ZAGREB AIRPORT

CARBON FOOTPRINT MANUAL 2025

FRANJO TUĐMAN AIRPORT ZAGREB

airport carbon accredited LEVEL 4

LEED SILVER

ISO 9001 - ISO 14001
BUREAU VERITAS Certification

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	V0	10/06/2025	Original document	-	G. Abramović L. Kobelščak

DISTRIBUTION LIST	Vidi CC-IMS-FO-001 / See CC-IMS-FO-001
PURPOSE OF THE DOCUMENT	Planning the implementation of the best practices that will result in Scope 1 and 2 carbon emissions reductions according to Airport Carbon Accreditation Level 4 Transformation requirements.
SCOPE OF APPLICATION	International Zagreb Airport Jsc.

REFERENCE(S)		
	Manuals	➢ Airport Carbon Accreditation Application Manual Issue 14, December 2023
		➢ Airport Air Quality Manual, ICAO Doc 9889
		➢ CC-IMS-MAN-15-0 Stakeholder Partnership Plan
	Procedures	➢ Internal Audit Management Procedure
	Forms	➢ Audit Plan.
	Records	➢ ACI Europe Resolution – European airports committing to net zero carbon emissions by 2050
		➢ MZLZ ACI ACA ACERT Calculation table
		➢ Sustainability report 2024
		➢ Policy commitment to absolute emission reduction.

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1. Definition

TERM	DESCRIPTION
Aircraft Main engine	Main engines of aircraft within a specified operating perimeter (from start-up to shutdown).
Auxiliary Power Unit (APU)	A self-contained power unit on an aircraft providing electrical/pneumatic power to aircraft systems during ground operations.
Ground Support Equipment (GSE)	GSE necessary to handle the aircraft during the turnaround at the stand: ground power units, air climate units, aircraft tugs, conveyer belts, passenger stairs, forklifts, tractors, cargo loaders, etc.
Airside traffic	Service vehicle and machinery traffic (sweepers, trucks (catering, fuel, sewage) cars, vans, buses, etc.) within the airport perimeter fence (usually restricted area) that circulate on service roads.
Aircraft refueling	Evaporation through aircraft fuel tanks (vents) and from fuel trucks or pipeline systems during fueling operations.
Aircraft de-icing	Application of de-icing and anti-icing substances to aircraft during winter operations.
Power/heat generating plant	Facilities that produce energy for the airport's infrastructure: boiler house, heating/cooling plants, co-generators.
Emergency power generator	Diesel generators for emergency operations (e.g. for buildings or for runway lights).
Aircraft maintenance	All activities and facilities for the maintenance of aircraft, i.e. washing, cleaning, paint shop, engine test beds.
Airport maintenance	All activities for the maintenance of airport facilities (cleaning agents, building maintenance, repairs, Greenland maintenance) and machinery (vehicle maintenance, paint shop).
(GHG) Emissions	The amount of a substance that is produced and sent out into the air, in this document mostly refers to greenhouse gases such as carbon dioxide and its equivalents.
Fuel	Storage, distribution and handling of fuel in fuel farms and vehicle fuel stations.
Construction activities	All construction activities associated with airport operation and development.
Fire training	Activities for fire training with different types of fuel (kerosene, butane, propane, wood).
Surface de-icing	Emissions of de-icing and anti-icing substance applied to aircraft moving areas and service and access roads.
Vehicle traffic	Motor bikes, cars, vans, trucks, buses and motor coaches associated with the airport on access roads, curb sides, drive-ups, and on-or off-site parking lots (including engine turn-off, start up and fuel tank evaporative emissions).
Aircraft main engines	Generally classified as turbojet, turboprop and piston engines
Time in mode (TIM)	The time period, usually measured in minutes, that the aircraft engines spend at an identified power setting, typically pertaining to one of the LTO operating modes of the operational flight cycle.
LTO cycle	ICAO has defined a specific reference LTO cycle below a height of 915 m (3000 ft).
IMS	Integrated Management System integrates all organization's systems and processes into one framework.

TMA Efficiency	Terminal Control Area – a control area normally established at the confluence of ATS routes in the vicinity of one aerodrome.
HVAC	Heating, ventilation and air conditioning system.
HROTE	Croatian Energy Market Operator Ltd.
MZLZ	International Zagreb Airport Jsc.

2. Introduction

Međunarodna zračna luka Zagreb d.d. (eng. International Zagreb Airport Jsc.; hereinafter "MZLZ"), the Franjo Tuđman Airport Operator, recognizes that its activities, services and operations have a material environmental impact and therefore is committed to continuously improve its operations by implementing an Environmental Management System and its performance by focusing on a carbon management strategy including engagement with stakeholders.

This document is a part of application for ACI's ACA Level 4 certification for the latest full calendar year 2024, as an upgrade from the current Level 3 - Optimisation. Hereby, MZLZ lists and describes its obligations for the application:

1. **Policy commitment to absolute emissions reduction**
2. **Carbon footprint that includes additional (to Level 3) Scope 3 emissions**
3. **Formulation of an absolute carbon emission reduction target.** The target shall be defined for the long-term, with an interim target year, and expressed in absolute terms only. The target amount and date shall be aligned to the IPCC 2 °C pathway.
4. **Development of a Carbon Management Plan (CMP) to achieve the target.** The airport shall define its trajectory to achieve its carbon emissions reduction target and the actions it expects to implement to remain on that trajectory.
5. **Development of a Stakeholder Partnership Plan (SPP).** The SPP shall demonstrate that the airport actively drives third parties at the airport towards delivering emission reductions themselves, either through their own reduction plans or through measures initiated by the airport operator.

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3. General Information about the airport

MZLZ is the main international airport of Croatia and the base of the Croatian Air Force. Located 10 km South of Zagreb, in 2024:

- 4,316,619 passengers
- MTOW: 1,330,257
- Number of flights: 49,955
- Cargo: 13,025 tonnes

Airlines operating during 2024/2025 are:

Aegean Airlines, Air France, Air Serbia, Austrian Airlines British Airways, Croatia Airlines, Iberia, Eurowings, FlyDubai, KLM, LOT Polish Airlines,
Lufthansa, Pegasus Airlines, Qatar Airways, Ryanair,
Trade Air, Turkish Airlines, T'way Air, Air Transat, Norwegian Air Sweden

It is the hub for the Croatian flag carrier Croatia Airlines.

In order to facilitate a substantive upgrade of the airport facilities at MZLZ, the Croatian Government initiated a new passenger terminal facility development project, for which a tender procedure, based on a Public Private Partnership, was implemented in February 2011.

1962 – Zagreb airport opens at Pleso with a 2,500 m long runway, with 1,000 m^2 terminal and a 5,000 m^2 apron.
1966 – Zagreb Airport gets a modern 5,000 m^2 passenger terminal
1974 – The runway was extended to its current 3,252 m and the terminal expanded to 12,000 m^2.
2004 – The airport installed a CAT-IIIb instrument landing system (ILS).
2008 – A VIP Terminal was added with extra amenities, restaurants and bars. The terminal was expanded to 15,500 m^2.
2010 – A 3rd Floor Viewing platform and a bar were added in the Terminal.
2013 – The Terminal was expanded to 22,500 m^2 to an increased capacity of 3.5 million passengers.
2017 - 21st March 2017 – official opening of the New Passenger Terminal.
28th March 2017 – New Passenger Terminal started with operation

FACTS & FIGURES:

5,000,000 Capacity of the passenger terminal
65,000 m^2 Passenger Terminal
2,000 m^2 Commercial area
1,685 Parking spaces
8 Passenger boarding bridges
30 Check-in counters
18 Passport control counters
4 km Baggage belts – modern automatic baggage handling system
9 Restaurants and bars
11 Shops

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MZLZ as a concessionaire of Zagreb's Franjo Tuđman Airport, took over the management and project of building a new terminal in December 2013 under a 30-year public-private partnership concession agreement with the Republic of Croatia. MZLZ is a company registered in Croatia whose sole shareholder is ZAIC A LIMITED, a company formed as a special purpose vehicle. As of November 2024, ZAIC-A LIMITED has five shareholders (until November 2024 there was 6 shareholders) bringing international expertise in the airport development, operation, construction, project management, and structured finance.

The handover of the airport between the previous Operator, Zračna Luka Zagreb (ZLZ) and the new Concessionaire, MZLZ, occurred on 5th December 2013.

Like its shareholders, MZLZ is fully committed to safety, security, customers' satisfaction and carbon footprint optimization as part of the sustainable development.

