Ministry of Mining and Energy
Republic of Serbia
www.mem.sr.gov.yu

Serbian Gas Sector
Serbian Gas sector

- Capacities are over 6 billion m³ of gas annually
- Natural gas is supplied to app.
  
  1,000 industrial consumers
  155,000 households

SERBIAN GAS PRODUCTION  240 M m³
NATURAL GAS IMPORT  1.750 M m³
TRANSMISSION CAPACITY

- 6.100 mil. m³ per year
- Maximum working pressure 50 bar
- Total length of high-pressure pipeline is 2135 km
- Dimensions range from DN 150 to DN 750
- Average age of pipeline: 20 years

MIDDLE PRESSURE DISTRIBUTION NETWORK

- Maximum working pressure 16 bar
- 533 metering and regulating stations from 100 to 100,000 Sm³/h

LOW PRESSURE DISTRIBUTION NETWORK

- Maximum working pressure 4 bar
- Number of municipal gas distribution companies app 30
- Gasified households 155,000
- Material: steel and PE
GAS PIPELINE SYSTEM OF SERBIA

Current length 400 km

Current and potential supply routes

- Horgos (current)
- Mokrin
- Backa Palanka
- Macvanski Prnjavor
- Zvornik (current)
- Dimitrovgrad
- Kumanovo
- Bar - Bari
THE CONSUMPTION OF NATURAL GAS FOR THE PERIOD 1989-2003
## OIL & GAS CONSUMPTION FORECAST - SERBIA

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OIL SECTOR (M toe)</td>
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<tr>
<td>Final consumption</td>
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<td>2.901</td>
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<td>Non-Energy consumption</td>
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<td>Losses</td>
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<td><strong>Total demand</strong></td>
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<td>Domestic production</td>
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<td>0.670</td>
<td>0.813</td>
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<td>Crude oil import</td>
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<td>GAS SECTOR (M m3)</td>
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<tr>
<td>Final consumption</td>
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<td>1.563</td>
<td>1.929</td>
<td>2.345</td>
<td>2.598</td>
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<td>Non-Energy consumption</td>
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<td>Losses</td>
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<td>0.005</td>
<td>0.005</td>
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<td>0.005</td>
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<tr>
<td><strong>Total demand</strong></td>
<td>1.685</td>
<td>2.000</td>
<td>2.594</td>
<td>3.060</td>
<td>3.363</td>
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<tr>
<td>Domestic production</td>
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<td>Natural gas import</td>
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BASIC ACTIVITIES

- EXPLORATION AND PRODUCTION
- NATURAL GAS AND LPG TRANSPORT, DISTRIBUTION AND MARKETING
- REFINERY PROCESSING
- MARKETING AND TRADE
- ENGINEERING SERVICES
- RELATED ACTIVITIES (NON CORE)
Strategic Investments into development of Gas Sector in Serbia

Underground Gas Storage

Connection to other gas pipeline systems in the region

Construction of gas distribution networks
UNDERGROUND GAS STORAGE BANATSKI DVOR

- ESTIMATED GAS CONSUMPTION IN 2004 2,5 bill.m³
- PLANNED GAS CONSUMPTION BY 2010 3,5 bill.m³
- SINGLE SUPPLY ROUTE (RUSSIA) CURRENTLY AVAILABLE
- STORAGE OF 25-30% OF ANNUAL GAS CONSUMPTION
UNDERGROUND GAS STORAGE BANATSKI DVOR

PURPOSE

- STORAGE OF SURPLUS IMPORTED GAS FROM GAS PIPELINE SYSTEM DURING SUMMER SEASON
- PROVISION OF CONTINUAL AND EVEN GAS PRODUCTION FROM OWN RESERVOIRS
- ELIMINATION OF SEASONAL DISCORDANCE OF GAS PRODUCTION AND CONSUMPTION
- OPTIMAL USAGE OF TRANSITION AND TRANSPORTING GAS PIPELINE SYSTEM
- COMPENSATION OF PEAK GAS PRODUCTION DURING WINTER SEASON
UNDERGROUND GAS STORAGE BANATSKI DVOR

INVESTMENTS

- REQUIRED INVESTMENT 128 million USD
- EQUIPMENT AND WORKS 65 million USD
- CUSHION GAS 63 million USD

