

A CHANGE TO THE COUNTRY'S ENERGY MAP

**CNG** Supply of Remote Distribution  
Networks with Natural Gas

**EDA THESS- Training Course**

# EDA THESS: the guide for the Distribution Networks' Development



According to:



## The Directive 73/2009/EU (3<sup>rd</sup> Energy Package):

the Distribution Network Operator carries out the activity of distribution and is responsible for the operation, maintenance and development of the distribution system in a given area, possibly for its interconnections with other systems, as well as for the ensuring of the long-term capacity of the system to meet the reasonable demand of natural gas distribution.

## The Roadmap of the Gas Market 2017-2022:

“the energy planning of the next period includes actions aiming at the creation of conditions for the natural gas’ further penetration into the country’s energy mix while improving competition conditions”.

## The Distribution Network Operation Code:

-  Operator is responsible for the development of the Distribution Network and new Connections of Delivery Points in the geographical Area of its License.
-  Operator is responsible for the promotion of the use of Natural Gas in the Areas of its License, as well as for actions aiming at the increase of natural gas penetration in the area covered by the Distribution Network according to the provisions of Law.

# EDA THESS & CNG

## Change in the country's energy market



Development of technology of Compressed Natural Gas (CNG) process stations for the supply of remote areas

### —● Drafting of the Technical Regulation and the Regulatory Framework

OGG B' 3334/10.08.2018

framework for the development of Remote Distribution Networks using Compressed / Liquified N.G

OGG B' 1809/21.05.2018

Technical Regulation of "Compressed Natural Gas Decompression Installations and Auxiliary Provisions

Removing the energy exclusion of remote areas.

—● Innovation in virtual network investments with the construction of the first Natural Gas Decompression Stations

—● Installation standard, applying the most strict European specifications



Transmission is carried out with the ADR Directive 2008/68/EU Applies to :

- ADR Drivers
- Vehicles and Controls

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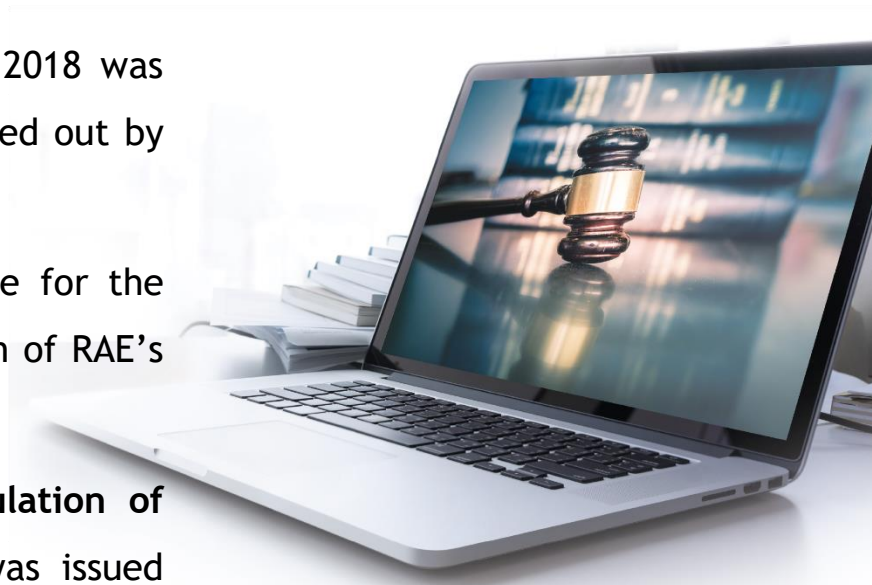


## Regulatory Framework

# Summary of CNG Regulatory Framework



- By RAE's Decision 43/2018 (OGG B' 3334/10.08.2018), the framework for the development of Remote Distribution Networks using Compressed / Liquified N.G. was established.
- By RAE's Decision 443/2019 (OGG B' 2945/16.07.2019), the RAE's Decision 822/2018 was amended for the approval of the terms and criteria of the tenders that will be carried out by EDA THESS for receiving CNG Virtual Pipeline services.
- By RAE's Decision 442/2019 (ΦΕΚ B' 2792/19.07.2019), the maximum unit value for the service of the Compressed Natural Gas Virtual Pipeline was determined in application of RAE's Decision 643/2018.
- By the Decision of the Ministry of Environment and Energy, the **Technical Regulation of Compressed Natural Gas Decompression Installations and Auxiliary Provisions** was issued (OGG B' 1809/21.05.2018).
- By OGG B' 5661/17.12.2018, the **technical specifications** of competent bodies, terms and conditions for the establishment and operation of gas stations with the installation of supply devices (refueling points) of compressed natural gas (CNG) in wheeled vehicles have been determined.





