Natural gas distribution networks in Bulgaria

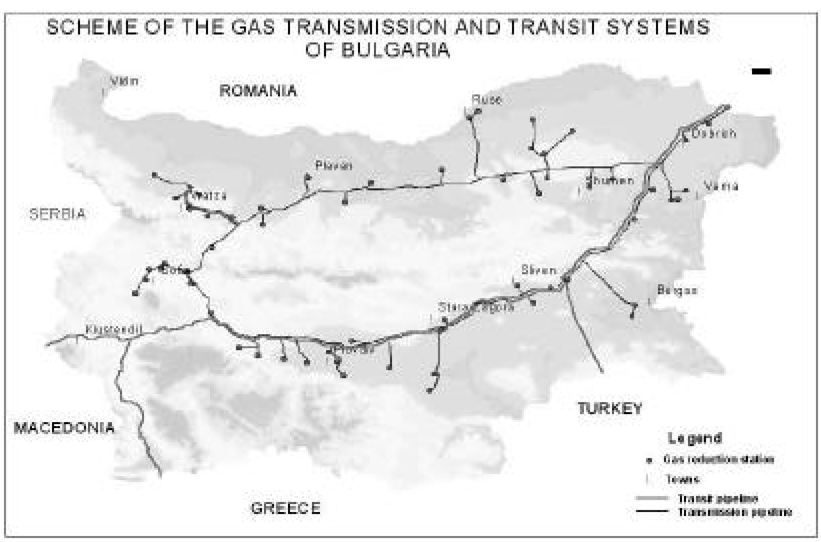
KOSTADIN BALACHEV
Director

Content:

1. **General description of the natural gas sector**
2. **Market structure**
3. **Specific regulatory aspects**
4. **Trends in the natural gas sector development**
5. **Natural gas transit projects**

1.General description of the natural gas sector

- Pipelines and deviations - 3 060 km
- 10 compressor points - 190 MW full capacity
- 170 natural gas regulatory stations on the territory of the country
- Capacity of the natural gas transmission network - 26 billion m^3

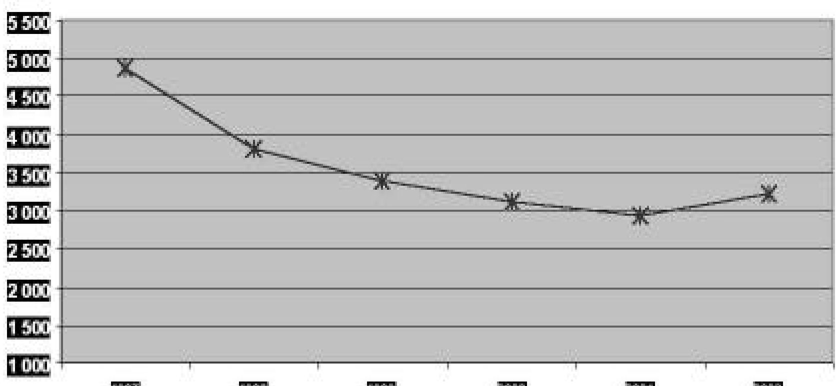


General description of the natural gas sector

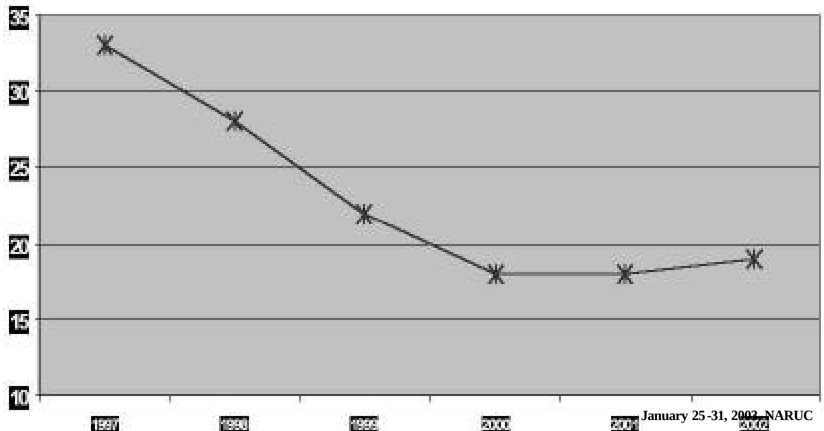
1.1. Import and local yield of natural gas for the period 1997 – 2002 (million m^3)

