

Implementation report on the National Policy
Framework Strategy for Developing the Alternative
Fuels Market



Ministry of the Economy, Energy and the Business Environment (*Ministerul
Economiei, Energiei și Mediului de Afaceri*)

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Introduction

In accordance with Article 12(2) of Law No 34/2017 on the deployment of alternative fuels infrastructure, the Ministry of the Economy, Energy and the Business Environment, which is the competent regulatory authority, will submit a report to the European Commission on the implementation of the National Policy Framework Strategy for developing the Alternative Fuels Market by 18 November 2019 and every three years thereafter.

This report contains the information laid down in Annex 1 to Law No 34/2017 and, where applicable, will include a relevant justification of the level of achievement of the national targets and objectives set out in Article 4 of the same law.

The National Framework Strategy is included in the Annex to Government Decision No 87/2018 and has been prepared in accordance with Chapter II of Law No 34 of 27 March 2017 *on the deployment of alternative fuels infrastructure* transposing Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 *on the deployment of alternative fuels infrastructure*.

The purpose of the National Framework Strategy is to support the deployment of alternative fuels infrastructure in Romania so that all the relevant modes of transport, methods and technologies may be used non-discriminatorily according to their efficiency, applicability and return in order to ensure a transport system with a high degree of continuity and a minimum impact on the environment and public health, in both conurbations and throughout the interurban infrastructure and European road, water and air transport networks.

The measures supporting the development of alternative fuels infrastructure in Romania, which are set out in the National Framework Strategy, are listed individually by alternative fuel according to the following criteria¹: legislative, regulatory or administrative measures, policy measures to support the implementation of the National Framework, support measures for deployment and production, and information, research, technological development and demonstration measures. These measures constitute a technical and legislative package for the non-discriminatory promotion of the seven alternative fuels, as defined in Law No 34/2017 and used in the

¹ These criteria/categories were defined in Government Decision No 87/2018 taking into account the breakdown proposed in the European Commission's document *Clean Transport - Support to the Member States for the Implementation of the Directive on the Deployment of Alternative Fuels Infrastructure* (Chapter 4 – page 41), as published on the Commission's website in January 2016;

Source: <https://ec.europa.eu/transport/sites/transport/files/themes/urban/studies/doc/2016-01-alternative-fuels-implementation-good-practices.pdf>, accessed on 25 November 2019;



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three modes of transport, more specifically, the road, water and air transport, in urban and extra-urban areas.

With the measures included therein, the Strategy ensures consistency with the overall target set for 2020, concomitantly planning to contribute to reaching the target for a share of the renewable energy sources in all modes of transport, representing at least 10% of the final energy consumption in transport in 2020.

Deployment of adequate alternative fuels infrastructure in Romania is an objective included in the *European Strategy for Sustainable Transport*, which states that a sustainable transport policy should handle traffic intensity and the increasing levels of congestion, noise and pollution and foster the use of transport types with a low impact on the environment and of intermodal transport solutions, as well as providing an adequate level of accessibility to the persons holding alternative fuel powered vehicles.

The measures listed in the National Framework Policy Strategy, which are intended for implementation by the public authorities, will be correlated with the measures already adopted by public institutions and the private environment, so that the results reflect the development potential of the market in Romania and the global trends in the area of alternative fuels.

In accordance with Article 2 of Government Decision No 87/2018, the Coordination Council for Development of the Alternative Fuels Market (CC DPCA) was set up for the implementation of the measures laid down in the National Policy Framework Strategy with a view to providing expertise for the implementation and monitoring of the National Policy Framework Strategy for developing the alternative fuels market in the transport sector and deploying the relevant infrastructure in Romania.

This report was thus prepared on the basis of the information provided by the authorities acting as members and/or permanent guests in CC DPCA, who have responsibilities in the relevant fields of this issue. The main task of CC DPCA is to coordinate the implementation of the National Framework by developing cooperation between the authorities with relevant duties.

1. Measures implemented or under implementation

These measures are listed on page 41 of the Annex to Government Decision No 87 of 7 March 2018 *approving the National Policy Framework Strategy for developing the alternative fuels market in the transport sector and deploying the relevant infrastructure in Romania and establishing the Inter-ministerial Coordination Council for developing the Alternative Fuels Market*.

Order No 741 approving the Financing Guidelines *“Programme for air quality improvement and reduction of greenhouse gas emissions by using less polluting motor vehicles in the local public passenger transport”* was published on 13 July 2018 in Official



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Gazette.² The programme objective is to reduce greenhouse gas emissions by releasing for circulation electrical buses, hybrid buses, CNG-fuelled buses and trolleybuses. The grant amounts to a maximum rate of 80% of the bus/trolleybus purchase price. Motor vehicles in the M3 category are eligible: electrical buses, hybrid buses, CNG-fuelled buses or trolleybuses. The programme is developed by the Environmental Fund Administration Office (*Administrația Fondului pentru Mediu - AFM*) coordinated by the Ministry of the Environment, Waters and Forestry (*Ministerul Mediului, Apelor și Pădurilor*).

– *The programme for reduction of greenhouse gases in the transport sector by promoting the infrastructure of non-polluting and energy-efficient road transport vehicles: recharging stations for electrical vehicle in the county capital cities.* The programme objective is to develop the electricity supply infrastructure for electrical vehicles. The maximum amount financed by the Authority for the installation of a recharging station is RON 190 000 (approximately EUR 40 000), equating to 90% of the eligible expenditure. The programme is developed by AFM, being coordinated by the Ministry of the Environment, Waters and Forestry.

– *The programme for reduction of greenhouse gases in the transport sector by promoting the infrastructure of non-polluting and energy-efficient road transport vehicles: recharging stations for electrical vehicles.* Eligible applicants are economic operators and the programme objective is to develop the electricity supply infrastructure for electrical vehicles. The programme is developed by AFM, being coordinated by the Ministry of the Environment, Waters and Forestry.

– The Programme for reduction of greenhouse gas emissions in the transport sector by promoting non-polluting and energy-efficient road transport vehicles (*RABLA PLUS*), as approved by Order No 660/2017 of the Minister for the Environment. The programme is developed by AFM, being coordinated by the Ministry of the Environment, Waters and Forestry.

Beneficiaries are natural and legal persons and the programme objective is to award grants from the Environmental Fund, in the form of the eco-label, for the purchase of new electrical vehicles or of new hybrid vehicles.

– The “Eco-voucher in exchange for a used motor vehicle” (*Eco-voucher în schimbul unui autovehicul uzat*) Programme developed by the Bucharest Municipality was implemented in the period 2018-2019. It enabled the performance of the following activities: preparation of the Programme Implementation Regulation, as approved by Instruction No 1823/10 October 2018 of the General Mayor; creation of the PEVAUTO software, which enabled to record 6 000 participants in accordance with the Regulation

² Source: Minutes of the meeting of 28 May 2019, as informed by AFM:



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and to publish the list of motor vehicle owners accepted in the programme; the nominal award of eco-vouchers to the owners accepted in the programme.³

2. Legal measures

These measures are listed on page 42 of the Annex to Government Decision No 87 of 7 March 2018 *approving the National Policy Framework Strategy for developing the alternative fuels market in the transport sector and deploying the relevant infrastructure in Romania and establishing the Inter-ministerial Coordination Council for developing the Alternative Fuels Market.*

The legislative, regulatory or administrative measures are presented in this section of the *National Policy Framework Strategy*. By their correlation, support is granted for the creation and development of alternative fuels infrastructure in Romania.

Measure No 1

Developing the legislative framework to ensure the enforcement of Article 8 of Law No 34/2017.

The Ministry of Energy, in cooperation with the public authorities and the relevant associations in the private sector, has reviewed the possibility of establishing a common method and/or measurement unit for the charging/recharging service at all the points accessible to the public, in order to ensure the implementation of Article 8(2) of Law No 34/2017, namely *the prices charged by the operators of recharging points accessible to the public shall be reasonable, easily and clearly comparable, transparent and non-discriminatory.*

In accordance with the Fiscal Code, electricity is the product assigned with code NC 2716 and, in accordance with Article 358(2) of the Fiscal Code, electricity is subject to the excise duty, which becomes payable when electricity is supplied, where applicable, by producers, distributors or redistributors to the final consumers (operators of the charging/recharging station). The final consumer of electricity is the natural or legal person who is not subject to the licensing obligation by the competent regulatory authority and who uses this product.⁴

The charging of electrical vehicles is currently levied as an electricity sales service (kW/h) or as provision of parking service (time being considered the measurement unit

³ Source: data taken from Letter No 1717458/11 March 2019, provided by the Bucharest Municipality;

⁴ Source: Minutes of the meeting of 12 September 2019 and Letter No 784223/22 July 2019, which was informed by the Ministry of Public Finance;



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in this case). On the market, the trend is to establish the kW/h multiple as a measurement unit, which will be turned into minutes in time in order to prevent the parking of vehicles after charging.

The fact that each operator that owns a charging station may choose the pricing method gives rise to certain difficulties regarding the uniform application of Article 8(2) as the absence of a common method/measurement unit generates a certain difficulty in the comparison of prices.

The Ministry of Energy provided for the debate context together with the representatives of the relevant authorities and public institutions in order to review the possibility of identifying a method (e.g. methodology, CAEN code etc.) by which operators may carry out activities involving the marketing/provision of the electrical vehicle recharging service to ensure that the resulting prices are reasonable, easily and clearly comparable, transparent and non-discriminatory.

Estimated rate of implementation of the measure: 30%

Measure No 2

Assessing the opportunity to establish provisions to ensure the availability of recharging points in classical fuel stations.

In order to implement this measure, the Ministry of Energy reviews, together with the economic operators covering approximately 90% of the fuels market, the possibility of deploying recharging stations in fuel stations with power less than or equal to 22 kW, which are destined to electrical vehicles and hybrid electrical vehicles, so that they may not affect, in a disproportionate manner, consumption of electricity and/or the activity of the fuel station indirectly.

