



*Montenegro
Ministry of Economy*

GAS DEVELOPMENT MASTER PLAN MONTENEGRO

*Western Balkans Gas Infrastructure Workshop
24 May 2018, Vienna, Austria*

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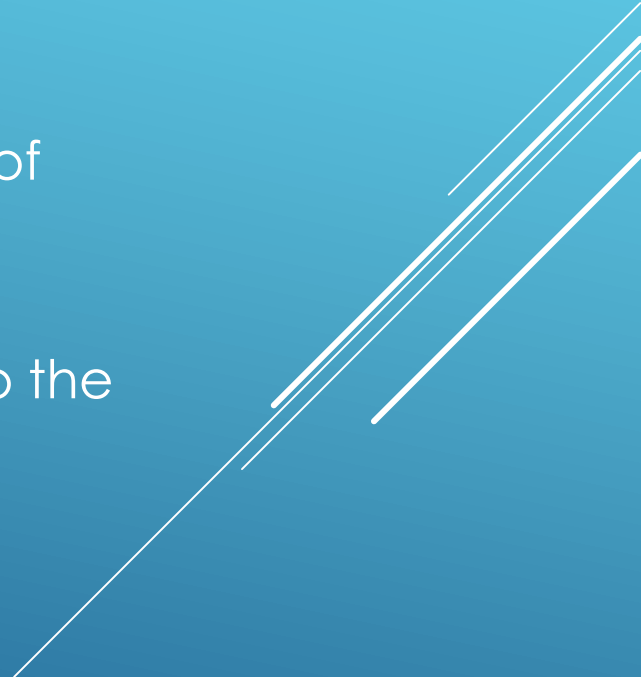
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Legal and strategic framework

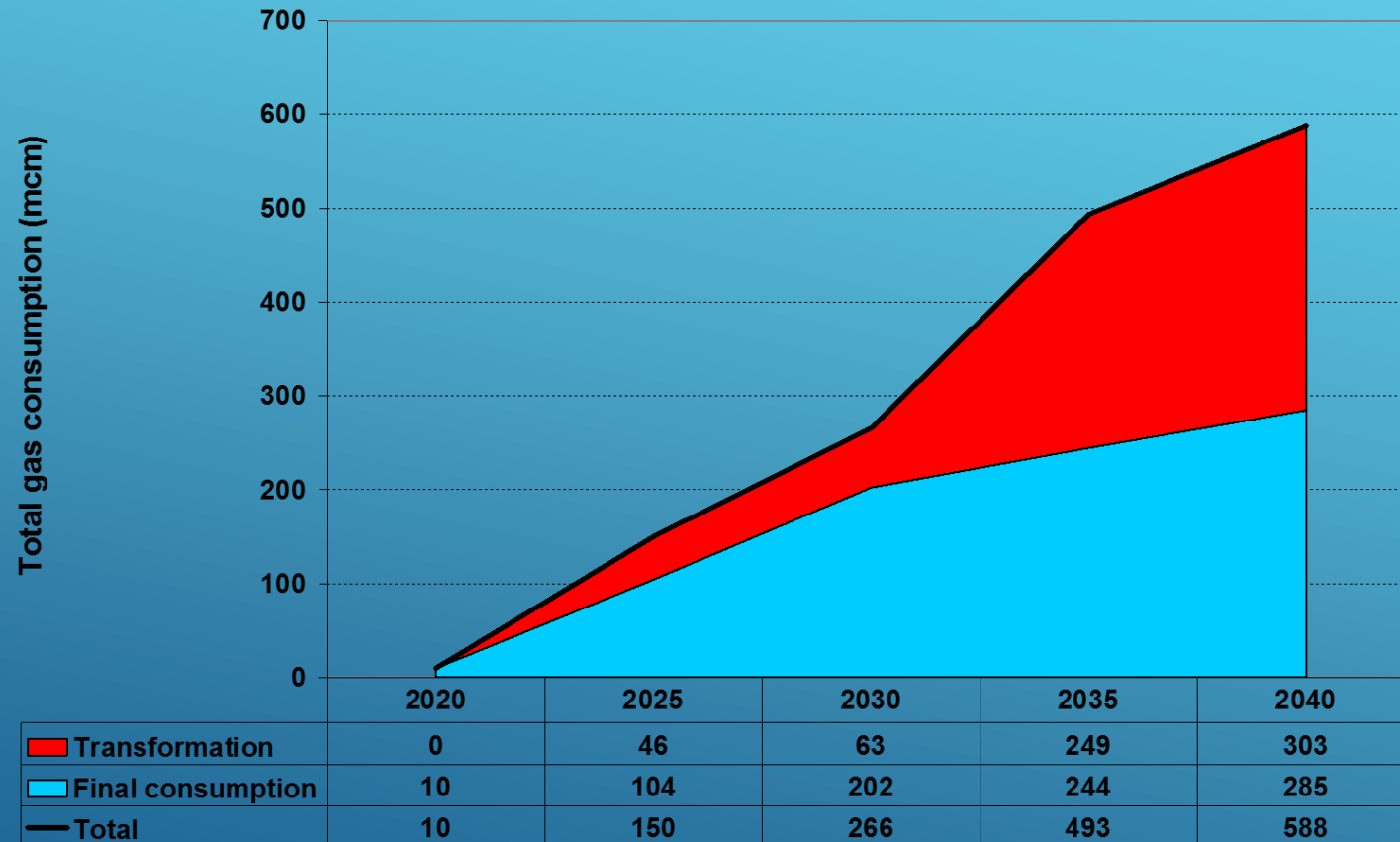
- **Energy Law**
- **Law on Cross-Border Exchange of Electricity and Natural Gas**
- **Law on Efficient Use of Energy**
- **Law on Exploration and Production of Hydrocarbons**
- **Law on Concessions**
- **Law on Ratification of the Treaty establishing the Energy Community between the European Community and the Republic of Montenegro**

