

POTENTIALS OF THE CROATIAN GAS SYSTEM

Vladimir Đurović

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PLINACRO GROUP

PLINACRO - Croatian Gas TSO

- A 100% state-owned company
- In charge of development, modernisation, construction and maintenance of the Croatian gas transmission system

PSP – Operator of the UGS

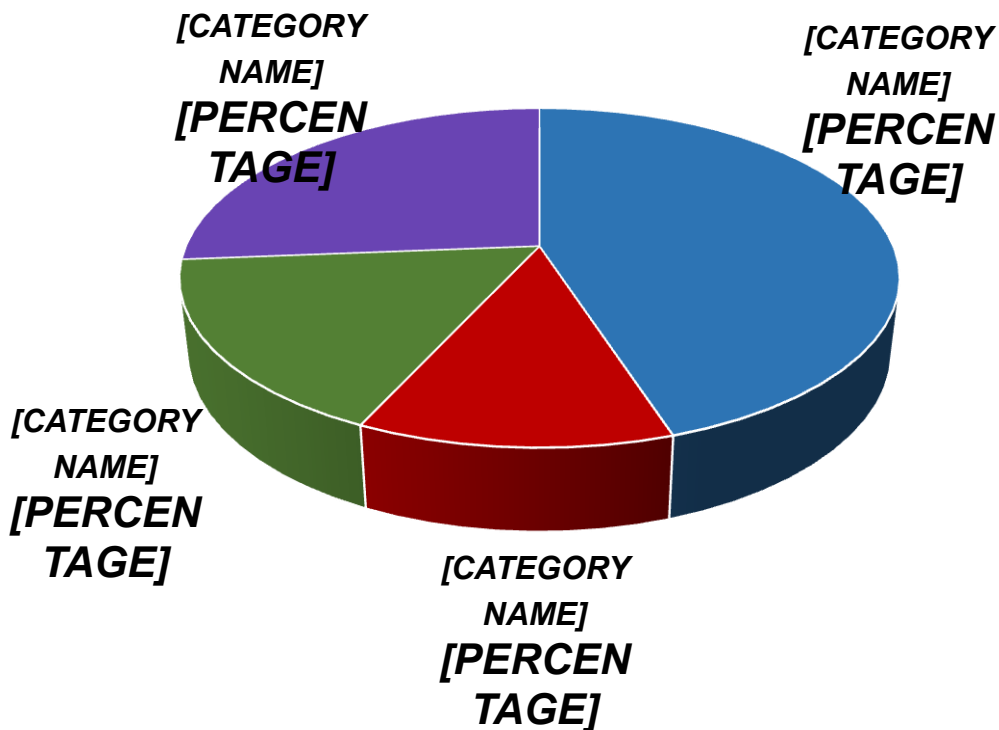
- 100%-owned by Plinacro

LNG HRVATSKA – development of LNG terminal

- Plinacro is a co-founder of the company (50% ownership)

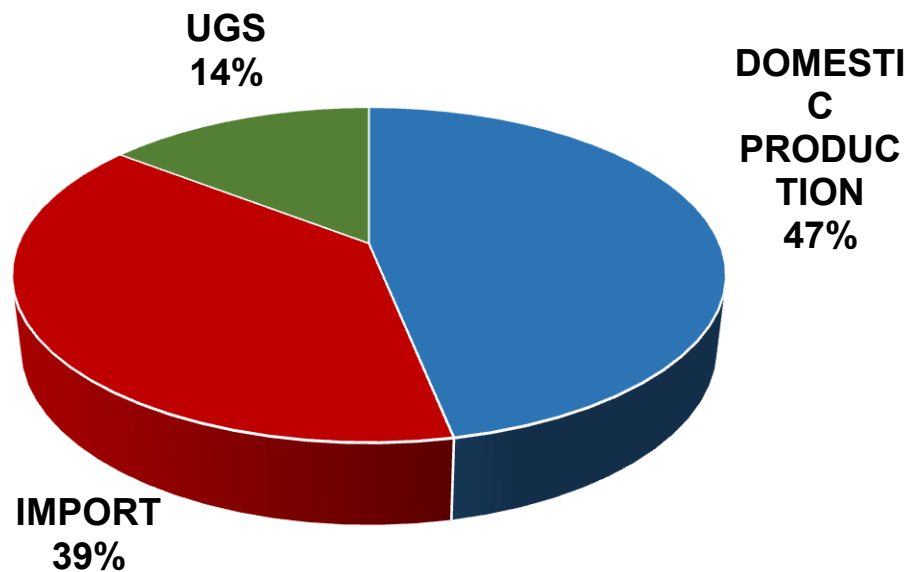
NATURAL GAS CONSUMPTION IN CROATIA IN 2015

