



# 2023 GREEN FINANCING REPORT



**May 2024**

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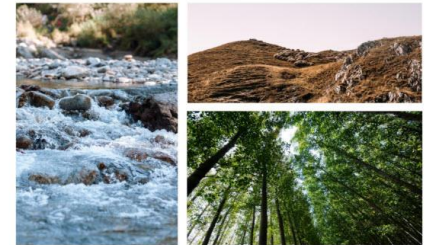
# 1. NEW SUSTAINABILITY STRATEGY



# CAM New Sustainability Strategy – 2023 -2030

The Community of Madrid established a **new Energy, Climate, and Air Strategy (EECAM)** for the 2023-2030 period which introduces **7 Strategic Objectives** focused on boosting energy efficiency, promoting responsible self-consumption, expanding renewable energy use, and reducing emissions among others. The plan identifies key sectors for urgent action and potential challenges, proposing targeted areas where stakeholders and society **can drive meaningful change**. The strategy incorporates **58 detailed measures** within the framework to effectively address these environmental challenges.

- 1 Boost energy efficiency and promote self-consumption of renewable sources.
- 2 Contribute to the improvement of the availability, security, and quality of energy supply at a reasonable price and promoting self-sufficiency.
- 3 Promote the growth of electric and thermal energy production using renewable or low-carbon sources.
- 4 Reduce greenhouse gas emissions, encouraging carbon capture and sequestration.
- 5 Reduce emissions of atmospheric pollutants to improve air quality.
- 6 Progress towards a territory fully adapted to potential climate threats.
- 7 Support cultural change towards the transition to a decarbonized society, driving development and research



Estrategia de Energía, Clima y Aire  
de la Comunidad de Madrid  
2023-2030



Source: Comunidad de Madrid, Canal de Isabel II

<https://www.comunidad.madrid/transparencia/informacion-institucional/planes-programas/estrategia-energia-clima-y-aire-comunidad-madrid-2023>

# Selected 2030 Targets for Energy, Climate, and Air Strategy (EECAM)

## TRANSPORTATION AND MOBILITY SECTOR



- **23% reduction** in the number of **journeys** made by **private vehicles** (vehicles/km)
- **Taxi and vehicle-for-hire** (VTC) sectors to reach **100% zero emissions**
- Vehicles used for **passenger transport** and **goods distribution** targeted to achieve **50% zero emissions**
- **Urban and interurban bus fleets**, as well as institutional vehicles, to be **100% zero emissions**
- Registration of **850,000 electric vehicles** and **installation of 20,455 public charging points**
- Targeting an average age of vehicles on the road to be 10 years
- Progressive introduction **of hydrogen fuel cell technology** in private fleets of light and heavy vehicles
- Establishment of **low-emission zones** in all municipalities in the CAM with more than 50,000 inhabitants.

## RESIDENTIAL, COMMERCIAL, AND INSTITUTIONAL SECTOR



- All **public and residential buildings** must achieve at least an **E energy rating**
- **Reduction** of over **30%** in the consumption of **non-renewable primary energy** in rehabilitated buildings
- Increase the number of devices with more efficient energy labeling
- **1 GW of self-consumption**
- Ensure all **public lighting** is **energy-efficient** in the Community of Madrid

## CROSS-CUTTING AREAS OF ACTION



- Increase the level of education of society in matters related to the strategy
- Maintain and improve **air quality networks** and climate change monitoring in the CM
- Incorporate the climate change variable into new plans and legal instruments
- Include sustainability, energy savings, and efficiency criteria in contracts of the CAM public administrations and entities
- **Reduce** the total cumulative **energy consumption** in all public buildings **by 18% by 2025 and by 50% by 2030**

# Selected 2030 Targets for Energy, Climate, and Air Strategy (EECAM)

## ENERGY, INDUSTRY, AND UTILITIES SECTOR



- **Reduce** the Interruption time Equivalent to the installed Capacity (**TIEPI**) and Number of Equivalent Interruptions per Installed Power in Medium Voltage (**NIEPI**) by **10%**
- Achieve at least **5 GW of installed photovoltaic solar**
- Coordinate renewable energy development with **storage facilities** to reach **20%** of **renewable installed capacity**
- Gradually introduce hydrogen technologies from pilot projects to fully operational industrial projects
- **Reduce energy intensity** by an average annual rate of **2.53%**
- Increase cumulative annual growth of energy communities by 10%
- Increase by 10% the industries improving their processes for heat and energy utilization\*
- Achieve primary energy savings and reduction of GHG emissions, improving the self-sufficiency capacity of the CM
- **Reduce fluorinated gas emissions by 33%** compared to 2005
- 25% of industrial companies using some form of renewable energy
- 100% renewable or clean energy self-consumption in CYII facilities
- **15% reduction in waste weight generated** compared to 2010

