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Editorial

Dear Sir/Madam

This year Zug Estates is publishing its sustainability report – which is prepared in accordance with the GRI Standards – in tandem with its annual report for the first time. We are therefore bringing our reporting closer to the period concerned and making an important step towards integrating our key sustainability and financial data.

Zug Estates pursues a comprehensive sustainability strategy and addresses topics from across the ESG spectrum. Reducing greenhouse gas emissions from the operation and construction of properties – where we see the biggest impact within the real estate industry – remains at the heart of our sustainability strategy. With 1.1 kg per m² energy reference area (Scope 1 and 2), current greenhouse gas emissions from the operation of the entire real estate portfolio remain at a very low level. In order to contribute to increased transparency within the industry, Zug Estates participated in the REIDA CO₂ benchmark for the first time in 2023 and achieved a very gratifying result that was well below the industry average.

Scope 3 is set to become a more important element of reporting in future and concerns emissions incurred through the purchasing of products and services, the transportation of goods, or the energy we purchase. On page 22 we provide a detailed picture of which categories are relevant to Zug Estates and how we address them. We have reported on and addressed Scope 3 topics such as emissions from generating electricity used by tenants, employee mobility and business trips for a number of years now.

In addition to energy and emissions, Zug Estates focuses on the creation and continuous development of future-proof, versatile living spaces with a high social mix. We invest in the quality of the shared and exterior areas of our sites and adapt them to meet changing user requirements. Our newly designed catering and conference spaces at Park Hotel Zug en-



able us to offer the people of Zug a new catering experience as well as meet the appreciable demand for conference and large event venues in Zug city centre. Our achievement of an attractive tenant mix at the Metalli shopping mall, together with the new farm shop at the Suurstoffi site, has likewise been driven by the needs and aspirations of our tenants and customers.

The full report, which has been prepared in accordance with GRI Standards, as well as exciting articles on current projects, can be found at zugestates.ch. I wish you a rewarding read.

Zug, February 2024

Patrik Stillhart

CEO

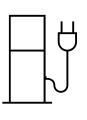
Key figures



Greenhouse gas emissions per m² of energy reference area

(C







placed





Buildings with solar installations (49% of all buildings)



Percentage of certified outdoor spaces



Energy intensity per m² of energy reference area

1188^{MWh}

Solar power production (sufficient for 260 singlefamily homes)



Number of employees working for the Zug Estates Group (FTE)



Figures as at 31 December 2023. Data relating to energy and water refer to the period from 1 October 2022 to 30 September 2023.

Reading material



Responsible approach to existing properties

Zug Estates placed a strong emphasis on reducing the consumption of materials and on using recycled materials in its two refurbishment projects at Park Hotel Zug and at its own offices.



Needs and wishes always in mind

The key to successful sites is clearly keeping the needs and wishes of users in mind.







Emissions calculations affected by a host of variables

Marco Caflisch from Amstein + Walthert has assisted Zug Estates with the calculation of key energy and water-related figures since 2020. In this interview he talks about the complexity of materials and where the challenges lie in accounting terms.



To the article

Testing of innovative storage technology

The world's largest thermal energy storage facility, based on phase-change materials derived from salt hydrates, has been commissioned at the Suurstoffi site. The higher storage capacity results in

reduced operating cycles for the heat pumps and increases service life. To the article





Sustainable journey

We create added value by building, operating and continuously developing future-proof, diverse living spaces.



January 2010

Grand opening of City Garden Hotel: Zug Estates' first wooden building

April 2018

July 2018

land

Urban gardening project launched at the Suurstoffi site

First wooden high-rise in Switzer-

November 2019

Aglaya garden high-rise completed

June 2010

Foundation stone ceremony for the CO2-free Suurstoffi site

January 2015

Completion of the largest timber complex in Central Switzerland



September 2019

Private consumption community launched at the Suurstoffi site

First green bond placed by a Swiss real estate company

Grand opening of the tallest



wooden high-rise in Switzerland

April 2020

Metalli complex connected to the Circulago lake-water district

June 2020

Metalli shopping mall: first highpower, rapid e-vehicle charging stations in the city of Zug



January 2022

Second green bond placed

2021

Nine more buildings connected to Circulago



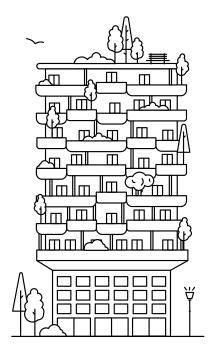
June 2022

Connection of the remaining properties to Circulago

June 2023

Co-signing of the Reuse-Oriented Construction Charter





October 2022

Haldenhof energy project: convergence of private consumption community (PCC), solar power, and e-mobility (incl. car sharing and car as battery storage)



August 2023

Opening of the e-mobility hub in the Metalli shopping mall



From 2027

Metalli Living Space: further development in accordance with environmental and social criteria



1. Sustainability strategy

1.1 Sustainable business model and value chain

Zug Estates Group creates added value by building, operating and continuously developing future-proof, diverse living spaces. It focuses on central sites in the Zug region that are suitable for a wide range of uses and allow for sustainable development. Its business activities are in the real estate and hospitality GRI Sector Standards. The real estate portfolio primarily has two sites in Zug and in Risch-Rotkreuz (both in the Canton of Zug, Switzerland) and is broadly diversified in terms of type of use. The broad mix of uses is part of the business strategy. Our sites offer living space for around 2 400 people plus more than 4 300 jobs. As at 31 December 2023, the total value of the portfolio was CHF 1.83 billion, and the Group had 134 employees on a full-time equivalent (FTE) basis. There were no significant changes in the organisation and supply chain in the reporting period.

Via Garden Park Zug AG, the Zug Estates Group operates two leading hotels in the city of Zug. Their attractive catering and event offering makes them a popular meeting point for guests from around the region.

The hotels portfolio includes the renowned 4-star Superior Park Hotel Zug, 4-star Superior-Designhotel City Garden, as well as three serviced city apartment properties. With a total of around 250 rooms and 110 employees, Garden Park Zug AG provides guests with first-class comfort and excellent service. The catering portfolio includes the aigu Restaurant and the bar & lounge, which opened in October 2023, together with the flexitarian Secret Garden Restaurant.

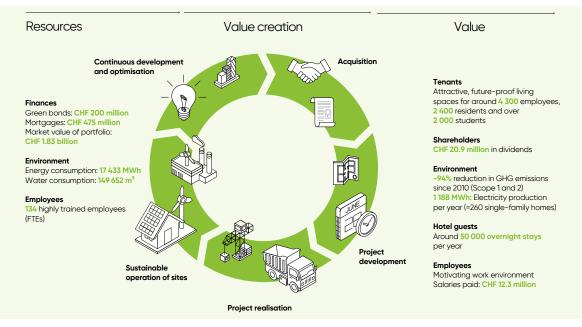
The sites are being developed in line with the sustainable principles described in detail in this report. A key outcome of our sustainability strategy to date has been the nearly CO₂-free operation of the Suurstoffi site and the city centre site/Metalli. Furthermore, when designing the outdoor spaces, Zug Estates strongly emphasises high-quality and varied green spaces that offer people a place to relax and convey a sense of well-being. The Metalli living space is also envisioned to become a popular place where Zug residents can meet and spend time, even after shops close and on weekends. This approach will enable Zug Estates to create long-term added value that benefits society, the environment and our stakeholder groups.

With the adoption of the new articles of incorporation in April 2023, we have additionally defined sustainability as an essential corporate purpose. At the same time, sustainable aspects remain part of our value chain and the investment criteria¹.

¹ https://zugestates.ch/en/about-zug-estates#investment-criteria



Structure of Zug Estates Group as at 31 December 2023



Value chain of the Zug Estates Group

All figures as at 31 December 2023. Key figures on energy and water from 1 October 2022 to 30 September 2023.

1.2 Values, ambitions and goals

Sustainable principles and values are firmly established in our company's DNA – at every level, from individual employees all the way to our Board of Directors. The Board of Directors and the Group management already began discussing their vision of a CO_2 -free site – the Suurstoffi – more than 15 years ago. Even then, decision-makers knew that the future lies in renewables and that greenhouse gases needed to be reduced swiftly and substantially.

An example of the fruits of these efforts can be seen in how the Suurstoffi site has evolved. There, Zug Estates forged new paths not only in terms of energy and emissions, but also through its virtually emission-free, anergy system. This green, spacious, traffic-free site is also impressive as a pleasant place for leisure activities and a high quality of life – important criteria for our tenants' coexistence and well-being.

It attaches great importance to sustainability in all aspects of its operations and is a pioneer when it comes to sustainably developing and operating zero-emission properties. The company takes its responsibility seriously and is committed to upholding binding sustainability goals. Zug Estates has a net zero strategy aimed at systematically reducing greenhouse gas emissions and preventing them if possible.

Last but not least, Zug Estates is committed to the principles of good corporate governance. This is

shown by its efficient management structure, comprehensive control mechanisms and transparent information policy. The Code of Conduct sets out the rules for ethical conduct for all Zug Estates Group employees and is given top priority.² Reaching its sustainability goals has been part of performance-based remuneration of the Group management since 2023.

Our commitment

- Energy and emissions: nearly 100% CO₂-free operation thanks to the zero-zero strategy.
- Development of living spaces: attractive spaces for a higher quality of life.
- Materials: promotion of a circular economy thanks to specifically selected materials and optimised use of grey energy during construction.
- Profitability: sustainability implemented with business success.
- Innovation: added value for people and nature through innovation.

Most important goals

- Achieve almost emission-free operation of the Suurstoffi and city centre/Metalli sites with regard to Scope 1 and 2 (first zero).
- Further develop the Renggli Holding AG properties acquired in October 2022 in line with sustainable principles and achieve emission-free operation in the medium term.
- Increase own electricity generation by means of

² https://zugestates.ch/en/corporate-governance

photovoltaic installations and purchase power from regional renewable sources of energy (second zero).

- Reduce CO₂ emissions from construction and contribute to the circular economy.
- Increase biodiversity by adding greenery to squares, roofs and façades.
- Maintain high tenant satisfaction through sustainable and diverse design as well as through active management and prudent transformation of living spaces.

1.3 Material topics

GRI 3-1 Zug Estates asked an interdisciplinary work group with Group management members and internal specialists to determine the most relevant ESG topics in 2020/2021. The work group included representatives from all relevant business units and processes such as risk management, procurement, compliance, property management, site management and communication. A consulting firm specialising in sustainability strategies monitored the process.

> A long list of topics was compiled based on internal and external sources (see figure below). Topics were selected and defined based in part on feedback from various stakeholder groups and obtained through tenant surveys, employee feedback gathered during brown bag events, roadshows, meetings with shareholders, investors and banks, as well as from assessments by ESG experts.

The topics were evaluated and assessed by the task force's internal experts during a workshop on identifying the relevance of the various topics in terms of value creation at Zug Estates. In addition, selected stakeholders (including financial and ESG analysts, investors, tenants and employees) were involved by means of individual interviews, surveys and research with a view to studying the relevance of the topics in terms of their environmental, economic and social impact (including human rights). This process took place in close co-operation with Group management and the Board of Directors of Zug Estates Holding Ltd.

Internal sources

- Annual Report
- Sustainability report
- Guidelines and targets
- Risk analysis results
- Relevant market analyses
- Internal surveys and interviews
- Tenant surveys from previous years

List of topics (long list)

External sources

- GRI standards
- SASB industry standards
- Industry-specific standards and guidelines
- Comparisons with competitors
 / sustainability reports
- Analysts' reports and media analyses
- External stakeholder surveys (shareholder, investor and bank meetings)
- UN Sustainable Development Goals (SDGs)
- ESG evaluations



Materiality matrix

The 12 topics of material significance that emerged form the basis for the materiality matrix. The Sustainability core team assesses the matrix annually. Group management and the Board of Directors approved all changes to the matrix.

Eleven key topics currently determine the structure of this report and help us to further develop our sustainable business activities in line with current and medium-term priorities.

GRI 3-2 List of material topics:

Attractive working environment, biodiversity, energy and emissions, innovation, development of living space, use of materials, transparent communication, connected communities, responsible corporate governance, use of water, business success As shown in the materiality matrix, Zug Estates is still mainly focused on environmental topics - and for a good reason. As a real estate company, we firmly believe we will have the biggest environmental impact through sustainable development, particularly if we reduce greenhouse gas emissions. Various studies have shown that CO₂ reductions are most urgently needed in the operation of buildings - an approach that Zug Estates has been successfully pursuing for over 10 years (see "Reduction pathway" on page 23). The development of living space is also a priority, as it gives us a means of influencing the way people move, work and live in our living spaces over decades. Zug Estates therefore firmly believes in creating attractive, long-term living spaces by taking sustainable criteria into account.

1.4 Our stakeholder groups

The most important stakeholder groups either affect Zug Estates Holding Ltd's business activities significantly or have a substantial influence on the company. The most important ones include:

- Shareholders and investors
- Tenants
- Employees
- The public and the Zug population
- Authorities and politicians
- Business partners and suppliers
- Financial and ESG analysts
- Media
- *GRI 2-29* Zug Estates regularly engages with its key stakeholders through surveys and personal meetings. The most important findings include:
 - A population survey³ in Zug has shown that Zug Estates is on the right track with its plans for the Metalli living space.
 - The employee survey indicated measures for improvements in the various teams and at the corporate level, which have been addressed to a large extent.
 - ³ https://www.lebensraum-metalli.ch/storie/die-bevolkerung-bringtsich-ein (German only)

- Commercial and office tenants as well as ESG analysts would like more transparency and comparability in the presentation of the sustainability credentials of buildings.
- A satisfaction survey among participants at the Sustainability Forum showed that the topics presented were considered relevant and that there was a keen interest in social topics.