NATURAL GAS CONSUMPTION 2015	TWh
Distribution companies	10,34
Direct industrial consumers	2,74
Transformation	3,87
Petrochemistry	6,04
TOTAL	22,99



NATURAL GAS SUPPLY IN CROATIA IN 2015

NATURAL GAS SUPPLY 2015	TWh
DOMESTIC PRODUCTION	12,35
IMPORT	10,19
UGS	3,83
TOTAL	26,37



CROATIAN GAS TRANSMISSION SYSTEM



- 2694 km high pressure gas pipelines
 - 952 km – 75 bar
 - 742 km – 50 bar
- 157 MRS (282 metering lines)
- 10 entry points
- 172 exit points
- 2 interconnections
- 95% covering the territory of Croatia
- 600 mil EUR investments (2002-2015)

GEOSTRATEGIC POSITION OF THE REPUBLIC OF CROATIA & NEW SUPPLY PROJECTS



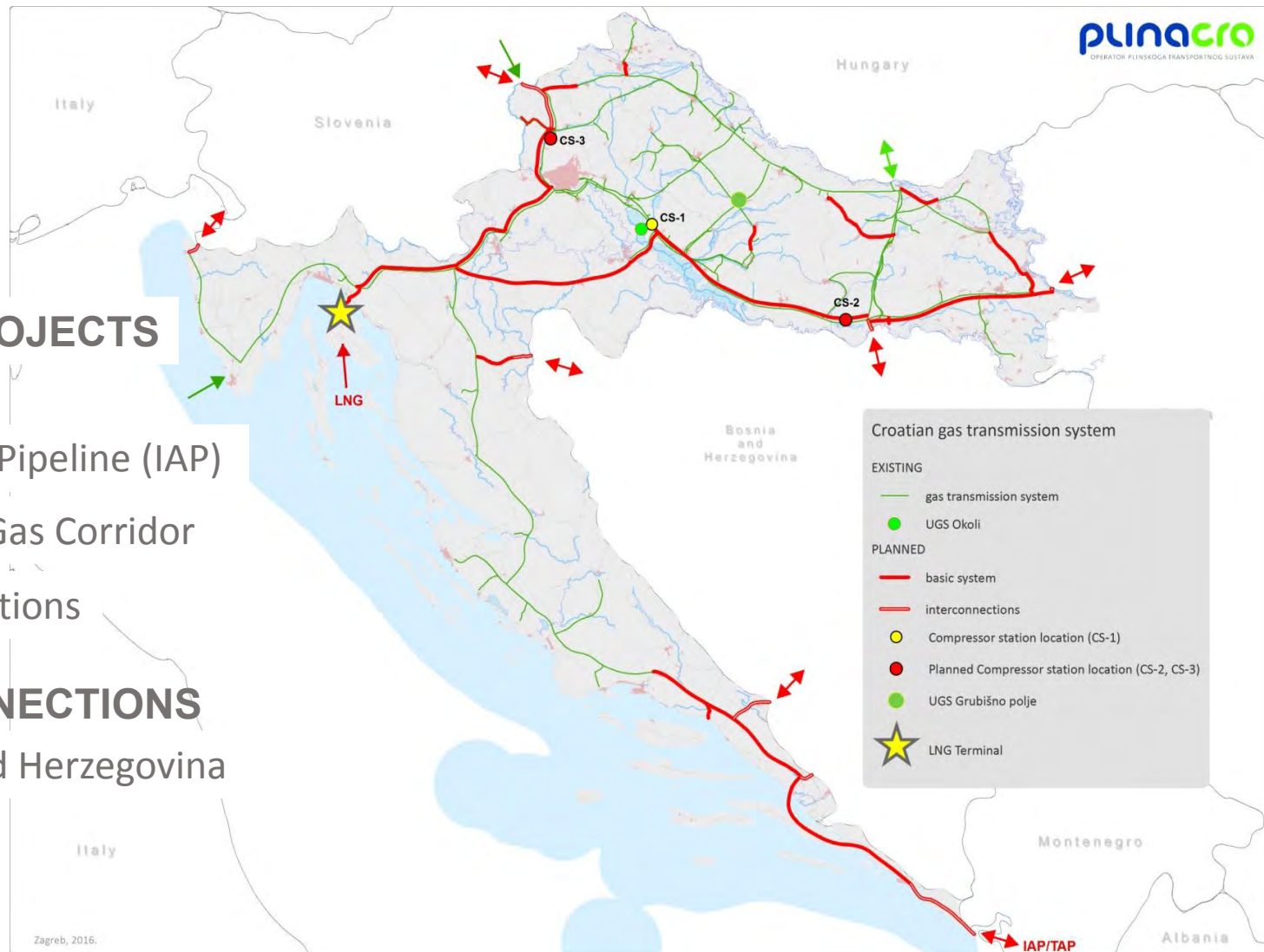
DEVELOPMENT PROJECTS

STRATEGIC PROJECTS

- LNG Project
- Ionian-Adriatic Pipeline (IAP)
- Baltic-Adriatic Gas Corridor
- Compressor stations