- ❖ **Energy Policy by 2030** (adopted in 2011) identifies priorities similar to those of the EU:
 - Security of the energy supply
 - Development of the competitive energy market
 - Sustainable energy development
- ❖ **Energy Development Strategy with until 2030 and Action Plan 2016 - 2020**
- ❖ **National Action Plan for the Use of Energy from Renewable Sources by 2020**

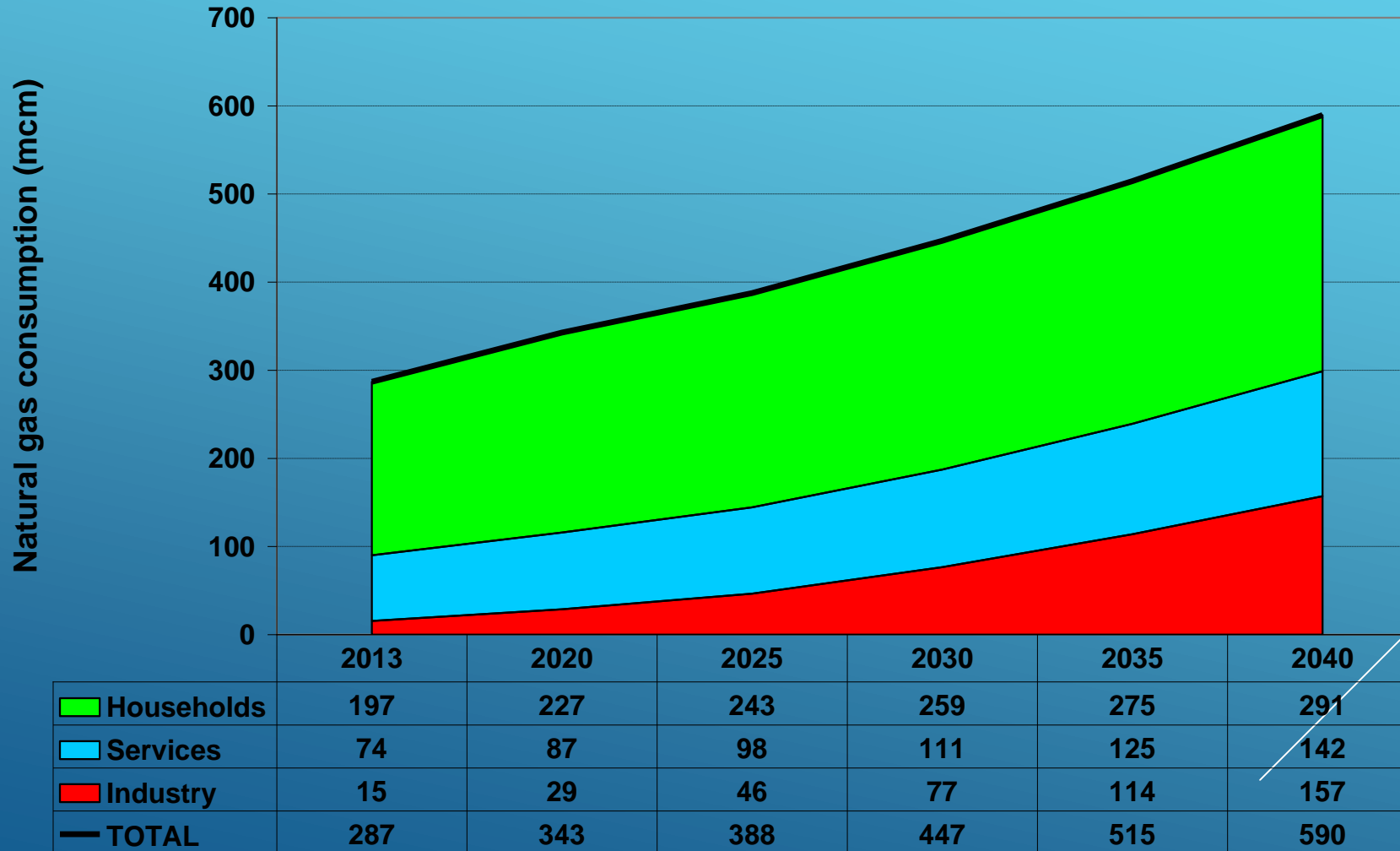
Policy Notes

- ▶ Legal Policy Actions
 - ▶ Provisions for Market Rules
 - ▶ Tariff recommendations
 - ▶ Market-based customer conversion strategy to promote use of gas and to encourage the substitution of gas in the domestic and industrial energy market
 - ▶ Provisions for SEA procedure and inclusion of gas projects into the Detailed Spatial Planning
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Forecasted total natural gas consumption in Montenegro