For details about our approach to involving key stakeholders as well as an overview of the concerns that these groups have raised, please refer to page 45.

1.5 Sustainability organisation

To meet current and future challenges, the area of sustainability has been organised as follows.

As part of the company-wide strategy development, the Board of Directors is responsible for setting and monitoring the sustainability strategy. The Board of Directors assumes overall responsibility for sustainability.

The Sustainability core team, headed by the CEO, is responsible for implementing the sustainability strategy, contributing ideas to the project and reviewing the material topics. It is an interdisciplinary team that includes members of Group management. Twelve meetings – generally lasting two hours – were held in



Sustainability organisation:

the 2023 reporting year. The core team reports regularly to the Board of Directors through Group management.

The core team's tasks include:

- Strategic development of the material topics
- Initiation of new project ideas
- Operational control and monitoring of projects with sustainability aspects
- Acquiring expertise internally
- Boosting acceptance, information and involvement of employees
- Regular reporting on the effects, risks and opportunities of environmental and social issues
- *GRI 2-17* Each material topic (see materiality matrix) is assigned to a particular person, who is responsible for developing it and reporting to the Sustainability core team.

The Board of Directors has an active role in developing sustainability topics. The annual strategy workshop offers the Board of Directors and Group management the opportunity to study topics (including sustainability) in more depth and to further their education. External expert speakers and relevant stakeholders are invited, depending on the topic. Dr. Joëlle Zimmerli, a sustainability expert with a strong track record, joined the Board of Directors in 2023.

The organisational regulations describe in detail how *GRI 2-13* responsibilities are divided between the Board of Directors and Group management⁴.

The Board of Directors and Group management approve this report in accordance with GRI Standards.

⁴ https://zugestates.ch/assets/documents/211130_Organisational_ regulations_Zug_Estates_Holding_AG.pdf

1.6 UN Sustainable Development Goals (SDGs)

Zug Estates contributes to the following Sustainable Development Goals⁵:

 $^{\rm s}\ {\rm https://www.eda.admin.ch/agenda2030/en/home/agenda-2030/die-17-ziele-fuer-eine-nachhaltige-entwicklung.html}$

	Goal	Our contribution	Material topics for Zug Estates
7 BEZAHLBARE UND SAUBERE ENERGIE	Ensure access to affordable, reliable, sustainable and efficient energy for all	Access to the private consumption community (PCC) gives our tenants sustainable energy on attractive terms and conditions.	Energy and emissions
		The energy needed to run buildings (heating, hot water and air conditioning) is largely procured from renewable sources (Goal 7.2).	
9 INDUSTRIE. INNOVATION UND INFRASTRUKTUR	Build resilient infrastructure, promote inclusive and sustainable industrial-	Zug Estates has implemented several sustainable projects with a national impact, including the anergy system at the Suurstoffi site, the first wooden high-rise in Switzerland, and the Aglaya garden high-rise.	Innovation
	isation, and foster innovation	The world's largest thermal energy storage facility, based on phase-change materials derived from salt hydrates, was commissioned in 2023, in a pilot project at the Suurstoffi site ⁶ . In addition, we are currently involved in the e-mobility project V2X (Goal 9.1).	
	Design cities and settlements to ensure they are inclusive, safe, resilient and sustainable	Zug Estates sets the pace for all of Switzerland with its Suurstoffi site, which was developed in line with key sustainability topics that include energy, emissions, materials, biodiversity and mobility. Topics that play a crucial role in developing the Metalli living space in Zug's city centre address not only environmental but also social aspects. For example, some of the apartments being built are in the low-price segment. Other important project goals include integration into surrounding neighbourhoods and the creation of pleasant public spaces (Goals 11.1, 11.3, 11.6, 11.7).	Development of living spaces
12 ASSTORSBEE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns	 17% of all lettable space is located in wood or wooden hybrid buildings (Goal 12.2). Garden Park Zug AG participates in the "Swisstainable⁷" project run by Swiss Tourism, as well as in the "Too Good To Go" project aimed at combating food waste (Goals 12.3 and 12.5) Zug Estates observes the principles of the circular economy. 	Materials
		Wherever possible, the company preserves existing buildings, relies on secondary materials, chooses methods with high material efficiency for construction and, last but not least, uses building materials with low CO_2 emissions (Goal 12.5).	
13 CLIMATE	Act quickly to combat climate change and its impacts	Renewable local energy systems, renewable building materials (wooden construction), strong energy efficiency in newly constructed buildings, and green spaces in outdoor areas improve the sites' adaptability to climate-related hazards (Goal 13.1).	Energy and emissions Materials
		Zug Estates has demonstrated its pioneering spirit repeatedly through the anergy system, the first wooden high-rises in Switzerland, and the garden high-rise. These projects have helped the company raise awareness of and educate people about sustainable infrastructure. We aspire to do the same in our Metalli living space develop- ment project (Goal 13.3).	

⁶ https://zugestates.ch/stories/innovative-speichertechnologie-in-der-suurstoffi-getestet (German only)

⁷ https://www.stnet.ch/de/swisstainable/strategie/ (German only)

2. Overarching topics

2.1 Innovation

Relevance

At Zug Estates, we use innovations and the possibilities of digitalisation to increase the quality of our properties and services and to optimise operations and processes. Continuous innovation is essential for us to maintain our competitive edge in the long term and meet the expectations of various stakeholder groups, and our customers in particular.

Sustainability is a key driver of innovation. Our goal of managing properties with no greenhouse gas emissions and a minimum of external energy, as well as our claim of promoting the circular economy and biodiversity on our sites, prompt us time and again to question established practices and look for new approaches. Digital technology (e.g. for controlling the anergy network at the Suurstoffi site plays an important role here, as it helps us create smart and integrated neighbourhoods that are more efficient, clearly add value for residents and the environment, and contribute to our business success.

Approach to the topic

Zug Estates has implemented many pioneering projects in recent years. These include the Suurstoffi site with its innovative energy system and a private consumption community for the entire site and outdoor space designed with a strong focus on greening and biodiversity, the realisation of the first (the S22 building) and the currently tallest (the Arbo building) wooden hybrid high-rises in Switzerland, as well as the Aglaya garden high-rise. With these projects, Zug Estates deliberately pushes the boundaries, assumes calculable risks, and plays a pioneering role in the market by influencing decision-making at other companies.

Zug Estates looks for innovation opportunities in various areas and at different levels. It pursues ambitious goals and innovative approaches in planning and realising its properties, especially with respect to energy and emissions, as well as with materials and the circular economy. It promotes new usage concepts in the development and operation of the sites (e.g. in the areas of supply and mobility). Furthermore, it uses the possibilities of digitalisation to simplify processes, especially in the area of property management, and offers its customers optimised services. In the two refurbishment projects carried out in autumn 2023 at Park Hotel Zug and at its own offices, Zug Estates placed a strong emphasis on reducing the consumption of materials and on using recycled materials. Under its Group management, Zug Estates focuses on topics related to innovation and advances them for specific purposes. Zug Estates is committed to establishing innovation as an integral part of its corporate culture. This includes employees discussing new trends and visiting innovative projects and properties regularly.

We work with external partners to develop an open approach to promoting innovation more effectively in all areas of the Group's business activities. We regularly exchange information with other industry players to benefit from each other's valuable experience. We are also a core member of Switzerland Innovation Park Central in Rotkreuz, where our employees regularly attend innovation workshops. We have established other innovation partnerships with various research institutions including the Lucerne University of Applied Sciences and Arts (HSLU), for example. Our collaboration with HSLU allows us to conduct research regularly to test and refine our ideas and project implementations

The world's largest thermal energy storage facility, based on phase-change materials derived from salt hydrates, was commissioned at the Suurstoffi site in 2023. The resulting higher storage capacity leads to reduced operating cycles for the heat pumps and thus increases service life¹.

Results and evaluation

Zug Estates' entire portfolio reflects the company's pioneering role in managing greenhouse gas emissions, particularly in terms of sustainability and as a driver of innovations for supplying energy and for heating and cooling its properties. With a figure of 1.1 kg per m² of energy reference area (see "Reduction pathway" on page 23), greenhouse gas emissions from the Zug Estates portfolio are significantly below the industry average.

¹ https://zugestates.ch/stories/innovative-speichertechnologie-in-der-suurstoffi-getestet (German only) Our various prizes, awards and accolades on a range of topics are testimony to our pioneering spirit.

- 2022: Second place in the ranking of Switzerland's most eco-friendly companies
- 2018: Prix Lignum silver medal for the first wooden high-rise in Switzerland
- 2018: Award from the Swiss Association for Location Management for the Suurstoffi site

These recognitions motivate us to increase our efforts to find innovative solutions, examine how they might benefit our stakeholders, and implement them to best effect.

2.2 Business success

Relevance

Zug Estates aims to plan, realise, manage and further develop attractive and sustainable living environments for tenants and other parties. We can live up to our promise only if we operate profitably over the long term, which then enables us to meet our obligations to all relevant stakeholder groups.

Approach to the topic

Our sustainable and diverse living spaces are a prerequisite for our long-term business success. Through sustainable and versatile design as well as active management and prudent conversion of our living spaces, we make our locations more attractive and enhance the quality of stays, thus positively affecting property income. In addition, we use specific synergies from the geographical concentration and diversified use of our living spaces to increase our service quality and optimise costs.

Zug Estates pursues a policy of active growth. Following the acquisition of Renggli Holding AG in November 2022, the focus has been on realising the potential available in the portfolio – in particular developing the city centre site in Zug as well as completing the Suurstoffi project and developing the Renggli properties in Rotkreuz. Yet we do not view growth as an end in itself. We make acquisitions only if their quality and commercial benefits have a meaningful balance. This enables us to secure our long-term financial stability. It also requires us to keep our debt ratio at moderate levels, diversify our lenders broadly, and balance how we structure the contract terms.

Risk management

Comprehensive risk management is an important instrument for ensuring Zug Estates Group's business success. The company regularly identifies, analyses and controls business risks as part of a clearly defined process involving all hierarchy levels, up to and including the Board of Directors. The Board of Directors defined the basic principles of risk management in the form of a risk policy (guideline).

Zug Estates prepares an annual risk report that categorises and weighs each relevant business risk by its probability of occurrence and loss potential. The report focuses on measures to reduce such risks. This process helps the Zug Estates Group to manage opportunities and risks so as to reach its goals. The Group's risk situation must be comprehensively reassessed every three years. The Board of Directors controls Group management and supervises its work regularly. The annual report 2023 (page 34) describes the various process and control instruments in detail². The Audit Committee is responsible for controlling and monitoring financial risks. Please refer to the regulations of the Audit Committee³.

² https://zugestates.ch/en/downloads

³ https://zugestates.ch/assets/documents/211130_Regulations_of_ the_Audit_Committee.pdf

Climate-related risks

Climate change has been increasing the risks from natural hazards. For a business to remain successful, it must keep these risks in mind and manage them actively. The climate-related risks and their effects are addressed in Zug Estates Group's annual risk report and listed in the following table.

Climate risk	Consequences	Assessment	Measures
Climate change is raising temperatures, causing lengthy heat waves, and increasing the number of heat days.	The need to cool buildings is thus increasing, and the energy required for doing so is driving up costs.	The system at the Suurstoffi site and the Circulago lake-water district can supply sufficient energy for cooling.	There are plans for some adjustments to the Suurstoffi's energy system (e.g. night cooling)
The heat island effect is causing cities to become steadily warmer, and	rising temperatures are affect- ing our sites. Since the heat island effect negatively impacts people's well-being, it not only makes a location less attractive but also lowers demand for living space.	city centre site), Zug Estates can take measures to cool the	Use of greenery and wet surfaces; provision of shade. In terms of construction, the choice of materials used for the building's exterior is a crucial factor for improving the microclimate. Preventing heat islands and providing shaded areas by planting trees are key topics in the Metalli living space development project.
Damage from storms and extreme weather events is likely to increase, and we can expect more powerful storms and torrential rains in future.	There will be an increase in the number and size of loss events involving buildings and their surroundings, and insurance costs can be expected to rise.	The sites operated by Zug Estates are not in high-risk areas (landslides, flooding, rockfall) as shown on the risk zone plan ⁴ . No special preventative measures are necessary.	Structural measures and precautions to prevent damage from natural hazards, adaptation and optimisation of insurance cover, identifica- tion and implementation of technical precautionary systems in buildings, training and informing employees and tenants.
Taxes and CO ₂ levies will rise as a means of reducing greenhouse gas emissions.	Replacement of CO ₂ intensive heating systems.	Since the portfolio is already virtually CO ₂ -free, the risks from rising prices for green- house gas emissions or the cost of switching to low- er-emission technologies are very low.	Even if it were to expand its portfolio, Zug Estates will continue to rely on CO ₂ -free heating and cooling systems.
Rising energy prices and energy rationalisation	Rising ancillary costs for tenants and operating costs at Garden Park Zug AG. As this risk affects all operators of real estate, it must be considered as comparatively neutral.		Reduce fossil fuel dependen- cy, ramp up own solar power production, increase energy efficiency of buildings, enter into long-term energy supply contracts.