The airport industry's commitment to addressing carbon and climate issues remains an absolute priority. Airport Carbon Accreditation remains the only voluntary global carbon management standard for airports.

Certificate issued in year 16 (July 2023 - July 2024) the expiry date was extended by one year.
In 2021 MZLZ upgraded from Level 2 up to Level 3.
In 2025 MZLZ upgraded from Level 3 up to Level 4.

It has been 12 years since MZLZ became accredited to Airport Council International's (ACI) Airport Carbon Accreditation (ACA).

4. The International Zagreb Airport Inventory Boundary

Inventory Boundary is constituted of organizational and operational boundaries. These boundaries are required to properly account for and report on emissions.

4.1 International Zagreb Airport Organizational Boundary

MZLZ is a concessionaire of Zagreb – Franjo Tuđman Airport. The concession includes: financing, the design and construction of the new airport. Operating the entire airport for close to 30 years, including the runway, passenger terminal, cargo terminal, parking lots and future property developments.

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Organizational Boundary:

International Zagreb Airport Jsc.: Management Board, Human Resources, Legal, Finance, Integrated Management System, Sustainable Development and Risk Management, IT, Infrastructure Development, Operator, Marketing and Commercial activities, Routes Development, Airport Operations, Maintenance, Safety, Security, Compliance, Corporative and Internal Communications, Procurement

The stakeholders that operate their processes on-location, tenants and various services providers such as retail, passenger- and cargo-handling, catering, advertising, transport and such are stated in the Stakeholder Partnership Plan (SPP) where their impact and MZLZ's influence is evaluated. Where MZLZ has operational control over a source of emissions, it accounted for 100 % of these emissions in accordance with the ACI ACA Application Manual.

MZLZ Airport Operator Ltd. and MZLZ are the same company, by the Decision of the Commercial Court in Zagreb, from June 30th, 2022, the merger process of the Company MZLZ - Zagreb Airport Operator Ltd. with the company International Airport Zagreb Jsc.

MZLZ Ground Handling Services Ltd was the service provider at Zagreb – Franjo Tuđman Airport for airlines, passengers, group companies and representatives/agents of the airlines. Havas Ground Handling Co. acquires the shares of MZLZ Ground Handling Services Ltd on February 10th, 2022, and the Company name is changed to HAVAS – Ground Handling Services LLC. HAVAS provides Ground handling, Cargo and General Aviation services. Considering that HAVAS has operational control over its mobile assets, emissions from their fuel consumption are stated under Scope 3. Since the same methodology was to be applied on emissions calculation from 2021 through 2024, and for traceability purposes HAVAS's mobile source fuel consumption was considered under Scope 3 for the entire period.

On 25th September 2019. MZLZ Airport Operator Ltd. and MZLZ concluded with Resalta d.o.o. Operation and maintenance contract for heat energy production concession (boiler room).

Main on-location independent service providers, according to estimations in the SPP, are HAVAS – Ground Handling Services (passenger, baggage and cargo-handling, aircraft services, flight operations, general aviation services), BTA (catering), SDA (retail), RESALTA (energy management and maintenance) and IAAC (advertising). Aircraft fueling service is provided by the independent company INA. Therefore, available stakeholder data was incorporated in Scope 3 emissions where applicable (e.g. GSE fuel consumption and de-icing, financial expense for advertising services, aircraft fuel-consumption for full-flight, all-around waste production and management etc.).

4.2 International Zagreb Airport Operational Boundary

Operational boundary defines Scope of direct and indirect emissions for operations based on company's established organizational boundary.

Sources of emissions (activities/facilities) are categorized as Scope 1, 2 or 3:

Scope 1: Direct GHG emissions that occur from sources that are owned and/or controlled by the airport, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.

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Scope 2: Indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling consumed by the airport. Scope 2 emissions physically occur at the facility where purchased electricity is generated.

Scope 3: All other indirect emissions, which are a consequence of the activities of the airport but occur from sources not owned and/or controlled by the company (e.g., aircraft movements, etc.). Such sources can be located within or outside the airport premises (geographical boundary).

The airport facilities include:

- 1 runway (length 3,252 m, width 45 m)
- 3 aircraft aprons:
    - 1 new (east) apron dedicated to the Commercial aviation aircraft (49,000 m^2 with 8 contact and 3 remote parking stands)
    - 1 (west) apron dedicated to the Commercial Aviation aircraft (83,000 m^2 with 13 remote parking stands)
    - 1 apron dedicated to General Aviation aircraft (28,000 m^2 with 20 parking positions)
- 1 passenger terminal (65,000 m^2)
- 1 cargo terminal (2,100 m^2)

According to the GHG Protocol the operational boundary was defined after a discussion with relevant department representatives.

MZLZ is responsible for energy management at the airport, however, since tenant share of electricity use is being tracked, electricity is stated under Scope 2 (Airport Operator) and Scope 3 (tenants) based on the **market approach**, whereas the heating energy is fully under Scope 1 since it is produced on-site and MZLZ has high influence on the energy management practices that are run by company RESALTA on an operational level. MZLZ owns an on-location solar-power plant (which is to be expanded in the future period), therefore renewable production is also stated in section 2.3 of the ACERT table provided.

Emergency generators, refrigerant topping up and land-surface de-icing are also in control of MZLZ and is therefore stated under Scope 1, whereas aircraft de-icing is done by HAVAS, so it was accounted for under Scope 3.

Available information on purchased goods and commodities, on-site construction activities, maintenance services, financial and legal services, capital goods, fuel-and energy-related activities, business travel, staff commuting, full-flight cycle, public landside access (tenants and passengers only; cargo n/a) is stated under Scope 3 considering that these activities are not under operational control of the Airport Operator. Solid waste and wastewater processing is managed remotely at local private and municipal waste facilities; therefore, separate waste streams are also stated under Scope 3.

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	CONTROL Facilities, services, activities and equipment for which the airport company has ownership/control.	GUIDE Facilities, services, activities, and equipment owned / controlled by subcontractors, close partners and suppliers for which the airport company can provide guidance.	INFLUENCE Facilities, services, activities and equipment owned/controlled by loose partners, tenants, customers, government agencies, etc. which the airport company can only influence.	INTERNAL Department or third party with responsibility for emission source	CHANGES
Scope 1 Direct Emissions					
Mobile Sources	GSE & company cars			International Zagreb Airport Jsc. Airside operations Department, Electronics Maintenance Department, De-icing and Snow Removal Department, RFFS - Fire Department, Construction Maintenance Department, Biological protection, Electro-energetic maintenance, Airport Activities Coordinators, - Motor cars of International Zagreb Airport Jsc.	MZLZ Ground Handling Services Ltd Outsourced by HAVAS from 10.02.2022. MZLZ Airport Operator Ltd.: it merged with International Zagreb Airport Jsc. 30.6.2022.
Stationary sources	Boilers			Resalta Jsc.	Outsourced since 25.9. 2019.
	Emergency generators			International Zagreb Airport Jsc. Electric power maintenance department	N/A
	Firefighting exercises			International Zagreb Airport Jsc. RFFS - Fire Department	N/A
Process emissions	Refrigerant leakage			International Zagreb Airport Jsc. Thermomechanical maintenance section	N/A

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	De-icing (land surface)			International Zagreb Airport Jsc. Maintenance, de-snowing and de-icing department	N/A
Scope 2 Indirect emissions					
Purchased energy		Purchased electricity		Distribution: HEP ODS Supply: HEP - Opskrba d.o.o. International Zagreb Airport Jsc. Maintenance division	Guarantees of Origin (GOs) since 2022
Additional Information on Energy (not relevant for Scope 1+2 inventory, but for Scope 3)					
Self-produced Electricity On-site	Renewable production (Solar)			International Zagreb Airport Jsc. Maintenance methods department	Operational since 2024
Scope 3 Upstream and downstream Indirect Emissions					
Purchased goods and Services	Goods and commodities Machinery related procured services On-site construction activities Financial, legal and similar services			International Zagreb Airport Jsc. Commercial affairs and marketing division Strategic marketing department Procurement department Maintenance division	Newly added for LVL4
Capital goods	Vehicles Installations			International Zagreb Airport Jsc. Procurement department	Newly added for LVL4
Fuel-and energy-related activities			Well-to-tank Well-to-grid	Various energy suppliers INA d.d. HEP ODS	Newly added for LVL4

