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Sustainability Strategy Zagrebački holding 2023 – 2028

Content

Introduction

This document *Sustainability Strategy: Zagrebački holding 2023 – 2028* (further referred to as "the Strategy") has been issued by the Management Board of Zagrebački holding d.o.o. and adopted by the Supervisory Board and the Assembly of the company. The Strategy document has been prepared by the central Sustainability management working group established within Zagrebački holding d.o.o. (further: "ZGH").

It is the result of ZGH intention to establish and describe a long term strategic framework for sustainability management and green economy development in foreseeable future. The Strategy is based on the following key assumptions:

- It aims to describe key elements of the overall sustainability strategy, outlining key directions, its core (focus) components, as well as related activities and projects.
- It involves and refers to all organization units, subsidiaries and companies of ZGH. As such, the Strategy makes an integral part of the overall business strategy of ZGH and its subsidiaries and companies (further: "ZGH Group").
- Its primary time horizon is 5 years – for the period 2023 - 2028, however, where appropriate and where a longer term planning was required (e.g. for longer investment cycles), adequate perspective beyond 2028 was also analyzed and presented.
- Although intended to represent a strategic framework for a period longer than 12 months, the Strategy will be revised annually for its adequacy, completeness and eventually to account for any developments: global or local, regulatory or technology based.

Background and the Purpose

Environmental, Social and Governance ("ESG") factors, sustainability and sustainable finance are becoming the most important business elements. Environmentally and socially responsible behavior both at the level of national economies and individual companies (above all including utilities) has no alternative. Implementing and maintaining operating model and ESG framework addressing sustainability goals will require significant effort, time and financial resources, as well as clear sustainability strategy.

In this respect, ZGH has prepared this Strategy, representing the major document describing ESG (sustainability) elements of the overall business strategy of ZGH and its subsidiaries. The purpose of the Strategy is the following:

- To give a sense of direction for ZGH (and its subsidiaries), guiding future strategic decisions in environmentally and socially responsible manner.
- To define the *tone-at-the-top* and through entire ZGH Group, i.e. raising awareness of the management and employees of the ESG importance for ZGH present and future business.
- To define and prioritize key sustainability areas and activities while keeping focus on those topic which are the most relevant and important for ZGH, its customers and service consumers.
- Finally, to provide a formal strategic and governance framework ensuring that future business financing activities by ZGH (including bond issuing, borrowings and any other source of finance) are green labelled – i.e. obtained and managed in an environmentally and socially responsible *modus operandi*.

Sustainability Strategy Framework

Mission and Vision declared by Zagrebački holding represent major cornerstones identifying key drivers for overall sustainability strategy. We draw attention to the following key elements of ZGH Mission:

Mission

"*Become a citizens' trusted partner with responsible corporate governance oriented to efficient and green city*".

Vision

"*Be one of the leading utility companies in CEE region, in every segment*".

We emphasize and focus on the following key drivers:

- ***Efficiency***....; ***Corporate responsibility***, and
- ***Leading; Green city***.

These two groups of declared goals will represent focal points in this Strategy. Further in this document, we will elaborate them in more details – in the context of relevant sustainability framework and development goals.

In preparing this Strategy document we have been guided by and relied upon several global and derived local framework, as follows:

Global Framework

- In 2015, UN adopted the 2030 Agenda for Sustainable Development, a global list of sustainability development goals (UN SDGs), consisting of 169 targets, grouped into 17 major goals, as presented.

UN 2030 Agenda for sustainable development represent a core (base) for defining ZGH strategic sustainability goals.

Following UN 2030 Agenda, a number of global initiatives and frameworks have been delivered, for example:

- In 2015, the Paris Agreement on Climate Change; the 17 UN Sustainable Development Goals (contained in the UN 2030 Agenda for sustainable development, 2015);
- In 2018, the Action Plan on Financing Sustainable Growth ("the Action Plan") by the European Commission ("EC"), a comprehensive strategy to connect finance with sustainability;
- In the same year, EC published a Communication where "a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy".

In this context, sustainable finance play a relevant role. According to the EC, "*sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions, leading to more long-term investments in sustainable economic activities and projects*".

As discussed, a system of goals defined by UN Agenda 2030 includes the following:

End poverty in all its forms everywhere

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Ensure healthy lives and promote well-being for all at all ages

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Achieve gender equality and empower all women and girls

Ensure availability and sustainable management of water and sanitation for all

Ensure access to affordable, reliable, sustainable and modern energy for all

Promote sustained, inclusive and sustainable economic growth, full employment and decent work for all

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Reduce inequality within and among countries

Make cities and human settlements inclusive, safe, resilient and sustainable

Ensure sustainable consumption and production patterns

Take urgent action to combat climate change and its impacts

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Protect, restore and promote sustainable use of terrestrial ecosystems, forests, combat desertification, halt land degradation and biodiversity loss

Promote peaceful and inclusive societies, provide access to justice for all and build effective, and inclusive institutions

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

In this Strategy, a specific attention will be paid to the focus areas relevant for ZGH, based on which a number of measures and activities will be delivered, and key performances defined (later described in this document).

In respect of the most recent developments in EU delegated and Croatian regulatory framework, ZGH intends to align its data management and related reporting with Regulation (EU) 2020/852, (Taxonomy Regulation).

In addition to ICMA framework (International Capital Market Association), in analyzing industrial relevance and materiality of selected topics for its strategy and financial framework, ZGH also consulted Sustainability Accounting Standard Board ("SASB") matrix (although not strictly defined as a formal framework). ZGH has considered such exercise with the purpose to support the analysis of selected topics not being relevant only from ZGH Group perspective, but to ensure that topics presented by ZGH (as the most relevant) - are also material for comparable industries in context of SASB materiality matrix. In short, environment dimension (including Waste and Hazardous materials management, water management, renewable energy management, etc.) and access & affordability are likely to be material for Infrastructural sector.

Local Frameworks and Guidance

Following global trends and related regulatory changes, the Government of Croatia has issued several regulations and initiatives, out of which we note:

- In 2019, Ministry of Environmental Protection and Energy published Integrated National Energy and Climate Plan for Croatia for the period 2021 – 2030 (NECP). The Plan provides the overview of the national objectives and targets, as well as policies and measures to be achieved through five key dimensions of the Energy Union. For example, NECP foresees increase of the share of renewable energy sources in gross direct consumption of energy from approx. 29% in 2020 to approx. 36% in 2030.
- In 2020, Croatian Parliament adopted a strategy of adaptation to climate change in Croatia until 2040 with an outlook on 2070.
- In 2021, Croatian Parliament adopted "National Development Strategy 2030". The Strategy identifies four development directions: 1. Sustainable economy and society, 2. Strengthening resilience to crises, 3. Green and digital transition, and 4. Balanced regional development.

In addition, following global / EU delegated regulations or frameworks - a number of specific plans and transition roadmaps have been developed by local public sector and communities, for example:

Sustainability theme	Global / EU delegated regulations or frameworks	National delegated regulations or frameworks
Waste	• Waste Framework Directive (2008/98/EC) • Council Directive on the landfill of waste (1999/31/EC) • Council Directive on packaging and packaging waste (94/62/EC)	• Law on Waste Management (OG 84/2021) • Waste management plan of the Republic of Croatia for the period 2017-2022 (OG 3/17) • DRAFT Waste management plan of the Republic of Croatia for the period 2023-2028 Waste management plan of City of Zagreb 2018-2023
Water	• Water Framework Directive (2000/60/EC)	• Water Management Strategy (OG 91/2008) • River Basin Management Plan (June 2013), web link below Plan upravljanja vodnim područjima • DRAFT River Basin Management Plan 2022 – 2027, web link below • Nacrt plana upravljanja vodnim područjima 2016. – 2021.
Energy / Emissions	• Renewable Energy Directive (2009/28/EC)	• Law on Renewable Energy Sources and High-efficient Cogeneration (OG 138/2021) • Low-carbon development strategy of the Republic of Croatia until 2030 with a view up to 2050 (OG 63/2021)

Zagrebački Holding d.o.o.

