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&  
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# **Natural gas infrastructure and market development in Croatia**

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## Content Overview

- Natural gas infrastructure development
  - Transport system
  - Storage facilities
  - LNG terminal
  - Distribution system
- Gas Market Development in Croatia
  - Legal framework
  - Market opening





**Natural gas infrastructure development**

# Development of transport facilities

## – PLINACRO's (TSO) plan of development



➤ TSO's plan for development 2001 - 2011 approved by MOELE in two phase (2001-2006; 2007-2011)

➤ Planned transport system sections in the second phase (2007-2011):

- Pula – Umag
- Kukuljanovo – Omišalj
- Lučko – Zabok
- Zabok - Rogatec
- D.Miholjac – Dravaserdahely
- Slobodnica – D. Miholjac
- Slobodnica – B.Brod
- Bosiljevo – Split
- Dugopolje – Ploče

➤ Possible transport system sections (after 2011):

- Ploče – Dubrovnik
- Dubrovnik – Igalo
- Slobodnica – Sotin
- Sotin – Bačko Novo Selo



# Development of storage facilities



## Operating and planned underground storage facilities:

### ➤ OKOLI

- **Operating** since 1987
- Capacity of 558 mil. m<sup>3</sup> with withdrawal capacity of 5,8 mil. m<sup>3</sup>/d

### ➤ OKOLI 2

- **Possible** additional 500 million m<sup>3</sup>

### ➤ BENIČANCI

- **Possible** storage capacity 400 million - 2 billion m<sup>3</sup>



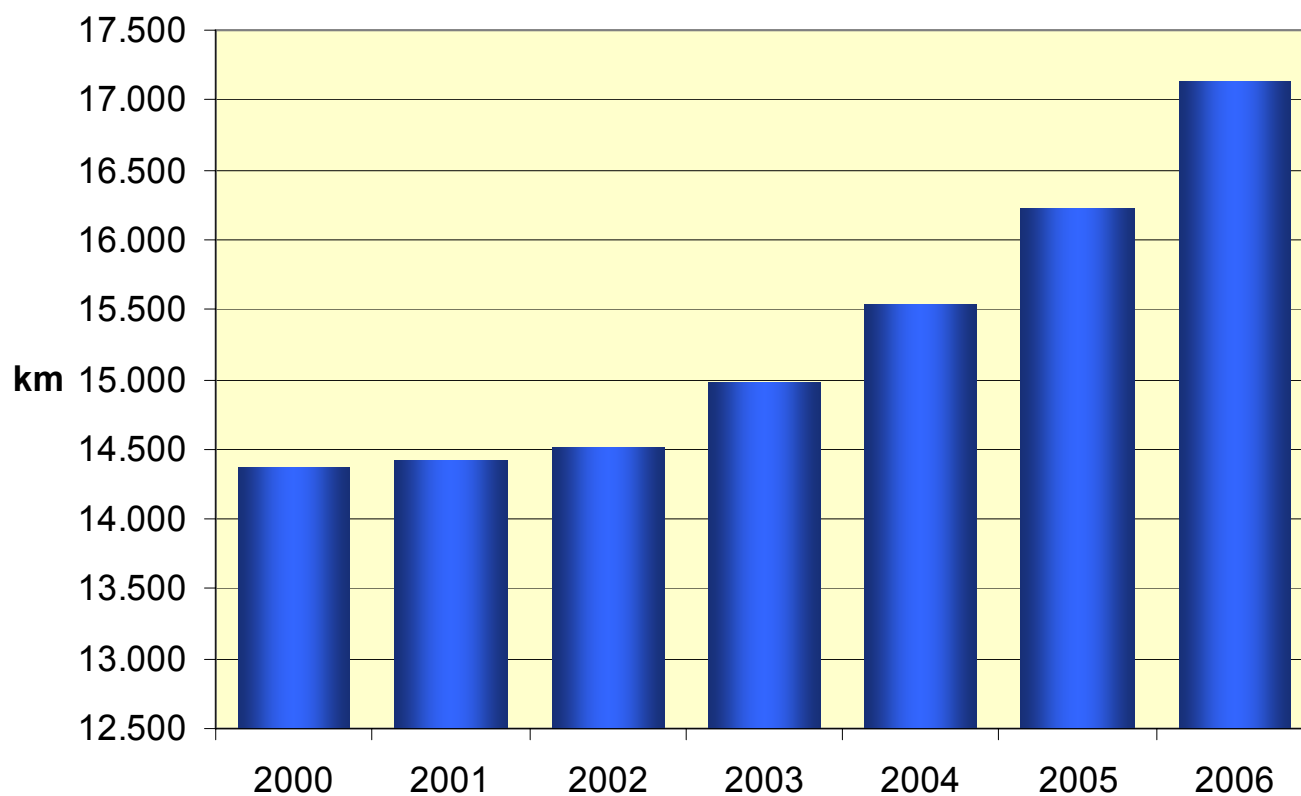
## Development of LNG terminal – Adria LNG project

- Adria LNG; international consortium of 7 companies (foundation planned for 2007)
- Development of project in 5 - 7 years.
- Finishing project according to available capacities;
  - the first phase: 5-6 billion m<sup>3</sup>,
  - the second phase: 14 billion m<sup>3</sup>.