INTERCONNECTIONS

- Bosnia and Herzegovina
- Slovenia
- Serbia



LNG KRK

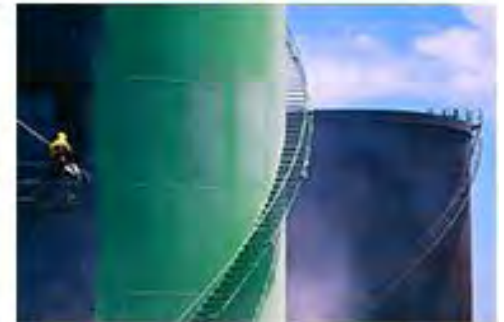
IMPLEMENTED ACTIVITIES

- comprehensive feasibility study drawn up+ environmental impact study + basic design
- environmental permit obtained + location permit
- non-binding Open season carried out and the first phase of binding Open season
- status of a strategic project of the Republic of Croatia acquired
- included on the PCI, PEI and CESEC (priority project!) lists



ACTIVITIES IN PROGRESS

- analyses of the results of the Open season procedure and the preparation of CBA + CBCA
- shaping the final terminal configuration
- review of tenders by potential investors
- analyses of a potential business model



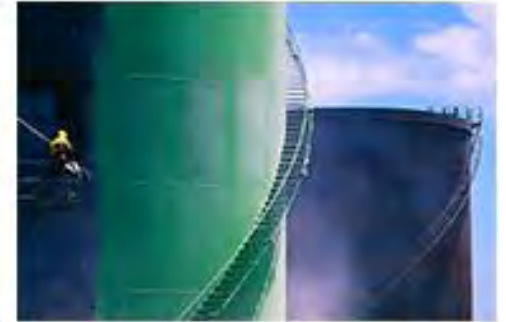
Source: LNG Croatia

LNG KRK

OFFSHORE TERMINAL



FSRU



LNG KRK EVACUATION DIRECTIONS

1 - MAIN ROUTE

Pipeline system

Omišalj–Zlobin–Bosiljevo–Sisak–Kozarac

2 - EASTERN SECTION

Pipeline Kozarac – Slobodnica

2a - Transport route Hungary

*Slobodnica–Donji Miholjac–Drávaszerdahely–
Varosföld*

(supply of HU, UA, SK, RO, BG, SRB)

2b - Transport route Serbia

Slobodnica – Sotin- Bačko Novo Selo

(supply of SRB, BG, RO)

2c - Transport route Bosnia and Herzegovina

Slobodnica–Brod–Zenica

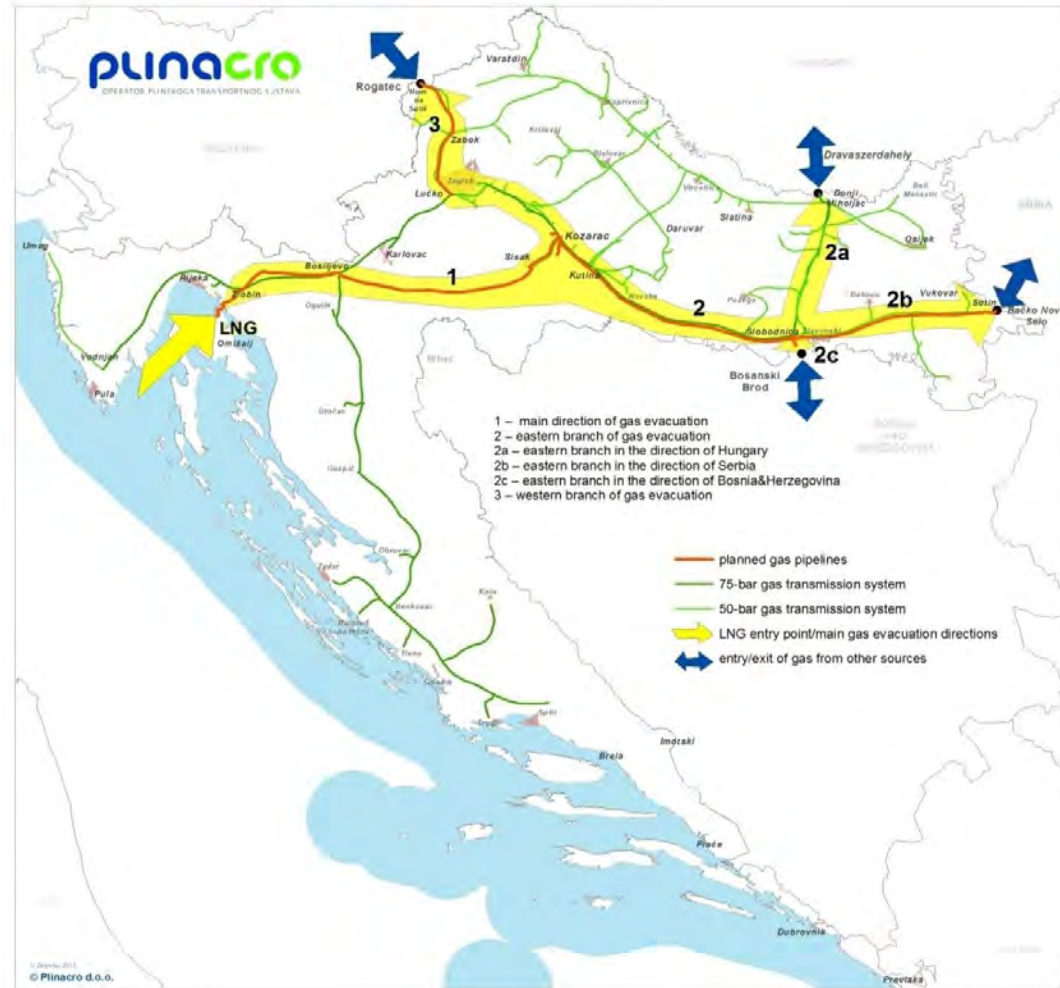
(supply of BiH)