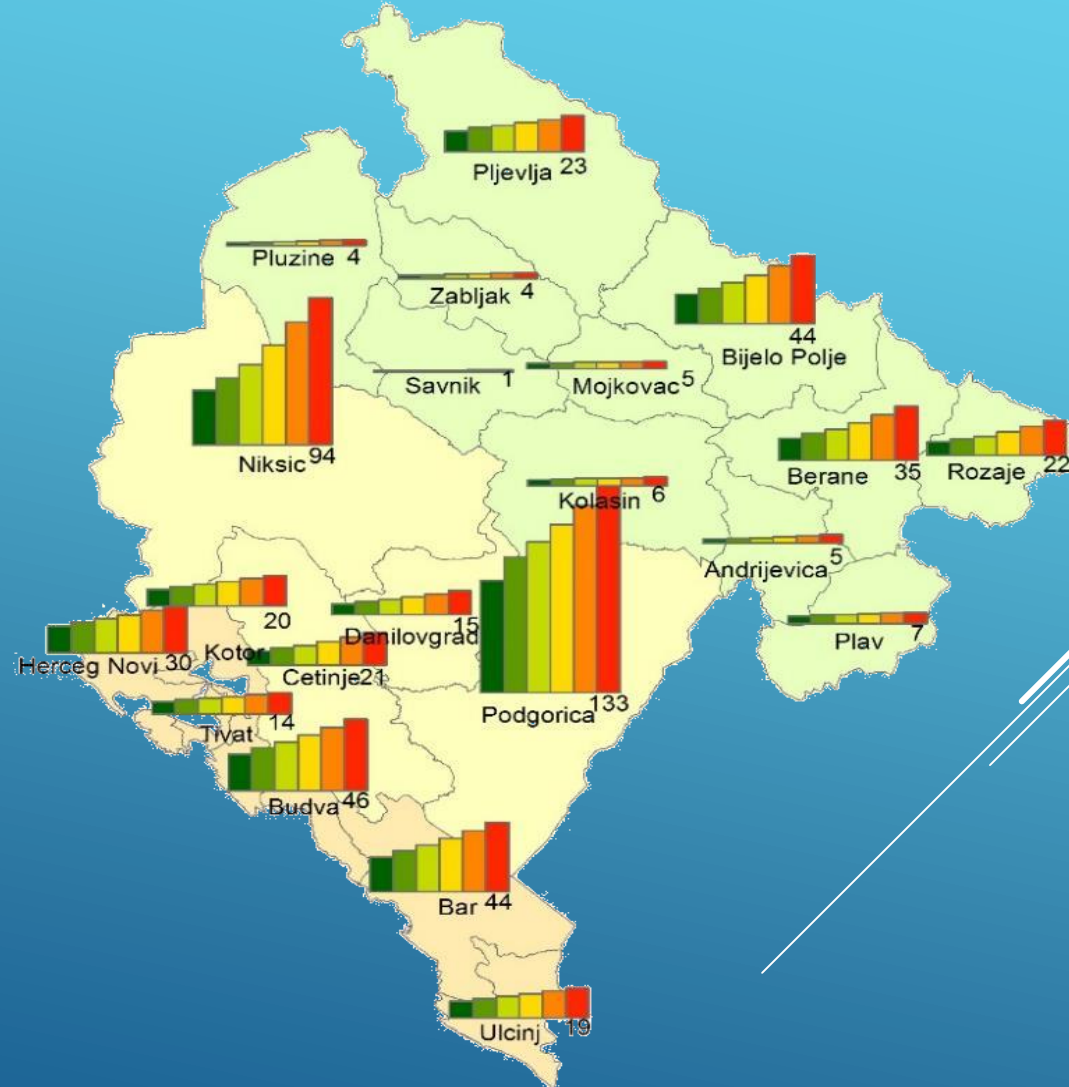


The total potential natural gas consumption by sectors



Potential natural gas consumption in Montenegro by 2040 (mil. M³/y)

Podgorica	-	133 mcm/y
Nikšić	-	94 mcm/y
Budva	-	46 mcm/y
Bar	-	44 mcm/y
Bijelo Polje	-	44 mcm/y
Berane	-	35 mcm/y
Pljevlja	-	23 mcm/y



Ionian Adriatic pipeline

- ▶ The Ionian-Adriatic Pipeline Project (IAP) is to interconnect the existing and planned gas transmission system of Croatia with the Trans Adriatic Pipeline (TAP).
- ▶ The project aims to establish a new supply route for natural gas from the Middle East and Caspian region, northwards along the Adriatic coast.
- ▶ The construction of IAP would enable the gasification of southern Croatia, Bosnia and Herzegovina, Albania and Montenegro, as well as providing diversification of supply routes for the region. This transmission pipeline is projected to be 511 km total in length and would create the preconditions for the development of the natural gas markets of Albania, Montenegro, Bosnia & Herzegovina and Croatia in the estimated annual level of 5 bcm.
- ▶ The Letter of Intent on the foundation of a Ionian-Adriatic pipeline project Company was signed in Baku, Azerbaijan, on 15 February 2018
- ▶ The Project of development of Preliminary Design of the Ionian Adriatic Gas Pipeline – Montenegro and Albania Sections (including updated Environmental and Social Impact Assessment) has been launched in April 2018

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- ▶ IAP will be backbone of the Montenegrin gas transmission system development: both from the technical and economical point of view;
 - ▶ The IAP-s positive economic results might be of benefit for the Montenegrin gas transmission system development, but certainly not in a full post stamp regulatory regime

The corridors toward Kosovo and Serbia should be defined within the related spatial planning documents, and pipelines defined with the anticipated maximal pipeline diameter “pipeline diameter of up to 40’””. This will allow further examination and development of Kosovo and Serbia supply options (the potentials of Montenegrin gas reserves, production price and future evacuation options are not known at this point of system development).