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	CONTROL Facilities, services, activities and equipment for which the airport company has ownership/control.	GUIDE Facilities, services, activities, and equipment owned / controlled by subcontractors, close partners and suppliers for which the airport company can provide guidance.	INFLUENCE Facilities, services, activities and equipment owned/controlled by loose partners, tenants, customers, government agencies, etc. which the airport company can only influence.	INTERNAL Department or third party with responsibility for emission source	CHANGES
			Transmission and distribution losses	HEP - Opskrba d.o.o.	
Waste generated in airport activities		Solid waste treatment Wastewater treatment		BTA d.o.o. Private and municipal waste facilities International Zagreb Airport Jsc. Construction Maintenance De-snowing and De-icing Department	Newly added for LVL4
Staff Business travel	Road travel Air travel			International Zagreb Airport Jsc. Accounting department Invoicing department	ICAO calculator
Staff commuting		Road travel (surface access)		Staff travel in own vehicles, public transport and other. International Zagreb Airport Jsc. Human Resources Division	N/A
Use of sold products			Full flight (incl. APU and MRO)	Airlines INA d.d. Croatia Control Ltd.	Fuel usage instead of Envirosuite
			Public Landside access	International Zagreb Airport Jsc. Strategic marketing department	N/A
		De-icing of aircrafts		HAVAS – Ground Handling Services Llc.	MZLZ Ground Handling Services Ltd Outsourced by HAVAS since 10.02.2022.
		3rd party vehicles/ground support equipment		HAVAS – Ground Handling Services Llc.	MZLZ Ground Handling Services Ltd

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	CONTROL Facilities, services, activities and equipment for which the airport company has ownership/control.	GUIDE Facilities, services, activities, and equipment owned / controlled by subcontractors, close partners and suppliers for which the airport company can provide guidance.	INFLUENCE Facilities, services, activities and equipment owned/controlled by loose partners, tenants, customers, government agencies, etc. which the airport company can only influence.	INTERNAL Department or third party with responsibility for emission source	CHANGES
					Outsourced by HAVAS since 10.02.2022.
Downstream leased assets	Purchased electricity (tenant share)			International Zagreb Airport Jsc. Maintenance methods department	N/A
Franchises	The Airport Operator does not have franchises, only tenants on location.				
Investments	GHG Category 15 is not relevant to airport operations.				

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5. Carbon Footprint Report

5.1 Details on the responsibilities regarding the carbon footprint process

The Board of Directors is responsible for climate change matters and related decisions.
This field of activity is fully included in MZLZ's Integrated Management System.
The IMS includes:

- ISO 9001, ISO 14001, ISO 10002
- Airport Carbon Accreditation Program of ACI

The Scope of IMS is management and operation of MZLZ.

The Director of the Integrated management system, sustainable development and risk management department, as the Management Representative, reports to the Board and accompanies the company's employees in the implementation of the System and more particularly of the Carbon Emission Reduction project.

The Maintenance Director oversees the energy management activities (power supply, electricity production, lighting and monitoring).

The Head of development department is in charge for development of airport infrastructure and green projects.

The Director of procurement manages relationships with suppliers.

The Director of Integrated Management System, sustainable development and risk management department oversees Carbon Emission Reduction project activities and training the companies' staff.

The Executive director manages impacts on own workforce and related risks and opportunities.

All documentation needed is accessible on the Intranet and MZLZ's web site.

MZLZ has established an Integrated Management System (IMS) that complies with the standard requirements of ISO 9001:2015, ISO 14001:2015 and ISO 10002:2018. Integrated Management System includes systematic processes to minimize, manage, and monitor environmental impacts and risks that arise during operations.

In addition to existing IMS MZLZ will also continue to monitor carbon emissions internally and will hold yearly meetings on how to reduce its emissions. Monitoring and reductions of emissions in Scope 3 will also include tenders and will be in line with the Stakeholder Partnership Plan.

MZLZ holds yearly Environmental protection committee meetings that include Croatian Air Navigation Services (Croatia Control), Ministries, Croatian Civil Aviation Agency, Representatives of the local community, fuel delivery suppliers and airline representatives with the aim to discuss improvements in regard to environmental protection.

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5.2 Procedure for the collection, documentation and processing emissions data

Source	Company / Department	Source of emission data	Collected by:
Boilers	Resalta Jsc.	External certified company – report on stationary gases	Integrated management system, sustainable development and risk management department
Emergency generators	International Zagreb Airport Jsc. Electric power maintenance department	Report on - side measurement	
Firefighting exercise[1]	International Zagreb Airport Jsc. RFFS - Fire Department	Report on quantities	
GSE & company cars	International Zagreb Airport Jsc. Airside operations Department, Electronics Maintenance Department, De-icing and Snow Removal Department, RFFS - Fire Department, Construction Maintenance Department, Biological protection, Electro-energetic maintenance, Airport Activities Coordinators, -Motor cars of International Zagreb Airport Jsc.	Report on fuel quantities, SAP, invoices	
Refrigerant leakage	International Zagreb Airport Jsc. Thermomechanical maintenance section	Register of used quantities of controlled substances and fluorinated greenhouse gases	
De-icing (land surface)	International Zagreb Airport Jsc. Maintenance, de-snowing and de-icing department	Records in warehouse documents (delivery note - receipt - issue note)	
Electricity purchases	International Zagreb Airport Jsc. Maintenance methods department	Monthly maintenance report, SAP, invoices	
Self-produced Electricity On-site (Renewable production (100 % Solar))	International Zagreb Airport Jsc. Maintenance methods department	Photovoltaic power plant application	
Purchased goods and Services	International Zagreb Airport Jsc. Commercial affairs and marketing division Strategic marketing department Procurement department Maintenance division	CAPEX commercial and marketing OPEX maintenance CAPEX works and equipment Financial summaries from procurement on material goods and services (sanitary paper, uniforms, office paper,	

[1] Small quantities of flammable liquids were used which are disposed of after use in accordance with the Work Instructions on Cleaning and Storage of Flammable Liquids and Oils - Work Instructions of the Rescue and Fire Service (SVS) so the category was deemed as non-material (circa 15 L of diesel fuel annualy meaning 0.04 tCO_2e). The Aiport Operator does not use fire extinguishers.

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Source	Company / Department	Source of emission data	Collected by:
		supplies, financial, legal and marketing services)	
Capital goods	International Zagreb Airport Jsc. Procurement department	Records of financial lease of equipment	
Fuel-and energy-related activities	N/A (automatic input in ACERT table from Scope 1 and 2 sources) Various energy suppliers INA d.d. HEP ODS HEP - Opskrba d.o.o.	N/A (automatic input in ACERT table from Scope 1 and 2 sources)	
Waste generated in airport activities	BTA d.o.o. Private and municipal waste facilities International Zagreb Airport Jsc. Construction Maintenance De-snowing and De-icing Department	IMS waste stream tracking	
Staff Business travel	International Zagreb Airport Jsc. Accounting department Invoicing department	Travel orders	
Staff commuting	International Zagreb Airport Jsc. Human Resources Division Strategic Marketing Department	Employee poll (ZAG anketa – Dnevna migracija zaposlenika 2021.)	
Full flight (incl. APU and MRO)	Airlines INA d.d. Croatia Control Ltd. (ATC)	Fuel usage reports	
Public Landside access	International Zagreb Airport Jsc. Strategic Marketing Department	Passengers poll (ZAG anketa – Parkiralište za putnike i posjetitelje 2021)	
De-icing of aircrafts	HAVAS – Ground Handling Services Llc.	N/A	
3rd party GSE	HAVAS – Ground Handling Services Llc.	Table	
Tenant/Partner: Electricity	International Zagreb Airport Jsc. Maintenance methods department	Monthly maintenance report, SAP, invoices	

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5.3 2024 Emissions summary

Direct and indirect emissions have been calculated in accordance with the instructions of the ACI Airport Carbon Accreditation Application Manual, Issue 14. The calculation module Airport Carbon and Emissions Reporting Tool (ACERT version 7.2338), developed by ACI, was applied for emissions reporting. Where the calculation was based on primary input data for respective sources' consumption default emission factors were used. Only in cases where default factors were not available, other voluntary factors were used with respect for acknowledged emission source databases (e.g. Climatiq, DEFRA, AIB, Croatian National emission factors database developed by the competent authority etc.) and in a few exceptional cases relevant available scientific literature.

Detailed information on the emissions sources is given in the table below for Y2024, whereas detailed consumption and emission calculation results are shown in ACERT tables.