Corporate Background

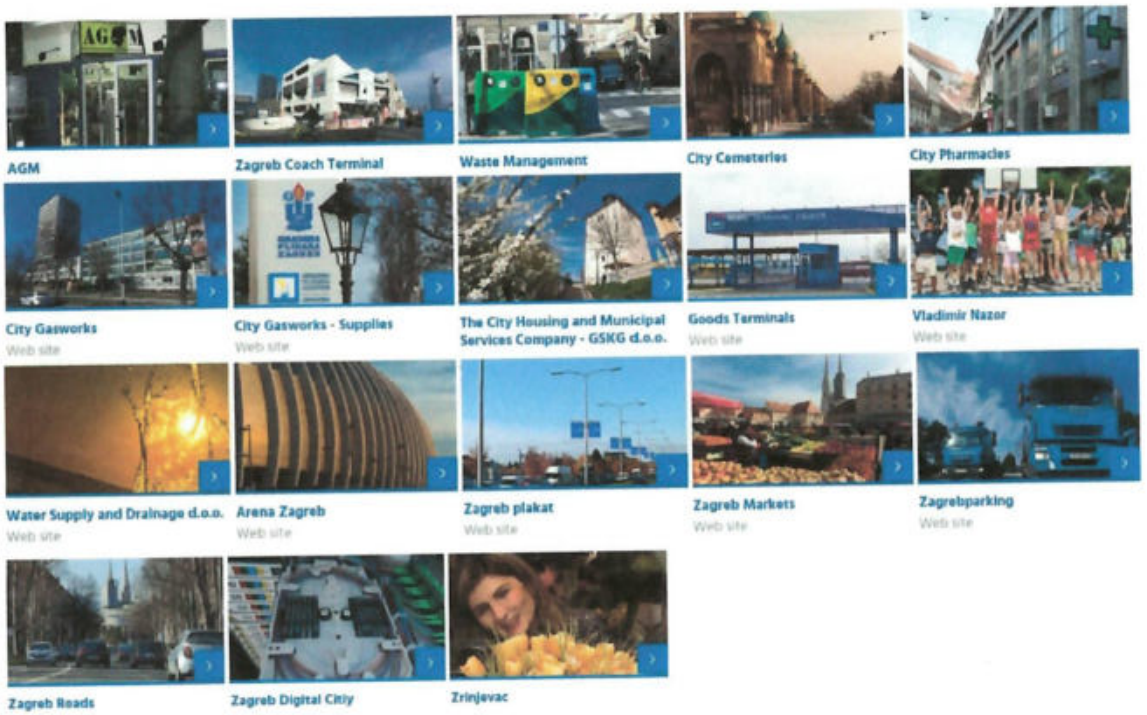
Today's Zagrebački Holding d.o.o. (a limited liability company) was established in 2005, when business shares in 23 city-owned utility companies were transferred to the holding named City Utility Company. Since 2007, the Company has been operating under the name Zagrebački Holding d.o.o., 100% owned by the City of Zagreb.

It consists of 12 subsidiaries and owns 5 companies and one institution.

ZGH Group provides services to approximately 1.1 million users from the City of Zagreb and Zagreb County. Its operations are grouped into five areas:

- Utility service,
- Commercial service,
- Energy services,
- Public water supply and drainage service, and
- Pharmacy.

The group provides a wide range of services that are grouped into the business areas of communal, energy and market activities. It also provides services from the portfolio of public water supply and public drainage and pharmacy activities. ZGH group jointly provides more than 50 different services grouped into five business areas (activities, as described), of which 20 services can be considered services of public interest.



ZGH Group structure

Current ZGH Group structure is presented as follows:

BRANCHES

ARENAZAGREB	ZAGREB MARKETS	ZRINJEVAC
ZAGREB BUS TERMINAL	ZAGREB DIGITAL CITY	GOODS TERMINALS ZAGREB
WASTE MANAGEMENT	ZAGREB ROADS	VLADIMIR NAZOR
CITY CEMETERIES	ZAGREBPARKING	AGM

SUBSIDIARIES

CITY GASWORKS ZAGREB 100%	CITY GASWORKS – SUPPLIES ZAGREB 100%	WATER SUPPLY AND DRAINAGE 100%
CITY GASWORKS BJELOVAR 100%	THE CITY HOUSING AND MUNICIPAL SERVICES COMPANY – GSKG 100%	ZAGREB PLAKAT 100%

INSTITUTION

CITY PHARMACIES 100%

Key facts for 2022

55,865,853 m^3

of water delivered to consumers

29,226,630 kWh

of electricity generated from landfill gas at mTEO plant

3,772,431,968 kWh

of natural gas distributed

747,235,970 m2

cleansed public-traffic areas

405,619

waste collection service users

204,862

containers for separate waste collection

2,644 km

of roads maintained

82,091

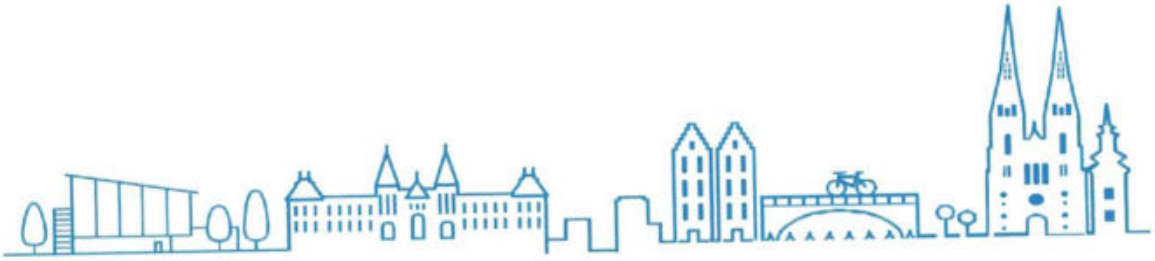
tons of asphalt produced

12,276,605 m2

of park areas maintained

Sustainability Strategy

Strategic goals and directions



The overall development direction of the Zagreb Holding Group is based on the following strategic documents and action plans:

- **Action Plan for Energy Sustainable Development and Adaptation to Climate Change of the City of Zagreb (SECAP),**
- **Development plan of the City of Zagreb for the period 2021-2027,**

  https://www.razvojnaagencijazagreb.hr/regionalni-razvoj-i-stratesko-planiranje/razvojne-strategije
- **Development strategy of the Zagreb Urban Agglomeration for the period until the end of 2027,**

  https://zagreb.hr/proces-izrade-i-donosenja-strategije-razvoja-urban/175387
- **Implementation program of the City of Zagreb for the period from 2021 to 2025.**

  https://zagreb.hr/provedbeni-program-grada-zagreba-za-razdoblje-od-2/184951

Documents listed define the vision and development goals, including an emphasis on sustainability. Specifically, in the Development Strategy of the City of Zagreb, sustainable development is focused on environmental protection, adaptation to climate change, resilience to crisis situations, risk prevention, efficient use of natural resources and protection of biodiversity while strengthening economic and social cohesion in determining priorities and measures.

Long term strategic **goals covering environmental, social and governance issues** are interrelated. ZGH has focused its strategy around the following major building blocks / goals:

Strategic goals			
1. Quality, reliable, innovative service	**2. Quality management**	**3. Urbanization and environmental protection**	**4. Quality of urban life**
• Innovative services and service development (digitalization and Smart City) • Customer/user satisfaction	• Employment, professional development and equal opportunities • Stable sources of financing • Development of corporate culture and internal communication • Use of funds/EU funds • Strategic and active management • Transparency • Risk management	• Sustainable management of resources • Fight against climate change • Environmental responsibility in the supplier-chain management	• Air quality • Quality of housing • Green and public areas • Quality of transport infrastructure • Partnerships • Participatory management – cooperation with citizens, associations and local communities

In its strategic orientation, ZGH Group contributes to the implementation of the following sustainable development goals:

Following the preceding list of strategic goals areas, ZGH Group has identified that key environmental impact in the short term period (2023 – 2028) depends on the adequate (sustainable) management of resources, which includes:

- **waste management,**
- **the extraction and protection of water and**
- **above all and in combination with the above, ZGH recognises ecological and saving oriented energy consumption to be integrative elements of resource management in general and more specifically - taking into account that the most of electrical energy (above 50% of total ZGH consumption) is used in water management. Consequently, this includes any effort toward self-sufficient energy production for its own use an from renewable sources (e.g. such as solar).**

Other areas, such as emissions, quality of life, etc. are important, although they are more actively managed at the level of those components (or companies) of the ZGH Group whose impact has more relevance.

In this respect, taking into account:

- Mission of the ZGH declaring key goals as: *Efficiency*, *Corporate responsibility*, *Healthy, pleasant and safe urban life*,
- The declared strategic goals and areas to focus on defining overall sustainability strategy,
- The fact that dominant activities includes waste and water management (while in parallel building energy sustainable *modus operandi* and self-sufficiency) – in term of its size, engaged resources and importance for all service users, local and wider communities,
- The fact that waste and water management make critical areas with the direct impact on the environment and public health and safety (whereby the company for water management is individually the largest electricity energy consumer). In these areas altogether ZGH can make the largest contribution (having key processes under its control),
- Finally, taking into account the public expectation that ZGH companies services provision should be effective and cost aware,

...the management of the ZGH defines the sustainability **strategic directions in line with following strategic goals**:

Primary goals:

1. **Improve waste management toward higher proportion (%) of waste streams collected separately (removed from landfill) – and overall – supporting circular economy in which higher quantities (in relative % terms) will be available for recycling or recovery;**
2. **Improve efficiency of resource use by better water management – decreasing waters losses (in relative % term); and**
3. **Increase the share of both own produced plus purchased renewable electric energy in total electricity power consumption by ZGH group, in areas whereby ZGH may contribute (e.g. by installing renewable energy capacity to replace external energy purchase, by purchasing electrical energy from renewable sources, etc.).**

As discussed, these key strategic directions reflect the core business of ZGH, i.e. waste and energy efficient water utility company as a dominant ZGH activities due to:

- Having the largest impact on the City/citizens of Zagreb and regional area covered by ZGH,
- Largely dependable upon ZGH activities, i.e. ZGH being the prime/only service provider, and

- at the level of ZGH Group, subsidiary/company responsible for Waste and Water management are of the most important/largest entities in term of total income earning and staff/workload engaged, i.e.:

	Share in Total ZGH Group consolidated income for the annual period ending 31 December 2022	**Share in Total number of ZGH Group engaged employees** as at 31 December 2022
Čistoća (waste management)	11%	27%
ViO (water distribution)	13%	15%
TOTAL Čistoća and ViO	24%*	42%

**Excluding GPZ opskrba (company for gas distribution), Čistoća and VIO account for above 30% of the ZGH Group consolidated income (aggregated).*

Supporting goals

Along with the primary goals, supporting goals are aimed to the following:

- Ensure ZGH activities are conducted in a sustainability more efficient manner, consequently resulting in less CO_2 emissions,
- Providing resources for a more affordable living in time of high inflation rates, real estate price increase and eventual overall business downturn,
- Building constructive, safe and healthy working environment while promoting overall equality and equal working opportunities.

