



In transition: DESFA priorities in the new energy landscape

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Introduction to δ esfa

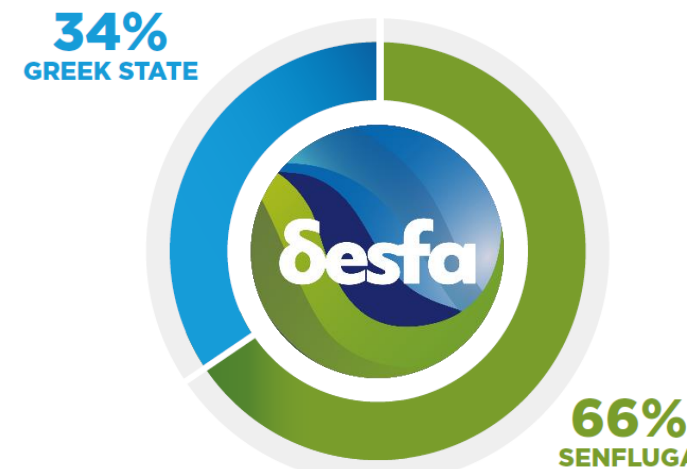


DESFA counts 17 years of successful operation

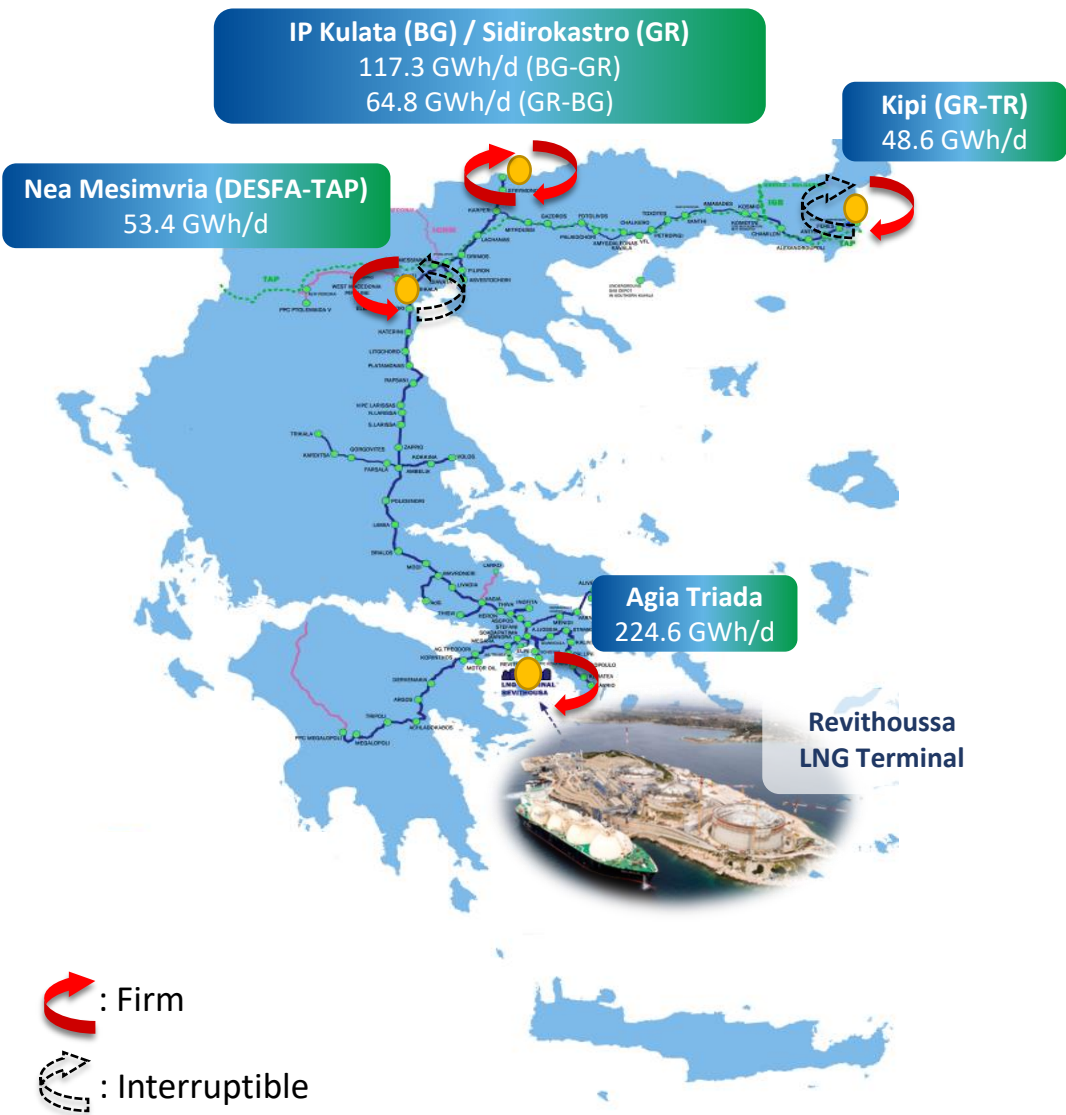


- ✓ Established in **March 2007**, DESFA owns & operates the **Greek Natural Gas System (NNGS)**, which consists of the **National Natural Gas Transmission System** & the **LNG Terminal** in the islet of **Revithoussa**.
- ✓ DESFA has been certified as an **Ownership Unbundled Operator** under the **3rd EU Energy Package**, following the **completion of a privatization process on December 20th of 2018**.
- ✓ DESFA operates, maintains & develops the **Greek Natural Gas System** in a **safe, reliable and economically efficient way**, offering:
 - **Regulated Third Party Access services** in a transparent and non-discriminatory way
 - **A range of non-regulated services** to a number of national & international clients
- ✓ DESFA has the **necessary know-how, highly trained staff and the proper equipment** to provide **high-level operation and maintenance services** for **LNG storage and gasification facilities**.

Shareholders Structure



...managing a high-quality network & state-of-the-art LNG facility...



Firm Import Capacity:
394 GWh/d or 144 TWh/y
(12,5 bcma)

Firm Export Capacity (GR-BG):
65 GWh/d or 24 TWh/y
(2,1 bcma)

1,466 km High Pressure Pipelines	6 Operation & Maintenance Centers
1 + 1 LNG Storage & Regasification Terminal Stations in Revithoussa & Kuwait	22 Exit Points to Distribution Systems
4 Interconnection Points	2 Dispatch Centers