Scope	Group	Source	Fuel/energy type [unit]	EF source	tCO_2e
Scope 1	Mobile sources	GSE & company cars	Gasoline [L]	ACERT (ver. 7.2338)	194.7
			Diesel [L]	ACERT (ver. 7.2338)	
	Stationary sources	Boilers	Natural gas [m^3]	ACERT (ver. 7.2338)	1,991.9
			Fuel oil [L]	ACERT (ver. 7.2338)	
		Emergency generators	Diesel oil [L]	ACERT (ver. 7.2338)	1.9
	Process emissions	Refrigerant leakage	HFC-134a [kg]	ACERT (ver. 7.2338)	78.0
		De-icing (land-surface)	(Potassium) Formate [kg]	ACERT (ver. 7.2338)	90.1
Scope 2	Purchased energy (market-based)	Electricity purchases (directly from external supplier)	Electricity [kWh]	Guarantee of origin	0
	Self-produced Electricity On-site	Renewable production (100 % Solar)	Electricity [kWh]	-	-
Scope 3	Purchased goods and Services	Goods and commodities	Electrical items [t]	ACERT (ver. 7.2338)	372.4
			Water (potable) [€]	ACERT (ver. 7.2338)	
			Office paper [€]	Climatiq	
			Other office supplies [€]	Climatiq	
			Work uniforms [€]	Climatiq	
			Toilet paper [€]	Climatiq	
			Sodium chloride [kg]	CarbonCloud	
		Machinery related procured services	Winter maintenance [km]	DOI:10.3390/su142315635	
		On-site construction activities	Road/places and Apron/runway surface built	ACERT (ver. 7.2338)	
		Financial, legal and similar services	Financial and legal [€]	Climatiq	
			Market research [€]	Climatiq	
			Advertising [€]	Climatiq	
	Capital goods	Vehicles [EF adjusted with amortization per vehicle]		ACERT (ver. 7.2338)	106.0
		Installations [€]		Climatiq	
	Fuel-and energy-related activities	Well-to-tank	Diesel [L], Gasoline [L], Natural gas [kWh], PVS [kWh]	ACERT (ver. 7.2338)	1,264.6

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		Well-to-grid	Electricity [kWh]	General average WTG factor for a renewable grid mix	
		Transmission and distribution losses	Electricity [kWh]	Carbon Footprint Ltd Carbon Footprint Ltd Greengouse Gas Emissions Factors 2024	
	Waste generated in airport activities	Solid waste treatment	Industrial waste incineration, organic waste composting, landfill [t]	National database	1,303.0
		Wastewater treatment	Waste Water [m^3]	ACERT (ver. 7.2338)	
	Business travel	Road travel	Distance travelled [km]	ACERT (ver. 7.2338)	7.9
		Air travel	Various parameters	ICAO Carbon Calculator	
	Staff commuting	Road travel (surface access)	Employee poll – various data	ACERT (ver. 7.2338)	233.9
	Use of sold products	Full flight (incl. APU and MRO)	AvGas and Jet-A1 fuel [m^3]	ACERT (ver. 7.2338)	245,009.6
		Third party vehicles/ GSE (HAVAS)	Diesel [L]	ACERT (ver. 7.2338)	930.6
		De-icing of aircrafts (HAVAS)	Propylene glycol (50% and 80%) [L]	ACERT (ver. 7.2338)	147.8
		Public landside access	Passenger toll - various data	ACERT (ver. 7.2338)	24,160.5
	Downstream leased assets	Purchased electricity (tenant share)	Electricity (kWh)	Guarantee of origin	0
			Electricity (kWh, market-based)	AIB Residual mix	200.7

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6. Carbon management programs – Short-term Action Plan

MZLZ has developed a Carbon Management Plan with the purpose of demonstrating meaningful efforts by the Airport Operator to reduce its emissions in line with the set target and policy statement. The short-term Plan covers Scope 1 and 2 emissions as they have been defined in the carbon footprint. This Plan will be updated at least every three years.

Action Plan (2024– 2026)							
No	Type	Action	Location	In charge	Resources	Status	Annual CO_2 reduction (tonnes)
INTERNAL EMISSIONS							
HEAT ENERGY, WATER, GAS, OIL CONSUMPTION REDUCTION							
1	Energy Saving	Reconstruction of hotwater pilpeline	Landside	Maintenance Division	Capex 2026 150 kEUR	On-going	9
2	Energy Saving	Enhanced maintenance and modifications of HS Technical base (secondary system only) – works (phase 2/2)	Landside	Maintenance Division	Capex 2024 65 kEUR	Done	12
3	Energy Saving	Fancoil replacement in Administration building (2 phases)	Landside	Maintenance Division	Capex 2026 170 kEUR	On-going	2
4	Energy Saving	Replacement of vertical signage on maneuvering area (MILMOB)	Airside	Maintenance Division	Capex 2025 1.200 kEUR	On-going	3
5	Energy Saving	Solar plant on Technical base, 250 kW	Landside	Maintenance Division	Capex 2024 300 kEUR	Done	53
6	Energy Saving	Switching halogen lights to LED on East Apron	Airside	Maintenance Division	Capex 2024 150 kEUR	Done	29
7	Energy Saving	Switching halogen lights to LED on West Apron	Airside	Maintenance Division	Capex 2026 180 kEUR	On-going	47
8	Energy Saving	AGL – switch from halogen to LED, 99 lamps, stop bar and segment of CL on TWY F	Airside	Maintenance Division	Capex 2026 325 kEUR	On-going	1,4
9	Energy Saving	Installation of UPSs (Uninterruptible power supply) in Trafostations TS-3 and TS-4	Airside/ Landside	Maintenance Division	Capex 2024	Done	23
10	Energy Saving	Enhanced maintenance and modifications of HS Cargo -regulation over outside temperature refurbishing	Landside	Maintenance Division	Capex 2024	Done	12

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11	Energy Saving	Fan-coil replacement in Adm. Building,	Landside	Maintenance Division	Capex 2026 170 kEUR	On-going	2
MODERNISATION OF GSE & COMPANY CARS							
12	Energy Saving	Vehicle replacement	Airside/ Landside	Procurement department	Capex 2025 1 vehicle Capex 2026 2 vehicles, 1 new fire truck	On-going	N/A
CONTROL OF ELECTRICITY, WATER, GAS, OIL CONSUMPTION							
13	Energy Saving	Improvement of HVAC energy management through optimization works and control of production and distribution of heat energy in boiler rooms (OPT & NPT), OPEX	Landside	Maintenance	Regular monitoring and control of the system	finished	N/A lack of data
14	Energy Saving	Improvement of HVAC energy management of heating/cooling energy consumption through Utility saving plan presented to users	Landside/Airside	Maintenance	Regular PR campaigns	finished	N/A lack of data
15	Energy Saving	Heat meters installation in substations: TPII, CATERING, CARGO, TECHNICAL BASE	Landside/Airside	Maintenance	Regular monitoring and operation of the system	finished	N/A lack of data

7. Carbon Management Plan – Long-term Action Plan

7.1 Responsibility, resource allocation and organizational structure

MZLZ has defined the Director for IMS, sustainable development and risk management, as the coordinator between departments for regular meetups and data gathering, but also for the implementation and reporting of findings, measures and compliance with targets from the CMP. To define additional Scope 3 categories, three meetings were held with participants from multiple departments. Consultations were held with cross-airport department heads as the main providers of information, while several additional higher experts and senior associates from the stated departments were included in the carbon footprint mapping and data collection under the supervision and verification of department heads, and they are:

- Head of Maintenance Methods Department
- Commercial Director
- Head of Strategic Marketing Department
- Maintenance Division Director
- Head of Development Department
- Head of construction maintenance, de-snowing and de-icing Department
- Head of safety at work Department
- Procurement Director
- Executive director
- Commander of rescue and firefighting Department
- Director of Legal Affairs
- Director of airport operations Division
- Head of electric power maintenance Department
- Head of thermomechanical maintenance section
- Executive Director – CFO
- Senior Experts associates for IMS, sustainable development, RM
- Expert associate for IMS, sustainable development, RM
- Senior Expert associate for IMS, sustainable development

Main third-party ground handling service provider HAVAS representative:

- Operations Division Director

Main third-party energy management service provider RESALTA representative:

- MZLZ plant manager

7.2 Reporting Emissions Reduction Performance: Baseline year, target date and emissions trajectory

MZLZ has set a target to achieve at least **70.48 % reduction in CO_2 emissions in Scope 1 and 2 compared to baseline year by 2050**. For the purposes of the CMP and Level 4 certification, MZLZ must follow the absolute reduction target which is **in line with the IPCC 2 °C pathway**. According to estimations MZLZ might even achieve significantly higher emissions reduction than the minimum prescribed IPCC 2 °C pathway.

The pathway was chosen due to the planned re-opening of the old terminal (T1) and increasing expansion of the current terminal (T2) which will increase the heated surface of airport by 18,7 % and significantly increase the number of passengers and operations in the future period. Although relative emissions will decrease due to implemented measures, MZLZ's absolute emissions may not show the same trend because of the increase in operational surface.