These goals are important for ZGH and ZGH stakeholders. They either provide overall supporting framework for ZGH business operations or, on the other hand, they are not ZGH core business (ZGH is a passive side in the process / value chain). In this respect, supporting goals include:

4. **Take steps to decrease CO2 emissions, primarily in areas where quick and effective results may be achieved, for example replacement of transport and working fleet (also, renewable energy capacity installation, as discussed above, shall contribute to this goal as well);**
5. **Where possible, ZGH will participate and foster projects aimed at achieving Affordable living goals, such as building flat for a long term lease, provided to couples and/or individuals who meet certain social criteria for such grant;**
6. **To increase overall quality of living in City of Zagreb, ZGH will initiate and/or manage a number of projects aimed at providing improved urban environment, access to healthy food to Zagreb citizens as well as, in parallel providing infrastructure to support local (and more distant) agricultural activities, food and other production.**
7. **Finally, ZGH will continue to build, maintain and promote all forms of equality, equal opportunities and inclusiveness.**

Sustainability Strategy Implementation – Key projects and initiatives

Following key strategic directions, as declared, ZGH has defined a number of measure and initiatives to achieve sustainability goals and overall, improve management of scarce valuable resources. The table below lists several, individually largest projects, already in course or planned for the future up to the year 2028 and beyond:

Investment Area	Project	Implementation period / months	Sustainability relevance	Link to ZGH Sustainability goals
Waste management	Asphalt plant	2025 - 2026	Yes	**1. Improved waste management**
	Biowaste pre-treatment	2024	Yes	
	Sorting plant	36 months	Yes	
	Go underground	2023 – 2026	Limited	
Infrastructure	Project Zagreb	60 months	Yes	**2. Improved water management**
	Smart metering (gas & water)	2023 - 2026	Limited	**2. water savings 4. Less CO2 emission;**
	Heavy machinery	2023 - 2026	Yes	
Renewable Energy	Solar power plants on the Zagreb Holding buildings	36 months	Yes	**3. Renewable energy (resulting in less CO2 emission)**
	Solar power plants	-		
	Mala Mlaka & Sašnak	*48* months		
	Jakuševec	*30* months		
Housing and Food related services	Logistics and distribution center for fruits, vegetables, food	under analysis	Limited	**5. Affordable Living; (including responsible consumption)**
	Podbrežje, building A11	24 months	Yes	
	Revitalization and renovation of Zagreb city market	48 months	Limited	
	Construction of new city markets	-		
	Vrapče market	*22* months		
	Branimir	*36* months		
	Trešnjevka	*48* months		
Customer related services	Public Garage Constr.	36 months	Limited	-
	Mirogoj arcade	60 months	No	-
	Mirogoj Cemetery Columbarium wall	24 months		-

Except where noted otherwise, most of the projects and initiatives disclosed in the table above are targeted, among the others, to achieve sustainability goals and improve overall ESG profile of ZGH Group.

Further in this strategy document, specific projects and initiatives are described in more details. **The overview is provided for each of declared sustainability goals.**

1. **Primary sustainability goal 1:**

   Improve waste management toward higher proportion (%) of waste streams collected separately (removed from landfill) – and overall – supporting circular economy in which higher quantities (in relative % terms) will be available for recycling or reusing.

Čistoća branch is the key operative process owner of waste management, responsible for collection of mixed and biodegradable municipal waste and connected services in the city of Zagreb (separate collection of municipal waste through recycling yards, mobile recycling yards, containers in public areas and at service users and separate collection of large (bulky) municipal waste). Čistoća is key to achieving the goals of the Waste Management Plan of the City of Zagreb aimed at reducing or prevention the generation of waste, improving the system of municipal waste management and continuous implementation of education and informative (marketing) activities. The measures with which Čistoća contributes to the achievement of these goals are aimed at raising the awareness of the people of Zagreb about the importance of reducing the amount of waste they produce, improving the municipal waste separation system by increasing the capacity for recycling and waste separation, and reducing the amount of municipal waste that is disposed with the improvement of the information system for waste management and monitoring over waste management.

The ten-year development strategy "Europe 2020" (one of the basic principles of EU development), proposes sustainable growth, i.e. the promotion of an economy that uses resources more efficiently and is greener and more competitive. The central aspect of this strategy is the transition from the existing, linear, to a circular economy, an economic model that ensures sustainable management of resources and extending the life of materials and products. The goal of this model is to reduce the generation of waste to the smallest possible extent.

Waste generated in the ZGH perimeter can be divided into:

- Waste recovered by ZGH (own waste and others waste) – generated within ZGH i.e. through activity of ZGH's subsidiaries,
- Municipal (mixed) and other waste produced by Zagreb citizens (private individuals) and companies.

In general, Zagrebački holding d.o.o. recognises the following **layers of waste management**, based on which the overall waste strategy will be defined:

APPROACH	ZGH Contribution	ZGH Strategy
Prevent	Medium to low (see ZGH Strategy column)	• ZGH (as user) may primarily impact the amount of waste recovered at its own facilities and its own waste production. In this, ZGH initiated and will continue with measures aimed at decreasing its own production of waste, especially administrative (paper and plastic products, etc.) as well as increasing the amount of waste that is recovered at own facilities. • Also, within its **marketing campaigns, ZGH will impact on Zagreb citizens' awareness** to decrease municipal waste production by responsible consumptions.
Recovery / Conversion (*in Croatian.: Oporaba*)	Medium to High	• ZGH will continue with current intensive activities in recovering construction waste in production cycle (i.e. to it use in road construction, etc.). Key process owner is Zagrebačke ceste (road construction / maintenance subsidiary). • ZGH achieved large proportion (above 90%) of recovering waste generated directly by ZGH. Strategic orientation is to keep such large % close to 100%.
Recycle	**Critical**	• **Although ZGH does not recycle itself – its separate collection is critical for recycle chain. In this respect ZGH will intensify its efforts for separate waste collection, preventing municipal (general consumer) waste to end in landfill.**
Landfill disposal		

Zagrebački holding d.o.o. has an important role in the implementation of measures and activities resulting from the European Green Plan, the Action Plan for a cleaner and more competitive Europe, and national and city regulations, i.e. (as already noted) the Waste Management Plan of City of Zagreb 2018-2023 and the new Decision on the method of providing public municipal waste collection services, adopted in February 2022 in accordance with the provisions of the new Law on Waste Management, adopted in July 2021 (Official Gazette 84/2021). Based on the aforementioned laws, a new system of charging for mixed municipal waste has been in force since 1 October 2022, which introduces a charge based on the amount of generated household waste.

One of the most important aspects of the transition to a circular economy is the achievement of the goal of increasing the separately collected waste subject to further processing and use in order to ensure material and energy sustainability, from which the population and the local community will have multiple benefits. According to the declared goal, Zagrebački holding d.o.o. has set the following **two key strategic objectives of the waste management:**

i. **increasing the share of separately collected municipal waste from users suitable for further processing and/or recovery / reuse, and consequently,**

ii. **reduction of the amount of municipal waste disposed at the landfill.**

With the ongoing introduction of new waste disposal and management model and other related activities, ZGH expects in a future a significant and continued improvement in reducing the amount of mixed municipal waste that is disposed at the Jakuševec landfill, with a simultaneous increase in the amount of recyclable types of waste.

Historically, ZGH has achieved the following results in separate collection, i.e. removing municipal waste from landfill:

Metrics	**2019***	**2020***	**2021***	**2022****
Total municipal waste separately collected ('000 tons)	80	118	101	**93**
Total municipal waste collected ('000 tons)	281	291	275	**261**
% of municipal waste separately collected	**29%**	**41%**	**37%**	**36%**

** Reports on municipal waste for year 2019, 2020 and 2021, Ministry of economy and sustainable development (https://www.haop.hr/hr/tematska-podrucja/otpad-registri-oneciscavanja-i-ostali-sektorski-pritisci/gospodarenje-otpadom-0); Environmental pollution register, Ministry of economy and sustainable development*

*** Čistoća calculation*

Strategic goal is to further achieve the following high-level results in long term for waste separately collected, thus available for recycling:

Metrics	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**…**	**2033**
Total municipal waste separately collected ('000 tons)	113	123	128	130	132	**135**	…	**144**
Total municipal waste collected ('000 tons)	251	246	233	233	228	**228**	…	**228**
% of municipal waste separately collected	**45%**	**50%**	**55%**	**56%**	**58%**	**59%**	**…**	**63%**

Based on EU Waste framework directive, the percentage (%) of municipal waste available for recycling for 2020 was 50% (Croatia achieved 31%, ZGH: approx. 40%, where 2020 and first part of 2021 were out of ordinary periods due to a strong earthquake in Zagreb). By the end of 2033, ZGH targets to achieve 63%.

ZGH also recognises the following targets and benchmarks in defining high-level goals (key performance indicators):

% of separated waste target	**2025**	**2030**	**2033**	**2035**
DRAFT Waste management plan for the Republic of Croatia for the period 2023-2028	55%	60%	-	65%
ZGH high-level targets	55%	61%	63%	-

Notwithstanding ZGH being behind the desired benchmarks in certain periods, focus on increasing recycling through investments and different other activities will bring to continuous notable improvements and to successively catching up the desired figures.