Year	1997	1998	1999	2000	2001	2002*
Import	4 856	3 824	3 381	3 186	3 150	3 200
Yield	33	28	22	18	18	19

1.1. Natural gas import for the period 1997 – 2002 (million m^3)



1.1. Local yield of natural gas for the period 1997 – 2002 (million m^3)



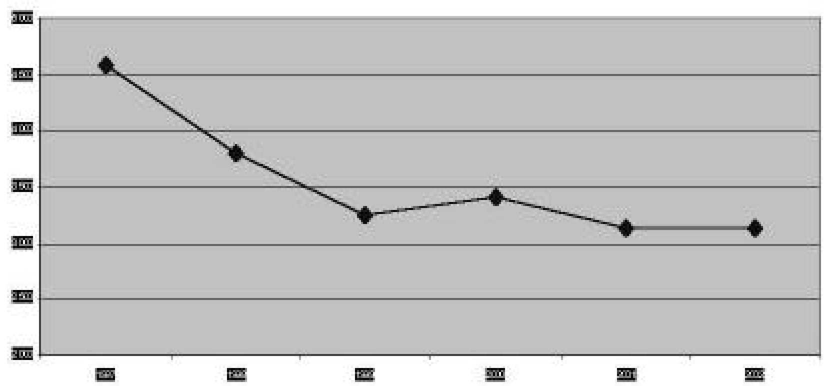
1.2. Transmission and storage

- **2 100 km – natural gas transmission network**
- **10 compressor points**
- **Capacity of the gas transmission network - 9 billion m^3**
- **Dynamics of the natural gas consumption for the period 1997 – 2002 (million m^3)**

1997	1998	1999	2000	2001	2002*
4 594	3 791	3 253	3 417	3 140	3 122

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Dynamics of the natural gas consumption for the period 1997 – 2002 (million m^3)

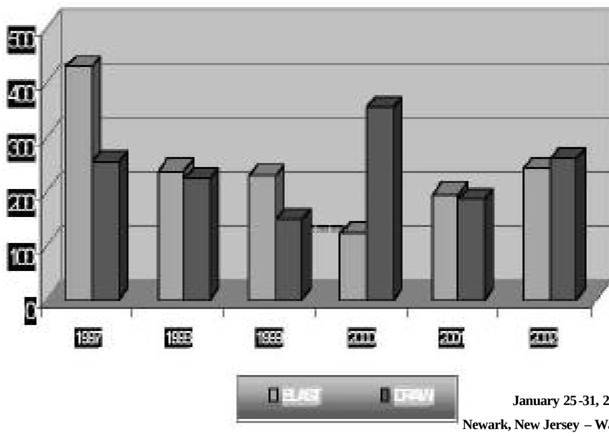


Natural gas storage

Underground storage of natural gas for the period 1997 –2002 (million m^3)

Year	1997	1998	1999	2000	2001	2002*
Blast	429	238	229	121	194	240
Yield	253	222	148	352	184	260

Underground storage of natural gas for the period 1997 –2002 (million m^3)



1.3. Natural gas distribution system

- **Natural gas distribution network -500 km**
- **29 gas distribution utilities in 36 municipalities**
- **Gas distribution utilities with small investment abilities**
- **Lack of links with the natural gas transmission network**

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

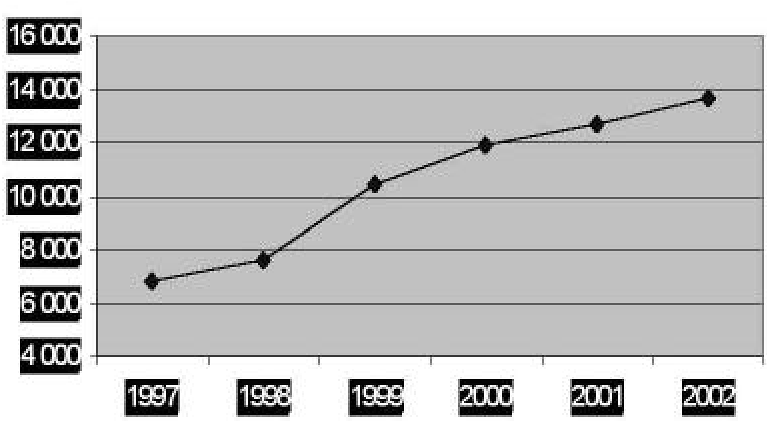
1.4.Transit natural gas pipelines to neighbouring countries

