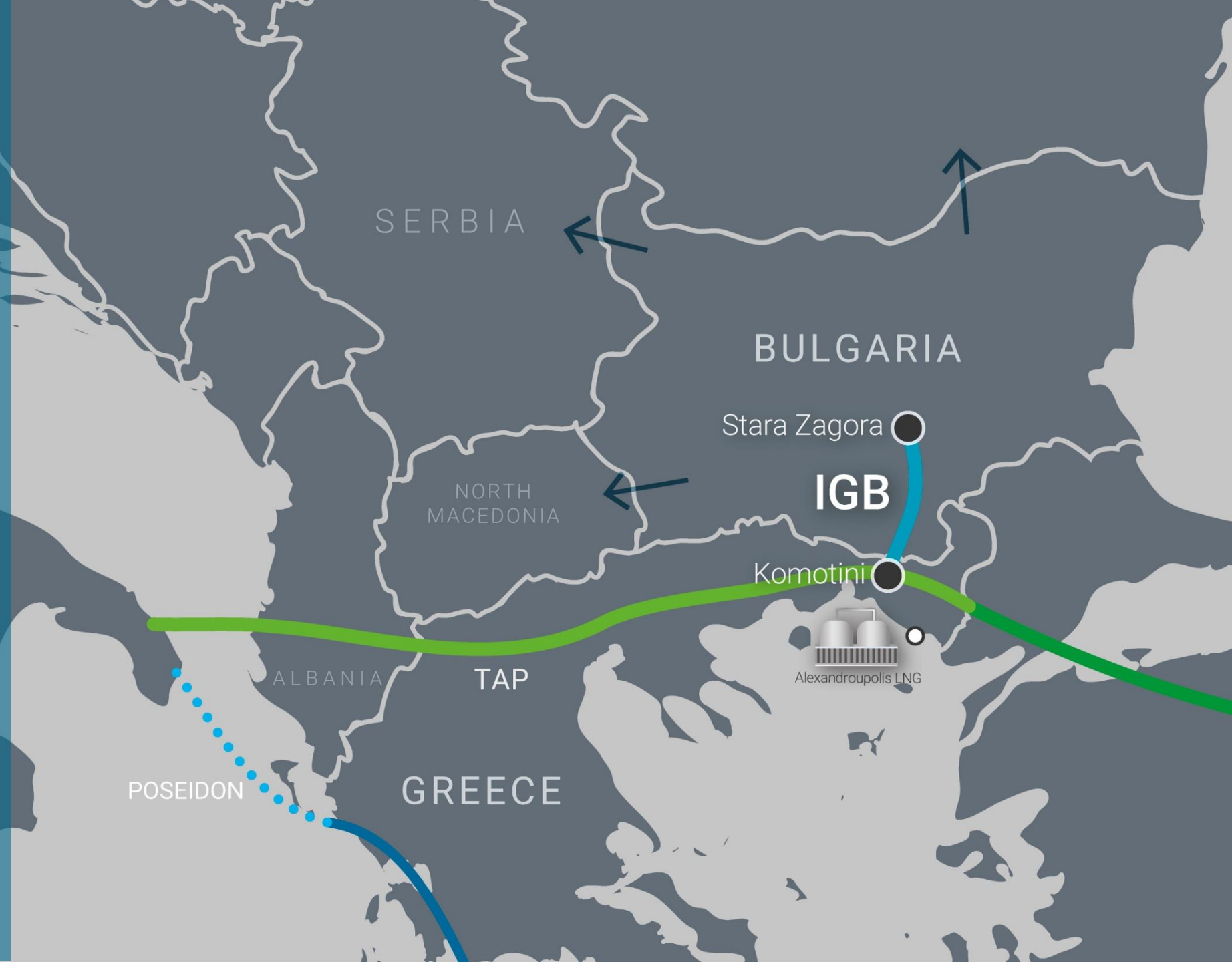




# IGB PROJECT

GAS INTERCONNECTOR GREECE-  
B U L G A R I A

CHANGING THE ENERGY GAME FOR SE  
AND EASTERN EUROPE,  
THE INTERCONNECTOR GREECE -  
BULGARIA



# STRATEGIC ROLE

## SOURCES and DIVERSIFICATION



IGB is part of the Vertical Gas Corridor – Greece – Bulgaria - Romania - Hungary providing access to natural gas from Southern Gas Corridor and LNG to South Eastern and Central Europe as well as Ukraine