⁴ https://zugmap.ch/bmcl/?project=ZugMap.ch&legend=alle%20Themen&rotation=0.00&scale=51802¢er=2684000,1224000 (German only)

Results and evaluation

The Annual Report 2023⁵ of Zug Estates Holding Ltd explains the main developments in the 2023 financial year. We study the environmental impact of our green bonds⁶ annually as part of our green bond reporting. Internal minimum thresholds and targets are in effect for the most important financial ratios. The Audit Committee and the Board of Directors review them several times a year and take measures as needed.

Zug Estates' impressive track record in terms of sustainability helps it to borrow capital. In 2019, for example, we became the first real estate company in Switzerland to issue a green bond of CHF 100 million. Zug Estates placed a second green bond for CHF 100 million in January 2022. This means the bond portfolio consists entirely of financial instruments focusing on sustainability. This should also be the case in future.

GRI 201-1 Direct economic value generated and distributed

Zug Estates had a very satisfying business result in 2023. The Group benefited from brisk demand for attractive, well-connected rentable space and achieved numerous rental successes. Property income increased year on year, while the vacancy rate is set to fall significantly in 2024. The hotel & catering segment showed an encouraging trend, while the refurbishment of the ground floor of the Park Hotel Zug was successfully completed with the opening of the new aigu restaurant and repositioning of Garden Park Zug AG. Please see the 2023 annual report of the Zug Estates Group for details.

GRI 201-2 Financial implications and other risks and opportunities from climate change

> The main financial consequences of climate change include an increase in damage to buildings and infrastructure from weather events as well as higher costs from cooling buildings and supplying them with energy. The financial consequences are manageable according to the internal analysis, as shown in the Assessment. The analysis, assessment and derivation of measures for risk mitigation in connection with climate change (see page 17) are part of the risk report the Board of Directors and management prepares annually. Those consequences are factored into our site development plans – both with respect to the architecture and features of our buildings and the design of outdoor spaces.

Since the portfolio is already virtually CO_2 -free, the risks from rising prices for greenhouse gas emissions or the cost of switching to lower-emission technologies are extremely low. Zug Estates closely monitors technical and regulatory trends during its annual risk analysis to ensure that it can identify risks and seize opportunities in good time.

⁵ https://zugestates.ch/en/downloads

⁶ https://zugestates.ch/en/stories/green-bond-reporting

3. Environmental topics

With regard to environmental issues, the core of Zug Estates' sustainability strategy is the reduction of greenhouse gas emissions. Having successfully focused for a long time on reducing emissions from operating its buildings (energy and emissions management approach), Zug Estates will in future pay closer attention to emissions during the construction of properties and sites (materials management approach). In addition, Zug Estates strives to strengthen biodiversity and conserve water in its properties.

3.1 Biodiversity

Relevance

Diversity in the ecosystems enables us to maintain life on our planet. For human beings to continue to exist in the long term, it is imperative that we regard biodiversity as a pivotal factor when designing our habitats. Urbanisation has boosted construction and caused a sharp increase in ground sealing in recent decades. Zug Estates, too, has sealed some areas through its construction activities – primarily at the Suurstoffi site. In the absence of adequate countermeasures, this will negatively affect biodiversity and ecosystems. For example, ground sealing causes less water to reach the soil and thus leads to a loss of natural habitat for animals and plants.

Approach to the topic

At Zug Estates, we take this topic seriously and consider biodiversity aspects when developing the outdoor areas at all our sites. This includes design and maintenance concepts for green spaces that facilitate and promote biodiversity. For technical support, Zug Estates works with landscape architects, gardeners and specialists. Based on professional recommendations, we have set ourselves the following goals for optimal biodiversity at our sites:

- When planning new outdoor spaces, we consider measures that promote biodiversity (e.g. greening of roof surfaces).
- We aim to manage outdoor spaces to promote biodiversity (e.g. no chemical treatment of soils; creation of natural patches where appropriate).

 Invasive plant species, referred to as neophytes, should not proliferate on Zug Estates sites and are removed and replaced regularly. Native plants are used where appropriate. Plants must always be matched to the location.

The Sustainability core team reviews all new development projects with regard to biodiversity. Furthermore, properties currently in the portfolio are reviewed and proposals for improvements are developed jointly with project and property managers. Here, specific measures to reach these goals range from complex projects, such as the design of semi-natural landscapes, all the way to minor steps that are easy to implement.

Our properties' outdoor spaces are intended as places where people can meet, spend time and enjoy themselves, and they should promote a sense of well-being and create an identity. Moreover, they should offer ideal conditions for plant and animal life as well as promote biodiversity. Since the outdoor and green spaces must accommodate human and natural uses equally, the likelihood of conflicts must be considered when planning and managing them.

An expert analysis of the space surrounding the Suurstoffi buildings carried out in 2022 identified potential for improving its quality and the experience of staying there, as well as for promoting biodiversity. Several workshops were held to discuss, evaluate and plan the measures to take. The work itself was carried out in the first half of 2023. This included redesigning the spaces as well as creating natural patches and constructing stone and deadwood piles to promote biodiversity on the eastern side of the site¹.

¹ https://zugestates.ch/stories/staerkung-des-aussenraumkonzepts (German only)

Results and evaluation

Own information: Proportion of certified land area of special ecological value as at 31 December 2023: 57%.

The entire Suurstoffi site of 105342 m² (57% of all properties belonging to Zug Estates) has been certified by the Nature & Economy Foundation. The certificate is awarded to sites whose special ecological value contributes significantly to preserving natural biodiversity and that enable their residents to form a direct relationship with nature. The Foundation's sponsors prepare the criteria in consultation with cantonal planning authorities, nature conservation specialists, landscape architects and urban developers. Certification requires the following minimum standards, which have been confirmed for the Suurstoffi site:

- At least 30% of the surrounding land must be designed using semi-natural and structurally varied criteria.
- No more than 30% of the surrounding surface may be sealed.
- Semi-natural areas must be filled with a highly diverse range of indigenous plant species that are appropriate for the site.
- No biocides or chemical fertilisers may be used in the semi-natural spaces.
- Semi-natural meadows will be cut no more than twice a year.

The Nature & Economy Foundation website has the complete list of criteria for residential sites.² There are currently no plans to extend this certified area, as the conditions in the city centre site are completely different in an urban environment and other criteria would have to apply.

Suurstoffi site

High-quality beds of perennials, urban and residential gardens, a neighbourhood park, and wet surfaces are visible elements in the design surrounding the Suurst-offi site and help to promote biodiversity. Rooftops and façades are also included as potential spaces for biodiversity promotion. Zug Estates showcased green façade concepts with its Aglaya garden high-rise on the Suurstoffi site, where more than 15 000 plants grow on the sides of the 70-metre building. Bird nests and the sight of insects and butterflies all the way to the top indicate that the area's biodiversity has increased.

The short period since completion of the building has so far made it impossible to assess how the natural patches on the eastern side of the Suurstoffi site have affected biodiversity. In due course, Zug Estates will work with experts to conduct a field study to assess the situation and make changes as needed.

Metalli living space

The recommendations from the review, as well as those of landscape architects, concerning the topic of greening and biodiversity in the Metalli living space project have been incorporated into the adapted development plans, which have already been reviewed by the cantonal authorities and are now at the approval stage. The currently planned architectural competition requires biodiversity and heat reduction measures to be included. Teams will be required to provide a qualitative description and explanation.

General greening and biodiversity are to be given greater emphasis compared to what is currently the case. This way, the current hard surfaces are loosened up here and there with soil for growth. At the new Metalli space and at the square in front of the UBS bank, large, shady trees will be planted in tree pits dug for this purpose. Furthermore, greening of the roof surfaces is planned as well.

3.2 Energy and emissions

Relevance

Greenhouse gas emissions resulting from human activity increase global warming and lead to the climate change that has already begun. This impacts both people and nature. Some 40% of greenhouse gas emissions in Switzerland are caused by the real estate industry.³.

The Federal Council adopted Switzerland's long-term climate strategy on 27 January 2021 and approved its submission to the UN Climate Change Secretariat. This puts Switzerland in compliance with the Paris Agreement, which calls on all countries to develop climate strategies by 2050. If global warming is to remain below 1.5 degrees Celsius with a sufficiently high probability, worldwide CO_2 emissions must be brought to net zero by the middle of this century at the latest. This means that any CO_2 still being emitted then must be completely and permanently removed from the atmosphere through sinks (negative emissions). The

² https://www.naturundwirtschaft.ch/assets/Dateien/Files/ Medienmitteilungen/346/Antragsformular_Wohnen_28042021_ interaktiv.pdf (German only)

³ https://www.bafu.admin.ch/bafu/en/home/topics/climate/in-brief. html

Zug Estates Group is fully committed to the goals of the Paris Agreement and the federal government's Energy Strategy 2050.

Approach to the topic

Zug Estates is aware of its responsibility relating to climate change. With its zero-zero strategy, Zug Estates has been pursuing two goals for over ten years: On the one hand, buildings should be managed emission-free, while as much energy as possible should be self-produced. Energy purchased from third parties must come from renewable sources. The Zug Estates sites – Suurstoffi and the city centre – have been operating virtually CO_2 -free since 2022 (Scopes 1 and 2). The company is therefore currently focused on increasing its own electricity production (photovoltaics) and adapting the energy concepts for the other investment properties in the medium term.

It aims not only to reduce CO_2 emissions from operations to the best of its ability but also the CO_2 emissions from construction activities (grey energy) (see the management approach to materials). Zug Estates includes this topic in its current project developments.

It pursues a net zero strategy with the goal of systematically reducing greenhouse gas emissions or preventing them altogether if possible. The Group's strategy does not include any CO_2 offset projects.

Efforts relating to energy and emissions fall into four areas where Zug Estates has set itself ambitious, far-reaching goals. To reach these goals, Zug Estates is taking comprehensive measures. The following section explains these four action fields in detail.

3.2.1 Action field: Emissions

Goals

We aim to manage our real estate portfolio largely without greenhouse gas emissions (Scopes 1 and 2). This includes any greenhouse gases emitted by the heating and cooling systems, from generating the operating current, as well as by our fleet of company vehicles.

Scope 3 is the third and most extensive scope for emissions auditing under the Greenhouse Gas (GHG) Protocol. Divided into fifteen categories, it covers all indirect greenhouse gas emissions from sources not owned or directly controlled by Zug Estates. Zug Estates already reports on some of the categories and in addition plans to expand its Scope 3 reporting step by step (see table on page 22).

Measures

The Suurstoffi site was planned and built from the outset with the aim of operating CO_2 -free. The Zug city centre site is now almost fully connected to the Circulago⁴ lake-water district so that all heating, cooling and water heating for all properties will be virtually CO_2 -free. Only the Bären property has not yet been connected for economic and ecological reasons. This switch is planned to correspond with development work on the Metalli living space, which will result in synergies. Operating the lake-water district is possible thanks to biogas certificates that compensate for gas-based peak load coverage, enabling the system to be run entirely without fossil fuels. The company's vehicles fleet will also be fully carbon-free by the end of 2024.

The Renggli-portfolio, which was acquired in October 2022, is largely powered by fossil fuels. These properties are also to be supplied with renewable energy in the medium term. The energy systems will be adapted when the properties are developed. Development in Rotkreuz depends on the revision of the site map⁵, which is currently under way.

⁵ https://www.zg.ch/behoerden/gemeinden/risch-rotkreuz/ projekte-test/copy8_of_beispielseite (German only)

⁴ https://www.wwz.ch/de/ueber-wwz/blog/2020/waerme-kaelte/ circulago-der-zugersee-die-regionale-energiezentrale (German only)

Scope 3: Relevance matrix and overview of measures

Category	Relevance ⁷	Measures	Reference
 Purchased goods and services, e.g. office supplies and third-party services 	Average	From 2023: measurement of office supplies, inclusion in FM invitations to tender	Page 28
2 Capital goods, e.g. construction materials	High	Planned: implementation in new construction projects such as Metalli Living Space and S43/45	Page 31 onwards
 Fuel and energy-related activities not included in Scope 1 or Scope 2 (upstream emissions) 	High	Calculated from 2023	Page 28
4 Upstream transportation and distribution between Tier 1 supplier and organisation	Low	No measures planned	
5 Waste generated in operations	High	Planned: measurement of office waste, waste separation at Metalli shopping mall	Page 31 onwards
6 Business travel	Low	Assessment for Zug Estates Ltd Planned: extension to whole Group	Page 28
7 Employee commuting	Average	Assessment for Zug Estates Ltd Planned: extension to whole Group	Page 28
8 Upstream leased assets	Not relevant	-	
9 Downstream transportation and distribution	Not relevant	_	
10 Processing of sold products	Not relevant	_	
11 Use of sold products, e.g. tenant energy consumption	High	Measurement of tenant energy consumption since 2010 Planned for 2024: integration of Renggli portfolio	Page 28
12 End-of-life treatment of sold products	Low	No measures planned	
13 Downstream leased assets	Not relevant	_	
14 Franchises	Not relevant	-	
15 Investments	Not relevant	-	

Results

Zug Estates has reduced its greenhouse gas emissions (Scopes 1 and 2) continuously since 2010. The two Zug Estates sites now operate virtually emission-free. This makes Zug Estates a vanguard in the Swiss real estate industry.