53 Metering & Regulating Stations	1 Compression Station

Interconnections with other systems (FID)

1 FSRU Alexandroupolis	2 ICGB	3 North Macedonia
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Future interconnections with other systems (subject to their FID)

4 FSRU Dioriga Gas	5 Argo FSRU	6 FSRU Thessaloniki
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...while investing to increase export capacity from 2,1 up to 8,5 bcma accommodating regional market needs, in line with the RepowerEU targets



Highlights

As-is status (September 2023)

- 2 connections to Bulgaria – **ICGB from October '22**; however, currently gas can flow to Bulgaria, only through Sidirokastro; IGB sends 1bcm of gas to Bulgaria through TAP
- Current **firm import** capacity: **12.5 bcma** & current **firm export** capacity: **2.1 bcma**
- **1 LNG import Terminal (Revithoussa), FSRU Alexandroupolis under construction**
- **Dioryga FSRU** in pre-FID status, while another 2 FSRUs under assessment (in Volos and Thessaloniki)

Short-term (‘24-‘25)

- 3 bcma supply from FSRU Alexandroupolis to IGB from Jan '24
- When CS Ampelia and CS Komotini become operational (end '24):
 - firm export capacity: 3.5 bcma (from NNGTS to all IPs)
 - Up to 5bcma to IGB from Mid 2025, so **total export Capacity from NNGTS to reach 8.5 bcma in 2025**
- Booster compressor for TAP in Nea Messimvria to operate by mid '25 enabling physical gas flows of up to 3 bcma to TAP (to Italy and/or Bulgaria via ICGB)
- Greece - North Macedonia interconnection is expected to operate by mid '25; initial capacity ca. 1bcma, expandable to 3bcma (Western Balkans)

