

**DRAFT NATIONAL POLICY FRAMEWORK**  
**ALTERNATIVE FUELS INFRASTRUCTURE FOR TRANSPORT IN MALTA 2025**

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# CHAPTER 1: INTRODUCTION

This document presents the framework of actions for the deployment of alternative fuels infrastructure in Malta. It revises and replaces the *National Policy Framework Alternative Fuels Infrastructure for Transport in Malta 2018-2030*, in line with [Regulation \(EU\) 2023/1804](#) (AFIR) on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU, which applies across all EU Member States from 13 April 2024. It will take into account the evolution of the infrastructure that has taken place since 2018, as well as the demands for such infrastructure to meet the increased climate ambitions of the country and inform on the measures already taken and those planned to address the established mandatory alternative fuels infrastructure targets and requirements of the Regulation.

As outlined in the 2018 National Policy Framework, the aim of these actions remains that of improving the environmental sustainability of transport. In line with the National Transport Strategy 2050, Malta continues to strive to achieve the decarbonisation of the transport sector. Although progress in this process is highly dependent on international market developments and advances in engine and battery technology, Malta has taken various steps and invested substantially in new technologies to enable this process.

The Transport Sector plays a crucial role in contributing to the national GHG emissions reduction targets, including the 19% reduction over 2005 recorded levels target, in line with the Effort Sharing Decision 406/2009/EC to which transport contributes 50%, as well as additional targets emanating from the Air Quality Framework Directive<sup>1</sup> and the Environmental Noise Directive<sup>2</sup>. More recently, the various targets of the adopted Fit for 55 Package, particularly the extension of the EU Emission Trading Scheme to maritime and road transport, are expected to further increase the demand on the transport sector's effort to reduce emissions. Climate Change ambition has greatly increased at both national and international levels since the drawing up of the 2018 National Policy Framework, and this has also led to the need to review a number of other national plans including the Transport Master Plan that is currently being reviewed and extended in scope to 2030.

In this process of transition to decarbonise the transport sector, the biggest challenge remains the decoupling of efficient mobility and connectivity from a transport system that is wholly reliant on fossil fuels. This requires significant investment in infrastructure as well as changes in the choices of consumers and the practices of transport operators. There are, of course, various challenges that need to be addressed. The process is, all the more arduous for Malta, due to its insularity and its complete dependence on vital maritime and aviation connections to mainland Europe and the rest of the world.

The role of the energy system in the decarbonisation process is well recognised in Malta's National Energy and Climate Plan<sup>3</sup>. The small scale of the national energy system and the lack of natural gas and district heating networks significantly limit the solutions available, and a holistic approach towards achieving a higher rate of coupling between the energy sector and transport becomes more crucial. National strategies have long recognised the reduction in transport energy use as a key contributor towards achieving 2030 climate targets. Transport measures such as modal shifts to more sustainable modes are high-priority

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1. Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

2. Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise - Declaration by the Commission in the Conciliation Committee on the Directive relating to the assessment and management of environmental noise

3. [https://commission.europa.eu/publications/malta-final-updated-necp-2021-2030-submitted-2025\\_en](https://commission.europa.eu/publications/malta-final-updated-necp-2021-2030-submitted-2025_en)

measures for Malta's Low Carbon Development Strategy. Malta has been making progress towards reducing the impact of transport energy demand on GHG emissions by incentivising such shifts to more sustainable modes and increased intermodality.

This document will provide the current status, the ongoing projects and the foreseen plans for the provision of the necessary infrastructure for alternative fuels for all modes of transport available in Malta, each covering the relevant period foreseen by the targets in the regulation.

# CHAPTER 2: ASSESSMENT OF THE CURRENT STATE OF ALTERNATIVE FUELS IN THE TRANSPORT SECTOR

## 2.1 Introduction

Malta covers just over 316 sq. km with an estimated total population which, as at the end of 2023, stood at circa 563,443<sup>4</sup> making it one of the world's smallest and most densely populated countries. Malta is primarily composed of two islands, Malta and Gozo, and is heavily urbanised. Malta has no rail-based transport, resulting in the internal mobility of people and the national transportation of goods being carried out almost exclusively by road and predominantly by private vehicle transport. In recent years, Government has encouraged the introduction of ferry transport to provide, albeit to a limited extent, an option to some road transport routes.

Malta is at the southernmost end of the Scandinavian-Mediterranean Corridor of the TEN-T Core network, with a total road network of 2,600km, of which 119km are considered strategic and form Malta's TEN-T road network. Malta's TEN-T Core network includes the core seaports of Valletta and Marsaxlokk, as well as the core airport in Luqa interconnected by a 22 km road network. Malta's TEN-T also includes two comprehensive TEN-T ports, the Port of Ċirkewwa and the Port of Marsaxlokk, which are internal ports and deal with domestic transport. In recent years, there has been significant investment in infrastructure and traffic management to remove traffic bottlenecks in the TEN-T Core network. (Fig.2.1)

Various policy decisions have been taken to address traffic congestion and emissions from road transport with significant investment in infrastructure, subsidies to encourage modal shift and others to encourage the purchase of electric vehicles as well as feasibility studies to explore the use of new fuels in transport.

Following a major reform of the national bus service in 2011, annual public transport patronage increased by 30% in the following six years with bus patronage amounting to 43,3 million passengers in 2016. These figures continued to increase further as a result of the introduction of free public transport in October 2022 to all bus card holders, reaching 67,2 million passengers in 2023.

Malta's coastline presents several bays, but in reality, only a few of them are or can be used as structured natural harbours or established ports with adequate facilities for scheduled (or organised) internal maritime transport services. Cross harbour ferry services were introduced across the Grand Harbour, connecting the three cities to Valletta. The Sliema-Valletta route was re-introduced in 2012. Although, during the first few years of the introduction of these services these were primarily considered to be addressing tourist demand, rather than an alternative mode of commute, this seems to not be the case. In order to further encourage modal shift, from January 2024, bus card holders have been entitled to free harbour ferry crossings. This has resulted in a 31% increase in harbour ferry passengers in the first eight months of 2024, with 1,09 million passenger trips. Ferry transportation is being prioritised to reduce the circulation of private road vehicles by providing accessible maritime routes between coastal towns, thereby reducing land-based transport emissions. Towards this end, the new ferry landing quays and facilities at Bormla and Sliema were constructed to expand and facilitate this alternative transport mode by sea. In addition to these projects, a pedestrian lift at San Salvatore Bastions is currently being constructed, connecting Valletta's Peacock Garden to the Marsamxett ferry landing. These projects, which are financed through both national and European funds, are intended to improve the quality of the ferry

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<sup>4</sup> <https://nso.gov.mt/world-population-day-11-july-2024/>

service by providing better accessibility, sheltered waiting areas, and a safer and easier embarkation process, and make the service more reliable throughout the year.

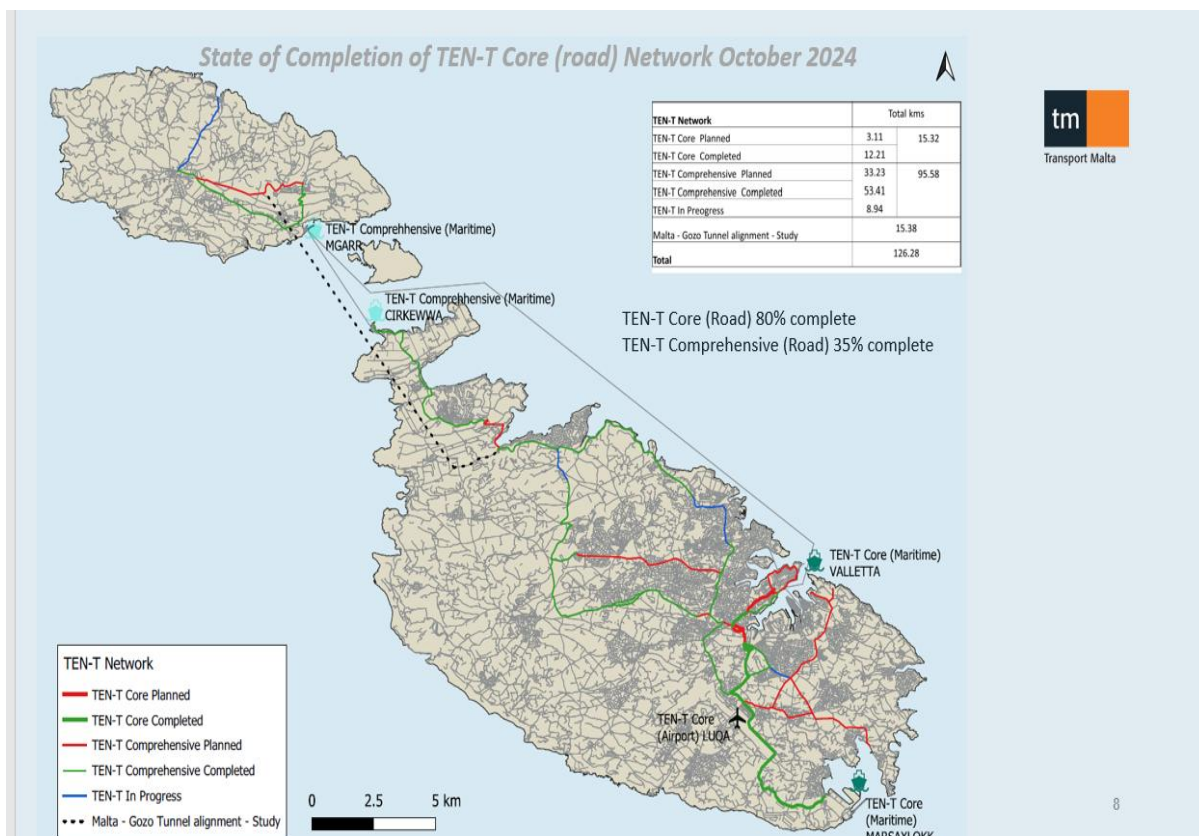


Figure 2.1 - Map of the TEN-T Network of Malta

## 2.2 Overview of the Current Situation of the Transport Sector

Transport is a major source of pollution and greenhouse gas emissions in Malta, accounting for over 53% of national Effort Sharing Regulation GHG emissions in 2023. (Fig.2.2).

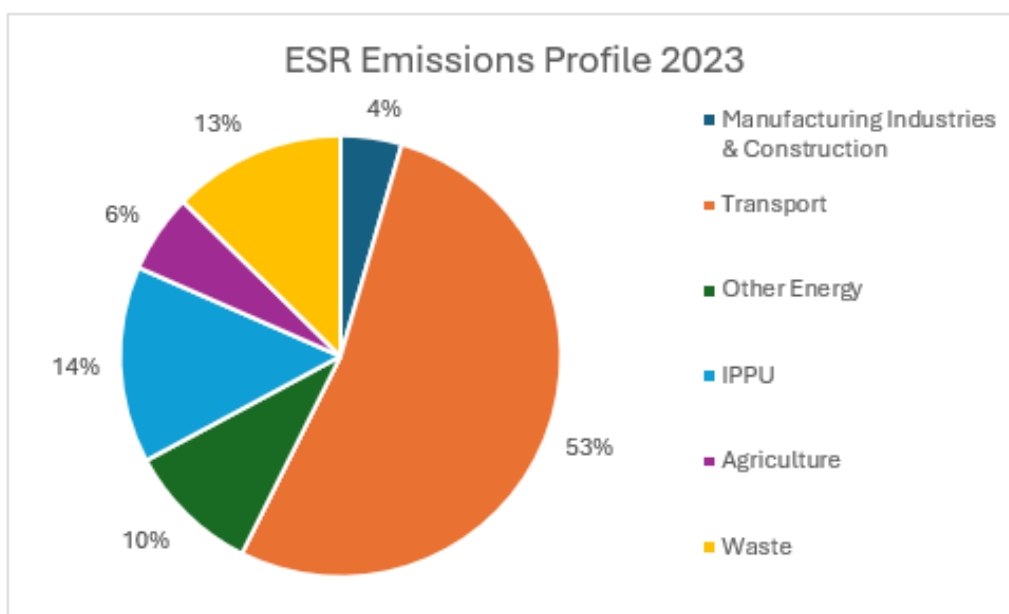


Figure 2.2 – ESR emissions in 2023 (Source: Malta’s annual GHG emission submission to the UNFCCC; disaggregated based on ESR sectors only)

In 2021, transport accounted for approximately half of Malta's total energy consumption with aviation contributing 26.1% to this share. However, these figures were significantly impacted by the Pandemic, which led to a near standstill in international aviation. A look at 2019 data reveals a different picture, with transport accounting for 58% of total energy consumption and international aviation representing 40% of that figure. This can be attributed to Malta's heavy reliance on aviation due to the limited alternatives for travel abroad, as there is no fixed link to mainland Europe. Furthermore, the transport sector is almost entirely dependent on fossil fuels and accounts for the largest share of the total conventional energy consumed in Malta (Fig.2.3).

