



# *District heating in Bulgaria*

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commissioner

May 18-24, 2002

Newark, New Jersey – Washington, DC, U.S.A.



# District heating in Bulgaria

- **21 District heating companies**
- **9 companies with combined heat and power production**
- **More than 40 years experience**
- **570 000 dwellings**
- **1.650 mill. People – 20% of population**
- **Public buildings with a heating volume equal to 240 000 normal dwellings**

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## District heating companies in Bulgaria





# Heat and power production from CHP

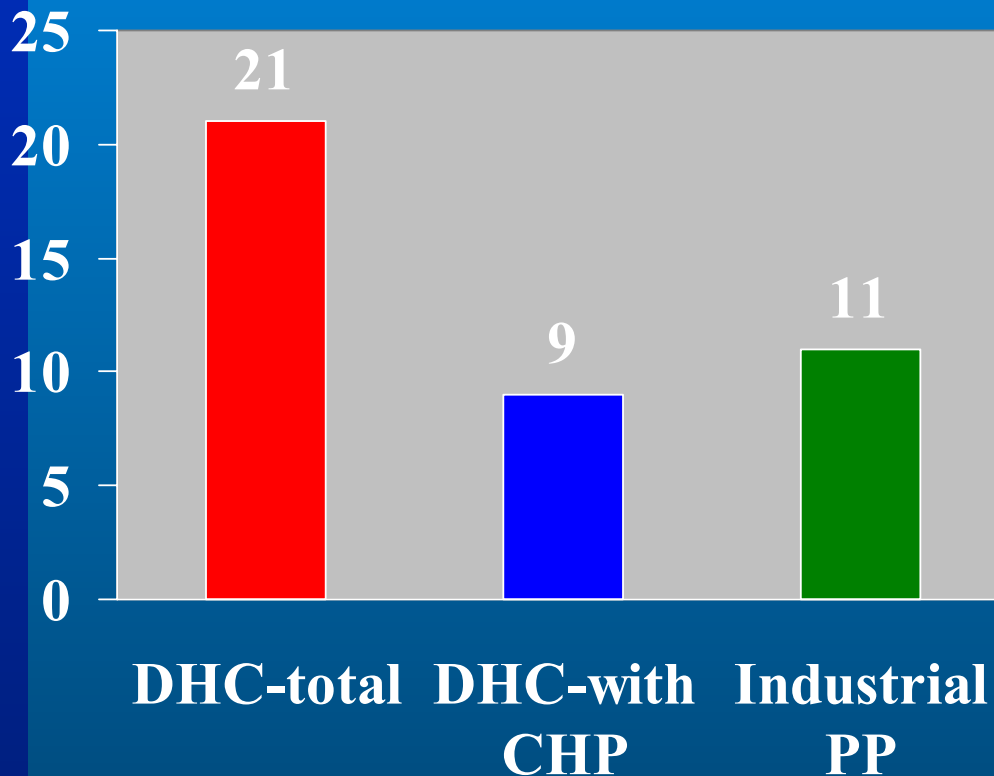
- **1900 GWh/year power production**
- **12 000 GWh/year heat production**
- **1,4 billion m<sup>3</sup> natural gas**
- **1 million tones of coals**
- **160 000 tones of heavy fuel oil**
- **18 % transmission losses**

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## Companies with combined heat and power production