Strategic approach and measures to achieve goals as described in points i. and ii. above, includes the following:

- **Continue activities in separate collection of municipal waste, including close monitoring of results in period after 2022 and implementing eventual additional and/or corrective measures.**
- **Invest in infrastructure for improving waste management. Details of infrastructure investments are described further in this document by individual Projects.**
- **Contribute to waste overall decrease, for example by raising the awareness of service users through the implementation of a promotional campaign and with the operational implementation.**
- **Achieve precondition to close landfill Jakuševac in period up to 2028.**
- **Keep internal waste reuse / recovery as much as possible closer to 100%.**
- **Increase or keep high volumes of composting bio-degradable waste from households and Zrinjevac subsidiary (green areas, trees, etc.).**

	2019.	2020.	2021.	2022.	2023.
Composting plant Markuševac (t)	5,589	6,406	5,209	5,843	9,500
Composting plant Prudinec (t)	17,710	21,286	29,451	31,794	32,000
Total (t)	23,299	27,692	34,660	**37,637**	**41,500**
Growth YoY	-	**19%**	**25%**	***9%***	***10%***

As discussed, investing in infrastructure for improving waste management is one of the measures to achieve goals (targets) in waste management. Details of infrastructure investments are described further below by individual Projects:

Project:	**Asphalt plant**
Description	Construction of new asphalt plant which would use (partially) old asphalt instead of newly produced raw materials. As a result, new asphalt with the addition of old asphalt would be produced, with the same quality as asphalt produced from new raw materials. Total capacity of new plant would increase production of asphalt on 160 t/hour, or appr. 200,000 t annually. Indicative activities include: conduction of procurement procedure for project/technical documentation, conduction of procurement procedure for construction, construction and equipment.
Sustainability relevance	By using recycled materials, the project contributes to the circular economy and helps to reduce waste.

The project contributes to ***UN SDG 12: Responsible Consumption and Production*** by reducing the consumption of raw materials and reusing existing resources. Furthermore, the project can contribute to SDG 9: Industry, Innovation and Infrastructure, by improving the efficiency and productivity of the asphalt industry.

Project: **Waste management center**

The waste management plan of the Republic of Croatia envisages the construction of waste management centres that include the processing of municipal waste and non-hazardous waste remaining after material recovery and other non-hazardous waste.

As part of this activity, the City of Zagreb is planning the construction of plant for processing different fractions of waste, and the development of study / project documentation for the implementation of the plants in question is underway. Project consists of several plants for different waste streams. Integral parts of the future waste management centre are:

Plant A):	**Biowaste pre-treatment**
Description	Upgrade of Zagreb's wastewater treatment plant (WWTP) or construction of independent plant in order to combine biofuel production with sustainable waste management - construction of feedstock pre-treatment for acceptance of biowaste from the City of Zagreb with total capacity of 30,000 t annually. Indicative activities include: procurement procedure for project/technical documentation, issuing permits, procurement procedure for construction, construction and equipment.
Sustainability relevance	By integrating biofuel production with waste management, the project promotes the circular economy and contributes to reducing waste and greenhouse gas emissions.

By producing biofuel from waste, the project contributes to UN SDG 12: Responsible Consumption and Production, and SDG 7: Affordable and Clean Energy. The construction of feedstock pre-treatment for acceptance of biowaste from the city of Zagreb promotes sustainable waste management practices and supports SDG 11: Sustainable Cities and Communities, which aims to make cities inclusive, safe, resilient, and sustainable.

Plant B): **Sorting plant**

Description	The project implementation will reduce the amount of waste disposed of at the landfill (170,000 t/year), reduce greenhouse gas emissions and obtain a new resource as a raw material for the production of new products in accordance with the principle of circular economy. Capacity of the plant is 30,000 t/year (10 t/h). Indicative activities include: conduction of procurement procedure for project/technical documentation, issuing permits, conduction of procurement procedure for construction, construction and equipment.
Sustainability relevance	The project implementation to reduce waste disposed of at the landfill and obtain a new resource as a raw material for the production of new products in accordance with the principle of circular economy is highly relevant to sustainability.

By reducing and responsibly manging waste, **the project contributes to UN SDG 12:** Responsible Consumption and Production which has waste reduction as one of its targets. Additionally, by utilizing waste as a resource, the project contributes to **SDG 9: Industry, Innovation and Infrastructure**, by improving the efficiency and productivity of the production process. The project can contribute to **SDG 13: Climate Action,** by reducing greenhouse gas emissions from waste disposal.

Project: **Going underground**

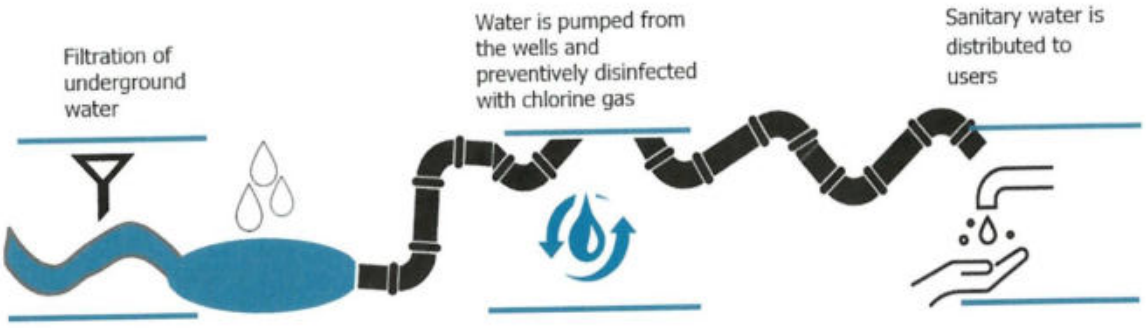
Description	In order to reduce visual pollution of the Zagreb city center and consequently to achieve better recycling results, Zagreb Holding will install up to 150 underground and semi-underground containers in the area of the protected historic core. All potential locations are recorded and analysed with regards to overlaps with underground lines. Indicative activities include: pilot project (ongoing), procurement procedure for containers, work conduction, supervision.
Sustainability relevance	By reducing visual pollution, the project promotes a cleaner and more attractive environment, which can contribute to improving quality of life.

The project contributes to **UN SDG 11: Sustainable Cities and Communities** by improving waste management practices through the effective management of waste.

2. **Primary sustainability goal 2:**

   Improve efficiency of resource use by better water management – decreasing waters losses (in relative % term).

Water supply and drainage (Vodoopskrba i odvodnja d.o.o. – ViO, member of Zagrebački holding d.o.o.), is a public supplier of water services responsible for the water supply and drainage system in Zagreb. ViO has the most significant impact on sustainable resource (here water) management, which has been assessed as a key environmental impact of the ZGH. The main activities of ViO are pumping, quality and sanity control, distribution and delivery of water and drainage, waste water quality monitoring, control of the sewage network, as well as construction and rehabilitation of the water supply and sewage system and all water supply and drainage facilities. ViO provides the entire service in the area of the City of Zagreb, Sveta Nedelja, the Municipality of Stupnik, and also supplies City of Samobor with water.



Water is drawn from 7 water pumping stations and 41 wells and seven catchment systems. The overall service area covered by ViO extends to some 800 km2 (approximately 900,000 inhabitants), with a water supply network of 3,800 km, on which 108,598 connections are recorded. Some 340 thousands m3 of water is pumped daily. The canal network is 2,220 km long with 76,766 canal connections. Connection rate is about 96% to the water supply system and about 90% to the drainage system.

According to the declared goal, Zagrebački holding d.o.o. has set the following **key strategic objective of the water management:**

i. **Decrease the % of water losses and thus contribute to natural resources preservation.**

Historically, ZGH has achieved the following results in water delivery:

Metrics	2019	2020	2021	2022
Total water delivered, (million m3)	57.3	56.4	56.4	**56.0**
Total water pumped (million m3)	121.3	118.1	117.0	**123.9**
Calculated water losses %	53%	52%	52%	**55%**

Strategic goal is to further achieve the following high-level results in long term for water management:

Metrics*	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Total water delivered, (million m3)	56	56	56	56	56	**56**	56	56	56	56	**56**
Total water pumped (million m3)	124	123	111	110	108	**106**	104	95	94	92	**92**
Calculated water losses %	**55%**	**54%**	**50%**	**49%**	**48%**	**47%**	**46%**	**41%**	**40%**	**39%**	**39%**

**Notes:*

- *In general, ZGH estimation is focused on achieving lower % of water losses, irrespective whether the size of population covered remains the same or changes in the foreseeable future.*
- *The estimation is based on the assumption that water demand will remain constant as the inflow of inhabitants is offset by the effect of population emigration, water consumption saving measures and more efficient operation of new devices consuming water.*

Based on inputs from the DRAFT River Basin Management Plan 2022 – 2027 (Nacrt Plana upravljanja vodnim područjima 2022. – 2027.), the percentage (%) of water losses for Republic of Croatia is in range 45% - 48% (significantly higher than, for example some EU Middle Europe capitals (Prague, Ljubljana, Bratislava, Budapest, etc. – in range 15% - 30%).

Target, as declared by the DRAFT River Basin Management Plan 2022 – 2027 is less than 20%, which is assumed as unlikely to be achieved in the period before 2028 (even at the Croatian level), primarily due to large investments required for obsolete infrastructure and pipelines.