Mid-to-long term (‘26-onwards)

- Duplication of HP branch Karperi – Komotini **increasing firm capacity from VTP to IGB up to 2bcma**; jointly with below duplications firm capacity from Eastern points towards the VTP could be increased
- Duplication of HP branch Patima - Livadia, **allowing firm capacity to Dioryga FSRU, subject FID FSRU**

(All new pipelines are 100% ready to transfer hydrogen)



NATURAL GAS DATA
2023

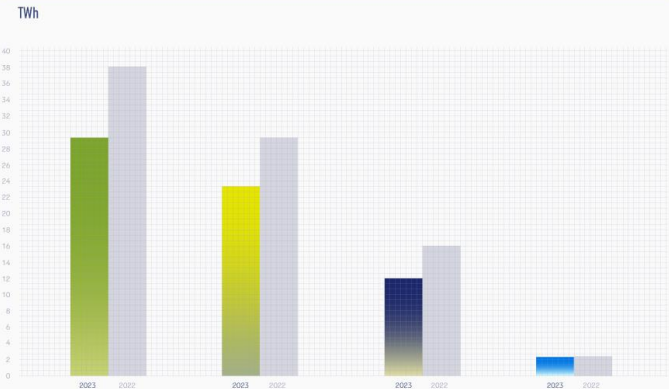
12M / 2023



KEY NATURAL GAS DATA

DOMESTIC CONSUMPTION	EXPORTS* <small>*FROM SIDIROKASTRO AND NEA MESSIMVRIA ENERGY ZONE POINT</small>	TOTAL DEMAND:
50,91 TWh (-10,13%)	16,69 TWh (-43,48%)	67,60 TWh (-21,56%)

NATURAL GAS ENTRY POINTS



12M 2023	AGIA TRIADA 29,49 TWh (-22,56%)	SIDIROKASTRO 23,43 TWh (-20,82%)	NEA MESSIMVRIA 12,49 TWh (-22,23%)	KIPOI 2,30 TWh (-5,35%)
12M 2022	38,08 TWh	29,59 TWh	16,06 TWh	2,43 TWh

TOTAL IMPORTS: 67,71 TWh
(-21,41%)

CUSTOMER CATEGORIES

ELECTRICITY PRODUCERS 34,54 TWh (-17,09%) bnNm ³ 2,98	DISTRIBUTION NETWORKS 11,19 TWh (-8,13%) bnNm ³ 0,96	INDUSTRIES & CNG 5,18 TWh (+84,34%) bnNm ³ 0,45
TOTAL: 50,91 TWh (-10,13%)		4,39 bnNm ³

LNG VESSELS

TOTAL NUMBER OF VESSELS: 41



TOTAL: 28,52 TWh -27,23% VARIATION

The background of the slide features a complex, abstract molecular structure. It consists of numerous spheres of varying sizes, some of which are transparent and contain smaller internal structures, connected by thin, metallic-looking rods. The overall color palette is a gradient of blue and teal, with a soft, out-of-focus effect that gives the impression of a microscopic or scientific environment.

desfa's priorities in the wake of energy transition

The future of gas infrastructure



A methane-based infrastructure in which natural gas will progressively be replaced by other renewable sources of methane (e.g. biomethane) and/or be blended with hydrogen up to a certain percentage



Infrastructure for the transportation and storage of CO₂ collected via carbon capture technologies



A hydrogen infrastructure which will progressively be developed and complement the network for methane gases

Our key strategic priorities



Leverage and
Strengthen export
potential



- **Enhanced Greece's & DESFA's network role for LNG import to SE Europe**
- **NG export to Bulgaria & North Macedonia** via Sidirokastro – IGB & North Macedonia HP pipelines respectively
- Fostering the implementation of the **Vertical Corridor** to ensure diversification of supply routes in the region and optimize use of Greek infrastructures

The Vertical Corridor initiative streamlines the efforts of all TSOs in the region...