The availability of installing recharging points with power less than or equal to 22 kW in the classical fuel stations is under assessment and the incoming data is to be centralised and reviewed in the forthcoming period.

Estimated rate of implementation of the measure: 80%

Measure No 3

Revising, supplementing and streamlining the legislative framework intended for the authorisation of LPG refuelling stations. The measure will envisage to provide for adequate safety and environmental protection standards, and efficient reporting of the amounts supplied in conurbations by the competent regulatory authority.



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The liquefied petrol gas (LPG) stations are authorised by the State Inspectorate for Control of Tanks, Pressure Vessels and Lifting Units (*Inspekția de Stat pentru Controlul Cazanelor, Recipientelor sub Presiune și Instalațiilor de Ridicat - ISCIR*) and must also be authorised by the General Inspectorate for Emergency Situations (*Inspectoratul General pentru Situații de Urgență - IGSU*).

The legislative regulations regarding the Technical Code of the Liquefied Petrol Gas - LPG Sector require an assessment of the possibility of updating the minimum technical requirements pertaining to the liquefied petrol gas sector.⁵

Moreover, on a proposal from the Department for Emergency Situations, CC DPCA will assess the possibility of revising the entire legislative framework for the design of LPG distribution stations [Regulation for the design, execution, operation, decommissioning and post-use of fuels distribution stations for motor vehicles, designator NP 004-03 by introducing the possibility of using LPG pumps and conventional fuels pumps on the same platform, Regulation for the design, execution and operation of liquefied petrol gas (LPG) supply systems for motor vehicles, designator NP 037-1999, Regulation for the design, execution and operation of liquefied petrol gas (LPG) supply systems for motor vehicles through stand-alone stations, designator NP 037/1-1999].⁶

The infrastructure in Romania includes approximately 1 990 LPG distribution⁷ stations for motor vehicles. The official data indicates the following types/models of stations: (Stand-alone) SKID LPG distribution stations for motor vehicles and LPG distribution units for motor vehicles mounted on the operating site.

Estimated rate of implementation of the measure: 30%

Measure No 4

Assessing the opportunity to amend the legislative framework intended for the record keeping of vehicles equipped with LPG systems.

⁵ Source: Minutes of the meeting of 22 May 2019, as informed by the National Company for Control of Tanks, Lifting Units and Pressure Vessels (*Compania Națională pentru Controlul Cazanelor, Instalațiilor De Ridicat și Recipientelor Sub Presiune - CNCIR*);

⁶ Source: General Inspectorate for Emergency Situations - data taken from Letter No 73299/10 February 2020;

⁷ Source: The State Inspectorate for Control of Tanks, Pressure Vessels and Lifting Units (ISCIR) - Data taken from Letter No 4689/24 May 2019;



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In order to implement the measure, the number of motor vehicles equipped with LPG fuelling units, which were identified during the Periodic Technical Inspection (PTI), was assessed together with the Romanian Vehicle Register (RAR).

Periodic Roadworthiness Tests (PRT) for passenger cars entail inspection every two years⁸ and are performed in accordance with Government Order No 81/2000, as approved by Law No 167/2003, as amended and supplemented by Government Order No 40/2005, which was approved by Law No 373/2005, according to which registered road vehicles may be kept in circulation only if proof is provided for their compliance with the relevant technical requirements on road traffic safety and environmental protection and for their inclusion in the category of use according to destination, as provided for in the national regulations (RNTR 1/2005), through the periodic roadworthiness test.⁹

The total number of motor vehicles equipped with LPG systems as a result of the Periodic Roadworthiness Test (PRT) is 261 504. 254 275 motor vehicles equipped with retrofitted LPG fuelling units and 7 229 motor vehicles equipped by the manufacturer with petrol + LPG biofuel fuelling units have been registered.¹⁰

Approximately 10 601 motor vehicles¹¹ in the number of motor vehicles equipped with a LPG system upon manufacturing were registered in Romania in 2019 according to the official data, of which: 69 exclusively LPG fuelled motor vehicles and 10 532 LPG fuelled motor vehicles using also petrol concomitantly.

Moreover, the possibility of verifying the LPG tanks mounted on motor vehicles during the Periodic Roadworthiness Test (PRT) was reviewed. LPG tanks mounted on motor vehicles are currently verified upon approval¹² and then in RAR authorised units¹³. From January 2020 onward, in order to ensure the transparency of the information process, information is available on the RAR website regarding the validity of the LPG tank and how the LPG and CNG filling units must be mounted. It is noteworthy that, according to the assessment of the Ministry of Transport, Infrastructure and

⁸ Source: Website of the Romanian Vehicle Register: <http://www.rarom.ro/?p=4422>, last accessed on 19 January 2020;

⁹ Source: Website of the Romanian Vehicle Register: <http://prog.rarom.ro/rarpol/rarpol.asp>, last accessed on 22 January 2020;

¹⁰ Source: The Romanian Vehicle Register, data taken from Letter No 9400/29 May 2019;

¹¹ Source: The Directorate for Regime of Driving Licenses and Registration of Motor Vehicles (*Direcția Regim Permise de Conducere și Înmatriculare a Vehiculelor - DRPCIV*), data taken from Letter No 3776155/31 January 2020;

¹² Source: Minutes of the meeting of 22 May 2019, as informed by the LPG Association;

¹³ Source: Website of the Romanian Vehicle Register: <http://www.rarom.ro/?p=8975>, last accessed on 19 January 2020;



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Communications¹⁴, the legislative framework on the approval and inspection of vehicles equipped with LPG systems is developed in accordance with Regulation Nos 67 and 115 of the Economic Commission for Europe of the United Nations (UNECE) and the periodic regime of roadworthiness tests is consistent with that provided for in Directive 2014/45/EU.

Estimated rate of implementation of the measure: 70%

Measure No 5

Revising, supplementing and streamlining the legislative framework intended for the authorisation and operation of CNG refuelling stations. The measure is intended to provide for adequate safety and environmental protection standards, and the streamlining of the rules governing the procedure for refuelling road vehicles.

A joint expert working group initiated the activity related to compliance with the legal obligation of *providing for the legal and technical conditions required for the existence of an adequate number of CNG refuelling points that are accessible to the public and installed in urban and suburban areas*, through the Inter-ministerial Coordination Council for Development of the Alternative Fuels Market (CC DPCA).

The joint working group will make arrangements to identify the national competent authority/authorities that is/are to prepare the draft act for revising the Technical Regulation on the design, execution, operation, maintenance and service of storage and distribution stations for the compressed natural gas used as fuel for vehicles, as approved by Order No 7/2012 of ANRE, considering that ANRE no longer has the relevant duties. Moreover, this activity will be regulated by Government Decision No 571/2016 *approving the categories of constructions and arrangements submitted for endorsement and/or authorisation for fire safety, which also covers storage and distribution stations for motor vehicle compressed natural gas (VCNG)*. It is noteworthy that the fire safety authorisation must be procured for this category of facilities.¹⁵

As regards the recharging infrastructure, the CNG station network in Romania includes three stations¹⁶, with a potential of extension in the near future with nine CNG fuelling

¹⁴ Source: Ministry of Transport, Infrastructure and Communications, data taken from the e-mail registered with the General Directorate for Crude Oil and Natural Gas (*Direcția Generală Țiței și Gaze Naturale - DGTGN*) under No 203179/17 February 2020;

¹⁵ Source: General Inspectorate for Emergency Situations - data taken from Letter No 73299/10 February 2020;

¹⁶ Source: data provided by economic operators under Order No 425/2019;



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stations throughout the TEN-T corridor. The CNG fuelling network will include a series of cities from Arad, via Bucharest, up to Constanța.

Official data indicates that 374 motor vehicles are equipped exclusively with CNG systems and 2 102 motor vehicles are equipped with CNG systems, using petrol concomitantly.¹⁷

Estimated rate of implementation of the measure: 40%

Measure No 6

Revising, supplementing and streamlining the legislative framework intended for refuelling vehicles and ships using LNG under conditions of safety and environmental protection.

Three documents were prepared under the LNG MASTER PLAN project:¹⁸ a pre-feasibility study on the construction of a small capacity LNG terminal in Constanta Port , a study on the construction of an LNG terminal in the Galati Port and a study on the possibility of adapting the Navrom Galati fleet to using LNG as fuel.

A pilot city has been identified in Romania for the installation of an LNG terminal and an opportunity study was developed for the construction and refurbishment of ships using LNG fuel, with the possibility of constructing an LNG terminal in Constanta Port.¹⁹

In order to assess the development of such projects, the institutions and organisations concerned must review the economic feasibility and proportionality of the costs with reference to benefits, including the environmental ones.

Estimated rate of implementation of the measure: 20%

Measure No 7

Performing an assessment of the development of the LNG infrastructure, which will envisage economic feasibility and the proportionality of the costs with reference to benefits, including environmental ones.

¹⁷ Source: data taken from Letter No 3776155/31 January 2020, provided by DRPCIV;

¹⁸ Source: data submitted by e-mail on 18 March 2019 by the Association of Shipowners and River Port Operators in Romania (*Asociația Armatorilor și Operatorilor Portuari Fluviali din România - AAOPFR*);

¹⁹ Source: Minutes of the meeting of 28 May 2019, as informed by NAVROM;



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From the viewpoint of the Ministry of Transport, Infrastructure and Communications, the priority is to identify investors to concession the management of LNG terminals to port operators. Most of the Navrom²⁰ fleet is on the Rhine River, where many LNG terminals are operable, whereas there is a small number of ships on the Danube River.