## AGRICULTURE AND NATURAL ENVIRONMENT SECTOR



- **Reduce energy consumption from petroleum** derivatives in the agricultural sector by up to **50%**
- Achieve a **21% reduction in ammonia** emissions from farms compared to 2005 emissions
- Contribute to reducing **CH4 emissions** linked to livestock
- Improve the carbon capture capacity of agricultural soils
- Ensure **50% of the forests** in the Community of Madrid have **sustainable forest management** plans or silvicultural references
- Increase the sustainable use of forest biomass
- Analyze the risks and vulnerabilities of the agricultural and livestock sectors to climate change and enhance their capacity to adapt to such impacts
- Develop studies and projects for ecosystem services and promoting carbon absorption
- Reduce the risk of fire and minimize its magnitude
- Ensure 100% of municipalities with more than 50,000 inhabitants have an adaptation plan

# CAM Sustainability Strategy 2030

Ambitious investments in subway line extensions and bus interchanges & terminals



## GRANDES ACTUACIONES 2019/2030

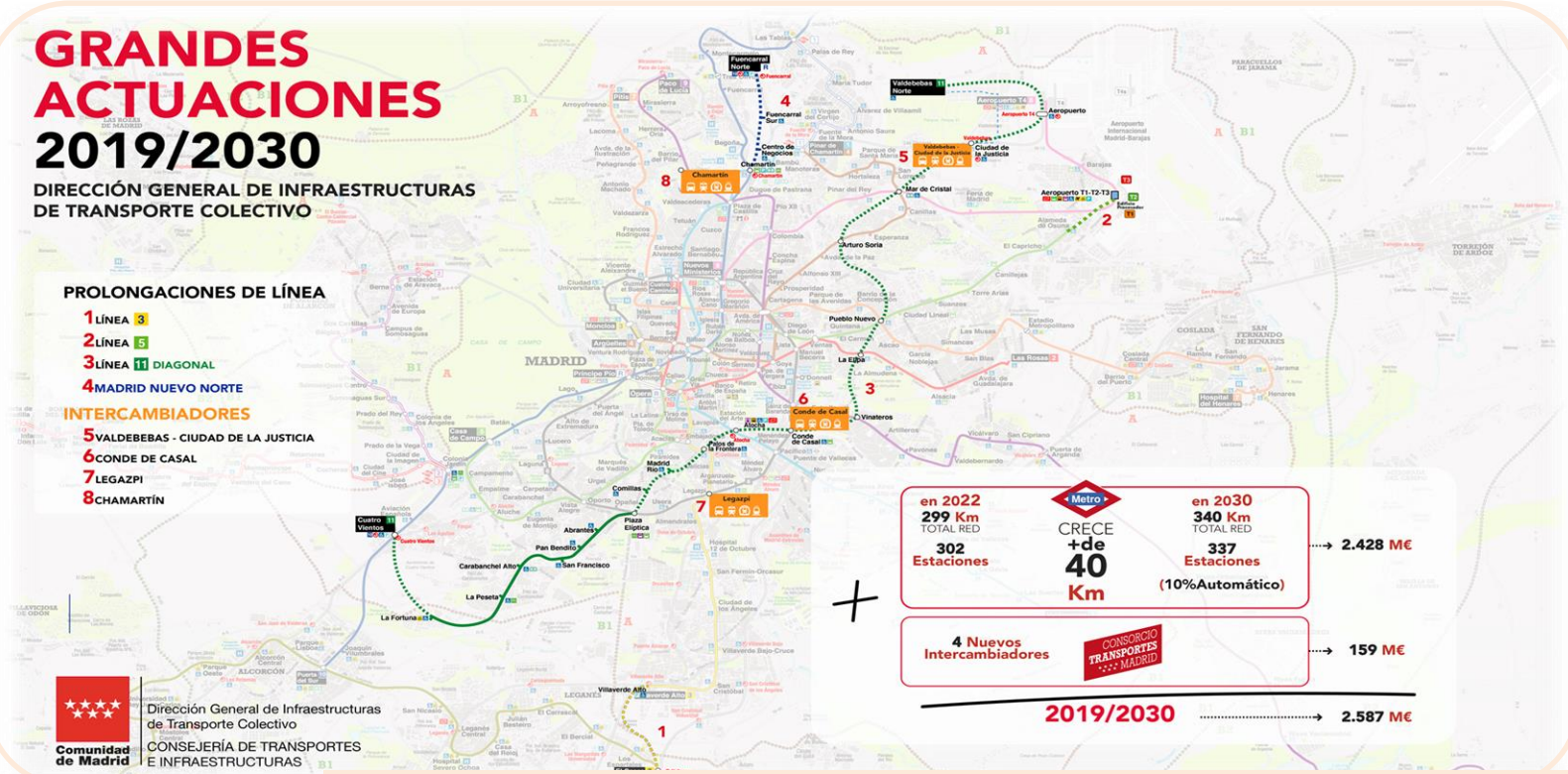
DIRECCIÓN GENERAL DE INFRAESTRUCTURAS DE TRANSPORTE COLECTIVO

### PROLONGACIONES DE LÍNEA

- 1 LÍNEA 3
- 2 LÍNEA 5
- 3 LÍNEA 11 DIAGONAL
- 4 MADRID NUEVO NORTE

### INTERCAMBIADORES

- 5 VALDEBEBAS - CIUDAD DE LA JUSTICIA
- 6 CONDE DE CASAL
- 7 LEGAZPI
- 8 CHAMARTÍN



Dirección General de Infraestructuras de Transporte Colectivo  
CONSEJERÍA DE TRANSPORTES E INFRAESTRUCTURAS

4 new bus interchanges and more than 40 new Km in metro lines by 2030

Source: Comunidad de Madrid, Metro



# CAM Sustainability Strategy 2030

## Comprehensive water cycle management



### INTEGRATED WATER CYCLE

#### REGENERATION

Regenerated water refers to wastewater that has been purified and subjected to additional treatment, making it suitable for street cleaning, irrigation of public parks, golf courses, and even for industrial uses.