Nevertheless, ZGH aims to achieve a significant improvement by reducing water losses from current 55% to 47% in the 5y period (which in relative terms amounts to 15% improvement). The improvement targeted to be achieved in 2028 (47%) results from the assessment of time required to complete project "Nulta zona" (later described in more details). The project is targeted to be completed by the end of 2027.

In the longer period (10y and beyond), ZGH will continue with investments and activities aimed at further improvement i.e. reduction of water losses to lower levels.

Strategic approach and measures to achieve goals as described in point i. above, includes the following infrastructural projects:

- **In short period, conduct a set of *"palliative care"* reconstructions (precisely: Project *"Nulta zona"*).**
- **Invest in infrastructure for improving water management, in a longer period and in a larger scale.**
- **In addition, by the end of 2023, ZGH will define a set of measures to decrease its own consumption of water in medium term (up to 2028). In 2022, ZGH consumed 1.5 million m3 of water for its own activities. ZGH aims to decrease this usage by 5% - 10% in total.**

As discussed, investing in infrastructure for improving water delivery process is one of the measures to achieve goal (target) in water management. Details of infrastructure investments are described further below by individual Projects:

Project: **Loss reduction interventions**

- Purchase of adequate equipment for detection of losses
- Engagement of fieldwork specialists (number to be defined depending on the circumstances).

Project: **Nulta zona**

Project named Nulta zona includes a set of infrastructural repairs, upgrades and monitoring process implementation aimed to decrease water losses in short to medium period (up to 2028). Key preconditions for reaching target in 2028 are as follows:

- Project *Nulta zona*, to start in May 2025 – to end in 2027.
- Resolution of property-legal relations
- Obtaining building permits for linear infrastructural structures

Project: **Zagreb**

Project Zagreb is the large long term investment in infrastructural reconstruction (as described) with expected implementation beyond 2028:

Description	The main goal is to invest in the sewerage and wastewater treatment system in order to achieve sustainable environment and use of natural resources through the reduction of water losses, as well as the revitalization of the water supply network and facilities.
Sustainability relevance	Sustainable use of natural resources through the reduction of water losses and revitalization of the water supply network and facilities is highly relevant to sustainability.

By reducing water losses, the project contributes to promoting the efficient use of water resources, which aligns with UN SDG 6: Clean Water and Sanitation. Additionally, the project **supports SDG 11: Sustainable Cities and Communities**, by promoting access to basic services, including water and sanitation **and SDG 12: Responsible Consumption and Production**, by promoting the sustainable use of natural resources.

Project:	**Smart metering**
Description	Smart metering initiative that involves upgrading the current measurement infrastructure to include automatic reading measuring devices and advanced technology. The system would be divided into 141 measurement zones (DMA) and the water balance of each zone would be monitored through input and output line water meters and water meters at individual users' premises. Indicative activities include: selection of technology, procurement of measuring devices, establishment of a communication network, procurement of network devices, establishment of a control centre, increase human capital efficiency

Consequently, the project may contribute to reducing water consumption from natural sources, which contributes to **SDG 13: Climate Action**. Finally, the project can contribute to promoting sustainable infrastructure through the adoption of advanced technology which will result in better water resource management, i.e. supporting **SDG 9: Industry, Innovation and Infrastructure**.

3. **Primary sustainability goal 3:**

   Increase the share of renewable energy in total electricity power consumption by ZGH group, primarily in areas whereby ZGH may contribute irrespective of external power suppliers (i.e. installing renewable energy capacity to replace external energy purchase).

As part of its commitment to environmental sustainability, mitigating the impacts of climate change and promoting a sustainable future, Zagrebački holding is working to increase its renewable energy production capacity and ultimately – to increase share of total consumption from renewable sources (primarily solar source). Currently, around 84% of the energy consumed by the Company is electrical energy, with the majority of that usage attributed to ViO's water pumping activities.

However, the company recognizes the potential for renewable energy production and aims for transition to cleaner energy sources. ViO is recognized as a key entity for sustainable resource management (both water and energy) and will significantly contribute to reducing ZGH carbon footprint, as well, by utilizing (installing) renewable energy sources.

Significant portion of planned newly installed capacity comes from ViO entity. Ten years plan suggests a number of projects to be realized, resulting in estimated up to 40% of total ViO electricity consumption being supplied through their own renewable energy sources. Under the current consumption figures, this would lead to estimated up to 37% of total ZGH's energy consumption being produced through their own renewable energy plants by 2033.

Other objectives in this direction include:

- installation of solar panels on the ZGH premises (buildings) and
- production of electricity from landfill gas at the Jakuševec landfill. The gas cogeneration plant, which transforms landfill gas into electricity, consists of two separate production units within which four aggregates were installed (with combined output power of 4.2 MW), which in 2022 produced 29,227 MWh of electricity, over 25% of total consumption of the ZGH Group.

	2019.	2020.	2021.	2022.
Amount of collected landfill gas (000' m3)	**14,112**	**16,142**	**17,018**	**16,767**
Amount of electricity produced (MWh)	**23,063**	**28,231**	**28,678**	**29,227**

According to the declared goal, Zagrebački holding d.o.o. has set the following **key strategic objectives of the renewable energy management:**

i. **Increase % share of renewable electric energy consumption in total electric energy consumption, which will be achieved via:**
   a. **Increase installed renewable energy capacity, and**
   b. **Purchase electric energy generated from renewable sources, by external suppliers;**

ii. **Decrease its own consumption of electricity.**

Apart from the installed gas cogeneration plant, no renewable energy production infrastructural capacity had been built in ZGH in the previous periods. Strategic goal is to increase renewable energy production capacity by further 15MW, with the installation of solar power plants by mid 2028.

Installation of the new capacity will lead to an increase of share of (own) renewable energy in ZGH's total electric energy consumption. Most significant milestones are targeted for early 2028 by which majority of the underlying projects are planned to be completed (later described in more details). It is an estimation that the installed 42 MW of solar power plants will account up to 37% of ZGH's electric energy consumption by 2033.

Key preconditions for reaching such targets in 2028 are as follows:

- Clear and smooth project flows to reach 2028 objectives (several potential obstacles already identified, e.g. usual ownership and other legal issues, etc. to be managed proactively).
- Significant resource allocation (financing, time and staff) to be allocated to these projects with strong commitment from involved teams.

Croatia has adopted the European Commission's Green Plan's (2019) vision of achieving climate neutrality in the EU by 2050 and is committed to increasing the share of renewable energy to at least 32% by 2030. The Country's rich hydropower potential means that renewable energy already accounts for about 30% of the power mix.

The Croatian Law on renewable energy sources (Zakon o obnovljivim izvorima energije i visokoučinkovitoj kogeneraciji NN 138/2021) and the Integrated national energy and climate plan for the Republic of Croatia for the period from 2021 to 2030 (Integrirani nacionalni energetski i klimatski plan za Republiku Hrvatsku za razdoblje od 2021. do 2030. godine) set a target of 36.6% renewable energy sources in the final gross energy consumption until 2030, while the IEA's World Energy Outlook NZE Scenario calls for a share of 60% renewable energy sources until 2030 and 90% until 2050. This includes a proposal for solar power to increase to 40% and 70% by 2030 and 2050 respectively.

With the installation of 15 MW of solar power, ZGH will notably contribute to achieving the above targets. Renewable energy share potential at the level of ZGH is estimated to be in range 16-20% once solar power plants are installed and in full capacity. Overall, it represents a platform for mitigating risk of not being able to acquire from third party.

Finally, medium term strategy includes achieving the following projected targets:

Metrics	* 2023: 01.04.2023 - 31.03.2024	2024	2025	2026	2027*	2030
Share of renewable electric energy in total electric energy consumption	50%	50%	60%	60%	70%	70%
Benchmark: National framework						36.6%
IEA's World Energy Outlook NZE Scenario						60%
European Commission's Green Plan (2019)						32%**

observation period aligned with electricity purchase contracting period defined for ZGH* ***for 2023* *(i.e. in domestic market practice). For subsequent periods (post 2023) contract duration and types of contracts (e.g. framework agreements, 2-years contracts, etc.) will be defined subsequently. Target observation date may be set to 31 December 2027, dependable upon the contract duration period with electric energy supplier. The latest contract was defined for the period 01.04.2023 –31.03.2024. Should this period model be continued – target date is 31 March 2028; alternatively, if contract duration period should be set to a standard calendar year (January – December) – target date is then 31 December 2027.*
***likely to be increased.*

In respect of the metrics/KPI used, Share of renewable electric energy in total electric energy consumption is calculated under the following formula:

$= (RPE_t + OPR_t) / TEC_t$

Whereby:

RPE_t = renewable part (share) of electric energy purchased from external source(s) for period *t*, measured in MWh*

OPR_t = Own produced (and used) renewable electric energy for period *t*, measured in MWh

(note: OPR_t value above will be zero in periods in which there are no own produced (and own used) renewable energy)

TEC_t = Total electric energy consumption by ZGH in period t, measured in MWh.