The data shown cover the period from 1 October of the previous year to 30 September. Up to and including 2022, the reporting year covers the measurement period from 1 April to 31 March of the following year?. In addition, there was a change in calculation factors from KBOB 2017 to KBOB 2022 (see page 30 for detailed information). The new calculation factors were used for the entire data series, resulting in a minimal increase in the figures published to date in the region of 0.1 to 0.2 kg CO_{2eq} per m² of energy reference area.

Year on year, Zug Estates shows greenhouse gas emissions of 1.1 kg CO_{2eq} per m² of energy reference area (previous year: 1.0 kg) The slight rise is mainly due to the additional investment properties (Renggli portfolio), which were taken into account for the entire calculation period for the first time.

Despite the increase, emissions remain significantly below the industry average and are set to remain at this very low level in the medium term.

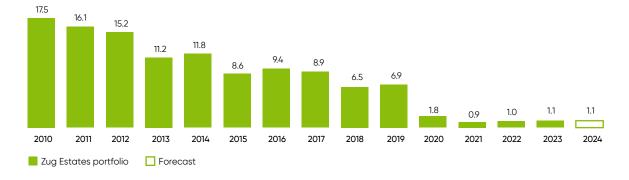
3.2.2 Action field: Energy origin

Goals

We attach importance to ensuring that the energy for heating and cooling as well as the operating current for the building portfolio comes from renewable sources or is self-produced to the extent possible. Solar power produced locally on our sites will continue to increase as we expand capacities in the long term.

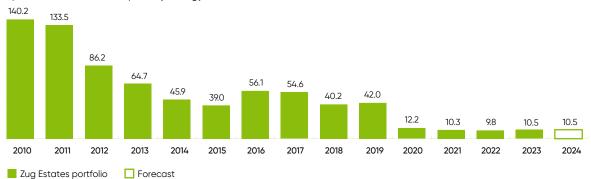
⁶ The relevance analysis was carried out by Amstein+Walthert in 2023 and is updated annually by the Sustainability core team.

⁷ Examples: 2022 reporting year: 1 April 2022 to 31 March 2023; reporting year 2023: 1 October 2022 to 30 September 2023



Scope 1 and 2 reduction pathway, market-based, including out-of-scope emissions (biogas) Specific greenhouse gas emissions [kg/m² EBF]

Reduction path for non-renewable primary energy including out-of-scope emissions (biogas) Specific non-renewable primary energy [kWh/m² EBF]



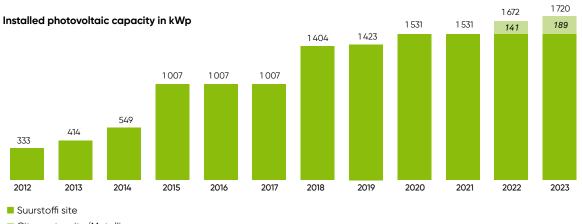
Measures

A key measure involves switching from internationally sourced oil and gas to energy produced regionally by the Circulago lake-water district. Solar energy production (for electricity and heat) on the company's own sites will increase at the same time. The electronic main distribution of all properties of the private consumption community (PCC) on the Suurstoffi site were already integrated into the PCC in 2020. This enables Zug Estates to sell the electricity generated on site to tenants on attractive terms. Both sides benefit from this arrangement, as tenants pay less for our electricity than they would through the local electric company and we earn more than we would through the feed-in compensation.

The amount of self-produced electricity will also increase gradually at the city centre site. In autumn 2022, six new photovoltaic (PV) systems were commissioned at Haldenstrasse. Here, too, tenants have the option of joining the PCC⁸. At the city centre site, a new photovoltaic system on the roof of the Park Hotel Zug with an output of around 48 kWp was commissioned in the reporting year.

⁸ https://zugestates.ch/zev-zentrumsareal (German only)

Results



City centre site/Metalli

Key figures on photovoltaics

Potential as at 31 December 2023	Total	Suurstoffi site	City centre site/ Metalli	Other properties
Number of buildings	63	28	26	9
Number of buildings with PV installations (share as a percent)	49%)	86%)	7.0 %	0.0%
Properties with PV potential	40	24	13	3
Implementation rate of PV installations on buildings with meaningful PV potential	78%	100 %	54%	0%
Production and consumption		Unit	2022	2023
Electricity production (PV installations)		MWh	1 234	1 188
of which PV electricity for own consumption (operating current)		MWh	963	983
of which PV electricity sold (to tenants)		MWh	217	136
of which fed into the public grid		MWh	54	69

The Group's own photovoltaic systems generated 1188 MWh of power in 2023 (previous year: 1 234 MWh), which equals the electricity requirements of around 260 single-family homes. The number of PCC customers at the two sites rose to 410 as at 31 December 2023. The continued pleasing performance represents a 12.3% increase compared to 31 December 2022.

62% of all tenants in the PCC properties have concluded an electricity supply agreement with Zug Estates.

Own consumption fell slightly, from 96% to 94%. The feed-in to the public grid correspondingly rose from 4% to 6%.

3.2.3 Action field: Energy consumption

Goals

We intend to optimise the energy consumption of our site infrastructure and get tenants involved in implementing measures designed to boost efficiency. Specifically, we are aiming for a steady, relative reduction in the power consumption of our operations by 2030 (operating current per m² of energy reference area). We also want to create incentives for customers in the PCC to reduce their power consumption.

Strategy for energy efficiency in buildings and in lighting:

- Make Minergie the minimum goal for new buildings.
- Ensure that electrical equipment plus consumption meets the best standards for new buildings.
- Convert lighting to LED and use it only as needed.
- Use smart control system for indoor conditions: ensure that heating and cooling meets environmental standards and is optimised. In summer, adjust the air conditioning system automatically to the outdoor temperature (Suurstoffi).
- Use smart automation systems in all buildings built before 2010. Upgrade systems in refurbished buildings wherever possible.

Measures

Zug Estates analyses the performance of its own site infrastructure continuously and uses the data to devise measures for optimising its operations. These include improving energy generating installations as well as distribution and lighting systems, for example. Zug Estates is also planning to introduce incentive schemes that could affect tenants' energy consumption positively. Schemes could include measures such as showing tenants their own resource consumption data to make them more aware and prompt them to lower their share.

Since 2021, Zug Estates has switched the lighting in various areas (including the Suurstoffi underground car park) to LED to optimise energy consumption, among other things. Further retrofits for ancillary areas such as corridors, entrance areas or building entrances will follow.

Results

Since 2010, electricity consumption per m² of energy reference area has been reduced by two thirds thanks to the series of measures and initiatives described in the introduction. Operating current includes general electricity as well as electricity for the energy centres (including power for heat pumps).

Energy intensity

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consump- tion kWh/m ² of energy reference area (without tenant electricity)	171	156	147	119	103	85	89	91	73	72	61	62	65	64
of which operating current ^e	87	79	75	65	44	40	40	41	36	34	26	26	29	30
of which heat/cooling consumption Circulago and fuel ⁰	84	77	72	54	59	45	49	50	37	38	35	36	36	34

⁹ General electricity and electricity for heat pumps, electric company vehicles

¹⁰ These include petroleum or fossil fuelled vehicles

Building certifications

Zug Estates measures energy and emission data based on actual values rather than on projections. The concept was developed with Lucerne University of Applied Sciences and Arts in 2010 and has been refined continuously. For this reason, none of the buildings had been certified at the end of 2023.

OekoWatt GmbH reviewed the buildings on the

Suurstoffi site, and it could thus be determined that they meet the standards for Minergie certification (measured against the standards that applied at that time).

As conditions for building certificates and labels as well as ratings have changed considerably in recent years and various stakeholders want more transparency and comparability, Zug Estates has looked more deeply into site certification. To take these developments into account and because the Suurstoffi site meets the sustainability standards, Zug Estates is seeking recertification of this site under the German Sustainable Building Council (SGNI). Inspection activities are scheduled to be completed in the seco quarter of 2024.

3.2.4 Action field: Mobility

Goals

Our tenants have a growing need for e-mobility. Zug Estates is therefore promoting e-mobility by expanding the necessary infrastructure on its sites. We promote CO_2 -free mobility by creating optimal conditions for public transport use, e-mobility, and other environmentally friendly mobility forms.

By creating suitable incentives, we seek to continuously reduce the number of kilometres our employees commute in private motorised vehicles.

The number of charging stations for electric vehicles in Zug Estates Ltd's overall portfolio will be steadily increased.

Measures

By setting up e-vehicle charging stations on the Metalli and Suurstoffi sites, Zug Estates is providing the prerequisites for its tenants to conveniently switch to e-vehicles. We conducted a survey to learn more about our tenants' future mobility behaviour. This will allow us to better plan the additional charging stations to meet the demand from growth in e-mobility.

Within our company, we help employees forgo a parking space by granting a generous commuter al-

lowance either to cover the cost of using public transport or as a financial contribution toward the cost of a bicycle. Zug Estates employees who commute to work by electric vehicle have had access to a free charging station at work since 2021. Zug Estates currently still has a fossil-fuel vehicle at Garden Park Zug AG; however, it will be replaced by an electric one by the end of 2024.

The public e-vehicle charging stations at both sites are being expanded continuously.

Results

The solution Zug Estates has arranged with Energie 360° gives 100% of its tenants the opportunity to use an e-parking space. Five employees took up this offer in the year under review (previous year: four).

The city centre site/Metalli had 20 public charging stations – 14 of them offering rapid charging – in operation as at 31 December 2023. The Suurstoffi site has six public charging stations available, with two of them offering rapid charging.

Mobility as a Service (MaaS)

By supporting the "Sorglos mobil" (carefree mobility) project of PostBus Ltd and Mobility Genossenschaft, Zug Estates is offering its support to a pilot project in the area of Mobility as a Service (MaaS) at the Suurstoffi site. "Sorglos mobil" gives tenants access to an e-vehicle fleet – including bikes, cars and cargo bikes – right on their doorstep. It was also possible to book trips by public transport. The pilot project ended as planned at the end of 2022. All participants were able to gain exciting insights for further projects¹¹.

 $^{\rm 11}$ https://zugestates.ch/en/stories/exciting-findings-for-a-possible-transformation-in-mobility

E-mobility key figures

	31.12.2022	31.12.2023
Number of installed charging stations at all properties	78	91
of which public charging stations	11.	26

* Only at city centre site/Metalli

Overarching indicators Energy and emissions

Energy consumption and energy intensity

The final energy consumption figures refer to heating oil and natural gas as well as to the operating current the heat pumps use to generate energy in the form of hot water and heating for the real estate portfolio of Zug Estates. The balance sheet also includes mobility-related final energy consumption based on the fuel and electricity required for the company's fleet of vehicles. The following figures relate to the entire Zug Estates portfolio. No conversion tables are used except for heating oil, which is calculated at 10.5 kWh per litre.

GRI 302-1 Energy consumption within the organisation

GRI 302-3 Energy intensity

	-		
	Unit	2022	2023
Fuel consumption, non-renewable (heating oil, natural gas, diesel and gasoline)	MWh	1 102	1 169
of which for thermal energy consumption (fossil)	MWh	1 099	1 166
of which for company-owned vehicles (fossil)	MWh	3	3
Fuel consumption (biogas), renewable	MWh	100	78
Circulago district heating	MWh	6 196	6 097
Circulago district cooling	MWh	2 289	2 052
Electricity consumption (general electricity and for heating, e-vehicles, incl. own consumption of photovoltaic power)	MWh	7 950	8 037
of which for general electricity	MWh	4 437	4 336
of which for heating (power for the heat pump's energy centre)	MWh	3 512	3 700
of which for company-owned electric vehicles	MWh	2	1
Final energy consumption, total	MWh	17 637	17 433
Final energy consumption per m ² of energy reference area ¹²	kWh/m²	64.6	63.9
Final energy consumption per m ² of Zug Estates controlled space ¹³	kWh/m²	72.0	72.0
			•••••••••••••••••••••••••••••••••••••••

 $^{\rm 12}$ Refers to an energy reference area of 271 508 $\rm m^2$ (2022 and 2023).

¹³ Refers to the Zug Estates controlled space of 242 564 m² (2022 and 2023).

The share of renewable energies came to 93% in 2023 (previous year: 93%).

Greenhouse gas emissions (GHG emissions)

GRI 305-1 Direct GHG emissions (Scope 1)

- GRI 305-2 Indirect energy-related GHG emissions (Scope 2)
- GRI 305-3 Other indirect GHG emissions (Scope 3)
- GRI 305-4 GHG emissions intensity

Greenhouse gas emissions include the CO_2 emissions that account for by far the largest part of the emissions of Zug Estates. The impact of other greenhouse gases such as CH_4 , N_2O , HFCs, PFCs, SF₆ and NF₃ is negligible. These emissions were broken down into scopes and calculated on the basis of the Greenhouse Gas Protocol (GHG Protocol).