IGB will connect the Greek transmission system of DESFA and TAP at Komotini with the Bulgarian gas transmission system of Bulgartransgaz at Stara Zagora.

Access to Italian market via TAP

**IGB OFFERS A UNIQUE AND COST-EFFICIENT ACCESS TO THE SOUTHERN GAS CORRIDOR**

Potential for diversification on the short/medium/long term LNG (from the Greek and Turkish LNG facilities)

- Contribution to Bulgarian market evolution
- Diversification of Routes and Supply Sources
- Access to Gas Hub Balkan
- Game changer for the region

Potential liquefied natural gas from USA, Israel, Cyprus, Egypt

# SHAREHOLDERS' STRUCTURE

## THE PROJECT

is managed by  
the Project Company **ICGB AD**  
with shareholders:

- Bulgarian Energy Holding EAD (50%)  
&
- IGI Poseidon SA (50%).

## ICGB

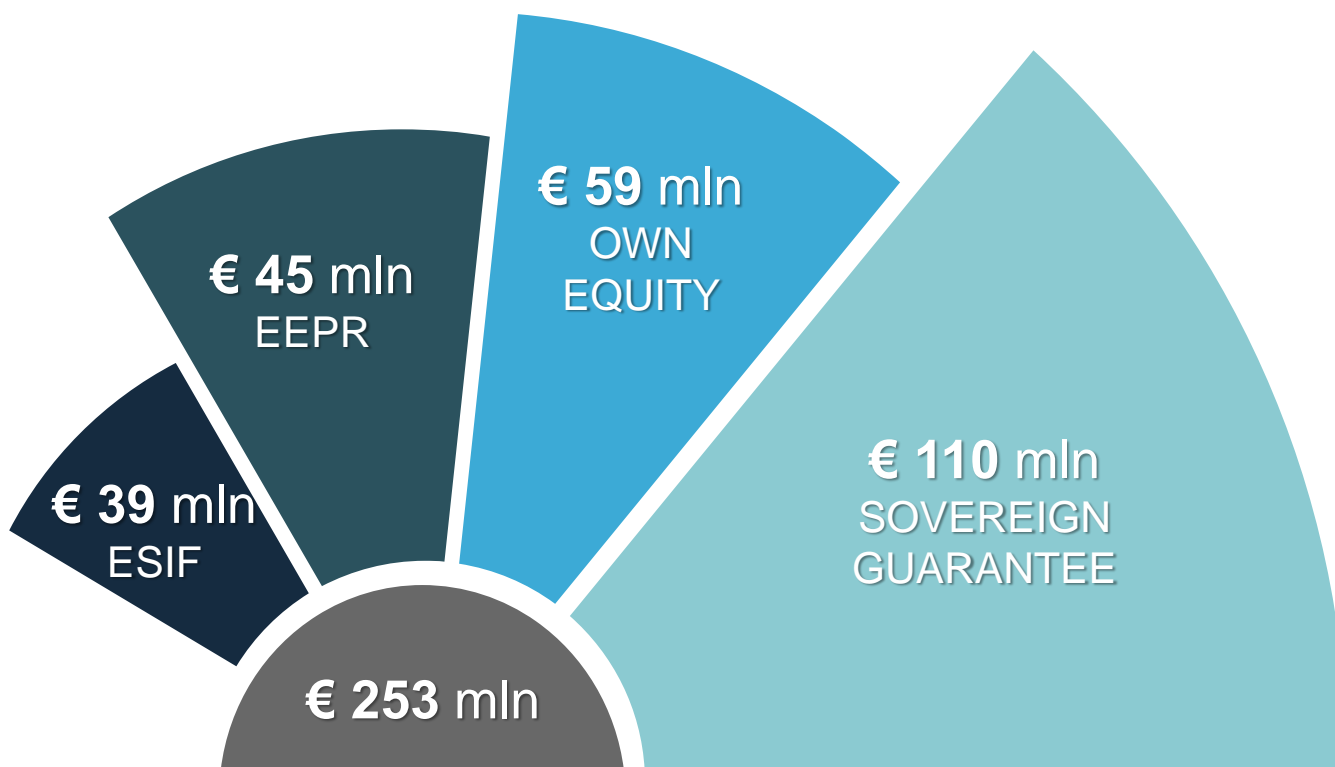
will operate the pipeline under  
an “exempted” framework –  
Ownership Unbundling,  
Regulated Tariff and Third-Party  
Access.