Initiatives and measures to achieve goals as described in points i. and ii. above, includes the following infrastructural projects:

- **Renewable energy infrastructure investments, including:**
  - ***Installation of solar panels on ZGH buildings' rooftops which would produce approx. 4.4 GWh annually of electricity when fully installed***
  - ***Solar power plants on water pumping stations with total production capacity of approx. 12 GWh annually***
- **To reach the above production, ZGH aims to install renewable energy production infrastructure with the capacity of 15 MW until mid 2028.**
- **Time schedule of installing renewable energy capacity for period up to 2028 are provided on an annual basis as follows:**

*Scenario 1: **With** solar power plants on Jakuševec location completed by the end of 2033:*

Metrics	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	...	**2033**
Installed capacity (MW)	0.03	2.69	6.5	7.0	7.8	15.0	...	42.0
Gas cogeneration plant power (MW)	4.2	4.2	4.2	4.2	4.2	4.2	...	4.2
Total renewable capacity (MW)	**4.23**	**6.89**	**10.7**	**11.2**	**12.0**	**19.2***	**...**	**46,2**

**Note: assumes 30 June 2028.*

*Scenario 2: **With** solar power plants on Jakuševec location completed during 2028:*

Metrics	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	...	**2033**
Installed capacity (MW)	0.03	2.69	6.5	7.0	7.8	22.0	...	42.0
Gas cogeneration plant power (MW)	4.2	4.2	4.2	4.2	4.2	4.2	...	4.2
Total renewable capacity (MW)	**4.23**	**6.89**	**10.7**	**11.2**	**12.0**	**26.2**	**...**	**46,2**

ZGH aims to build solar power plants on location Jakuševec, installing renewable energy production capacity of 7 MW power (estimated production 9,800 MWh). Estimated time to complete is before 2033 (scenario 1), however, ZGH will seek to deliver this project even earlier (during 2028, scenario 2).

- **Purchasing electric energy generated from renewable sources by external suppliers - will become a standard element of procurement procedures and criteria for evaluating proposals provided by external suppliers (i.e. those participating in the procurement procedure).**
- **Furthermore, by the end of 2023, ZGH will define a set of measures to decrease its own electricity consumption which is mandated by Law on energy efficiency (OG Law on energy efficiency).**

Details of infrastructure investments in renewable energy are described further below by individual Projects.

Project:	**Solar power plants on the Zagreb Holding buildings**
Description	Installation of solar power plants on the premises of Zagrebački holding with the aim of energy and financial savings (34 locations: Jankomir, Resnik, Markuševec, Jakuševac, Zaprudski otok, Vrapče, Stenjevec). Indicative activities include: development of conceptual solutions, approval for joining HEP ODS network, procurement for construction and supervision, conducting projects, obtaining permits, construction, connection to the network, experimental work, obtaining permit for permanent operation.
Sustainability relevance	The installation of solar power plants and reducing the dependence on fossil fuels is highly relevant to sustainability.

It is estimated that installing solar power plants at approx. 30-35 location may result in producing 4.4 GWh of electric energy.

Currently, it is estimated that total ZGH consumes electricity power in a range 100 – 150 GWh. Individually, the most important power consumer is the company for water management (ViO, Vodoopskrba i odvodnja) with a proportion in a range 50% - 60%. Therefore, the company ViO and its projects represent the key subject in achieving higher proportion of renewable energy in total consumption. Key projects are as follows:

Project:	**Solar power plants on water pumping stations & Jakuševec landfill**
Description	Construction of 2 non-integrated solar power plants with a power of 9.9 MW (Mlaka) and 7 MW (Sašnak) and 11 integrated solar power plants at water storages within the range of power from 100 kW, to 600 kW. Payback period including lifetime operating costs: up to 10 years. Installation of photovoltaic power plant of total power 7 MW at the closed part of landfill on approx. 170,000 m2 of land - potential for a non-integrated solar power plant. Payback period including operating costs: 5.6 years.

	Indicative activities include: procurement for design/technical documentation, construction and supervision, obtaining permits, construction of plant and battery plant, connection to the network, experimental work, obtaining permit for permanent operation
Sustainability relevance	The installation of solar power plants and reducing the dependence on fossil fuels is of the highest relevance to sustainability.

For both projects, as noted above, using solar power aligns with **SDG 7: Affordable and Clean Energy**, by promoting the use of renewable energy sources. Moreover, the project can contribute to reducing greenhouse gas emissions, which aligns with **SDG 13: Climate Action by promoting the transition to a low-carbon economy.** Reducing energy consumption and costs contributes to financial savings, which can be reinvested in other sustainable initiatives.

4. **Supporting sustainability goal 4:**

   Take steps to decrease CO2 emissions, primarily in areas where quick and effective results may be achieved, for example replacement of transport and working fleet (also, renewable energy capacity installation, as discussed above, shall contribute to this goal as well).

ZGH's operations that contribute to CO2 emissions can be categorized into two main areas:

- transport and
- energy use.

The vehicle fleet, including cars, trucks, and heavy machinery, contributes significantly to CO2 emissions even though more than half conform to the EURO 5 emission standard and the company's buildings and facilities also contribute to CO_2 emissions through heating, ventilation, and air conditioning (HVAC) systems, lighting, and other equipment.

Branch / Subsidiary (2021 data)	Cargo vehicles	Car ladder	Heavy machinery	Tractors	Motor-cycles	Personal vehicles	**Total**
Waste management	314	-	28	7	-	52	**401**
Water supply and drainage	148	-	26	3	-	63	**240**
Zagreb roads	125	-	76	-	-	10	**211**
Zrinjevac	89	8	22	35	2	40	**196**
City Gasworks	76	-	1	-	2	52	**131**
Goods terminal Zagreb	-	-	38	4	-	5	**47**
City cemeteries	8	-	3	3	17	14	**45**
Zagrebparking	24	-	-	6	-	10	**40**
Other	23	-	-	3	-	58	**84**
TOTAL	**807**	**8**	**194**	**61**	**21**	**304**	**1,395**

ZGH team will track the carbon footprint of its fleet by calculating the fuel consumption, the number of miles driven, and the vehicle's fuel efficiency. ZGH also considers using electric or hybrid vehicles to reduce emissions for both own and rented fleet.

In term of energy consumption driven CO_2 emission, ZGH will identify areas of inefficiency, and implement energy-saving measures such as upgrading to more efficient equipment and optimizing building insulation.

In general, taking into account that ZGH is primarily utility company (and not energy or significant fossil fuel consumer) - ZGH strategy is to impact those areas which impact the most and may result in quick win in short period (as described – improved carbon footprints in fleet management and overall energy savings).

According to the declared goals, Zagrebački holding d.o.o. has set the following **key strategic objectives for the reduction of CO_2 emissions:**

i. **Reduce the carbon footprint of the vehicle fleet, and**

ii. **Improve energy efficiency.**

Additionally, increase in renewable energy share affects emission levels as well (separate strategic goal).

The EU has set a goal to reduce GHG emissions by at least 55% by 2030, compared to 1990 level. This goal is part of the European Green Deal, which aims to make Europe climate-neutral by 2050. Croatia has committed to both reducing its GHG emissions by 55% by 2030, compared to 1990 levels, as part of its Low-carbon development strategy until 2030 with a view to 2050 (Strategija niskougljičnog razvoja do 2030. s pogledom na 2050. godinu).

The IEA World Energy Outlook provides projections for the future of the global energy system and outlines various targets and scenarios for reducing CO2 emissions. Specifically for the road transport sector, the IEA has set targets for the share of internal combustion engine vehicles and electric vehicles in the global fleet. According to the IEA's Net Zero Emission by 2050 Scenario, which is designed to align with the goals of the Paris Agreement, the target is to have 60% of new passenger cars sold globally by 2030 to be electric, with the remaining 20% being ICE vehicles. However, as many older ICE vehicles will still be in use by 2030, the overall share of ICE vehicles in the global fleet is projected to be around 80%. By 2050, the IEA projects that 97% of the passenger car fleet will need to be electric in order to reach the necessary emissions reductions and limit global warming.

As a utility company, ZGH aligns with these broader goals by both reducing its own GHG emissions and promoting the adoption of sustainable practices in its operations and among its customers and stakeholders. Car fleet renewal and electrification contribute to CO2 emission intensity reduction on top of the 17% share of renewable energy production.

Strategic approach and measures to achieve goals as described in points i. and ii. above, includes the following projects:

- **Car fleet electrification and renewal, including:**
    - ***Renewal of cca. 20% of existing machinery and cargo fleet, in accordance with the already targeted project (described further as heavy machinery project).***

- ***Replacement of part of personal cars' fleet (including rental cars) with Electric vehicles – plan to be defined by the end of 2023***

- **Furthermore, as already described, by the end of 2023, ZGH will define a set of measures to decrease its own electricity consumption which is mandated by Law on energy efficiency (OG Law on energy efficiency).**
- **With measures above, ZGH aim to reduce CO2 emissions.**

Details of fleet and infrastructure improvement project (smart metering) and related investments are described further below:

Project:	**Heavy machinery**
Description	Enhancement of municipal infrastructure (vehicles, equipment, machinery) for branches Zrinjevac, Čistoća and Zagreb roads would increase the level of communal service efficiency and simultaneously decrease environmental impact of old vehicles.

The project contributes to reducing the environmental impact of old vehicles by promoting the use of more energy-efficient and environmentally-friendly equipment. **This aligns with SDG 13: Climate Action.**

Project:	**Smart metering**
Description	Smart metering initiative that involves upgrading the current measurement infrastructure to include automatic reading measuring devices and advanced technology. Indicative activities include: selection of technology, procurement of measuring devices, establishment of a communication network, procurement of network devices, establishment of a control center.

By adopting advanced technology for measuring energy consumption, the project promotes energy efficiency, which aligns with **UN SDG 7: Affordable and Clean Energy**. Consequently, the project may contribute to reducing greenhouse gas emissions by enabling more effective monitoring and management of energy use which aligns with **SDG 13: Climate Action**. Finally, the project contributes to promoting sustainable infrastructure through the adoption of advanced technology which will result in better resource management supporting **SDG 9: Industry, Innovation and Infrastructure**.