#### SANITATION

Sanitation management encompasses the transportation of wastewater through urban drainage networks to wastewater treatment plants (WWTPs), followed by the purification of this water to return it to rivers in optimal conditions.

#### CAPTURE

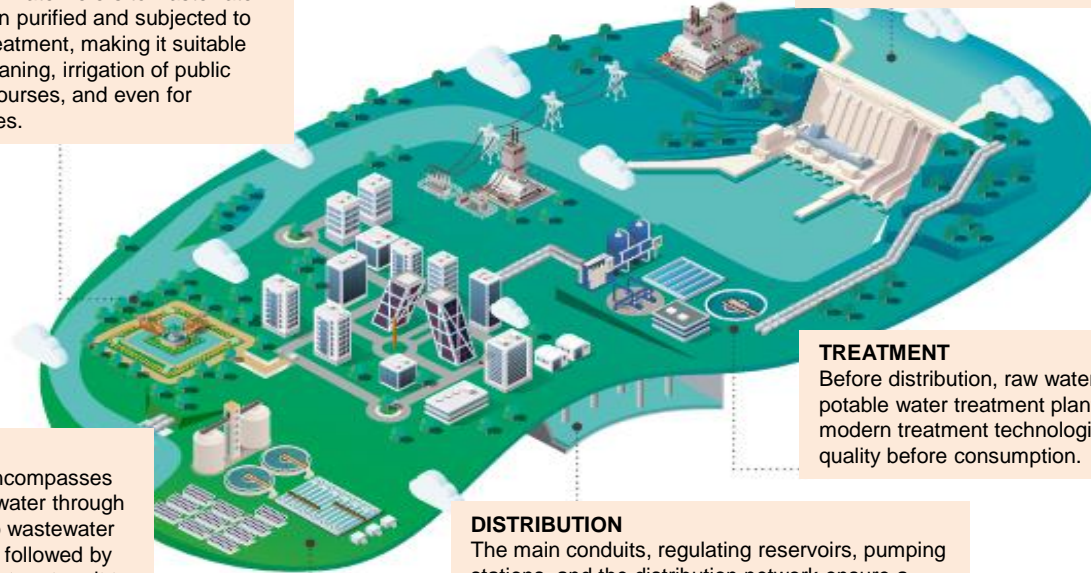
Reservoirs, weirs, and groundwater wells make up the bulk of the water collected by the Canal for supplying the Community of Madrid.

#### TREATMENT

Before distribution, raw water arrives via large channels at the potable water treatment plants (WTPs), where the most modern treatment technologies ensure the highest water quality before consumption.

#### DISTRIBUTION

The main conduits, regulating reservoirs, pumping stations, and the distribution network ensure a continuous service with the required pressure and quality.





# Metro de Madrid – Sustainability Financing Framework

Metro de Madrid has developed a Sustainable Financing aligned to ICMA GSS Principles and LMA Principles to issue Green, Social, Sustainability and Sustainability Linked bonds and loans to finance and support activities that will contribute to the United Nations Sustainable Development Goals and the Company's Sustainability Strategy.

## STRATEGIC AREAS

- ✓ Carbon neutrality
- ✓ Protection of the environment
  
- ✓ Commitment to people
- ✓ Inclusive mobility
- ✓ Sustainable performance



## MAIN FEATURES of the SUSTAINABILITY FINANCING FRAMEWORK

1

### USE OF PROCEEDS CATEGORIES

#### Green Eligible Categories

- ❖ Clean transportation
- ❖ Energy efficiency
- ❖ Renewable Energy

#### Social Eligible Categories

- ❖ Affordable basic infrastructure
- ❖ Access to essential services

2

### KPI & SPTs

**KPI** - Total electric energy consumption (KWh) / metro car-kilometre produced. Total electric energy consumption is the sum of electric energy consumption for traction and auxiliary services.

**SPT** - Reduce total electric energy consumption (KWh) / metro car-kilometre produced to 2,8888 by 2028 coming from 2,9815 in year 2023 as baseline represents a reduction of 3,06% by 2028)  
Intermediate targets set 2024-2028



SPO by DNV.GL



# EMT – Sustainability Financing Framework

- EMT Madrid is a leading public transportation company in the city of Madrid .
- Operates a fleet of more than **2,000 buses**, averaging over 1.5 million trips daily. Manages the Madrid **Public Bicycle service (BiciMad)** which features over **3,500 bicycles**, **more than 250 stations**, and records more than 3 million uses
- Since its inception, **EMT Madrid has been committed to sustainability and reducing greenhouse gas emissions**. It has been a **pioneer** in incorporating **hybrid and electric buses** into its fleet and implementing measures to enhance energy efficiency, thereby reducing the environmental impact of all its operations.