- The Vertical Corridor TSOs have been in close cooperation for the design of expansion projects.
- The binding phase of DESFA's Market Test is synchronized with the 2023 incremental capacity process of CAM NC as one single process.
- Capacity will be offered simultaneously at all IPs across the route.
- The binding phase was launched in early May 2024 and the binding bids window will open in July 2024
- The process is expected to have been finalized with the signing of the GTAs by the end of September 2024.



Our key strategic priorities

Leverage and Strengthen export potential



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Execute TYDP's projects

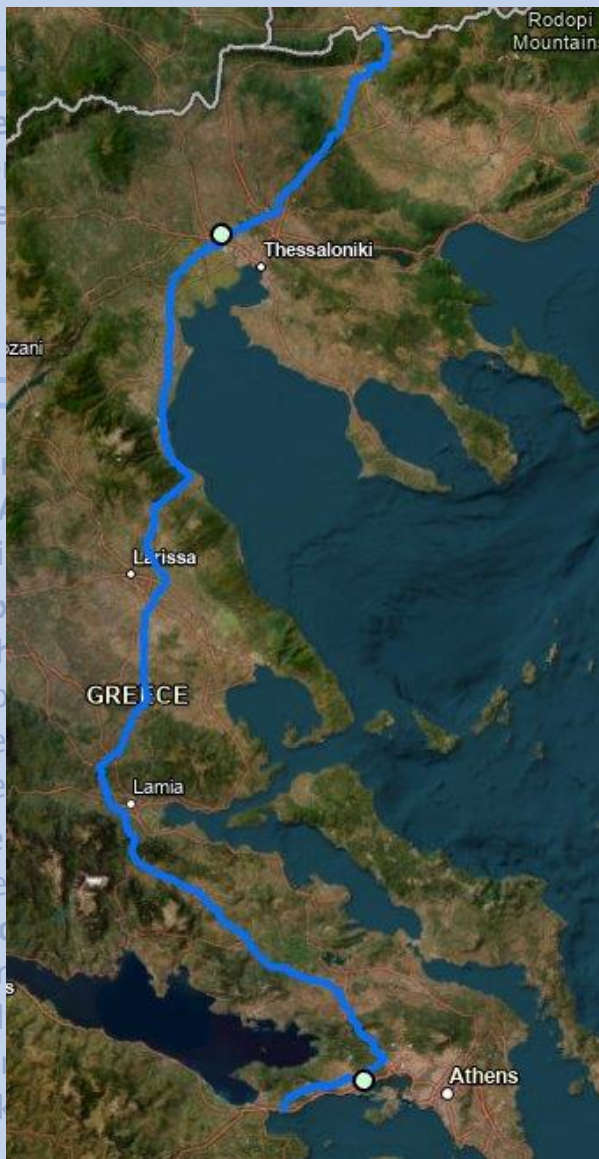


- **€1.3bn TYDP '23-'32**
- (i) duplication of **HP branch Karperi–Komotini** to remove congestion in the north area and fully exploit interconnection with Alexandroupolis FRSU & ICGB
- 100 % of new investments in Hydrogen Ready pipelines



status within 2024

Our key strategic priorities



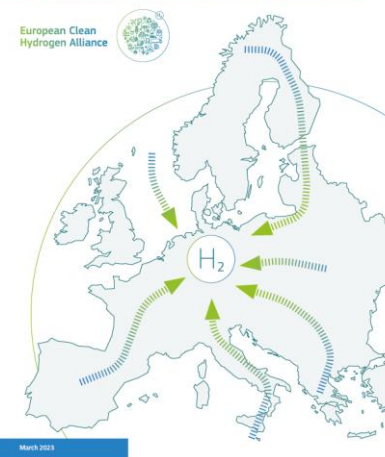
Support the development of Hydrogen market in Greece & EU



