



REPUBLIC OF CYPRUS

**DEPARTMENT OF TRANSPORT,
COMMUNICATIONS AND WORKS**

**MINISTRY OF ENERGY, TRADE
AND INDUSTRY**

**REPORT ON THE IMPLEMENTATION OF THE NATIONAL
POLICY FRAMEWORK ON THE DEPLOYMENT OF
ALTERNATIVE FUELS INFRASTRUCTURE UNDER
ARTICLE 10 OF DIRECTIVE 2014/94/EU**

Table of contents

TABLE OF CONTENTS	2
INTRODUCTION	3
1 DEVELOPMENT OF ALTERNATIVE FUELS IN THE TRANSPORT SECTOR	3
2 STATE OF PLAY	5
ANNEX A	7

INTRODUCTION

Directive 2014/94/EU establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in the form of recharging and refuelling points in order to minimise dependence on liquid fossil fuels and to mitigate the environmental impact of transport.

Article 10 of Directive 2014/94/EU requires Member States to submit, by 18 November 2019 and every three years thereafter, a report on the implementation of its national policy framework to the Commission. The reports must cover the information listed in Annex I to the Directive and should, where appropriate, include a relevant justification regarding the level of attainment of the national targets and objectives referred to in Article 3(1).

1 DEVELOPMENT OF ALTERNATIVE FUELS IN THE TRANSPORT SECTOR

Regarding the future development and further penetration of alternative fuels in the transport sector, a study was conducted by the German company Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, entitled 'Technical assistance in order to assess and formulate recommendations for the promotion and penetration of alternative fuels in the transport sector'. The purpose of the study was to present a comprehensive proposal setting out future scenarios for wider use of the various alternative fuels in Cyprus's transport sector and policies and measures to promote such fuels, taking into account the country's specific features, with the aim of Cyprus meeting its mandatory energy and climate targets in the area of transport. The study was finalised in July 2017.

In addition, the Swedish KTH Royal Institute of Technology conducted a study in which energy modelling software was developed for the purposes of Cyprus's national energy planning. The study aimed to set out a roadmap for meeting renewable energy targets by 2020 and climate and energy targets by 2030 as cost-effectively as possible. As part of the preparation of the National Energy and Climate Governance Plan, a study of the impact of the policies and measures included in the Plan was completed in late 2019 by the Cyprus University of Technology and the Cyprus Institute, with funding from the European Commission's Structural Reform Support Service. The Plan includes policies and measures to promote alternative fuels in transport.

Studies on the use of natural gas in the transport sector are being conducted under the CYnergy project funded by the Connecting Europe Facility (CEF).

Specifically, Activity 3 'NG in Road Transportation: Design, Legislation & Implementation Plan' analyses the potential use of natural gas (NG) in the form of compressed natural gas (CNG) and liquefied natural gas (LNG) in transport.

The following reports will be drawn up under Activity 3:

- Design
- Detailed analysis of the legislative and regulatory framework
- Cost analysis of NG in road transport
- Implementation plan for the use of NG in road transport.

In particular, Activity 3.1 'Design' involves looking into various strategies for developing power stations (C/LNG refuelling stations).

- Alternative penetration strategies will be examined.
- An estimate will be made of the required number of substations based on specific assumptions and calculations.
- Best practices will be presented.

The study took into account natural gas imports by means of a floating storage regasification unit (FSRU). In the first few years (the study assumed the infrastructure would be deployed in 2019), natural gas (CNG/LNG) vehicles could account for up to 0.15% of the vehicle fleet, increasing to 8.3% of the fleet by 2040. As NG will only be introduced in 2022, three years need to be added to each of the above stages.

Initially, there would be no more than one refuelling station per city (serving 0.15% of the vehicle fleet), but by 2040, if demand from vehicles reached 8.3%, that number could increase significantly to up to 77 stations.

Year of Study: 2040		
District	Population	Number of Gas Stations
Nicosia	525.576	26
Limassol	378.100	21
Larnaca	230.162	14
Paphos	141.892	12
Famagusta	75.110	4
TOTAL	1.360.840	77

A legal analysis of the use of natural gas in transport was also made under Activity 3, 'NG in Road Transportation: Design, Legislation & Implementation Plan'.

The cost of deploying LNG and CNG infrastructure, respectively, is shown below.

Capex for LCNG Stations – Road Transportation Demand		
LCNG Stations	2019	2030
Ammochostos Province	1.116.000 €	0 €
Larnaca Province	1.116.000 €	0 €
Lemesos Province	1.116.000 €	1.116.000 €
Leukosia Province	1.116.000 €	1.116.000 €
Paphos Province	1.116.000 €	0 €
Total Capex Cyprus	5.580.000 €	2.232.000 €

Table 3: Total Investment Cost for LCNG Stations for Road Transportation Use (EUR).