## STRATEGIC PILLARS

- ✓ Strategy, Management, and Transparency
- ✓ Good Governance and Ethics
- ✓ Customers and Society
- ✓ Environment
- ✓ Economically Sustainable Management



## MAIN FEATURES OF THE SUSTAINABILITY FINANCING FRAMEWORK

1

### USE OF PROCEEDS CATEGORIES

#### Green Eligible Categories

- ❖ Clean transportation
- ❖ Energy efficiency
- ❖ Renewable Energy

#### Social Eligible Categories

- ❖ Affordable basic infrastructure
- ❖ Access to essential services

2

### KPI & SPTs

#### KPI

1. The percentage of electric fleet and zero-emission vehicles.
2. Nox emissions
3. Renewable energy generated by photovoltaic panels for self-consumption

#### SPT

1. Increase by 25% by 2025 of electric fleet and zero-emission vehicles
2. Decrease by 0.30 Kg/1,000Km Nox emissions by 2025
3. Increase to 6,000 MWh/year renewable energy generated by photovoltaic panels for self-consumption

pgemini Invent

Capgemini invent

Source: Comunidad de Madrid



## 2. GREEN FINANCING REPORT



# Green Financing Strategy - Overview

4 Green bonds issued up to date totaling a size of EUR 2,300Mn

2021, 2022 & 2023 Green Bonds allocated to clean transportation projects fully aligned with EU Taxonomy

Continued assessment towards implementing alignment on EU Taxonomy regarding other green categories, such as Waste Management and Environmental Conservation

2023 Green Financing eligible portfolio of EUR 811.6 Mn

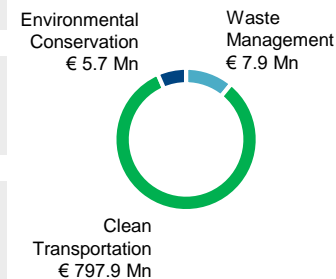
Annual impact report published on Comunidad de Madrid Website\*

Committed to at least one Green Bond issuance per year

**Comunidad de Madrid is a relevant player in Sustainable Finance**



## Green Eligible Portfolio

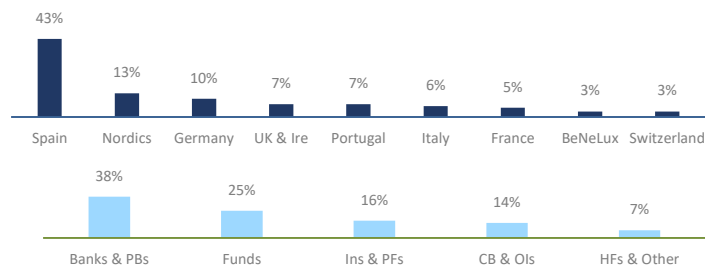


# CAM – 2023 Green Bond - Review

## Final Terms and Conditions

Issuer	The Autonomus Community of Madrid
Issuer Ratings	A/Baa1/A/BBB+ (all Stable) (S&P/Moody's/DBRS/Fitch)
Format	Senior Unsecured
Ranking	RegS, Dematerialised
Risk Weighting	0%
Size	EUR 600m
Maturity	31st October 2028
Settlement	29th June 2023 (T+7)
Coupon	3.362 Fixed, Annual, Act/Act, long first coupon
Reoffer	100%, 3.357% Yield
Benchmark	SPGB 5.15% 10/31/2028 @ 3.147% +21bps, HR 93%
Listing	AIAF
Min Denoms	€1k + €1k
Bookrunner	BBVA, CaixaBank, Crédit Agricole CIB, HSBC, ING and Santander

## Investor Type & Geographical distribution



## Transaction Highlights

- On Tuesday June 20th, 2023, the Autonomus Community of Madrid successfully launched and priced a new EUR 600M Long-5yr Green Bond at a spread of +21 bps over SPGB.
- The transaction was preceded by a week-long marketing exercise with European investors across different geographies to present the impact report of its third green bond issued in 2022, the macro outlook of the region, funding strategy and sustainable finance plans.
- The mandate was announced the previous day on Monday June 20th with no Initial Price Thoughts to be launched and priced in the near future subject to market conditions.
- The strong response from investors (with IOI's exceeding EUR 400M) and a stable market opening allowed the transaction to hit the screens early the next day for a size in the top range of the issuers target (EUR 600M WNG):
  - Books opened at 9:00 CET for a size EUR 600M WNG and a Guidance of SPGB + 26bps area
  - By 10:30 CET the demand already exceeded EUR 2bn (excluding JLM interests) which allowed the guidance to be revised to SPGB + 23 bps area.
  - By 11:45 CET the spread was set at SPGB+ 21bps with books over EUR 2.6bn (excluding JLM interests).
  - Books finally closed at 12:00 am CET with demand north of EUR 2bn demand and 111 investors involved.
  - The deal was Priced at 100.00% with yield of 3.357%.
- Strong execution metrics with total demand peaking at 2.7bn during the transaction.
- High granularity of orders with more than 110 accounts involved and strong support from international investors representing 57% of the total allocations. The quality of the book is also reflected on the 41% allocation to asset managers, insurance and pension funds.