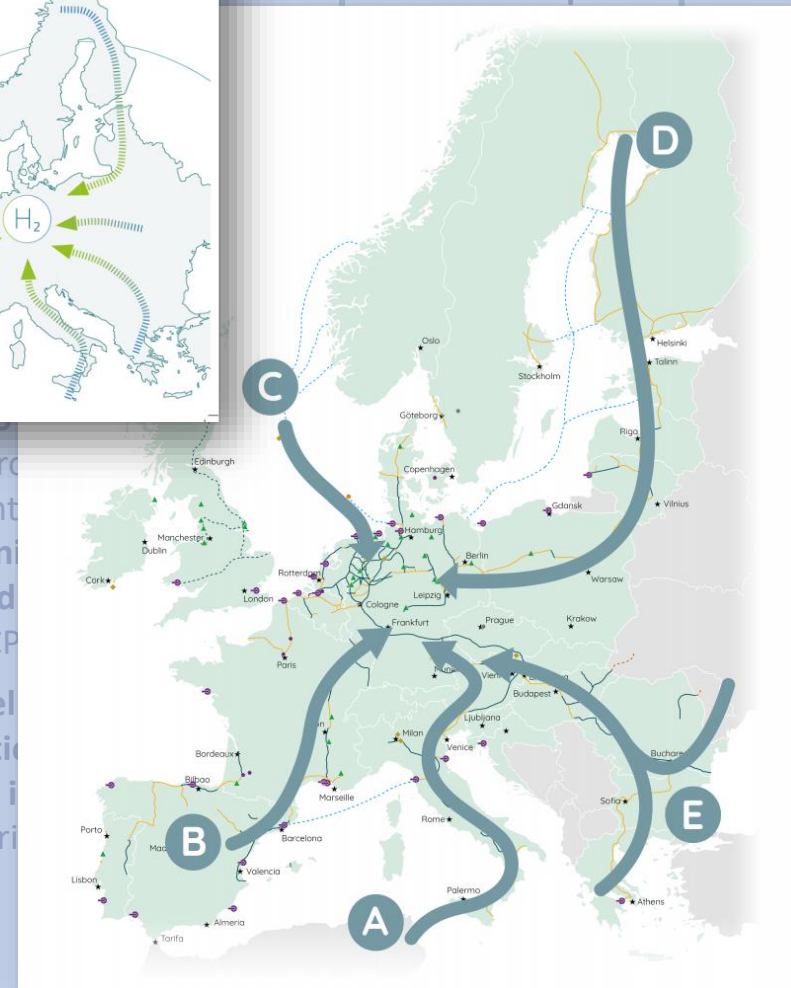
- All new pipelines and M/R projects in TYDP are technically H₂ ready
- H₂ Backbone included in the 6th PCI List
- Establishment of H₂ pilot projects with local partners
- Active participation in the ongoing development of the H₂ policy and legislation in EU through ENNOH creation and aiming at HNO status within 2024

