



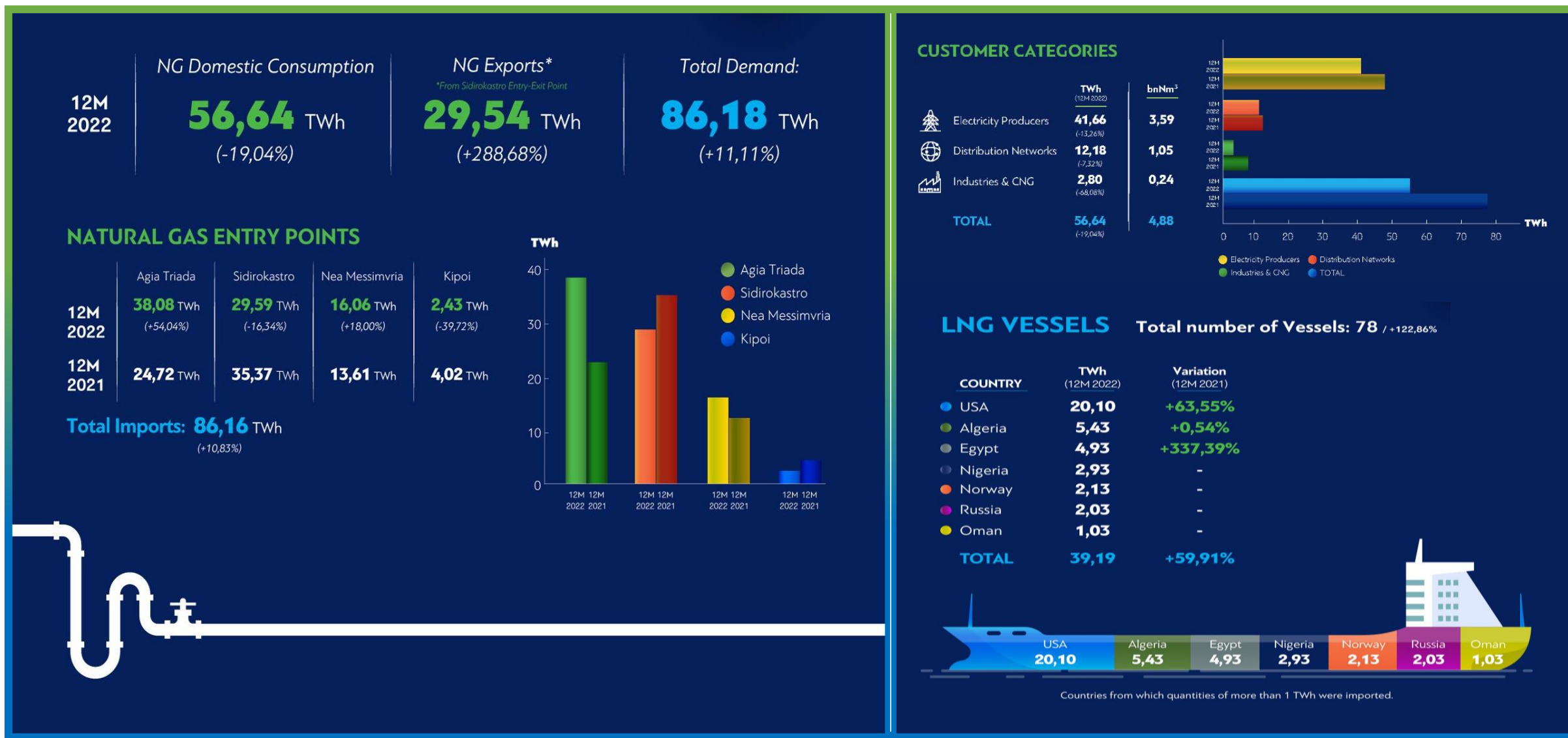
***Enabling new energy avenues and strengthening  
energy security in Southeast Europe***