## CNG VIRTUAL PIPELINE

In areas with existing  
Distribution Network



# Remote Distribution Networks with Virtual Pipeline CNG



## EDA THESS

supplies Remote Distribution Networks  
in Thessaloniki and Thessaly using

## CNG Virtual Pipeline

Regional Unit  
of Thessaloniki



Region of  
Thessaly



**RAE 643/2018 Decision established the regulatory framework for the supply of remote areas with the use of Virtual Pipeline CNG.**

**With the Development of CNG Virtual Pipeline for the supply of Remote Distribution Network in the geographical area in which there is already a existing distribution network, for the access of Users in the most transparent, cost - effective and direct way.**

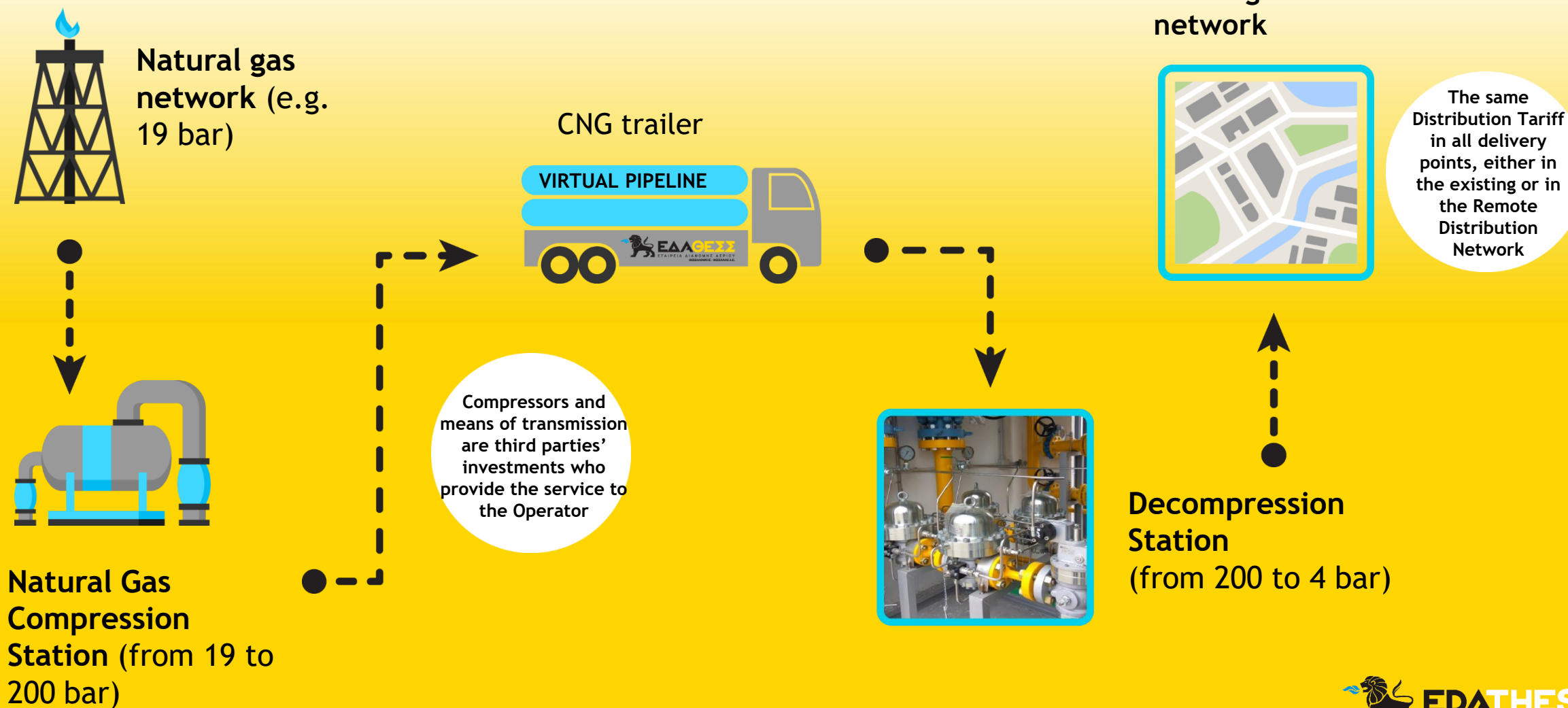
**In this case, the Remote Network is considered to be a virtual expansion of the existing Network.**

**Operator receives the Natural Gas compression service in a Natural Gas Compression installation and the transmission of Compressed Natural Gas by special means by a third party. Boundaries of the geographical area for the purposes of this paragraph concern areas (Distribution Networks), as described in the decisions of the Distribution Tariffs approval (same Regulated Asset Base).**