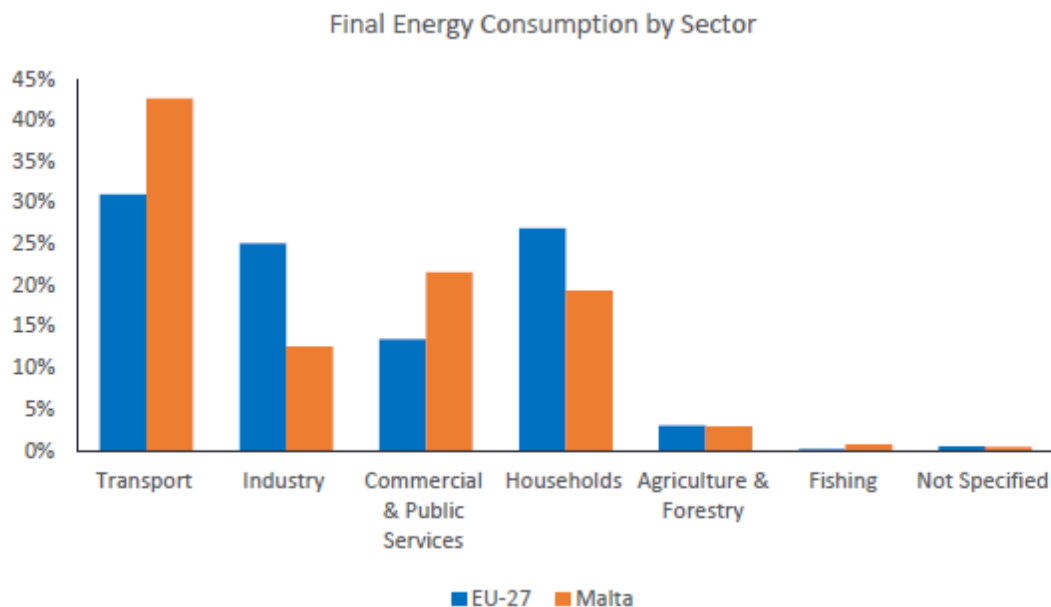


Figure 2.3 – Final energy consumption by sector in Malta vs EU in 2022. Maritime bunkers are excluded from category Transport (Source: Eurostat)

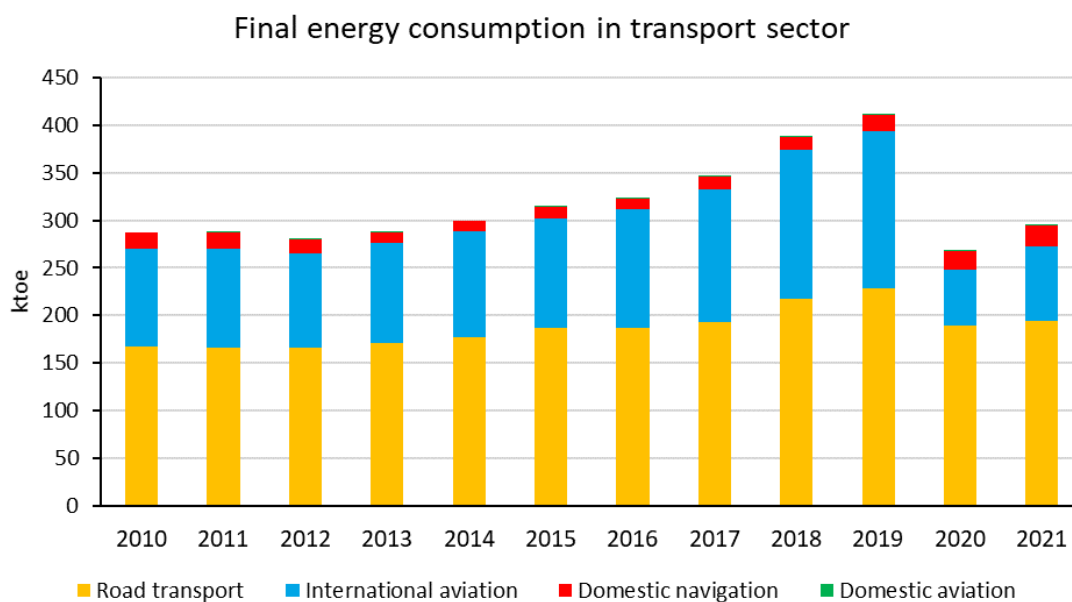


Figure 2.4 – Final Energy Consumption by transport mode (Source: Malta's Draft NECP)

As can be seen from Figure 2.4, the total consumption of fuel for national navigation and road transport remained stable between 2010 and 2014 but started to increase slowly in the last years. In parallel, the share of biofuels also increased gradually.

This increase is due to mobility in Malta being heavily reliant on personal cars, and the modal share is heavily biased towards private vehicles. Despite a range of grants and subsidies having been made available by Government for the purchase of electric vehicles by individuals, private companies, NGOs and local councils, Malta’s percentage of hybrid and electric rolling stock still lags behind other European countries. The main reason for this is the fact that the cost of ownership of internal combustion engine vehicles remains significantly lower than the equivalent alternatively fuelled vehicle. Furthermore, due to short distances travelled, vehicles are retained for longer by owners than elsewhere in the EU.

Various incentives have, however, seen an increase in recent years. The number of registered new motor vehicles in Malta from 2020 to 2023 remained in the region of 19,000. In fact, whereas in 2020, 2021 and 2022 the quantity of vehicles input in the national fleet was below this figure (17,521, 17,565, 18,896) – possibly as an effect of the COVID Pandemic and then the supply chain issue caused by the Russian invasion of Ukraine – the figure rose to 20,461 in 2024. Therefore, the rate of influx of new vehicles remained relatively constant over these years. At the same time, the average yearly rate of vehicle scrappage throughout this same period was 7,400, thus resulting in a gradual growth of the overall vehicle fleet on the island by around 11,500 per year.

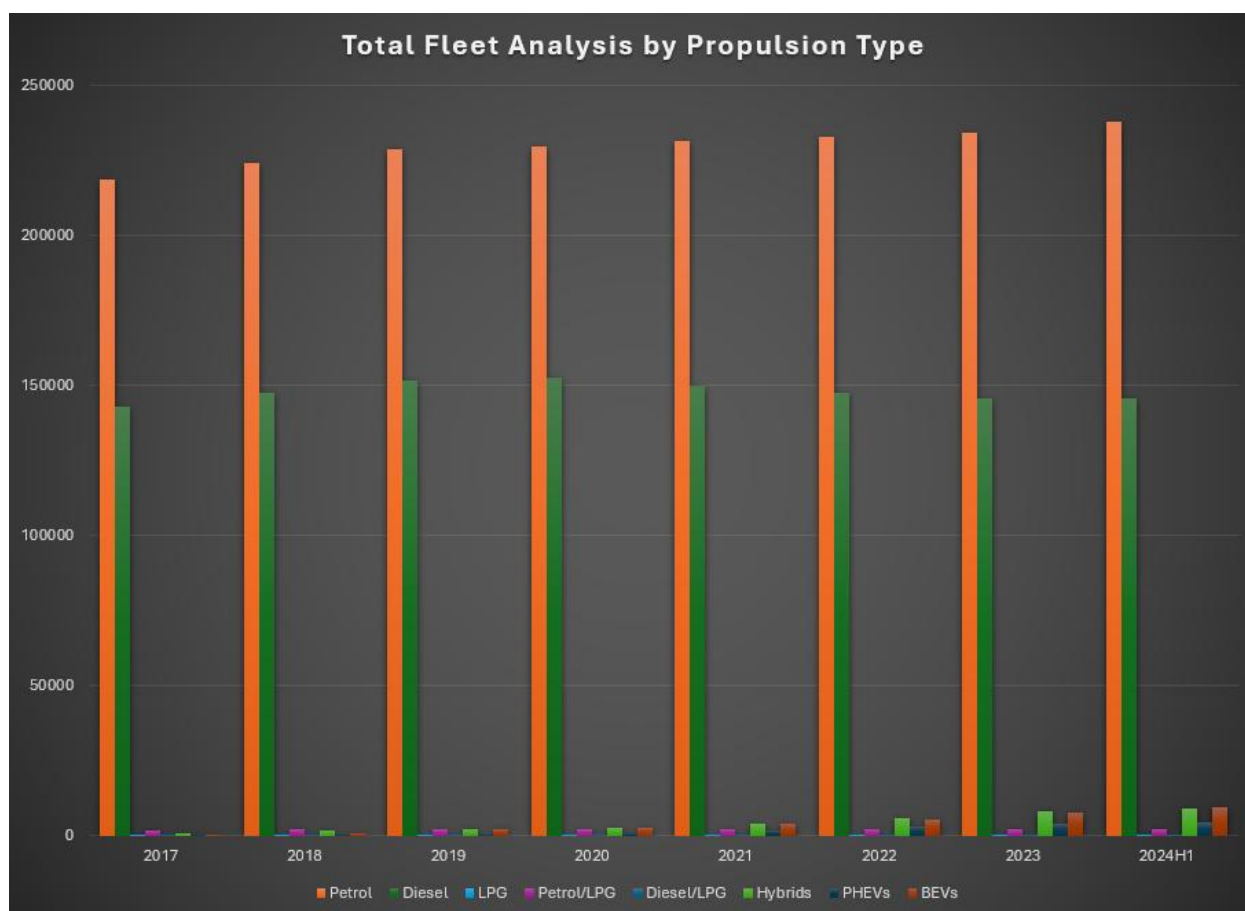


Figure 2.5 - Stock of licensed motor vehicles and type of fuel used (Source: Transport Malta)

As shown in Figure 2.5, the number of petrol and diesel vehicles in Malta increased over the years. Over the last decade, the number of licensed petrol engine vehicles has been consistently higher than diesel engine vehicles; as at June 2024 there were a total of 146,227 vehicles with diesel engines (145,654 using

diesel only, 119 Diesel+LPG, 388 Hybrid Diesels, 66 Plugin Diesels) and 252,839 with petrol engines (237,861 petrol only, 1943 petrol/LPG, 8723 hybrid petrol, 11 hybrid petrol with LPG, 4301 plugin petrol).

Although the share of alternative fuel vehicles in the fleet is still low, representing only 2% of the total fleet, there has been a steady increase in numbers over recent years, as shown in Figure 2.5. Alternative fuel vehicles are predominantly passenger cars and motorcycles, with very few larger N1 vehicles.

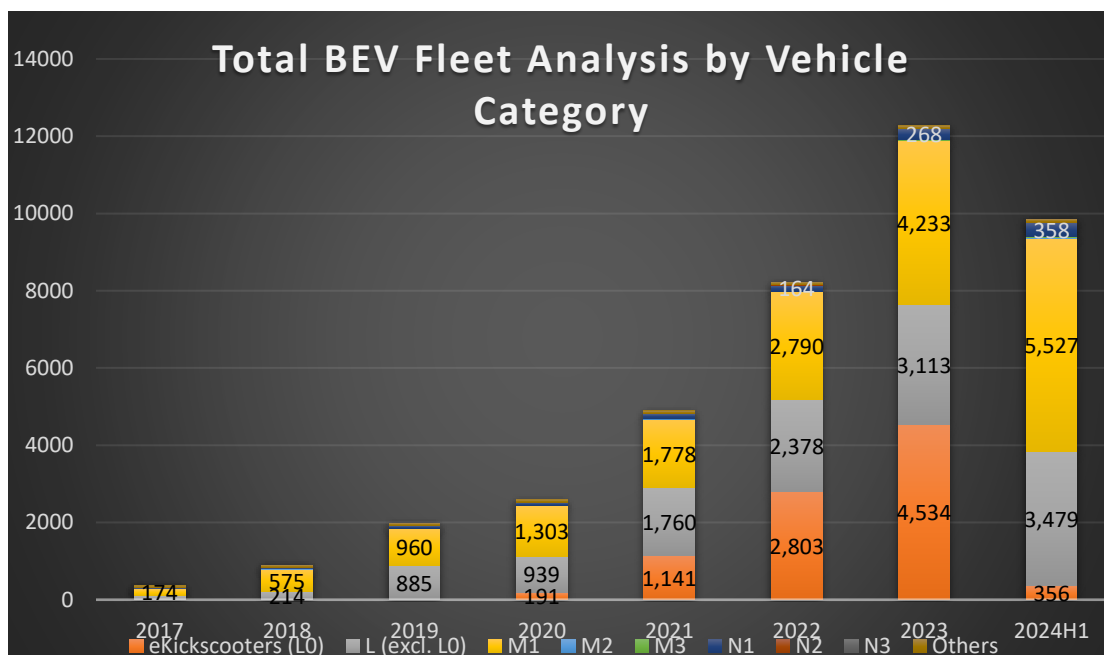


Figure 2.6 - Stock of licensed alternatively fuelled motor vehicles by vehicle category 2017-2024 (Source: Transport Malta)

