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# **OPTIONS FOR THE DEVELOPMENT OF THE GAS INFRASTRUCTURE IN BULGARIA**

VIENNA ECONOMIC TALKS  
Development of gas infrastructure

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# The role of natural gas in the Bulgarian energy sector to achieve EU priorities and goals

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## EU priorities

- 🔸 Sustainable development through curbing climate change;
- 🔸 Competitiveness of energy markets;
- 🔸 Security of energy supply.

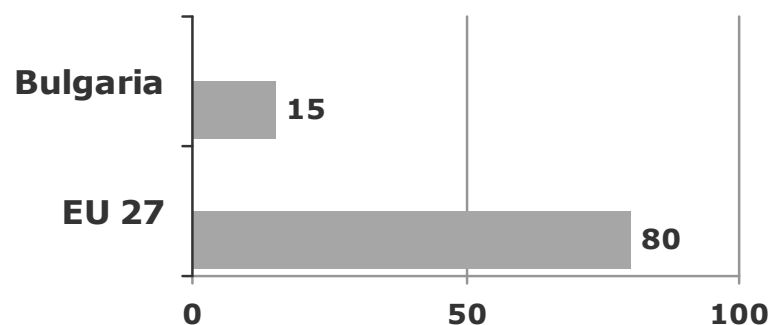
**The first priority – sustainable development** will be addressed with the help of a low-emission energy sector including mass consumption of natural gas;

**The second priority – Competitiveness** - consumer right to choose the type of energy and supplier. The first part has long been guaranteed in the EU;

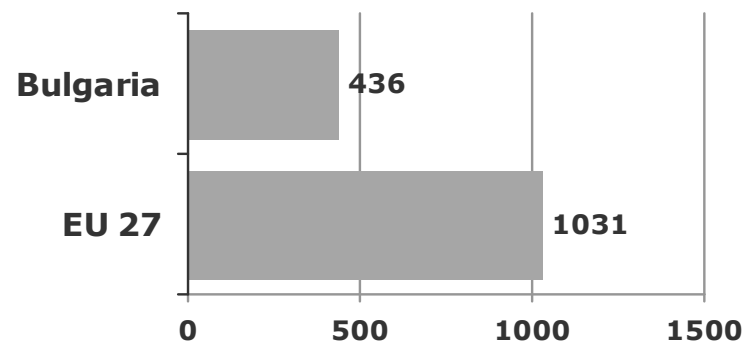
**The third priority – Security of supply** – guaranteeing supply through investment in underground storage facilities, new routes, new sources.

# Comparison of the Bulgarian gas market with EU average levels

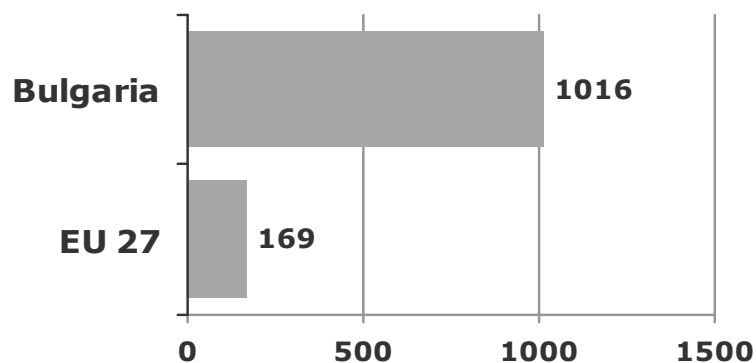
Share of the municipalities that have access to the gas distribution grid (%)