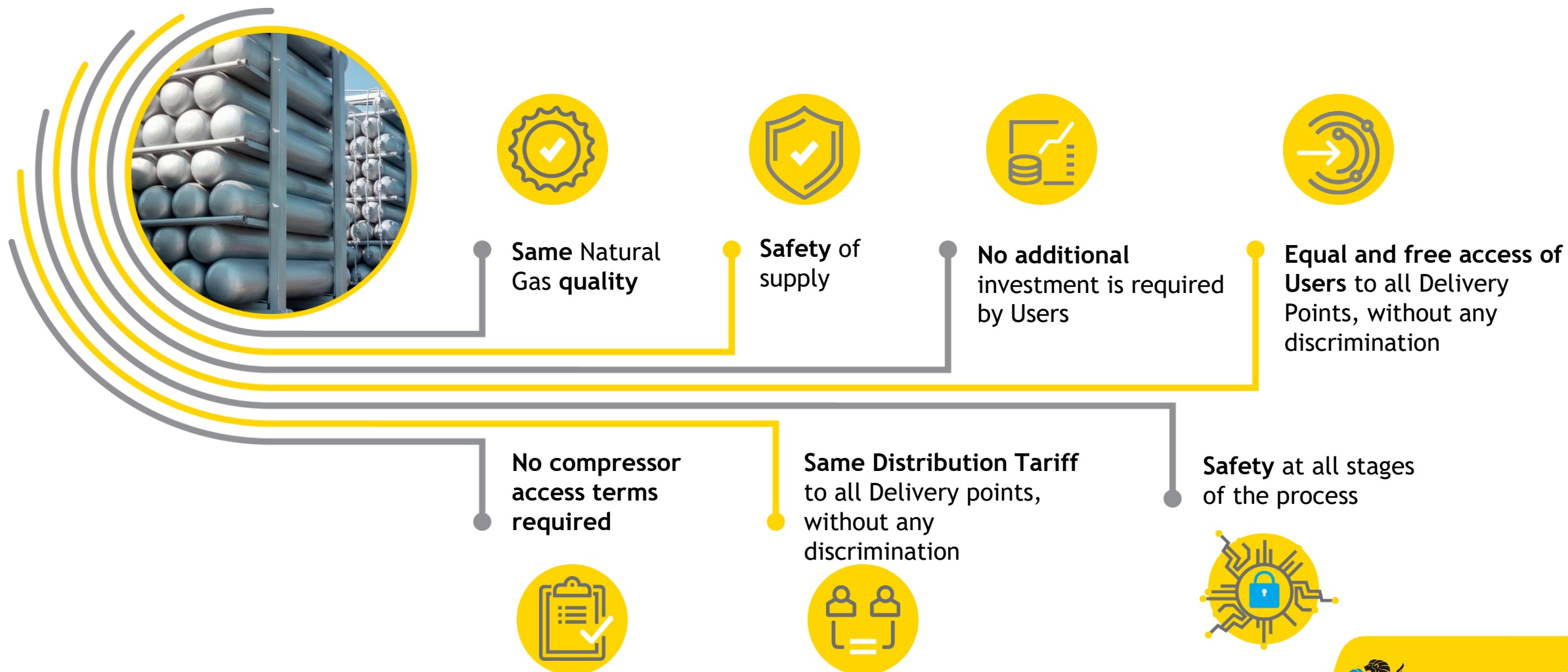
# CNG Virtual Pipeline







# CNG Virtual Pipeline



# Supply with CNG Virtual Pipeline (1/3)



## 1 Tariff to Final Consumers

With the CNG Virtual Pipeline, all **Final Consumers** are charged with the **same distribution tariff**, and reasonably with the same supply tariff, **without any further charge**. There is no differentiation between Consumers supplied with Remote Distribution Networks and those on the existing network.



## 2 Access to the decompression points

With regard to the CNG Virtual Pipeline, the decompressor is not an Entry Point, but a virtual continuation of the existing distribution network. Therefore, there is no **regulatory issue of access terms**.



## 3 Compression installations and means of CNG transmission

With regard to the CNG Virtual Pipeline, Operator receives a compression and transmission service by a third party. There is no need to “access” the compressor, which is not an Exit Point, but a compressor service point.

## Supply with CNG Virtual Pipeline (1/3)



# 4

### Free competition of the Supply activity in the Delivery Points

With regard to the CNG Virtual Pipeline, there is equal and free access of Suppliers to all Delivery Points, without any discrimination. Customers are free to choose their supplier, among all Suppliers.



# 5

### Charge for using the Distribution Network

With regard to CNG Virtual Pipeline, distribution tariff remains the same for all Delivery Points of the Distribution Network, without discrimination or additional charge.