### 2.2.1 Electro-Mobility in the Road Sector

From the 842 fully electric vehicles in 2016 reported in Malta's first NPF, there has since been a surge in their uptake, and in June 2024, there were 9,720 fully electric vehicles on our roads. Out of these, 3,479 are category L vehicles (motorcycles, tricycles, quadricycles), 5,885 are M1 and N1 vehicles (passenger cars), while 48 are HDVs (M2/N2/M3/N3). The number of Plug-in Hybrid vehicles has also increased, and, in June 2024, it amounted to 4367, all being passenger vehicles in the M1/N1 category. (Fig. 2.6, Fig. 2.7)

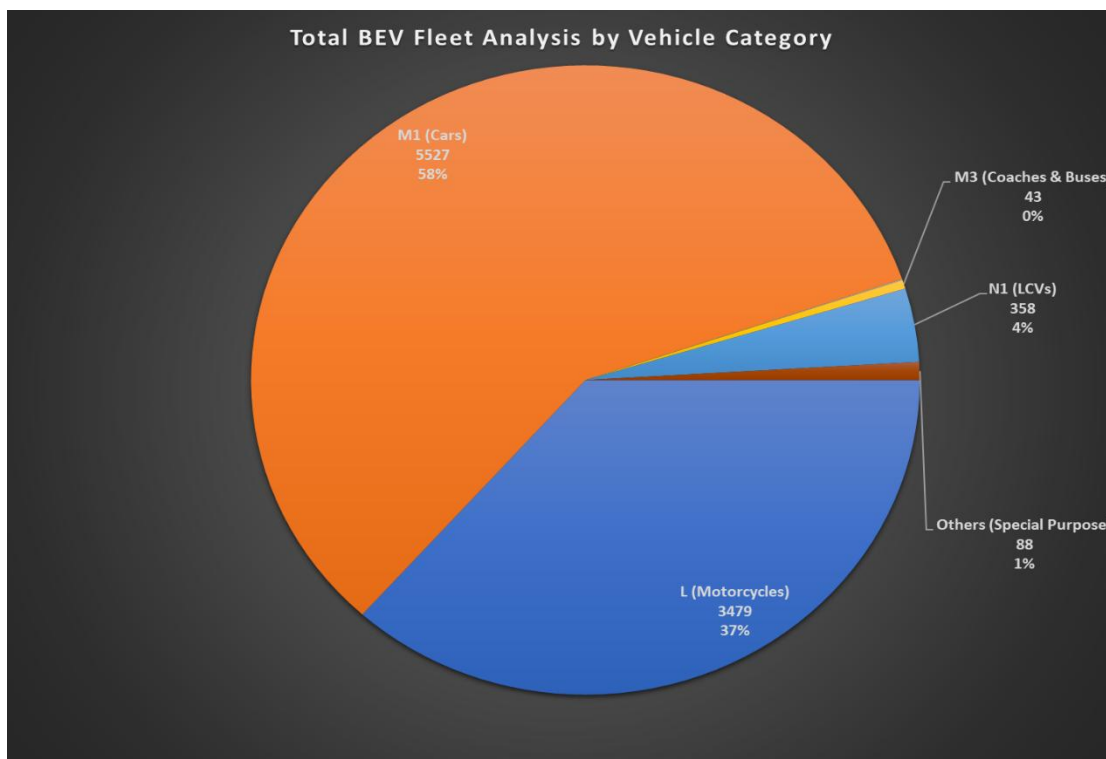


Figure 2.7 - Total BEV by category as of June 2024 (Source: Transport Malta)

This increase is the result of several factors. In the initial stages, one of the first initiatives to drive this change was a LIFE+ funded project and a demonstration project DEMO EV 2013/2016 and PORT-PVEV 2015/2016. Both projects aimed to test the usage of electric mobility in the Maltese urban and topographic context. Although the Maltese islands are very small, with short distance travelled, the project also needed to address range anxiety issues. The projects resulted in the first modern EVs, however small, and the establishment of the National EV Charging Network. By the end of 2016, the Maltese government was offering various incentive schemes.

Nevertheless, notwithstanding the availability of government grants, electric vehicles initially made a slow entry into the market, mainly due to the limited number of right-hand drive models on the market and the high cost for these vehicles when compared to ICE vehicles. Moreover, as the average lifetime of passenger cars in Malta exceeds 10 years, the uncertainty concerning the battery's longevity may have acted as a barrier for consumers in Malta to invest in a technology that would not fit their needs. Replacing the battery after some years, at current market prices, would significantly increase the incremental cost of electric cars over the lifetime of the vehicle. In the initial stages of introduction, the lack of servicing facilities on the island for repair and maintenance of electric vehicles, may also have contributed to consumer reluctance.

Following the measures introduced as early as 2014 to encourage investment in EVs, additional measures, in the national budgets from 2018 to the present, continued to provide incentives to encourage the take up of EVs and plug-in electric-hybrid vehicles, by individuals, NGOs, Local Councils, private businesses and commercial companies. These grants aimed at making EVs as affordable as the equivalent ICE vehicle. Simultaneously, grants were also introduced for private companies to invest in charging points, but for several reasons, this did not prove popular. Reasons for this included the fact that companies owning their own charging facilities had already purchased charging points from their own funds or used the national EV charging network or their EV fleet needed to be bigger to justify such an investment in their own facilities. In 2017, the EV grant scheme was amended to enable companies to invest in a more extensive EV fleet. This was a success with a take-up of €101,000 resulting in 16 EVs registered by companies. The government also offered grants of €25,000 to car importers to assist them in upgrading their service

garages. Subsequent schemes provided grants for individuals, local councils, NGOs as well as registered commercial entities.

Besides financial incentives through the provision of a number of different grant schemes, tailor-made according to specific sectors of society and the business community, for the first time, electric vehicles, including plug-in hybrid electric vehicles, cars and their derivatives, with a battery autonomy exceeding 80 km, were and still are entirely exempt from paying a one-time registration tax which in cases can amount to well over €2,500. Over and above this measure, starting in 2018, all classes of EVs have also been exempt from paying the yearly road license tax for a period of five years, from the first year of registration. This measure continued to be extended in the following years. Moreover, there are exclusively reserved parking places for EVs when requiring the use of charging pillars. Furthermore, these vehicles are also exempt from tariffs relating to the Controlled Vehicular Access (CVA) system in Valletta, thereby providing yet another advantage over fossil-fuelled vehicles.

Private businesses and commercial companies also benefited by up to €200,000 in financial grants in line with state aid rules to entice private companies to lead by example and change their ICE fleet to an electric one. In 2021, Electricity Supply Regulations were amended to reflect preferential electricity tariffs for EV charging in residential and non-residential premises. Off-peak consumption tariffs for EV charging within residences were capped at €0.1298 per unit during off peak periods.<sup>5</sup>

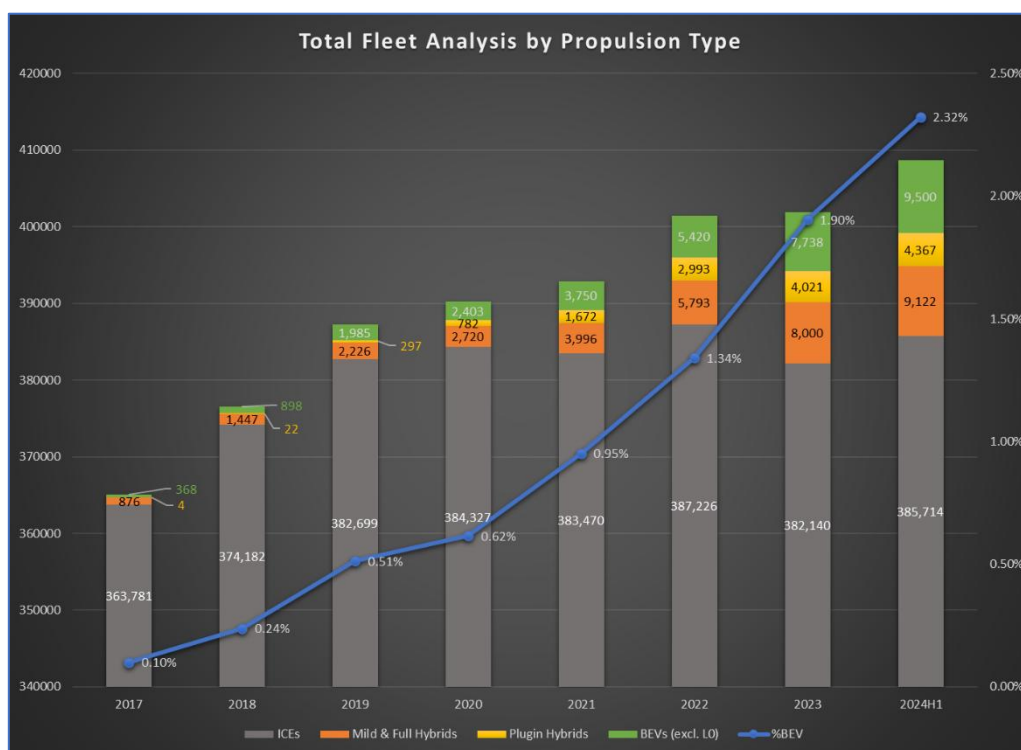


Figure 2.8 - The diffusion of battery electric vehicles in the local car fleet. (Source: Transport Malta)

<sup>5</sup> <https://www.rews.org.mt/#/en/a/13-regulated-electricity-tariffs>

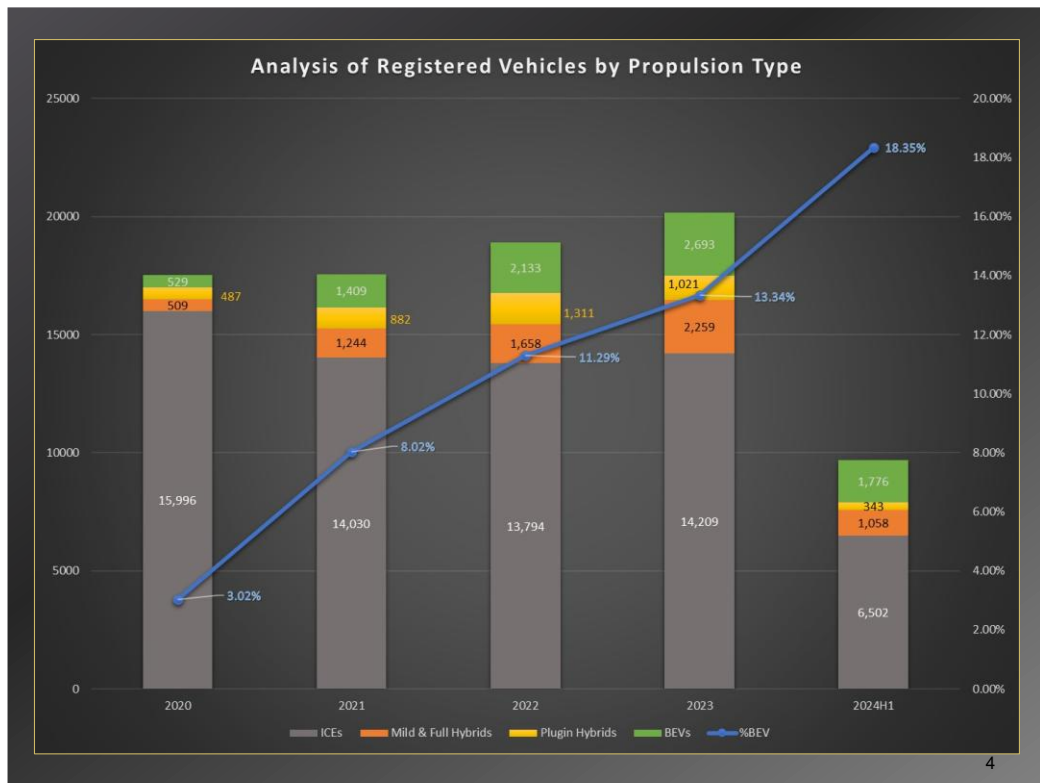


Figure 2.9 - The uptake of BEVs in the newly registered vehicles added on yearly basis is also increasing significantly, reaching 18.35% in the first half of 2024. (Source: Transport Malta)