	Unit	2022	202314
Scope 1 (heating oil, natural gas, diesel and gasoline):	t CO2eq	247.6	267.2
Scope 2 ¹⁵ (general electricity and for heating, e-vehicles):	t CO₂eq	8.8	32.3
Total greenhouse gas emissions (Scopes 1 and 2) ¹⁶	t CO₂eq	256.4	299.5
Scope 1 and 2 emissions per m ² of energy reference area ¹⁷	kg CO2eq/m2	0.9	1.1
Scope 1 and 2 emissions per m ² of Zug Estates controlled space ¹⁸	kg CO ₂ eq/m ²	1.1	1.2
Scope 3: Total	t CO2eq	61.2	1 195.0
Category 1: Office supplies		n.a.	7.3
Category 3: Upstream emissions ¹⁹		n.a. 1.1	956.0 0.6
Category 6: Business travel (Zug Estates Ltd) Category 7: Employee commuting (Zug Estates Ltd)		28.2	26.0
Category 11: Tenant energy consumption (excludes Renggli- portfolio)		31.9	205.1 ²⁰
Total greenhouse gas emissions (Scopes 1 to 3)	t CO₂eq	378.8	1 494.5
Out-of-scope emissions			
Peak load of Circulago district heating with biogas	t CO2eq	46.5	1.1
•	•••••••••••••••••••••••••••••••••••••••	••••••••••	

¹⁶ Change in emissions calculation using the latest emissions factors from the Intep study in accordance with KBOB 2022.

¹⁵ Scope 2 emissions are reported using a market-based approach (GHG Protocol, see the emission factors on page 30).

- ¹⁶ The degree of coverage is 100% of all properties.
- $^{\rm 17}$ Refers to an energy reference area of 271 508 m² (2022 and 2023).
- ¹⁸ Refers to the Zug Estates controlled space of 242 564 m² (2022 and 2023).
- ¹⁹ The production of crude oil, generation of electricity in power stations and extraction of natural gas result in losses in the form of unusable or non-recoverable energy. These losses occur before the point at which the energy is actually used. In addition, grid losses occur when electrical energy is transmitted via power lines and networks. Losses occurring during transmission from one point to another are caused by resistance and other physical factors.

²⁰ Change of source for Swiss supplier mix from AIB to Intep study, which is also used by REIDA (see page 30 for further information).

Energy source mix

Heat energy source as percent of overall energy consumption

Heating oil	3.6%
Natural gas	1.7%
Biogas	0.4%
District heating	27.5%
Heat pump	66.8%
Wood-fired heating systems (e.g. pellets)	0%
Total	100 %

For further key figures on energy efficiency and intensity of greenhouse gas emissions by building use type, see Appendix (Chapter 7, from page 55).

Explanations of energy and greenhouse gas accounting

Amstein + Walthert in Zurich analyse and prepare data relating to energy and water.

System boundaries

The balance sheet includes all properties that Zug Estates owned during the reporting period. Coowned (condominium) properties were taken into account if the heat was delivered by Zug Estates (contracting). New and refurbished buildings were taken into account only if they were used for the entire year under review. Properties sold during the period under review were not included. Some properties purchased during the reporting period will be included only in the following year. The electricity required for own-use office and hotel spaces of Zug Estates was included in these calculations, as were the heating energy, general electricity and water consumption of the properties in question.

Following the change in the annual reporting period, the accounts apply to the reporting year from 1 October 2022 to 30 September 2023. For full-year reporting purposes, the accounts for the period 1 October 2022 to 31 March 2023 were taken from the last reporting period in 2022 and extended to include the accounts for the period 1 April to 30 September 2023. In future, data relating to energy and water will always be reported from 1 October to 30 September of the following year. The reporting period for the previous years' accounts has not been changed. Mobility data are collected or estimated annually.

The energy reference area (ERA) and area controlled by Zug Estates are used as reference areas. Instead of the term "lettable area", the term "area controlled by Zug Estates" was used in the 2023 reporting year for the first time. The data for the area controlled by Zug Estates was compared with the current area data from the Zug Estates annual report and adjusted for the 2023 reporting year (see "Most important changes in the balance sheet"). Energy reference areas were first calculated in 2020 and are used to calculate intensities.

Tenant/landlord interface

Zug Estates always procures the heating energy itself and then passes the costs on to tenants through its heating bills. Heating energy is thus included in full in the calculations. The same applies to electricity in common spaces and to ventilation and air conditioning of rented spaces. The electricity that tenants use is included in the balance sheet for the greenhouse gas emissions in Scope 3.

Degree of cover and estimates

The report covers all properties currently in operation within the defined organisational boundaries. For properties without a final utilities invoice or that had no measured consumption values when the reporting period ended, consumption was estimated based on similar properties. Due to a lack of data, emissions for the Renggli portfolio in the 2023 reporting year are not included in the Scope 3 tenant electricity emissions.

Accounting for greenhouse gas emissions

Greenhouse gas emissions are included in the balance sheet in accordance with the Greenhouse Gas Protocol (GHG Protocol). As of the 2023 reporting year, emissions are now accounted for on the basis of published emissions factors taken from the Intep study "Greenhouse gas emissions for the buildings sector"²¹ in accordance with KBOB 2022. Scope 1 has the emissions from heating oil and natural gas to generate heat as well as from the use of gasoline and diesel in the company's own vehicles. Scope 2 has emissions from generating purchased electricity as well as from heating and cooling capacity procured from the Circulago lake-water district. Scope 3 has emissions

²¹ https://intep.com/projekte/emissionsfaktoren-fuer-den-geba eudesektor/ (German only)

from commuter mobility, from generating electricity used by tenants, from business trips, and for the first time upstream emissions from energy procurement.

Amstein + Walthert confirmed full and correct implementation of energy and greenhouse gas offsetting.²²

Emission factors

Fuels:

New for 2023 reporting year: Intep, 2022, Greenhouse gas emissions for the buildings sector, Volkart, E., Kook Nauser, I., Alig, M.²³

Past reporting years: Federal Office for the Environment FOEN, 2019, CO₂ emission factors of Switzerland's²⁴ greenhouse gas inventory; Alig, M., Tschümperlin, L., Frischknecht, R., 2017, greenhouse gas emissions from Switzerland's electricity and district heating mix in accordance with the GHG Protocol²⁵.

Electricity, district heating/cooling:

New for 2023 reporting year: Intep, 2022, Greenhouse gas emissions for the buildings sector, Volkart, E., Kook Nauser, I., Alig, M.

Past reporting years: Alig, M., Tschümperlin, L., Frischknecht, R., 2017, greenhouse gas emissions of Switzerland's electricity and district heating mix in accordance with the GHG Protocol.

Company vehicles (fossil) and commuter mobility:

Mobitool 2.1²⁶

- ²³ https://intep.com/projekte/emissionsfaktoren-fuer-den-gebaeudesektor/ (German only)
- ²⁶ https://www.bafu.admin.ch/dam/bafu/de/dokumente/klima/ fachinfo-daten/CO2_Emissionsfaktoren_THG_Inventar.pdf. download.pdf/CO2_Emissionsfaktoren.pdf (German only)
- ²⁵ https://treeze.ch/fileadmin/user_upload/downloads/Publications/ Case_Studies/Energy/619-GHG_Strom_Fernw%C3%A4rme_v3.0.pdf
- ²⁶ https://www.mobitool.ch/de/tools/mobitool-faktoren-v2-1-25.html (German only)

Most important changes in the balance sheet

- Change in emissions calculation using the latest emissions factors from the Intep study in accordance with KBOB 2022.
- Adjustment of emissions calculation using location-based approach. Emissions factors for the Swiss district heating mix based on the REIDA methodology are now used. Previously, under the location-based approach, the proportion of electricity from the heat pump in Circulago district heating was calculated using the emissions factor of the Swiss consumer electricity mix.
- Adjustment of the electricity emissions factor of the Swiss consumer mix for reporting years 2022 and 2023 due to implausible emission factor from online electricity mix source available for European countries (AIB²⁷). For 2022 and 2023, the electricity emissions factor for the Swiss consumer mix from the REIDA study is now being used
- For the first time, the energy consumption of the Renggli portfolio was included for an entire reporting year in 2023.
- Change in term from "lettable area" to "area controlled by Zug Estates". As a result, the area data was reviewed directly and adjusted slightly to reflect individual properties. The area controlled by Zug Estates now amounts to 242 564 m² (240 228 m² in the 2022 reporting year)
- With the exception of the Baarerstrasse 30 property, all properties at the city centre site are now supplied with district heating.
- The electricity source product for the 2023 period in accordance with the guarantee of origin (GoO) consists of 40% national run-of-river production and 60% European hydroelectricity.
- From 1 January 2023, the two hotels at Industriestrasse 14 + 16 and Metallstrasse 20 will also purchase the above-defined GoO electricity source product.
- The upstream emissions from energy procurement are now measured in Scope 3 (see page 28, note 17).

²² https://zugestates.ch/assets/documents/231218_Bestaetigung_Bilanzierung_Zug_Estates_AW_sig.pdf (German only)

3.3 Materials

Relevance

The construction sector is responsible for around 50% of raw material requirements, one third of CO_2 emissions, and over 80% of waste generation in Switzerland. At the same time, construction activity is expected to remain strong so as to support Switzerland's further demographic and social development. A more circular construction industry is an urgent priority in response to mounting resource consumption and contributes to reaching the climate goals in Switzerland and globally.

In the real estate industry there are two main drivers of CO₂ emissions: the procurement and production of raw materials for construction and the energy demand for heating, cooling and supplying the buildings with electricity. Zug Estates has reduced its CO₂ footprint from operating buildings to a minimum (see section on energy and emissions) and will now focus on the grey energy contained in the building materials used. In its construction projects, Zug Estates has the opportunity to help reduce grey energy.

Approach to the topic

By focusing on preserving the existing buildings and on recycling-oriented construction, Zug Estates conserves primary resources and landfill space and reduces CO₂ emissions from its construction activities. In its development and construction activities, Zug Estates aims to build for the long term, reduce the use of materials, reuse materials, and consider the choice of materials more carefully. To align the construction industry more closely with the circular economy, Zug Estates will promote and use innovations such as digitalisation and develop new business models and processes. Project managers will learn about current developments through regular exchanges with research and innovation partners.

By participating in conventions and lectures, Zug Estates contributes to building expertise and developing the industry in order to jointly learn more and make progress with these topics.

Zug Estates pursues the following specific goals with respect to reducing grey energy and using construction materials, in particular in its plans for the Metalli living space and the Suurstoffi 43/45 sites:

 Minimise the number of existing buildings to be deconstructed. Re-use or recycle deconstructed materials on site whenever possible.

- Consider recyclability and grey energy when choosing materials. Prioritise any recycled materials that are available.
- Create the conditions needed for these materials to be deconstructed, reused or recycled by means of digital planning, lean management with prefabrication, and the use of smart connection technologies.
- Use efficient and simple solutions in building services to optimise operating energy costs on the one hand and to reduce grey energy during construction on the other (e.g. Suurstoffi 43/45 site).

Ambitions related to grey energy

 $\rm CO_2$ emissions during construction (grey energy) are to be minimised for new buildings. Grey energy is measured based on kg of $\rm CO_2 eq/m^2$ of energy reference area. A material passport and ecological assessment must also be prepared. New buildings must comply with this key figure.

Circular economy

Strategies for promoting a more circular economy must be applied when constructing or demolishing buildings. This means selecting suitable compounds and materials that can be reused as fully as possible for new projects once they have reached the end of their usable life. A material's circularity is measured with a material circularity indicator. Zug Estates joined the Madaster network in August 2022 to gain experience with a digital material cadastre.

In June 2023, Zug Estates also signed the "Reuse-Oriented Construction Charter"²⁸ In it, members commit to considering various actions and implementing selected ones by 2026. The topics include "Renovate instead of building new", "Build for the long term", "Reduce material use", "Reuse", "Choose the right material", and "Reduce waste". Zug Estates co-developed the Charter together with eleven public and private partner organisations. Switzerland Innovation Park Central, located at the Suurstoff site, will organise the future exchange of experience among the partner organisations and develop the Charter further²⁹.

Tenant waste

Household waste is collected in sacks that are subject to a fee and can be deposited at several collection points at the Metalli and Suurstoffi sites. The same applies to green waste (compost). Recyclable mate-

²⁸ https://cbcharta.ch/en_us/

²⁹ https://zugestates.ch/stories/lancierung-charta-kreislauforientiertes-bauen (German only)

rial such as glass, PET, cardboard, paper, as well as hazardous waste, can be deposited at the public disposal points. One of these, Ökihof Zug, is located 500 metres from the Metalli site, and another recycling centre is situated right next to the Suurstoffi site in Rotkreuz.

Garden Park Zug AG is taking steps to combat food waste with the help of the "Too Good To Go" app, which enables users to order and collect leftover food online.

Results and evaluation

Zug Estates had no new construction or conversion projects during the year under review. Prospective large-scale construction projects must be systematically evaluated against the signed Charter to determine their circularity.

The decision to take measures to significantly reduce grey energy at the Metalli living space was already taken by Zug Estates during the development's planning phase. Work on the existing buildings must be kept to a minimum. In various places, therefore, the building will be extended rather than rebuilt. Furthermore, ideas on how some materials can be recycled in the new building are discussed. Zug Estates has set itself the goal of measuring the grey energy and providing corresponding specifications for the planned architectural competition.

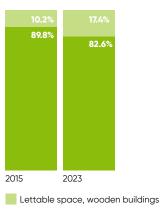
Wood construction

Wood is highly relevant for Zug Estates as a building material, not only due to its low grey energy value but also because it binds CO_2 for the entire period of use and thus keeps it out of the atmosphere. We have been relying on wood as a building material for more than ten years and completed several pioneering projects during this time. We completed our first wooden building, the City Garden Hotel in Zug, in 2010. This was followed up in 2014 by nine buildings and 156 apartments - the largest wood construction project in Central Switzerland - at the Suurstoffi site. In 2018 we developed the S22 building, Switzerland's first wooden high-rise. 2019 then brought the Arbo, a 60-metre building that is currently Switzerland's tallest wooden high-rise. Both the S22 and the Arbo buildings are on the Suurstoffi site.