## 6

### Safety, Programming and Supply Safety

**Safety is a key issue, objective and pillar of the operational function of the Distribution Networks' Operation.**

With regard to CNG Virtual Pipeline, safety issues of the supply process, the programming of the Remote Network supply, and the responsibility of the supply safety shall be borne by the Operator of the Distribution Network, who has the know-how and the necessary sources for safe and proper ensuring of the relevant requirements of legislation, regulatory framework and technical regulations.



## 7

### Quality of Natural Gas and Metering

With regard to CNG Virtual Pipeline, compressed natural gas has the same quality features as the gas in the existing network. CNG is possessed by the Operator, according to the Code. The metering of natural gas quantities is always made under the regulatory framework of the Metering Regulation and RAE's decision 643/2018.



**Supply of CNG network in areas where  
there is NO existing Distribution Network**



# Remote Distribution Networks where there is no existing Distribution Network



RAE's decision 643/2018 also formed the regulatory framework for the supply of remote areas in geographical regions in which there is no distribution network.

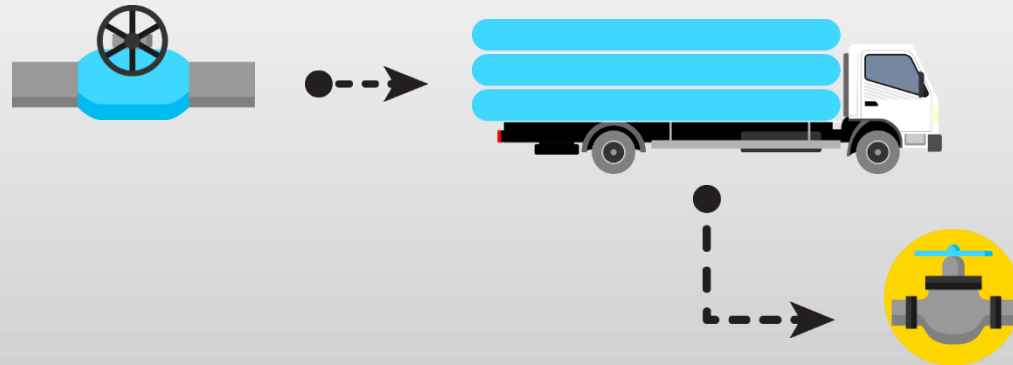
In these areas, the Virtual Pipeline development is not applicable and therefore the Operator has the obligation to ensure equal access of Distribution Users to the decompressor.



# Remote Distribution Networks where there is no existing Distribution Network



Compression  
Station  
natural gas line



Decompression Station  
“Entry point” to local  
distribution network

Industrial  
Consumer



Commercial  
Consumer



Domestic  
Consumer





Natural gas  
supplied vehicles



**Access to the compressor** only by the Distribution User with access to the compression installation  
Compressors and means of transmission are third parties' investments who provide the service to the Operator

**Decompressor is the Operator's investment** (entry point)  
Regulatory access terms must be set  
Regulation of the distribution tariff at the final delivery points

**Final consumer is charged with:**

-  The distribution tariff for the use of network up to the compression point and for the use of the remote network up to the final gas point (after billing by the User)
-  The supply tariff, in which the cost of compression and transmission should be included

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# Supply of CNG network in areas where there is **NO** existing Distribution Network (1/2)



1

## Final Consumer's Tariff

For the supply in areas where there is no distribution network (on other Regulated Asset Base), the **Final Consumer's tariff** includes the cost for compression and transmission of natural gas.

2

## Access to the decompression point

For the supply of remote areas with direct access of Users, the **report of the competent Operator** for the determination of the access terms to the decompression point is a regulatory requirement.

3

## Investments in CNG compression installations and means of transmission

When the remote distribution network is supplied and access of Users to the decompressor is applicable, the compressor is an Exit Point of the Distribution Network. **Significant funds should be placed by Suppliers** who are interested in investing in compression installations and means of transmission.

## Supply of CNG network in areas where there is NO existing Distribution Network (2/2)



4

### Charge for using the Distribution Network

With regard to the supply in areas where there is no distribution network, distribution tariff includes the charge for using a distribution network up to the compressor and for using the remote from the decompressor network up to the Final Consumer's Gas Point.

5

### Safety of the supply process, Programming & Supply Safety

Supply scheduling is drawn up by the Suppliers.

6

### Natural Gas Quality - Ownership and Possession of Natural Gas

Natural gas is owned and possessed by the Suppliers.



## Summary...

### ...with Virtual CNG Pipeline

**No charge to the Final Customer.** All Final Customers are charged with the same distribution tariff and reasonable with the same supply tariff.