The baseline year was set to 2018 as it is the first full operating year of at the time new, and now current terminal (T2). To achieve Level 4, airports are required to adopt targets in line with the Paris Agreement, which sets the objective of "holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C (...)". **The target year for MZLZ was set to 2050 with 2035 as an interim target year.**

For the year 2035 Scope 1 and 2 emissions are expected to be 4,370.08 tCO_2, which is **a reduction of 65.94 % from baseline year**. In that time there will be two expansions of the airport, in 2026 re-opening of the old terminal (T1) is expected, while in 2034 the current terminal (T2) expansion is expected. Since the first full operating year of the expansion of T2 is planned in 2034 MZLZ has decided to show emissions from the expansion separately using one single rolling average (method A) as recommended in ACA Application Manual (Issue 14). Therefore, the total expected emissions in 2035 from terminal and expansion will be 4,759.84 t of CO_2 for Scope 1 and 2, which means that total reduction (T1 and T2 + T2 expansion) of emissions from baseline year will be 62.91 %.

In the year 2050 expected Scope 1 and 2 emissions are 3,788.09 tCO_2, which is a reduction of 70.48 % from baseline year.

Stated trajectories resulted from GHG management initiatives and implementation plan developed and proposed in the next chapter.

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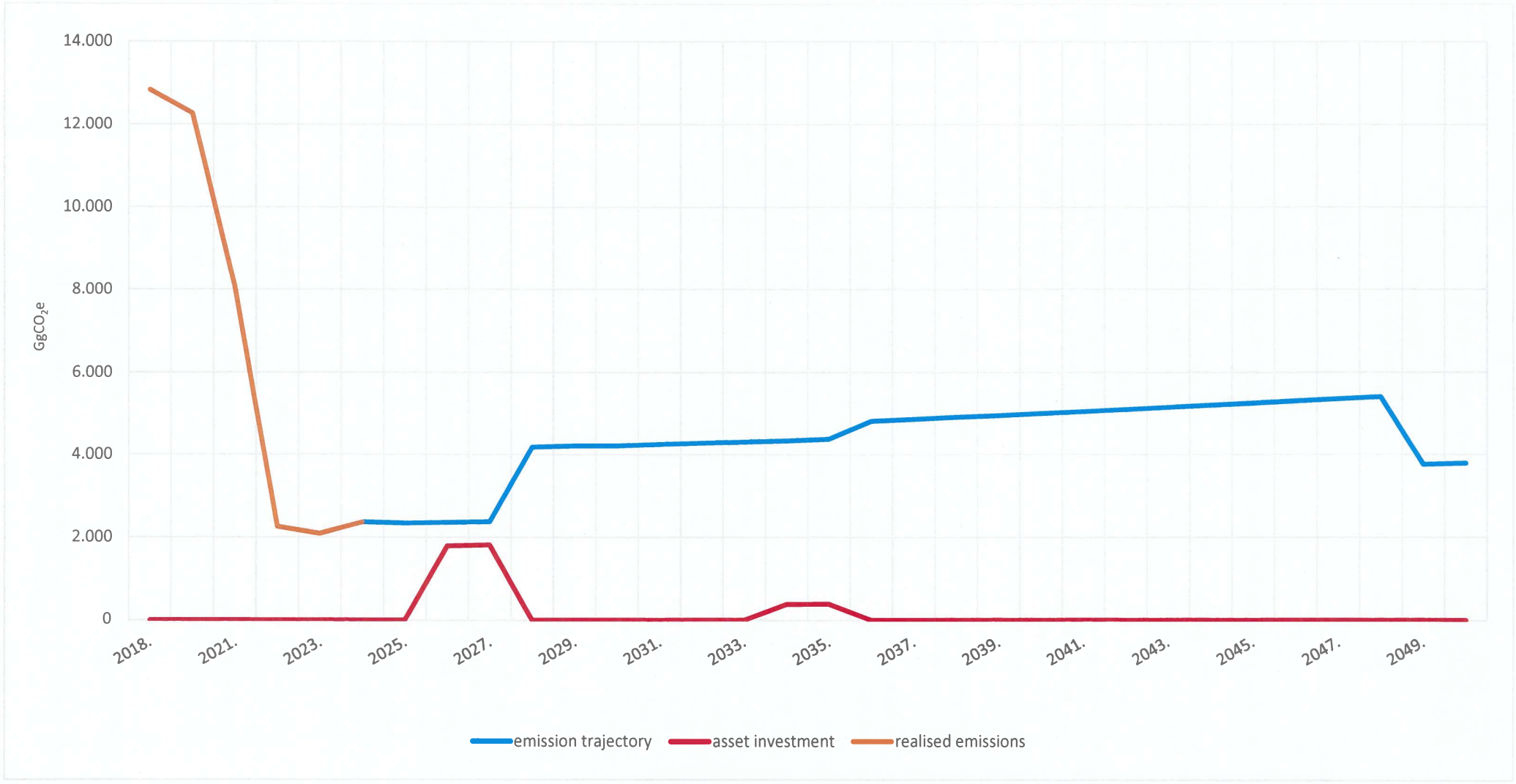

7.3 Adjustments for new assets or asset divestment

MZLZ has had one terminal (T1) for many years. For 2019 the calculation of the three-year rolling average for T1 has emissions data for 2018, 2017 and 2016. The same is true for the calculations for 2015, 2014 and 2013.

In March 2017 terminal 2 (T2) opened, while T1 remained open as well but was no longer used for passenger movement. Therefore, 2017 covers emissions from T1 and partially from T2. For 2017, when demonstrating improvements, MZLZ reports T1 emissions versus the three-year rolling average for T1 only (2016, 2015 and 2014). For 2018 again compares the emissions of T1 versus the average performance of T1 only (2017, 2016, 2015) because it has no full historical data for T2.

However, for its footprint in 2022, MZLZ includes the emissions associated with T1 and T2 as three full years of comparable data is available. To adjust for investment in new assets, MZLZ used Method A as following:

For 2019 compare the performance of T1 and T2 versus the performance of T1 and T2 in 2018 only, as there is only one year of historical data for the combined operation.

For 2021 compare the performance of T1 and T2 versus the average performance of T1 and T2 in 2018 and 2019, as there are two years of historical data for the combined operation.

Since 2022 the airport 's been comparing its performance of T1 and T2 versus the full three-year rolling average again.

Future investments shall follow the same methodology and are presumed for in Emissions Reduction Performance Reporting.

7.4 GHG management initiatives and implementation plan

In March 2017, the reception and dispatch of passengers was transferred from old terminal to the new terminal. First full year of its full operation was 2018. Since 2018, MZLZ has gone through a lot of changes and has actively worked on increasing energy efficiency and use of renewable energy sources. Energy efficiency measures included replacement of halogen lighting with LEDs and handling over the energy management to RESALTA in 2019, a company which specializes in creating energy efficiency and renewable energy projects. With that in mind, a small solar-powered plant was installed which is to be expanded in the future, started operating in 2025 to a capacity of 250 kW.

Additionally, since 2022, MZLZ was able to sign a three-year rolling contract with its electricity provider, thereby receiving GO's for renewably sourced electricity covering the airport's needs almost completely, thereby reducing its Scope 2 emissions to 0 and most of Scope 3 regarding tenant use under Category 13 Downstream leased assets. The contract was renewed in 2025, for the next three-year period.

Other measures included gradually leasing a higher share of electric vehicles and building appropriate infrastructure (such as electric vehicle charging stations).

All these measures resulted in a reduction of Scope 1 and 2 emissions in 2024 by 81.6 % from the baseline year. These reductions mainly arise from changes in the organizational boundary (Havas Ground Handling Co. acquired

the shares of MZLZ Ground Handling Services Ltd in 2022) and acquiring the ZelEn certificate (zero-emission electricity) since 2022.

However, considering plans for terminal expansions in the near future, the emissions are expected to rise on two occasions. Therefore, to achieve the goal of Net-Zero, and maximally reduce these emissions to the point where other technologies, measures and enhancements are no longer applicable, MZLZ has developed a plan for implementing GHG management initiatives that are compliant with the baseline year, target years and the trajectory. To produce strategic and actionable measures, members of departments from 8.1. were consulted and a list of measures for each emission source was analyzed to comprehend which technological, economic, implementation and educational requirements they entail. From there a few pathways were modeled and finally a viable strategy was chosen.