- **Transit for Turkey, Greece and Macedonia**
- **Transit natural gas pipelines - 960 km**
- **Compressor points -5**
- **Capacity of the transit system - 18 billion m^3**
- **Dynamics of the transit transmission of natural gas for the period 1997 – 2002 (million m^3)**

1997	1998	1999	2000	2001	2002*
6 863	7 550	10 415	11 893	12 731	13 700

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Dynamics of the transit transmission of natural gas for the period 1997 – 2002 (million m^3)



2. Market structure

2.1. Positions of Bulgargas on the gas market

2.2 Structure of the consumption

2.3 Gas distribution utilities on the market

2.1. Positions of Bulgargas on the gas market

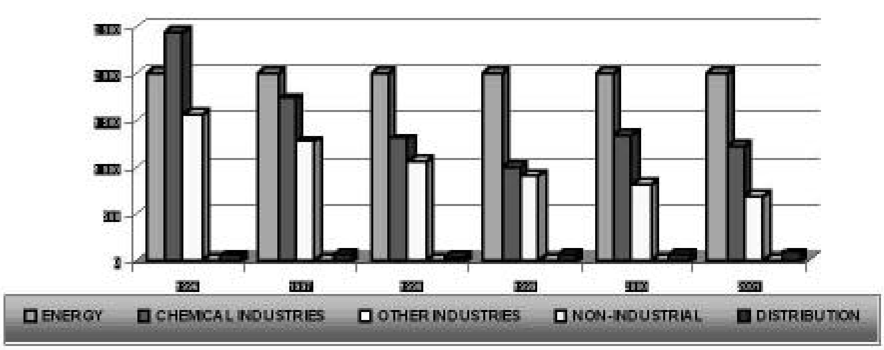
- **"Bulgargas" is a state vertically integrated company**
- **Long-term contract (2010) "Take or pay" for import with "Gasprom"**
- **Sole supplier of gas to certain consumers and the gas distribution utilities in Bulgaria**
- **Market share 97% - of the gas sector**
- **Owner of the gas transmission system, underground gas storage and a part of the gas distribution network**

2.2.Structure of the consumption

YEAR / CONSUMER GROUPS	1996	1997	1998	1999	2000	2001
ENERGY	1 665	1 524	1 379	1 336	1 167	1 136
CHEMICAL INDUSTRY	2 435	1 730	1 297	996	1 344	1 214
OTHER INDUSTRIES	1 562	1 264	1 064	915	821	694
NON-INDUSTRIAL	7	4	4	3	3	3
DISTRIBUTION UTILITIES	62	72	47	74	82	93
TOTAL	5 731	4 594	3 791	3 324	3 417	3 140

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

MAIN CONSUMER GROUPS FOR THE PERIOD 1997 –2001 (million m^3)



2.3 Natural gas distribution market

- **Insignificant market share – 3% of the annual consumption**
- **Service to small enterprises, traders and household users**
- **The potential of the gas market envisages a growth of up to 6.6 billion m^3 by 2010 , approximately 15% is for household/ commercial consumption**

3. Specific regulatory aspects on the natural gas market

- **Licensing of “Bulgargas”– vertically integrated company**
- **Licensing of the privatised gas distribution utilities**
- **Economic regulators in the gas sector**
- **Access to the gas transmission and gas distribution system**

3.1. Licensing of "Bulgargas"– a vertically integrated company

- License for transmission and storage of natural gas– operator of the gas transmission system
- Import of natural gas, regular payment for the deliveries
- Connecting to the gas distribution utilities and new consumers
- Problems as regards non-payment of consumers

3.1. Licensing of "Bulgargas"– a vertically integrated company

- Reliability and technical condition of the gas transmission system
- Short-term license for gas distribution to certain consumers
- License for transit transmission of natural gas, investment in the expansion of the transit system

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

3.2. Licensing of the private gas distribution utilities

- After 1999 the new energy act changes the regime-municipal concessions with regional licenses
- Ownership of the investor over the gas distribution network
- 36 regional licenses have been issued by municipalities to the concession companies
- The gas distribution utilities have an insignificant - 3% market share, in small municipalities with a very limited market

3.2. Licensing of the private gas distribution utilities

- Problems with investments and ownership. Development plans.
- Price policy – the distribution price does not cover the costs for gasifying small and medium consumers
- Competition of the gas for household needs with the subsidised heating and the low price of electricity

3.2. Licensing of the private gas distribution utilities

- Lack of experience and standards. Problems with the management of the gas distribution utilities
- Need of alleviating the procedures for the construction of network and internal installations.

