordinator of market development<ul style="list-style-type: none"><li>– Ext.- Comm. Acquis</li><li>– Reg. Framework</li><li>– Single Energy Market</li></ul></li></ul>
<b>Regulatory</b>	<b>Regulatory Board</b> <ul style="list-style-type: none"><li>• Adopts Market Rules</li><li>• Adopts Res. Cap. Level</li><li>• Advises on investments</li><li>• Mkt. Mont. &amp; Disp. Res</li><li>• Adopts Contract Terms</li></ul>	<b>Regulatory Forum</b> <ul style="list-style-type: none"><li>• Tackles tough issues and develops recommendation for PHLG</li></ul>	<b>Regulatory Secretariat</b> <ul style="list-style-type: none"><li>• Supports Council, Forum, Board and PHLG</li><li>• Coordination of all activities (records, meetings, notices)</li></ul>
<b>Operations</b>	<b>Technical Institution for Balancing</b> <ul style="list-style-type: none"><li>• Mechanism for acting &amp; settlement of balancing and ancillary services</li><li>• Future market operator</li></ul>	<b>Trading Center</b> <ul style="list-style-type: none"><li>• OTC Bilateral Trading</li><li>• Futures</li><li>• Eventually DAM (2008)</li><li>• &amp; Clearing</li></ul>	<b>Energy Information Center</b> <ul style="list-style-type: none"><li>• Collection, analysis &amp; reporting of market info</li><li>• Workshops/training</li><li>• LT forecasts (G&amp;T)</li></ul>



## HISTORY OF THE ATHENS PROCESS FROM INTENT TO AN ACTUAL BINDING AGREEMENT

- Declaration of intent for the creation of a Regional Energy Market for Southeast Europe 10 September 1999, Thessaloniki, Greece;
- Athens Memorandum of agreement (2 June, 2002, Athens, Greece);
- 2<sup>nd</sup> Memorandum of Agreement (8 December 2003, Athens, Greece);
- Signing of the Agreement for Southeast European Energy Community (25 October, 2005, Athens, Greece)
- 8 February 2006 – Bulgarian Parliaments adopts the Act for ratification of the Agreement;
- 30 June 2006 – The Croatian Parliament adopts the Act for ratification of the Agreement;
- 1 July 2006 - the Agreement is enacted.



## ENACTING THE AGREEMENT

- Create an integrated market for electricity and natural gas
- This integrated market could later embrace other energy products, fluid natural gas, petrol, hydropower, etc.
- Create a solid regulatory and market framework which encourages investments
- Create unified regulation for trade with gas and electricity
- Increase the security of the supply within the unified regulated regional market space
- Access to Caspian, North-African and Middle eastern natural gas reserves
- Obligation of the countries to improve the environment
- Expand competition on the gas and electricity market and utilize economies of scale
- Introduce specific rules which will ensure unified regulation that will alleviate trade with gas and natural gas.