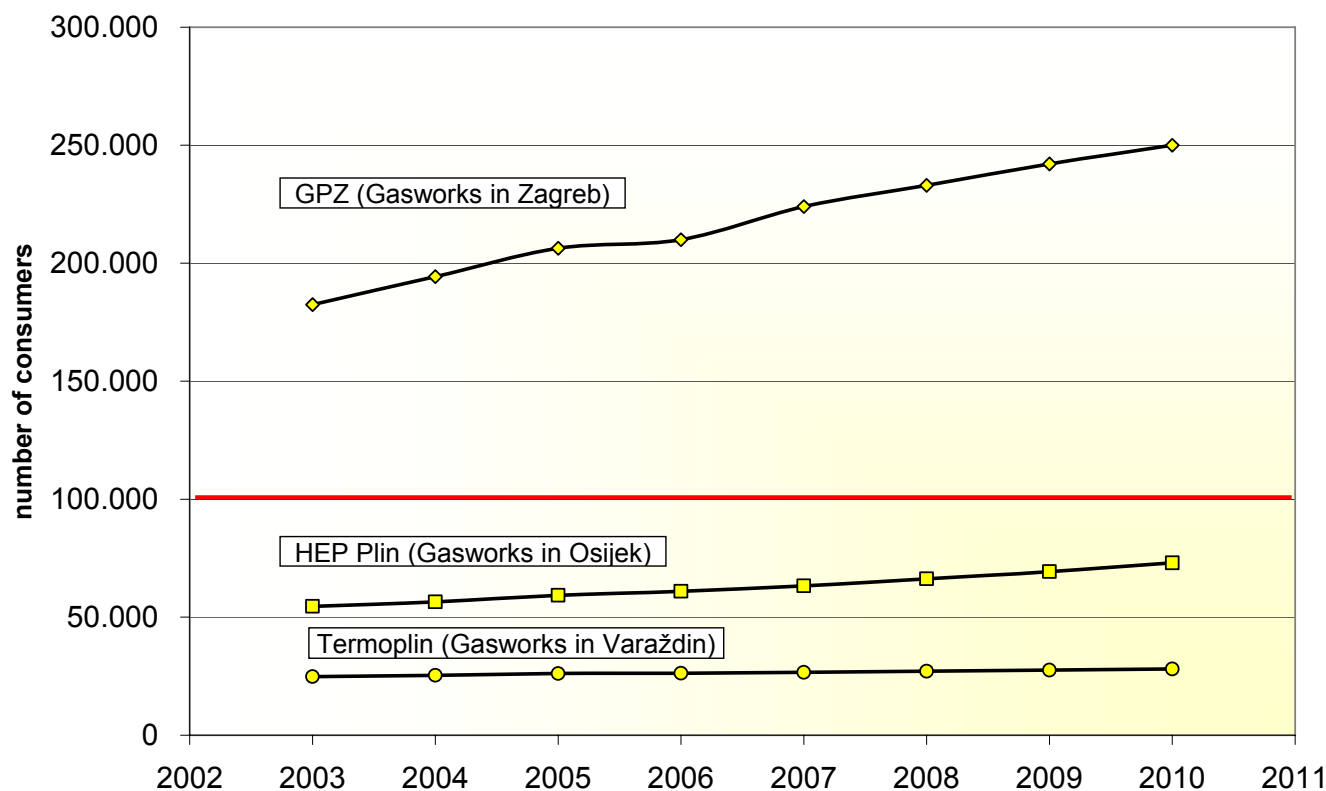
# Development of distribution network

## Total length of distribution network



# Development of distribution network

## Number of consumers for three leading distribution companies



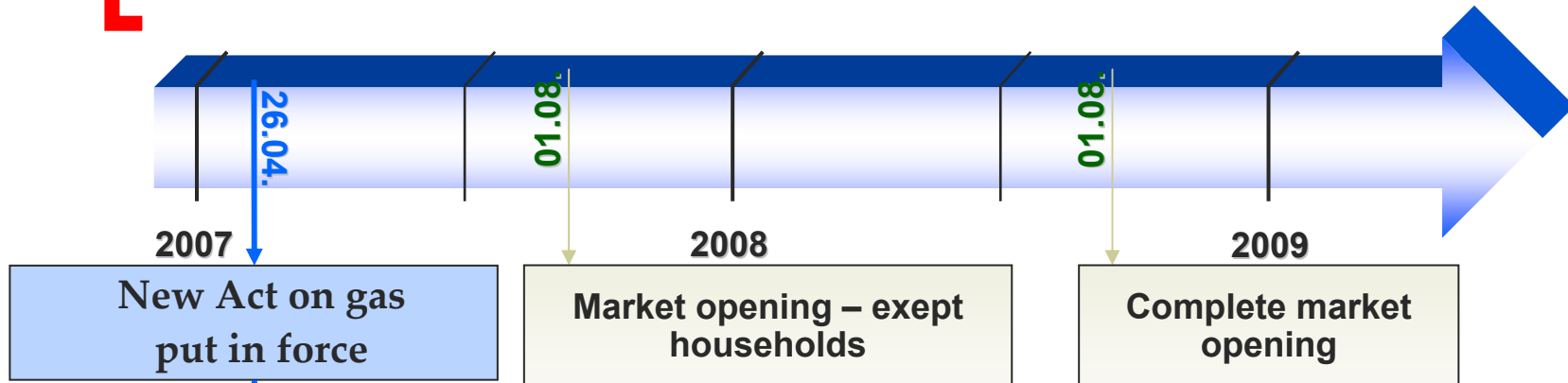




# Gas Market Development in Croatia



# Legal framework



The Rulebook on the Natural Gas Market Organisation (+6m)

The Decree on Security of Natural Gas Supply (+12m)

Grid Code for Natural Gas Transportation (+12m)

Grid Code for Natural Gas Distribution (+12m)

General Conditions for Gas Supply (+12m)

Connection Charge Code (+18 m)

Tariff systems (+12m)



# Natural Gas Market Opening – until 2006.

The status of the eligible customer, pursuant to the Act on the Gas Market (NN 68/01 and 87/05), Article 12, has been granted to the following gas customers:


- For electricity production, regardless of the annual consumption (HEP - 578 million m<sup>3</sup>)
- For synchronous production of electricity and heat energy, regardless of the annual consumption (Pliva, Savski Marof - 14 million m<sup>3</sup>)
- Customers who buy gas for their own purposes exclusively with annual consumption of more than 100 million m<sup>3</sup> of gas (Petrokemija Kutina - 528 million m<sup>3</sup>)
- Customers who carry out the activity of production of crude cast iron, steel and ferroalloy, with annual production of at least 50,000 tons of crude steel (Sisak Ironworks – 13 million m<sup>3</sup>)

In 2006 the total gas consumption in the Republic of Croatia has come up to 2,683.5 million m<sup>3</sup> - the declarative gas market opening was **44,5%**.