A study in cooperation with Lucerne University of Applied Sciences and Arts and Erne AG Holzbau found that wooden hybrid construction can save between 10% and 15% CO₂ compared to solid construction. The construction of ceilings and supports is especially relevant. The façade materials and the design of the

underground levels also have strong potential for minimising grey energy consumption. This was one of the reasons why Zug Estates decided not to include an underground level in the planned S43 building. The study³⁰ shows that choosing wood led to lower CO₂. Constructing with wood will therefore continue to be an option for Zug Estates.

Percentage of lettable area of total space in wooden buildings



Lettable space, conventional buildings

³⁰ https://zugestates.ch/assets/documents/20220930d_Schlussbericht_HSLU_Holz-Hybrid-und-Massivbau-anhand-vier-Geb%C3%A4uden.pdf (German only)

3.4 Water

Relevance

Water is becoming an increasingly scarce commodity due to climate change, and we can expect more frequent and longer periods of drought even in water-rich Switzerland.

Every real estate company contributes to increasing water intensity locally when managing its buildings. In business relationships, water consumption is particularly relevant at the upstream value creation stage. During construction, there is a risk of polluting groundwater or water bodies. And finally, important soil functions, especially water permeability and soil fertility, are lost when ground is sealed during construction of buildings or paths.

Consequently, residential and commercial tenants have strong influence on water consumption.

Approach to the topic

Zug Estates aims to preserve water as a resource and ensure that it is used prudently during the development and construction phases and when properties are in operation.

During the construction phase, the protection of groundwater and water bodies is subject to contracts for work and services. Here, contractors undertake to comply with the regulations on water protection and take measures to prevent water pollution.

Zug Estates aims to minimise soil sealing and will plan and provide retention systems and storage facilities as needed to curb surface runoff and to channel rainwater into the groundwater supply. The recovered meteoric water can be put to good use in gardens, for example. This helps us reduce the amount of water we draw from the municipal supply.

To reduce tenants' water consumption, we install water-efficient household equipment and water-saving devices. Our management team raises awareness among tenants through specific information to encourage them to save water voluntarily. Aerators are installed in the showers and taps of all hotel rooms of Garden Park Zug AG.³¹.

We have set ourselves the following goals to ensure that our approach to water use is sustainable and efficient:

- We strive to improve drinking water consumption continuously. While doing so we focus directly on consumption within the company's own business segments (real estate and hotel & catering) and on tenants' indirect consumption.
- To minimise surface runoff, we intend to have all newly planned outdoor spaces designed to meet the minimum standards of the Nature & Economy Foundation (see the section on Biodiversity). Current spaces are to be renatured wherever possible.
- We prevent pollution and contamination of all kinds and thus contribute to ensuring that clean drinking water is publicly available in the region at all times.

We have studied carefully how we manage meteoric water, particularly in our Aglaya garden high-rise. The building has an underground cistern that collects water from the roof of the residential tower and surrounding buildings. The water is then pumped from the cistern to the plant troughs on the building's exterior. This concept could serve as a model for other new construction projects.

The Water Risk Atlas of the World Resources Institute indicates that both Zug Estates sites are in water-rich regions³². There is no indication of water scarcity or poor drinking water quality at present. In its development projects, Zug Estates focuses on the Canton of Zug and the neighbouring cantons (especially Zurich and Lucerne)³³, which are also non-critical in terms of water availability. Water use and intensity by the rental spaces is measured annually per building. Irregularities or a significant rise in consumption can thus be identified and addressed.

³¹ https://www.parkhotel.ch/en/get-to-know-us/sustainability
 ³² https://www.wri.org/applications/aqueduct/water-risk-atlas/
 ³³ https://zugestates.ch/en/about-zug-estates#investment-criteria

Results and evaluation

There was no contamination or pollution of drinking water or water bodies during the year under review.

GRI 303-1 Water as a shared resource

See the section entitled "Approach to the topic".

GRI 303-2 Managing the effects of water recirculation

All properties are connected to the public sewer system. Both municipalities where the sites are located have regulations for managing their wastewater^{16, 17}. As Zug Estates meets the requirements of the municipalities and thus complies with legal provisions, we have not defined any internally developed wastewater quality standards, minimum requirements or sector-specific standards. In addition, the risk of hazardous substances is very low due to the use of the buildings (residential, office, retail and hotel & catering).

Water use

Zug Estates has no contractual ways to impose drinking water consumption limits on its tenants and therefore relies on joint information campaigns with local water suppliers and on voluntary actions and measures. For this reason, it has so far refrained from defining target values for consumption. Zug Estates does not source water from areas experiencing water stress.

	Unit	2018	2019	2020	2021	2022	2023
Area controlled by Zug Estates	m²	170 290	181 777	222 641	222 641	242 563	242 563
Water use	m³	144 207	147 057	138 027	131 570	150 350	149 652
Water intensity	m³/m²	0.87	0.83	0.62	0.59	0.62	0.62

Water origin

The water for both sites (all of the properties) is purchased from two local providers.

Site	Water supplier	Headwater region	Spring	Quantity in m ³ (2023)
Suurstoffi site	Water cooperative Rotkreuz ³⁴	Regional	Spring and ground water	67 500
City centre site/Metalli	WWZ AG, Zug ³⁵	Regional	Spring and ground water	75 057
Other investment properties	Water cooperative Rotkreuz WWZ AG, Zug	Regional	Spring and ground water	7 095

4. Social topics

4.1 Attractive working environment

Relevance

Competent and motivated employees are key to the success of companies. Zug Estates is therefore committed to creating attractive working environments where employees are empowered to contribute towards our corporate goals while furthering their own development at the same time. We provide competitive working conditions and meaningful tasks to attract the very best candidates so that we can reach our goals.

Approach to the topic

The CFO at Zug Estates Ltd and the general manager at Garden Park Zug AG each head the respective human resources departments, with operational support from their HR managers. Both companies have specific goals to create and maintain the desired working environment. For example, the Zug Estates Group aims to keep its annual turnover rate low in the interest of retaining expertise. The turnover rate is discussed monthly at the management meeting so that measures can be taken quickly. The HR department reviews overtime and unused leave entitlements monthly to identify work overloads at an early stage and prevent absences. Both the turnover rate as well as the overtime and unused leave entitlements are included in the standard reports of the monthly Group management meetings of Zug Estates Ltd.

Employment and working conditions are laid out in various documents. In autumn 2021, the Employment Policy, Personnel Policy (incl. the Code of Conduct), Securities and Insider Trading Policy, Policy on Handling Gifts and Invitations (anti-corruption), and the Directive on the Protection of Personal Data (Discrimination) were revised for Zug Estates Ltd (for details, see "Responsible corporate governance"). All employees were informed about the new documents. The same also applies to new employees. The Personnel Policy and the Employment Policy for Garden Park Zug AG were reviewed in the second half of 2022. Individual benchmarks were adjusted at beginning of 2023, and the completely revised employee manual was introduced and distributed to all employees at the beginning of October 2023.

Performance and development dialogue

Regular dialogue on performance and development opportunities is beneficial to both the company and to its employees and managers.

Zug Estates Ltd distinguishes between the performance dialogue and the development dialogue. The performance dialogues is tied to a particular calendar year. The Board of Directors and Group management set corporate and divisional objectives on an annual basis. In the interviews with individual employees, who are asked to contribute their own proposals for improvement to the discussion, the individual objectives as well as those of the team are defined.

The objectives arising from the development dialogue, which includes individual training opportunities, can also be set based on a multi-year focus.

In regard to both elements, the progress made towards attaining the objectives is evaluated on a regular basis. All managers and employees attend a total of three mandatory interviews every year.

The process is documented and monitored by the Human Resources department.

Training and further education

Employee training and further education ensure our employees' expertise is always up to date. All employees must spend an average of two days per calendar year on training and further education. Training and further education measures are planned as part of the development dialogue. Zug Estates is involved in external training programmes and either covers a portion of the course fees or grants time off or leave entitlements.

The Group is committed to vocational training and offers apprenticeships to school-leavers every year. As at 31 December 2023, Zug Estates had ten apprentices (previous year: eight).

Diversity and equal opportunity

Our goal is to increase the proportion of women in leadership and senior management positions to achieve a balanced gender ratio at all hierarchical levels in the medium term. We contribute to these efforts by offering part-time models and flexible working hours (annual flexitime model). Finding suitable candidates is difficult at the senior management level and in Group management, partly due to the nature of the industry. Zug Estates therefore plans to focus more strongly on internal promotion. No job seekers are rejected based on their age, gender, identity or nationality. During the application process, we attach great importance to ensuring diversity as described above, all the way to the last round of interviews, and offer the job to the person who best meets the requirements regarding specialist and industry knowledge, personality, and other factors.

We offer equal pay for equal work. Employee experience (professional experience as well as training and development) is also taken into account.

Data privacy and the complaints process

All employees of the Zug Estates Group have the right to protection of personal integrity at work (regarding their age, ethnicity, disability, religion, gender, sexual orientation, etc.). Violations of personal integrity negatively impact employees' well-being and collaboration in the workplace, and are not tolerated by the Zug Estates Group. Any and all conduct resulting in a violation of personal integrity is considered unacceptable. This includes discrimination, sexual harassment, bullying and exploitation of any kind.

Any measures taken to safeguard employees' personal integrity always apply to temporary and external staff, as well as to partners and suppliers.

In the event of a violation of personal privacy, employees can file a complaint through the normal complaint channels. The complaints procedure is described in detail in the "Responsible corporate governance" section on page 46. No cases were reported in 2023, the same as in the previous year.

Terms of employment

The employment contract defines weekly working hours as annual working hours for all employees of Zug Estates Ltd. The calculation period for annual working hours is defined as a whole year. Daily working hours are also flexible. A combination of annual working hours and flexible hours maximises the scope in scheduling while optimally allowing for changing market conditions during the year, the operational requirements of Zug Estates, and the individual interests of employees. Employees can take time off, even at short notice, if there are emergencies in the family or for urgent personal reasons. Otherwise, brief absences for personal reasons should be scheduled during non-core hours.

All employees of Zug Estates Ltd in full-time positions can work from home for one day per week. This frequency can be increased through individual discussion with Group management. For employees with fewer weekly working hours, the line manager decides whether working from home is an option and what share of the work this could involve. The general conditions and requirements are set out in the Work from Home Policy. The commuter mobility analysis showed that in 2023 employees spent around 14% of their days working from home.

There is no general entitlement to unpaid leave. In consultation with Group management, however, unpaid leave (short or long-term) may be granted if operational circumstances permit. The precise terms of such leave must be discussed with the HR manager. In 2023, four (previous year: two) requests for unpaid leave were submitted and approved.

Part-time working hours are possible in all areas and at all hierarchy levels of Zug Estates. In principle, there is enough flexibility for employees to assume a 60% workload over three days or for a reduction in the daily hours worked. As at 31 December 2023, 29.4% of all employees (women: 49.4%, men: 4.2%) at Zug Estates Group worked part time (previous year: 32.9%).

Changes in working hours (increases or reductions) are possible if operational requirements can be met. Employees must submit their request through their line managers, and Group management must approve the request. In 2023, a total of twelve (previous year: eleven) requests were submitted, all of which were approved.

Additional benefits

Zug Estates Ltd has adopted a number of measures that exceed the minimum prescribed by law:

- For example, it has taken out additional insurance that supplements statutory benefits in accordance with the UVG (Accident Insurance Act). Under this policy, 80% of the portion of the salary that exceeds the salary covered under the UVG is insured for two years from the date of the accident.
- Employees unable to work due to an accident or illness through no fault of their own are entitled to 100% of their net salary. This benefit is available for between one and six months, depending on the number of years of service.
- Maternity leave: After having given birth, female employees are entitled to daily benefits equalling their full salary (excl. bonuses/gratuities) for 16 weeks.
- Paternity leave: We continue to pay fathers their full salary during the statutory two-week paternity leave.
- Accident insurance supplement: The policy covers hospital stays in the private ward.

Health

Zug Estates attaches great importance to employee health and promotes it by creating employee-friend-ly work conditions.

The sickness rate at the Zug Estates Group fell from 5.4% to 3.9% year on year. The accident-related absence rate decreased from 0.9% to 0.8%. The reasons for illnesses are not recorded, for data privacy reasons. This calculation is based on the sum of all target hours for the entire workforce as stipulated in the employment contracts. A company-organised running group encourages employees to exercise and boosts their sense of solidarity within the Group.

Results and evaluation

Employee satisfaction

We conduct surveys every two years to measure employee satisfaction. The most recent employee survey was conducted by Great Place to Work (GPTW) in November/December 2021. Based on the positive responses, both Zug Estates Ltd and Garden Park Zug AG were certified by Great Place to Work for the year 2022. The next employee survey is scheduled for 2024.

In early December 2023, Zug Estates Ltd moved into its new office premises at the Metalli site in Zug. This also provided an opportunity to merge the two existing office locations. Totalling around 900 m², the new working environment houses not only 40 work stations but also multiple working and break-out zones aimed at providing an opportunity for collaboration and exchange as well as fostering cooperation between the different business units.

Employees

GRI 2-7

All employees work in the Canton of Zug. The figures are the number of people (not full-time equivalents) whom Zug Estates employs full-time or part-time on a temporary or permanent basis.