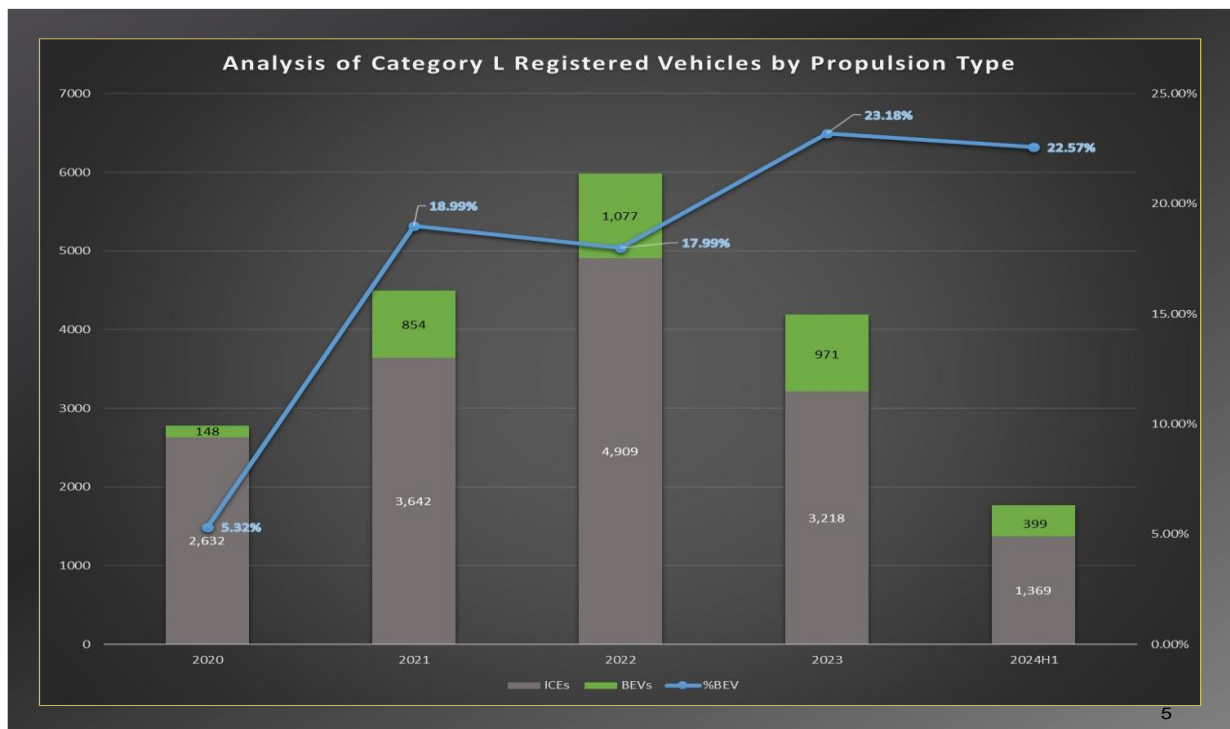


Figure 2.10 - The percentage of electric L-category vehicles has risen in recent years. (Source: Transport Malta)

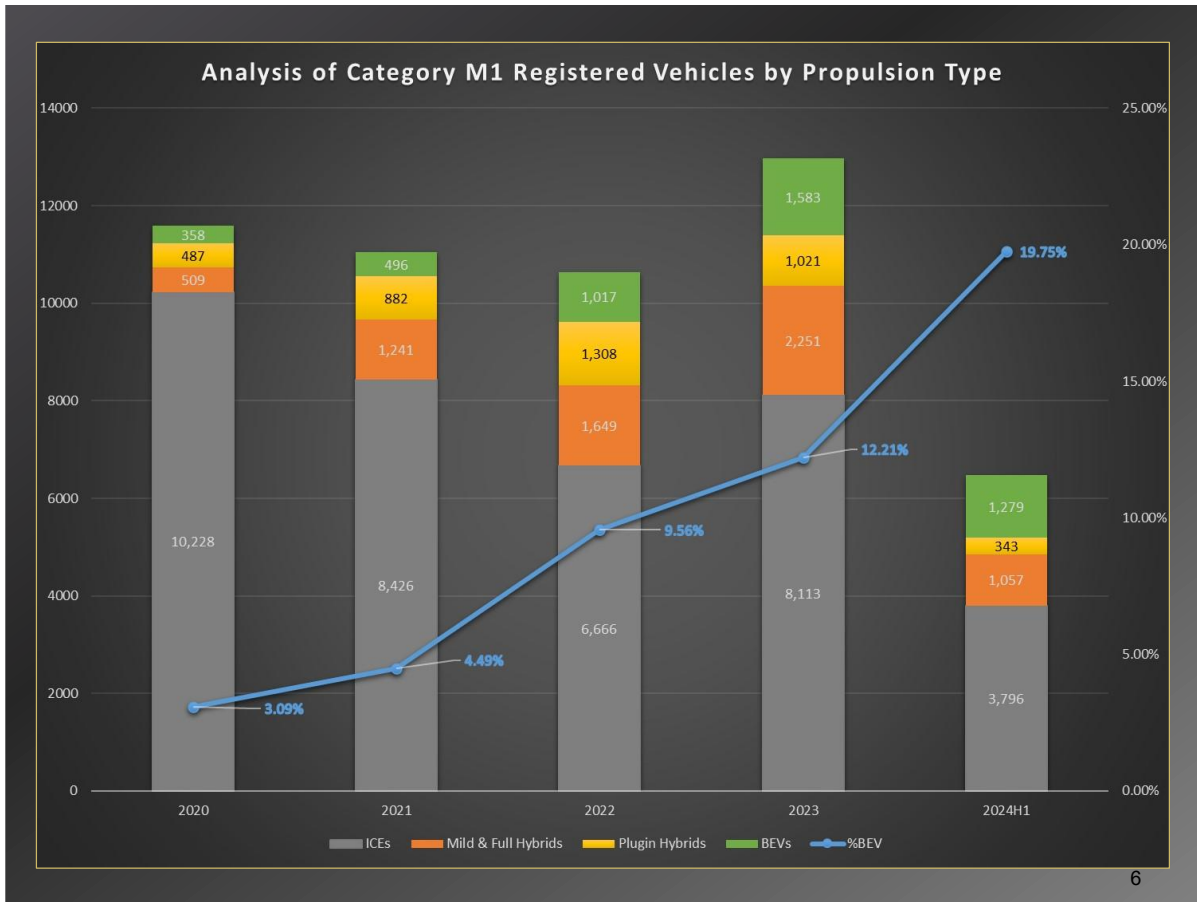


Figure 2.11 - The percentage of BEVs of new registered passenger vehicles has risen to 19.75% (Source: Transport Malta)

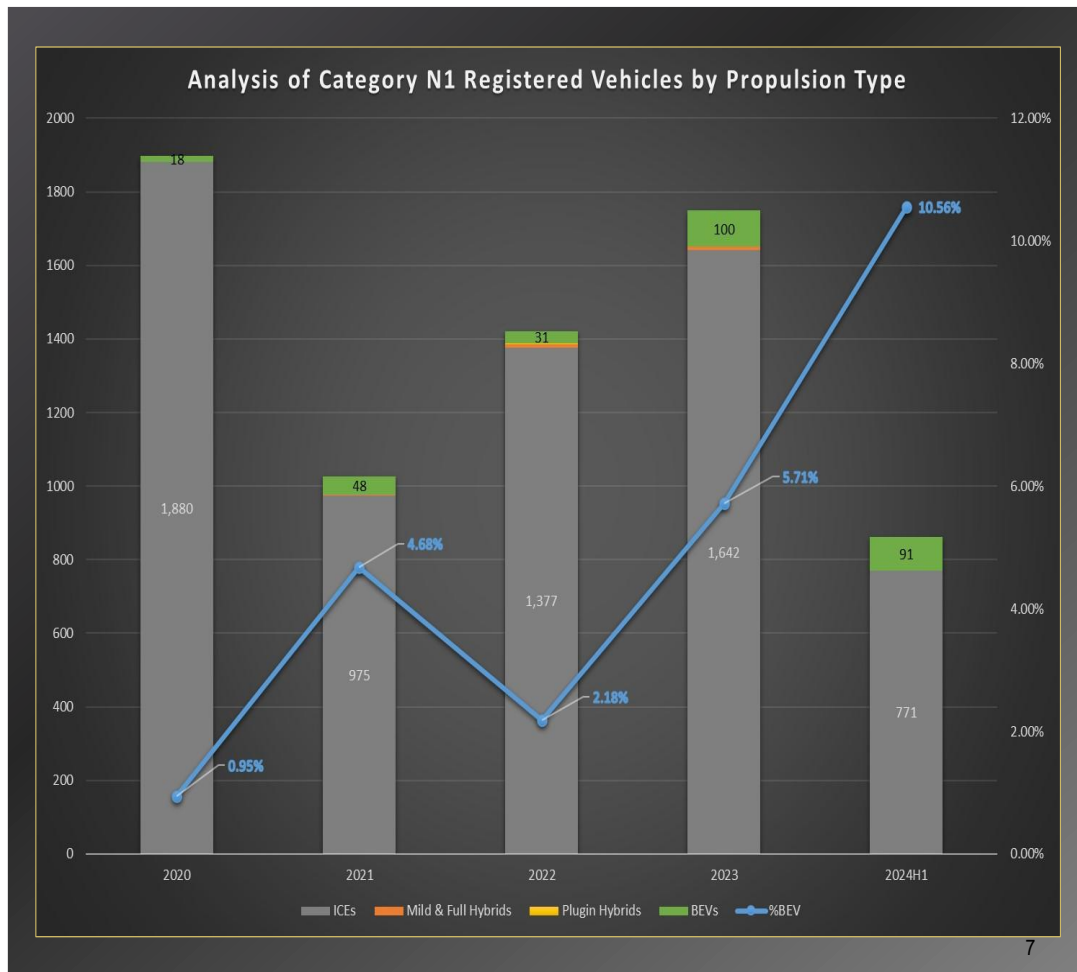


Figure 2.12 - The percentage of BEVs of new registered goods carrying vehicles has risen to 10.56% (Source: Transport Malta)

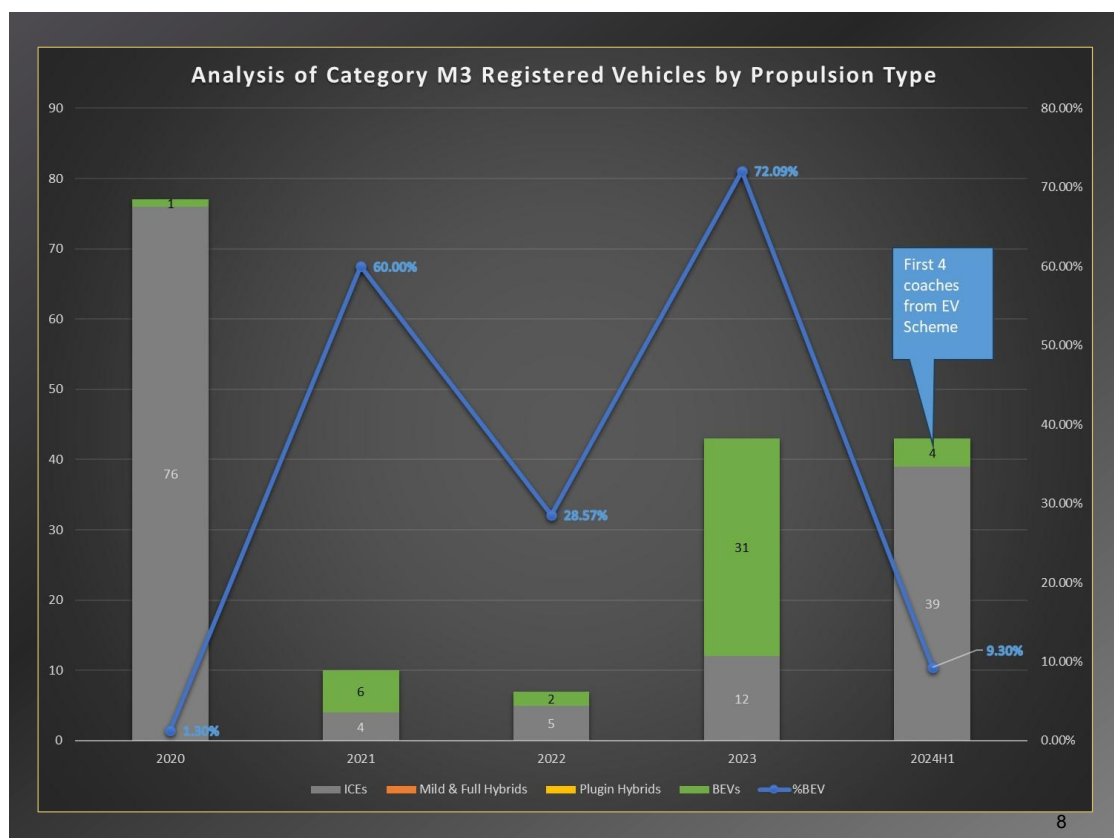


Figure 2.13 - The percentage of BEVs of new registered HDVs has also increased (Source: Transport Malta)

The financial incentives for EVs continued to be offered on an annual basis. In 2022, the incentives for new battery EVs were further strengthened through funds from Malta's Recovery and Resilience Plan, guaranteeing a financial package of €50,300,000 to be used by 2025. By mid-2024, this budget had already been taken up and further supplemented with national funds. This process resulted in 10,103 battery electric vehicles being registered. These grants are available for the full range of battery electric vehicles (BEV), from pedelecs (power-assisted bicycles with less than 250W) to Heavy Duty vehicles (M3/N3). Moreover, state aid to businesses under this scheme is now also being provided in accordance with the General Block Exemptions Regulation which allows for higher aid limits for operators of fleets and large vehicles. As shown in Figure 2.8, the uptake of battery electric vehicles in the local car fleet has grown significantly in these years since 2018. It is to be noted that the figures for BEVs in this figure do not include the pedelecs, which are included in the grant scheme.