The aim is to refurbish the Constanta Port in accordance with the latest relevant requirements in order to ensure efficient adaptation to the current context and to make the best use of its assets. For example, such refurbishment translates into the easy access of deep draught ships to berths due to the adequate depth for these ships.²¹

Unlike the fuelling station, the LNG treatment station requires a large safety area as well as rapid and direct access of ships to the port entrance. Therefore, the location of a combined LNG terminal requires a safety area as well as rapid and direct access to the port entrance. Compared to location in the river-sea area, location of a combined LNG terminal requires large-scale infrastructure development even on the short and medium term.

The opportunity of refurbishing, under the current circumstances, Diesel propelled ships for the use of LNG is not a feasible solution for the time being, constituting a potential option only for newly built ships, in particular ships designed for such type of fuel.²²

Estimated rate of implementation of the measure: 70%

Measure No 8

Assessing the compulsory percentages of biofuels in fossil fuels and the reporting and control methodologies in accordance with the national legislation in force, and with the legislative acts that are to transpose Directives 2015/652/EU and 2015/1315/EU.

This assessment was integrated in the transposition of Directives 2015/652/EU and 2015/1315/EU by Government Emergency Order No 80 of 13 September 2018 *laying down the conditions for the placing on the market of petrol and gas oil, introducing a mechanism for monitoring and reducing greenhouse gas emissions and establishing the*

²⁰ The NAVROM Company carries over ten million tons of the most varied goods annually: ore, coal, cement, limestone, cereals, fertilisers, laminated products, parts and equipment etc. These goods are carried on both internal (Galați, Constanta, Cernavoda, Medgidia, Mahmudia etc.) and international routes to Ukraine, Moldova, Bulgaria, Serbia, Croatia, Hungary, Slovakia, Austria and Germany.

Source: The website of CNFR Navrom S.A.: <http://www.navrom.ro/despre.php>, last accessed on 20 December 2019;

²¹ Source: Minutes of the meeting of 28 May 2019, as informed by the Ministry of Transport;

²² Source: data taken from Letter No 1904918/2 September 2019, provided by NAVROM;



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methods for calculation and reporting of reductions in greenhouse gas emissions, and amending Law No 220/2008 establishing the system for promoting production of energy from renewable energy sources, as approved by Law No 311 of 17 December 2018.

The compulsory percentages of biofuels in fossil fuels under Law No 311 of 17 December 2018 were adopted in accordance with the timetable established by Government Decision No 935/2011 *on promotion of the use of biofuels and bioliquids* to ensure continuity in the application of percentages of biofuels in fossil fuels in order to achieve the target of reducing greenhouse gas emissions by 6% compared to the reference base in 2011.

The compulsory percentages of biofuels in fossil fuels are consistent with the international standards on the maximum volume of biofuels in order to enable operation within adequate parameters at low temperatures where a possibility has been identified technically to reach the limit temperature of filterability²³.

Estimated rate of implementation of the measure: 100%

Measure No 9

Revising the legislative framework for hydrogen use by the final user under conditions of safety and environmental protection.

No specific regulations have been implemented in Romania for hydrogen refuelling of vehicles, however it is allowed to charge tanks with hydrogen, and its use as alternative fuel is at the research-development stage, according to information received through the *National Centre for Hydrogen and Fuel Cells* within the National Research and Development Institute for Cryogenic and Isotopic Technologies (*Institutul Național de Cercetare-Dezvoltare pentru Tehnologii Criogenice și Izotopice - INCD TCI ICSI*) Râmnicu - Vâlcea²⁴.

Transport of hydrogen by road from the place of production to the refuelling station is regulated.

Moreover, it is noteworthy that hydrogen production and sale (e.g. distribution to owners of hydrogen-fuelled vehicles) is likely to fall within the scope of different regulations for the stations with on-site production. This assertion is the result of the

²³ Source: Minutes of the meeting of 29 May 2019, as informed by RAR and the relevant associations;

²⁴ Source: Minutes of the meeting of 14 June 2019, as informed by the Association for Hydrogen Energy in Romania (*Asociația pentru Energia Hidrogenului din România - AEHR*);



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experience from participation in the HyLaw project²⁵, which contains a database and references in this respect.

The use of hydrogen as alternative fuel is currently considered at the research-development stage at the National Centre for Hydrogen and Fuel Cells of the National Research and Development Institute for Cryogenic and Isotopic Technologies Râmnicu-Vâlcea²⁶

ISCIR is the specialised institution of the central administration, at national level, which is charged, on behalf of the Romanian State, with providing for the measures for the functioning of installations and equipment²⁷ under conditions of safety, alongside the National Research and Development Institute for Mining Security and Anti-explosive Protection (*Institutul Național de Cercetare – Dezvoltare pentru Securitatea Minieră și Protecție Antiexplozivă*) INSEMEX Petroșani.²⁸

In order to correlate national arrangements with EU arrangements, the representatives of the Ministry of Energy attended the Hydrogen Energy Network (HyENet) meetings, a working group convened by the European Commission through DG Energy with the purpose of providing support to the national authorities in charge with the energy policy, of developing opportunities for jobs that are likely to be created in hydrogen production and marketing, and of acting as an informal platform for exchange of information, good practices, experiences and the latest developments.

Moreover, good practice models from Member States have been identified and adopted by the competent authority and afterwards disseminated by the Association for Hydrogen Energy in Romania (AEHR), ISCIR, INSEMEX Petroșani, and the National Company for Control of Tanks, Lifting Units and Pressure Vessels SA (CNCIR SA).²⁹

Estimated rate of implementation of the measure: 30%

²⁵ Source: <https://www.hylaw.eu/> - last accessed on 7 January 2020

²⁶ Source: <https://www.icsi.ro/cercetare/departamente/icsi-energy/>, last accessed on 18 November 2019;

²⁷ In accordance with Law No 64/2008 on the functioning of pressure installations, lifting installations and fuel consuming appliances under conditions of safety, as republished, as subsequently amended and supplemented;

²⁸ INCĐ INSEMEX Petroșani set up under Government Decision No 1461/18 October 2006 as a Romanian legal person coordinated by the Ministry of Research and Innovation (*Ministerul Cercetării și Inovării*);

²⁹ CNCIR S.A. was established under Government Decision No 1139/17 November 2010;



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Measure No 10

Assessing the opportunity to establish financial instruments (such as guarantee funds, bonds, public-private partnerships) available to legal persons which intend to develop charging/fuelling points/stations, and for purchase of vehicle fleets using alternative fuels.

As regards the identification of funding sources that foster the development of the alternative fuels infrastructure, one of the options is the Connecting Europe Facility - CEF. CEF Transport supports innovation in the transport system in order to improve the infrastructure, to mitigate the impact of transport on the environment and to enhance energy efficiency and safety. The total budget for CEF Transport is EUR 24.05 billion for the period 2014-2020.

Under the calls for projects, the Innovation and Networks Executive Agency (INEA) assessed and approved transport projects regarding alternative fuels under Objective 2 *“Ensuring sustainable and efficient transport systems in the long run, with a view to preparing for expected future transport flows, as well as enabling all modes of transport to be decarbonised through transition to innovative low-carbon and energy-efficient transport technologies”* of the Priority *“New technologies and innovations”*.

The Romanian authorities submitted three projects following the calls launched by the European Commission, which concern electrical vehicle charging stations, and a project regarding CNG charging stations. The projects were assessed positively and are under implementation. One of these projects was submitted under a Blending call.

The CEF Blending Facility constitutes an innovating approach that promotes participation of investors in the private sector and financial institutions in projects that foster the sustainability and environmental efficiency of the transport sector in Europe.

For 2019, the CEF Blending call for projects (opened in September 2019) will support fields such as: the implementation of the European Rail Traffic Management System (ERTMS) and the use of alternative fuels.

With a budget of EUR 198 million, the non-reimbursable component of the blending operations under CEF Transport is managed by INEA.³⁰

The mission of the *National Credit Guarantee Fund for Small and Medium Enterprises (Fondul Național de Garantare a Creditelor pentru Întreprinderi Mici și Mijlocii - FNGCIMM)*³¹ on a national level is to improve access to funding for SMEs and it functions in accordance with Chapter IV of Law No 346/2004 *fostering the establishment and development of small and medium enterprises (SMEs)*, with Law No 93/2009 *on non-*

³⁰ Source: data taken from Letter No 759/23 July 2019, provided by the Ministry of European Funds (*Ministerul Fondurilor Europene*);

³¹ Source: data taken from Letter No 1971/16 July 2019, provided by FNGCIMM



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banking financial institutions and with Law No 31/1990 (as subsequently amended and supplemented).

FNGCIMM is a venture capital non-banking financial institution as a Romanian legal entity under the private law, organised as a joint stock company, with the Romanian State as the sole shareholder, as represented by the Ministry of Public Finance, and *“its main business is to provide, from its own funds, financing and guarantees, and to undertake any guaranteeing or financing commitments, as well as any other financing instruments that may be acquired by small and medium enterprises, which are defined by the law, and by other categories of applicants provided for in the law and in its instrument of incorporation, from banks or other sources.”*

FNGCIMM has signed collaboration agreements with 26 partner donors and owns a territorial network with national coverage.

The guarantees from the own sources of FNGCIMM are guarantees for loans granted to SMEs based on the own capital of the Fund in accordance with Law No 346/2004 *fostering the establishment and development of small and medium enterprises.*

FNGCIMM may grant individual guarantees for investment loans and loans intended to finance the working capital, which are granted by the partner credit institutions to SMEs to the maximum guarantee value of RON 2.4 million (depending on the donor). The guarantee rate is not more than 80% of the value of the guaranteed funding and the guarantee coverage rate is at least 100% of the value of the guaranteed loan. The guarantee fee is determined according to the risk classification.

For loans intended to finance the working capital, a simplified guarantee product (OPTIMM) with a guarantee rate of 80% of the value of the guaranteed loan and a maximum guarantee value of RON 200 000 was implemented, with a guarantee period of 24 months, including the possibility of extension³². The only guarantee requested to complement the guarantee granted by FNGCIMM is the guarantee contract of the administrators and/or associates of the beneficiary SMEs.