**No access terms to the decompressor required** (is not Entry Point, but it is part of the distribution network).

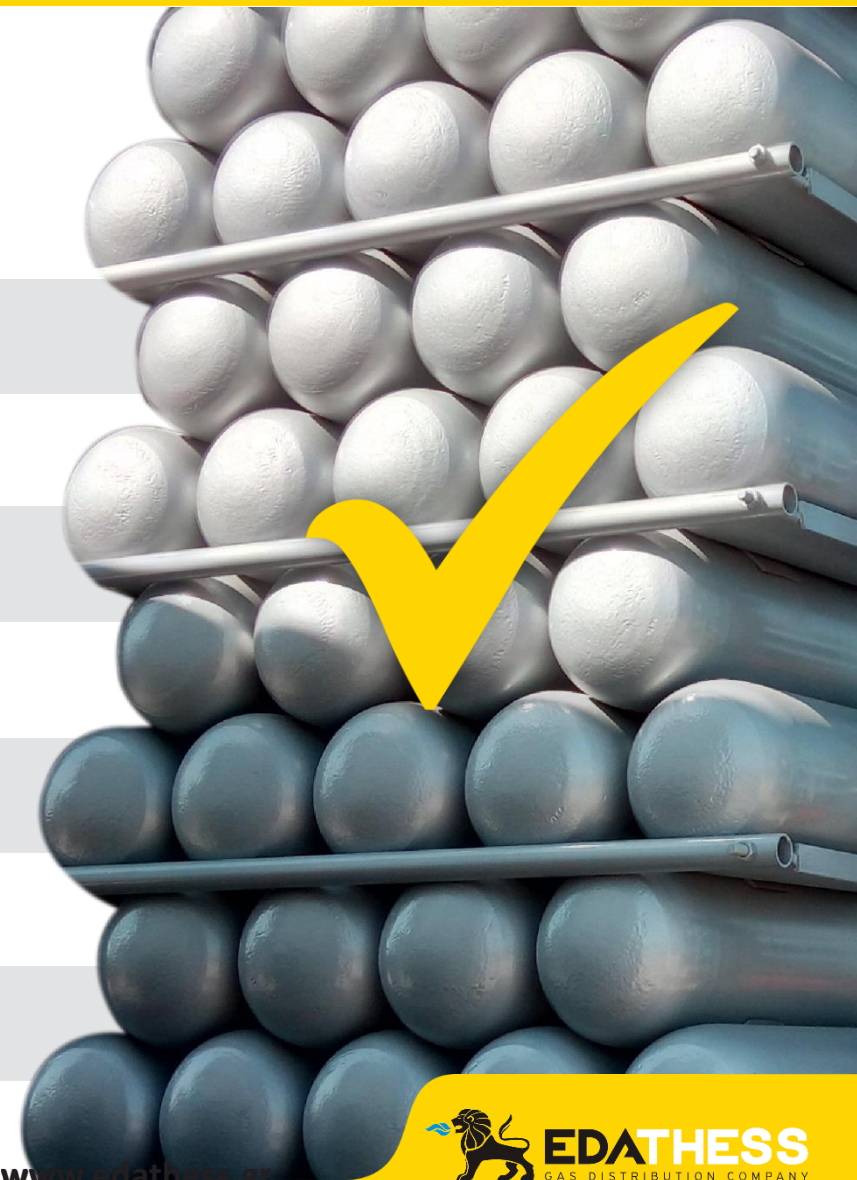
**No access need to the compressor**, which is not Exit Point but a point of providing compression service.

Transmission under the secure management of the Operator. **Assurance of the procedure and supply safety**

**Equal and free access to D.U** to all Delivery Points, without any discrimination. Customers are free to choose supplier, among all Users.

**Same distribution tariff to all the Delivery Points** of the Distribution Network without any discrimination or additional charge.

**Same quality features.** Possession of natural gas by the Operator. Metering under the regulatory framework of the Metering Regulation and RAE's Decision 643/2018.





## Summary...

### ... in areas where is not Distribution Network

Price to the Final Customer includes additional costs for User investments in compression and transmission.

Access terms to the decompressor required (Entry Gate), reported by the Operator.