# CAM – 2023 Green Bond - Highlights



- **The 2023 Green bond issued in June 2023** represented the fourth Green bond offering of Comunidad de Madrid.
- **Comunidad de Madrid is the only region in Spain** issuing Green Bonds.



- **Comunidad de Madrid is committed to keep on promoting** the ESG bond market and sustainable investments with a Framework that allows the Region to issue Green, Social and Sustainable Bonds.



- **The proceeds of the bond** have been allocated to expenditures mostly in **Clean Transportation followed by Waste Management and Environmental conservation**
- 2023 Green Bond **use of proceeds is fully aligned with the EU Taxonomy (100% of the use of proceeds allocated).**
- **The projects will contribute to one environmental objective as defined the EU Taxonomy, Climate Mitigation.**



- **Avoided** a total of **249,164 CO2eq** atmospheric emissions.



- Comunidad de Madrid engaged with a **third party verifier to assess compliance with the EU Taxonomy\***.



- **Strong demand** from dedicated ESG investors.

Source: Comunidad de Madrid

\*[https://www.comunidad.madrid/sites/default/files/img/profesiones/cam\\_eu\\_taxonomy\\_alignment\\_spo\\_-\\_dntv\\_eligibility\\_assesment-vfinal.pdf](https://www.comunidad.madrid/sites/default/files/img/profesiones/cam_eu_taxonomy_alignment_spo_-_dntv_eligibility_assesment-vfinal.pdf)

# CAM – 2023 Green Bond – Selected Allocated Projects

## Clean Transportation



- Comunidad de Madrid supports the **decarbonization of the Region's public transport**
- In 2023, EMT Madrid allocated a **€32 million investment** for the acquisition of **106 new electric buses**. This addition brings **the total number of electric buses in their fleet to 265, complemented by 1,837 buses powered by natural gas**. Furthermore, this initiative has received a subsidy of €21 million from the Next Generation EU fund
- This is in line with the **company' strategy** of gradually reducing the fleet's carbon emissions reaching 539 electric vehicles by 2025



- Comunidad de Madrid supports the maintenance and development of the fully-electrified Madrid's metro
- In 2012, Metro de Madrid initiated an Energy Savings Plan, investing over 8.5 million euros. By 2023, the plan had achieved a **26% reduction in energy consumption from 2011 levels**. Additionally, **energy efficiency per subway car per kilometer improved by 19%**. This initiative underscores Metro de Madrid's commitment to enhancing energy efficiency and promoting sustainability in its operations.





Aligned to EU Taxonomy and standards





# 2023 Green Eligible Portfolio

## Overview of the Green Eligible Expenditures 2023





Eligible Category	Eligible Expenditures	Budgetary Programme	Budget Code	UN SDGs	EU Environmental Objectives
Climate change and environmental management	<b>Waste Management:</b> <ul style="list-style-type: none"> <li>Measures to implement the Waste Strategy of Comunidad de Madrid</li> </ul>	16: Environment, Local administration and territorial planning	456N 456B		EU Objective 4: Circular economy
	<b>Clean transportation:</b> <ul style="list-style-type: none"> <li>Promote the manufacture and use of the electric vehicles and points of recharge</li> <li>Promote public transport services and modal shift towards public transportation (e.g. railway, metro de Madrid, bus system) and soft mobility, support multimodal transport solutions and promote the use of bicycles</li> </ul>	14: Transport, Social Housing & Infrastructure	453N 456B	 	EU Objective 1: Climate change mitigation
	<b>Environmental conservation:</b> <ul style="list-style-type: none"> <li>Management and restoration of Protected Natural Parks and other unique spaces with important conservation value</li> </ul>	16: Environment, Local administration and territorial planning	456A		EU Objective 6: Protection and restoration of biodiversity and ecosystems

Source: Comunidad de Madrid







# 2023 Green Eligible Portfolio

## Overview of the Green Eligible Expenditures Portfolio 2023

Eligible Expenditures	UN SDGs	Amount (EUR Mn)	Subcategories	Amount (EUR Mn)
Waste Management		7.9	• Domestic Waste Management	7.0
			• Maintenance of the Air Quality Network	0.9
Clean Transportation		797.9	• EMT Bus	101.1
			• Intercity Bus	172.8
			• Metro	388
			• Measures for the Promotion of Sustainable Mobility	2.7
Environmental Conservation		5.7	• Light Train	133.3
			• Environmental Education	0.6
			• Conservation of Protected Natural Areas	1.4
			• Connectivity through Green Infrastructure	3.2
			• Protection of Wetlands	0.1
			• Grants to NPOs with Environmental Purposes	0.5
			<b>811.6</b>	<b>811.6</b>