From 2002 onward, FNGCIMM provides individual guarantees under the EXPRESS Agreement, which concerns all the beneficiaries that qualify as a SME.

The object of the Agreement is that the Fund secures, as a guarantor, expressly, irrevocably and unconditionally, the obligations to reimburse the funds granted by the Donor to the beneficiaries that meet the following requirements:

- The maximum value of the guarantee is within the equivalent maximum limit of EUR 2 500 000 per company/group.

³² Source: <https://www.fngcimm.ro/optimm>, last accessed on 5 October 2019;



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- The maximum guarantee rates for the guarantees provided under the EXPRESS Agreement are:
 - 80% of the value of funds granted for investments;
 - 50% of the value of funds granted to finance the current business, regardless of the financing period.

Moreover, in order to inform of the financial instruments available to legal persons that intend to develop networks of charging/fuelling points/stations using alternative fuels, the Ministry of Energy sent a presentation of the financing means available through FNGCMM to relevant associations for information purposes.

An example of the use of the available financial instruments is the accessing of environmental funds by the Bucharest Municipality under a grant contract signed for the procurement of:

- 130 12-meter hybrid buses (the supply contract was signed);
- 100 12-meter trolleybuses;

In 2018, the Bucharest Municipality purchased seven recharging stations through the Energy Municipal Company (*Compania Municipală Energetică*) and other 40 recharging stations are currently pending procurement.³³

Estimated rate of implementation of the measure: 100%

Measure No 11

Revising the legislative framework on the concession of spaces designated for the deployment of refuelling/recharging stations/points. Identifying the critical points in the transport system, which require the deployment of such stations/points, and assessing the possibility of allocating budget for the development of stations in such points.

CC DPCA has made arrangements to identify the current points/stations that are adequate for the deployment of electrical charging/recharging stations on TEN-T (e.g. in already existing services areas).

A first assessment of the incoming data has revealed that there are approximately 6 140 available points in the electricity distribution network, where recharging stations with power less than or equal to 22 kW may be deployed³⁴ and which were filtered having

³³ Source: data taken from Letter No 15997/29 August 2019, provided by the Bucharest Municipality (PMB);

³⁴ Source: The Federation of Associations of Energy Utilities Companies (*Federația Asociațiilor Companiilor de Utilități din Energie - ACUE*) - data taken from Letter No 763/11 October 2019;



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regard to the need to locate them at an approximate distance of 500 m from a transformer substation.

Several projects are currently financed under CEF. The beneficiaries of these projects have accessed the funds, but encounter difficulties with the deployment of charging stations in the services areas pertaining to motorways.

In this context, the National Road Infrastructure Administration Company (*Compania Națională de Administrare a Infrastructurii Rutiere - CNAIR*) is currently at the final stage of completion of the *development strategy for the deployment of stations*³⁵.

Estimated rate of implementation of the measure: 50%

3. Policy measures for the application of the National Framework Strategy

These measures are listed on page 41 of the Annex to Government Decision No 87 of 7 March 2018 *approving the National Policy Framework Strategy for developing the alternative fuels market in the transport sector and deploying the relevant infrastructure in Romania and establishing the Inter-ministerial Coordination Council for developing the Alternative Fuels Market*.

The policy measures defined in the *National Policy Framework Strategy* include elements such as direct incentives for purchase of means of transport using alternative fuels or for construction of related infrastructure, and the availability of fiscal incentives in order to promote means of transport using alternative fuels and the relevant infrastructure.

Moreover, the following measures considered the possibility of improving the public procurement procedures (e.g. joint public procurement actions) in order to support alternative fuels and non-financial incentives to act at demand level. The need to deploy alternative fuel refuelling points for aviation in the ports from the core TEN-T network was also considered.

Measure No 12

Identifying funding solutions for power supply infrastructure deployment programmes for parked aircrafts. The administration offices of airports in Romania that perform more than 50 000 aircraft movements/year will review the opportunity and the need to deploy power supply sources to be used for parked aircrafts without using fossil fuel-based supply sources.

³⁵ Source: Minutes of the meeting of 4 June 2019, as informed by the Ministry of Transport;



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No funds are currently provided for programmes involving the deployment of electricity stations. There is only one airport in Romania (the International Henri Coandă Airport in Bucharest) that performs more than 50 000 aircraft movements/year³⁶.

According to the data received from the National Company of Airports in Bucharest (*Compania Națională Aeroporturi București - CNAB*), there are 16 electricity generators for parked aircrafts at the 14 air bridges. The 16 equipment have an installed capacity of 90 kVA and, depending on the load, the average consumed power is approximately 45 kW.

As regards electricity consumption, approximately 170 parking operations per air bridge per month are estimated. The operating time of such equipment for an aircraft is approximately three hours, more specifically the electricity consumption is approximately 33.75 kWh per operation.

Electricity consumption for operations performed by an air bridge is approximately 6 Mwh/month, more specifically 70 MWh/year. Annual consumption estimated for all the aircraft parking operations at the 14 air bridges is approximately 970 MWh.

A potential extension of approximately 100 new parking positions is foreseen in the following years, 70 of which at the air bridge.³⁷

Estimated rate of implementation of the measure: 80%

Measure No 13

Establishing a more efficient monitoring system for vehicles equipped with LPG units after type approval. The plan is to establish also a more efficient control and sanctioning regime in order to reduce risks to public safety.

Vehicles that are equipped with LPG units after approval are monitored through the Periodic Roadworthiness Test (PRT) conducted by RAR and upon installation in shops that are accredited by RAR for mounting³⁸, technical inspections and repairing of LPG and/or CNG fuelling units for engines, thus ensuring that risks to public safety are mitigated³⁹.

³⁶ Source: Ministry of Transport and Communications, data taken from Letter No 24313/21 June 2019

³⁷ Source: CNAB, data taken from Letter No 653/23 October 2019

³⁸ Source: Website of the Romanian Vehicle Register: http://www.rarom.ro/?page_id=891, last accessed on 22 January 2020;

³⁹ Source: Website of the Romanian Vehicle Register: <http://www.rarom.ro/?p=8973>, last accessed on 19 January 2020;



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Moreover, upon the post-mounting inspection and upon revising the Vehicle Identity Card, RAR checks the accuracy of the mounting and the polluting emissions with the vehicles running on petrol and on LPG or CNG. Afterwards, the technical condition and operation are checked during the PRT at RAR or at PRT stations authorised by RAR. The roadside technical condition and operation are checked through roadworthiness technical controls performed by the Road Traffic Police and RAR, subject to the application of sanctioning measures under Government Emergency Order No 195/2002, as subsequently amended and supplemented. The control regime is sufficient and stricter than that under the EU law, which requires mandatory roadworthiness technical control only for heavy goods vehicles⁴⁰.

Estimated rate of implementation of the measure: 90%

Measure No 14

Assessing the opportunity to include vehicles using CNG and LNG in the Programme for reducing greenhouse gas emissions in transport by promoting non-polluting and energy-efficient road transport vehicles.

A number of 98 620 motor vehicles were marketed under the *Programme fostering the renewal of the National Vehicle Fleet*, generally referred to as “RABLA”⁴¹, as follows:

- 47 122 motor vehicles in 2018;
- 51 498 motor vehicles in 2019.

In the *Programme for reducing greenhouse gas emissions in transport by promoting non-polluting and energy-efficient road transport vehicles*, generally referred to as “RABLA PLUS”, 2 350 electrical and hybrid electrical plug-in motor vehicles were marketed, as follows:

- in 2018, 810 electrical and hybrid electrical plug-in motor vehicles, of which 699 solely electrical motor vehicles and 111 hybrid electrical plug-in motor vehicles;
- in 2019, 1 540 electrical and hybrid electrical plug-in motor vehicles, of which 1 311 solely electrical motor vehicles and 229 hybrid electrical plug-in motor vehicles.

⁴⁰Source: Ministry of Transport, Infrastructure and Communications, data taken from the e-mail registered with the General Directorate for Crude Oil and Natural Gas (*Direcția Generală Țiței și Gaze Naturale - DGTGN*) under No 203179/17 February 2020;

⁴¹ Source: AFM, data updated on 30 January 2020;



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Please note that the Administration Office of the Environmental Fund has reviewed the possibility of including motor vehicles using CNG, LNG and hydrogen as fuel in the RABLA PLUS Programme in the following years.

Estimated rate of implementation of the measure: 100%

Measure No 15

Assessing the possibility of encouraging the purchase of vehicles, which can operate at optimal parameters with E10 fuels, by freight and passenger transport operators.

CC DPCA has reviewed a number of good practices on the use of increased biofuel rates in fossil fuels⁴², under the common action to achieve balance between Law No 37/2018 on the promotion of green transport, the relevant studies that assess operation on E10 fuels or on fuel with more than 10% ethanol content and Law No 311/2018 *approving Government Emergency Order No 80/2018 establishing the conditions for the placing on the market of petrol and diesel gas, introducing a mechanism to monitor and to reduce greenhouse gas emissions, and establishing the calculation and reporting methods for reduction of greenhouse gas emissions, and amending and supplementing Law No 220/2008 establishing the system promoting the production of energy from renewable energy sources.*

If balance is achieved between the use of low-carbon fossil fuels in correlation with replacement with a share of biofuels in the mixture and with the fostering and development of the alternative fuels infrastructure, net CO₂ emissions in transport could be thus reduced so as to reach the targets of the forthcoming period.

Estimated rate of implementation of the measure: 100%

Measure No 16

Establishing the technical characteristics for defining and possibly facilitating the authorisation of hydrogen fuelling stations, and for the authorisation of supply with this type of alternative fuel.