On 8th of August 2018 a  
**FINAL JOINT DECISION** on the  
Exemption of IGB Pipeline is  
adopted by the National  
Regulatory Authorities.

# FINANCIAL STRUCTURE

EEPR, ESIF and SOVEREIGN GUARANTEE by the Republic of Bulgaria



## ● EUR 39 mln

*grant financing under the Operational Program “Innovations and competitiveness”*

(European Structural Inv. Funds allocated to Bulgaria), OPIC, extended eligibility period – 31/12/2022

## ● EUR 45 mln

*EEPR grant financing*

(eligibility period – 31/12/2021)

## ● SHAREHOLDERS’

*Equity EUR 59 mln*

## ● EUR 110 mln

*EIB long term loan financing secured by a Sovereign Guarantee by Bulgaria;*

The loan will be provided to BEH (Bulgarian Shareholder) and transferred to ICGB via on-lending agreement – tenor 25 years, concluded on 10 October 2019

# REGULATORY STATUS & COMMERCIAL STATUS

## IGB MARKET TEST

**In 2016 IGB performed Market test for capacity reservation**

- Five companies submitted binding offers for a total capacity of 1,57 bcm in direction Greece - Bulgaria on a long-term basis
- IGB concluded Advanced Reservation Capacity Agreements with five shippers – March 2017

## ADOPTION OF JOINT EXEMPTION DECISION FOR IGB

**In 2018 National Regulatory Authorities of Bulgaria and Greece adopted Joint Exemption Decision for IGB for 25 years:**

- Third party access – up to 1,57 bcm
- Regulated tariff – for 3 bcm/y
- Ownership Unbundling

## APPROVAL OF IGB NETWORK CODE, TARIFF CODE AND GAS TRANSPORTATION AGREEMENT

**In 2019 National Regulatory Authorities of Bulgaria and Greece approved:**

- IGB Network Code
- IGB Tariff Code
- Gas Transportation Agreement (GTA)

## ITO CERTIFICATION, INGS AND TSO LICENSE

**In 2021:**

- Gas Transmission License in Bulgaria
- Capacity booking platforms - PRISMA and RBP

**In 2022:**

- Independent Transmission Operator Certificate
- INGS Operation License in Greece
- Interconnection Agreements with Bulgartransgaz, TAP and DESFA

# PROJECT STATUS

## IMPORTANT DOCUMENTS:

- Intergovernmental Agreement between the Ministers of Energy of Greece and Bulgaria;
- EIB loan between EIB and Bulgarian Energy Holding;
- Revised Shareholders' Agreement and approval of Final Business Plan and Final construction Budget;
- Facility agreement between BEH and ICGB for on lending of the EIB loan;
- Gas transportation agreements with the exempted shippers;
- Decision of the Shareholders for a Capital Increase;
- Public procurement contracts – EPC and the Line Pipe;
- Tie-in Agreements with DESFA, TAP and Bulgartransgaz;
- Gas Transmission License in Bulgaria



# PROJECT STATUS

LINE PIPELINE CONSTRUCTION // EPC CONTRACTOR - AVAX S.A.

