



IRISH GPP  
CRITERIA:

# ROAD TRANSPORT VEHICLES & SERVICES

# IRISH GPP CRITERIA: ROAD TRANSPORT VEHICLES & SERVICES



This document sets out the core and comprehensive GPP criteria for application in the purchase of road transport vehicles and services. The criteria have been developed based on the 2019 and draft 2020 EU GPP criteria, relevant Irish and European legislation, and consultation with a number of Irish public bodies. **They are intended to assist public bodies in meeting the targets for procurement of low and zero-emission vehicles under the recast Clean Vehicles**

**Directive.**<sup>1</sup> Further context for the development of the criteria, and advice on how they can be applied and verified within tender procedures, is given in the accompanying guidance document.

The following table summarises the core and comprehensive criteria for road transport vehicles and services. A merged cell indicates that the same criteria apply at core and comprehensive levels.

## WHAT DO THE CRITERIA COVER?

The following tables summarise the content of the GPP criteria. A merged cell indicates that the same criteria apply at core and comprehensive level.

CATEGORY	CORE CRITERIA	COMPREHENSIVE CRITERIA
3.1 <b>COMMON CRITERIA FOR ALL VEHICLE CATEGORIES</b>	TS1. Tyre pressure monitoring systems	
	TS2. Vehicle tyres – rolling resistance	
	TS3. Vehicle specific eco-driving information	
		TS4. Tyre noise
		AC1. Vehicle noise
3.2 <b>CARS, LIGHT COMMERCIAL AND L-CATEGORY VEHICLES</b>	TS1. Type-approval CO <sub>2</sub> value	TS1. Type-approval CO <sub>2</sub> value
	TS2. Air pollutant emissions	
	TS3. Energy consumption display	
		TS4. Traffic information and route optimisation
	TS5. Minimum battery warranty	
	AC1. Lower CO <sub>2</sub> emissions	
	AC2. Energy efficiency	

<sup>1</sup> Directive 2019/1161/EU, amending Directive 2009/33/EC. The new clean vehicles requirements are currently being transposed into Irish law and will take effect in August 2021.



CATEGORY	CORE CRITERIA	COMPREHENSIVE CRITERIA
	AC3. Improved air pollutant emissions performance	
	AC4. Zero tailpipe emission capability	
		AC5. Speed limiter
	AC6. Extended battery warranty	
3.3 <b>BUSES, TRUCKS AND COACHES</b>	TS 1.1 Low and zero-emission buses and trucks	
	TS 1.2 Technological options to reduce GHG emissions for coaches	
	TS2. Air pollutant emissions	
	TS3. Exhaust pipes (location)	
	TS4. Minimum battery warranty	
	AC1. Improved air pollutant emissions performance	
	AC2. Extended battery warranty	AC3. Air conditioning gases
3.4 <b>REFUSE COLLECTION VEHICLES</b>	TS1. Low and zero emission refuse collection vehicles	
	TS2. Air pollutant emissions	
	TS3. Auxiliary units	
	TS4. Minimum battery warranty	
	AC1. Improved air pollutant emissions performance	
	AC2. Electrification of auxiliary engines	
	AC3. Extended battery warranty	AC4. Air conditioning gases
3.5 <b>COMMON CRITERIA FOR SERVICE CONTRACTS</b>	SC1. Competences of the service provider	
	TS1. Environmental management measures	
		AC1. Lubricant oils, hydraulic fluids and grease
	CPC1. Driver training	
	CPC2. Environmental management measures	
	CPC3. Low viscosity lubricant oils	
	CPC4. Vehicle tyres – rolling resistance	CPC5. Tyre noise



CATEGORY	CORE CRITERIA	COMPREHENSIVE CRITERIA
3.6 BUS TRANSPORT SERVICES	TS1. Low and zero-emission buses	TS1. Low and zero-emission buses
	TS2. Air pollutant emissions	TS2. Air pollutant emissions
	TS3. Exhaust pipes (location)	
	AC1. Improved air pollutant emissions	
	AC2. Air conditioning gases	
	CPC1. New vehicles	

## HOW CAN THE CRITERIA BE APPLIED AND VERIFIED?

Information about how each of the criteria can be verified is included. The different possible means of verification, including certificates of conformity, test reports, manufacturer declarations and ecolabels are explained in the guidance document. Please note that the verification methods form an

essential part of the criteria and must be included in tender documents to ensure that suppliers are aware of how compliance with the criteria will be assessed.

### VEHICLE TESTING AND CERTIFICATES OF CONFORMITY – EU STANDARDS

All new vehicles sold in the EU must have a Certificate of Conformity (CoC). This provides information regarding the environmental and safety performance of the vehicle and compliance with EU standards. Further information on EU type approval of vehicles is available [here](#).

From September 2017 the EU procedure for testing emissions from vehicles changed from the New European Driving Cycle (NEDC) to the Worldwide Harmonised Light Vehicles Test Procedure (WLTP). WLTP is more accurate in reflecting current driving trends and technological developments. The introduction of WLTP at European level is aimed at measuring in a more accurate way: fuel consumption, CO<sub>2</sub> emissions related to fuel consumption, pollutant emissions and energy consumption values of alternative powertrains.

The Real Driving Emissions (RDE) test was introduced as a complementary test to WLTP to measure pollutants such as nitrogen oxides (NOx) in real life driving conditions. This was a response to widespread evidence that real-life emissions (particularly of NOx) did not match laboratory results. From 2019, all new vehicles must include RDE information in the Certificate of Conformity.

WLTP and RDE, respectively tie in with the EU Regulation setting CO<sub>2</sub> emission targets reductions for vehicles and the EURO 6 Regulation setting acceptable limits for exhaust emissions of new vehicles. The introduction of the two tests represent challenges for car makers in the EU and EEA since they measure more accurately emissions from vehicles while the emission targets become ever tighter.



Some simple market research in advance of tendering should be sufficient to confirm that products and services are available which meet the criteria and verification requirements. If in doubt, contracting authorities may wish to consult the DCCAE or EU GPP Helpdesks regarding the application of the criteria, or consult other public authorities who have recently conducted tenders in these sectors.

The notes which appear in italics are for reference/completion by the contracting authority and should be removed prior to including the GPP criteria in tender documents.

**Good practice examples** related to GPP for road transport can be found on the European Commission's *website*.

## ROAD TRANSPORT VEHICLES AND SERVICES: GPP APPROACH

### KEY ENVIRONMENTAL IMPACTS

- Climate change impacts linked to tailpipe emissions and fossil fuel extraction
- Air pollution from combustion engines (PM, Nox, NMHC)
- Fuel consumption and air pollution from tyre wear
- Emissions from electricity production for electric vehicles
- Impacts linked to battery production and disposal
- Noise pollution
- Air, water and soil pollution from lubricants and tyres



### GPP APPROACH

- Maximum CO<sub>2</sub> emissions for cars and vans, in line with CVD
- Low or zero-emission technologies for heavy duty vehicles
- Maximum air pollutant emissions based on real driving conditions
- Tyre pressure monitors and rolling resistance of tyres
- Minimum energy efficiency for electric cars and LCVs
- Minimum battery warranties
- Maximum vehicle and tyre noise emissions
- Lower impact tyres and lubricants



The GPP criteria are divided into:

- **SELECTION CRITERIA** – used to assess the ability of an operator to perform a contract. Can only include criteria specifically related to the subject matter of the contract.  
**(transport example – for services:** The tenderer must have relevant experience in: identifying, evaluating and implementing the available technologies and measures to reduce well-to-wheels GHG emissions and air pollutant emissions; and monitoring and reporting procedures of the GHG emissions.)
- **TECHNICAL SPECIFICATIONS** – used to set minimum requirements that must be met by all tenders. Must relate to the characteristics of the work, supply or service being purchased.  
**(transport example – for electric vehicles:** the tenderer must provide a minimum warranty of the battery of 160 000 km or 8 years against capacity loss below 70% of its original value at delivery, tested according to EN 62660 or equivalent)
- **AWARD CRITERIA** – used to stimulate additional environmental performance, but are not mandatory  
**(transport example - for cars, LCVs, or L-type vehicles:** Up to [X] marks will be awarded to vehicles based on their energy efficiency expressed in kWh/100km according to the WLTP test procedure. The vehicle(s) with the lowest energy consumption which meet all specified requirements will be awarded full marks under this criterion, with all other compliant vehicles being scored proportionately.)
- **CONTRACT PERFORMANCE CLAUSES** – specify how a contract must be carried out. Relevant to service contracts  
**(transport example –services:** If a vehicle belonging to the assigned service fleet is replaced, the new vehicle must maintain or improve the overall profile of the fleet in terms of GHG and air pollutant emissions)



## IRISH GPP CRITERIA - HOW TO READ THE TEMPLATE

<b>Scope</b>	Defines the products and services to which the criteria apply.
<b>Exclusions</b>	Identifies any related products or services which are not covered by the criteria.
<b>References</b>	The primary sources consulted to develop the Irish GPP criteria.
<b>Eco-labels</b>	Type I eco-labels and other labels which address relevant environmental characteristics of the products or services and may be used either to define GPP criteria, verify compliance or both. Labels with equivalent criteria must also be accepted.
<b>Legislation and Standards</b>	Relevant EU and Irish legislation which applies within the sector and International, European or Irish standards which may be referenced in technical specifications (accompanied by the words 'or equivalent').
<b>Notes</b>	Practical tips and advice on applying the criteria, and explanations of the environmental impacts being addressed.
<b>Core Criteria</b>	Criteria which can be applied by any Irish public body and which are expected to have minimal effect on costs or verification effort.
<b>Comprehensive criteria</b>	Criteria which go beyond the core requirements to target enhanced environmental performance and may imply some additional costs or verification effort.
<b>Selection criteria</b>	Criteria which operators must meet in order to be eligible for tender submission (in a two-stage procedure) or award (in an open procedure).
<b>Specification</b>	Minimum requirements which all tenders must meet. Where multiple specifications are included in the criteria, these may be used together (recommended) or separately.
<b>Specification - Variant</b>	An optional alternative to the specification, which allows alternative solutions to be considered.
<b>Award criteria</b>	Criteria which target environmental performance beyond the minimum requirements of the specification. These may be qualitative or quantitative in nature and must be weighted for evaluation. It is up to the contracting authority to determine an appropriate weighting based on its priorities and the totality of criteria which it is applying in a specific tender.
<b>Contract management</b>	Clauses which can be inserted into contracts in order to manage environmental aspects and promote progressive improvements in delivery.