⁴² Source: For example, the Vision 2050 study: A Pathway for the Evolution of the Refining Industry and Liquid Fuels https://www.fuelseurope.eu/wp-content/uploads/2018/04/DEF_EN_FE_Vision2050_digital.pdf, accessed on 10 December 2019;



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Hydrogen is currently stored in low pressure tanks at 20-200 bar. In the future, pressure is estimated to increase to 500 bar. If hydrogen is supplied with a compressed gas tank, it may be used as a low-pressure storage tank.⁴³

Hydrogen compression is a method to switch from storage pressure (50-200 bar) to a maximum 1 000 bar charging/fuelling pressure. For refuelling at 700 bar, hydrogen is precooled at -40 degrees Celsius. A hydrogen refuelling station comprises a basic unit or a basic unit and a production unit if hydrogen is produced on site. The basic unit includes at least a high pressure storage system and one or several fuelling or distributing pumps.⁴⁴

In the context of defining an effective and safe method for the use of hydrogen, the necessary arrangements have been made to send to ISCIR the good practices in other EU Member States. ISCIR is the specialised body of the central administration authority, which is responsible for establishing measures for the operation of installations and equipment under conditions of safety on behalf of the State, in accordance with Law No 64/2008 *on the operation of pressure installations, lifting installations and fuel consuming appliances under conditions of safety*, as republished, as subsequently amended and supplemented.⁴⁵

Moreover, the national law restricts the capacity of a vehicle owner to fuel a LNG/CNG, LPG, biogas and hydrogen tank individually, as they must be refuelled by specialised staff.

Considering that the hydrogen tank is a high-pressure tank manufactured from composite materials⁴⁶, ISCIR is assessing internally a method for approving such type of tank⁴⁷.

Moreover, in the context of the Ministry of Energy's participation in the HyENet launching meeting, the importance of the existing gas infrastructure was emphasized as a cost-effective mean for hydrogen transport. In this context, the Ministry of Energy initiated consultations with SNTGN Transgaz SA (the national natural gas transmission

⁴³ Source: Minutes of the meeting of 14 June 2019, as informed by the Association for Hydrogen Energy in Romania (*Asociația pentru Energia Hidrogenului din România - AEHR*);

⁴⁴ Source: Minutes of the meeting of 14 June 2019, as informed by the Association for Hydrogen Energy in Romania (AEHR);

⁴⁵ https://www.iscir.ro/index.php?option=com_content&view=article&id=25&Itemid=28, accessed on 3 December 2019;

⁴⁶ Source: Minutes of the meeting of 14 June 2019, as informed by the Association for Hydrogen Energy in Romania (AEHR);

⁴⁷ The ISO/DIS 19880-1:2018 proposal was identified in order to determine the technical characteristics of the hydrogen refuelling station for motor vehicles (a proposal from the ISO Committee working on the development of these international standards);



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operator), which proposed to establish a research topic regarding the technical reliability of hydrogen injection in the natural gas network.

SNTGN Transgaz SA informed the Ministry of Transport that it reviews studies regarding the possibility of injecting hydrogen volumes into the natural gas transmission system (SNT) In this respect, financial resources were allocated from the budget under the 2020 Research Programme for the preparation of a *Study on the possibility of accepting the 2% hydrogen mixture in the SNT and methods of introducing hydrogen into the SNT*.

To develop the best use of hydrogen by resorting to the existing natural gas transmission infrastructure, a working group was established by SNTGN Transgaz SA, which is to be coordinated by the company's Department of Engineering and Research⁴⁸.

Estimated rate of implementation of the measure: 40%

Measure No 17

Preparing a regulation to establish the obligations regarding the vehicle parks of public institutions. The regulation will seek:

- *to establish a minimum number/rate of vehicles using alternative fuels*
- *to establish rules for joint procurement.*

This measure that provides for the purchase of a minimum number/rate of vehicles using alternative fuels and establishes rules for joint procurement was expressly regulated with the adoption by the Parliament of Law No 37/2018 *on the promotion of green transport*.⁴⁹

In accordance with Law No 37/2018, local public authorities, autonomous companies and companies subordinated to administrative territorial units will purchase passenger electrical propelled means of transport, green technologies such as electrical, hybrid, hybrid plug-in, hydrogen (FCV) ones, compressed natural gas propelled engines, liquefied natural gas propelled engines and biogas propelled engines in a minimum rate of 30% of the demand for future procurements. The rate will be calculated in relation to the total number of motor vehicles purchased in one year.

Privately owned companies providing public local and metropolitan transport services or those in an inter-community development association, including taxi companies, will purchase, as from 2020, passenger electrical propelled means of transport, green

⁴⁸ Source: SNTGN Transgaz SA, data taken from Letter No 1599/13 January 2020;

⁴⁹ Source: Law No 37/2018 *on the promotion of green transport*;



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technologies such as electrical, hybrid, hybrid plug-in, hydrogen (FCV) ones, compressed natural gas propelled engines, liquefied natural gas propelled engines and biogas propelled engines in a rate of 30% of the demand for future procurements.

Annual procurements of motor vehicles by public authorities to supply the own fleet must include passenger cars driven by green technologies such as electrical, hybrid, hybrid plug-in and hydrogen (FCV) ones in a minimum rate of 20%.

Estimated rate of implementation of the measure: 100%

Measure No 18

Providing further funding under the Programme for reducing greenhouse gas emissions in the transport sector by promoting non-polluting and energy-efficient road transport vehicles as per the annual budget allocations and the accessibility of technologies in the field of alternative fuels.

Further funding was provided under the programmes for reducing greenhouse gas emissions in transport and for promoting non-polluting road transport vehicles, with the following results:

Under the Programme for reducing greenhouse gas emissions in the transport sector by promoting non-polluting and energy-efficient road transport vehicles, generally referred to as "RABLA PLUS", 2 350 electrical and hybrid electrical plug-in motor vehicles were marketed, as follows:

- in 2018, 810 electrical and hybrid electrical plug-in motor vehicles, of which 699 solely electrical motor vehicles and 111 hybrid electrical plug-in motor vehicles;
- in 2019, 1 540 electrical and hybrid electrical plug-in motor vehicles, of which 1 311 solely electrical motor vehicles and 229 hybrid electrical plug-in motor vehicles.

Under the Programme⁵⁰ for reducing greenhouse gases in the transport sector by promoting the infrastructure of non-polluting and energy-efficient road transport vehicles: recharging stations for electrical vehicles in county capital cities, 33 financing applications were submitted, 12 of which were approved, while the remaining applications are under evaluation.

Under the Programme for reducing greenhouse gases in the transport sector by promoting the infrastructure of non-polluting and energy-efficient road transport vehicles:

⁵⁰ Source: AFM, data provided by e-mail on 9 July 2019 and updated on 4 January 2020;



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recharging stations for electrical and electrical hybrid plug-in vehicles, recharging stations for electrical vehicles (having the submission session in 2016 and the implementation session in 2018-2019), six recharging stations were installed by economic operators.

Under the *Programme for air quality improvement and reduction of greenhouse gas emissions by using less polluting motor vehicles in the local public passenger transport*, 32 electrical buses, 100 trolleybuses and 150 electrical hybrid plug-in buses were purchased in the period 3 October-2 November 2018 and the amount of RON 460 000 000 was allocated to the funding session⁵¹.

An example of initiative of the local public administration is illustrated by the Bucharest Municipality (PMB) with the implementation of *the Programme for boosting removal of highly polluting motor vehicles from the Bucharest traffic by awarding eco-vouchers*, which was approved by Decision No 377/26 July 2018 of the Bucharest Municipality General Council (DCGMB), which was designed to improve air quality by reducing exhaust gas emissions from used motor vehicles and, implicitly, to protect the capital's inhabitants.

The implementation of this programme is purposed to grant 5 000 eco-vouchers with a value of RON 9 000/eco-voucher to natural or legal persons governed by the private law, which have their domicile or residence in the Bucharest Municipality and no payment obligations towards the local budget, in exchange for a used motor vehicle registered in Bucharest, which is delivered for discarding purposes.⁵²

Such initiatives of the local public administration are to be centralised by CC DPCA through and with the support of the Ministry of Public Works, Development and Administration and of the Association of Municipalities in Romania as well as through direct communication with local public administration authorities.

Moreover, please note that CC DPCA acts with all due diligence to establish communication, including with local public administration authorities not listed literally in the National Framework Strategy, but which implement local measures for boosting procurement and for actual procurement of vehicles using alternative fuels (over the allowances defined by Law No 37/2018), and for development of related infrastructure, a notable example in this respect being the Turda locality.

Estimated rate of implementation of the measure: 100%

⁵¹ Source: https://www.afm.ro/transport_public_nepoluant_legislatie.php, last accessed on 22 December 2019;

⁵² Source: data taken from Letter No 1717458/11/03/2019, provided by PMB;



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Measure No 19

Assessing the opportunity to establish a favourable fiscal regime for alternative fuels vehicles. This may include:

- *reducing or exempting from the registration tax*
- *taxation depending on the pollution allowance and the vehicle pollutants.*

In accordance with Article 469(1)(n) of Law No 227/2015 on the Fiscal Code, electrical motor vehicles are currently exempted from the payment of the tax for means of transport and, for hybrid vehicles, the Local Council may decide to reduce the tax by at least 50% in accordance with Article 470(3).⁵³

Moreover, from 1 February 2017 onward, Government Emergency Order No 9/2013 *regarding the environmental stamp fee for motor vehicles*, which regulates the environmental fee for motor vehicles, was repealed by Article 12 of Law No 1/2017 *on the removal of certain fees and tariffs, and amending and supplementing certain legislative acts*, motor vehicle owners being thus exempted from the payment of the first registration fee.⁵⁴

Public administration authorities will make further arrangements to ensure the uniform development of the favourable tax regime for vehicles using alternative fuels.