LEARNBOOK ON HYDROGEN SUPPLY CORRIDORS

Clean Hydrogen Alliance
Transmission and Distribution Roundtable

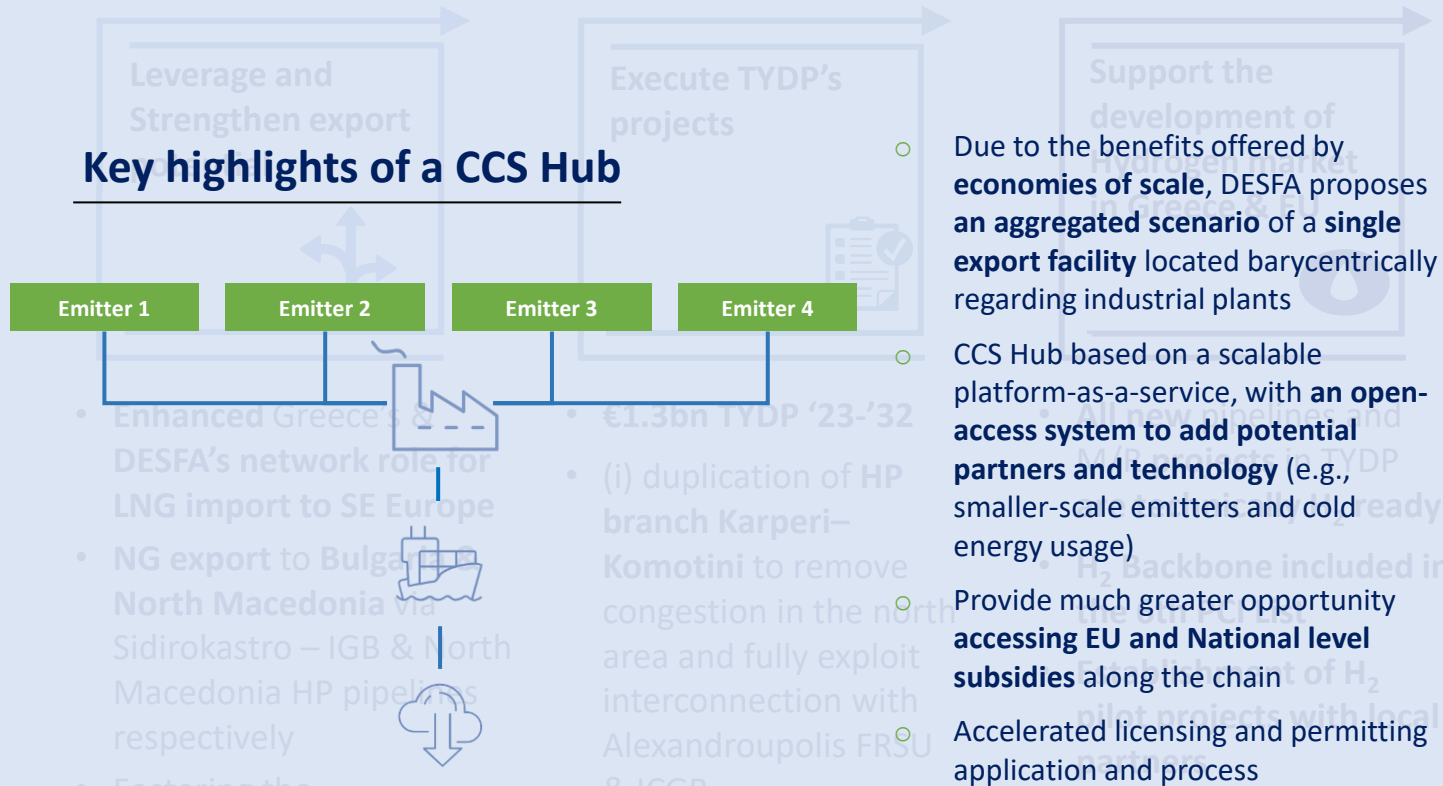


Biomethane pilot



Our key strategic priorities

Key highlights of a CCS Hub



Due to the benefits offered by **economies of scale**, DESFA proposes an **aggregated scenario** of a **single export facility** located barycentrically regarding industrial plants

CCS Hub based on a scalable platform-as-a-service, with an **open-access system** to add **potential partners and technology** (e.g., smaller-scale emitters and cold energy usage)

Provide much greater opportunity **accessing EU and National level subsidies** along the chain