IRISH GPP CRITERIA: ROAD TRANSPORT VEHICLES AND SERVICES

<p><b>SCOPE</b></p>	<ol style="list-style-type: none"> <li>1. <b>Purchase, lease, hire or hire-purchase of cars, light commercial vehicles (LCVs) and L-category vehicles:</b> Cars and LCVs (M1 and N1 vehicles), as defined by Directive 2007/46; and L-category vehicles as defined by Regulation 168/2013 (Mopeds and motorbikes, as well as all-terrain vehicles (quads) and other small vehicles with 3 or 4 wheels)</li> <li>2. <b>Purchase or lease of buses, trucks and coaches:</b> N2, N3, M2 and M3 vehicles, as defined by Directive 2007/46. <ul style="list-style-type: none"> <li>• Category N2: Vehicles designed for the carriage of goods and having a maximum mass &gt; 3.5 tonnes ≤ 12 tonnes</li> <li>• Category N3: Vehicles designed for the carriage of goods and having a maximum mass &gt; 12 tonnes</li> <li>• Category M2: Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes.</li> <li>• Category M3: Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes</li> </ul> <p>Under Regulation (EC) No 661/2009 and UNECE Regulation 107, vehicles of category M3 with areas for standing passengers to allow for frequent passenger movement are considered to be buses, while vehicles of category M3 with very limited or no area for standing passengers are considered to be coaches.</p> </li> <li>3. <b>Bus services (including city buses and coaches): Bus services or Public transport services:</b> Defined as those covered by CPV codes 60112000-6 (Public road transport services).</li> <li>4. <b>Refuse collection vehicles and services:</b> Vehicles of category N2 and N3, or heavy duty vehicles (HDVs), as defined by Directive 2007/46, that are designed to provide services that fall into the CPV categories of 'Refuse collection services' (CPV code: 90511000-2) and 'Refuse transport services' (90512000-9); Services that fall into the CPV categories of 'Refuse collection services' (90511000-2) and 'Refuse transport services' (90512000-9)</li> <li>5. <b>Mobility services:</b> Special-purpose road passenger-transport services as covered by common procurement vocabulary (CPV) code 60130000-8; Non-scheduled passenger transport as covered by CPV code 60140000-1 (this includes contracted out transport services, e.g. transport for pupils/ students who are not able to travel by themselves; Hire of buses and coaches with driver as covered by CPV code 60172000-3; Taxi services as covered by CPV code 60120000-5; Cycles: Bicycles (CPV codes 34430000-0 and 34431000-7), cycle trailers, electrically power-assisted cycles (CPV code 34420000-7; Light electric vehicles and self-balancing vehicles within the scope of CEN/TC 354. Definitions of cars, LCVs, L-category vehicles and buses also apply to this category.</li> <li>6. <b>Post, courier and moving services:</b> Services that fall into the CPV categories for various postal, courier and moving services: Group 641 Post and courier services, with the exception of rail, airmail and mail transport over water; 79613000-4 Employee relocation services; 63100000-Cargo handling and storage services; 98392000-7 Relocation services</li> </ol>
<p><b>EXCLUSIONS</b></p>	<p>Special purpose vehicles such as armoured vehicles, track-laying vehicles, mobile cranes, self-propelled vehicles designed to perform work and not carrying passengers or goods.</p>





IRISH GPP CRITERIA: ROAD TRANSPORT VEHICLES AND SERVICES

LEGISLATION  
AND  
STANDARDS

- **Euro emission standards:** Common, mandatory standards for emissions from vehicles placed on the market after a given date (e.g. Euro 5, Euro 6) See [http://europa.eu/legislation\\_summaries/environment/air\\_pollution/l28186\\_en.htm](http://europa.eu/legislation_summaries/environment/air_pollution/l28186_en.htm) for further information.
- **Clean and Energy-efficient Road Transport Vehicles Regulations 2011 (S.I. 339 of 2011)** as amended by [insert S.I. number here]: All contracting authorities and entities must take into account operational lifetime energy and environmental impacts when purchasing road transport vehicles. This may be accomplished via technical specifications, award criteria or a combination of these approaches. See [www.cleanvehicle.eu](http://www.cleanvehicle.eu) for examples. See note below on revised Clean Vehicles Regulations.
- **Waste Management (End of Life of Vehicles) Regulations 2014 (S.I. 281 of 2014)** as amended by **S.I. 82/2020**: place obligations on producers (vehicle manufacturers and importers) including registration with local authorities, vehicle design requirements and the establishment of national collection systems for the recovery and treatment of end-of-life vehicles.
- **Regulation (EU) 2020/740 on the labelling of tyres with respect to fuel efficiency and other parameters** specifies technical requirements relating to rolling resistance and noise and places a number of obligations on the suppliers (manufacturers / importers) and distributors (retailers) of tyres and vehicles. See the [EU Energy Label site on tyres](#).
- **European Union (Paints, Varnishes, Vehicle Refinishing Products and Activities) Regulations 2012 (S.I. 564/2012)** sets requirements regarding Volatile Organic Compounds (VOCs) in the **respraying or recoating of vehicles**. It is an offence for facilities (including mobile operators) which carry out these activities to operate without a valid Certificate of Approval, issued by a local authority. A valid and up to date Certificate of Approval should be required from any operator engaged to provide such services.

REFERENCES

1. Revision of the EU GPP criteria for road transport: *Technical report and draft criteria* (June 2020) – Note that these criteria are subject to consultation and the final version is expected to be published early in 2021. Progress of the revision can be followed [here](#).
2. *EU GPP Criteria for Road Transport* (2019) and *Technical Background Report*. Note that these criteria will be replaced by those mentioned above, which take into account the revisions to the Clean Vehicles Directive adopted in 2019.
3. Department of Communications, Climate Action and Environment *Information on Electric Vehicles*
4. Department of Transport, Tourism and Sport (2020) *Report on Diesel and Alternative-Fuel Bus Trials*
5. Sustainable Energy Authority of Ireland (2020) Resources on EVs including *Buying an Electric Vehicle* and *Compare and Calculate tool*
6. Energy Saving Trust (UK) (2019) *Procuring Electric Vehicle Charging Infrastructure as a Local Authority*
7. EU GPP Training Toolkit (2019) – *Module 7.9: Road Transport*
8. European Commission (2020) *State of the Art on Alternative Fuels Transport Systems in the European Union*



**IRISH GPP CRITERIA: ROAD TRANSPORT VEHICLES AND SERVICES**

<p><b>ECO-LABELS</b></p>	<p><b>For tyres:</b> EU energy label for tyres (mandatory)  <b>For lubricants:</b> European Ecolabel for lubricants (voluntary)</p>
<p><b>NOTES</b></p>	<p><b>Clean vehicles legislation:</b> The recast Clean Vehicles Directive (Directive 2019/1161/EU, amending Directive 2009/33/EC) aims to increase the uptake of clean (low- and zero-emission) vehicles in public procurement by setting minimum Member State procurement targets and extending the scope to include leased, rented or hire-purchased vehicles and certain transport service contracts. The revised Directive entered into force in 2019 and will apply to tenders from 2 August 2021. Under the Directive, all contracting authorities and entities must take emissions and energy-efficiency into account when procuring road transport vehicles/services valued above the EU threshold. The Directive applies to cars, vans, trucks and buses (excluding coaches) where they are procured through:</p> <ul style="list-style-type: none"> <li>• Purchase, lease, rent or hire-purchase contracts covered by Directive 2014/24/EU or 2014/25/EU</li> <li>• Public service contracts for the provision of passenger road transport services (Reg. 1370/2007) valued above €1,000,000</li> <li>• Service contracts for public road transport services, special-purpose road passenger-transport services, non-scheduled passenger transport, refuse collection services, mail and parcel transport and delivery.</li> </ul> <p><b>Minimum binding targets for the share of clean (low- or zero-emission) vehicles procured will apply to all public and utility sector bodies.</b> The targets will be set as part of the Irish transposition of the revised Directive, with a new statutory instrument expected to be adopted in Q1 2021. A public consultation is being held on the targets and other aspects of the transposition.</p> <p><b>The core GPP criteria set out in this document reflect the requirements needed to meet the definition of a clean (low or zero-emission) vehicle under the CVD. Note that the maximum emissions, and therefore the eligible vehicle technologies, will change from 1 January 2026.</b></p> <p>A number of vehicle types are excluded from the CVD requirements, including:</p> <ul style="list-style-type: none"> <li>• Coaches;*</li> <li>• Agricultural or forestry vehicles;</li> <li>• Two or three wheeled vehicles and quadricycles;*</li> <li>• Track-laying vehicles; and</li> <li>• Self-propelled vehicles designed to perform work and not carrying passengers or transporting goods.</li> </ul> <p>In addition, the Irish transposition may exclude:</p> <ul style="list-style-type: none"> <li>• Armoured vehicles;</li> <li>• Hearses;</li> <li>• Ambulances;</li> <li>• Wheelchair accessible vehicles (WAVs);</li> <li>• Mobile cranes;</li> <li>• Vehicles designed and constructed for use principally on construction sites or in quarries, port or airport facilities; and</li> <li>• Vehicles designed and constructed for use by the armed services, civil defence, fire services and forces responsible for maintaining public order.</li> </ul> <p>The exemptions reflect the limited market availability of zero- and low-emission vehicles meeting operational requirements for these categories.  <b>*Coaches and L-type vehicles are included in the scope of the GPP criteria, but do not count towards the targets under the CVD.</b></p>