Estimated rate of implementation of the measure: 100%

Measure No 20

Preparing a public policy framework on a favourable regime, in A, B and C category conurbations, for the parking of vehicles using alternative fuels. The public policy framework will envisage indicators such as:

- *the minimum number of parking spaces equipped with recharging infrastructure as a rate in the total number of parking spaces;*
- *the minimum number of parking spaces dedicated exclusively to vehicles using alternative fuels; - establishment of visual identification means for vehicles using alternative fuels, which also serve as means of authorising the use of the parking spaces reserved for them;*
- *the favourable tax charging regime for parking spaces for vehicles using alternative fuels.*

⁵³ Source: Ministry of Public Finance, data taken from letter No 783004/13 June 2019;

⁵⁴ Source: Government Emergency Order No 9/2013 *on the environmental stamp fee for motor vehicles*;



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The methodology for implementing the legislative framework will take into account the proportionality of the measures for each identified conurbation, including with reference to its level of pollution.

The Romanian authorities, more specifically the Ministry of the Economy, Energy and the Business Environment, together with the Ministry of Public Works, Development and Administration, collaborated in the collection and centralisation of the data provided by the administrative territorial units regarding the abovementioned indicators.⁵⁵

A total number of approximately 481 036 parking spaces are registered in the administrative territorial units⁵⁶, approximately 400 of these being intended exclusively for vehicles using alternative fuels and approximately 150 such spaces pending arrangement.

A number of 50 charging/recharging stations for electrical motor vehicles with 305 sockets are deployed and other 93 such stations with 135 sockets are to be deployed.

In 12 of the 41 administrative territorial units, including Bucharest Municipality, as identified in the National Framework Strategy, a series of benefits were granted to natural and legal persons owning motor vehicles using alternative fuels, which consisted in reduction of payment or gratuity for use of parking spaces.⁵⁷

Decision No 140/2016⁵⁸ of the Bucharest Municipality General Council (DCGMB) provides for the gratuitous use of public parking areas of general use within the Bucharest territory by owners of hybrid and electrical motor vehicles registered in Bucharest and approves the model identification vignette.

Although DCGMB No 140/2016 establishes the vignette as a visual identification method for vehicles using alternative fuels and entitled to gratuitous parking spaces, this vignette must be taken from the PMB centres. This measure is easy for the Bucharest inhabitants, however it is difficult to implement for residents of other localities, commuters or persons in transit.

For a uniform application at national level, a possibility is thus to be reviewed as regards establishing a marking (vignette) standard for vehicles using alternative fuels, so that

⁵⁵ Source: data taken from Letter No 83606/8 August 2019

⁵⁶ Source: data taken from the letters received from the 41 administrative territorial units (ATU) included in the National Policy Framework Strategy for developing the alternative fuels market;

⁵⁷ Source: data taken from the letters received from the 41 ATUs included in the National Framework Strategy;

⁵⁸ Source: data taken from Letter No 15997/29 August 2019 and provided by the Bucharest Municipality (PMB);



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they may be accepted in parking spaces destined for the abovementioned category of vehicles irrespective of the locality of current presence and/or the issuing locality.

Moreover, correlative measures must be provided for to enable to foster, to facilitate and to improve access to parking spaces for vehicles using alternative fuels, such as:

Article 3(1) of DCGMB No 265/30 June 2017 provides that, *by 1 January 2019, owners or administrators of business premises or offices holding more than 100 parking spaces shall install high power recharging points for motor vehicles for at least 1% of the respective parking spaces*, which is regulated by the opinion of the Technical Traffic Commission for new constructions and arrangements within the Bucharest territory.

Decision No 804/22 November 2018 of the Bucharest Municipality General Council (DCGMB) supplements Decision No 140/2016 of CGMB on the gratuitous use of public parking areas of general use within the Bucharest territory by owners of hybrid vehicles and vehicles registered in Bucharest and approving the model identification vignette.

Decision No 870/12 December 2018 of CGMB approves the programme for boosting the establishment of rapid recharging stations for electrical and electrical hybrid plug-in vehicles by granting vouchers.

Estimated rate of implementation of the measure: 50%

4. Deployment and manufacturing support

These measures are listed on page 46 of the Annex to Government Decision No 87 of 7 March 2018 *approving the National Policy Framework Strategy for developing the alternative fuels market in the transport sector and deploying the relevant infrastructure in Romania and establishing the Inter-ministerial Coordination Council for developing the Alternative Fuels Market*.

This section of the *National Framework Strategy* included measures to assess any potential allocation of an annual public budget for the deployment of the alternative fuels infrastructure, depending on the alternative fuel and the transport mode used (road, rail, waterborne, and air transport).

The assessment of the allocation of an annual public budget for supporting units that develop alternative fuels technologies, broken down by alternative fuel and mode of transport used, and review of any special needs at the initial stage of deployment of the alternative fuels infrastructure were also considered.



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Measure No 21

Improving the methodology for replacing and recycling EV and HEV batteries so as to mitigate any potential negative impact on the environment and public health.

There are currently no recycling centres in Romania for electrical vehicle batteries, only recycling centres for classical accumulators being established. As regards the battery storage deadlines, they are provided for in the law and differ according to the destination of waste in accordance with the provisions of the National Environmental Protection Agency (*Agencia Națională pentru Protecția Mediului - ANPM*). Producers of vehicles have the responsibility of informing and guiding clients to the own collecting networks.⁵⁹

In accordance with Government Decision No 1132/2008 *on the regime of batteries and accumulators and of waste batteries and accumulators*⁶⁰, which transposes Directive 2006/66/EC *on batteries and accumulators and waste batteries and accumulators*, as subsequently amended and supplemented, all the economic operators placing batteries and accumulators on the national market have the obligation of registering with ANPM in the Ledger of producers of batteries and accumulators.

In accordance with Article 7(12) of Government Decision No 1132/2008, producers of batteries have the following obligations:

- to organise the collection systems for waste industrial batteries or accumulators, regardless of their chemical composition and origin, to ensure their return by end users;
- to hand over the collected waste industrial batteries and accumulators to an economic operator who carries out contract-based treatment and/or recycling activities;
- to keep a record of information on the type, number and weight of the industrial batteries and accumulators collected and handed over for treatment and/or recycling.

Moreover, all the economic operators placing the M1 and N1 vehicle categories on the national market must establish networks for collection of end-of-life vehicles in accordance with Article 9 of Law No 212/2015 *on the management of vehicles and end-of-life vehicles* and to submit annually to the Ministry of the Environment the list of economic operators authorised to carry out activities related to treatment of end-of-life

⁵⁹ Source: Minutes of the meeting of 5 June 2019, as informed by the ANPM representative;

⁶⁰ Source: The National Environmental Protection Agency, Letter No 2397/28 June 2019;



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vehicles, with whom they signed a contract, and the list of collection points including the contact details of economic operators. Producers of vehicles have thus the obligation:

- a) to submit annually, not later than 31 December of the current year, at the request of the central public environmental protection authority, the list of economic operators authorised to carry out activities involving treatment of end-of-life vehicles, with whom they signed a contract in accordance with Article 8(5)(b), and the list of collection points referred to in Article 8(5)(a), which include contact details of economic operators;
- b) to publish on their own website and at the new vehicle sales points the lists referred to in point (a).

Estimated rate of implementation of the measure: 30%

Measure No 22

Assessing the possibility of allocating an annual budget to support the units developing alternative fuels technologies, broken down by alternative fuel and mode of transport used, and promptly reviewing any special needs concerning the use of such technologies by public institutions, the accessing of European funds and communication of any potential benefits for the environment and the economic efficiency of these technologies for the final user.

The assessment has been completed, culminating with the fact that financing sources are accessed in a decentralised manner.

The Large Infrastructure Operational Programme (LIOP) concerns the development needs in four sectors: the transport infrastructure, environmental protection, risk management and adaptation to climate, energy and energy efficiency changes.

Under Priority Axis 1 *Improved mobility through the development of the TEN-T and the metro network*, 12 calls for projects of approximately EUR 4.5 billion were launched and 44 projects were submitted, 32 of which being awarded a contract.⁶¹

Under Priority Axis 2 *The development of a multimodal, high-quality, sustainable and efficient transport system*, 20 calls for projects of approximately EUR 2.2 billion were

⁶¹ Source: Ministry of Transport, Infrastructure and Communications, data taken from the e-mail registered with the General Directorate for Crude Oil and Natural Gas (*Direcția Generală Țiței și Gaze Naturale - DGTGN*) under No 203179/17 February 2020;



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launched. 109 projects were submitted under these calls, 61 of which being awarded a contract.⁶²

Under Priority Axis 6 *Clean energy and energy efficiency in order to support a low carbon economy*, five calls for projects of approximately EUR 185.5 billion were launched, under which 62 projects were submitted, 17 of which being awarded a contract.⁶³

The role of the Ministry of Research and Innovation (*Ministerul Cercetării și Inovării - MCI*) is to ensure synopsis and coordination in the field of scientific research, technological development and innovation. Therefore, public or private stakeholders will keep in sight the programmes intended for research in the field of alternative fuels developed by the ministry.

Estimated rate of implementation of the measure: 100%

5. Information, research, technological development and demonstration

These measures are listed on page 46 of the Annex to Government Decision No 87 of 7 March 2018 *approving the National Policy Framework Strategy for developing the alternative fuels market in the transport sector and deploying the relevant infrastructure in Romania and establishing the Inter-ministerial Coordination Council for developing the Alternative Fuels Market*.

In this section, support for the information, research, technological development and demonstrative activities in the field of alternative fuels, broken down by type of fuel and mode of transport, by facilitating access to European funds and by the distribution of expertise and good practices by and to public institutions, was also considered.