Transmission system pipeline route

- ▶ The transmission system routes were developed considering IAP as a gas supply source. The two largest cities are Podgorica and Nikšić, so these branches were considered first.
- ▶ Given the position of the IAP, the coastal part of the transmission system of Montenegro is presented with shorter transmission pipelines branching directly from IAP system, such as branches to Ulcinj, Tivat, Kotor and Herceg Novi. The second major part of the system is based on a large branch to Podgorica running across Montenegro in north-east direction reaching Berane.



IAP route

Potential Montenegro gas transmission system layout



Gas Master Plan

Implementation models

Investment structure	Total investment cost (000 EUR)	Pipeline Length (km)
Model 1 – IAP Total investment cost	115 413	94.7
Model 2 - IAP, coastal cities Total investment cost	130 601	134.7
Model 3 - IAP, coastal, Podgorica Total investment cost	170 066	189.2
Model 4 - IAP, coastal, Podgorica, Nikšić Total investment cost	183 026	229.4
Model 5 - IAP, coastal, Podgorica – Berane, Nikšić Total investment cost	234 287	314.9

Priority investment models

Financing sources

The next important step in the financial analysis of the investment project in preparing the construction of the gas transmission system is selecting the sources of investment financing. The procedure is important not only to complete the financial scheme, but also to assess the financial obligations arising from it.

- ▶ Within the Financing Plan for this investment project an option has been considered according to which the construction of the transmission system would be financed from:
 - ▶ Own sources: 30%
 - ▶ Funds obtained on financial markets through long-term borrowing from financial institutions: 70%
- ▶ The price of borrowed capital has been calculated according to the following assumed terms and conditions:
 - ▶ repayment period: 10 years,
 - ▶ regular interest rate: 5.5% per annum
 - ▶ repayment in equal semi-annual instalments



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THANK YOU FOR YOUR ATTENTION

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