5. **Supporting sustainability goal 5:**

   Where possible, ZGH will participate and foster projects aimed at achieving Affordable living goals, such as building flat for a long term lease, provided to couples and/or individuals who meet certain social criteria for such grant.

The project of the Podbrežje Settlement includes construction of a high-quality and energy efficient (nZEB) multi-apartment (288 units) building (A11) that will greatly contribute to the increase of housing affordability in the City of Zagreb. The project is ready for implementation with building permit already issued.

The project envisages the construction of 11 residential and commercial buildings. The third phase of the project involves the construction of buildings A1, A2, A7, A8, A9, and A10, which, together with the four already-built buildings and the projected building A11, will complete the entire complex.

The construction plots for the third phase of the project cover a total area of 38,517 m2 with the remaining six buildings having 130,300 m2 of gross building area, which translates to the construction of 999 apartments and 1,416 parking spaces.

To facilitate pedestrian traffic, the settlement has no roads inside the block, only public park and pedestrian areas. The perimeter around the settlement is where the roads are located, providing access to the underground garages of the buildings. The railway line next to the settlement is planned to be transformed into a fast city train with a station in the future business tower.

In short, according to the declared strategic goals, Zagrebački holding d.o.o. has set the following **key objective of the affordable living program:**

i. **Provide a number of homes for couples and/or individuals who meet certain social criteria.**

The Government of the Republic of Croatia implemented two housing programs to help citizens easier access to affordable housing. The Socially Stimulated Housing (POS) program uses public funds to construct apartment buildings, which are sold under instalment payment plans at more favourable (subsidised) terms (e.g. lower interest rates, longer repayment terms, etc.). The program also allows for apartment rentals with a buy-out option. Priority is given to those who meet certain criteria, such as first-time homebuyers and creditworthy applicants. The Government also provided a housing loan subsidy for citizens under 45 years old, covering part of the home loan repayment, with the subsidy amount depending on the property's location.

In terms of the EU, the European Commission has set a target of reducing the number of people in the EU who are at risk of poverty or social exclusion by at least 15 million by 2030, including through increasing access to affordable and sustainable housing. The EU has also established a framework for promoting affordable housing, known as the European Pillar of Social Rights, which includes measures to support access to affordable housing for all.

Similarly, ZGH's affordable housing program can contribute to a more equitable and inclusive society by reducing housing costs, increasing economic mobility and reducing poverty and social exclusion.

The increase in housing affordability in the City of Zagreb supports **SDG 11: Sustainable cities and communities** by promoting inclusive and sustainable urbanization and reducing the housing crisis. By designing and constructing the building as nearly Zero Energy Building (nZEB), it could significantly reduce energy consumption, greenhouse gas emissions, and operating costs. This approach can promote the use of clean energy and sustainable building practices, contributing to **SDG 7: Affordable and clean energy**.

However, the sustainability of the project depends on the design and management of the building. The use of sustainable building materials, efficient water use, waste management, and renewable energy sources can ensure that the building has a minimal environmental impact. Up to the extent possible, ZGH will make steps toward ensuring compliance with green building principles.

6. **Supporting sustainability goal 6:**

To increase overall quality of living in City of Zagreb, ZGH will initiate and/or manage a number of projects aimed at providing improved urban environment, access to healthy food to Zagreb citizens as well as, in parallel providing infrastructure to support local (and more distant) agricultural activities, food and other production

Details of infrastructure investments in increasing overall quality of living in City of Zagreb are described further below by individual Projects:

Project:	**Logistics and distribution center (LDC) for fruits, vegetables & foodstuffs**
Description	Construction of a Large Distribution Center (LDC) to consolidate multiple business processes, including increasing production through a sorting and packing plant, and increasing leasing capacity for interested organizations. The LDC will have refrigerated space and ambient space of 27 warehouses. The green market, with 100 reservation places, will be included, along with necessary infrastructure such as weighbridges, sanitary facilities, and office spaces. The estimated land size needed for the LDC is 200-250 thousand m2, including access roads and necessary infrastructure. Conduction of a pre-feasibility study is required.
Sustainability relevance	The construction of a Large Distribution Center (LDC) with refrigerated and ambient space can have both positive and negative impacts on sustainability depending on how it is designed and managed. However, the construction and operation of a large facility like the LDC could also have negative impacts on the environment if it is not designed with sustainability in mind. The energy consumption as well as the infrastructure required for the facility, could result in a significant carbon footprint. Proper waste management, energy-efficient design, and sustainable sourcing of materials could mitigate some of these negative impacts and promote sustainability.

Consolidating multiple business processes and increasing production efficiency can help reduce waste, energy consumption, and greenhouse gas emissions associated with transportation and logistics. Additionally, the green market included in the LDC could support local and sustainable food production and distribution, indirectly contributing to **SDG 2: Zero Hunger and SDG 12: Responsible Consumption and Production.**

Project:	**Revitalization, renovation and construction of Zagreb city markets**
Description	Improvement of public markets with more contents in order to improve cultural and gastronomic tourism. The project would include Dolac, Kvatrić, Utrine, Trnsko, Jarun, Prečko, Sesvete markets. Scope of work includes removal of construction and kiosks (except legalized commercial buildings) and covering the market space. For Vrapče, Branimir square and Trešnjevka market, new complexes with sports-recreational and creative-educational contents are planned. Indicative activities depend on location, but include: feasibility study preparation, creation of design and technical documentation, contractor and supervision procurement, construction and equipment.

The promotion of cultural and gastronomic tourism can support local economic development and job creation, **indirectly contributing to SDG 8: Decent Work and Economic Growth and SDG 11: Sustainable Cities and Communities** and can also have a positive impact on sustainability by promoting local and sustainable food production and consumption, indirectly supporting **SDG 2: Zero Hunger and SDG 12: Responsible Consumption and Production.**

Project:	**Construction of the public garage**
Description	Relieving street public parking areas in order to achieve greater safety for all road users (pedestrians, cyclists, drivers). Primary location is Klaićeva street (planned capacity is 750-800 parking spaces) and other possible locations are in consideration. Indicative activities include: conducting of a feasibility study, design and technical documentation, construction works.

By freeing up space previously used for parking, this project can provide opportunities to improve the urban environment and promote sustainable transportation options, such as walking, cycling, and public transit, which can reduce traffic congestion and promote sustainable mobility, supporting **SDG 11: Sustainable Cities and Communities.**

7. **Supporting sustainability goal 7:**

   ZGH will continue to build, maintain and promote all forms of equality, equal opportunities and inclusiveness

Zagreb Holding will continue to build upon its existing foundation of zero tolerance for any form of discrimination. The corporate culture will remain rooted in the principles of equality, inclusiveness, and fairness. Zagreb Holding will continue to abide by and continuously improve the work regulations, which define procedures and measures to safeguard the dignity of workers and protect them against discrimination. Zagreb Holding will continue to uphold its commitment to employment principles that exclude discrimination and guarantee equal access for all.

As part of its commitment to promoting diversity and inclusion, creating a supportive workplace culture, and advancing social progress, Zagrebački holding is working to promote gender equality within the company. Currently, the company recognizes the potential for improving gender equality and is exploring opportunities to establish equal pay policies and improve work-life balance for all employees. ZGH understands that promoting gender equality is not only the right thing to do, but it also enhances employee productivity, attracts and retains talent, and boosts business outcomes.

According to the declared goal, Zagrebački holding d.o.o. has set the following **key strategic objectives for promoting gender equality:**

i. **Improve work-life balance for all employees**

ii. **Mentorship programs for women in leadership positions.**

Further, a more background details on workforce and Human Resource management have been provided.

Workforce

ZGH Group some 7,126 employees in total (as at 31 December 2022), out of which 1,777 females (25%) and males 5,349. In the context of organisation restructuring and continuous development, ZGH faces issues in finding adequate number of employees, particularly in more operative (less administrative) positions. Nevertheless, ZGH recruitment and hiring procedures do not discriminate between (and do not particularly focus on) either female or male candidates – both on technical and managerial positions.

ZGH Group is aware of importance women have in management and constantly create and improve equal opportunity framework and equal promotion rights, irrespective of a gender and at all levels of ZGH management.

Nevertheless, ZGH Group faces inherited division between what is traditionally assumed as more male or more females jobs, particularly in jobs which are presumed as generally more or less attractive either for females or males. In this particular issues, ZGH Group recognises two important elements: type of the job (whereby some jobs will inherently be targeted more by one gender), and workforce availability on the Croatian market. While the first reason may be managed by ZGH (up to certain extent), situation on the Croatian labour market is external factor which is not under ZGH control and will have to manage with mitigative measures.

Existing Career Development and Training Programmes

At the ZGH Group level in 2022, training and education programmes have been delivered to approximately equal number of female and male employees. ZGH Group constantly invest in career developments and education programmes at all levels (operative and managerial) and equally for female and male employees.

Existing Human Resources Policies (equal opportunities policies, gender and diversity policies)

ZGH Group offers equal opportunities for employment and invests in career developments. Working terms and benefits are defined by collective agreements for ZGH group member companies, as well as by other internal procedures (acts). Future initiatives for required workforce are created based on business needs and ZGH business strategy in general. ZGH offers different kind of benefits, such as work from home, flexible working time, paid absence for child birth (including fathers), a number of other support for parents, etc.