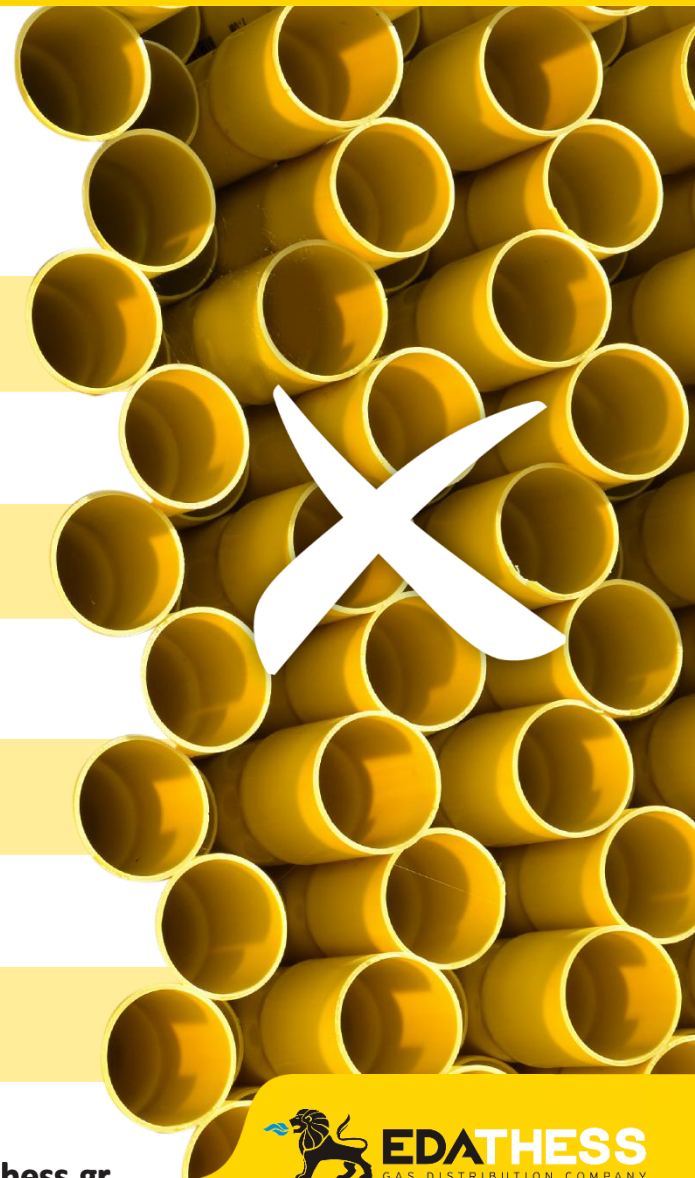
Access to the compressor by the Supply User. The compressor is Exit Point.

Supply scheduling by the Vendors.

Access to remoted delivery points only by Supply Users who possess compressor and means of transmission.

Distribution Charge for the use of the network up to compressor and the use of the remoted network up to the gas point.

Ownership and possession of natural gas to the Distribution User.





## CNG Compressor Installation at EDA THESS' Distribution Network



# CNG Compressor Installation at EDA THESS' Distribution Network



Regarding the installation of gas compression stations (CNG) in the Gas Distribution Network in the Regional Unit of Thessaloniki and in the Region of Thessaly, **those who wish to invest in the compression, transmission and supply of compressed natural gas (CNG) can operate freely.**

The activity of establishment and operation of CNG supply gas stations and mixed gas stations is determined by the provisions of OGG B '5661 / 17.12.2018 and is not related to the activities of EDA THESS

The supply of compressed natural gas is an activity regulated by the provisions of the Regulation of Natural Gas Licenses (OGG B '3430 / 17.08.2018). Therefore, **the role of EDA THESS is completely independent of the legal or natural entities who operate or wish to operate in the compression, transmission and supply of compressed natural gas (CNG).** The responsibility of EDA THESS, according to the Basic Activity according to the provisions of the Distribution Network Operation Code (OGG B '1507 / 02.05.2018), is the distribution of Natural Gas through the Distribution Network and the connection of new Delivery Points with it, as well as promoting the use of Natural Gas for the development of the Distribution Network.

EDA THESS as an Operator examines applications for connection of compressed gas installations to its Distribution Network and to date, gas compressors (CNG) have already been connected and supplied. Those who are interested in connecting new compression points (Delivery points of the Distribution Network), can submit the relevant connection applications to EDA THESS (email: [cust@edathess.gr](mailto:cust@edathess.gr) , Thessaloniki: 2310584152, Monastiriou 256 & D. Glinou 7 - Larissa: 2410582383, Farsalon 219), according to Article 24 of the Distribution Network Operation Code (OGG B '1507 / 02.05.2018).