3.3. Economic regulation of the gas sector

- As of 1.04. 2002 SERC adopts prices for the licensed gas utilities.
- The prices are cost-oriented.
- SERC defines the capital return rate of the utilities and the regulatory period – 8% for the transmission utility and 15% for the gas distribution utility.

3.3. Economic regulation of the gas sector

- Guarantees for return of the investments
- Single price of the transmission utility
- Regional price for the gas distribution utilities
- Normalisation of price levels and differentiation. Removal of the cross-subsidizing between consumer groups.

3.3. Economic regulation of the gas sector

- Cost analysis and increasing the effectiveness of the utilities
- Competition of the alternative fuel types

3.4. Access to the gas transmission and gas distribution systems

- Adoption of secondary legislation providing access to the gas transmission and distribution system.
- A step towards market liberalisation in line with the EU natural gas directive.
- Setting criteria for privileged consumers– 80 million m^3

3.4. Access to the gas transmission and gas distribution systems

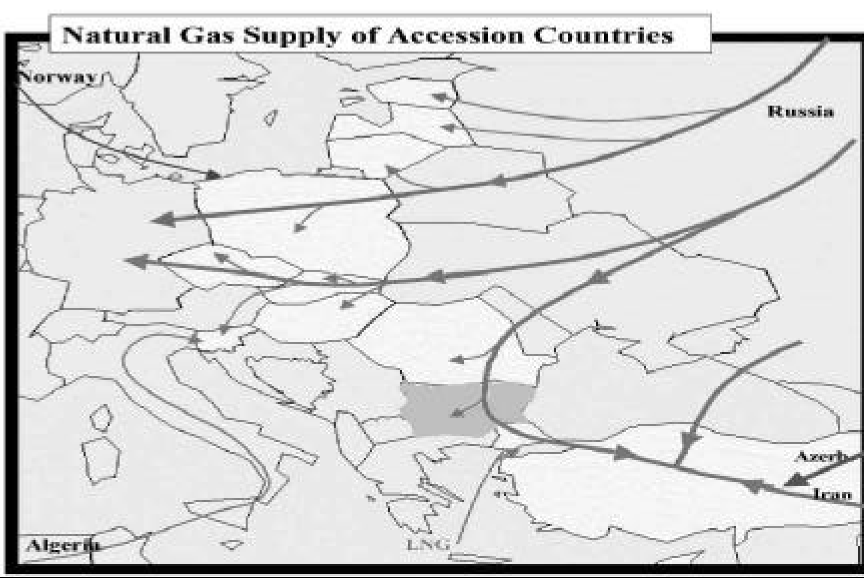
- Opening of the market– 75% , connected to the structure of consumption.
- Limiting the access of consumers with outstanding bills
- Providing guarantees for consumer interest protection– regulated transmission price, market rules and control exercised by SERC

4.1. Trend sin the gas sector development

- Security of the supply and reliability of the gas supply system
- Restructuring, privatisation, liberalisation of the market and a modification of the consumption structure
- Constructing new gas distribution networks
- Expanding the opportunities for natural gas transit to neighbouring countries

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Natural gas delivery at present in the Republic of Bulgaria