Implementation strategies

SCOPE 1

Heating system (boilers)

Description: Energy management for MZLZ is led on-location by a third-party company, RESALTA. Reduction in heating/cooling systems can be made by using more efficient and environmentally friendly technologies such as heat pumps paired with energy renovation of buildings to minimize energy loss. Both methods require high initial investments, especially since some of the buildings operated by MZLZ are over 40 years old. MZLZ plans to gradually invest in energy renovation of several buildings.

Targeted emission reduction: Study of energy renovation for five buildings operated by MZLZ made by Energy Institute Hrvoje Požar enabled calculations of reductions in energy consumption. The study showed that the estimated reduction of energy consumption would lead to a yearly reduction of at least 67.6 tCO_2 (0.5 % of baseline year total emissions) after a complete energy renovation (not all buildings are included). The reduction of CO_2 emission might be much higher if renovation includes other buildings which were not part of energy renovation study. According to the current mathematical model the emissions from these sources will rise until 2050 due to higher consumption, therefore this topic is to be scrutinized in the next couple of years in order to establish possibilities of transforming the technology currently used on MZLZ. Additionally, the operator will be obliged to recalculate reductions and re-assess targets to comply with IPCC's 1,5°C pathway so heat-related targets will be established accordingly.

Key stakeholders:

- RESALTA
- MZLZ – Maintenance division
- MZLZ – Procurement department

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Emergency generators

Description: Emergency generators are crucial for airport management in case of power outages. MZLZ is planning to replace three of the existing generators with more efficient ones by the year 2027, but the long-term plan is to replace all generators with hydrogen generators (or similar commercially available environmentally friendly technology) by the year 2050.

Targeted emission reduction: Replacement of the generators with the more efficient ones will reduce CO_2 emissions by reducing fuel consumption. It's not possible to calculate the CO_2 reduction by replacing generators because it is not possible to determine future usage of the generators, but it is estimated that the replacement will save around 125,000 kWh of energy over the generators' lifetime. Replacement of emergency generators by the year 2050 will reduce CO_2 emissions from base year value to 0.

The calculated reduction in 2050 compared to the baseline year will be around **2.91 tCO_2** (0.02 % reduction of Scope 1 and 2).

Key stakeholders:

- MZLZ – Electric power maintenance department
- MZLZ – Procurement department

GSE & company cars

Description: Ground support equipment is used for airport activities and aircraft maintenance while company cars are used for employee mobility. Currently there are in total 95 vehicles that are used (GSE & company cars). MZLZ is planning to replace 64.2 % of the vehicles while some vehicles will gradually stop being used.

Targeted emission reduction: Planned replacement of GSE and other vehicles with electric vehicles, vehicles powered by biofuel and more efficient vehicles will reduce fuel consumption, which will lead to relative CO_2 emission reduction of at least 44.58 % by the year 2050. The emission reduction was calculated using fuel consumption in the year 2024 and comparing it to planned replacement of vehicles with EU regulations on HDV and LDV emissions[2]. Emission reductions might be higher than the calculated value because of future technological developments.

The calculated reduction in 2050 compared to the baseline year is **795.61 tCO_2** (6.2 % reduction of Scope 1 and 2).

Key stakeholders:

- MZLZ – Procurement department
- MZLZ – Airport operations division
- MZLZ – Construction maintenance, de-snowing and de-icing department

[2] Article 3a of Regulation (EU) 2024/1610 of the European Parliament and of the Council amending Regulation (EU) 2019/1242 as regards strengthening the CO_2 emission performance standards for new heavy-duty vehicles and integrating reporting obligations, amending Regulation (EU) 2018/858 and repealing Regulation (EU) 2018/956

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De-icing

Description: De-icing chemicals are used for runway and aircraft de-icing which enables safe aviation transport. De-icing of aircraft is done by a third-party company HAVAS and is therefore stated under Scope 3 and included in the Stakeholder Partnership Plan while de-icing of the runway is done by MZLZ and encompassed here.

It's expected that de-icing chemicals will have lower emissions due to process and technology development in the future. Also, due to climate change it is expected that there might be a lesser need to use de-icing chemicals.

Targeted emission reduction: It's not possible to estimate emission reduction due to uncertainty of future weather conditions and development of environmentally friendly chemicals.

Key stakeholders:

- MZLZ – Construction maintenance, de-snowing and de-icing department
- MZLZ – Maintenance methods department

SCOPE 2

Electricity

Description: Electrical energy is used for many airport operations and is therefore crucial to ensure that it comes from zero emission sources. Since 2022 MZLZ has ensured that the energy provided comes from zero emission sources and will continue to do so in the future (proven by GOs). That is why the emission of electricity for MZLZ is zero.

Calculated CO_2 reduction in 2050 compared to baseline year is **9,042.95 tCO_2** (70.47 % reduction of total emissions).

At the same time MZLZ plans to reduce its electric energy consumption through the following measures:

- installation of energy efficient transformer stations
- replacing halogen and fluorescent lighting with LED lighting
- installation of solar plants and installation of solar cells on available surfaces (such as rooftop) which will enable MZLZ to produce its own zero emission energy.

Key stakeholders:

- MZLZ – Electric power maintenance department
- MZLZ – Maintenance methods department
- MZLZ – Development department
- MZLZ – Procurement department

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The supplier of electricity guarantees through contractual agreement to MZLZ that the electricity used by the airport is 100 % produced from renewable sources with an emission factor of 0 $kgCO_2$, and that the origin of the electricity is proven by canceling a sufficient number of guarantees of the origin of electricity led by HROTE, in accordance with the valid Methodology for determining the origin of electricity and Rules on the use of the register of guarantees of origin of electricity. MZLZ holds energy attribute certificate Guarantees of Origin-GOs, which are re-contracted every three years, currently for the period from 2025 to 2027.

Energy attribute certificate ZelEn given out by MZLZ's electricity supplier HEP Opskrba d.o.o.

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SETBACKS IN ACHIEVING NET-ZERO EMISSIONS

Re-opening of the old terminal (T1) for low budget flights

Description: MZLZ is planning to partially re-open the old terminal in the year 2026 for low budget flights which will increase its absolute emissions from boilers, emergency generators, GSE and electricity usage. The size of the T1 will be around 10,000 m^2. Considering the size and additional passengers, emissions from stationary boilers will increase due to heating a bigger area and the same is expected with emissions from emergency generators. Due to a higher number of aircrafts and more operations at the MZLZ in the future, there will be a need for more frequent use of GSE.

Estimated emission reduction setback: Increase in emissions is calculated through historical energy usage data of T1. Estimated increase in emissions from boilers is 38 %, 17.5 % from emergency generators while the increase in emissions from GSE is estimated to 7.8 %. All increases are compared to 2025 estimated emissions. It is estimated that T1 will use around 4,500 MWh of electricity in 2026 with an increase of 1 % per year compared to the previous year. De-icing will not increase because T1 will use the same runway as the current one.

Expansion of the new terminal (T2)

Description: In the year 2032 MZLZ is planning to build an expansion of the current terminal which will be fully operational in the year 2034. There will be an increase in absolute emissions from all sources due to larger area (increase in about 2,150 m^2) and additional passengers as well as larger number of operations. Due to the expansion there will be an increase in emissions from boilers, emergency generators, GSE and electricity.

Estimated emission reduction setback: Estimated increase in emissions from boilers is 2.4 %, emergency generators 1.8 %, while the increase in emissions from GSE is expected to be 1.9 % and refrigerant leakage 2.5% compared to 2033. It is estimated that the expansion of T2 will use around 177.93 MWh in 2034 with an increase of 1 % per year compared to the previous year. De-icing will not increase because the same runway will be used.

Increase in the number of passengers

Description: According to Eurostat the general trend in the EU is an increase in the number of air transport passengers. The same trend is present in MZLZ, and it is expected that it will continue in the future. Because of the increase in the number of passengers it is expected that the emissions will also increase. The expected increase in the number of passengers on MZLZ is 300,000 – 400,000 passengers/year.

Estimated emission reduction setback: Due to the increase in the number of passengers it is expected that the number of aircraft operations will also increase, which will lead to more emissions from GSE and heating. Estimated increase in emissions from heating is 1 %/year compared to previous year, while GSE emission increase is calculated using estimated operation increase.

It is expected that usage of electricity will increase and that MZLZs GOs for renewably sourced electricity will cover the increase. However, it is not certain if MZLZ will get the zero-emission certificate for re-opened terminal (T1) and expansion of the current terminal (T2) at the year of full operability. However, such efforts remain top priority.