# Supply of Individuals and Industrial Consumers



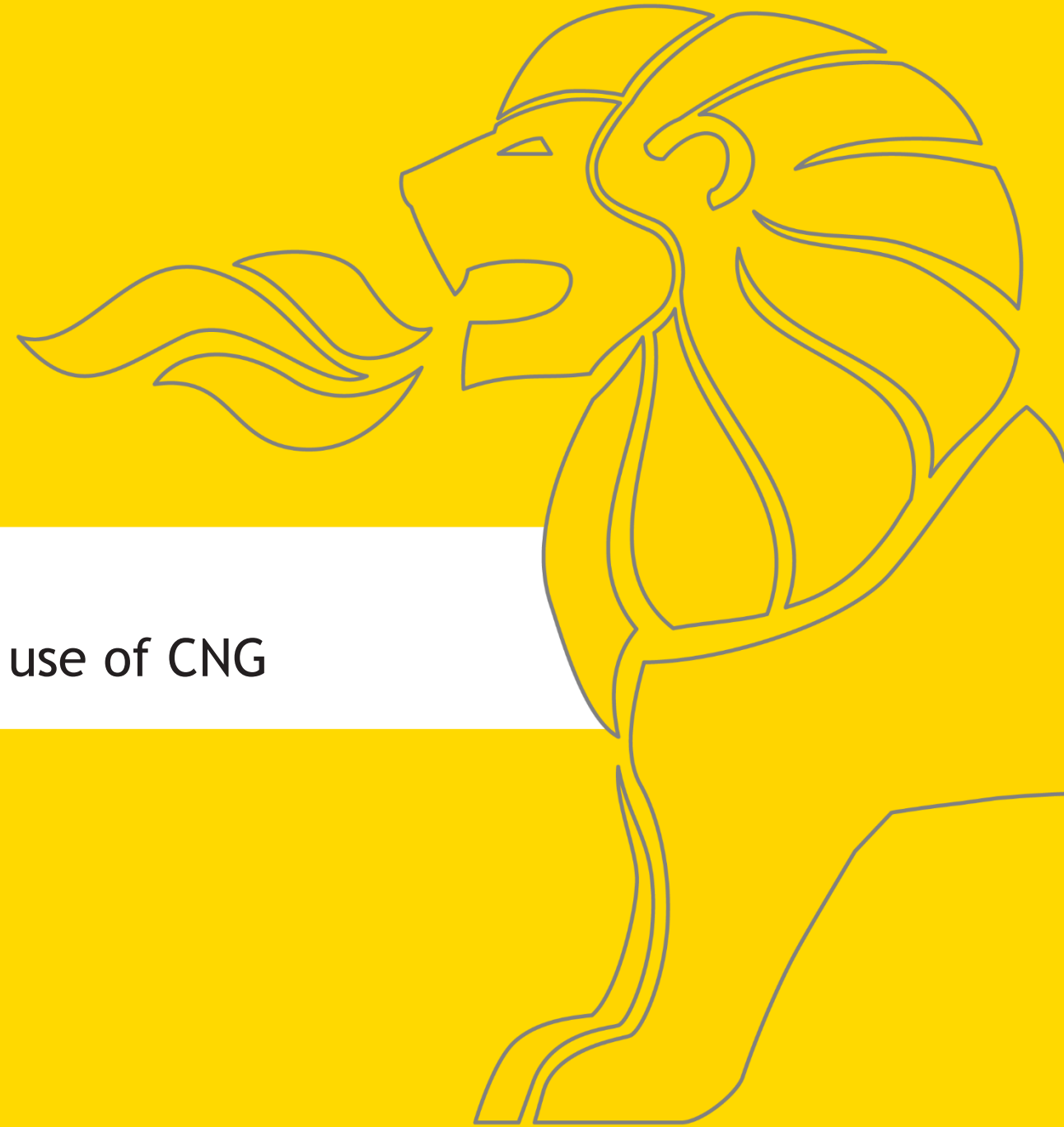
- RAE's Decision 643/2018 also determines the framework for the **Supply of Non- Connected Natural Gas delivery Point**
- Non- Connected Natural Gas Delivery Point is defined Natural Gas Delivery Point which is located **outside the Transmission System of Natural Gas and supplies an individual Natural Gas Consumer.**
- For the Supply of individual Final Consumers non-connected to the Transmission System of the Distribution Network, the **issuance of Natural Gas Supply License** is required through and outside the Transmission System or the Distribution Network, according to the Regulation of Natural Gas Licensing.
- The Supply of individual Final Consumers non-connected to the Transmission System of the Distribution Network is based on the provisions of the Natural Gas Supply Code as well as the Regulation of Natural Gas Licensing.

Therefore, the **Supply** of compressed natural gas to individual Consumers is carried out by **Natural Gas Suppliers.**