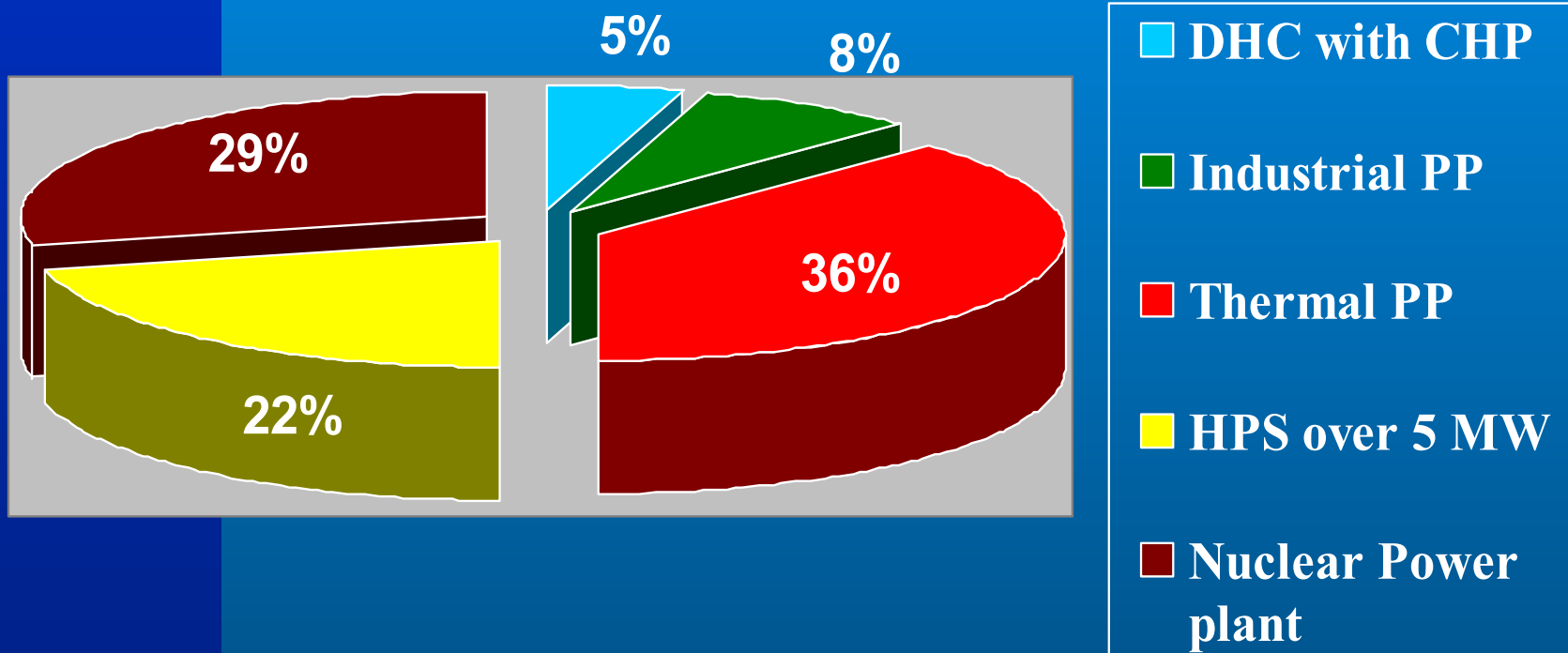


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## Shares of CHP companies in power production (installed capacities)