***Nikos Katsis, Chief Asset Management Officer, DESFA***

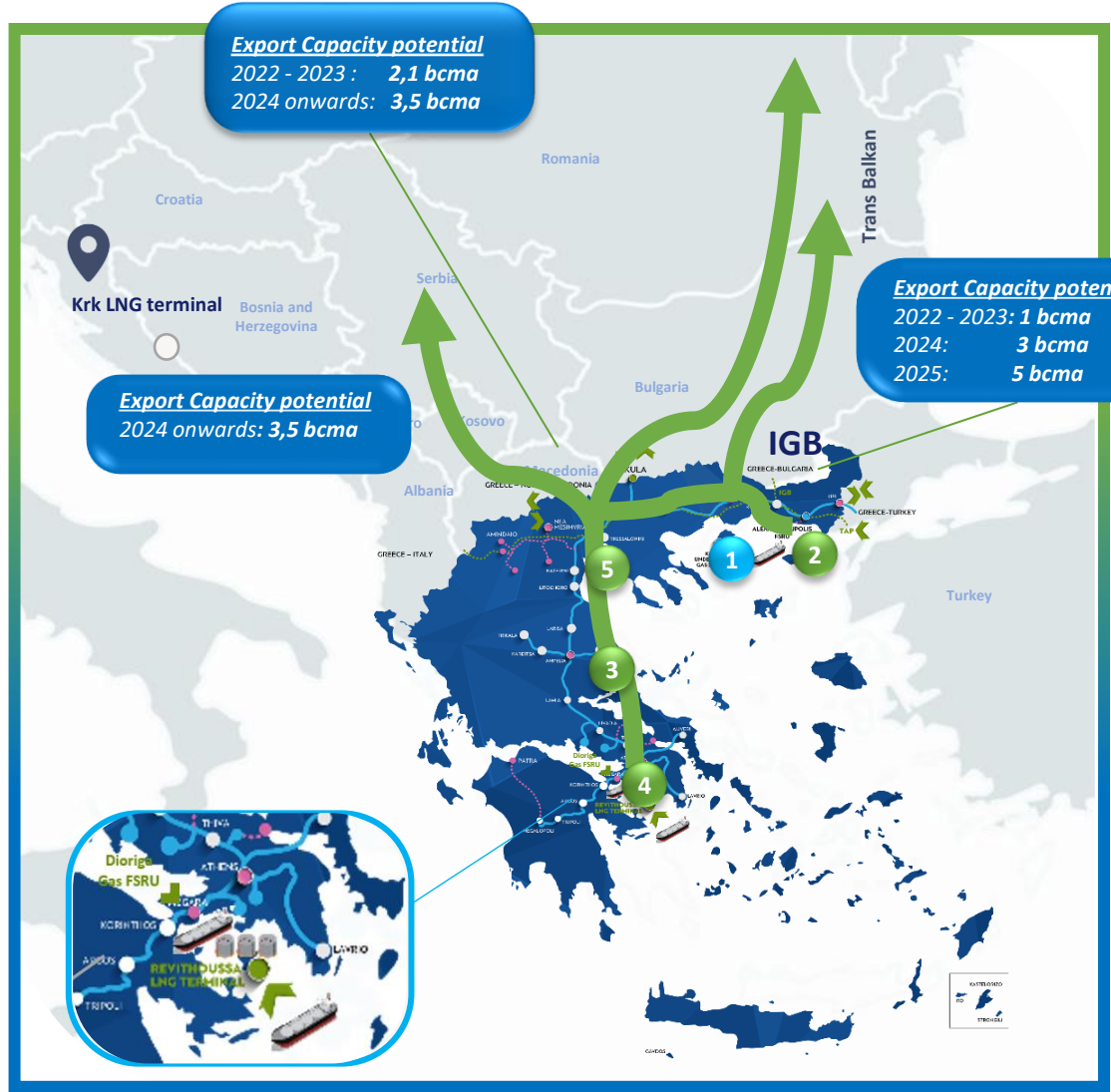
IENE, 14th SE Europe Energy Dialogue

Thessaloniki, May 2023

# Gas Consumption Data Greece FY2022: Greece ensured energy security and allowed for the further diversification of supply sources in the region, quadrupling its exports to Bulgaria and beyond



# Greece is very well placed to act as an LNG gateway for Europe and there is a clear demand for transit; Expanding the infrastructure limits has significant advantages for Greece and the wider region



Under construction ← Under development or planning →



- ❑ Five new FSRUs of ca. 20bcma applied for access to DESFA’s NNGTS; One (1) is already under construction.
- ❑ DESFA is currently upgrading the NNGTS to reach export capacity of 12 bcma by 2025.
- ❑ Final capacity must be reserved by the market in a binding way before Final Investment Decision (FID)
- ❑ The role of Greece as a transit country triggers the need for major upgrades in the network
- ❑ DESFA launched the 1<sup>st</sup> phase of its Market Test for the allocation of future firm capacity in the NNGS on 29 March 2023.

In this direction, DESFA has designed a Development Plan with projects that significantly expand the capacity of its network, allowing for increased security of supply and diversification in SEE region

**Key highlights of TYDP 2023-2032** *(under public consultation by RAE):*

- **83 projects** (64 expected to be in operation by end 2024)
- **€1,27 billion total budget** (c.a. € 1,24 billion for the projects included in the 3-year Development Period)
  - ❑ **Main new projects** included (€430 million) refer to the **duplication of the “Karperi-Komotini” & “Patima-Livadeia” HP branches**, adding new capacity to the system.
- **€28 million** of new project related to **modernization, maintenance & innovation and R&D projects**. The new **innovation projects** include the:
  - ❑ pyrolysis project,
  - ❑ connection of the NNGTS with West Macedonia H2 Valleys,
  - ❑ installation of Process & Dry Seal Recompression System in CSs.





**Shaping the new era of renewable gases  
towards the decarbonization of our network**

# Building the first 100% H2-ready pipeline in Greece and one of the first at a European level



- All the new pipelines that we are constructing are already **fully H2 certified**, while all new **Compressors Stations** are designed to accept up to **20% blending** of H2 in natural gas.
- The **High-Pressure Pipeline to West Macedonia**, that is currently under construction by DESFA, will be the **1<sup>st</sup> pipeline in Greece and one of the first in Europe** which will be compatible with the transport of hydrogen by up to 100%.