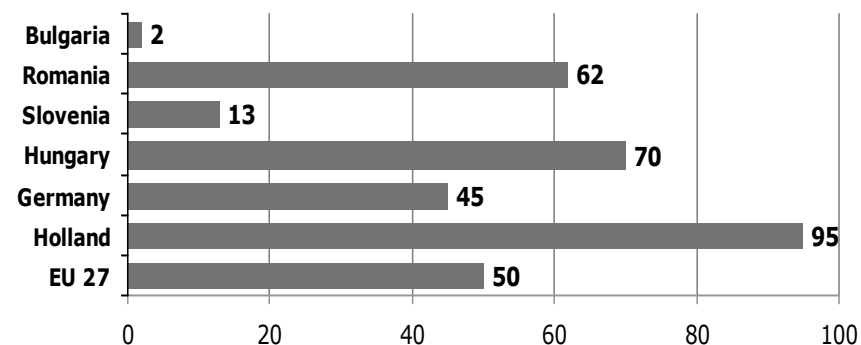
Natural gas consumption per person (in m<sup>3</sup>)



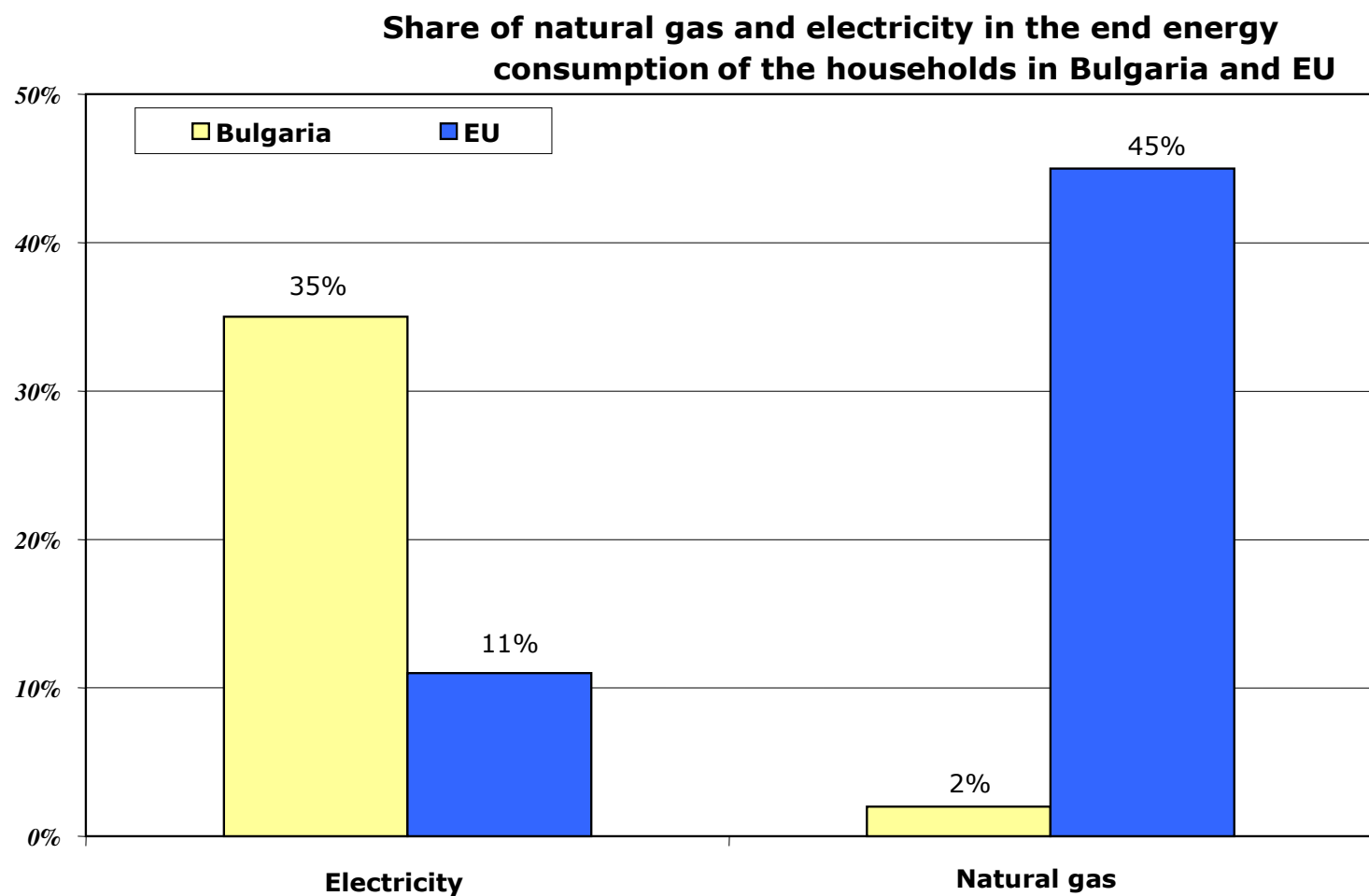
Energy intensives (Tne/thousand euro)