3 - WESTERN SECTION

Transport route Slovenia

Kozarac–Lučko–Zabok–Rogatec

(supply of SLO, IT, AT, CZ, HU)



SYSTEM OF GAS PIPELINES FOR EVACUATION OF GAS FROM LNG TERMINAL

1. Use of the existing gas transmission system
2. New parts of the gas transmission system:
 - The main evacuation gas pipeline Omišalj-Zlobin-Bosiljevo-Sisak-Kozarac
 - Gas pipeline Kozarac-Slobodnica
 - Gas pipeline Slobodnica-Sotin-Bačko Novo Selo (interconnection with Serbia)
 - Gas pipeline Slobodnica-Brod (interconnection with BiH)
 - Gas pipeline Lučko-Zabok-Rogatec (a new interconnection with Slovenia)
 - Compressor stations

Final configuration/capacities of the new sections of the gas transmission system will depend on the results of the Open season procedure, LNG capacity and phases

- for new parts of the gas transmission system a high level of preparatory activities has been reached; the dynamics of their construction and commissioning will completely follow the dynamics of the LNG terminal
- the non-binding Open season has been completed; the binding will start upon the completion of all analyses of the results of the non-binding Open season and upon identifying an indicative transmission tariff for LNG and pipelines

IT SHOULD BE POINTED OUT THAT THE GAS TRANSMISSION SYSTEM SHAPED IN THIS WAY WILL PROVIDE (ALONG WITH LNG SUPPLY) GAS TRANSIT THROUGH ALL INTERCONNECTIONS IN ALL DIRECTIONS!

IONIAN – ADRIATIC PIPELINE (IAP)

- ❑ *Connecting Croatian Gas Transmission System with project TAP*
- ❑ *New supply source for the region from the Southern Corridor*
- ❑ *Possibility of gas transit to the Central Europe*
- ❑ *Reverse flow – **compatible with Krk LNG (flow direction north – south)***
- ❑ *Pipeline Split (HR)-Fieri (ALB)*
DN800(1000) / 75 bar, L= 540 km, capacity 5 bcma
- ❑ *Gas supply of:*
 - *Albania - 1 bcma*
 - *Montenegro - 0,5 bcma*
 - *B&H - 1 bcma*
 - *Croatia - 2,5 bcma*



Source: IAP Feasibility Study

SIGNIFICANT POTENTIAL FOR SECURE AND COMPETITIVE SUPPLY OF THE SURROUNDING COUNTRIES

- **LNG**
- **IAP**
- **Highly developed gas transport system + new pipeline and interconnections + compressor stations / TRANSIT**
- **Existing and new domestic production**
- **UGS (existing + planned)**

HIGHLY DEVELOPED NATIONAL GAS TRANSMISSION SYSTEM
+
NEW PIPELINES + INTERCONNECTIONS + COMPRESSOR STATIONS
+
NEW SUPPLY PROJECTS (LNG, IAP)
+
NEW PRODUCTION POTENTIAL
+
UGS POTENTIALS



**IMPORTANT ROLE IN REGIONAL SECURE AND
COMPETITIVE SUPPLY**
+
**INTEGRATION TO REGIONAL AND EUROPEAN NATURAL
GAS MARKET**

**THANK YOU FOR
YOUR ATTENTION!**