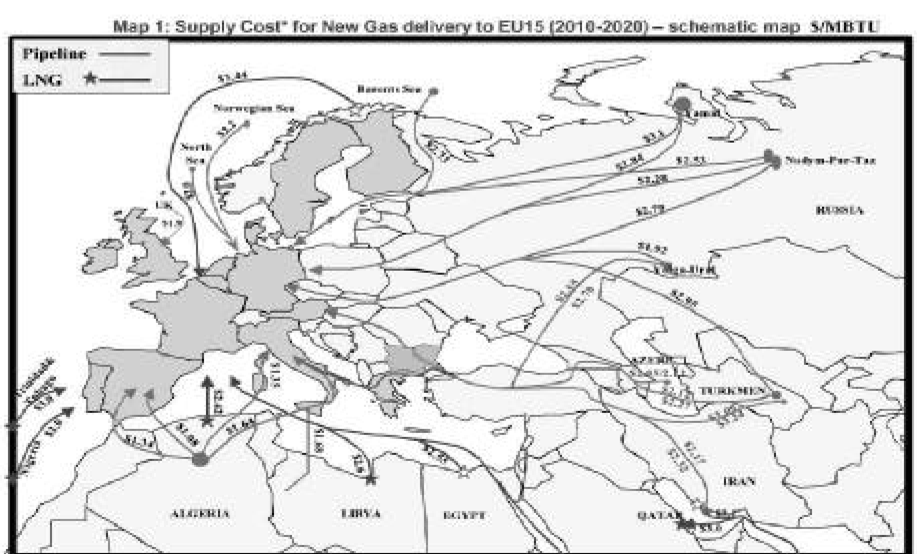
4.1. 1. Security of the delivery and reliability of the gas supply system

- **Strong dependence on Russia . Long-term contract till 2010– "Take or pay"**
- **Seeking opportunities for diversification of the deliveries**

1. **Import from Turkmenistan, Iran through Turkey**
2. **Increase of the local yield– "Galata" gas field – 2 billion m^3 (0.5 billion m^3)**
3. **Connection of the Bulgarian gas transmission network to the European one.**

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Future new gas deliveries for Europe (2010-2020)

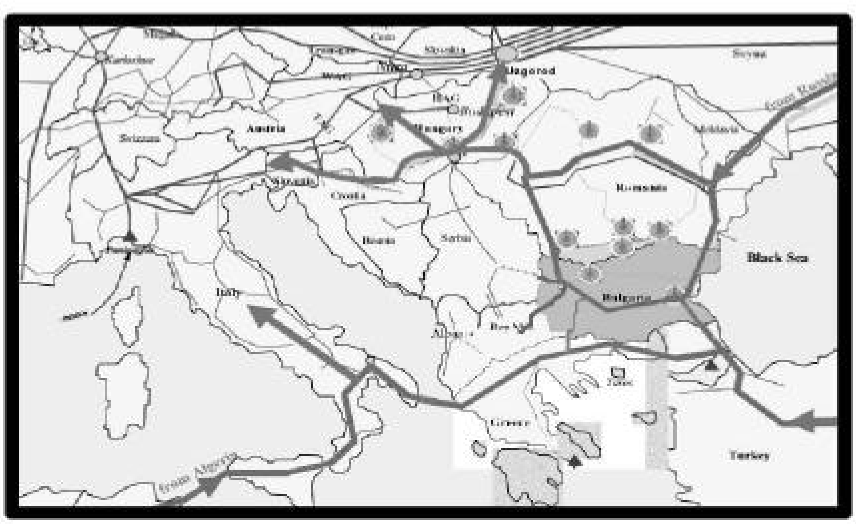


4.3. Construction of new gas distribution networks

- **Permits and licenses for transit transmission of natural gas through the territory of the country;**
- **Connecting to the gas distribution networks of neighbouring countries;**
- **Natural gas sale conditions;**
- **Access to the gas transmission and distribution networks;**

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Future gas transiting to Europe through the countries in the region



4.1. 1. Security of the deliveries and reliability of the gas supply system

- Expansion of the natural gas storages– Chiren and construction of new gas storages
- Investment in the maintenance and expansion of the transmission system

4.2. Restructuring, privatisation, liberalisation of the market and a modification of the structure of consumption

- Full accounting and internal division of the import , transmission and distribution network in Bulgargas
- Registration import regime
- Withdrawal of the transmission company from gas distribution – creating conditions for market equality

4.2. Restructuring, privatisation, liberalisation of the market and a modification of the structure of consumption

- **Privatisation of gas distribution**
- **Liberalisation of the gas market together with a process of diversification of deliveries**
- **Increasing the number of small and medium consumers of natural gas**