Measure No 23

Setting up information points that provide information materials to the interested public related to mobility based on alternative fuels, such as:

- *types of vehicles based on the alternative fuels available on the market in Romania*
- *current technologies*
- *location of charging stations*

⁶² Source: Ministry of Transport, Infrastructure and Communications, data taken from the e-mail registered with the General Directorate for Crude Oil and Natural Gas (*Direcția Generală Țitei și Gaze Naturale - DGTGN*) under No 203179/17 February 2020;

⁶³ Source: data taken from Letter No 759/23 July 2019, provided by the Ministry of European Funds;



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Preparing information materials regarding the recharging/refuelling standards, intended for the final user. Provision of information will be considered as regards the compatibility of the various standards with those pertaining to vehicles newly placed on the market. These materials will be available on the websites of the relevant public authorities.

Through Order No 425/2019 *approving the means to provide information on alternative fuel refuelling and recharging points within the Romanian territory*, the Ministry of Energy made arrangements to locate charging stations and to identify the types of alternative fuels available at the refuelling and recharging points. Relevant associations were informed by e-mail of the obligation to provide the following data:

- the exact address and geographical coordinates of alternative fuel refuelling and recharging points;
- the type of alternative fuels available at refuelling and recharging stations;
- the loading capacities for each refuelling and recharging point held;
- the operating hours of alternative fuel refuelling and recharging points;
- the contact details (phone, fax, e-mail) of the operators of refuelling and recharging points.

According to the data received from part of the economic operators to this date, 258 electricity-charging stations were inputted in the records of the Ministry of Energy.

After final centralisation of data received from all the economic operators, it will be published online.⁶⁴

Estimated rate of implementation of the measure: 60%

Measure No 24

Assessing the possibility of using hydrogen as alternative fuel, including by a re-profiling of the current industrial potential.

In the context of the Ministry of Energy representatives' participation in the first meeting of the Hydrogen Energy Network (HyENet), they seized the opportunity of presenting the scenario of the use of hydrogen as alternative fuel in Romania and of taking note of the information provided by DG Energy, the relevant associations and the Member State representatives.

⁶⁴ Source: Order No 425/2019 of the Minister for Energy *approving the means of information on the alternative fuel refuelling and recharging points within the Romanian territory*;



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A technical possibility was thus identified as regards production of hydrogen in Romania in the three refineries within the Romanian territory, through the units producing hydrogen for the petrochemical industry, in the agri-chemical industry as a by-product.⁶⁵

Estimated rate of implementation of the measure: 40%

Measure No 25

Assessing the possibility of supporting the research activity, including by facilitating access to European funding mechanisms, to develop the required charging and propelling systems.

In order to implement this measure, the financing means developed by the European Commission have been identified to fund projects with various scopes in the field of hydrogen and alternative fuels in general.

The following main financing means were identified: Horizon 2020, Fuel Cells and Hydrogen Joint Undertaking FCH JU - a public-private partnership between the EU, the European industry and the research institutes), Innovation Fund, Connecting Europe Facility CEF.

On 26 June 2019, the representatives of the Ministry of Energy participated in the first meeting of the Hydrogen Energy Network, which is an initiative of the European Commission through DG ENERGY. Following consultation with the Secretariat of the Hydrogen Energy Network, the financing means developed by the European Commission for projects with various scopes in the field of hydrogen and alternative fuels in general were disseminated by e-mail to the relevant associations, as presented below:

1. Horizon 2020⁶⁶ is the EU's largest research and innovation programme, with funds of almost EUR 80 billion available throughout a seven-year period (2014-2020) - apart from the private investments triggered by this amount.
2. Fuel Cells and Hydrogen Joint Undertaking (FCH JU)⁶⁷ is a public-private partnership between the EU, the European industry and the research institutes.

⁶⁵ Source: data taken from the minutes of the meeting of 14 June 2019;

⁶⁶ <https://ec.europa.eu/programmes/horizon2020/en/area/energy> - accessed on 6 December 2019

⁶⁷ <https://www.fch.europa.eu/page/who-we-are>, <https://www.fch.europa.eu/page/call-2019> - accessed on 6 December 2019



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3. The Innovation Fund – the revised EU-ETS Directive (EU) 2018/410 (2021-2030) introduces a significant number of changes regarding financing means. The current ones – the Solidarity Provision and the derogation from Article 10(c) were updated and thus two new instruments were added: the Innovation Fund and the Modernisation Fund. The connections of the Innovation Fund with other mechanisms are: at the stage of research with Horizon Europe or partnerships and after the demonstration stage - Connecting Europe Facility, the Modernisation Fund and the Cohesion Funds. The Fund may reach the approximate amount of EUR 10 billion, depending on the price of emission allowances. In parallel to the Innovation Fund, EU ETS offers the main long-term incentive for the implementation of these technologies.

4. Connecting Europe Facility CEF⁶⁸ – Starting from January 2014, INEA (the European Commission - Innovation and Networks Executive Agency – INEA) is the specialised department for access to financing under the CEF. INEA implements the most part of the budget of the CEF Programme, i.e. the total amount of EUR 28.7 billion of the EUR 30.4 billion (EUR 23.7 billion for transport, EUR 4.7 billion for energy and EUR 0.5 billion for telecommunications).

CC DPCA informed the relevant institutions of the identification, correlation and communication of these financing means. The Coordinating Committee will further inform of the accessing of these means.

Estimated rate of implementation of the measure: 100%

Measure No 26

Organising a calendar of events to enable the testing of buses using alternative fuels for the purpose of procurement for public transport.

The Ministry of Energy and the European Commission organised the Joint Conference for Strategic Energy Technology Plan (SET Plan) and the Meeting of the Commission for the Environment, Climate Change and Energy in the period 12-14 June 2019 in Bucharest. Over 650 participants from the public and private sector and from the academic environment attended this event.

During the three days of debate, topics were brought forward as follows: development of local and regional strategies and speeding up of transition to renewable energies; options of currently available investments to tap the potential of businesses and to create innovative low-carbon economies at local and regional level; local challenges and solutions towards integration and coupling of various energy systems; specific methods whereby the SET Plan contributes to both the speeding up and the rate of innovation of

⁶⁸ <https://ec.europa.eu/inea/en/connecting-europe-facility>, accessed on 9 December 2019;



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buildings, and to the increase in energy efficiency; the crucial role of local and regional authorities in energy transition, from integration of low-carbon solutions and e-mobility to production and consumption of renewable energies.⁶⁹

Moreover, a Belgian company presented at this event a bus using a technology based on hydrogen fuel cells. At the same conference, two hydrogen-fuelled passenger cars were presented, with the possibility of being tested by the public.

The Ministry of Energy presented to the general public the technical specifications of the tested vehicles and the technological benefits and limitations according to an AGERPRES communication⁷⁰.

Having regard to the interdependent nature of measures, we consider that this event should also be taken into account, to a certain extent, for the implementation of Measure No 24 of this report in terms of an assessment of the possibility of using hydrogen as alternative fuel.

Estimated rate of implementation of the measure: 100%

Measure No 27

Organising events purposed to promote, among the general public, mobility based on alternative fuels.

In the series of events designed to promote mobility based on alternative fuels, the Ministry of Energy, in collaboration with Energy Policy Group (EPG), organised the meeting of an international working group on the topic *Future in Transport*. The outlook on the modes of transport in the age of mobility and new solutions for urban mobility and infrastructure were presented at the meeting.

The Ministry of Energy and the European Commission organised the Joint Conference for Strategic Energy Technology Plan (SET Plan) and the Meeting of the Commission for the Environment, Climate Change and Energy in the period 12-14 June 2019 in Bucharest.

The Ministry of Energy has made the necessary arrangements to organise a workshop to present all the categories of alternative fuels described in Government Decision No

⁶⁹ Source: The SET Plan Conference of 12-14 June 2019, Bucharest;

⁷⁰ The Ministry of Energy's communication sent to AGERPRES on 12 June 2019, <https://www.agerpres.ro/economic-intern/2019/06/12/romania2019-eu-conferinta-privind-planul-strategic-pentru-tehnologiile-energetice-si-reuniunea-comisiei-enve-la-bucuresti--324704>, accessed on 6 December 2019;



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87/2018 and related technologies available on the market, with use for the general public and for the municipal passenger transport services.

In order to organise the workshop, the Ministry of Energy took the initiative of developing a partnership with the Polytechnical University in Bucharest and close collaboration with the Ministry of Regional Development and Public Administration and the Association of Municipalities in Romania in order to promote the event within local public administration authorities.

This workshop is to be organised depending on the availability of the 41 administrative territorial units listed in Annex 1 to Government Decision No 87/2018.

Estimated rate of implementation of the measure: 100%

Measure No 28

Establishing a system within the competent authority for monitoring the development of the alternative fuels infrastructure (an online software tool). The system will guarantee that, when available, the data indicating the geographical location of the alternative fuels refuelling and recharging points available to the public is available to all the users in an open and non-discriminatory manner. The aim will be for the system to provide information on real-time accessibility, and historical and real-time information on charging.

The Ministry of Energy approved Order No 425/2019 in order to discharge its obligations resulting from the implementation of Measure No 28 of the National Policy Framework Strategy with the purpose of ensuring access for all users of vehicles based on alternative fuels, such as electrical and hybrid electrical vehicles, liquefied petrol gas (LPG) fuelled vehicles, compressed natural gas (CNG) fuelled vehicles and liquefied natural gas (LNG) fuelled vehicles, vehicles using biofuels and hydrogen fuelled vehicles to the alternative fuel refuelling and recharging points.

Arrangements have been made to disseminate the provisions of Order No 425/2019, so that a centralised statement of the data requested by the economic operators has been prepared to this date.

- the exact address and geographical coordinates of alternative fuel refuelling and recharging points;
- the type of alternative fuels available at refuelling and recharging stations;
- the loading capacities for each refuelling and recharging point held;
- the operating hours of alternative fuel refuelling and recharging points;



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- the contact details (phone, fax, e-mail) of the operators of refuelling and recharging points.

The Ministry of Energy has centralised 246 recharging points for electrical vehicles to this date, identifying them with exact addresses by geographical coordinates, operating hours and available charging capacity. The reception of data and its centralisation are still in progress in the following months and it will be available on the website of the Ministry of Energy in editable format. Moreover, this data will be most likely updated on a monthly basis.