# 2023 Green Eligible Portfolio – Impact Indicators

Overview of the Green Use of Proceeds					Impact Indicators							
Eligible Expenditures	UN SDGs	Amount (EUR m)	Subcategories	Amount (EUR m)	Managed Waste (tn)	Data Samples Collected	Emissions Avoided (tCO2)	Vehicles Subsidized	Number of Programs	Intervened Surface (ha)	Projects Selected	
Waste Management		7.9	• Domestic Waste Management	7.0	75,765							
			• Maintenance of the Air Quality Network	0.9		1,566,874						
Clean Transportation		797.9	• EMT Bus	101.1			15,345	-				
			• Intercity Bus	172.8			132,275	-				
			• Metro	388.0			220,438	-				
			• Measures for the Promotion of Sustainable Mobility	2.7			-	6,157				
Environmental Conservation		5.7	• Light Train	133.3			11,033	-				
			• Environmental Education	0.6					15			
			• Conservation of Protected Natural Areas	1.4						118,537		
			• Connectivity through Green Infrastructure	3.2						581		
			• Protection of Wetlands	0.1						93		
			• Grants to NPOs with Environmental Purposes	0.5							13.0	
		811.6		811.6	75,765.0	1,566,874.0	379,090.9	6,157.0	15.0	119,210.9	13.0	

Source: Comunidad de Madrid





# 2023 Green Eligible Portfolio – Clean Transportation

Eligible Expenditures for Clean Transportation				Impact Indicators	EU Taxonomy Alignment (6.3 Urban and suburban transport, road passenger transport)			
Green category	UN SDGs	Subcategories	Allocation Amount (EUR m)	Emissions Avoided (tCO2)	Primary EU Environmental Objective	EU Technical Screening Criteria	DNSH Criteria	Minimum Safeguards
Clean Transportation (*)	 	EMT Bus	101.1	15,345	EU Objective 1: Climate Mitigation	✓	✓	✓
		Intercity Bus	172.8	132,275		✓	✓	✓
		Metro	388.0	220,438		✓	✓	✓
		Light Train	133.3	11,033		✓	✓	✓
			<b>795.2</b>	<b>379,090.9</b>				

\* Excluding Measures for the Promotion of Sustainable Mobility



# 2023 Green Bond – Allocation & Impact

Overview of the allocation of bond proceeds				Impact Indicators	EU Taxonomy - 6.3 Urban and suburban transport, road passenger transport			
Green category	UN SDGs	Subcategories	Allocation Amount (EUR Mn)	Emissions Avoided (tCO2)	Primary EU Environmental Objective	EU Technical Screening Criteria	DNSH Criteria	Minimum Safeguards
Clean Transportation		EMT Bus	69.3	10,516	EU Objective 1: Climate Mitigation	✓	✓	✓
		Metro	388	220,438		✓	✓	✓
		Light Train	133.3	11,033		✓	✓	✓
		Intercity Bus	9.4	7,177		✓	✓	✓
			<b>600</b>	<b>249,164</b>				

**Emissions avoided by Clean Transportation initiatives funded by the 2023 Green Bond proceeds are equivalent to in excess of 55,446 gasoline-powered passenger vehicles driven for one year\***

\* Calculated using: <https://espanol.epa.gov/la-energia-y-el-medioambiente/calculador-de-equivalencias-de-gases-de-efecto-invernadero>



## 2023 Green Bond – Clean Transportation - Impact



Metro: the equivalent distance travelled by car would have caused 507,632.79 tCO2 emissions



EMT bus: the equivalent distance travelled by car would have caused 18,092.56 tCO2 emissions.



Intercity bus: the equivalent distance travelled by car would have caused 176,712.46 tCO2 emissions.



Light trains: the equivalent distance travelled by car would have caused 11,504.39 tCO2 emissions



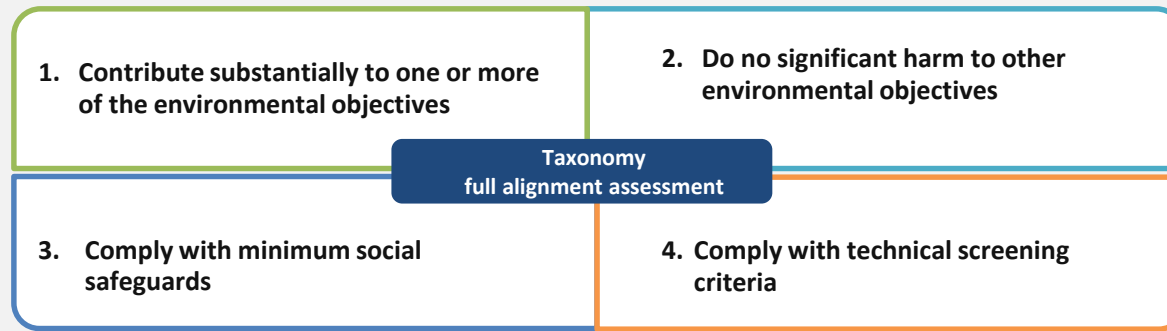
**2023 Avoided Emissions by Public Clean Transportation in the Region (tCO2):  
666,757\***