GAS STORAGE IS PLANED TO BE CONSTRUCTED IN TWO PHASES

- PHASE I 2004 - 2006 50 million USD
  - EQUIPMENT AND WORKS 7 million USD
  - CUSHION GAS 43 million USD

- PHASE II STAGE 2006 - 2011 78 million USD
Alternate supply and transit routes

SUPPLY ROUTE FROM BULGARIA
- Project status: under construction
- Import direction: Dimitrovgrad-Niš-Pojate
- Pipeline length: 188 km
- Pipeline capacity: 1800x10^6 m³/y
- *Investment estimate: 32,000,000 USD*

SUPPLY ROUTE FROM ROMANIA
- Project status: potential
- Import direction: Arad-Mokrin
- Pipeline length: 76 km
- Pipeline capacity: 1600x10^6 m³/y
- *Investment estimate: 18,500,000 USD*
Alternate supply and transit routes

GAS TRANSIT TO BOSNIA AND HERZEGOVINA (SAVA PROJECT)

- Project status: in preparation
- Route: Batajnica-Bijeljina-Novigrad
- Pipeline length: 98 km (Serbian side)
- Pipeline capacity: 1200x10^6 m³/y
- Investment estimate: 50,000,000 USD

SUPPLY ROUTE FROM MACEDONIA

- Macedonia has constructed Kriva Palanka-Skopje pipeline, which is practically out of use. There is a possibility to import 500x10^6 m³/y via Kumanovo-Leskovac-Niš branch
Alternate supply and transit routes

CONNECTION TO CROATIAN PIPELINE SYSTEM

- Project status: potential

- Interconnection of Serbian and Croatian pipeline systems would provide transit of gas to Croatia, particularly in case of connection to Romania pipeline system (Arad-Mokrin route)

- Connection routes: Sombor-Osijek, Bačka Palanka-Ilok, Sremska Mitrovica (Šid)-Vinkovci

- Technical parameters would depend on the intended use, connection routes and desired capacity
Legislative framework for Oil & Gas Sector

Energy Law is enforced on August 1st and is supposed to form new regulatory framework for activities in gas sector:

• Minister issues energy permission for construction and reconstruction of direct pipelines, transportation pipelines, underground gas storage, distribution pipelines, and storage capacities for CNG

• New energy entities are to be established in order to make possible for the gas market to function such as: transportation and distribution system operator. Energy law gives basics for market opening and two categories of customers are defined: captive customers and eligible customers (eligibility threshold is determined to be 50 M m3/y)
Legislative framework for Oil & Gas Sector

• Distribution of natural gas is considered to be energy activity of common interest and public enterprises can be distributors, and any other enterprise that has been authorized by the Government.

• Another precondition for energy activities (natural gas transportation, natural gas transportation system operation, natural gas storage operation, natural gas distribution, natural gas distribution system operation, trade in natural gas) is the necessity to have license that is to be issued by the Energy Agency that hasn’t been established yet.
Other regulation that might be of interest for foreign investors are:

- Law on concessions
- Law on foreign investments
- Enterprise Law
- Law on public enterprises and activities of a common interest
Approach to the reforms

- MoME prepares, Government approves and Parliament adopts the energy policy and related legislation
- RAE implements the regulation
- Energy companies perform energy related activities
Energy sector reform - goals

- EFFICIENCY
  - Rehabilitation and modernization
  - Restructuring of PEes
  - Demand side management
  - Introducing competition
  - Regulation of natural monopolies
Reform Activities Underway

- **LEGAL AND REGULATORY FRAMEWORK**
  - New Energy Law and secondary legislation
  - Energy Sector Development Strategy (drafted)
  - Related legislation (adopted or drafted)
Reform Activities Underway

• INSTITUTIONAL FRAMEWORK
  • Establishment of the Energy (Regulatory) Agency
  • Establishment of the Serbian Energy Efficiency Agency
  • Establishment of the TSO, MO, DSO
Reform Activities Underway

- REGIONAL INTEGRATION- ATHENS PROCESS
  - MoU on SEE REM
  - ECSEE Treaty
THANK YOU FOR YOUR ATTENTION