Employees by employment contract

		31.12.2023	
	Real estate	Hotel & catering	Group
Women, permanent	20 (40%)	57 (54%)	77 (50%)
Women, fixed-term	0 (0%)	6 (6%)	6 (4%)
Men, permanent	29 (58%)	38 (36%)	67 (43%)
Men, fixed-term	1 (2%)	4 (4%)	5 (3%)
Total	50 (100%)	105 (100%)	155 (100%)
Employees with non-guaranteed work- ing hours	0	19	19

Full-time/part-time employees

	31.12.2023		
	Real estate	Hotel & catering	Group
Women, >90%	15 (30%)	27 (26%)	42 (27%)
Men, >90%	27 (54%)	42 (40%)	69 (44%)
Women, 50%–90%	4 (8%)	19 (18%)	23 (15%)
Men, 50%–90%	1 (2%)	0 (0%)	1 (1%)
Women, <50%	1 (2%)	17 (16%)	18 (12%)
Men, <50%	2 (4%)	0 (0%)	2 (1%)
Total	50 (100%)	105 (100%)	155 (100%)

Workers without employee status

Zug Estates Group had the following workers without employee status in the year 2023 under review:

Positions	Num- ber
Office cleaners (Zug Estates Ltd)	0.34
External payroll accounting (Zug Estates Ltd)	0.14

 The data was collected in full-time equivalents and as the average for the respective year under review. GRI 2-8

The above categories of workers without employee status were identified by considering only those jobs that are under the direct control of Zug Estates. This includes work that is done either at the Zug Estates offices or externally and then sent to Zug Estates to review.

GRI 2-21 Ratio to annual remuneration

At Zug Estates Ltd and Zug Estates Holding Ltd, the ratio of the highest pay to the median of all employees (excluding the highest pay) is 4.50:1 (previous year: 4.26:1). While remuneration for the highest-paid person remained the same as in 2022, median remuneration fell 5.13% year on year in 2023 due to numerous new hires. Therefore, it is not possible to state the percentage increase in total annual remuneration for the highest-paid person compared with the average percentage increase in total annual remuneration for all employees (excluding the highest-paid person) this year. The figure in the previous year was 0.66:1.

The analysis includes Zug Estates Holding Ltd and Zug Estates Ltd, and the total compensation includes the annual salary as well as the bonus for the respective year under review. For the calculation, all annual salaries and bonuses were extrapolated to a full-time position.

GRI 2-30 Collective agreements

Employees' terms of employment differ among Group companies. No collective agreements are in effect for employees of Zug Estates Ltd. 96 of the 105 employees (91.5%) of Garden Park Zug AG are subject to the national collective labour agreement (N-CLA) for the hospitality industry. All in all, 61.9% of employees work under a collective labour agreement.

New hires and employee turnover

		31.12.2023 Hotel & catering	Group
New hires during the year under review (number)	15	32	47
New hire rate	26%	30 %	
Departures during the year under review (number)	17	30	47
Turnover rate	36%	28%	

The turnover rate includes all departing permanent employees (no fixed-term employment contracts) and is expressed as the ratio of the average headcount for the period.

There have not been any mass redundancies at the Zug Estates Group in the past three years.

Company benefits for full-time employees not available to temporary workers or part-time employees. GRI 401-2

Zug Estates attaches great importance to the equal treatment of all its employees. Accordingly, all company benefits are provided to both temporary workers and part-time employees. All full-time and parttime employees have statutory AHV (old-age and survivors') insurance, are covered for accidents/ illnesses, and are affiliated with a pension fund.

Zug Estates Ltd offers several fringe benefits. These include commuter allowances of up to CHF 2 500, a mobile phone with a subscription for personal and business use, as well as anniversary gifts, for example. Several employee events are also held every year. GRI 401-1

GRI 404-1 Average hours of training per year per employee

	Real estate	2023 Hotel & catering	Group
Average number	41.9	3.2	15.7
Per woman	84.4	3.9	23.3
Per man	13.6	2.2	6.9
Group management	4.2	0.0	3.5
Management	30.2	8.4	20.4
Employees	56.8	2.8	16.5
Trainees	592.3	393.4	413.3

Percentage of employees with regular performance and professional development reviews GRI 404-3

GRI 406-1

During the year 2023 under review, Zug Estates conducted performance reviews and discussed professional development options with 81% of its employees, regardless of gender, function or employment contract (real estate: 94%, hotel & catering: 74%). If the observation period is too short, Zug Estates does not conduct a performance review on account of limited meaningfulness.

GRI 405-1 Diversity within governance bodies and among employees

	Number	<30 years	30-50 years	>50 years	Men	Women
Board of Directors	5	0%	20%	80 %	60 %	40%
Extended Group manage- ment	6	0%	66.7%	33.3 %	83.3%	16.7 %
Management	29	10.3 %	58.6%	31.1%	58.6%	41.4 %
Employees	110	21.8%	53.6%	24.6%	40.9%	59.1%
Trainees	10	100.0%	0%	0%	40%	60%
Total	160	23.1%	50.6%	26.3%	46.2%	53.8%

The current management structure can be found on the Zug Estates website¹.

GRI 405-2 Ratio of base salary and remuneration of women to men

To prevent wage discrimination, Zug Estates conducted an equal pay analysis for the first time in 2020 using Logib, a tool provided by the federal government. The analysis did not reveal any significant gender-specific differences in wages. Incidents of discrimination and corrective actions taken

	2023			
	Hotel &			
	Real estate	catering	Group	
Complaints lodged	0	0	0	
Cases with disciplinary				
measures	0	0	0	

Discrimination, harassment and exploitation of any kind are not tolerated. The Directive on the Protection of Personal Data and the Code of Conduct (https:// zugestates.ch/corporate-governance) define clear standards and guidelines. A complaints process is in effect for reporting discrimination cases (see page 48).

¹ https://zugestates.ch/en/about-zug-estates#governancestructure

4.2 Development of living spaces

Relevance

The real estate industry develops, realises and operates long-lasting buildings and sites that affect populations in towns and villages for generations to come. The development of living space and the design of buildings and spaces have a direct impact on the life and well-being of residents for very long periods and directly influence the environment. It is thus important to use an integrated approach when developing sites, spaces and neighbourhoods and to manage them sustainably with a view to creating attractive and lasting living environments for users and tenants.

Approach to the topic

Zug Estates creates attractive and sustainable living spaces by strongly emphasising social sustainability in all its construction projects. The following core areas and measures have emerged:

- We aim for a specific mix of uses and make groundfloor spaces attractive to the public so that our sites become diverse and appealing living spaces where people can satisfy many of their daily needs within walking distance.
- By creating exceptional outdoor spaces that provide users with a range of options, we boost the quality of their experiences and make our sites more attractive. For example, this includes gardens, a wide range of spaces for leisure activities and exercise and play, as well as carefully placed wet areas.
- We anticipate the future needs of tenants and customers through studies and meetings with experts and ensure that we can respond quickly and flexibly to changing requirements relating to building use and expansion, and for developing the necessary infrastructure.
- We use feedback and complaints from tenants and customers to continuously improve our sites and service quality and to thus raise customer satisfaction.
- We aim to offer a variety of apartment types and sizes. We promote social integration by offering a proportion of housing in the more affordable segments.

The Head of Development and Construction Projects and his team pursue these goals, together with external partners. Competitions involving juries of experts ensure that planning is of high quality. The aim is to continuously improve the liveability and sustainability of our sites so we can achieve our ultimate goal of providing high-quality living environments to different population segments. For Zug Estates, ensuring variety is a key element of creating attractive living spaces.

The plans to be approved by the authorities determine the conditions for the projects we develop. They define topics such as utilisation, building dimensions and use type, as well as various environmental aspects. The project development of the Metalli living space also involves a planning agreement with the authorities for the work that is scheduled.

Workshops were conducted with the responsible landscape architects and the current groundsperson to refine the outdoor landscape design and ambience of the Suurstoffi site. Within the scope of these efforts, important topics include biodiversity, heat management, ecological diversity, indigenous plants, optimised care, visually appealing design and potential uses for residents. The project was realised in spring/summer 2023².

Enquiries to our management team and past tenant surveys have shown that there is increasing interest in topics such as e-mobility, bicycle parking spaces and services. For this reason, Zug Estates has decided to make the Suurstoffi site available as a laboratory for the SWEET (SWiss Energy research for the Energy Transition) programme funded by the Swiss Federal Office of Energy (SFOE). The SWICE (Sustainable Wellbeing for the Individual and the Collectivity in the Energy transition) consortium includes Lucerne School of Business (HSLU). In autumn 2022, HSLU conducted a large-scale tenant survey³ to identify room for improvement regarding new forms of work, mobility and energy. Based on the results, a focus group workshop ⁴ was conducted. This showed that Suurstoffi residents are interested in various innovative mobility topics that can serve as intervention measures. In particular, the prioritisation indicated that bicycle infrastructure and especially the Mobility app, as well as carpooling, are options that could help the residents of Suurstoffi to choose more sustainable means of transport.

- ² https://zugestates.ch/stories/staerkung-des-aussenraumkonzepts (German only)
- ³ https://zugestates.ch/assets/documents/Ergebnisbericht_ Suurstoffi_2022.pdf (German only)
- ⁴ https://zugestates.ch/assets/documents/Zusammenfassung_ Fokusgruppen_Workshop_Suurstoffi.pdf (German only)

Results and evaluation

We conduct satisfaction surveys and review vacancy rates regularly to measure the success of our approach (see Annual Report 2023, page 10)⁵. A visitor frequency measurement on the ground floor areas of the Metalli shopping mall also provides important insights into its attractiveness, use and further development. In future, we will also measure the amount of time visitors spend.

Tenant survey

Zug Estates plans to conduct a tenant satisfaction survey; this will be carried out every two years across the entire portfolio starting in 2024. Besides the survey of the satisfaction rate, the findings are to be used to devise further development measures to increase the attractiveness of the areas and raise user satisfaction.

Social integration

The Suurstoff site has 74 affordable rooms for students. This number will increase to 96 rooms once work at the site has been completed.

160 apartments at the Suurstoffi site can be used as assisted living facilities for the elderly. In addition to a large selection of services (including housekeeping, ironing and laundry services), residents can also book options that include a 24/7 telephone and emergency hotline, alerts to emergency services, and the technical monitoring of emergency alert devices.

The Metalli living space (www.lebensraum-metalli.ch) project involves new city apartments in the centre of Zug, with layouts that meet the different needs of a modern, urban society. The mix also includes apartments in the affordable segment.

Access

The Metalli complex and the Suurstoffi site are traffic-free. Both Zug Estates sites are connected to public transport to the extent possible. All tenants can reach the train station, whether in Zug or Rotkreuz, within ten minutes. Both train stations offer regular direct trains to Lucerne and Zurich as well as connections to other places in the region. The Metalli/Bahnhof Zug bus stop is served by seven bus lines operated by Zugerland Verkehrsbetriebe. At the Rotkreuz station, six bus lines provide access to the region.

Zug Estates contributed CHF 2.0 million to finance the footbridge at the Rotkreuz station to connect the Suurstoffi site directly to the train station. The footbridge was officially opened to the public in autumn 2019.

Accessibility by public transport is also a relevant criterion when deciding whether to acquire new sites.

Changes of use

Changing customer requirements and shopping patterns have always resulted in continuous changes in the retail offer at the Metalli shopping mall. In terms of new leases, Zug Estates makes sure the Metalli shopping mall can offer an attractive, comprehensive offer for the population as a whole.

Past surveys have shown that the ability to purchase everyday items at the Suurstoffi site is another long-standing wish among tenants, to which Zug Estates responded with the opening of a farm shop in August 2023⁶.

Bicycle parking

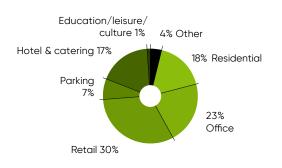
Many more bicycle parking spaces will be created with the Metalli living space development project in the centre of Zug.

⁶ https://zugestates.ch/stories/eroeffnung-selbstbedienungshofladen-in-der-suurstoffi (German only)

Mix of uses

Use of city centre site/Metalli

Based on projected rental income^{1,2} as at 31 December 2023

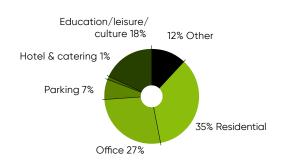


¹ Projected rental income for (co-owned) property at Baarerstrasse 20–22, Zug, included on pro-rata basis

² From perspective of real estate business unit

Use of Suurstoffi site, Risch Rotkreuz

Based on projected rental income as at 31 December 2023



4.3 Connected communities

Relevance

Connected communities strengthen cooperation and cohesion, promote the exchange of knowledge and are a source of innovation. Zug Estates is aware of this powerful market trend, especially when it comes to environmental issues. The transformation towards circular construction requires the cooperation of the various market players – contractors and suppliers, planners and licensing authorities, building owners – and open discussions about experiences and innovative approaches to solutions. Zug Estates actively contributes in this area. On the one hand, we offer platforms such as the Sustainability Forum; on the other hand, we support exciting projects and ideas financially or with personnel.

Connected communities contribute to our management approach when it comes to innovation by sharing ideas and resources and by jointly developing new solutions. Without our commitment in this area, there is a risk of missing trends and local initiatives and of losing competitiveness and innovation.

Approach to the topic

Zug Estates focuses on facilitating connections among communities, tenants and users, industry players, as well as with colleges and universities.

