



NATURAL GAS PUBLIC COMPANY (DEFA)

CYPRUS LNG IMPORT PROJECT

A MILESTONE FOR THE CYPRUS



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BoD Secretary



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Ξενοδοχείο The Landmark,
Λευκωσία



Co-financed by the European Union
Connecting Europe Facility

The Cyprus LNG Import Terminal Project

- Acquisition of FSRU
- Construction of the jetty for FSRU berthing and mooring equipment
- Construction of the jetty borne gas pipeline and Loading Arms
- Construction of onshore gas pipeline
- Construction of shore side above ground installation (AGI) pressure reduction and metering station (PRMS)
- Construction of pipeline storage array as a Natural Gas buffer solution



LNG Import Project - Tender



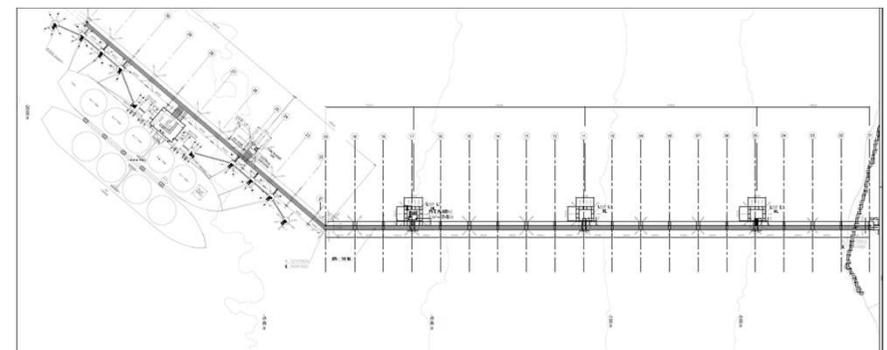
- Proposals Submission Deadline was 12 July 2019
- Major companies active both in Europe and internationally participated in the tender process. Proposals were submitted by 3 Consortia:

• Consortium of JV China Petroleum Pipeline Engineering Co Ltd. and METRON S.A., with Hudong-Zhonghua Shipbuilding Co. Ltd and Wilhelmsen Ship Management Limited

- Consortium Samsung C&T, Posco E&C, Mitsui O.S.K. Lines, Osaka Gas
- European Consortium (DAMCO Energy S.A., ENAGAS Services Solution S.L.U., GasLog LNG Services Ltd., SNAM Spa, TERNA S.A.)

First Ranked Proposal – Technical Description

- LNG Import Terminal with Jetty Construction on piles, an FSRU based on conversion of the “GALEA” LNGC (currently owned by Shell Tankers Singapore Private Ltd) and jetty and onshore pipe works with onshore gas facilities
- Conversion Works at HUDONG Shipyard in China. Will be classed as both LNGC and FSRU.
- Vessel Description and Conversion Works:
 - Year and Place of Build: 2002, NSMW – Mitsubishi Heavy Industries
 - Classification Society Lloyds Register
 - Containment System: Moss Rosenberg (spherical tanks)
 - 5 Tanks with overall LNG storage capacity of 136,141 m³ (at normal filling level)
 - Dimensions: Overall Length 290m, Breadth moulded 46m, Depth moulded 25.5m
 - Propulsion: Steam, Dual Fuel
- After conversion from LNGC to FSRU the vessel will be equipped with a state-of-the-art regasification modular unit delivered by Wärtsilä.
- The FSRU will be capable of accepting LNG from LNG carriers ranging in size from 120,000m³ to 217,000m³ (Q-FLEX).



LNG Import Project – Current Stage and Outlook

- Current stage: Process and Contracts finalization
- Tenders Review Authority Process
- Aiming at signing end of December 2019
- Contractor has **24 months** for completion of works

LNG Supply Procurement Process

- **2 Stage Process:** EoI (prequalification) & RfP
- Participants asked to express interest in supplying LNG through **SPA and/or MSAs**
- SPA **short to mid term** duration (3-5 years)
- Cyprus' LNG Demand will be allotted between SPA and MSAs
 - SPA will cover **base load Quantities**
 - MSAs will be used for **supplementary cargos**
- RfP stage expected for early 2020 and following the award of the LNG Import Terminal Tender to include info impacting the procurement process
 - FSRU Storage Capacity
 - Commencement of Operations Date

LNG Supply Procurement Process

25 Eols Received: Participants to expressed interest in supplying LNG through SPA and/or MSAs

- Gunvor International B.V. Amsterdam
- Naturgy LNG Marketing Limited
- Centrica LNG Company Limited
- Endesa Energia S.A.
- Cheniere Marketing International LLP
- Equinor ASA
- Novatek Gas & Power Asia Pte Ltd
- Shell International Trading Middle East Ltd
- Enel Global Trading
- Eni Trading & Shipping S.p.A.
- Total Gas & Power Asia Private Ltd
- Osaka Gas Kabushiki Gaisha
- Powerglobe LLC
- Repsol LNG Holding S.A.
- Petronas LNG Ltd
- BP Gas Marketing Limited
- Vitol SA
- B.B. Energy (ASIA) Pte Ltd
- Mytilineos S.A.
- Uniper Global Commodities SE
- Marubeni Corporation
- SONATRACH and Public Gas Corporation (DEPA) S.A.
- Eni SpA (Gas & LNG Marketing and Power)
- Glencore Energy UK Ltd
- Mitsui & Co. Ltd

DEFA Driven Projects/Initiatives

- **Owner's Engineer Tender**

- To be announced in the coming days

- **Open Season Process**

- Determination of Major End Users, NG Quantities per buyer and Spatial Allocation
- 3 current licensed IPPs

- **NG Pipeline Network Development**

- Preliminary Design and Feasibility Study Completed
- Phase A' – Power Generation supply and development of backbone transmission network

- **Other NG Consuming Markets**

- Bunkering
- Industry
- Road Transport

Expected Impact of the Project on Electricity Generation Cost

It is expected that the electricity generation cost will be reduced by the implementation of the project for the following reasons:

- the EU grant for the infrastructure facilities, is approximately 33.3% of the overall projected CAPEX and will reduce the amount to be recovered through sale of gas;
- the lower price of gas compared to liquid fuels. The level of reduction will depend on the price of LNG and on the final cost of the gas infrastructure;
- reduced maintenance cost of the combined cycle gas turbines ("CCGT") due to longer intervals between scheduled maintenance when gas is used;
- **reduced CO2 emissions** due to the lower carbon content of gas compared to liquid fuels and due to the higher use of the more efficient CCGTs leading to reduced payments associated with the emissions allowances; and
- **reduced NOx emissions** due to the higher use of CCGTs which emit less NOx compared to other generating units. It is expected that **SOx emissions will also be reduced to almost zero**, with a **significant reduction also expected in dust emissions**, due to much lower content in gas compared to liquid fuels.

Thank You!
Questions?

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