**IRISH GPP CRITERIA: ROAD TRANSPORT VEHICLES AND SERVICES**

Further information on the recast Clean Vehicles Directive is available [here](#).

**Definition of ‘Clean Vehicles’ – emission limits and eligible technologies under the Directive**

For light-duty vehicles (M1, M2 and N1), the following requirements apply:

Vehicle Category	Until 31 December 2025		From 1 January 2026	
	CO <sub>2</sub> g/km	RDE* Air Pollutant Emissions as a % of emissions limits	CO <sub>2</sub> g/km	RDE* Air Pollutant Emissions as a % of emissions limits
M1	50	80%	0	N.A.
M2	50	80%	0	N.A.
N1	50	80%	0	N.A.

**NOTES**

\*Real driving emissions (RDE) refer to measured levels of nitrogen oxides (NOx) and other pollutants based on real driving conditions. This type of testing is mandatory for all new vehicles and the RDE are recorded in point 48.2 of the vehicle certificate of conformity.

Currently, only **plug-in hybrid and battery electric vehicles** are capable of meeting the requirements up to 2025 and only battery electric vehicles from 2026 onwards. The GPP criteria are designed to procure these types of vehicles.

The number of electric vehicles on the market and their range is rapidly increasing, while prices are decreasing - EV battery prices fell by 79% between 2012 and 2019, with a further 67% fall projected by 2030.<sup>2</sup> For further information about costs and available models you may wish to consult the SEAI resources on EVs including *Buying an Electric Vehicle* and *Compare and Calculate tool*, and the *Topten.eu* website.

**Heavy-duty vehicles** (trucks, buses, refuse collection vehicles etc.) classified as clean under the Directive are those powered by hydrogen, battery electric, plug-in hybrids, natural gas (both CNG and LNG, including biomethane), liquid biofuels, synthetic and paraffinic fuels, or LPG.<sup>3</sup> Conventional hybrid vehicles (without the capacity to recharge externally) are not considered ‘clean’ vehicles.

Where liquid biofuels, synthetic and paraffinic fuels are used, they must be used unblended (i.e. in concentrations of 100% without any fossil fuels), and be produced from feedstocks with low indirect land-use change (ILUC) emissions. This means that biofuels such as biodiesel produced from palm oil, which has very high ILUC emissions, are not considered clean.

The Directive also sets a separate definition for **zero-emission heavy-duty vehicles** (HDVs), as a sub-category of clean heavy-duty vehicles. Zero-emission HDVs are trucks and buses without an internal combustion engine, or with an internal combustion engine that emits less than 1g CO<sub>2</sub>/kWh as measured in accordance with Regulation (EC) No 595/2009, or that emits less than 1g CO<sub>2</sub>/km as measured in accordance with Regulation (EC) No 715/2007.

Retrofitted or second-hand vehicles may be counted towards the CVD targets if they meet the relevant emission requirements.

<sup>2</sup> Climate Action Plan (2019), p 86

<sup>3</sup> These are the fuels listed in the Alternative Fuels Infrastructure Directive (Directive 2014/95)



## IRISH GPP CRITERIA: ROAD TRANSPORT VEHICLES AND SERVICES

### Charging Infrastructure in Ireland

For a country of its size, Ireland has one of the more comprehensive charge point networks currently in place across Europe. Details of the location of ESB eCars publicly accessible charge points can be found *here*.

There are currently three different types of charge point available in Ireland:

#### 1. PUBLICLY ACCESSIBLE CHARGE POINTS

At time of publication, there are over 1,100 publicly accessible charge points in Ireland. These are connected to a local 3-phase electricity supply and depending on the car type and battery size, charging takes between 1 and 6 hours. Public charge points are accessed in a secure manner using a special RFID charge point card. DCCAE, in conjunction with the SEAI, is evaluating how best to support the provision of greater levels of on-street public charging.

#### 2. FAST CHARGE POINTS

Fast charge points can deliver higher power to electric cars resulting in a much shorter charging time than domestic charging. Fast charge points are installed mainly along inter-urban routes to facilitate nationwide electric car travel. Fast charging can be done using 3-phase, 63A AC (44kW) or 120A, 400V DC (50kW). A 50kW DC fast charge point can charge a suitable electric car up to 80% in 20-30 minutes. ESB is also installing **high powered (150kW)** chargers at key locations on the national road network. These chargers will typically provide a driving range of 100km in six minutes. In order to guide developers in selecting fast charger locations, and to inform evaluations of applications of support, DCCAE has issued an *information note* which presents a brief needs analysis, based on existing traffic volumes.

#### 3. HOME CHARGE POINTS

An Electric Vehicle Home Charger Grant was introduced in early 2018 to assist homeowners install an electric vehicle charge point on their property. This scheme will provide a grant up to the value of €600 towards the purchase and installation of a home charger unit. The scheme is administered by the SEAI.

Home and public charge points are standardized for Mode 3 charging using an IEC Type 2 socket, (commonly referred to as a 'Mennekes socket') which is a 7-pin socket. This was as a result of extensive consultation and research with input from car manufacturers about the next generation of electric cars. This Mode 3 charging has additional safety features and communication aspects and will eventually be deployed in all European countries. It is accepted internationally as the safest method of charging.

Sources: <https://www.dccae.gov.ie/en-ie/energy/topics/Renewable-Energy/transport/electric-vehicles/Pages/Vehicle-Recharging.aspx> ; <https://esb.ie/ecars/ecars>; <https://www.irishevowners.ie/charge-points/>



## 3.1 COMMON GPP CRITERIA FOR ALL VEHICLE CATEGORIES

### SUBJECT MATTER

Purchase of the following road transport vehicles with low environmental impact:

- Cars, light commercial vehicles (LCVs) and L-category vehicles
- Buses, trucks and coaches
- Refuse collection vehicles

### CORE CRITERIA

### COMPREHENSIVE CRITERIA

#### TECHNICAL SPECIFICATIONS

#### TS1. Tyre Pressure Monitoring Systems (TPMS)

All vehicles must be equipped with a tyre pressure monitoring system, meaning a system fitted on a vehicle which can evaluate the pressure of the tyres or the variation of pressure over time and transmit corresponding information to the user while the vehicle is running, or, in the case of buses and refuse collection trucks, systems that transmit monitoring information to the operator site.

**Verification:** The tenderer must provide the technical sheet of the vehicle showing how tyre pressure is monitored. Service providers must outline their procedures for maintaining optimal tyre pressure.

**Note:** TPMS achieve an average fuel consumption reduction of 1% (Mustafic et al.,2014). They are mandatory for all new passenger cars but not for LCVs or heavy-duty vehicles.

#### TS2. Vehicle tyres — rolling resistance (not to be used if, for safety reasons, tyres with the highest wet grip class, snow tyres or ice tyres are needed)

All vehicles must be equipped with:

- Tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EU) 2020/740 on the labelling of tyres with respect to fuel efficiency and other parameters; OR
- Retreaded tyres.

**Verification:** The tenderer must provide the label of the tyre according to Regulation (EU) 2020/740 (case a), or the notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b).

**Note:** Low rolling resistance tyres can reduce fuel consumption by several percentage points. The best-performing tyres are widely available, but often not chosen by consumers due to low awareness. Under the Energy Efficiency Directive (2012/27/EU) central government authorities are required to procure tyres in the highest energy efficiency class. While retreaded tyres are currently excluded from the scope of EU energy labelling, they have other environmental benefits in terms of material usage, and are subject to approval under the UNECE regulation. Regulation EU 2020/740 provides that efficiency requirements for retreaded tyres will apply once a suitable testing method to measure their performance is available.