## ENACTING THE AGREEMENT

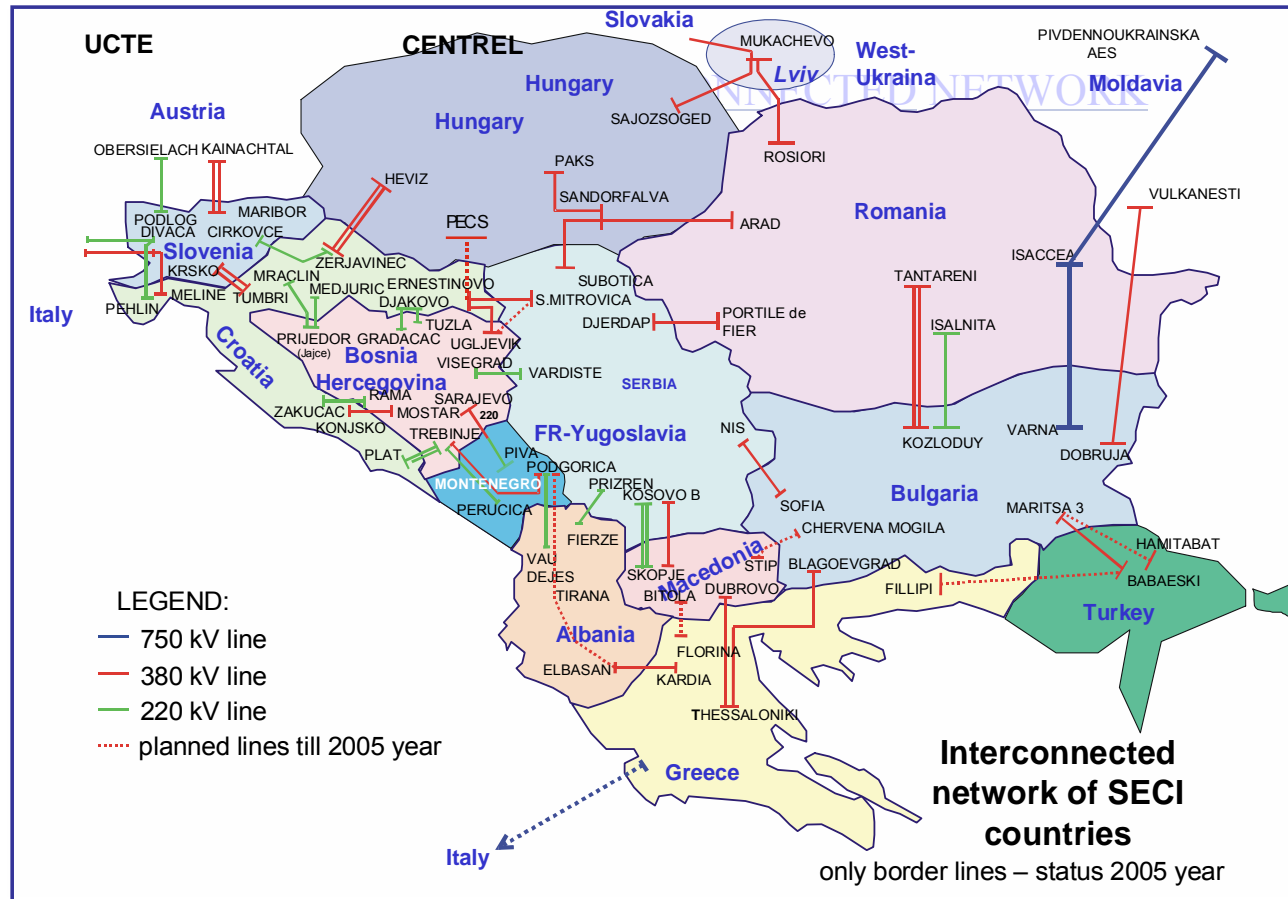
- Enforce European Union legislation (ACQUIS) in the following areas:
  - Energy (Directive 2003/54 EC, Directive 2003/55 EC, Regulation 1228/2003)
  - Environment: (Kyoto Protocol, Directive 96/61/EC )
    - Directive 1985/337/EEC – environmental impacts of public and private projects
    - Directive 1999/32/EEC – reduction in the sulphur content of liquid fuels
    - Directive 2001/80/EC – LCPE
    - Directive 79/409/EEC – protection of wild birds
- Competition:
  - Agreements – on prevention, restriction or distortion of competition
  - Abuse of dominant market position
  - Public support which distorts competition
- Renewable energy sources (Directive 2001/77/EC and 2003/30/EC)





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## REGIONAL ELECTRICITY INTERCONNECTIONS IN SEE



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**EXCHANGE SOUTHEAST EUROPE**

— Existing Interconnections  
 → 2004 Exchange in GWh

The map displays the following countries and their 2004 exchange values (GWh):