Moreover, the Ministry of Energy considers assessing the possibility of creating an interactive map of the alternative fuel refuelling and recharging points in Romania.

Estimated rate of implementation of the measure: 40%

Measure No 29

Preparing guidelines for local authorities, which contain measures to foster public transport based on alternative fuels, by adapting and integrating good practices tested in other European cities

CC DPCA is currently assessing the development of a framework structure for the guidelines following the study of a good practice model taken over from the French legislation, which was made available by the Environmental Fund Administration Office and which will be intended for those who want to purchase, to install and to operate a charging station, and for those who are interested in purchasing a vehicle using alternative fuels.

These guidelines are to include a set of instructions/clear steps to inform those who want to invest in the alternative fuels infrastructure and to help them acquire an understanding of each of the stages of this process by presenting and providing examples of elements such as: types of alternative fuels with the benefits and limitations of their use, the relevant legislation, responsible institutions, financing instruments.

Estimated rate of implementation of the measure: 10%

Measure No 30

Promoting funding lines at the level of local authorities, which are available under the 2014-2020 ROP (Regional Operational Programme) (see Annex 6), and which are intended for the development of local projects, with focus on the provision of electricity in the urban environment for the development of the alternative fuels supply infrastructure.



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In order to provide grants for the development of the alternative fuels supply infrastructure, CC DPCA identified Priority Axes 1-4 at the level of the Ministry of Development and Public Administration (MDRAP), which concern the development of the alternative fuels infrastructure and which may be therefore promoted among the local authorities and the small and medium enterprises.

The ROP Managing Authority launched calls for projects in the period 2017-2019, which are intended to reduce carbon emissions in urban areas based on sustainable urban mobility plans and under which the following may apply:⁷¹

- towns/municipalities as administrative territorial units;
- partnerships between towns/municipalities as administrative territorial units;
- partnerships between towns/municipalities as administrative territorial units eligible under SO 3.2, with communes as administrative territorial units in the functional area of these towns/municipalities;
- county capital cities as administrative territorial units;
- partnerships between the county capital city as administrative territorial unit, with the exception of Tulcea Municipality, and towns/municipalities/communes in the functional urban area of the municipality in the territorial vicinity thereof;
- MDRAP, as a partnership leader, and county capital cities as administrative territorial units and/or counties as administrative territorial units;

the investments financed through the two above-mentioned investment priorities include the following:

- procurement of rolling stock, trolleybuses, buses (buses fuelled by CNG, LNG, fatty acid methyl esters - FAME, hydrotreated vegetable oil - HVO, bioethanol, electrical buses, diesel/electrical hybrid buses, hydrogen/electricity-based fuel cell hybrid buses);
- construction/upgrading/refurbishment/extension of electrical public transport routes;
- construction/upgrading/refurbishment of depots, public transport stations;
- purchase and installation of recharging stations for electrical and hybrid electrical motor vehicles;
- construction/upgrading/refurbishment/extension of bicycle tracks/routes;

⁷¹ Source: data taken from Letter No 95822/15 July 2019, as provided by the Ministry of Public Works, Development and Administration;



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- creation/upgrading/extension of traffic management systems, including the video monitoring system, and of other smart transport systems;
- construction of transfer parking areas for *park and ride* urban public transport.

As regards financing applications, we would like to note that 365 projects with a total eligible value of approximately EUR 3 392 million and a grant value of EUR 3 217 million were submitted under the two priority axes (Priority Axes 3 and 4).

162 grant contracts with a total eligible value of approximately EUR 1 683 million and a grant value of EUR 1 614 million have been signed to this date.

26 of the 41 administrative territorial units are equipped with public means of transport using alternative fuel. Projects with a value of EUR 1 238 452 465.50 were submitted with the aim of purchasing 273 tramways, 133 trolleybuses and 668 buses. Out of these numbers, 36 tramways, 93 trolleybuses and 60 buses of EUR 833 110 325.18 have been purchased to this date.⁷²

For instance, the Bucharest Municipality participates in two tendering procedures financed from European non-reimbursable funds under the 2014-2020 Regional Operational Programme, as follows:

- 100 36-meter tramways;
- 100 12-m electrical buses with autonomy for 230 km;

These tendering procedures are at the technical evaluation stage.

Estimated rate of implementation of the measure: 100%

Conclusions

The purpose of the *National Framework Strategy* is to support the deployment of the alternative fuels infrastructure in Romania so that all the relevant modes of transport, methods and technologies may be used non-discriminatorily according to their efficiency, applicability and return in order to ensure a transport system with a high degree of continuity and a minimum impact on the environment and public health, in both conurbations and throughout the interurban infrastructure and European road, water and air transport networks.

With the proposed measures, *the Strategy* ensures consistency with the overall target set for 2020, concomitantly planning to contribute, to a reasonable extent, to reaching the target for a share of the renewable energy sources in all modes of transport, representing at least 10% of the final energy consumption in transport in 2020.

⁷² Source: data taken from Letter No 175500/16/12/2019, as provided by the Ministry of Public Works, Development and Administration;



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The measures listed in the Strategy, which are designed to be implemented by public authorities, are and will be correlated with the measures already adopted by central and local public institutions and the private environment, so that the outputs reflect the development potential of the market in Romania and the global trends in the area of alternative fuels.

11 of the total 30 measures have been implemented to a rate of 100% and the remaining measures are under implementation. . We would like to point out that the implementation of the measures to a rate of 100% will not prevent CC DPCA from putting in further coordination and monitoring efforts and from any potential subsequent adaptations resulting from the technological developments in the respective fields.

The current level of implementation is estimated to approximately 37% of the total measures presented in the *National Framework Strategy on Alternative Fuels* and the implementation rate of all the measures, both those that are 100% implemented and those still in the process of being implemented, is approximately 67%.

In order to implement the 11 measures, namely Measures Nos 8, 10, 14, 15, 17, 18, 19, 22, 25, 26 and 30, documentations, assessments and analyses have been prepared with regard to the development opportunities for the alternative fuels infrastructure, the relevant good practices and financing sources were identified and disseminated and the foundation was prepared for the development of the legislative framework with a view to fostering the purchase of means of transport and motor vehicles using alternative fuels.

Annex 1 – Summary table (explanatory description)

The first section of the Excel table on the implementation of the National Policy Framework Strategy lists the legislative, regulatory and/or administrative measures. The correlated implementation of these measures sustains the uniform development of the National Framework Strategy for developing Alternative Fuels Infrastructure in Romania.

This section includes **11 measures** broken down by type of alternative fuel (e.g. electricity, hydrogen, biofuels, synthetic and paraffinic fuels, compressed natural gas, liquefied natural gas and liquefied petrol gas) and the mode of transport (road, air, waterborne and rail). The 11 measures fall within the category of national targets, more specifically rules and requirements, and have been applicable at national level from 2018.



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The aim of the proposed measures is to revise or to streamline the legislative framework intended for the development of the alternative fuels infrastructure, and to provide for the safety and environmental protection conditions.

The second section of the table includes data concerning the policy measures⁷³ for applying the National Policy Framework Strategy, which will contribute to reaching the national targets and objectives.

This section includes **9 measures** broken down by type of alternative fuel and elements such as various incentives for the purchase of vehicles. Moreover, it includes a measure promoting public transport with vehicles based on alternative fuels by establishing obligations regarding the vehicle fleets of public institutions and a measure that may promote electrical mobility by identifying the financing solutions under the programmes for deployment of the charging infrastructure for stationary aircrafts.

The third section includes a set of **two measures** for installation and production, i.e. one to improve the methodology for replacing and recycling accumulators of electrical and electrical hybrid vehicles in order to mitigate the negative impact on the environment and public health, and one concerning the possibility of granting an annual budget to support the development of alternative fuels technologies.

The fourth section presents the **eight measures** that concern supporting information, technological development and demonstrative activities in the field of alternative fuels by alternative fuel and mode of transport used.

It lists measures regarding the establishment of information points and the organisation of events to promote mobility based on alternative fuels, and the possibility of supporting research activities, including by accessing European financing mechanisms.

Point (a) of the fifth section includes the number of vehicles using alternative fuels by type of fuel and mode of transport, and estimations for 2020, 2025 and 2030. 45 electrical and hybrid electrical vehicles were purchased in 2016, 540 such vehicles were purchased in 2017 and 810 in 2018.

The data and information received from the Ministry of Transport, Infrastructure and Communications (MTCI) regarding the active fleet, the number of locomotives for 2016-2020 is indicated for rail transport and, for 2025 and 2030, no predictions can be made because the active fleet of diesel electrical locomotives depends on the rail traffic chart of that year. This is why a decrease in the use of diesel electrical locomotives in the period 2016-2018 is noticeable.

⁷³ Namely, elements such as direct incentives for purchasing means of transport using alternative fuels or for constructing the related infrastructure, and the availability of fiscal incentives in order to promote means of transport using alternative fuels and the relevant infrastructure;



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The data for air transport is provided by the Romanian Civil Aeronautical Authority (*Autoritatea Aeronautică Civilă Română - AACR*) and refers exclusively to aircrafts with no pilot on board, which are equipped with electrical engine (drones) and used in ancillary freight and passenger transport activities, and which are not involved directly in passenger transport.

According to MTCI, the statistical data shows that no aircrafts using alternative fuels are recorded in the air transport sector.

Point (b) of the fifth section includes data regarding the existing number in the period 2016-2018 and projections on the number of refuelling/recharging stations for 2020, 2025 and 2030. The data is broken down by type of alternative fuel and by mode of transport (road, air, waterborne).

A total number of 308 recharging stations with public access were identified in 2018, 207 of which having installed power less than or equal to 22 kW and the remaining 101 stations having installed power of more than 22 kW.