## Supply Safety of Distribution Networks with the use of CNG



# Distribution Network Supply Safety using CNG

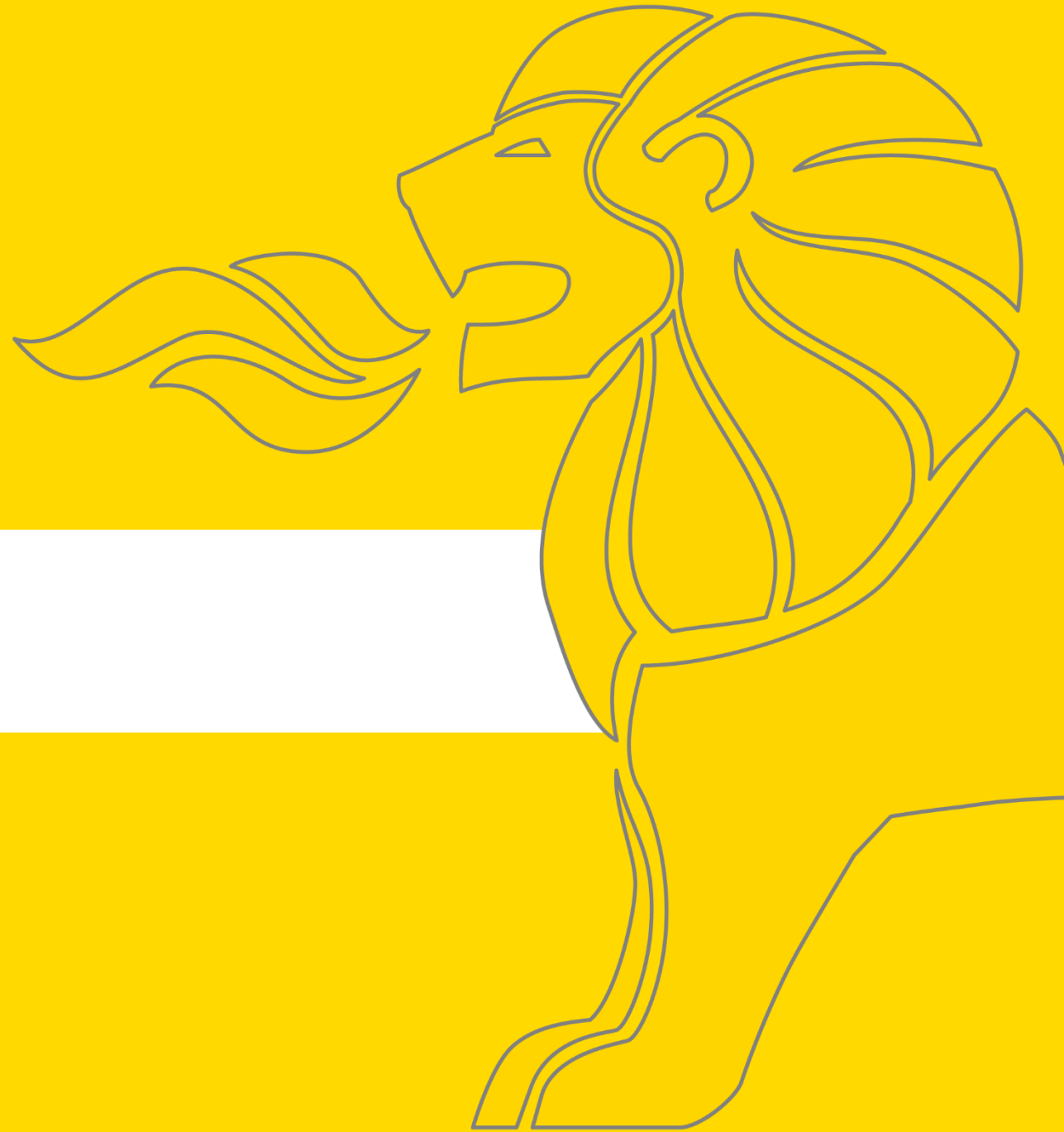


- For the Supply Safety of Distribution Networks, the **Technical Regulation** includes the extraordinary gas supplies with CNG at the delivery points.
- Taking into account the practice of European Distributors, **EDA THESS** is able to supply parts of the Distribution Network **with CNG in case of emergency** (crisis, maintenance, or upgrade of the Distribution Network) **ensuring the continuous supply of natural gas** to Consumers and **Technical competence** of natural gas infrastructure.





## Training Programs for CNG activity



# EDA THESS' training programs for the CNG activity



EDA THESS offers training courses for the activity of the compressed natural (CNG).

For expression of interest and in case of any information, interested parties may contact EDA THESS via e-mail at [services.eda@edathess.gr](mailto:services.eda@edathess.gr).



**Duration of Training  
Courses from 11/5 - 5/6**

**Participation  
Applications up to  
May 8, 2020**

# EDA THESS' training programs for the CNG activity



## Training programs cover all CNG activity, such as:

- The **regulatory framework** for Remote Distribution Networks
- The **Technical Regulation** of Decompression Installations for Compressed Natural Gas and Auxiliary Provisions (OGG B' 1809/21.05.2018)
- Installations' **technical specifications**
- The **process** of supplying Remote Distribution Networks using CNG Virtual Pipeline
- The **safety** of Distribution Network's supply using CNG

Training is provided by **EDA THESS**, through a **remote system** using digital tools and technology.





# **EDA THESS**

# **The power**

# **on Natural Gas**