- UA (Ukraine):** 282 (to RM)
- RM (Romania):** 424 (to BG), 194 (to HG), 2014 (to SB), 732 (to BG), 999 (to BG)
- BG (Bulgaria):** 3632 (to TK), 102 (to MD), 516 (to GR)
- TK (Turkey):** 1424 (to GR), 191 (to GR)
- GR (Greece):** 1424 (to TK), 191 (to TK), 516 (to BG), 102 (to MD)
- MD (Moldova):** 833 (to BG), 102 (to BG)
- SB (Serbia):** 1907 (to BG), 22 (to RM), 8 (to BG), 731 (to BiH), 1499 (to BiH), 1039 (to HG), 394 (to HG), 31 (to HG), 194 (to RM)
- BiH (Bosnia and Herzegovina):** 731 (to SB), 1499 (to SB), 2099 (to CR), 5130 (to HG), 5437 (to SL), 234 (to SL), 1785 (to SL), 6177 (to SL), 2002 (to SL), 919 (to CR), 2099 (to CR)
- CR (Croatia):** 919 (to BiH), 2099 (to BiH)
- SL (Slovenia):** 6177 (to BiH), 2002 (to BiH), 234 (to BiH), 1785 (to BiH), 5437 (to BiH)
- HG (Hungary):** 394 (to SB), 31 (to SB), 194 (to RM), 5130 (to BiH), 5437 (to SL), 234 (to SL), 1785 (to SL), 6177 (to SL), 2002 (to SL)
- AB (Albania):** 151 (to SB), 205 (to GR), 1424 (to GR), 191 (to GR)
- GR (Greece):** 1424 (to TK), 191 (to TK), 516 (to BG), 102 (to MD)
- Other countries shown:** A (Austria), I (Italy), Udine, Beceasaba, Nadab, Sandorfalva, Heviz, Pecs, Subotica, Sombor, Arad, Mitrovica, Ernestinovo, Zetjavine, Cirkovce, Dvornik, Meline, Tumbri, B. Luka, Ugljevik, Mostar, Konjisko, Trebinje, Plojevo, Ribarevina, Pazarica, Kosovo, Sup, Skopje, Bitola, Dubrovo, Kardja, Thessaloniki, Filippi, Hamitabar, Babueski, Maritsa, Sofia, C. Alagata, Kozlevo, Tintareni, P. de Fier, Djerdap, Nis, Varna, Dobruja, Isaccea.

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### PRODUCTION FORECASTS FOR THE REGION

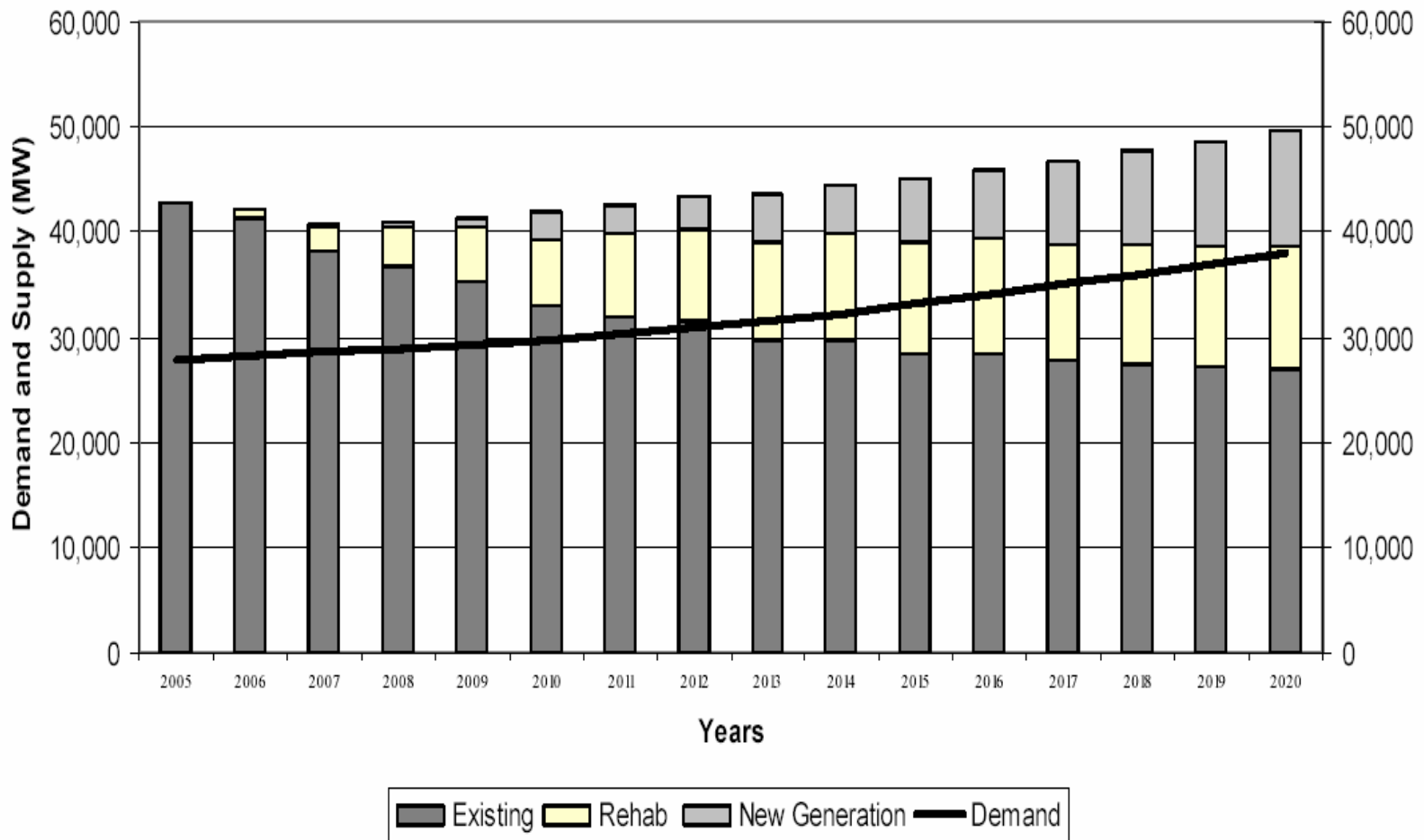
	Forecast System Net Capacity (GW)			Forecast Capacity Increase (%)
	2005	2010	2020	2005 - 2020
Bulgaria	9.38	9.40	9.44	1%
Serbia (excluding UNMIK)	7.20	7.83	8.31	15%
Romania	14.04	13.42	16.57	18%
Bosnia and Herzegovina	3.49	3.54	4.22	21%
Croatia	3.75	4.27	5.03	34%
FYR Macedonia	1.46	1.70	2.79	91%
UNMIK	1.07	0.91	2.12	99%
Albania	1.45	2.30	3.26	125%
Montenegro	0.45	0.86	1.41	213%
<b>SEE Total</b>	<b>42.28</b>	<b>44.22</b>	<b>53.16</b>	<b>26%</b>