Indeed, the application of the General Block Exemption Regulation (GBER), as well as the extension of the threshold under de minimis from €200K to €300K as from January 2024 to the EV Grant scheme, has led to the electrification of the fleets of various leasing companies, with over 400 such vehicles benefitting from the scheme in three years. Furthermore, some 300 applications from owners/operators of Light Passenger Transport Vehicles ('Y' plates) and four electrical tourist coaches, also benefitted from EV grants.

Efforts were also made by government to electrify its public sector fleet. Here too, €10 million from Malta's Recovery and Resilience Fund (RRF) were allocated to procure 250 electric vehicles by end of 2024.

In Gozo six electric buses operate a shuttle service between Mġarr Harbour and a Park and Ride facility in the centre of the island. The Public Bus Transport Service Provider has also included 32, 12-metre electric buses on its scheduled route service together with one smaller bus.

Simultaneously, Government has also augmented the previous 16 operational charging pillars for the recharging of its public service fleet to 49 by the end of 2024 as well as another 18 charging pillars in various Ministries. Each charging pillar has two charging sockets enabling two vehicles to charge simultaneously. They are three-phase models, providing up to 22kW charging per output. These are financed by national funds.

Government is currently extending and updating the National Electric Vehicle Charging Network, which will now also include fast chargers. Currently, Malta has 372 publicly accessible recharging points in operation through the Charge My Ride platform. As can be seen from the map in Figure 2.14, these are spread over Malta and Gozo with more frequency in the urbanised areas, and as evidenced in Figure 2.15 in very close proximity to Malta's TEN T road network.

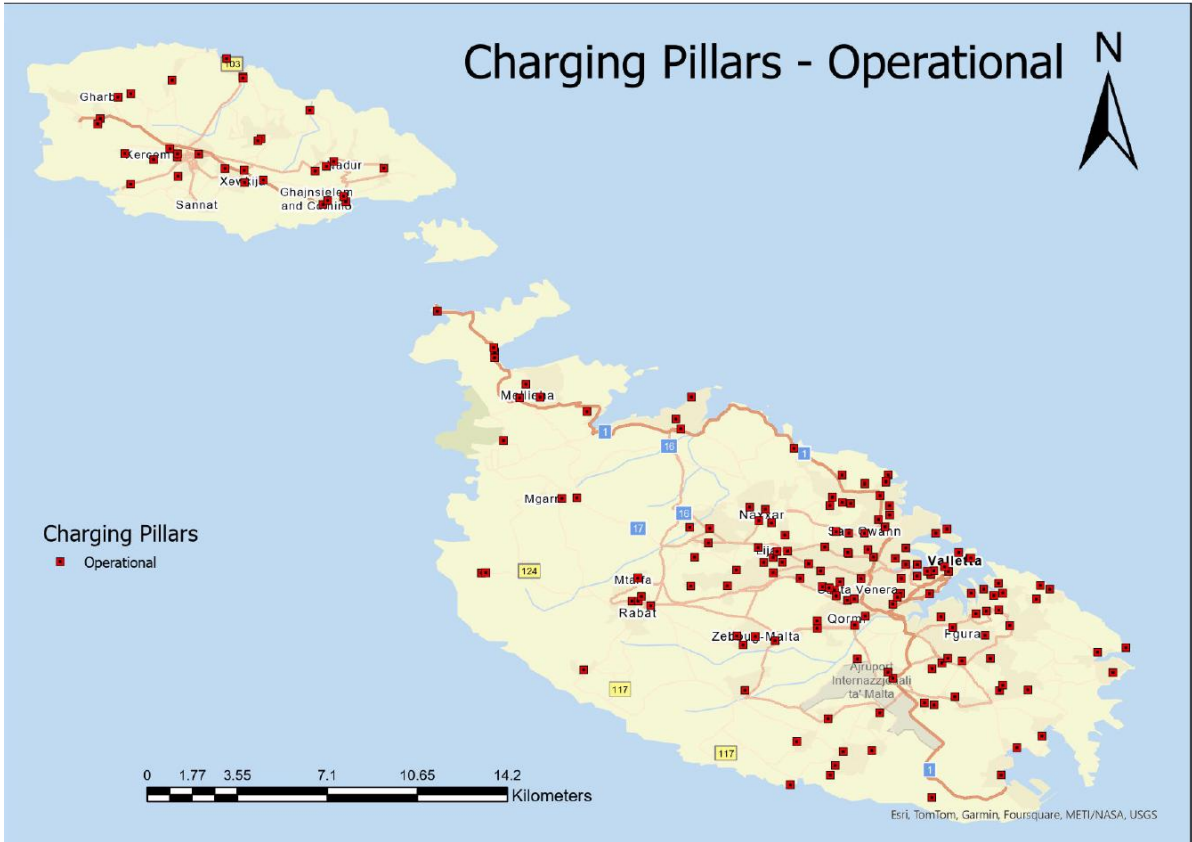


Figure 2.14- Current Public Charging Infrastructure Locations for Electric Road Vehicle (Source: Transport Malta)

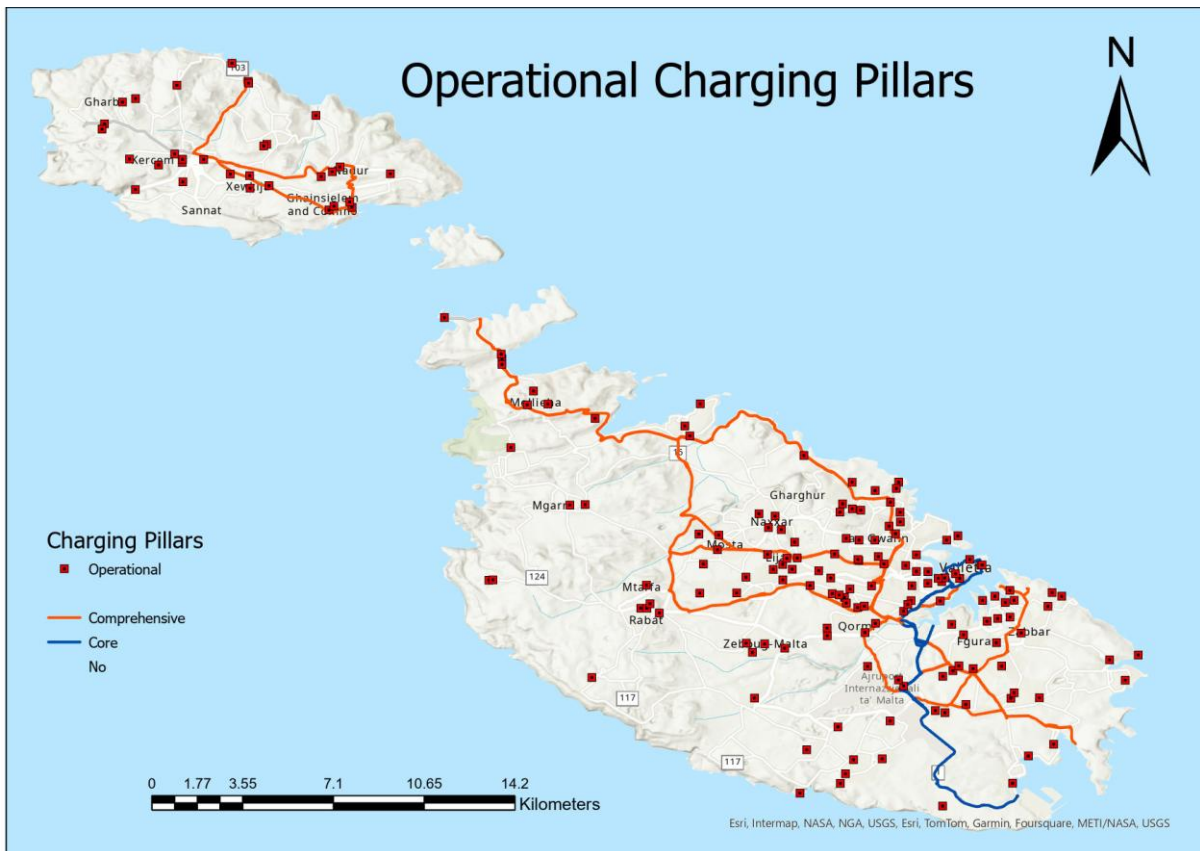


Figure 2.15 - Current Public Charging Infrastructure Locations for Electric Road Vehicle and TENT Road Network (Source: Transport Malta)

The current upgrade will ensure that public charging points are available and spread to further areas to improve the convenience of charging. Of these 152 will be fast chargers<sup>6</sup>. To date, these publicly accessible charging points already in operation around the Maltese Islands have an aggregated power output of 8969kW. While private charging is also very widespread, the National Electric Vehicle Charging Network allows electric car users to charge using publicly accessible charging points in specific and prominent public parking spaces across Malta and Gozo. The current charging infrastructure is owned by Government but managed by the private sector. The charging pillars are equipped with an intelligent metering system in line with Article 2 of Directive 2012/27/EU, which provides users with information on the time of use in line with Article 9 of the same directive.

There are presently circa 3 publicly owned, publicly accessible charging points per km along Malta's total TEN-T network.

### 2.2.2 Shore Side Electricity in Ports

Until recently Malta had no provision of shore-side electricity in its two international seaports located on the TEN-T core network: the port of Valletta and the port of Marsaxlokk. It is pertinent to point out that Malta does not have any inland waterway ports.

In 2020, Infrastructure Malta undertook a €33.2 million shoreside electricity project, partly funded through the Connecting Europe Facility. The Northern Quays within the Grand Harbour and Boiler Wharf Project undertook to provide shoreside supply on the quays along the Northern side of the TEN-T Core Grand Harbour and Boiler Wharf along the Three Cities side of the Grand Harbour, which are utilised for cruise liners. The Grand Harbour is the only port in Malta accessible for cruise liners and provides necessary berthing. The OPS has become operational, and cruise liners that are OPS-enabled and that wish to hook up to the system have been doing so since July 2024.

Through the current investment, cruise liners are plugging into the onshore power supply whilst at berth rather than using their auxiliary engines. By switching off their auxiliary engines, cruise liners visiting the Grand Harbour emit around 93% less nitrogen dioxide, 92.6% less particulate matter and 99.6% less sulphur dioxide. These pollutants are among the principal causes of respiratory illnesses and other health issues. This investment also seeks to reduce 39.6% of the cruise liners' carbon dioxide emissions, contributing to Malta's climate change efforts. The utilisation of onshore power supply is subject to the vessels being equipped with the necessary fitting; however, the cruise liner industry is gaining momentum in this regard.

### 2.2.3. Electricity Supply at Airports

Malta has one international airport, operated by Malta International Airport plc, a privately listed company. Commercial aviation flights use parking slots away from the terminal and do not use aerobridges to board aircraft. Combined with the need for regular reconfiguration of aircraft parking arrangements to be able to manage the limited space available, utilisation of alternative fuel systems such as ground electricity supply is not available. As the airport has exceeded 50,000 aircraft movements in 2019, Regulation 598/2014<sup>7</sup> may limit the use of auxiliary power units (APUs) by aircraft. This, together with the new mandatory targets for the electricity supply to stationary aircraft by the Alternative Fuels Regulation, will make ground supply for aircraft a necessary investment.