Housholds using natural gas (%)

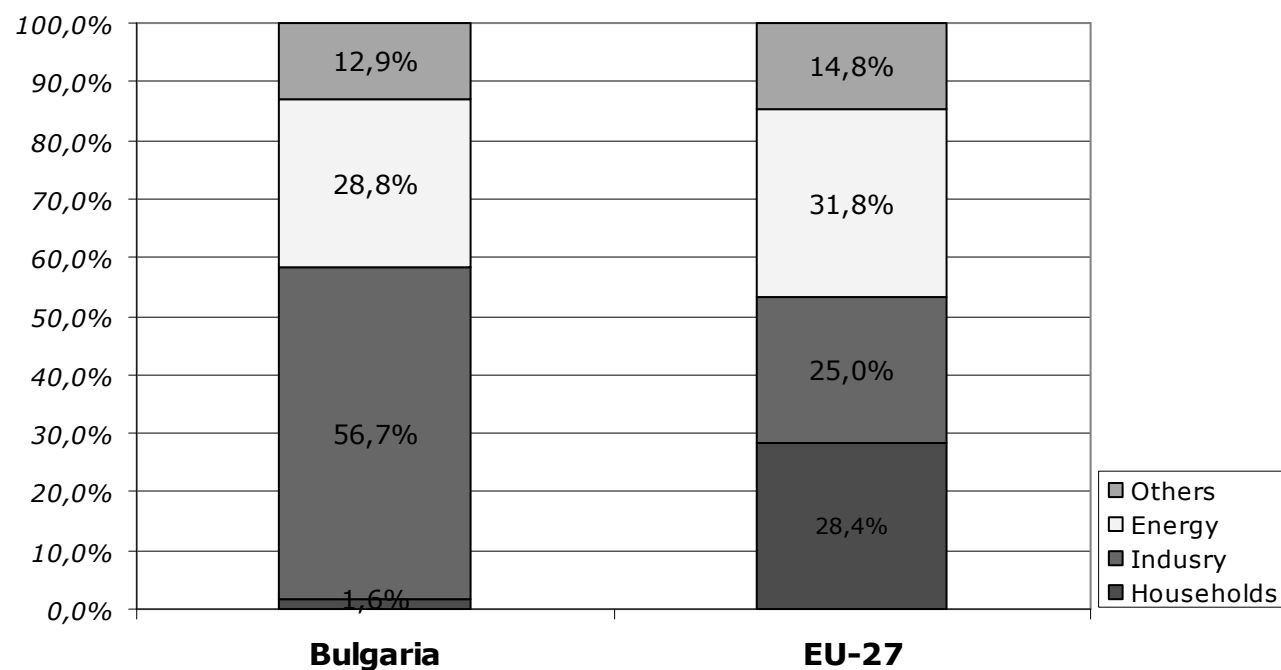


# Comparison of the Bulgarian gas market with EU average levels



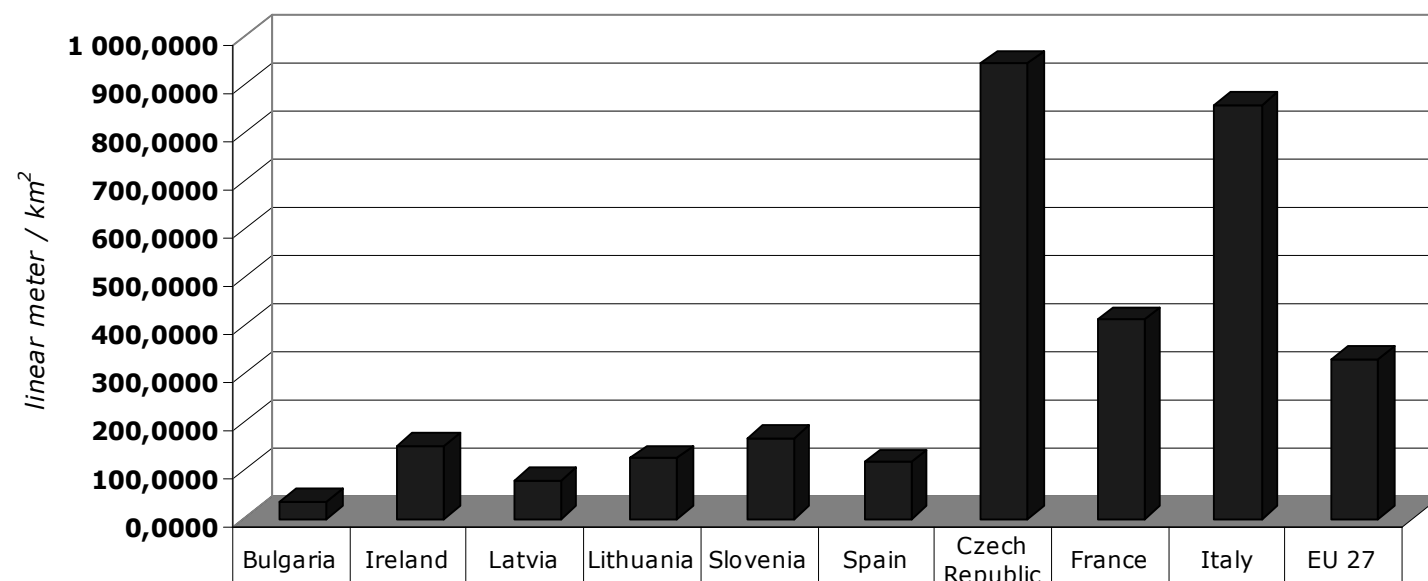
# Comparison of the Bulgarian gas market with EU average levels

Structure of natural gas consumption in EU and Bulgaria