# Natural Gas Market Opening - according to new Act on the Gas Market (OG 40/07)

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- Consumer that uses gas for electricity generation in own facility  
(HEP - 578 million m<sup>3</sup>)
- Consumer that uses gas for synchronous generation of electricity and heat energy  
(Pliva, Savski Marof - 14 million m<sup>3</sup>)
- Consumer with the consumption of more than **25 million m<sup>3</sup>** of gas  

- Consumer that uses gas for carrying out the activity of production of crude cast iron, steel and ferroalloy, with annual production of at least 50,000 tons of crude steel  
(Sisak Ironworks – 13 million m<sup>3</sup>)



## Consumers on transportation network with consumption (in 2006) over 25 mil.m<sup>3</sup>

1. Petrokemija Kutina
2. BELIŠĆE d.d., Belišće
3. DIOKI d.d., Zagreb
4. VETROPACK STRAŽA d.d., Hum na Sutli
5. SLADORANA d.d., Županja
6. VIRO TVORNICA ŠEĆERA d.d., Virovitica

The declarative gas market opening is **50,5%** (according to the total gas consumption 2,683.5 million m<sup>3</sup> in 2006)



# Natural Gas Market Opening

According to new Act on the Gas Market:

from **August 1, 2007** the status of eligible customer is granted to consumers that do not belong to the households' category,

☉ **35.250** consumer with total annual consumption of  
aprox. **2 billion m<sup>3</sup>**

from **August 1, 2008** the status of eligible customer is granted to all consumers, including households.



THANK YOU  
FOR ATTENTION!



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