Capex for LNG Tanker Trucks – Road Transportation Demand	
LNG Trucks	2019
Total Capex Cyprus	630.000 €

Table 4: Total Investment Cost for LNG Tanker Trucks for Road Transportation Use (EUR).

2 STATE OF PLAY

(i) Biofuels

So far the alternative fuels used in road transport are mainly biofuels. Suppliers of conventional road transport fuels have been required to blend conventional fuels (petrol and diesel) with biofuels, with biofuels accounting for at least 2.4% in terms of energy content. The above percentage is determined by decree of the Minister for Energy, Trade and Industry. The percentage was raised to 5% from 27 September 2019 and to 7.3% from 17 January 2020 to allow Cyprus to meet its mandatory targets for transport by 2020 as required by Directives 2009/28/EC and 2009/30/EC.

(ii) Electricity

The use of electricity in transport is currently limited. There are currently 170 registered electric vehicles and 40 charging points (20 double points).

(iii) Liquefied petroleum gas (LPG)

There is a legislative framework in place allowing LPG to be used for autopropulsion. Vehicles are being converted for such use and more than 20 applications have been submitted seeking planning permission to install LPG pumps. Supply of motor LPG was launched in August 2018 with the issuing of permits for the first two service stations in Nicosia. Subsequently another six filling stations obtained permits and installed gas pumps, bringing the current total number of stations to eight. Motor LPG consumption nevertheless remains at very low levels.

(iv) Natural gas

Natural gas (NA) is currently not being used in the transport sector as there is no market for natural gas in Cyprus due to its geographical isolation, the small size of the market and the lack of interconnections with other gas networks.

Introducing natural gas to meet the needs of the domestic market is a priority of our energy strategy. In May 2017, following decisions of the Council of Ministers, the Public Natural Gas Company (DEFA) issued a call for tenders for LNG infrastructure deployment and laid down a joint procedure for pre-selecting suppliers having expressed interest in supplying LNG.

The call for tenders for LNG infrastructure deployment was published on 5 October 2018, and on 13 December 2019 a contract was signed between the Natural Gas Infrastructure Company of Cyprus (ETYFA) and a consortium of Chinese, Greek and Norwegian interests: China Petroleum Pipeline Engineering CO Ltd — CPP, METRON S.A., Hudong-Zhonghua Shipbuilding Co. Ltd and Wilhelmsen Ship Management Limited. Under the terms of the tender, the Consortium has 24 months from the date the project was launched to complete the infrastructure works.

With regard to NG supply, on 4 June 2019 DEFA announced a common preselection procedure for suppliers under which interested suppliers submitted an expression of interest (EOI), either for the supply of base quantities through a long-term sales and purchase agreement (SPA) or for supply via the spot market on the basis of a multi-party master sales agreement (MSA), or both. The deadline for submissions was 6 September 2019, and 25 companies expressed interest.

A tender for medium/long-term LNG supply in Cyprus and the 'Open Season' procedure for the expression of interest in NG/LNG by potential buyers in Cyprus are expected to be announced in 2020, so as to allow the necessary infrastructure to be completed and gas supply to the Cypriot domestic market to be launched in early 2022.

The 2004-2018 Natural Gas Market Regulation Acts are aligned with Directive 2009/73/EC concerning common rules for the internal market in natural gas ('the Directive'). The Directive on which the Act is based gives Cyprus the possibility to derogate from some of its articles because it can be considered an isolated or emergent market. Both the Act and the Directive therefore allow Cyprus to derogate from specific provisions of the Act on account of these characteristics.

In its Decision No 87.649 of 5 June 2019, the Council of Ministers decided to exercise its right to apply specific derogations with reference to Cyprus being an emergent market. It also decided to designate the DEFA as the distribution system, transmission system and LNG facility operator.

ANNEX A

The tables in Annex A are based on the template for Member States' reporting on their national policy frameworks under Article 10 of Directive 2014/94/EU, appropriately filled in (as far as information is available).

- A1 Legal measures to support the implementation of the national policy framework**

- A2 Policy measures supporting the implementation of the national policy framework**

- A3 Deployment and manufacturing support**

- A4 Research, technological development and demonstration (RTD&D)**

- A5a Alternative Fuel Vehicles (AFV) estimates**

- A5b Alternative Fuel Infrastructure (AFI) targets**

- A6 Alternative Fuel Infrastructure (AFI) development**