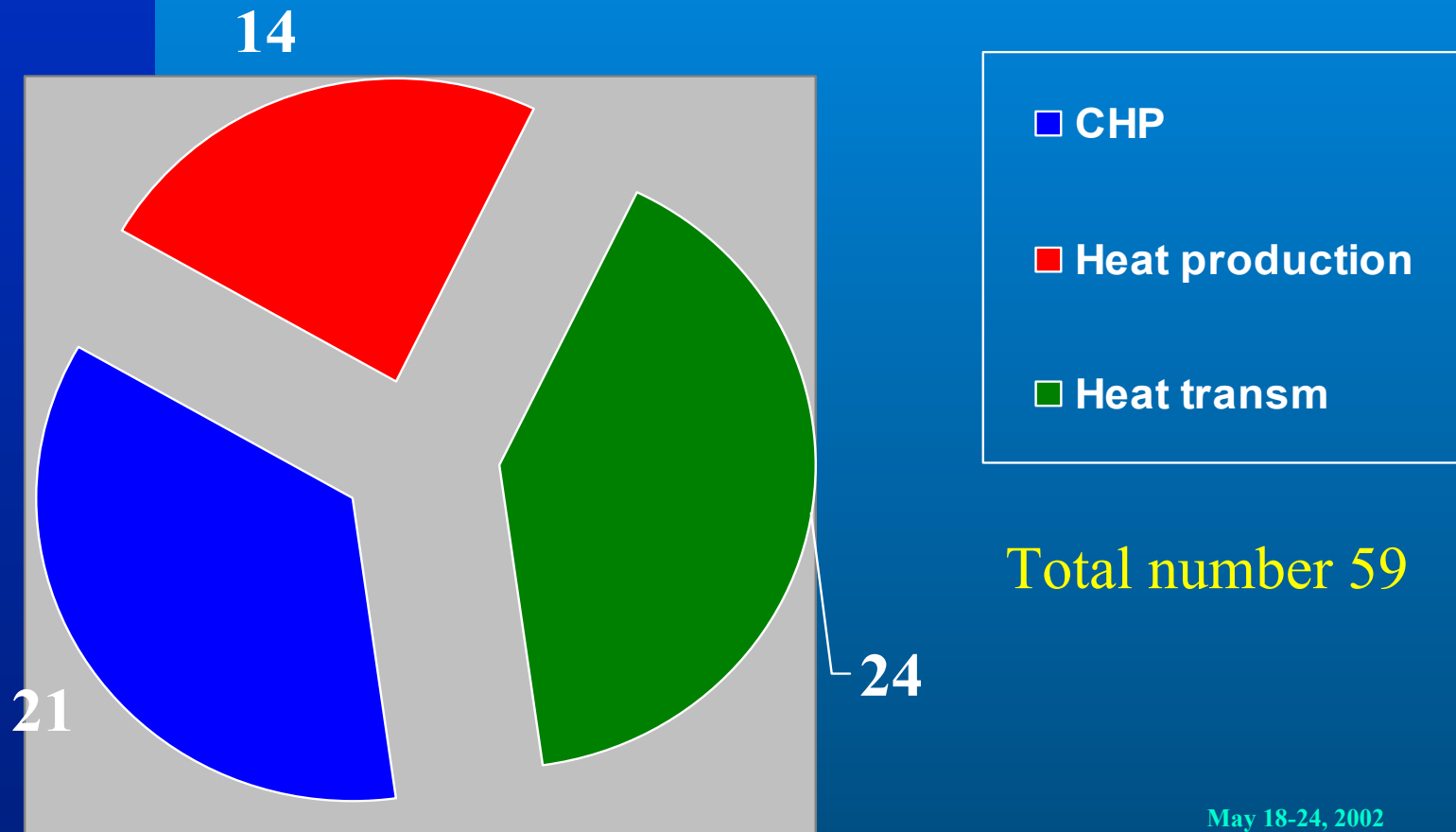


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## Licenses in the heat sector issued by SERC



Total number 59

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## **Changes in the heat energy market 1990 - 2002**

- **Decreasing consumption of heat in the industry – 16 times for 12 years**
- **Decreasing consumption in the social and public sector – 2,5 times**
- **Increasing consumption of heat till 1995, and subsequent decreasing up to now**
- **Rising requirements for quality from the side of consumers**

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## **Secondary legislation concerning heat energy sub sector**

- **Ordinance on permits and licenses –**  
companies with heat power 1 MW and higher, and  
companies with electric power 5 MW and higher are to be  
licensed by SERC
- **Ordinance on heat supply –** regulates the relations  
between DHC and consumers
- **Ordinance on heat prices and tariffs –**  
regulates determination of heat prices and tariffs
- **Ordinance on power prices and tariffs –**  
regulates determination of prices and tariffs for electric  
power



## **Main technical and technological problems**

- **Small portion of heat production is generated by combined scheme**
- **High transmission losses**
- **Physically old and worn out equipment**
- **Low energy efficiency in residential buildings**
- **High heat losses in the building heat installations**



## Energy Strategy

### Technical measures for Rehabilitation

- **Modernization of substations – 20% lowering of expenses expected**
- **Rehabilitation of the heat transmission network  
- 10% lowering expected**
- **Rehabilitation of heat sources in order to guarantee a safe and reliable operation - 2–10% lowering expected**
- **Completing the implementation of the system of heat accountancy**
- **Implementation of information systems for management and control**



# Energy Strategy

## Economical measures

### ➤ Stopping the subsidies :

- ❑ *DH Companies will work normally with possibility for investment and lowering their expenses*
- ❑ *Creation of stimuli for energy saving*
- ❑ *Companies will become attractive for investors*

### ➤ Improving the management of Companies

- ❑ *Capable specialists*
- ❑ *Increasing the qualification of employers*
- ❑ *More active participation of municipal authorities and other organizations interested in progress of district heating companies*





# Energy Strategy

## Economical measures

- Program for priority investments:
  - ☐ *From the government – before completing the privatization process*
  - ☐ *From private investors – after completing the privatization*



## Energy Strategy Social activities

- **Guarantee for price accessible power**
- **Implementation of new forms for social help, including social tariffs**
- **Facilitate the access to more economic forms of heating**
- **Increasing the energy efficiency measures, causing lowering of the bills**



## Energy Strategy

### Key activities

- **Government guarantee for financing urgent investment projects**
- **Improving the management of DHC**
- **Further introducing units for individual measuring and regulation of heat**
- **Draw the attention of private investors**

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## **Expected results**

- **Strategy for privatization of thermal plants – end of 2002**
- **New energy law – up to 03.2003**
- **Rehabilitation of DHC – end of 2003**
- **Privatization of DHC – up to 2005**

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**Thank you for the attention**

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