Historically, ZGH has the following workforce structure:

Metrics	**2019**	**2020**	**2021**	**2022**
Total number of workers	7,794	7,809	7,648	7,126
% women in total number of workers	26%	27%	27%	25%
Number of employed persons with disabilities	234	247	250	221

Part of the activities of ZGH are predominantly physical jobs with the expected greater participation of male employees. Additionally, the reduction of the share of women in the total number of workers was influenced by the process of restructuring and centralization of ZGH's corporate functions, which mostly included administrative jobs that were mostly performed by women.

The EU is committed to promoting gender equality by increasing women's representation in decision-making positions. To address this, the EU has set a target of achieving a minimum of 40% of women in non-executive board-member positions of companies listed on stock exchanges by 2026 in the recently adopted Directive on improving the gender balance among directors of listed companies and related measures.

Croatia is committed to achieving gender equality by implementing various policies and programs to address gender gaps in different spheres of life. The Croatian Law on Gender Equality (Zakon o ravnopravnosti spolova NN 82/08) sets out the legal framework for promoting gender equality in Croatia, and the National Plan for Gender Equality (Nacionalna plan za ravnopravnost spolova do 2027.) aims to ensure equal opportunities and treatment for women and men in all areas of life. This includes promoting women's economic empowerment and promoting women's leadership and participation in decision-making processes.

Strategic approach and measures to achieve goals as described in points i. and ii. above, includes the following initiatives:

- Improving work-life balance through flexible work arrangements, parental leave, etc.
- Mentorship programs for women in leadership positions designed to provide guidance, support, and training to help women advance their careers and reach their full potential
- Providing training and support to promote diversity and inclusion in the workplace
- Establishing equal pay policies for all employees.

Governance framework

Sustainability Strategy Implementation and Monitoring

ZGH shall upgrade its current framework for development and establishment of the overall sustainability process governance and structure. The framework should reasonably ensure that the objectives defined in the strategy are continually developed and maintained in targeted direction.

To ensure successful implementation of the sustainability strategy, it is important to establish monitoring and collecting information on the topics of the sustainability strategy. This enables tracking of the implementing measures and the accomplishment of the sustainability strategy's goals, as well as any corrective measures as a response to changing circumstances.

The following points should be covered by the monitoring system:

- Measurement: The monitoring system should define how each indicator will be measured and the tools that will be used to collect data.
- Reporting: The monitoring system should establish a reporting framework that outlines how the collected data will be analyzed, summarized, and presented. This framework should include the frequency and format of reports, as well as the roles and responsibilities of those involved in reporting.
- Adjustment: The monitoring system should establish a mechanism for taking action based on the data collected. This may involve establishing thresholds or targets for each indicator, developing corrective actions to address any issues identified, and monitoring progress over time.

Sustainability Evaluation and Reassessment

Sustainability, in general, is a dynamic and evolving concept. Changing internal and external factors and business and regulatory context, is important for ZGH to regularly evaluate and reassess the active sustainability strategy.

The evaluation process is a critical step that allows companies to reflect on their progress towards achieving their sustainability goals. By monitoring and analysing the results, ZGH shall seek to identify areas where they are meeting targets and areas where they need to improve. This process will contribute to align ZGH strategy with current trends and continuously improve overall sustainability performance.

Furthermore, it is important to emphasize that the evaluation process should take into account the relevance of analysis to the entire sustainability strategy. Evaluation process shall not be focused on individual elements of the strategy only, but will consider the "big picture" of sustainability.

Finally, the evaluation and reassessment should be frequent enough to provide for the sustainability strategy keep relevance all the time.

Procedural Framework

Zagrebački Holding d.o.o. is governed by the principles incorporating social responsibility. ZGH primarily provides services of general economic (public) interest, which it performs according to the principles of public service. The performance of these activities is regulated by the Act on communal economy (utility activities), the Act on waste management, the Act on water services (activities of public water supply and public drainage) and the Act on pharmacy (pharmacy activities). Also, the energy activities of gas distribution and supply are performed in accordance with the Gas Market Act as a public service, while the services of maintaining unclassified roads and collecting waste from natural households are legally classified as a public services. All other services are classified as market services.

Business *Modus operandi* of the ZGH Group is regulated through the following frameworks or internal procedures:

- Code of corporate governance of Zagreb holding d.o.o. with guidelines for the ZGH Group,
- Code of ethics,
- Rulebook on the work of Zagrebački holding d.o.o.
- Environmental protection, health and safety at work policy for Zagrebački holding d.o.o.
- Guidelines for implementing green public procurement in Zagrebački holding d.o.o.

In May 2016, the Corporate Governance Code of Zagreb Holding d.o.o. was adopted, defined to improve the standards of corporate governance, transparency of operations and, also, responsible management of resources. It is based on the OECD Principles of Corporate Governance and ecoDa's Principles of Corporate Governance for Unincorporated Companies. It regulates the principles of public disclosure and defines the management bodies of the ZGH companies.

The code of ethics establishes the basic ethical rules of conduct for all employees of Zagrebački holding d.o.o., related companies and institutions owned by it, in order to establish and promote basic ethical values in business relations and to act in case of their violations. Zagrebački holding d.o.o. operates in the public interest, especially respecting and developing basic values such as fairness, honesty, responsibility, integrity, quality of services, transparency, entrepreneurship, teamwork and other values.

Health and safety management is an integral part of the management process of Zagrebački holding d.o.o. ZGH is committed to the development and application of effective systems, standards and practices for environmental protection, health and safety at work. ZGH, all of its employees undertake to manage and permanently improve the management system with the aim of ensuring safe and healthy workplaces and activities through proactive business operations. The goal is to enable and maintain a healthy and safe working environment and reduce the risk for employees, suppliers, visitors and citizens who may be affected by the company's activities, while meeting the expectations of employees and other participants regarding better working conditions and services.

Process and Organisation

By the end of 2023, ZGH will formally establish and complete staffing of an organisation unit responsible for overall ESG sustainability management (i.e. defining a functional unit within the Strategy and Development Sector, appointing ESG experts). In this respect, ZGH will conduct necessary changes in existing job systematisation and other corporate / statutory documents. The unit shall take over the following core responsibilities:

- Sustainability reporting in accordance with currently applicable EU delegated and local standards and regulations, including the EU Corporate Sustainability Reporting Directive (CSRD) framework.
- Internal reporting in respect of ESG activities, which includes key performance indicators (KPIs) calculation, monitoring and reporting. This includes responsibility irrespective of which green framework has been applied for a particular finance transaction (i.e. assuming both green, social and sustainability framework and/or sustainability-linked framework).
- In respect of the above, by the end of 2023, the organisation unit will implement a comprehensive process to measure CO_2 emission and define targets at the level of ZGH group.
- Monitoring and reporting ESG data at the corporate level, data collection and analysis in respect of ESG activities, including coordinating activities in data collection across entire ZGH Group and project controlling for ESG elements.
- Recommending changes in IT system and, generally in processes, related to ESG activities.
- Preparing and maintaining internal procedural framework related to the management of sustainability activities (Unit rulebook, financing activities and reporting responsibilities).
- Managing overall sustainability related activities, proposing projects, sustainability measures and initiatives, ESG elements of infrastructural and other projects, recommending marketing campaigns, etc.
- Managing ESG elements of financing processes and transactions based on green frameworks (bond issuing, borrowings, derivative transactions and local and EU projects funding).
- Preparing and maintaining detailed Sustainability Strategy and Sustainability Frameworks documents, as well as all other ESG elements of financing (e.g. info-memo materials in bond issuance transaction).
- Annual revision and amending Sustainability Strategy and Sustainability Frameworks documents.
- Functional responsibility for treasury fund management and allocation of proceeds received from transactions whereby finance was obtained under Sustainability Strategy and Sustainability Frameworks. Operative responsibility is usually withing treasury department.
- Project expenditure oversight and controlling (again, particularly whereby finance was obtained under Sustainability Strategy and Sustainability Frameworks), including where relevant for such financing framework - controlling aimed to avoid double counting of project expenditures.

Financing framework

Taking into account its declared Mission and the nature of activities for which ZGH is responsible as a municipal utility company - ZGH shall seek to obtain green labelled finance whenever justified, treating ESG elements of financing equally to profitability and cost related criteria. This involves:

- Bond issuing transaction,
- Commercial Loan facilities, particularly those for infrastructural projects, involving any loan provider: Commercial banks, Croatian Bank for Reconstruction and Development (HBOR), European Bank for Reconstruction and Development (EBRD), or any similar domestic or international financial institution.
- Eventually, derivative transactions.
- Also, in accounting terms – transactions may involve investments into long term assets or expenses.

ZGH will seek to structure its green label confirmation primarily in accordance with the following principles:

- For bonds:

  ICMA principles (International Capital Market Association). This includes any of the following frameworks, to be defined on a case by case basis:

  - Green bond framework,
  - Social bond framework,
  - Sustainability bond framework, and
  - Sustainability-linked bond framework.

- For loans:

  LMA principles (Loan Market Association). This includes any of the following frameworks, to be defined on a case by case basis:

  - Green loan framework,
  - Social loan framework, and
  - Sustainability-linked loan framework.

In the future this can change, based on which ZGH will amend its active frameworks.

Sustainability Strategy Zagrebački holding 2023 - 2028 was adopted by the Company's bodies:

Management Board, on June 9, 2023.

Supervisory Board, on June 12, 2023

Assembly of the Company, on June 13, 2023

This document becomes effective as of the date when formally validated (signed) by relevant governance bodies of the company.

President of the Management Board

Ivan Novaković

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This Document is unofficial translation.