*Source: The European Union's CARDS programme for the Balkan region – Contract No. 52276, REBIS: GIS, Draft Final Report, 31 December 2004, section 3a.*



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## DROPPING OUT OF CURRENT CAPACITIES, REHABILITATION AND DEVELOPMENT OF NEW GENERATING CAPACITIES COMPARED TO CONSUMPTION IN 2005-2020



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## “NABUCCO” PROJECT



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## REGIONAL MARKET CONCEPT

- **Standardization of the bilateral agreements**
- **Solid and consistent legal framework – licenses and rates**
- **Solid and consistent market framework**
- **Rules for trans-border trade**
- **Energy exchange markets**
- **Reciprocity**
- **Intolerance for discrimination**
- **Requirements for market liberalization**
- **Generation Authorization**
- **Requirements for supply security**
- **Settlements**
- **Dispute resolution**
- **Parties responsible for balancing**



## REGIONAL MARKET CONCEPT

- **Increase of transferable opportunities of inter-system connections**
- **Monitoring of the regional market**
- **Coordination and cooperation of investment policies**
- **Diversification of supply sources (renewable, additional gas sources)**
- **Reasonable regional reserve capacity**
- **Agreements for purchase of energy and long-term concessions for distribution of natural gas**
- **The European Federation of Energy Traders (EFET) is a strong advocate for traders**
- **Credit reliability**





## **RESPONSIBILITIES OF THE ENERGY COMMUNITY REGULATORY BOARD (ECRB)**

- The Regional Regulating Agency makes statements on the model and structure of the energy market**
- Coordinates with the national regulating agencies the adoption of market measures**
- Approves technical and regulating rules for the region**
- Approves appropriate measures for long-distance transportation of energy, security of supply, guarantees for public services, harmonization and security measures**
- Monitors the technical and regulating rules**
- Monitors the separation of transfer and distribution**
- Adopts minimal criteria for licensing**
- Resolves disputes**
- Reports to the European Commission on the functioning of the market**





# STATE COMMISSION ON ENERGY AND WATER REGULATION (SCEWR)

## ROLE OF THE REGULATING AGENCY IN A COMPETITIVE ENERGY MARKET





THANK YOU FOR YOUR  
ATTENTION!

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