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<sup>6</sup> Medium chargers are up to 22kW per point AC; Fast Charging is over 50kW per DC

<sup>7</sup> Regulation (EU) No 598/2014 of the European Parliament and of the Council of 16 April 2014 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Union airports within a Balanced Approach and repealing Directive 2002/30/EC

#### 2.2.4. Current State: Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG)

As stated in Malta's NPF, in 2019 Government commissioned a feasibility study for the deployment of LNG and CNG in Malta by considering local road transport and the technical aspects of these fuels in order to understand the financial and economic costs and benefits of the introduction of LNG and CNG in Malta. The study took into consideration the projected demand for CNG and LNG by taking into account the total road vehicle fleet for the period 2019-2049, as well as Malta's insularity, resulting in a negligible demand from CNG and LNG vehicles emanating from other Member States. Nevertheless, the study considered projected annual purchases of such vehicles over the period 2019-2049, the trends of petrol- and diesel-powered vehicles to lose market share in favour of electric vehicles as a result of the latter's price convergence to 10% by 2049. The study projected a negligible increase in the demand for CNG mainly due to the shift by manufacturers to electric vehicles and the same for LNG vehicles. Making these calculations in line with trends in other Member States, the study estimated 1,400 CNG vehicles by 2027, declining to 40 vehicles by 2049, and 3 LNG N3 vehicles by 2026, up to 43 vehicles in 2034, to a maximum of 73 vehicles in 2049. The total natural gas fuel demand for road transport based on assumed average kilometres travelled for each vehicle category resulted in total tonnage of LNG throughout the period amounting to c. 20,015 tons. Having no natural gas infrastructure to distribute CNG and LNG for road transport, it was found that the infrastructure and investment anticipated for LNG bunkering for maritime vessels was the most logical infrastructure to deploy LNG and CNG for road transport.

Phasing this to mirror expected demand for LNG bunkering, the study projected supply via a CNG road tanker for the period 2026-2030; during 2020-2025 no LNG bunkering demand for sea vessels is anticipated and therefore, none would be supplied. Subsequently, in the phase 2031-2049, the study assumed LNG would be supplied to Malta through a chartered LNG carrier and stored in a dedicated onshore tank. The demand for LNG from road transport was estimated to peak at circa 1,400 tonnes in 2034 and then fall year on year in line with the trend towards electromobility. Based on the capital and operating expenditures the study estimated a negative net present value of €2.86 million. When determining the broad impact on society, including air pollution savings, such a project remained financially and economically unfeasible, with economic costs outweighing any social benefits that may accrue from the investment, yielding a negative expected net present value of €2.41 million.

Based on this study, as well as a lack of expected demand, there is no provision of LNG or CNG for use in road transport.

#### 2.2.5 Current State: Hydrogen

Currently, there is no hydrogen supply for transport in Malta.

#### 2.2.6 Current State: Other Alternative Fuels (Biofuels and LPG)

### ***Liquefied Petroleum Gas (LPG)***

Compared to conventional fuel vehicles, LPG cars could, theoretically, help reduce GHG emissions by approximately 12 to 20%, and it is also an effective measure to reduce NOx emissions but has little impact on PM or CO emissions<sup>8</sup>. Other alternative fuels, such as electricity, have higher environmental benefits.

As at the end of June of 2024, 126 vehicles were running exclusively on LPG and 2,062 vehicles were using LPG either as a replacement for Petrol or in conjunction with Diesel, representing roughly 0.6% of the fleet (excluding motorcycles). The main reason for this penetration is primarily attributed to the fiscal incentive schemes for vehicle owners in the form of a government grant of €400 to vehicle owners for the conversion of a petrol-powered vehicle to run on autogas, and a grant ranging from €900 to €1,500 for owners to convert their diesel-powered vehicles to run simultaneously on diesel and LPG. The main aim of the measure is to reduce local air pollution. This scheme was first launched in 2013 and continued on an annual basis but was limited to petrol-powered vehicles. In 2015, the scheme was extended to include diesel-powered commercial vehicles. Between 2021 and 2024, 420 vehicles were converted to run on LPG.

Although this has been a successful scheme which has resulted in the growth of the fleet of LPG vehicles which addressed GHG emissions attributed to road transport and partly air quality issues, the reliance on LPG in the long term is not sustainable due to the poor environmental performance when compared to other alternative fuels that can be used in transport. The incentive scheme will need to be reviewed and eventually reduced in favour of the schemes promoting the electrification of vehicles.

As of 2024, there were nine LPG refuelling stations in Malta. This infrastructure is considered sufficient given the island's short distances, although no specific goal is required in Directive 2014/94/EU.

Other Alternative fuels	Other Alternative Fuels Refuelling stations
LPG Refuelling Stations (public)	9
LPG Refuelling Stations (private)	nil

Table 1 - Current LPG refuelling stations in 2024<sup>9</sup>

## Biofuels

In general, biofuel substitution is one of the key measures of Malta's NECP. This measure has dual positive effects both in reducing emissions while also contributing towards Malta's RES targets. Since the introduction of biofuels in Malta in 2003, biodiesel consumption steadily increased until 2007, mainly due to the higher availability at fuel stations and its lower price at the fuelling pump. Between 2007 and 2010, its consumption declined, notwithstanding the increase in the prices of petroleum products compared to biodiesel. In a report published by the Malta Resources Authority<sup>10</sup>, the factors that could have led to this decline in consumption include the difficulty in accessing pre-blended biofuel and concerns relating to the quality of biofuel. During this period, fuel stations were only allowed to store and sell B100 biodiesel (100% Biodiesel) effectively blending during refuelling. To reverse this trend, Legal Notice 68/2011 of the Laws of Malta was published in 2011 to boost the use of biofuels. This legal notice introduced a substitution obligation for importers and wholesalers of automotive fuels whereby market players were obliged to

<sup>8</sup> Own calculation based on (EU) 2015/652 and JEC WELL-TO-WHEEL Report Version 4.a. Technical Report for the European Commission, Joint Research Centre (JRC), EUCAR, Concawe

<sup>10</sup>[https://www.co2star.eu/biodiesel\\_pre\\_blending/Biodiesel%20in%20Malta%20-%20MRA%202007.pdf](https://www.co2star.eu/biodiesel_pre_blending/Biodiesel%20in%20Malta%20-%20MRA%202007.pdf)

place on the market a minimum amount of biofuel content calculated as a percentage of the total petrol EN228 and diesel EN590 placed on the market.

The minimum percentage of biofuel content in automotive fuels was set at 1.5% in 2011 and was expected to reach 10% by 2020. This percentage was achieved that year. Following the introduction of Directive (EU) 2018/2001, Malta set an obligation on fuel suppliers to ensure that the share of renewable energy within the final consumption of energy in the transport sector is at least 14 % by 2030. This percentage started at 10.5 % in 2021. In addition, a percentage of at least 3.5 % advanced biofuels (biofuels that are produced from the feedstock listed in Part One of the Eighth Schedule of S.L. 545.17) released to the inland market by 2030 was set. Overall, local importers and wholesalers of petrol and diesel are meeting the substitution obligations by blending biofuel with diesel EN590 prior to supplying the fuel stations. Although the blend ratio varies from one supplier to another depending on the fuel mix placed on the market, the minimum percentage substitution obligation target is being met. New targets, according to Directive (EU) 2023/2413, have yet to be transposed.

The biofuels currently in road transport in Malta are biodiesel FAME (Fatty Acid Methyl Ester), HVO (Hydrotreated Vegetable Oil) and Forest Processing Residue biofuel. Biodiesel (FAME) has to meet the quality standard requirements of EN 14214, while HVO has to meet the quality standard requirements of EN 15940. Forest processing residue biofuel is considered a separate type of biofuel produced from crude tall oil and crude sulphate turpentine during the production of pulp and paper by paper mills, a forest-based industry. It started to be blended with diesel in 2021. Used cooking oil (UCO), which shows low emission factors, is mostly used as feedstock for biodiesel and HVO. Since 2015, the amount of biodiesel blended with diesel has diminished (no biodiesel was blended in 2023). Another feedstock used for the production of HVO was palm oil (process not specified). However, since biofuels produced from palm oil are considered high indirect land-use change-risk biofuels, they no longer contribute to the substitution obligation.

From the year 2018, no biofuel has been produced locally; hence, all biofuels currently being consumed are imported.

<b>Year</b>	<b>Volume of biofuel (L)</b>
2017	9 944 998
2018	11 709 684
2019	14 274 963
2020	16 582 281
2021	13 492 958
2022	16 169 554
2023	16 809 844

*Table 2 -Total volume of imported biofuel and blended with automotive fuels for years 2017-2023 Source: Regulator for Energy and Water Services*

# CHAPTER 3: PLANNING IN COMPLIANCE WITH MANDATORY INFRASTRUCTURE TARGETS

## 3.1 Recharging Infrastructure

In alignment with efforts to transition towards decarbonisation, the Government, through the Energy and Water Agency, is gradually introducing more recharging stations. A further 1,200 publicly accessible charging points will be funded through the Cohesion Fund, achieving a total of 1,500 publicly accessible points by 2025, that is circa 13 publicly accessible charging points per km of Malta's total TEN-T network. To support the electrification of transport systems, a total of 6,500 publicly accessible recharging points are estimated to be required to be installed by 2030. This transition towards electrification of road transport across the nation will impact all stakeholders, from Government to industry and the private sector, civil society and citizens. Such infrastructure will adequately support the uptake of EVs on a national scale.

As indicated in Fig 3.1 the planned additional recharging points continue to be spread across the Islands, with more concentrated frequency in the urbanised zones and along the TEN T road network. The charging pillars currently planned are being installed in strategic locations to ensure comfort to all users. Access to these charging points is through a mobile phone application, which is programmed in a way to ensure it reaches persons with different backgrounds, languages and needs.

There are, of course, various challenges in reaching these targets, particularly the location of the recharging points, which requires planning permits. It is also conditioned by other demands, including public space restrictions and electric power requirements.

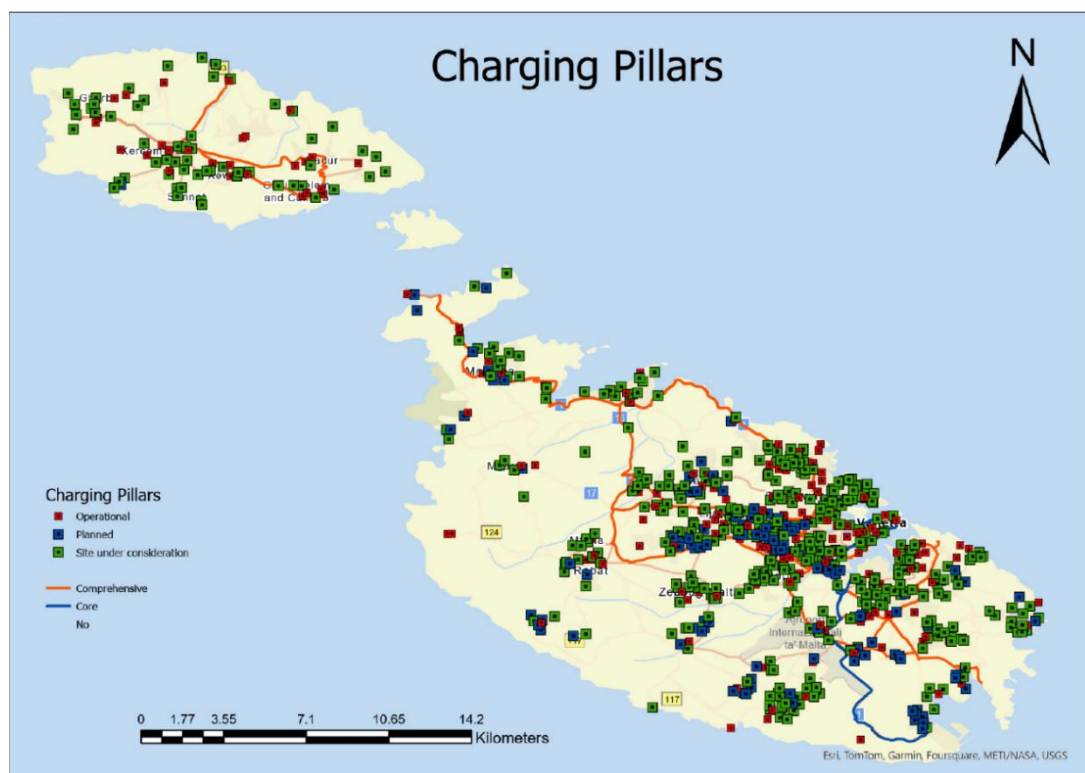


Figure 3.1 - The recharging infrastructure for LDVs as at the end of 2025 (Source: Transport Malta)