Source: Comunidad de Madrid

\* Calculated as: tCO2 emissions that would have been produced by traveling by car minus tCO2 emissions generated by hybrid and electric buses (EMT & Intercity busses)

# EU Taxonomy alignment process 2023 Green Bond Comunidad de Madrid

- In 2023, Comunidad de Madrid carried out an exercise to assess which proportion of its Green bonds use of proceeds were aligned with the EU taxonomy.
- In this regard, Comunidad de Madrid engaged with a third party, DNV to assess Comunidad de Madrid's 2021 Green Bond Use of Proceeds (fully allocated into the Clean Transportation category) compliance with the EU Taxonomy and has received a positive assessment.
- Comunidad de Madrid, based on that assessment has replicated the allocation process for its Green Bond issued in October 2022 and therefore confirms that the 2023 green bond is fully aligned with the taxonomy.
- Comunidad de Madrid has reviewed the Clean Transportation expenditures towards the EU Green Taxonomy



**Comunidad de Madrid  
Green Bond is fully  
aligned with the EU  
Taxonomy**





# DNV opinion on Taxonomy alignment assessment

## Finding and DNV's Opinion Alignment to EU Taxonomy dated September 2022



WHEN TRUST MATTERS

GREEN BOND ALLOCATION AND IMPACT REPORTING  
**EU Taxonomy Alignment**  
Comunidad Autónoma de Madrid



Report No.: 1, Rev. 1  
Document No.: PRJIN-446392  
Date: 23/09/2022

Table 1: Compliance with the technical screening criteria

EU Taxonomy Technical Screening Criteria	Project EU Taxonomy Alignment-Comunidad de Madrid
The activity provides urban or suburban passenger transport, and its direct (tailpipe) CO <sub>2</sub> emissions are zero.	Use of proceeds for Metro (EUR 387.8 million) and electric buses (EUR 105.375 million) are zero emissions and hence considered aligned with substantial contribution criteria set by the EU Taxonomy.
Until 31 December 2025, the activity provides interurban passenger road transport using vehicles designated as categories M2 and M3 that have a type of bodywork classified as 'CA' (single-deck vehicle), 'CB' (double-deck vehicle), 'CC' (single-deck articulated vehicle) or 'CD' (double-deck articulated vehicle), and comply with the latest EURO VI standard, i.e. both with the requirements of Regulation (EC) No 595/2009 and, from the time of the entry into force of amendments to that Regulation, in those amending acts, even before they become applicable, and with the latest step of the Euro VI standard set out in Table 1 of Appendix 9 to Annex I to Regulation (EU) No 582/2011 where the provisions governing that step have entered into force but have not yet become applicable for the type of vehicle. Where such standard is not available, the direct CO <sub>2</sub> emissions of the vehicles are zero.	Use of proceeds for hybrid buses (EUR 11.125 million) fit as a transitional activity as referred to in Article 10 of Regulation 2020/852 and are aligned with the technical screening criteria. Comunidad de Madrid has provided type approvals and technical specifications of the buses showing compliance with EURO VI standard.
N.A.	Emissions avoided with this LoP have been calculated by Comunidad de Madrid as 137,885 tCO <sub>2</sub> for Metro, and 6,200 tCO <sub>2</sub> for buses (EMT).

Table 3: Compliance with the minimum social safeguards

Minimum social safeguards	Project EU Taxonomy Alignment – Comunidad de Madrid
As per article 18 of Regulation (EU) 2020/852: The minimum safeguards referred to in point (c) of Article 3 shall be procedures implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guiding Principles on Business Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organization on Fundamental Principles and Rights at Work and the International Bill of Human Rights.	CSR Policy and Code of Conduct is in place for both Metro and EMT, aligned with the principles and rights set in the UN Guiding Principles on Business and Human Rights and the principles and rights set out in the fundamental conventions identified in the Declaration of the International Labour Organization on Fundamental Principles and Rights at Work and the International Bill of Human Rights.
	As part of public administration, procurement is regulated by the Public Sector Contracts Act and subject to principles and requirements of responsible procurement, including compliance with ethical standards and respect for the human rights, integrity, transparency and protection of the environment.
	DNV has reviewed the information provided and concludes that Comunidad de Madrid complies with the minimum social safeguards in Article 18 of Regulation (EU) 2020/852.

Table 2: Compliance with the "Do no significant harm" ("DNSH") criteria.

DNSH Criteria	Project EU Taxonomy Alignment – Comunidad de Madrid
(2) Climate change adaptation The activity complies with the criteria set out in Appendix A to Annex 1 (EU) 2021/2139.	Following climate change vulnerability and risk analysis, Comunidad de Madrid issued Plan Azul + 2013-2020, a strategic program of measures for mitigation and adaptation to climate change, to be implemented in Comunidad de Madrid. Furthermore, a new strategy is under development that will set out the broad lines of action up to 2030 to make progress in terms of climate action (mitigation and adaptation) and improvement of air quality, in line with recent international and national guidelines and requirements.  The LoP in Metro and Buses is deemed not to interfere with the adaptation measures contained in Plan Azul, measures for water resources, other vulnerable systems and industries, indicators for climate change adaptation, reforestation.