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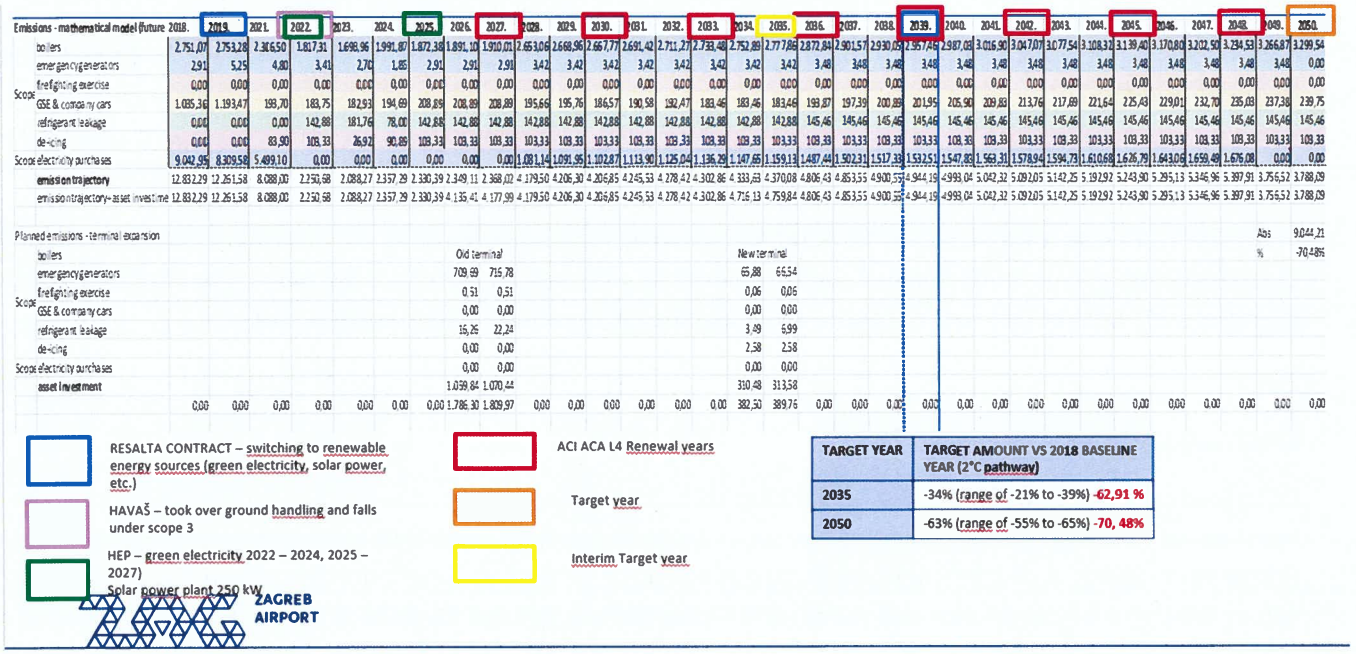
MZLZ has committed to ensure electricity from zero emission sources for both the terminals by the year 2049 at the latest.

Despite setbacks, it is estimated that MZLZ will manage to achieve the goal of reducing its CO_2 emissions from baseline year by 70.48 % in Scope 1 and 2 by the year 2050 which is in line with and surpasses IPCCs 2°C pathway.



TARGET YEAR	TARGET AMOUNT VS 2018 BASELINE YEAR (2°C pathway)
2035	-34% (range of -21% to -39%) **-62,91 %**
2050	-63% (range of -55% to -65%) **-70, 48%**

7.5 Communication, awareness and training

The main objective of the CAT plan is to inform and motivate employees and stakeholders about and for measures that help reduce emissions, including directly applying measures as well as suggesting proactively new measures to MZLZ.

MZLZ has been publishing annual Sustainability reports since 2023 (for 2022). The Sustainability reports are publicly available and include a carbon reduction plan with trajectories until 2050, key performance indicators (KPIs) with planned year of implementation and emission for the reporting year, milestones and target years. Emissions for the reporting year include total market based GHG emissions of total Scope 1 and 2 emissions as well as selected material Scope 3 emissions (emissions from LTO cycle, APU and engine testing, surface access emissions, airport company staff business travel GSE & company cars for HAVAS).

MZLZ is part of the Toulouse Declaration on aviation decarbonization reaffirming its commitment to become a net zero airport by 2050. By signing The Toulouse Declaration, the aviation stakeholders declare that they:

- Strive to ensure environmentally, socially and economically sustainable and inclusive connectivity in Europe and worldwide.
- Reaffirm their commitment to the decarbonization of aviation by 2050.
- Support a basket of measures with effective and ambitious interim milestones, to accelerate the transition of both the European as well as the international aviation sector to reach net zero carbon emissions by

2050, such as aircraft technology improvement, improvements in operations, the use of sustainable aviation fuels, market-based measures, carbon pricing, financial incentives, and support to foster environmental and climate innovation in the sector, a number of which are addressed in the Fit for 55 package.

- Acknowledge the social dimension of the transition towards sustainable aviation and the importance of fostering social sustainability and just transition, including through adequate social dialogue conducted at all stages, as well as reskilling and upskilling of workers.
- Welcome initiatives for a regular and constructive dialogue, in Europe and worldwide, on the decarbonization of aviation between authorities, industry and civil society.
- Call upon all partners worldwide to work together towards the adoption at the 41st ICAO Assembly of an ambitious long-term aspirational goal (LTAG) for international aviation of net zero carbon emissions by 2050.
- Invite other countries and international organizations to join this declaration, engage in the development of sectoral roadmaps, and work together towards sustainability and decarbonization of aviation worldwide.

MZLZ is also a signatory of ACI Europe Resolution, which is a formal document showing the commitment of the European airport community to reduce the negative impact of the aviation industry on climate change. The ACI Europe Resolution supports the objectives set by the Paris Agreement's central aim to strengthen the global response to the threat of climate change by keeping the global temperature rise this century below 2 degrees Celsius above pre-industrial levels and by pursuing efforts to limit the temperature increase to 1.5 degrees Celsius.

MZLZ holds training sessions for employees throughout the year and organizes at least one environmental committee and training for stakeholders. MZLZ regularly trains and educates employees through workshops and training activities. Many of them are focused on environmental protection. The training encompasses both online modules and onsite workshops, enabling employees to learn at their own pace. The environmental protection training done in the year 2024 focused on awareness about IMS principles (Integrated Management System policy, specifically Carbon reduction strategy) and sustainable practices, but also it empowered the workforce to actively contribute to environmental preservation. Training is not only aligned with the airport's values, but also cultivates a sense of ownership and engagement, fostering a more environmentally conscious and responsible workforce. 66.38 % of employees completed the Basics of Environmental Protection course training in the year 2024. MZLZ also recognizes its role in the local community so there are many activities in which it includes local communities and other important stakeholders. MZLZ organizes thematic workshops that unite employees and children from Center of Education VG.

7.6 Quality control procedure (audits, comparisons, recalculations)

To establish a systematic method of reviewing and assessing the performance of the IMS and ACI ACA requirements and to check its efficiency MZLZ has Audit Management Procedure, Ref: CC-IMS-PR-15-1 and yearly Audit Plan. Internal audits are held at least once a year.

MZLZ has established an Integrated Management System (IMS) that complies with the standard requirements of ISO 9001:2015, ISO 14001:2015 and ISO 10002:2018. Integrated Management System includes systematic processes to minimize, manage, and monitor environmental impacts and risks that arise during operations.

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MZLZs Integrated Management System policy aims to:

- systematically incorporate the environment into its activities
- make it a responsible company
- promote the values and pass on the best practice.

MZLZ takes the environmental aspect into consideration in all actions and performs activities with the utmost respect for the environment. The Policy is applied through commitment to continual improvement of the Integrated Management System by:

- Complying with the statutory, regulatory requirements and international standards
- Origination, production, storage, handling, processing, transfer and distribution of aeronautical data and aeronautical information
- Meeting contractual obligations
- Implementing change management to ensure high levels of customer satisfaction
- Implementing Environmental Management System and continually improving its performance by focusing on the carbon management strategy with an aim to achieve net zero carbon emissions by 2050 and pollution prevention
- Application of measures against infectious diseases, if necessary
- Implementing cost efficient operational management and maximizing revenues
- Encouraging employees and the airport community to report concerns relating to Quality, Environment, Complaint management, Safety, Security, and infectious diseases
- Involving all concerned stakeholders in the improvement actions
- Developing and operating a safe airport complying with applicable aviation standards and following best practices
- Establishing and reviewing objectives and effectively implementing the requirements of the Integrated Management System
- Continually monitoring the results and acting whenever needed
- Developing the skills and knowledge of the staff through training in accordance to perform their job in a qualitative, safe, secure and environmentally friendly way.