# DESFA's initiatives and ongoing projects for building up the Greek and regional H2 value Chain and acting as an enabler of a more sustainable energy future



DESFA has already executed an assessment of the existing Natural Gas Transmission System (H2 Readiness Study including AGI) to analyze its capability to transport Hydrogen blended with Natural Gas and provide a technical description of which changes on the existing DESFA system will be needed to transport it.

**H2 Readiness Study already executed**

**PCI Projects Application**

DESFA has applied for the inclusion of the "SmartSwitch" and "H2 Dedicated Pipeline" projects in the 6th PCI List. These projects are fully aligned with "twin" projects included from Bulgartransgaz.

DESFA is a funding and active member of the EHB initiative that aims to accelerate Europe's decarbonisation journey by defining the critical role of hydrogen infrastructure in enabling the development of a competitive, liquid, pan-European renewable and low-carbon hydrogen market

**European Hydrogen Backbone (EHB)**



# DESFA's steps towards the concrete implementation of the Biomethane value chain in Greece



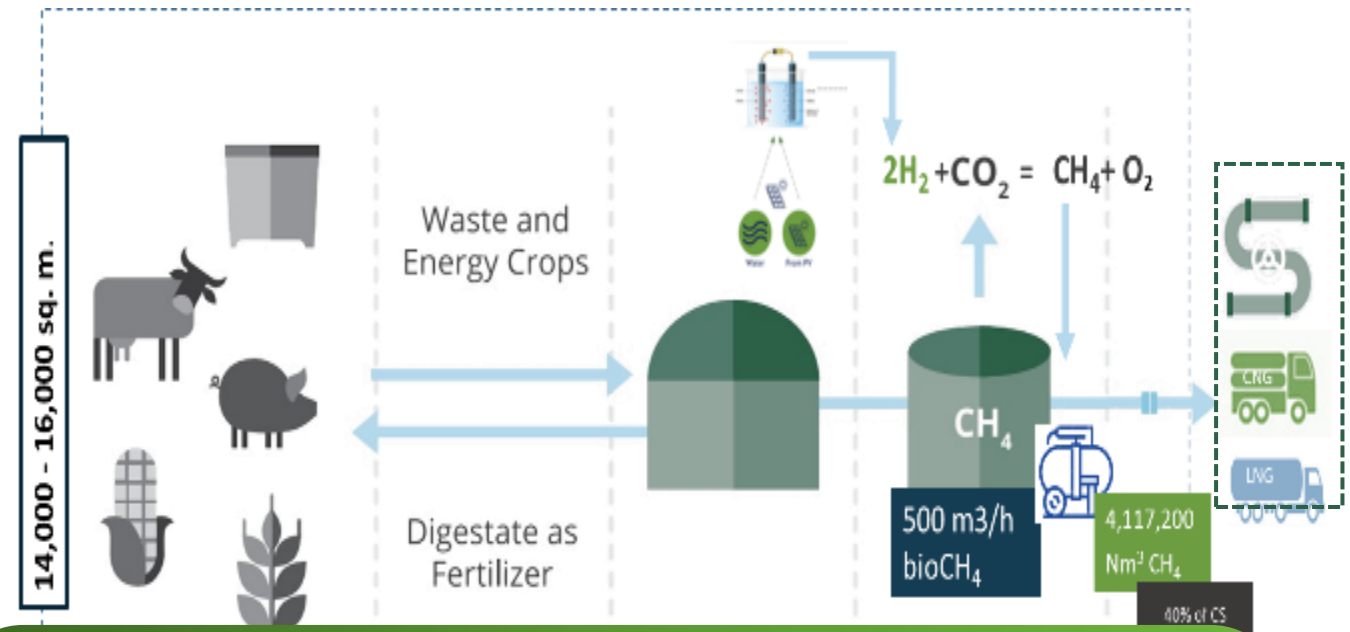
DESFA is assessing the opportunity to develop a biomethane pilot project for its own consumption purposes, namely, to cover the operating gas needs for our, existing & new, compressor stations.

## Why Biomethane?

- At the epicenter of the **REPowerEU Plan** and **green energy transition**; already mature market in other EU countries
- Epitome of **circular economy**
- **Domestically produced gas** contributing to enhanced **security of supply**

## Opening the Greek Biomethane Market

- **Cooperation Agreement** with major players with significant know-how in the Greek market, such as **Ergoplanning & Polyeco** for the **development of a Biomethane Pilot Project**
- Support for the **development of the necessary regulatory framework in Greece**



Raw material reception pretreatment area

Storage of digested residue

Digester | Biogas processing

Upgrading unit for Biomethane

Compressor | Feed-in

**Biogas processing:** Liquid anaerobic digestion in circular reinforced concrete digesters due to the nature of materials.

**Biomethane Upgrading:** Membrane treatment and organic absorption processing technologies (most mature and commercially applicable with choice of suppliers and assured support during the operation of the plant).





Thank you