CORE CRITERIA	COMPREHENSIVE CRITERIA
<b>TECHNICAL SPECIFICATIONS</b>	
<p><b>TS3. Vehicle specific eco-driving information</b></p> <p>Vehicles must be equipped with information/ instructions on eco driving. In the case of vehicles with an internal combustion engine, the user manual of the vehicle must include guidelines on early shifting, maintaining a steady speed at low revolutions per minute (RPM) and anticipating traffic flows. In case of hybrid and electric vehicles, the information must include the use of the regenerative braking to save energy. For plug-in hybrid electric vehicles and range extended electric vehicles, it must include specific instructions to maximise the distance driven electrically. This information may be provided in the form of training sessions with a minimum of [X] hours of training required. <i>[complete if training requested/required]</i></p> <p><b>Verification:</b> The tenderer must provide the technical sheet of the vehicle where this information is stated, and <i>[if relevant]</i> a description of the content and format of the training.</p>	
	<p><b>TS4. Tyre noise</b> (not to be used if, for safety reasons, tyres with the highest wet grip class, snow tyres or ice tyres are needed)</p> <p>The vehicles must be equipped with:</p> <ul style="list-style-type: none"> <li>a. tyres whose external rolling noise emission levels are 3dB below the limit values established by Regulation (EU) 2020/740. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.</li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>b. retreaded tyres</li> </ul> <p><b>Verification:</b> The tenderer must provide the label of the tyre according to Regulation (EU) 2020/740 for tyres under case a) or the notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b).</p>
<b>AWARD CRITERIA</b>	
	<p><b>AC1. Vehicle noise</b></p> <p>A maximum of [X] marks will be awarded to vehicles whose noise emissions are compliant with the Phase 3 limits of Regulation (EU) No 540/2014. The noise emissions will be tested according to Annex II of Regulation (EU) No 540/2014.</p> <p><b>Verification:</b> The tenderer must provide the vehicle's certificate of conformity.</p> <p><b>Note:</b> The Phase 3 limits will become mandatory for type approvals from 1 July 2024 and new vehicle registrations from 1 July 2026, after which this award criterion will only be relevant for service contracts or purchasing second-hand vehicles.</p>



## 3.2 GPP CRITERIA FOR CARS, LIGHT COMMERCIAL AND L-CATEGORY VEHICLES

### SUBJECT MATTER

Purchase, lease, hire or hire-purchase of cars, light commercial vehicles (LCVs) and L-category vehicles with low environmental impact.

**Important:** The common criteria set out in Section 3.1 also apply to these vehicle categories.

CORE CRITERIA	COMPREHENSIVE CRITERIA												
<b>TECHNICAL SPECIFICATIONS (TS)</b>													
<p><b>TS1. Type-approval CO<sub>2</sub> value</b> Type approval CO<sub>2</sub> emissions of vehicles must not exceed the following values based on the worldwide harmonised light vehicle test procedure (WLTP):</p> <table border="1"> <thead> <tr> <th>VEHICLE TYPE</th> <th>CO<sub>2</sub> g/km</th> </tr> </thead> <tbody> <tr> <td>All M1 and N1 vehicles</td> <td>Until 31 December 2025: 50 From 1 January 2026: 0</td> </tr> <tr> <td>L-category vehicles</td> <td>0</td> </tr> </tbody> </table> <p><b>Verification:</b> Tenderers must provide the vehicle certificate of conformity.</p>	VEHICLE TYPE	CO <sub>2</sub> g/km	All M1 and N1 vehicles	Until 31 December 2025: 50 From 1 January 2026: 0	L-category vehicles	0	<p><b>TS1. Type-approval CO<sub>2</sub> value</b> Type-approval CO<sub>2</sub> emissions of vehicles must not exceed the following values based on the worldwide harmonised light vehicle test procedure (WLTP):</p> <table border="1"> <thead> <tr> <th>VEHICLE TYPE</th> <th>CO<sub>2</sub> g/km</th> </tr> </thead> <tbody> <tr> <td>All M1, N1 and L-category vehicles</td> <td>0</td> </tr> <tr> <td>L-category vehicles</td> <td>0</td> </tr> </tbody> </table> <p><b>Verification:</b> Tenderers must provide the vehicle certificate of conformity.</p>	VEHICLE TYPE	CO <sub>2</sub> g/km	All M1, N1 and L-category vehicles	0	L-category vehicles	0
VEHICLE TYPE	CO <sub>2</sub> g/km												
All M1 and N1 vehicles	Until 31 December 2025: 50 From 1 January 2026: 0												
L-category vehicles	0												
VEHICLE TYPE	CO <sub>2</sub> g/km												
All M1, N1 and L-category vehicles	0												
L-category vehicles	0												
<p><b>TS2. Air pollutant emissions</b> <b>Note:</b> this criterion applies to M1 and N1 vehicles with a reference mass<sup>4</sup> not exceeding 2610 kg. M1 and N1 vehicles with a reference mass exceeding 2610 kg have to comply with TS2 Air pollutant emissions set out in Section 3.3.</p> <p>All vehicles must demonstrate real driving emission (RDE) emission performance which is at most equal to 80% of the applicable Euro 6 limit values for NO<sub>x</sub> and PN (not including the applicable measurement margin), as shown in Table 1 (on the following page).</p>	<p><b>TS2. Air pollutant emissions</b> (not relevant, as only zero emission vehicles are eligible under the comprehensive TS1)</p>												

<sup>4</sup> 'Reference mass' means the mass of the vehicle in running order, as declared in the certificate of conformity, minus the uniform mass of the driver of 75 kg, plus a uniform mass of 100 kg.



CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS (TS)

TS2. **Air pollutant emissions** (continued)

From 1 January 2021	M and N1 Class I		N1 Class II		N1 Class III	
	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol
NOx (mg/km)	64	48	84	60	100	66
PN (#/km)	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>

Table 1. Maximum RDE emissions

OR, if purchasing vehicles to be used in areas with air quality issues:<sup>5</sup>

Vehicles must have zero tailpipe emissions.

**Verification:** Tenderers must provide the vehicle's certificate of conformity. For those vehicles having achieved the above standards following a technical upgrade, the measures must be documented and included in the tender, and this must be verified by an independent third party.

**Note:** *The RDE values will be declared in the certificate of conformity as mg/km or particle number/km, as appropriate, and will not include the measurement margin which is only linked with the uncertainties of the measurement equipment. From 1 January 2026, only zero emission vehicles may be purchased in accordance with TS1, so this criterion will no longer be relevant.*

TS3. **Energy consumption display**

The vehicles must be equipped with a mechanism to display to the driver energy consumption figures.

**Verification:** Tenderers must provide technical documentation for the vehicle showing the location and functionality of the energy display.

<sup>5</sup> Areas with air quality issues are those areas where traffic restriction measures are put in place to comply with the air pollutant emissions limits set by the Air Quality Directive.





CORE CRITERIA	COMPREHENSIVE CRITERIA
<b>TECHNICAL SPECIFICATIONS (TS)</b>	
	<p><b>TS4. Traffic information and route optimisation</b></p> <p><b>Note:</b> <i>This criterion may be relevant if the vehicle is to be used in urban areas with congestion issues, or to be driven to places that the drivers are not familiar with. This criterion will not apply to vehicles used for special purposes that require a high level of car data protection e.g. security forces fleets, official vehicles used by members of the government etc.</i></p> <p>Vehicles must be equipped with traffic information and route optimisation systems meant to interact with the driver providing pre-trip information services to help avoid congestion and make other journey choices to optimize the trip route. The system must be an embedded system, meaning a complete communication module, consisting of a modem and a subscriber identity module (SIM), permanently integrated into the car.</p> <p><b>Verification:</b> Tenderers must provide technical documentation showing the location and functionality of the relevant system.</p>
<p><b>TS5. Minimum battery warranty</b></p> <p>The tenderer must provide a minimum warranty of the battery of 160 000 km or 8 years against capacity loss below 70% of its original value at delivery according to EN 62660 or equivalent.<sup>6</sup></p> <p><b>Verification:</b> The full terms of the battery warranty must be included in the tender submission.</p>	
<b>AWARD CRITERIA (AC)</b>	
<p><b>AC1. Lower CO<sub>2</sub> emissions</b></p> <p>Up to [X] marks will be awarded to vehicles with lower type-approval CO<sub>2</sub> emissions than those required under TS1 Type-approval CO<sub>2</sub> value. The vehicle(s) with the lowest CO<sub>2</sub> emissions which meet all specified requirements will be awarded full marks under this criterion, with all other compliant vehicles being scored proportionately.</p> <p><b>Verification:</b> Tenderers must provide the vehicle certificate of conformity.</p> <p><b>Note:</b> <i>This criterion is only relevant for tenders carried out prior to 1 January 2026, when zero CO<sub>2</sub> emissions will be required for all vehicles under the GPP criteria.</i></p>	

<sup>6</sup> The technology of electric vehicles is evolving very quickly towards more durable and reliable batteries. For that reason, the thresholds proposed in this criterion should be cross-checked with the options available in the market at the moment of the call for tenders. Research conducted in 2020 indicates most OEMs offer an 8 year battery warranty (see page 24 of *this document*)