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

4.3. Construction of new gas distribution networks

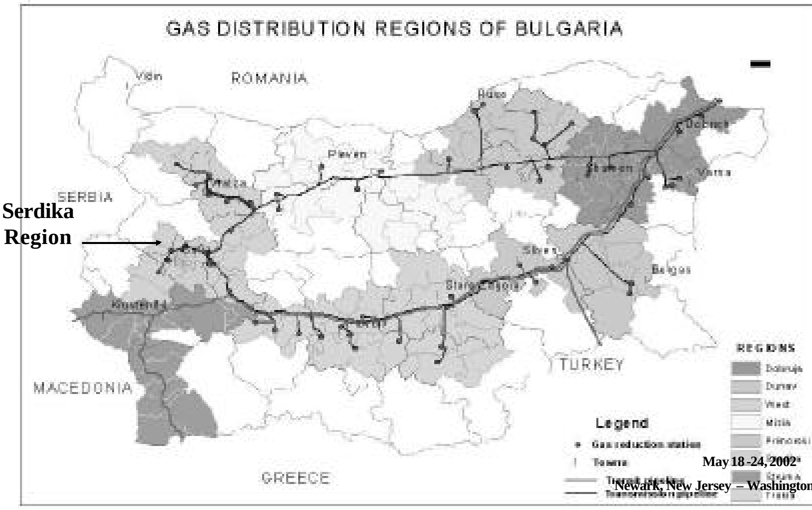
- **Forming stable regional gas distribution utilities**
- **Construction of new gas distribution networks in 8 regions**
- **Tender documentation is ready for the selection of an investor for the Serdika region;**

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Potential market – gas distribution regions

Regions for the gas distribution networks in the Republic of Bulgaria

Serdika Region



4.3. Construction of new gas distribution networks

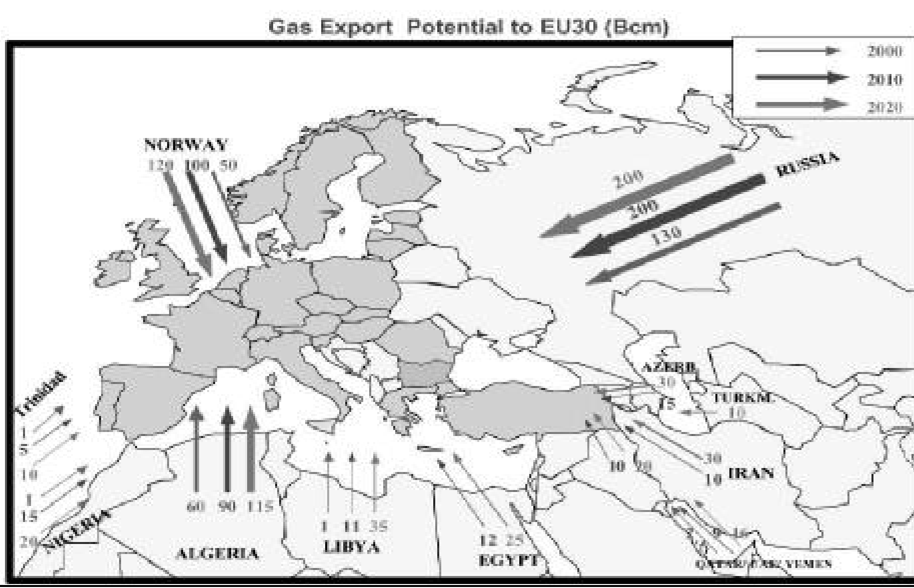
- **SERC won a subsidy from the WB for organising and holding of tenders for selecting an investor- transparent rules and clear criteria**
- **Issuing of long-term licenses for gas distribution–investment programmes**
- **Merging of municipal and regional utilities and creating a sustainable and balanced gas market**

5. Gas transit projects through Bulgaria

- Strategic position of Bulgaria
- Prerequisites for gas transit to Europe
- Competitiveness of the transit tariffs and political stability
- The Contract under the Energy Charter. Agreements between the countries in the region for gas transit to Europe
- Gas pipelines of Bulgaria from other sources
- Implementing EU directives;

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.

Gas export potential to ÅU30 (billion m^3)



Key issues:

1. **Measurements – accuracy class, ownership of the meters, control, etc. ;**
2. **Ownership over elements of the networks;**
3. **Relations with municipalities as regards the future gasification – data, charts and information needed for the holding of tenders;**
4. **Odorization of the gas – control and methods;**
5. **Household consumers- ways of initial subsidizing of the future consumers;**
6. **Main rules of the gas market.**

Thank you for the attention!

Kostadin Balachev

Tel: **+3592/980 34 21; fax: +3592/988 87 82**

Web site: **www.dker.bg** e-mail: **kbalachev.dker.bg**

January 25-31, 2003, NARUC
Newark, New Jersey – Washington, DC, U.S.A.