In addition to existing IMS MZLZ will also continue to monitor carbon emissions internally and will hold yearly meetings on how to reduce its emissions. Monitoring and reductions of emissions in Scope 3 will also include tenders and will be in line with the Stakeholder Partnership Plan.

To ensure quality and implementation of the most recent advances in carbon legislation, footprint, reporting and best practices, MZLZ's sustainability department will attend training when deemed necessary.

At least once per year MZLZ holds an Environmental protection committee meeting that includes Croatian Air Navigation Services (Croatia Control), Ministries, Croatian Civil Aviation Agency, Representatives of the local community, fuel delivery suppliers and airline representatives with the aim to discuss improvements in regard to environmental protection.

The self-assessment provides a high-level assessment of strengths and weaknesses across different areas of environmental management practices.

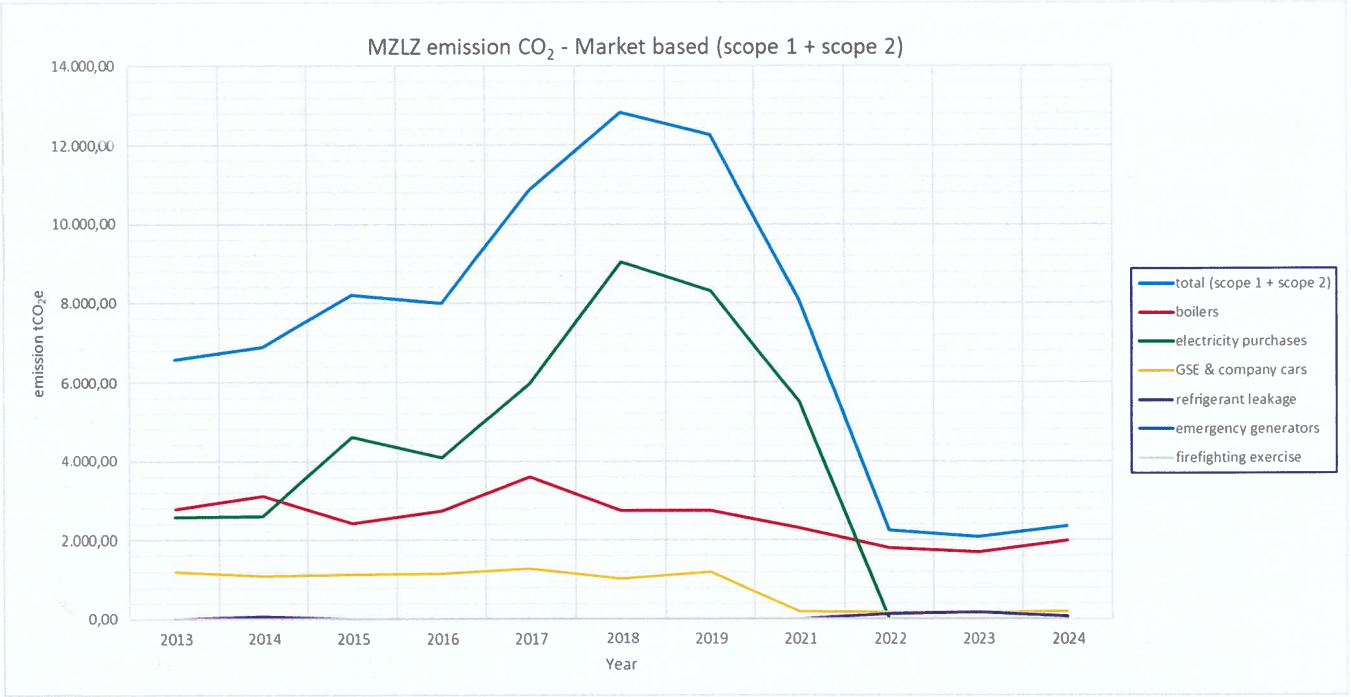
8. Graphic Data presentation

Market based method

MZLZ carbon footprint from each year in period 2013-2024 in tCO2. Recalculation of emissions from Scope 1, 2 (small adjustments in EF) and 3 was made from 2021 for the data to be traceable and to ensure logical three-year rolling average estimation. For calculation of CO2 emissions for Scope 1 and Scope 2, market-based approach is used. Carbon footprint is also shown. The reduction in CO2 emissions for Scope 1 and 2 in 2024 compared to three-year average is -43.06 %.

scope	source	t CO2										
		2013	2014	2015	2016	2017	2018	2019	2021	2022	2023	2024
SCOPE 1	boilers	2.786,80	3.122,12	2.440,24	2.740,10	3.608,51	2.751,07	2.753,28	2.306,53	1.817,36	1.694,00	1.991,91
	emergency generators	0,57	3,10	0,36	1,97	0,12	2,91	5,25	4,78	3,41	2,70	1,85
	firefighting exercise	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	GSE & company cars	1.192,08	1.095,71	1.139,28	1.167,96	1.285,89	1.035,36	1.193,47	193,66	183,74	182,92	194,68
	refrigerant leakage	15,39	63,45	15,48	0,00	0,00	0,00	0,00	0,00	142,88	181,76	78,00
	de-icing	0,00	0,00	0,00	0,00	0,00	0,00	0,00	83,90	103,33	26,95	90,89
SCOPE 2	electricity purchases	2.578,85	2.597,42	4.599,57	4.092,04	5.958,68	9.042,95	8.309,58	5.499,63	0,00	0,00	0,00
SCOPE 3	LTO cycle					52.127,40	55.662,30	56.075,70	27.545,82	45.474,43	48.349,36	-
	APU and engine testing					5.106,84	5.415,35	6.691,55	3.194,86	5.387,76	5.761,11	-
	surface access emissions					8.950,07	8.344,03	9.294,99	4.477,46	8.531,06	10.146,46	-
	airport company staff business travel					4,19	3,36	18,51	1,44	1,20	3,86	-
	GSE & company cars HAVAS									678,15	794,70	-
	Goods and Commodities								98,0	108,6	89,1	153,9
	Services								176,3	116,5	164,3	218,5
	Capital Goods								38,0	22,4	23,3	106,0
	Fuels and Energy								1.291,7	1.186,3	1.159,1	1.264,6
	Waste and Waste Water								451,1	948,4	1.121,2	1.303,0
	Airport Operator Staff Business Travel								1,8	1,8	4,3	7,9
	Airport Operator Staff Commuting & Home Office								231,4	232,7	221,8	233,9
	Aircraft; full flight emissions (one way, incl. APU)								92.557,0	167.780,5	201.060,0	245.009,6
	Aircraft APU								-	-	-	-
	Aircraft MRO								-	-	-	-
	Fuel for vehicles, machinery, GSE								515,8	683,8	801,4	930,6
	Fuel for electricity and heat generation								-	-	-	-
	Fuel for Emergency Power Generation								-	-	-	-
	De-icing chemicals for aircraft and surface de-icing								96,5	96,3	122,2	147,8
	Refrigerants used by tenants/partners								-	-	-	-
	Other relevant airport processes								-	-	-	-
	Landside Ground Access								7.785,1	17.327,3	19.938,1	24.160,5
	Energy bought from airport operator or third party								1.648,8	0,0	5,5	200,7
	Franchises by airport operator								-	-	-	-
total (scope 1 + scope 2)		**6.573,68**	**6.881,79**	**8.194,93**	**8.002,07**	**10.853,19**	**12.832,29**	**12.261,58**	**8.088,50**	**2.250,72**	**2.088,33**	**2.357,33**
3 - year average (scope 1 + scope 2):		2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019	2018-2021	2019-2022	2021-2023	2021-2023
				7.216,80	**7.692,93**	**9.016,73**	**10.562,52**	**11.982,35**	**11.060,79**	**7.533,60**	**4.142,52**	**4.142,52**
year vs 3 - year av. (scope 1 + scope 2)					**10,88%**	**41,08%**	**42,32%**	**2,33%**	**-26,87%**	**-70,12%**	**-49,59%**	**-43,09%**
total (scope 1 + scope 2 + scope 3)						**77.041,70**	**82.257,34**	**84.342,33**	**112.979,87**	**190.755,44**	**226.798,60**	**276.094,35**
total (scope 3)						66.188,51	69.425,05	72.080,75	104.891,37	188.504,72	224.710,27	273.737,02

MANUAL
CARBON FOOTPRINT 2025
ACI ACA LEVEL 4 – TRANSFORMATION



9. Contact person responsible for the carbon footprint and the report

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