## CONSTRUCTION PROGRESS

- Project Completion: 98%
- Linear part: 182 000m fully completed
- Reinstatement: 149 000m
- All Above Ground Installations:
  - GMS 2 Stara Zagora – 100%
  - GMS 1 Komotini – 96%
  - Dispatching Centre – 99%
  - 8 Block Valve Stations – 96%
- Hydrotests: successfully completed 182km and all block valve stations! Zero repair rate!
- Pneumatic tests on GMSs: successfully completed
- Pre-Commissioning / Commissioning: ongoing
  - ✓ Functional tests
  - ✓ Systems checks
  - ✓ SCADA & automation
  - ✓ Nitrogen purging
  - ✓ Gas-in activities



HYDROTESTING



VALVE CHECKS

NITROGEN INJECTION

GAS-IN ACTIVITIES



# PROJECT STATUS

PROGRESS UP TO JUNE 2022





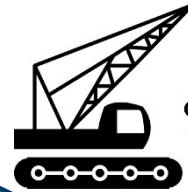
# CHALLENGES



## COMPLETION AND COMMISSIONING OF GAS METERING STATIONS:

- GMS1 behind schedule
- Complex and multicomponent activity
- Determines the critical path of the project
- Target dates
  - Mech. Completion end June 22
  - Pre-Comm /Commi: June-July 22
  - COD: Target Sep 22, but not later than Oct 22

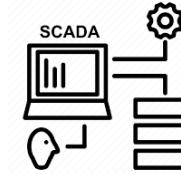
**GMS 1 Completion**



## MAIN CONSTRUCTION CHALLENGES:

- 2 x HDD Crossings
- FoC line communications
- Tough mountainous terrain (appx. 30km.) - steep slopes, ravines, rocky areas
- Above ground installations – GMS1&2, BVs, Disp.Cntr
- Major Tie-Ins w/ TSOs
- Testing & Commissioning
- Start Up & Operation

**Construction**



## AUTOMATION AND SCADA INTEGRATION:

- Complex job profile
- Fully automated AGIs
- Requires time and in-depth expertise
- Upgrade of initial SCADA architecture
- Accommodation of commercial needs
- Integration of CDS
- Implementation and Training

**SCADA & CDS**

# OPPORTUNITIES & CHALLENGES

1

**FULL COMMITMENT** on the EPC contractor for timely completion of the pipeline construction and commissioning.

2

**PROJECT FOR LIQUEFIED NATURAL GAS** terminal (LNG) near Alexandroupolis

3

**OPPORTUNITIES TO INCREASE** the capacity of the IGB with direct connection to the LNG terminal near Alexandroupolis. FSRU Alexandroupolis has taken final investment decision which is of great importance of IGB capacity utilization.

4

**DIRECT CONNECTION** of IGB with thermal power plants East in Maritsa coal basin.

5

**COMPETITIVE AND TRANSPARENT PRICING** of exit capacities of DESFA network to IGB

6

**ICGB STRIVES FOR SUCCESSFULL ITO CERTIFICATION BY JULY 2022**

Procedure is already pending before EC.

7

**THE SUCCESSFUL IMPLEMENTATION** of the regional LNG terminals and interconnection pipelines which will allow diversification of natural gas sources and routes in line with the new geopolitical realities.

8

**OVERCOME TECHNICAL CONSTRAINTS** with inlet pressure in the DESFA network in the area of Komotini, at the point of interconnection with IGB. In 2023 DESFA will finish the construction of a Compressor Station near Komotini, which will eliminate the technical constraint.



Natural Gas Interconnector Greece-Bulgaria



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GAS INTERCONNECTOR GREECE-  
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# GAME-CHANGER ON THE ENERGY MAP