CORE CRITERIA	COMPREHENSIVE CRITERIA
<b>AWARD CRITERIA (AC)</b>	
<p><b>AC2. Energy efficiency</b></p> <p>Up to [X] marks will be awarded to vehicles based on their energy efficiency expressed in kWh/100km according to the WLTP test procedure. The vehicle(s) with the lowest energy consumption which meet all specified requirements will be awarded full marks under this criterion, with all other compliant vehicles being scored proportionately.</p> <p><b>Verification:</b> Tenderers must provide the vehicle certificate of conformity.</p>	
<p><b>AC3. Improved air pollutant emissions performance</b></p> <p><b>Note:</b> <i>This criterion applies to M1 and N1 vehicles with a reference mass not exceeding 2 610 kg.</i></p> <p>Up to [X] marks will be awarded to vehicles with air pollutant emissions lower than those required under TS2. The vehicle(s) with the lowest air pollutant emissions which meet all specified requirements will be awarded full marks under this criterion, with all other compliant vehicles being scored proportionately.</p> <p><b>Verification:</b> Tenderers must provide the vehicle certificate of conformity.</p>	
<p><b>AC4. Zero tailpipe emission capability</b></p> <p><b>Note:</b> <i>this criterion applies to M1 and N1 vehicles with a reference mass not exceeding 2 610 kg. This criterion is only relevant for tenders prior to January 1, 2026, after which zero tailpipe emissions will be required.</i></p> <p>Up to [X] marks will be awarded to vehicles based on their zero tailpipe emission capability. The vehicle(s) with the highest zero tailpipe emission range which meet all specified requirements will be awarded full marks under this criterion, with all other compliant vehicles being scored proportionately.</p> <p><b>Verification:</b> Tenderers must provide the vehicle certificate of conformity.</p>	
	<p><b>AC5. Speed limiter</b></p> <p>[X] marks will be awarded to those vehicles equipped with a speed limiting device, meaning an on-board device that automatically limits a vehicle's speed to a certain maximum speed as set in the device.</p> <p><b>Verification:</b> Tenderers must provide technical documentation showing the location and functionality of the relevant system.</p> <p><b>Note:</b> <i>This criterion may not be appropriate for all vehicle types, e.g. emergency services vehicles.</i></p>



CORE CRITERIA

COMPREHENSIVE CRITERIA

AWARD CRITERIA (AC)

AC6. **Extended battery warranty**

Up to [X] marks will be awarded for battery warranties which exceed the minimum requirements specified in TS5. Full marks will be awarded for the longest/most comprehensive battery warranty, with all other compliant tenders being scored proportionately

**Verification:** The full terms of the battery warranty must be included in the tender submission.



### 3.3 GPP CRITERIA FOR BUSES, TRUCKS AND COACHES

#### SUBJECT MATTER

Purchase, lease or hire of buses, trucks and coaches (N2, N3, M2 and M3 vehicles) with low environmental impact.

**Important:** The common criteria set out in Section 3.1 also apply to this category.

#### CORE CRITERIA

#### COMPREHENSIVE CRITERIA

#### TECHNICAL SPECIFICATIONS (TS)

##### TS1.1 **Low and zero-emission buses and trucks**

Buses must be powered by one of the technologies listed in Table 2:<sup>7</sup>

Fully electric or plug-in hybrid

Hydrogen fuel cell\*

OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%\*

High pressure direct injection natural gas vehicles\*

Dedicated natural gas vehicles\*

Table 2. Eligible technologies for buses and trucks

**\* Hydrogen and natural gas vehicles require a minimum percentage of renewable fuel supply to be eligible:**

- The contracting authority may qualify fuel cell electric vehicles as an eligible technology if it has a supply of hydrogen produced with renewable sources generated on-site, meeting at least 15% of its demand.
- It may qualify an OEM dual-fuel natural gas vehicle as eligible technology, if it has a supply of renewable methane meeting at least 35% of its demand
- It may qualify high pressure direct injection natural gas vehicles as eligible technology, if it has a supply of renewable methane meeting at least 10% of its demand.
- It may qualify dedicated natural gas vehicles as eligible technology, if it has a supply of renewable methane meeting at least 25% of its demand

Renewable methane means biomethane and synthetic methane produced with a surplus of renewable electricity, meaning that which exceeds the demand during certain periods (power-to-gas).

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used.

**Note:** *In the case of plug-in hybrid electric vehicles, the total daily hours that a city bus is operated in full electric depends on the specific duty cycle and the charging strategy. Contracting authorities need to ensure that the plug-in hybrid buses will be able to maximise their daily hours of operation in full electric mode along their daily cycles using the charging infrastructure available.*

<sup>7</sup> These are the technologies which meet the definition of a 'clean vehicle' for heavy-duty vehicles under Directive 2019/1161.



CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS (TS)

TS 1.2 **Technological options to reduce GHG emissions for coaches**

Coaches must be powered by or equipped with at least one of the technologies in Table 3:

Fully electric or plug-in hybrid	Flywheel hybrid
OEM dual-fuel natural gas vehicle with gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*	Full Series hybrid
High pressure direct injection natural gas vehicles*	Full Parallel hybrid
Hydrogen fuel cell vehicle*	Stop/start battery systems (hybrid)
Dedicated natural gas vehicles*	Active flow control
Mild hybrid	Boat tails/extension panels

Table 3. Eligible technologies for coaches

**\* Hydrogen and natural gas vehicles require a minimum percentage of renewable fuel supply to be eligible:**

- The contracting authority may qualify fuel cell electric vehicles as an eligible technology if it has a supply of hydrogen produced with renewable sources generated on-site, meeting at least 15% of its demand.
- It may qualify an OEM dual-fuel natural gas vehicle as eligible technology, if it has a supply of renewable methane meeting at least 35% of its demand
- It may qualify high pressure direct injection natural gas vehicles as eligible technology, if it has a supply of renewable methane meeting at least 10% of its demand.
- It may qualify dedicated natural gas vehicles as eligible technology, if it has a supply of renewable methane meeting at least 25% of its demand
- Renewable methane means biomethane and synthetic methane produced with a surplus of renewable electricity, meaning that which exceeds the demand during certain periods (power-to-gas).

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used.



CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS (TS)

**Note:** Explanation of technologies included in Table 3

**Mild hybrid:** System uses an electric motor mounted to the crankshaft to operate stop / start and recover braking energy; recovered energy is used to boost acceleration and for electrified ancillaries.

**Flywheel hybrid:** An additional high-speed flywheel that stores and releases energy from/to the vehicle driveline. The flywheel stores energy while braking, releasing it to supplement or temporarily replace the engine output. Flywheel technology does not include stop / start functionality.

**Full parallel hybrid:** Electric/diesel hybrid where electrical power is routed to/from the wheels in parallel to the mechanical drive from the engine. Direct drive via a relatively conventional transmission remains between the engine and wheels.

**Full series hybrid:** Electric/diesel hybrid without conventional transmission, engine generates electricity that is stored in a battery and used to power a separate traction motor. Electrical machines and battery are higher power than in equivalent parallel.

**Active flow controls:** Active flow control is a system that actively pressurises the lower pressure-vortex or vacuum that develops behind the vehicle.

**Boat tail / extension panels:** Panels at the rear of the vehicle that assist in the pressure equilibrium between the front and the rear of the vehicle facilitating the air flow and reducing the air drag.

TS2. **Air pollutant emissions**

M3 vehicles and M2 vehicles with a reference mass<sup>8</sup> exceeding 2 610 kg must meet Euro VI.

M2 vehicles with a reference mass not exceeding 2 610 kg must comply with the following limits:

Vehicles must demonstrate real driving emission (RDE) emission performance which is at most equal to 80% of the applicable Euro 6 limit values for NOx and PN (not including the applicable measurement margin), as shown in Table 4.

From 1 January 2021	M and N1 Class I		N1 Class II		N1 Class III	
	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol
NOx (mg/km)	64	48	84	60	100	66
PN (#/km)	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>

Table 4. Maximum RDE emissions

<sup>8</sup> 'Reference mass' means the mass of the vehicle in running order, as declared in the certificate of conformity, minus the uniform mass of the driver of 75 kg, plus a uniform mass of 100 kg.



CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS (TS)	
<p>TS2. <b>Air pollutant emissions</b> (continued) OR, if purchasing vehicles to be used in areas with air quality issues:<sup>9</sup> Vehicles must have zero tailpipe emissions.</p> <p><b>Verification:</b> The tenderer must present the vehicle's certificate of conformity. For those vehicles having achieved the above standards following a technical upgrade, the measures must be documented and included in the tender, and this must be verified by an independent third party.</p> <p><b>Note:</b> <i>The RDE values will be declared in the certificate of conformity as mg/km or particle number/km, as appropriate, and will not include the measurement margin which is only linked with the uncertainties of the measurement equipment. From 1 January 2026, only zero emission vehicles may be purchased in accordance with TS1, so this criterion will no longer be relevant.</i></p>	
<p>TS3. <b>Exhaust pipes (location)</b></p> <p><b>Note:</b> <i>This criterion is not relevant for fully electric vehicles</i></p> <p>Vehicle exhaust pipes must be located on the opposite side to the passenger door and at the rear of the vehicle.</p> <p><b>Verification:</b> The tenderer must provide technical documentation clearly showing the location of the exhaust pipe.</p>	
<p>TS4. <b>Minimum battery warranty</b></p> <p>The tenderer must provide a minimum warranty of the battery of 160 000 km or 8 years against capacity loss below 70% of its original value at delivery according to EN 62660 or equivalent.</p> <p><b>Verification:</b> The full terms of the battery warranty must be included in the tender submission.</p>	
AWARD CRITERIA	
<p>AC1. <b>Improved air pollutant emissions performance</b></p> <p>Up to [X] additional marks will be awarded to the following technologies:</p> <ul style="list-style-type: none"> <li>• plug in hybrid electric vehicles (PHEV) - [0.5 * X] marks;</li> <li>• fully battery electric vehicles (BEV) [X] marks; or</li> <li>• hydrogen fuel cell electric vehicles (FCEV) [X] marks</li> </ul> <p><b>Verification:</b> The tenderer must provide the vehicle's certificate of conformity.</p> <p><b>Note:</b> <i>If a renewable source of hydrogen is not available, this technology should be removed from the above list. By assigning extra marks to the cleanest technologies, contracting authorities can weigh these against any cost increases. See the EPA guide for further information on life-cycle costing.</i></p>	

<sup>9</sup> Areas with air quality issues are those areas where traffic restriction measures are put in place to comply with the air pollutant emissions limits set by the Air Quality Directive.



CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
<p>AC2. <b>Extended battery warranty</b></p> <p>Up to [X] marks will be awarded for battery warranties which exceed the minimum requirements specified in TS4. Full marks will be awarded for the longest/most comprehensive battery warranty, with all other compliant tenders being scored proportionately.</p> <p><b>Verification:</b> The full terms of the battery warranty must be included in the tender submission.</p>	<p>AC3. <b>Air conditioning gases</b></p> <p>Points will be awarded to those vehicles equipped with an air conditioning system that uses a refrigerant whose global warming potential (GWP), as a factor of CO<sub>2</sub> and over a time horizon of 100 years, is below 150.</p> <p><b>Verification:</b> The tenderer must provide the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used (n number of gases), the GWP will be calculated as follows:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <math display="block">\text{GWP} = \Sigma(\text{Substance X1 \%} \times \text{GWP(X1)}) + (\text{Substance X2 \%} \times \text{GWP(X2)}) + \dots + (\text{Substance Xn \%} \times \text{GWP(Xn)})</math> <p>where % is the contribution by weight with a weight tolerance of +/- 1%.</p> <p>The GWP of gases can be found in Annexes I and II of <b>Regulation (EU) 517/2014</b>.</p> </div> <p><b>Note:</b> Regulation (EU) No 517/2014 (the F-gas Regulation) provides for the phase out of HFCs and will exert strong pressure on prices of these gases as the supply becomes more restricted. Therefore, there is a strong regulatory driver in place that favours the use of low GWP or even non-HFC (e.g. CO<sub>2</sub>) technologies in this sector.</p>





## 3.4 GPP CRITERIA FOR REFUSE COLLECTION VEHICLES

### SUBJECT MATTER

Purchase, lease or hire of refuse collection vehicles with low environmental impact.

**Important:** The common criteria set out in Section 3.1 also apply to this category.

### CORE CRITERIA

### COMPREHENSIVE CRITERIA

#### TECHNICAL SPECIFICATIONS (TS)

#### TS1. Low and zero-emission refuse collection vehicles

Refuse collection vehicles must be powered by one of the technologies listed in Table 5:<sup>10</sup>

Fully electric or plug-in hybrid	High pressure direct injection natural gas vehicles*
Hydrogen fuel cell*	Dedicated natural gas vehicles*
OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*	

Table 5. Eligible technologies for refuse collection trucks

**\* Hydrogen and natural gas vehicles require a minimum percentage of renewable fuel supply to be eligible:**

- The contracting authority may qualify fuel cell electric vehicles as an eligible technology if it has a supply of hydrogen produced with renewable sources generated on-site, meeting at least 15% of its demand.
- It may qualify an OEM dual-fuel natural gas vehicle as eligible technology, if it has a supply of renewable methane meeting at least 35% of its demand
- It may qualify high pressure direct injection natural gas vehicles as eligible technology, if it has a supply of renewable methane meeting at least 10% of its demand.
- It may qualify dedicated natural gas vehicles as eligible technology, if it has a supply of renewable methane meeting at least 25% of its demand
- Renewable methane means biomethane and synthetic methane produced with a surplus of renewable electricity, meaning that which exceeds the demand during certain periods (power-to-gas).

Renewable methane means biomethane and synthetic methane produced with a surplus of renewable electricity, meaning that which exceeds the demand during certain periods (power-to-gas).

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used.

**Note:** *In the case of plug-in hybrid electric vehicles, the total daily hours that a truck is operated in full electric depends on the specific duty cycle and the charging strategy. Contracting authorities/service providers need to ensure that the plug-in hybrid truck will be able to maximise their daily hours of operation in full electric mode along their daily cycles using the charging infrastructure available.*

<sup>10</sup> These are the technologies which meet the definition of a 'clean vehicle' for heavy-duty vehicles under Directive 2019/1161.



CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS (TS)

**TS2. Air pollutant emissions**

M3 vehicles and M2 vehicles with a reference mass<sup>11</sup> exceeding 2 610 kg must meet Euro VI.

M2 vehicles with a reference mass not exceeding 2 610 kg must comply with the following limits:

Vehicles must demonstrate real driving emission (RDE) emission performance which is at most equal to 80% of the applicable Euro 6 limit values for NOx and PN (not including the applicable measurement margin), as shown in Table 6.

From 1 January 2021	M and N1 Class I		N1 Class II		N1 Class III	
	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol
NOx (mg/km)	64	48	84	60	100	66
PN (#/km)	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>	5 x 10 <sup>11</sup>

Table 6. Maximum RDE emissions

OR, if purchasing vehicles to be used in areas with air quality issues:<sup>12</sup>

Vehicles must have zero tailpipe emissions.

**Verification:** The tenderer must present the vehicle's certificate of conformity. For those vehicles having achieved the above standards following a technical upgrade, the measures must be documented and included in the tender, and this must be verified by an independent third party.

**Note:** *The RDE values will be declared in the certificate of conformity as mg/km or particle number/km, as appropriate, and will not include the measurement margin which is only linked with the uncertainties of the measurement equipment. From 1 January 2026, only zero emission vehicles may be purchased in accordance with TS1, so this criterion will no longer be relevant.*

**TS3. Auxiliary units**

The vehicle's emissions from the separate engines for auxiliary units (e.g. compactor, lifter, other units) must meet the exhaust emission limits according to Regulation (EU) No 2016/1628, Stage V.

**Verification:** The tenderer must present either a type approval certificate, or a test report from an independent laboratory according to the Regulation (EU) No 2016/1628.

<sup>11</sup> 'Reference mass' means the mass of the vehicle in running order, as declared in the certificate of conformity, minus the uniform mass of the driver of 75 kg, plus a uniform mass of 100 kg.

<sup>12</sup> Areas with air quality issues are those areas where traffic restriction measures are put in place to comply with the air pollutant emissions limits set by the Air Quality Directive.



CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS (TS)	
<p>TS4. <b>Minimum battery warranty</b></p> <p>The tenderer must provide a minimum warranty of the battery of 160 000 km or 8 years against capacity loss below 70% of its original value at delivery according to EN 62660 or equivalent.</p> <p><b>Verification:</b> The full terms of the battery warranty must be included in the tender submission.</p>	
AWARD CRITERIA	
<p>AC1. <b>Improved air pollutant emissions performance</b></p> <p>Up to [X] marks will be awarded to vehicles powered by the following technologies:</p> <ul style="list-style-type: none"> <li>• plug in hybrid electric vehicles (PHEV) - [0.5 * X] marks;</li> <li>• fully battery electric vehicles (BEV) [X] marks; or</li> <li>• hydrogen fuel cell electric vehicles (FCEV) [X] marks</li> </ul> <p><b>Verification:</b> The tenderer must provide the vehicle's certificate of conformity.</p> <p><b>Note:</b> <i>If a renewable source of hydrogen is not available, this technology should be removed from the above list. By assigning extra marks to the cleanest technologies, contracting authorities can weigh these against any cost increases. See EPA guidance for further information on life-cycle costing.</i></p>	
<p>AC2. <b>Electrification of auxiliary engines</b></p> <p>Up to [X] marks will be awarded to vehicles equipped with fully electric auxiliary units.</p> <p><b>Verification:</b> Tenderers must provide technical documentation confirming the technology used to power the auxiliary units.</p>	
<p>AC3. <b>Extended battery warranty</b></p> <p>Up to [X] marks will be awarded for battery warranties which exceed the minimum requirements specified in TS4. Full marks will be awarded for the longest/most comprehensive battery warranty, with all other compliant tenders being scored proportionately.</p> <p><b>Verification:</b> The full terms of the battery warranty must be included in the tender submission.</p>	



CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
	<p>AC4. <b>Air conditioning gases</b></p> <p>Points will be awarded to those vehicles equipped with an air conditioning system that uses a refrigerant whose global warming potential (GWP), as a factor of CO<sub>2</sub> and over a time horizon of 100 years, is below 150.</p> <p><b>Verification:</b> The tenderer must provide the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used (n number of gases), the GWP will be calculated as follows:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <math display="block">\text{GWP} = \Sigma(\text{Substance X1 \%} \times \text{GWP(X1)}) + (\text{Substance X2 \%} \times \text{GWP(X2)}) + \dots</math> <math display="block">(\text{Substance Xn \%} \times \text{GWP(Xn)})</math> <p>where % is the contribution by weight with a weight tolerance of +/- 1%.</p> <p>The GWP of gases can be found in Annexes I and II of <b>Regulation (EU) 517/2014</b>.</p> </div> <p><b>Note:</b> Regulation (EU) No 517/2014 (the F-gas Regulation) provides for the phase out of HFCs and will exert strong pressure on prices of these gases as the supply becomes more restricted. Therefore, there is a strong regulatory driver in place that favours the use of low GWP or even non-HFC (e.g. CO<sub>2</sub>) technologies in this sector.</p>



## 3.5 COMMON GPP CRITERIA FOR SERVICE CONTRACTS

### SUBJECT MATTER

Purchase of the following road transport services with low environmental impact:

- Bus transport services
- Mobility services
- Refuse collection services
- Post, courier and moving services

**Note:** The appropriate GPP criteria for the vehicle categories involved in delivering the service must also be included in the tender documents, and the common criteria for vehicle categories set out in Section 3.1.