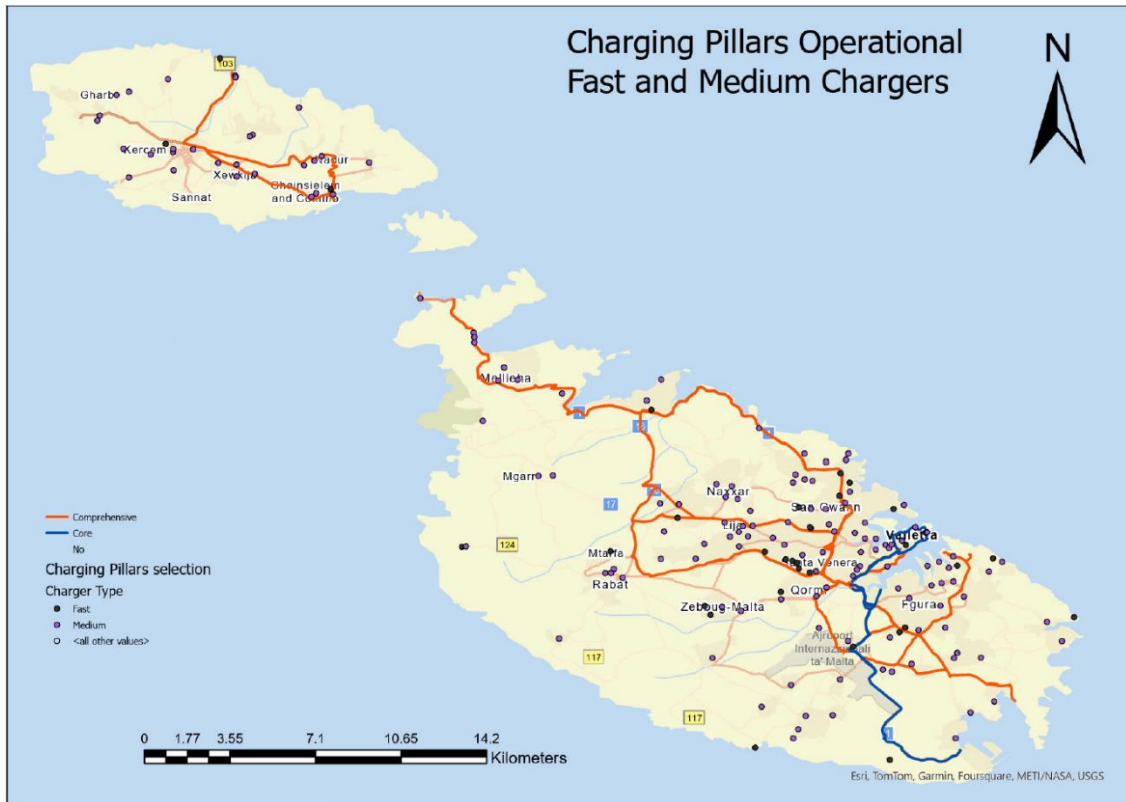


Fig. 3.2 Fast and Medium Chargers (Source: Transport Malta)

### 3.2 Recharging infrastructure for HDV

As notified in Malta’s Implementation Report, Government commissioned a feasibility study for the deployment of LNG and CNG infrastructure for road transportation, referred to in part 2 of this report. It was concluded that due to a lack of demand, the financial and economic costs far outweigh the benefits of the introduction of LNG and CNG in Malta. Due to the current lack of expected demand, there is no plan to provide LNG or CNG for use in road transport. There are currently 10 direct current high-power fully operational charging points which are privately owned but publicly accessible supplying HDV charging.

### 3.3 Hydrogen infrastructure for road vehicles

One of Malta’s energy constraints is its physical isolation from the trans-European gas network. Malta does not produce natural gas; in fact, Malta imports LNG solely for electricity generation. The absence of gas distribution networks and gas district heating and cooling networks further limits the potential use of hydrogen in end-use sectors, including transport. The proposed Melita Trans Gas hydrogen-ready pipeline Project of Common Interest (PCI) aims to end Malta’s isolation from the European gas network and thus contribute to the integration of the gas and future hydrogen market, improved security of supply, given that presently the island depends on shipping for its LNG supply for the generation of electricity. In line with Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast), Malta is considered to be a “small connected system”, in line with Article 6 (5)(b) of AFIR, Malta is exempt from providing the refuelling infrastructure for hydrogen.

Nevertheless, aware of the increased importance of Hydrogen as a potential core contributor to the transport sector, in 2022, Government requested assistance from the European Commission's DG Reform under a Technical Support Instrument to undertake initial assessments on the use of hydrogen in transport. The study provided Government with a situation analysis of the potential use of Hydrogen in all modes of transport in Malta and information on the various uses of hydrogen in transport with examples of best practices in other states and insights into infrastructural and operational aspects.

Furthermore, it provided an opportunity for stakeholder meetings on this subject. The study assessed the financial and economic feasibility of hydrogen in transport based on technical options related to the importation or local production of hydrogen, across road, maritime and aviation. While there were a couple of options that were considered economically feasible, these are dependent on a significant number of uncertainties, including the eventual implementation of a hydrogen-ready pipeline and the availability and cost of green hydrogen. Moreover, technological developments also create several uncertainties that require more detailed assessment, especially for the maritime and aviation sectors, where hydrogen did not seem to be the most prominent future alternative fuel at the time of the study. Due to its already high population density and spatial constraints, land limitations are a critical factor for Malta. This includes potential controversies of fuel stations taking up land outside the development zones, which become more relevant for a hydrogen station to avoid densely populated areas due to the "proximity risk". Notably, this "proximity risk" introduces constraints that are unique to Malta and less relevant for other EU member states and poses additional limitations in the implementation of hydrogen mobility/ infrastructure projects.

Any future investment into hydrogen refuelling will require an overhaul in how fuel stations are designed due to the different storage and dispensing technologies. The study has identified clear policy, regulatory drivers and incentives as being crucial contributors for any future successful roll-out of hydrogen mobility.

Since hydrogen mobility is currently non-existent in Malta, the report remains a useful starting point of reference for any future considerations regarding the provision of this fuel and the necessary infrastructure for its provision.

### 3.4 Infrastructure for shore side electricity supply in maritime ports

Malta is committed to further investment in onshore power supply by providing the facility along the Southern area of the Grand Harbour. These will predominately provide the shoreside electricity to the inner areas of the harbour, the South side of the Port as well as an additional quay on the outer area at Lascaris Wharf. Essentially, this is a €44 million shoreside electricity project that will reduce emissions produced by ro-ro and ro-pax ships at berth by allowing these vessels to turn off gas or heavy fuel oil-fired engines and plug into shore-side electricity. The infrastructure will provide the facilities for ro-ro and ro-pax vessels which berth at the Grand Harbour to ferry wheeled cargo. Thus, the project will also contribute towards reducing noise and engine vibrations in the Grand Harbour area, thereby improving the surrounding environment and quality of life of persons living and working within the highly urbanised region of the Grand Harbour. The work on the Southern Harbour part will commence with a plan of implementation in 2025. Preliminary studies indicate that through the supply of shoreside electricity in the Grand Harbour, within 20 years, Malta will save up to €375 million in costs linked to the measurable consequences of air pollution, such as impacts on health, the natural environment, infrastructure, and agriculture. It will also reduce the impact of noise and engine

vibrations in the Grand Harbour area, thereby improving the surrounding environment and quality of life of all persons living and working within the region of the Grand Harbour. By reducing air pollution in the region, the Project will contribute towards EU and national climate change objectives in line with the Paris Agreement, which obliges ports to reduce the carbon footprint of their land-based activities and decarbonise shipping activities.

In the other TEN-T core port of Marsaxlokk, a €29 million investment is taking place, which will provide two quays within the Freeport Terminals, namely North Quay Terminal 1 (NQT 1) and North Quay Terminal 2 (NQT 2) with a High Voltage Shore Connection (HVSC) system for use by container ships whilst at berth. These two quays are intensely used, including by the largest container vessels. The HVSC systems will allow berthed container vessels to switch off shipboard generators producing electrical power. The power transfer shall be carried out in conformity with international and national standards for container ships. Each system should be able to deliver an aggregate total of 7.5 MVA at 6.6kV at 60 Hz to the berthed vessels. Likewise, each system should be able to handle an aggregate total power of 7.5MVA supplied by the berthed vessels to the national grid. The project is being co-financed through the JUST Transition Facility. The Malta Freeport Corporation will also be investing in additional OPS provisions whereby it seeks to have necessary electrification along West Quay Terminal 1 and South Quay Terminal 2.

PORT NAME	2020	2025	2030
Valletta	Nil	North Harbour Region: <ul style="list-style-type: none"> <li>• Pinto Wharves</li> <li>• Deep Water Quay</li> </ul> South Harbour Region: <ul style="list-style-type: none"> <li>• Boiler Wharf</li> </ul>	South Harbour Region: <ul style="list-style-type: none"> <li>• Quays 2 to 5 at Mediterranean Maritime Hub</li> <li>• Ras Hanżir</li> <li>• Lab Wharf</li> <li>• Magazine Wharf               <ul style="list-style-type: none"> <li>• Dock 6</li> </ul> </li> <li>• Parlatorio Wharf</li> </ul> North Harbour Region: <ul style="list-style-type: none"> <li>• Lascaris Wharf</li> </ul>
Marsaxlokk	Nil	NQT 1 NQT 2	Freeport Terminals Freeport Terminals
		WQT 1	Freeport Terminals
		SQT 2	Freeport Terminals

Table 3- Shore Side Electricity installation in Sea Ports – TEN-T Core Network

Shore-side electricity supply for the maritime ports on the TEN-T comprehensive network is not necessary in Malta's case since no ships above 5000 gross tonnes enter Malta's two TEN-T Comprehensive Network sea ports. Nonetheless, it must be noted that Malta will be ahead of the deadline of 1 January 2030, to provide shore-side electricity supply, in its TEN-T core ports as stipulated in the Alternative Fuels Infrastructure Regulation.

### 3.5 Infrastructure for liquified methane in maritime ports

Following up on the 2019 study on LNG Bunkering<sup>11</sup>, discussions ensued between the Ports and Yachting Directorate within Transport Malta and bunker suppliers to explore the possibility of setting up LNG Bunkering operations in Malta to supply LNG to vessels. Indeed, Malta's legislative framework was also revised in 2023 to permit such bunkering operations, and the relevant legal provisions now cater for all other alternative fuels as defined in the Alternative Fuels Regulation.

In the context of increased use of LNG for propulsion, in 2024, Government commissioned an independent risk assessment to investigate the risks associated with Liquified National Gas (LNG) carrying and LNG-fuelled vessels operating within Malta's Ports and territorial waters, and the risks linked with navigation, berthing and transfer of LNG as a bunker fuel for such vessels.

The study shows that various measures exist to lessen the likelihood of occurrence of most hazards, but in line with the principle of Low Probability / High Consequential Event, these cannot be definitively eliminated. The study concluded that due to the extremity of the consequences and proximity to a high population density within the Port of Valletta, careful consideration and additional studies by authorities would be required to determine if such risk is tolerable.

For the other core port of Marsaxlokk, the risk profile is less, given that the densely populated areas are outside the 750m zone, but still within the 1.6km radius. The assessment, however, notes that conclusions from a major incident analysis show that anything within a 1.6km radius is subject to exposure, although the highest effects are seen within the 500m radius. Indeed, in such locations, bunkering of LNG, if safely done with strict measures, could be considered for the Malta Freeport at Terminal 2, however, one must also bear in mind the workforce engaged in the area and other vessels that may be present at the terminal, which once again brings into discussion the principle of Low Probability but High Consequential Event.

Interestingly, the assessment concludes that, the lack of densely populated areas around Ċirkewwa would also permit LNG-related operations for future ferries running on LNG, including bunkering. Once again, although different to the highly populated areas around Valletta, both the Ċirkewwa North Quay and South Quay have the presence of the marshalling areas, together with beaches and hotels in the area, and therefore, this would still result in having to consider the presence of thousands of people.

As noted earlier, the Ports and Yachting Directorate within Transport Malta has engaged with a number of potential LNG suppliers, both local and overseas entities. The outcome of the risk assessment and related conclusions, in particular the principle of Low Probability but High Consequential Event, at this stage, suggests that such operations have to be treated with extreme

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<sup>11</sup> Study 60% funded under CEF-Synergy; Partners – TM Contractor: Tractebel Consortium: PWC, Strategy& Elengy & MamoTCV.

caution. The potential suppliers have been reminded that, should they carry out their own risk assessment and potentially corroborate or mitigate the risks noted in the Government's assessment, this may possibly identify/determine whether additional measures could mitigate the related risks.

On the supply side discussions between authorities and stakeholders continue to explore possible solutions. In the meantime, the lack of LNG supply in Malta has not deterred LNG-fuelled vessels from calling in both Valletta and Marsaxlokk, with such vessels lifting their supplies in other ports.

### 3.6 Infrastructure for shore side electricity supply in inland waterway ports

In the absence of any inland waterways in Malta, Article 10 does not apply to Malta.

### 3.7 Infrastructure for electricity supply to stationary aircraft

Malta has one international Airport. The aerodrome is operated by Malta International Airport plc (MIA), a privately listed company. This airport forms part of Malta's TEN-T core network and, with annual passenger movements of circa 8 million and over 50,000 annual aircraft movements, is well within the scope of the threshold set in Article 12 of the Regulation. Commercial aviation flights use parking slots away from the terminal, and aerobridges are not used to board aircraft. Due to spatial constraints, there are also no plans to introduce aerobridges. Therefore, the provisions of Article 12(1)(b), namely the provision of electricity to aircraft through fixed ground power by 2029, will apply.