# Comparison of the Bulgarian gas market with EU average levels

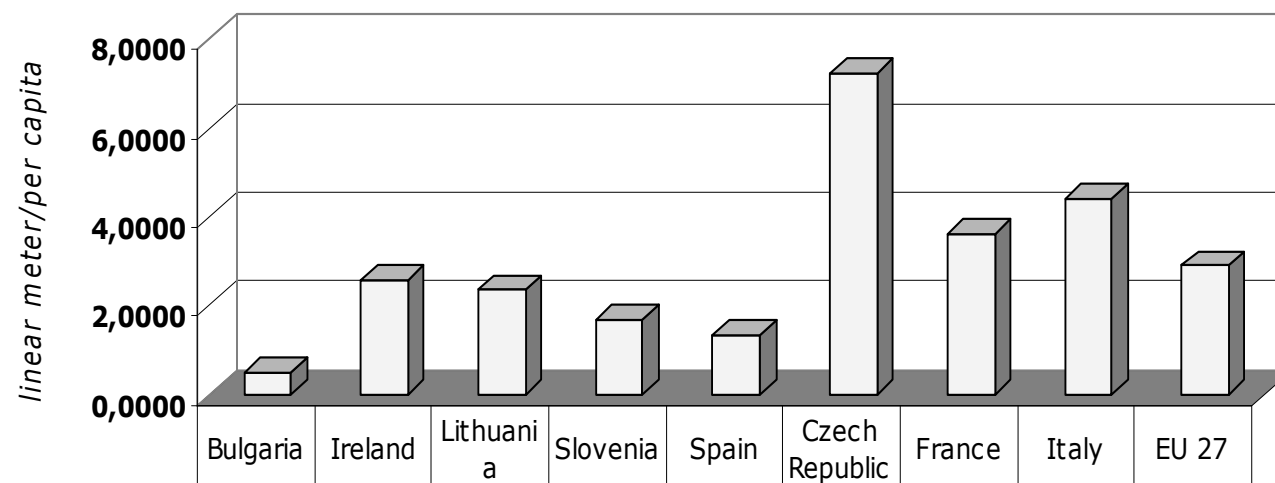
Development of the natural gas infrastructure in some European countries  
(length of the total gas infrastructure на 1 км<sup>2</sup>)