	Increase of carbon sequestration in agricultural soils in the region. DNV considers this is in line with the criteria established for Climate Change Adaptation in Commission Delegated Regulation (EU) 2021/2139, Annex 1, 6.3 Urban and suburban transport, road passenger transport.
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(3) Sustainable use and protection of water and marine resources N.A.	Not applicable as per Commission Delegated Regulation (EU) 2021/2139, Annex 1, 6.3 Urban and suburban transport, road passenger transport.  However, Metro has provided evidence of extensive water use and management plans for each underground station showing plans and measures to mitigate effects on water resources.
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(4) Transition to a circular economy Measures are in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein).	Metro de Madrid and EMT operate under an Environmental Management System certified according to ISO 14001. Responding to a new organizational model in Metro, actions and initiatives are implemented based on integral sustainability, using and consuming stocks and flows of resources (water and energy), materials and waste. Among other initiatives, more than 95% of the waste generated, including batteries and electronic products, through improved waste segregation and management.
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	A strategic plan in place in EMT for circular economy includes projects like the design and construction of a Hydrogen Fueling Station and purchasing of biogas for the supply of CH <sub>4</sub> .  DNV considers this is in line with the criteria established for circular economy in Commission Delegated Regulation (EU) 2021/2139, Annex 1, 6.3 Urban and suburban transport, road passenger transport.
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(5) Pollution prevention and control For road vehicles of categories M2, tyres comply with external rolling noise requirements in the highest populated class and with Rolling Resistance Coefficient (influencing the vehicle energy efficiency) in the two highest populated classes as set out in Regulation (EU) 2020/740 of the European Parliament and of the Council and as can be verified from the European Product Registry for Energy Labeling (EPREL). Where applicable, vehicles comply with the requirements of the most recent applicable stage of the Euro VI heavy duty emission type- approval set out in accordance with Regulation (EC) No 595/2009.	Comunidad de Madrid has provided type approvals and technical specification of the buses showing compliance with EURO VI standard and external noise requirements.  DNV considers this is in line with the criteria established for pollution and prevention control in Commission Delegated Regulation (EU) 2021/2139, Annex 1, 6.3 Urban and suburban transport, road passenger transport.
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(6) Protection and restoration of biodiversity and ecosystems N.A.	Not applicable as per Commission Delegated Regulation (EU) 2021/2139, Annex 1, 6.3 Urban and suburban transport, road passenger transport.
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“On the basis of the information provided by Comunidad de Madrid and the work undertaken, it is DNV's opinion that proceeds have been used on Clean Transport projects that are aligned with the criteria established in the EU Taxonomy for Sustainable Activities– ANNEX 1 to Regulation (EU) 2021/2139 Section 6.3 (i). for DNV GL Business Assurance España S.L.U.”



# Selected 2030 Targets for Energy, Climate, and Air Strategy (EECAM)

## 1.- METHODOLOGICAL BASES

To quantify the emissions avoided by the use of regular public passenger transport in relation to hybrid or electric buses and rail modes (metro and rail concessions), it is assumed that if these trips had not been made by public transport, they would have been made by using private vehicles.

In this way:

Emissions Avoided = Emissions generated by the private vehicle - Emissions generated by public transport

To calculate the emissions that would have been produced by the travel of passengers in private vehicles, the number of passenger-km(1) that have used public transport in electric or hybrid modes will be multiplied by an emission factor based on the circulating fleet of passenger cars in the Community of Madrid, according to data from the DGT for 2020 (latest available). To calculate the emissions generated by trips made by public transport users in electric or hybrid modes, the energy consumed in these trips is multiplied by the emission factors mentioned in section 5.

## 2.- YEAR OF CALCULATION: 2022

## 3.- SCOPE:

### Road modes:

- EMT of Madrid (hybrid and pure electric vehicles)
- Road concessions in the rest of the Community of Madrid (hybrid and pure electric vehicles)

### Railway modes:

- Metro de Madrid (Subway)
- Railway concessions (TFM, MLM, MLO, Parla Tramway)

## 4.- ACTIVITY DATA

### Road modes:

- Vehicle characteristics (Euro standard, fuel type)
- Fuel/electrical energy consumption of vehicle fleets or, alternatively, kilometers traveled per year

### Railway modes:

- Electricity consumption

## 5.- EMISSION FACTORS

CO2 emission factors for fossil fuels published by the Spanish Office of Climate Change (OECC), year 2022

- Diesel fuel B7: 2.519 gr CO2eq/liter
- CNG: 2.783 gr CO2eq/kg

Electricity emission factors year 2022. (Published by the CNMC):

- marketer without REC 2022: 273 gr CO2eq/kWh
- marketer with REC: 0 gr CO2eq/kWh

Average private vehicle emissions: Prepared by the authors based on the number of cars in circulation in the Community of Madrid, according to Dirección General de Trafico data for 2020 (latest available).

- Average private vehicle (occupancy 1.2 passengers): 146 g CO2eq/km

(1) *Travelers-km = No. of trips x Average trip length*