Accelerated licensing and permitting application and process

Development of CCS logistic chain in Greece



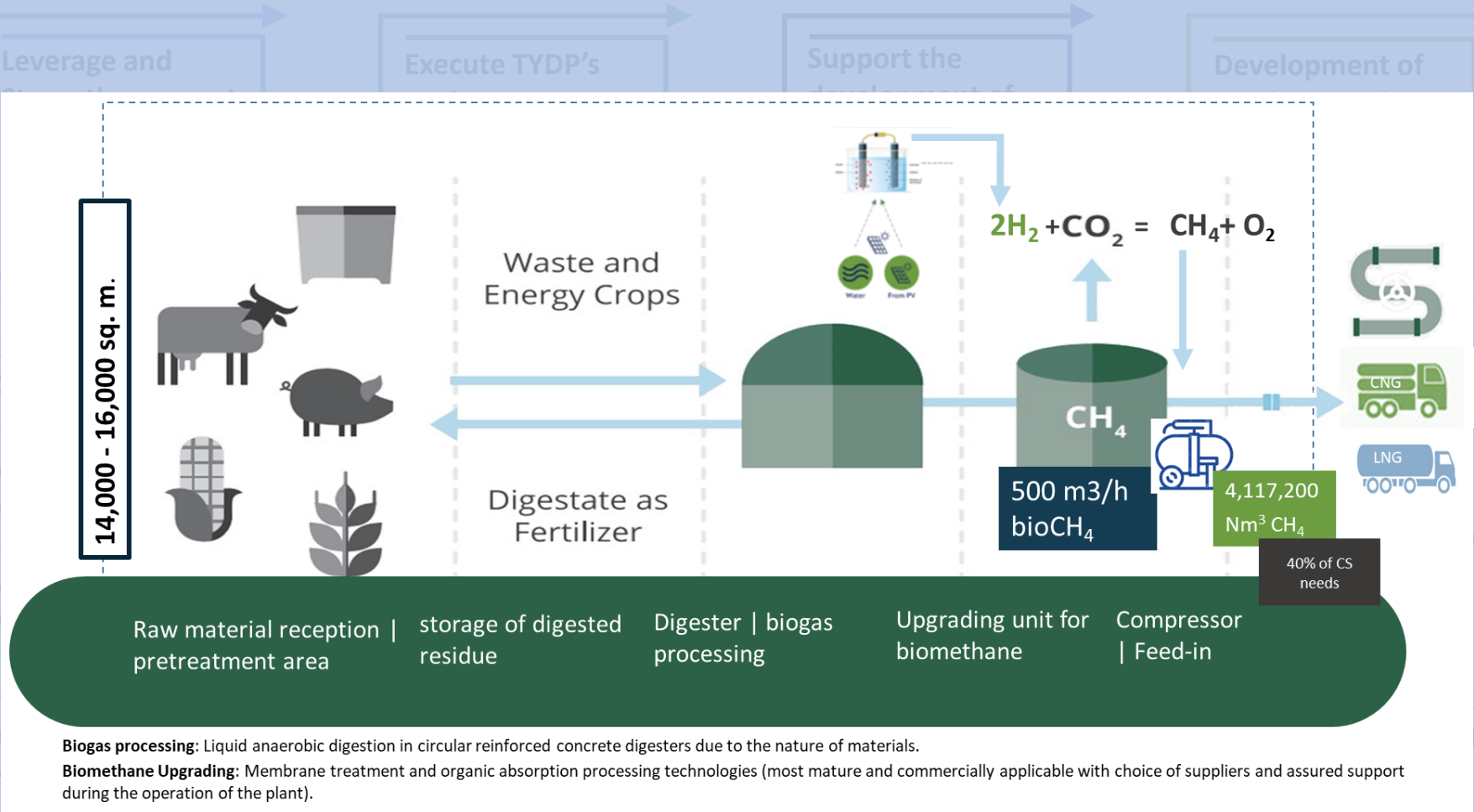
- DESFA intends to play a vital role in the **midstream part of CC(U)S value chain**, providing an important leverage to the **decarbonization of the Greek industry**
- **CO2 Pipelines and liquefaction infrastructure included in the 6th PCI list** (as part of Prinos project)

Biomethane pilot project and support the development of biomethane in Greece



- Agreement with **relevant stakeholders** for the **development of Biomethane Pilot Project**
- **Active participation** in the ongoing development of the biomethane policy and legislation in Greece