■ Development of the total gas infrastructure per unit area	34,2342	150,68	78,3008	124,668	167,218	116,799	943,842	412,179	856,866	330,785
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# Comparison of the Bulgarian gas market with EU average levels

Development of the natural gas infrastructure in some European countries  
(length of the transmission and distribution network per capita)



□ Length of the transmission and distribution network per capita	0,4923	2,5768	2,373	1,6922	1,3454	7,2614	3,6304	4,4163	2,8993
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# Comparison of the Bulgarian gas market with EU average levels

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## Conclusions

- ◊ The Bulgarian gas market still has emerging features;
- ◊ The differences between the Bulgarian gas market and EU average levels require a specific approach;
- ◊ Expansion of natural gas consumption is not a strategic objective on the agenda of the other EU member-countries. It has been long achieved there. This does not mean that Bulgaria must scrap it.

# National programme for accelerated gasification

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## Indicative targets:

- ◌ Gasification of 11 % of the country's population in the next five-year period – 20010 – 2014 and 30 % until 2020;
- ◌ Gasification of all industrial and public-administrative energy consumers in all built-up areas within 3 years from constructing local gas distribution and transmission infrastructure;
- ◌ Gasification of all new industrial facilities and residential buildings under construction.

# National programme for accelerated gasification

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## Parameters:

- ◊ Newly constructed transmission gas pipelines until 2020 – 3000 km reaching a total amount of about EUR 400 million – i.e. 275 km/y or 23 km/m on average;
- ◊ Investment in gas distribution networks until 2020 – about EUR 1 billion;
- ◊ Investment in gas installations and appliances until 2020 – about EUR 1.5 billion;
- ◊ Increase of natural gas consumption in the country up to about 6 bcm, which is about 750 m<sup>3</sup>/per capita, i.e. close to EU average.

# National programme for accelerated gasification

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## Expected benefits:

- ⦿ Reduction of energy intensity of primary energy consumption by about 6 % in 2020 against the current level – i.e. 1/3 of the target set for Bulgaria;
- ⦿ Reduction of total CO<sub>2</sub> emissions until 2020 by about 7.3 % - in the excess of 1/3 of the target set for Bulgaria;
- ⦿ Freeing of about 2000 MWt power generating capacities;
- ⦿ Increased competitiveness of all sectors.

# Brief overview of the market development up to now

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## Conclusion:

- ◊ The Bulgarian market requires a special approach in order to accelerate its development and make up for what has been missed in the last years;

# Guidelines for the development of the natural gas market in the country

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## Long-term plan for the transmission network development or:

- o Pursuant to the Energy Act it is the transmission entity that provides for the development of the transmission network;
- o The long-term plan for the transmission network development needs to be consistent with the SEWRC plan for issuance of new licences;
- o Prerequisites for the long-term plan for the transmission network development:
  - o Postage stamp principle;
  - o EFI;
  - o Income from transit and transmission.