### CORE CRITERIA

### COMPREHENSIVE CRITERIA

#### SELECTION CRITERIA

##### SC1. **Competences of the service provider**

The candidate must have relevant experience and/or expertise in each of the following areas:

- identifying, evaluating and implementing the available technologies and measures to reduce well-to-wheels GHG and air pollutant emissions
- monitoring and reporting procedures for GHG/air pollutant emissions.

**Verification:** Tenderers must provide evidence of their capacity to deliver the above requirements, including the methods applied and details or references from prior contracts carried out in the previous five years.

#### TECHNICAL SPECIFICATIONS

##### TS1. **Environmental management measures**

Tenderers must have written procedures to:

1. Monitor and record the GHG and air pollutant emissions of the service. The indicators used must be emissions and energy consumption of the service both in total per year and per passenger/kilometre or another unit that reflects the performance of the service.
2. Implement an emissions reduction plan with measures aimed at reducing GHG and air pollutant emissions.
3. Evaluate the deployment of the emissions reduction plan – the indicators which will be measured and frequency of reporting must be stated
4. Implement the necessary actions to correct any deviations from the plan, and prevent recurrences.



CORE CRITERIA	COMPREHENSIVE CRITERIA
<b>TECHNICAL SPECIFICATIONS</b>	
<p>TS1. <b>Environmental management measures</b> (continued)</p> <p><b>Verification:</b> Tenderers must provide:</p> <ol style="list-style-type: none"> <li>1. The procedure for monitoring and recording GHG and air pollutant emissions.</li> <li>2. The emissions reduction plan</li> <li>3. The evaluation procedure to ensure implementation of the emissions reduction plan</li> <li>4. The correction procedure to correct the deviations found in the evaluation, and to prevent recurrences.</li> </ol> <p>Environmental management systems certified against ISO 14001 or EMAS will be deemed to comply if they cover the environmental objective of reducing GHG and air pollutant emissions of the service fleet. In this case, the tenderer must provide the environmental policy showing the commitment to achieve this objective, together with the certificate issued by the certification body.</p>	
<b>AWARD CRITERIA</b>	
	<p>AC1. <b>Lubricant oils, hydraulic fluids and grease</b></p> <p>Up to <b>[X]</b> marks will be awarded to those tenders including the use of the following for the maintenance of the service vehicles:</p> <ul style="list-style-type: none"> <li>• Re-refined lubricant oils, meaning oils derived from used oils that underwent a process that returns the oil to a quality suitable for its original use; and/or</li> <li>• Hydraulic fluids and greases that have no health or environmental hazard statement or R-phrase at the time of application (Lowest classification limit in Regulation (EC) No 1272/2008 or Council Directive 99/45/EC). The cumulative mass percentage of substances present in the hydraulic fluids and greases that are both nonbiodegradable and bioaccumulative must not be more than 0.1 % (w/w).</li> </ul> <p><b>Verification:</b> The tenderer must provide the technical sheets of lubricants and hydraulic fluids and greases. Hydraulic fluids and greases that are compliant with the EU Ecolabel or an equivalent type 1 ecolabel that includes the above requirements will be deemed to comply.</p>



CORE CRITERIA

COMPREHENSIVE CRITERIA

CONTRACT PERFORMANCE CLAUSES

**CPC1. Driver training**

**Note:** *This contract performance clause only applies if the service includes a driver and where drivers are not required to have the driver certificate of professional competence (driver CPC) according to Directive 2003/59/EC.*

All drivers involved in carrying out the service for the duration of the contract period must receive training on specific driving techniques to increase fuel/energy efficiency and reduce vehicle wear-and-tear (eco-driving). This training, with a minimum duration of 16 hours, must be provided to all new staff working under the contract within 4 weeks of starting employment, and refresher training, with a minimum duration of 4 hours, must be provided for all other staff at least once a year. The service provider must document and report yearly the amount (hours) and subject of training provided to each member of staff working on the contract.

All drivers involved in carrying out the service for the duration of the contract period must regularly receive information on their fuel efficiency performance (at least once per month).

The yearly staff training records must be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.

**CPC2. Environmental management measures**

The service provider must document and report, over the contract duration:

- the results of the monitoring of the indicators set out in TS1; and
- the results of corrective and preventative actions, where applicable, according to the relevant written procedures.

These reports must be made available to the contracting authority at least annually and at any other time upon request. The contracting authority may set rules for penalties for non-compliance and bonuses for exceeding the objectives set by the emissions reduction plan.

**CPC3. Low viscosity lubricant oils**

Unless the manufacturer of the vehicle recommends another type of lubricant, the contractor must use low viscosity engine lubricant oils (LVL) in providing the service. LVL oils are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.

The contractor will keep records which must be made available to the contracting authority.



CORE CRITERIA	COMPREHENSIVE CRITERIA
CONTRACT PERFORMANCE CLAUSES	
<p>CPC4. <b>Vehicle tyres — rolling resistance</b> (not to be used if, for safety reasons, tyres with the highest wet grip class, snow tyres or ice tyres are needed)</p> <p>The contractor must replace the worn tyres of vehicles providing the service with:</p> <ul style="list-style-type: none"> <li>a. new tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation 740/2020 on the labelling of tyres with respect to fuel efficiency and other essential parameters;</li> <li>OR</li> <li>b. retreaded tyres</li> </ul> <p>The contractor will keep records which must be made available to the contracting authority. The tyres used must conform with manufacturer requirements.</p>	
<p>CPC5. <b>Tyre noise</b> (not to be used if, for safety reasons, tyres with the highest wet grip class, snow tyres or ice tyres are needed)</p> <p>The contractor must replace the worn tyres of vehicles providing the service with:</p> <ul style="list-style-type: none"> <li>a. new tyres whose external rolling noise emission levels are 3dB below the maximum established in Annex II, Part C of Regulation (EC) No 661/2009. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class</li> <li>OR</li> <li>b. retreaded tyres.</li> </ul> <p>The external rolling noise emissions of the tyre model must have been tested according to Regulation (EU) 2020/740. The tyres used must conform with manufacturer requirements.</p> <p>The contractor will keep records which must be made available to the contracting authority.</p>	
<p><b>Note: Fleet composition requirements</b></p> <p>Whenever a contracting authority requires a service provider to use a fleet with a certain percentage of the vehicles compliant with criteria on CO<sub>2</sub> emissions or air pollutant emissions, the contracting authority should consider the means of verification. It can be cumbersome for the contractor to provide information and for the public authority to verify information about which vehicles were used for which distances on which day to calculate the total/average. Therefore, if it is not considered feasible to ask for all vehicles to meet the requirement, the contracting authority could determine that on specific routes, only compliant vehicles can be used (e.g. in areas with air quality issues), or that one or several vehicle categories must be compliant. These issues may be less relevant for the outsourcing of public bus services and refuse collection services, where the planning and the monitoring of the services facilitate the verification of the fleet performance used to provide the services.</p>	





### 3.6 GPP CRITERIA FOR BUS TRANSPORT SERVICES

#### SUBJECT MATTER

Purchase of bus transport services using M2 and M3 vehicles with low environmental impact.

Important: The common criteria set out in Section 3.1 and 3.5 also apply to this category.

CORE CRITERIA	COMPREHENSIVE CRITERIA										
<b>TECHNICAL SPECIFICATION (TS)</b>											
<p><b>TS1. Low and zero emission buses</b>  <b>Option 1</b>            The services must be provided using vehicles powered by one of the following technologies:<sup>13</sup></p> <table border="1"> <tr><td>Fully electric or plug-in hybrid</td></tr> <tr><td>Hydrogen fuel cell*</td></tr> <tr><td>OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*</td></tr> <tr><td>High pressure direct injection natural gas vehicles*</td></tr> <tr><td>Dedicated natural gas vehicles*</td></tr> </table> <p>Table 7. Eligible technologies for buses</p>	Fully electric or plug-in hybrid	Hydrogen fuel cell*	OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*	High pressure direct injection natural gas vehicles*	Dedicated natural gas vehicles*	<p><b>TS1. Low and zero emission buses</b>  <b>Option 1</b>            The services must be provided using vehicles powered by one of the following technologies:<sup>14</sup></p> <table border="1"> <tr><td>Fully electric or plug-in hybrid</td></tr> <tr><td>Hydrogen fuel cell*</td></tr> <tr><td>OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*</td></tr> <tr><td>High pressure direct injection natural gas vehicles*</td></tr> <tr><td>Dedicated natural gas vehicles*</td></tr> </table> <p>Table 8. Eligible technologies for buses</p>	Fully electric or plug-in hybrid	Hydrogen fuel cell*	OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*	High pressure direct injection natural gas vehicles*	Dedicated natural gas vehicles*
Fully electric or plug-in hybrid											
Hydrogen fuel cell*											
OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*											
High pressure direct injection natural gas vehicles*											
Dedicated natural gas vehicles*											
Fully electric or plug-in hybrid											
Hydrogen fuel cell*											
OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%*											
High pressure direct injection natural gas vehicles*											
Dedicated natural gas vehicles*											

<sup>13</sup> These are the technologies which meet the definition of a 'clean vehicle' for heavy-duty vehicles under Directive 2019/1161.