This target will require significant civil works on all Aprons to provide the required buried infrastructure to allow electrical services to reach out to the aircraft nose gear area on each aircraft stand, together with substantial investment in aviation standard electrical ground equipment to provide electricity to aircraft. Airport-based electrical distribution sub-stations and switchgear capable of driving the entire load of fixed ground power on each Apron will be required.

By 2030, there will be three commercial Aprons serving Scheduled Operations at MIA, namely Apron 8, Apron 9, and Apron X (planned). Aprons 2, 3, and 5 are General Aviation Aircraft for Code A and B aircraft. They are not considered 'commercial air transport' and, therefore, are excluded from the scope of Article 12.

MIA is currently undertaking construction works of a new Apron (Apron X), which will accommodate 8 Code C Aircraft or 3 Code E Aircraft or a combination of both. The Apron plans only include preparatory civil works that will eventually allow the connection of electrically powered mobile or stationary equipment on all Code C stands to provide electricity to aircraft. Conceptually, preparatory civil works for the provision of power to the Code E stands can also be considered to meet the 2030 objective.

From a scheduling perspective, it will be quite difficult and very likely impossible to relinquish aircraft parking capacity in favour of restrictions to permit infrastructural conversion works on Aprons 8 and 9 to meet Article 12 objectives, even after Apron X is complete. Furthermore, there are other ongoing pavement maintenance works on Apron 9, which are planned in stages during the period extending to 2030. It will therefore be difficult to fully implement the targets set in Article 12 objectives on Apron X, Aprons 8 and 9 and will likely be impossible for all remote stands to have Aircraft Fixed Electrical Ground Power (FEGP) before 2040.

The implementation of Article 12 objective for providing electricity to aircraft through fixed ground power will increase electrical supply demand from the National Utility Services Provider (Enemalta) which will compete with the projected increase in electrical demand arising from operations on Apron X, planned landside development at the Airport and the Terminal expansion plans during the same period. It is envisaged that a new 132KV Distribution Centre must also be developed in the proximity of the airport by Enemalta to source the electrical supply for the Airport-based FEGP distribution substations and projected demand for an enlarged Air Terminal operation and planned landside development.

### Challenges

One of the main challenges in complying with the AFIR obligations, is the substantial increase in electricity demand driven by the electrification of airside operations. A key requirement is the ability to supply electrical power to all remote stands by 2030. The design of the new Apron (Apron X) has been developed to meet these regulatory requirements and includes the preparation for the necessary infrastructure to handle an estimated additional power demand of approximately 630 kVA. When considering the power needs for stands on Aprons 8 and 9, the total required capacity is expected to more than double.

Discussions are ongoing between the Malta International Airport and Enemalta in order to secure capacity and investment for a new distribution centre and substations around the airport grounds.

# CHAPTER 4: MEASURES TO ENSURE THAT TARGETS ARE BEING MET

## 4.1 Recharging infrastructure for LDV

Government will be closely monitoring developments every quarter to ensure that the power output targets as stipulated in article 3.1 are met, and when the 15% threshold is approached to take stock of government's role in such recharging points.

With a total TEN-T core road network of 15.32km, there are no plans to set up publicly accessible recharging pools. In the first quarter of 2026 Government will undertake a gap analysis of the existing or planned publicly accessible recharging points and the requirements of the regulation which would also address the ideal location for a publicly accessible recharging pool for LDVs on the comprehensive network, which network is 95.58km in length. Technical requirements will also be taken into consideration.

## 4.2 Recharging infrastructure for HDV

In the first quarter of 2026, as part of the above-mentioned gap analysis Government will assess the applicability of the regulation's provisions to Malta's TEN-T road network and take stock of the demand for and supply of such recharging infrastructure. Technical requirements will also be taken into consideration.

## 4.3 Hydrogen infrastructure for road vehicles

As already indicated in Section 3, in line with Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast), Malta is considered to be a "small connected system", in line with Article 6 (5)(b) of AFIR, Malta is exempt from providing the refuelling infrastructure for hydrogen. Government will monitor any changes in the demand for such fuel and any changes to Malta's status.

## 4.4 Infrastructure for shore side electricity supply in maritime ports

Government will closely monitor the projects currently underway to ensure compliance with the 2029 deadline. By the third quarter of 2025, Government will identify any gaps between the projects currently underway, and the obligations of Article 9 of the Regulation.

## 4.5 Infrastructure for liquified methane in maritime ports

Government will attempt to address the issues identified in the study and engage with potential suppliers in an attempt to mitigate the risks noted in the Government's assessment, this may possibly identify/determine whether additional measures could mitigate the related risks.

Discussions between authorities and stakeholders will continue to explore possible solutions.

#### 4.6 Infrastructure for electricity supply to stationary aircraft

Government will closely monitor developments and facilitate discussions between the electricity provider and Malta International Airport.

# CHAPTER 5: OTHER MEASURES TO PROMOTE ALTERNATIVE FUELS INFRASTRUCTURE

## 5.1 Measures to promote the deployment of captive fleets

A grant scheme for the purchase of electric vehicles with the use of GBER and the extension of the threshold under *de minimis* from 200k to 300k from 1 January 2024 resulted in various leasing companies electrifying their fleets, with over 400 such vehicles benefitting from the scheme in 3 years. Grant schemes also resulted in three hundred electric vehicles used by service providers of Light Passenger Transport Vehicles as well as four electric tourist coaches.

As already referred in Chapter 2, the Public Service is also in the process of electrifying its fleet and procured 250 electric vehicles for its fleet in the period 2023-2025, financed by the Recovery and Resilience Fund as well as an increase in recharging points financed by national funds.

## 5.2 Measures to facilitate the deployment of private recharging stations

To incentivise off-peak charging of electric vehicles, Electricity Supply Regulations (SL545.01) were amended to reflect preferential electricity tariffs for EV charging in residential and non-residential premises. Off-peak consumption tariffs for EV charging apply from Monday to Saturdays between midnight and 6am and between noon and 4pm. The off-peak tariff applies all day on Sundays. Additionally, a night and day tariff is available for non-residential consumers of electricity with an annual consumption of over 5GWh. The link below provides details of the applicable rates. <https://www.rews.org.mt/#/en/a/13-regulated-electricity-tariffs>

## 5.3 Measures to promote alternative fuels infrastructure in urban nodes

The recharging infrastructure is denser in Malta's urban node, as per Fig. 5.1 hereunder.

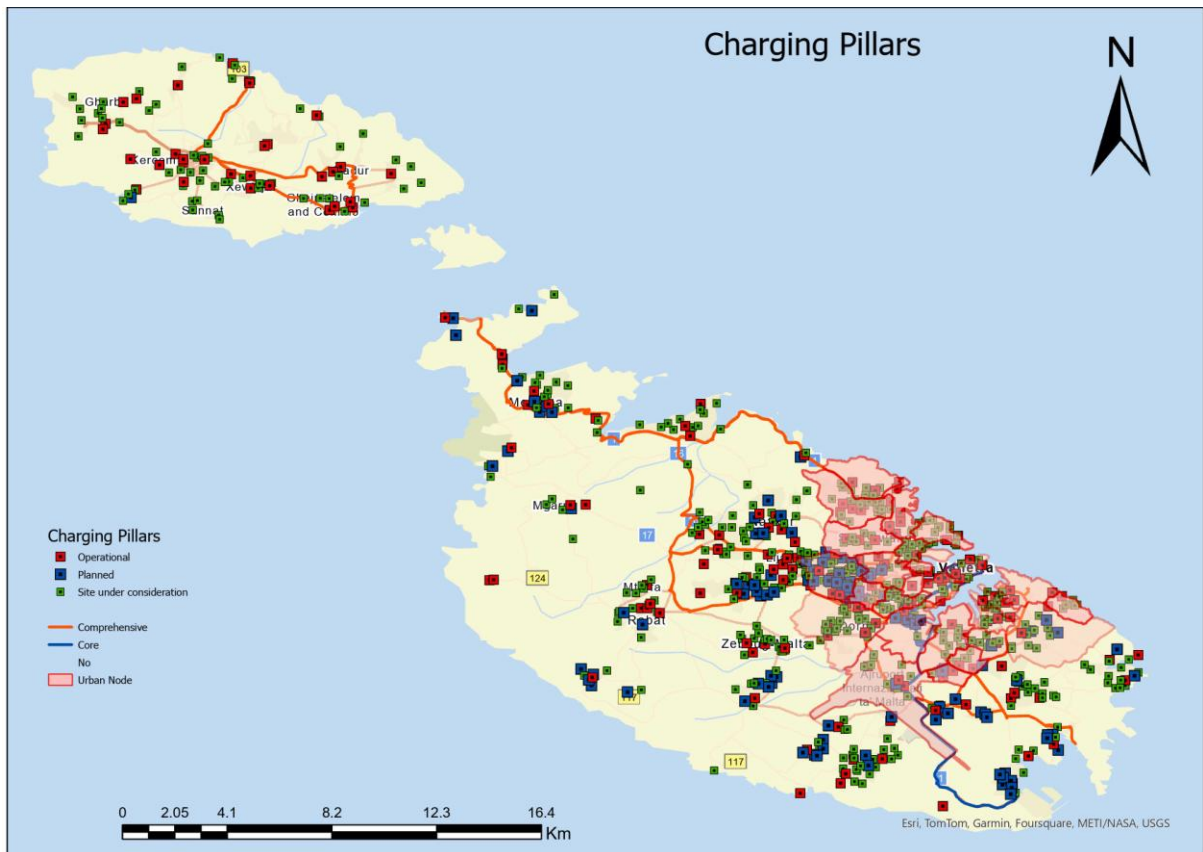


Figure 5.1 - Charging Pillars provision in the Urban Node (Source: Transport Malta)

#### 5.4 Measures to promote deployment of publicly accessible high-power recharging points

Recharging points are designed according to the needs and necessary technical energy supply requirements. The current public charging network includes 42 high-power recharging points.

#### 5.5 Measures to ensure that recharging points contribute to the flexibility of the energy system and to the penetration of renewable electricity

The assessment undertaken by the Regulator for Energy and Water Services in line with Article 15.3 and 15.4 of the regulation concluded that currently, the potential for electric vehicles to contribute effectively to Malta’s energy system flexibility is limited. The report quotes the following reasons: limited availability of smart recharging points which should increase as a result of the AFIR mandatory requirements for smart publicly accessible rechargers; the lack of publicly accessible bi-directional recharging points to support V2G capabilities and lack of information on privately accessible recharging points capabilities; limited V2G-enabled vehicles, some 204 such EVs is insufficient for widespread adoption of this technology; technological limitations of smart meters, however, currently second generation of smart meters capable of enabling V2G is being rolled out; absence of V2G-compatible tariff structures.

As a result of these limitations, V2G development in Malta remains limited, and future progress will be reassessed in the next report. In line with the mandatory terms of AFIR that publicly accessible

recharging points constructed after 13 April 2024 or renovated after the 14 October 2024 must be digitally connected and capable of 'smart recharging', and to ensure that the electricity distribution and system users benefit from smart recharging and bi-directional charging, the report makes a number of recommendations. These include the acceleration in the deployment of second-generation smart meters; assess the potential of Private Charging Points to provide flexibility services particularly private charging points owned by households; A cost benefit assessment of the tariff structures for smart charging by the Distribution System Operator; and an assessment of the Electricity Tariff Structures that incentives V2G.

#### 5.6 Measures to ensure that publicly accessible recharging and refuelling points are accessible to older persons and persons with disabilities

The charging pillars being deployed by Government are being placed in strategic locations to ensure comfort to all users. The use of these charging pillars is accessible through a mobile application, this application is programmed in a way to ensure it reaches all people from different backgrounds, languages and needs.

#### 5.7 Measures to remove obstacles with regard to planning, permitting, procuring, and operating of alternative fuels infrastructure

The Energy and Water Agency which is the entity currently installing the publicly accessible recharging points for electric vehicles, requires various permits from different regulatory authorities. Efforts will be made to identify any shortcomings of such processes and recommendations will be made to address these. In the course of 2025 legislative amendments will be made to the Utilities and Services (Regulation of Certain Works) Act (CAP 81 of the Laws of Malta) and this may also present an opportunity to facilitate such processes for the installation of alternative fuels infrastructure.

## **CHAPTER 6: OVERVIEW OF POLICIES AND NATIONAL TARGETS NOT COVERED BY MANDATORY DEPLOYMENT TARGETS AND AFIR**

6.1 Overview of the state of play, perspectives and planned measures in respect of the deployment of alternative fuels infrastructure in maritime ports

Refer to table 4, which lists planned investments in this area

6.2 Overview of the state of play, perspectives, and planned measures in respect of deployment of alternative fuels infrastructure in airports

Refer to table 6, which lists planned investments in this area