# Guidelines for the development of the natural gas market in the country

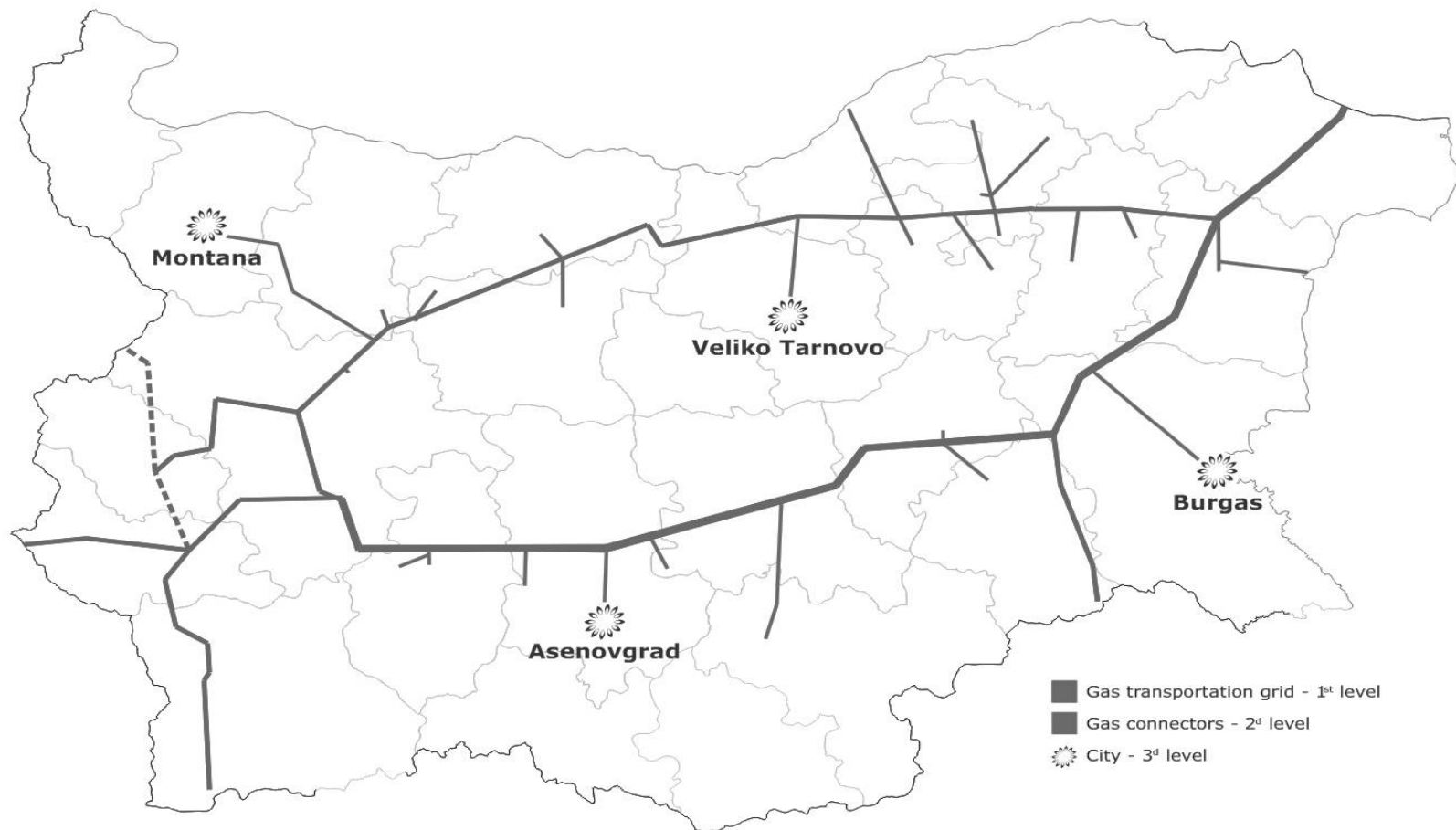
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## Change of the market model – alternative to the long-term plan of the transmission entity:

- ⦿ Transmission entity – carries out the activity of transmission along the transmission ring;
- ⦿ Regional distribution entity – carries out natural gas transmission along gas main branches to built-up areas;
- ⦿ Distribution entity – keeps its present role but with clear responsibilities within the specific built-up area only;
- ⦿ Three levels of postage stamp.

# Guidelines for the development of the natural gas market in the country

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# Guidelines for the development of the natural gas market in the country

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## Advantages of the new market model:

- o All differences between neighbourhoods, built-up areas, municipalities, districts and regions will be eliminated in the service pricing;
- o The Gas Main Branches in place – owned by different entities – initial capital of the new company;
- o Clearly defined roles of all market players on the basis of the same principles;
- o This entity may become a target beneficiary when developing a special programme or a priority axis for the development of gasification.

# VIENNA ECONOMIC TALKS

## Development of gas infrastructure

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**Thank you for  
your attention!**