<sup>14</sup> These are the technologies which meet the definition of a 'clean vehicle' for heavy-duty vehicles under Directive 2019/1161.



CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATION (TS)

TS1. **Low and zero emission buses** (continued)

\* Hydrogen and natural gas vehicles require a minimum percentage of renewable fuel supply to be eligible:

- Fuel cell electric vehicles qualify as an eligible technology if the service provider has a supply of hydrogen produced with renewable sources generated on-site, meeting at least 15% of demand;
- OEM dual-fuel natural gas vehicles qualify as eligible technology, if the service provider has a supply of renewable methane meeting at least 35% of demand;
- High pressure direct injection natural gas vehicles qualify as an eligible technology, if the service provider has a supply of renewable methane meeting at least 10% of demand.
- Dedicated natural gas vehicles qualify as an eligible technology, if the service provider has a supply of renewable methane meeting at least 25% of demand.
- Renewable methane means biomethane and synthetic methane produced with a surplus of renewable electricity, meaning that which exceeds the demand during certain periods (power-to-gas).

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used. Evidence of fuel supply must also be provided for natural gas/hydrogen vehicles.

**Option 2:** The fleet used to provide the services must be composed of the following shares of vehicles equipped with one of the eligible technologies listed above:

2020	28%
2021	36%
2022	44%
2023	52%

The tier applicable will correspond to the year that the call for tender is launched.

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used and the number of vehicles compared to the overall fleet required. Evidence of fuel supply must also be provided for natural gas/hydrogen vehicles.

TS1. **Low and zero emission buses** (continued)

\* Hydrogen and natural gas vehicles require a minimum percentage of renewable fuel supply to be eligible:

- Fuel cell electric vehicles qualify as an eligible technology if the service provider has a supply of hydrogen produced with renewable sources generated on-site, meeting at least 15% of demand;
- OEM dual-fuel natural gas vehicles qualify as eligible technology, if the service provider has a supply of renewable methane meeting at least 35% of demand;
- High pressure direct injection natural gas vehicles qualify as an eligible technology, if the service provider has a supply of renewable methane meeting at least 10% of demand.
- Dedicated natural gas vehicles qualify as an eligible technology, if the service provider has a supply of renewable methane meeting at least 25% of demand.
- Renewable methane means biomethane and synthetic methane produced with a surplus of renewable electricity, meaning that which exceeds the demand during certain periods (power-to-gas).

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used. Evidence of fuel supply must also be provided for natural gas/hydrogen vehicles.

**Option 2:** The fleet used to provide the services must be composed of the following shares of vehicles equipped with one of the eligible technologies listed above:

2020	40%
2021	48%
2022	56%
2023	64%

The tier applicable will correspond to the year that the call for tender is launched.

**Verification:** Tenderers must provide technical documentation for the proposed vehicles showing which of the above technologies is used and the number of vehicles compared to the overall fleet required. Evidence of fuel supply must also be provided for natural gas/hydrogen vehicles.



CORE CRITERIA	COMPREHENSIVE CRITERIA																
TECHNICAL SPECIFICATION (TS)																	
<p><b>TS2. Air pollutant emissions</b> All buses used in carrying out the service must meet at least Euro V, and:</p> <table border="1"> <tr> <td>2021</td> <td>64% of buses must meet Euro VI.</td> </tr> <tr> <td>2022</td> <td>72% of buses must meet Euro VI.</td> </tr> <tr> <td>2023</td> <td>80% of buses must meet Euro VI.</td> </tr> <tr> <td>2024</td> <td>88% of buses must meet Euro VI.</td> </tr> <tr> <td>2025 onwards</td> <td>100% of buses must meet Euro VI.</td> </tr> </table> <p><b>Verification:</b> Tenderers must present the list of vehicles of the assigned service fleet and their certificates of conformity. For vehicles which meet the above standards following a retrofit, the technical measures must be documented in the tender, and the emission levels achieved must be verified by an independent third party.</p>	2021	64% of buses must meet Euro VI.	2022	72% of buses must meet Euro VI.	2023	80% of buses must meet Euro VI.	2024	88% of buses must meet Euro VI.	2025 onwards	100% of buses must meet Euro VI.	<p><b>TS2. Air pollutant emissions</b> All buses used in carrying out the service must meet at least Euro V, and:</p> <table border="1"> <tr> <td>2021</td> <td>84% of buses must meet Euro VI.</td> </tr> <tr> <td>2022</td> <td>92% of buses must meet Euro VI.</td> </tr> <tr> <td>2023</td> <td>100% of buses must meet Euro VI.</td> </tr> </table> <p><b>Verification:</b> Tenderers must present the list of vehicles of the assigned service fleet and their certificates of conformity. For vehicles which meet the above standards following a retrofit, the technical measures must be documented in the tender, and the emission levels achieved must be verified by an independent third party.</p>	2021	84% of buses must meet Euro VI.	2022	92% of buses must meet Euro VI.	2023	100% of buses must meet Euro VI.
2021	64% of buses must meet Euro VI.																
2022	72% of buses must meet Euro VI.																
2023	80% of buses must meet Euro VI.																
2024	88% of buses must meet Euro VI.																
2025 onwards	100% of buses must meet Euro VI.																
2021	84% of buses must meet Euro VI.																
2022	92% of buses must meet Euro VI.																
2023	100% of buses must meet Euro VI.																
<p><b>TS3. Exhaust pipes (location)</b> <b>Note:</b> <i>This criterion is not relevant for fully electric vehicles</i></p> <p>Vehicle exhaust pipes must be located on the opposite side to the passenger door and at the rear of the vehicle.</p> <p><b>Verification:</b> The tenderer must provide technical documentation clearly showing the location of the exhaust pipe.</p>																	



CORE CRITERIA

COMPREHENSIVE CRITERIA

AWARD CRITERIA

**AC1. Improved air pollutant emissions**

Up to [X] marks will be awarded to service providers offering a higher percentage of Euro VI vehicles within the assigned fleet than those specified in TS2. The total number of marks available will be divided amongst the service years covered by the contract, with a higher weighting for the earlier years of the contract. The maximum number of marks available for each service year will be awarded to the tenderer offering the highest percentage of Euro VI vehicles for that service year, with all other compliant tenders being scored proportionately.

**Verification:** Tenderers must present the list of vehicles of the assigned service fleet and their certificates of conformity. Where Euro VI vehicles will be delivered in future years, details of the vehicles to be ordered must be submitted. For vehicles which meet/will meet the above standards following a retrofit, the technical measures must be documented in the tender, and the emission levels achieved must be verified by an independent third party.

**Note:** Where tenderers rely upon future delivery of Euro VI vehicles, this must be written into the terms of the contract with appropriate sanctions in the case of non-compliance.

An example of the allocation of marks between service years would be:

[Four-year service contract with a total of 15 marks for AC1]

2020	Up to 6 marks
2021	Up to 4 marks
2022	Up to 3 marks
2023	Up to 2 marks



CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
	<p><b>AC2. Air conditioning gases</b></p> <p>Up to [X] marks will be awarded based on the percentage of vehicles in the assigned service fleet equipped with an air conditioning system that uses a refrigerant whose global warming potential (GWP), as a factor of CO<sub>2</sub> and over a time horizon of 100 years, is below 150.</p> <p><b>Verification:</b> The tenderer must provide the name, formula and GWP of the refrigerating gas used in the air conditioning system of vehicles. If a mixture of gases is used (n number of gases), the GWP will be calculated as follows:</p> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <math display="block">\text{GWP} = \Sigma(\text{Substance X1 \%} \times \text{GWP(X1)}) + (\text{Substance X2 \%} \times \text{GWP(X2)}) + \dots</math> <math display="block">(\text{Substance Xn \%} \times \text{GWP(Xn)})</math> <p>where % is the contribution by weight with a weight tolerance of +/- 1%.</p> <p>The GWP of gases can be found in Annexes I and II of Regulation (EU) 517/2014.</p> </div> <p><b>Note:</b> Regulation (EU) No 517/2014 (the F-gas Regulation) provides for the phase out of HFCs and will exert strong pressure on prices of these gases as the supply becomes more restricted. Therefore, there is a strong regulatory driver in place that favours the use of low GWP or even non-HFC (e.g. CO<sub>2</sub>) technologies in this sector.</p>
CONTRACT PERFORMANCE CLAUSES	
<p><b>CPC1. New vehicles</b></p> <p>If a vehicle belonging to the assigned service fleet is replaced, the new vehicle must maintain or improve the overall profile of the fleet in terms of GHG and air pollutant emissions.</p> <p>The contractor will keep records which must be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.</p>	



**E:** [info@epa.ie](mailto:info@epa.ie)  
**W:** [www.epa.ie](http://www.epa.ie)  
**LoCall:** 1890 33 55 99