Our key strategic priorities



Biomethane pilot project and support the development of biomethane in Greece

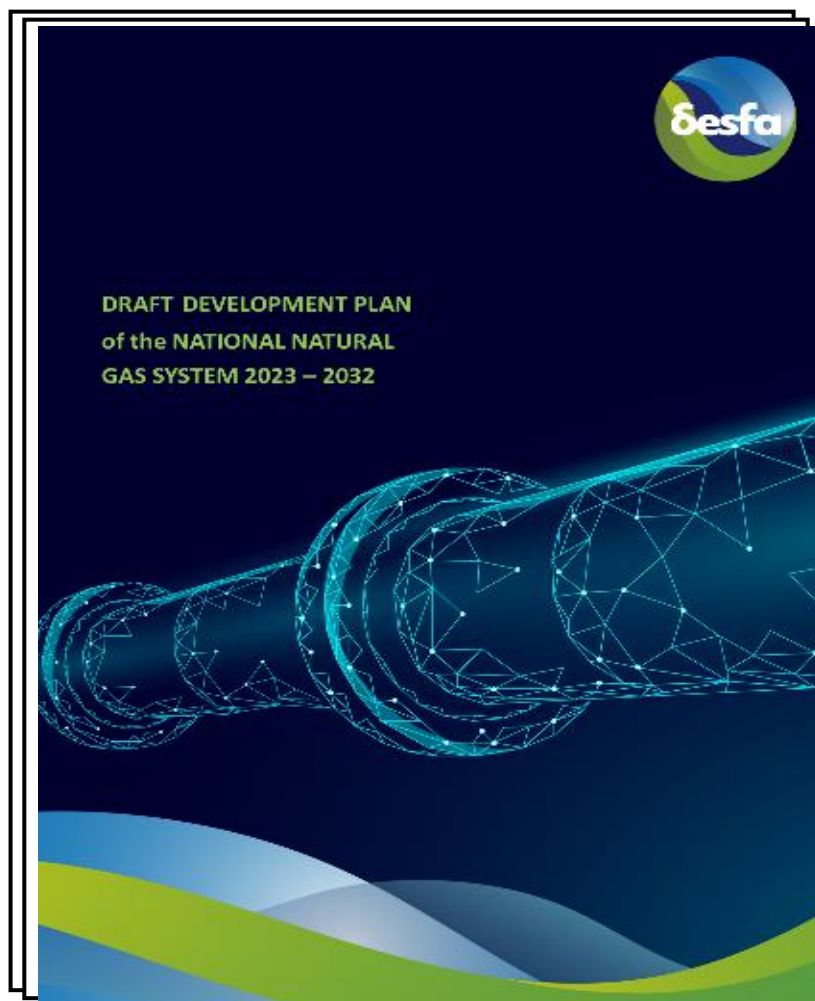
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- **Active participation** in the ongoing development of the biomethane policy and legislation in Greece



Thank you

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Overview of the approved TYDP 2023-2032, which reflects DESFA's investment plan & sets the goals of next decade



Main Points of TYDP 2023 - 2032

- Through the development and implementation of specific projects of utmost importance included in TYDP, DESFA targets to secure the continuous and smooth supply of natural gas both locally (to its customers) and to EU region through exporting capacities
- A **total of 80 projects** had been proposed by DESFA, with planned CAPEX of approximately **€ 1.3 billion**, from which an amount of €476 million corresponds to new projects (62% increase from the 2022-2031 TYDP).
- TYDP includes for the first-time projects **relating to energy transition** and decarbonization through the appropriate investments. These projects refer to
 - a pilot pyrolysis project and
 - the connection of DESFA's grid to the planned H2 valley in West Macedonia, for the injection of green hydrogen to the existing network

› All new projected pipelines along with the M/R stations **meet the technical requirements and are 100% ready to transfer H₂** to support EU achieving its transition to carbon neutral economy