Connection among tenants

Getting tenants to identify with the area and the neighbourhood more strongly and integrating them into the community will increase their satisfaction, something that should result in lower tenant turnover. The Zug Estates managers aim to help tenants connect by means of neighbourhood events (e.g. open days, tenant aperitifs or Christmas tree sales). The urban gardening project, which has been a success for years, offers opportunities for people to connect. We also use digitalisation as a way of connecting residents more closely: Thanks to our tenant app, tenants and users of the Suurstoffi site feel more closely connected to their neighbourhood.

Project development

When planning projects, Zug Estates considers the concerns of stakeholders such as tenants, authorities, politicians, the population and important interest groups. In the Metalli Living Space project, we involve these stakeholders when developing important issues by offering opportunities for discussion and feedback and by regularly informing them about relevant steps. To strengthen cooperation with the authorities, a planning agreement⁷ was signed with the City of Zug in 2019 that lays out the joint procedure in a binding manner.

Connection within the industry

In addition to getting tenants and users to connect, we also support knowledge exchange in the real estate industry. Zug Estates has been a role model in sustainable real estate development for many years now and has helped raise awareness among various industry players. The annual Sustainability Forum, organised by the Sustainability core team, promotes knowledge exchange in the real estate industry and provides access to current industry topics.

Furthermore, our employees participate in courses and industry events as opportunities to more firmly incorporate sustainability approaches within the industry.

⁷ https://assets.website-files.com/62b472a2843f074c8d0dd63c/62f ba6bda8ca0515f72b276b_190822_Zug_Estates_Medienmitteilung.pdf (German only)

Exchange with education partners

Zug Estates also participates in knowledge exchanges between researchers and industry partners by supporting Switzerland Innovation Park Central, which has its premises on the Suurstoffi site. Zug Estates is a core member of the Innovation Park and collaborates closely with it and other members on a range of research projects.

For several years now, Zug Estates has been a sponsor of the Swiss Building Forum, which has become a popular industry event. It is hosted by Lucerne University of Applied Sciences and Arts in collaboration with the Sustainable Construction Network Switzerland (NNBS).

Results and evaluation

Zug Estates held its eighth Sustainability Forum⁸ in September 2023. Over 200 guests from the fields of business, government and science attended the event at Lucerne University of Applied Sciences and Arts' Audi Max space on the Suurstoffi site. Speakers included philosopher and futurist Dr David Bosshart as well as Kai-Uwe Bergmann (Partner at BIG – Bjarke Ingels Group). The fact that the Forum has grown into a popular venue and that Zug Estates is on the right track is evidenced by the encouraging number of visitors as well as by the satisfaction survey carried out following the event.

Zug Estates enables employees to become involved in further education, in consultation with their line manager. Employees participate in research projects run by colleges and universities or supervise students' work (BA and MA theses). Two employees of Zug Estates teach at vocational schools and universities.

In 80% (previous year: 77%) of the apartments on the Suurstoffi site, at least one person per household had installed the tenant app by the end of the year 2023 reporting year. Our goal is to continuously increase this figure and to be able to reach all tenants via the app.

GRI 413-1 Operations with local community engagement, impact assessments and development programmes

> All operating sites (100%) are locally integrated. We have regular contact with local authorities and political bodies at both of our locations. By sponsoring local events and associations, Zug Estates Group is also involved in social activities.

The project managers intend to involve residents of the city of Zug in the Metalli Living Space project. Zug Estates aims to promote dialogue with Zug residents through exhibitions on the individual phases, regular publications, as well as via the lebensraum-metalli.ch website. In 2023, meetings were held with various stakeholders such as neighbourhood associations, the heritage protection, IG Metalli and the authorities. Tenants are regularly informed about the current planning status by letter. Thanks to these measures, the most important stakeholder groups know about the Metalli Living Space project. A survey conducted by an independent institute in October 2022 found that 88% of respondents think the Metalli Living Space concept as presented is "appealing" or "very appealing". For Zug Estates, this is a clear indication that the participatory partnership approach is working?. These efforts help us to better align the site's development with the overall development of the city of Zug and gear it toward the needs of its users and those of the local population.

Membership in associations and interest groups

Zug Estates Holding Ltd and its subsidiaries are members of the following associations and interest groups: Swiss Vocational Education and Training Fund, Reuse-Oriented Construction Charter, ERFA Elektro Industrie Zentralschweiz, Trade Association of the City of Zug, Trade Association of Risch Rotkreuz, Zugerland Homeowners' Association, Hotelierverein Zugerland, Hotellerie Suisse, Interessengemeinschaft Metalli, Madaster Switzerland, Organisation kaufmännische Grundbildung Treuhand/Immobilien (OKGT), Swiss Society for Sustainable Real Estate Management (SGNI), Swiss Tourism Federation, SIX Verband der Immobilienwirtschaft (SVIT) Zentralschweiz, Swiss Circle, Swiss Council Community (SCC), Verband Immobilien Schweiz (VIS), Innovation Park Association Central Switzerland, Zug International Business Forum (ZIBF), Zug Tourism, Zug Chamber of Commerce

Share of expenditures for local suppliers

GRI 204-1

99.2% of Zug Estates' expenditures in the 2023 reporting year were made in Switzerland (previous year: 99%). Only a fraction of the money we invest goes abroad. GRI 2-28

⁸ www.zugestates.ch/nachhaltigkeitsforum (German only)

⁹ https://www.lebensraum-metalli.ch/storie/die-bevolkerung-bringtsich-ein (German only)

5. Governance topics

5.1 Transparent communication

Relevance

Our company is committed to the key objectives of creating and maintaining trust and ensuring credibility. In this regard, corporate communication plays an important role. Communication principles such as relevance, timeliness and completeness of information must take into account the range of requirements and needs of our stakeholders. Interacting with partners listed on the stock market makes it necessary to observe a large number of rules, and non-compliance with them can lead to a loss of confidence and image among investors or to sanctions by the Swiss stock exchange.

Approach to the topic

We communicate transparently by sending clear messages geared to the various target groups and levels and by using a range of channels. We pursue an open communication strategy to ensure that all target groups are treated equally.

Zug Estates informs its investors in a transparent and trustworthy manner. When communicating, we focus on the essentials and inform in good time. Our information style is objective and aimed at long-term investors. We answer questions and provide information to investors at the Annual General Meeting and during the year via ir@zugestates.ch. However, the rules for equal treatment take precedence in every case.

In addition, we exchange information with our analysts proactively. To this end, our managers participate in annual roadshows, and Zug Estates conducts property tours of its sites at regular intervals. We aim for an analyst assessment that reflects our medium to long-term growth potential.

We pay particular attention to compliance with the directive on ad hoc publicity¹. To this end, Zug Estates prepared internal regulations on publication obligations and the disclosure of management transactions. Zug Estates publishes an annual Sustainability Report in accordance with GRI Standards as well as a green bond report. Zug Estates exchanges information with ESG rating agencies regularly and informs them in writing of any significant changes.

Moreover, Zug Estates discloses financial support from the public sector as well as party donations.

We are in contact with our tenants through our property management activities and inform them of any changes in good time via our website, postings, or directly by e-mail or letter. At the Suurstoffi site, we also use a tenant app that simplifies communication with tenants. Through regular and timely information, we increase the acceptance of measures and can respond to tenant feedback in good time. We continuously evaluate ways of improving digital communications with tenants.

Our employees can assess internal communication in the employee survey conducted regularly (the next one is planned for the first half of 2024). Here, we aim to achieve a "good" to "very good" rating (see "Attractive working environment"). Since 2020, we have been holding monthly information events for our employees where representatives of the Group management, executive management and employees explain current developments and progress in projects, and where there are opportunities to ask questions. The merger of the two sites and the move into new office premises are having a positive impact on the flow of information and communication. We will therefore be holding employee information events on a quarterly basis from 2024 onwards.

Green bond report

Zug Estates has issued two green bonds. The specifications of the green bond require Zug Estates to prepare regular reports, not only with descriptions of how the funds are used but also about the impact these funds have on nature and the environment. Key figures are prepared and analysed by Amstein+ Walthert AG, Zurich. The reports² can be found on the Zug Estates website.

Results and evaluation

GRI 201-4 Financial assistance from public sources

The population and government pay close attention to how funds from public sources are used. For reasons of transparency and credibility, we disclose such payments. We received CHF 242000 in short-time compensation for our hotels in 2023 in connection with the COVID-19 pandemic (previous year: CHF 122000). Zug Estates also received CHF 130000 in energy subsidies (previous year: CHF 65000). The rules regarding these subsidies are the same for all market participants. Approach to stakeholder engagement

GRI 2-29

Zug Estates did not receive any other funds (including tax relief and credits, subsidies, grants, premiums, licence exemptions, export credit guarantees, or other financial incentives) in the 2023 financial year.

Political donations

GRI 415-1

In 2023, Zug Estates supported the "NEIN zur SP-Wohn-Initiative" committee with a donation of CHF 15 000. Zug Estates agrees with the plan to achieve a good social mix in the city of Zug and has made corresponding plans in its Metalli Living Space project. No party donations were made during the year under review.

Main target group	Frequency of contact	Type of contact	Group's most important concerns
Shareholders and investors	Regularly	 General Meeting of Shareholders Reporting Media release Website Webcast 	 Secure investment Attractive share price performance Stable dividend ratio Participation rights Responsible corporate governance
Analysts	Regularly	 Reporting Roadshows E-mail/phone Sustainability Forum Property tour 	 Complete, transparent reporting Company's development potential Insight into the corporate strategy Responsible corporate governance
Tenants	As needed	- Tenant app (Suurstoffi) - Letter/postings - E-mail/phone - Website	 Information about changes Simple contact Swift processing of enquiries Simple, transparent billing
Media	As needed	- Media releases - E-mail/phone	 News about construction projects Short response times Newsworthy notices
Employees	Frequently	 Events E-mail Surveys Monthly information event (in-person or online) Intranet 	 Further development opportunities Transparent and open communication Innovative and sustainable employer Flexible and autonomous scheduling Open and personal corporate culture
The public and the Zug population	As needed	– Exhibitions (Metalli) – Website – Social media	 Living spaces that add value for the general public Right of participation in construction projects Regular progress reports / information about planning
Authorities and politicians	Regularly	– Sustainability Forum – Meetings – E-mail/phone/post	 Cooperative partnership for further development Urban development in line with Zug's cityscape Public involvement on construction projects (participation) Harmonising different interests
Business partners and suppliers	As needed	– Sustainability Forum – E-mail/phone	- Long-term collaboration on financially attractive terms

5.2 Responsible corporate governance

Relevance

GRI 2-23 Zug Estates develops responsible corporate governance through adherence to its corporate principles and values. This also means that Zug Estates prioritises long-term profitability over short-term profit. As a listed real estate company in Switzerland, our actions must uphold human rights and show consideration for the environment. The company attaches great importance to ethical principles, values and behaviour in its day-to-day business dealings with all its stakeholders, and it expects this behaviour from its suppliers and business partners.

> Corruption, insider trading, breaches of regulatory requirements and violations of personal privacy or personal integrity both harm the company financially and damage its reputation. They are not tolerated and are to be condemned in any form.

Approach to the topic

- *GRI 2-23* To ensure responsible corporate governance, Zug Estates has regulations, policies and directives, and its processes in all the relevant business areas are based on these.
- *GRI 2-24* Zug Estates complies with laws, regulations, directives and standards. Employees at all levels must comply with these standards as called for by the specific tasks. Relevant changes in the regulatory environment are monitored continuously to enable a timely response.

Employees are informed about new regulations or significant changes in them by their direct supervisors, by e-mail or at a monthly employee event. External employees are informed about the ethical principles at Zug Estates by the human resources department or line manager; suppliers and business partners are informed about any contracts for work or services to be signed and about the Code of Conduct for Suppliers, which is an integral part of the contract.

Statement on human rights observation

Zug Estates respects fundamental and universally applicable human rights. The related "Policy statement regarding respect for and the observation of human rights"³ of June 2023 considers, in particular, suppliers and the upstream value chain, but also employees and customers.

Zug Estates as introduced processes to ensure compliance with Swiss legislation in terms of conflict minerals and child labour. Zug Estates is exempted from Swiss due diligence and reporting obligations regarding minerals and metals from conflict and high-risk areas as well as regarding child labour.

Code of Conduct

The company's principles and values are laid out in the Code of Conduct,⁴ which describes and governs the company's courses of action. Zug Estates communicates its corporate values and principles clearly and comprehensibly to its employees. The Code of Conduct is part of the Personnel Policy and thus an integral part of all employment contracts. The Code of Conduct is available to all employees through an internal knowledge database. The compliance officer is responsible for providing information on the guidelines and for ensuring compliance with them. Steps must be taken to verify any suspected violation. Depending on the case, this can involve the direct line manager, the compliance officer, or the HR department. Serious violations will result in disciplinary measures.

Code of Conduct for Suppliers

The Code of Conduct for Suppliers⁵ has been an integral part of all relevant new contracts since 1 August 2023. We expect our business partners to observe the same ethical principles, actively advocate responsible action, and to be committed to fair, respectful and compliant conduct within the company and toward all our stakeholder groups.

⁴ https://zugestates.ch/en/corporate-governance

³ https://zugestates.ch/assets/documents/Policy-statement-regarding-respect-for-and-the-observation-of-human-rights.pdf

⁵ https://zugestates.ch/assets/documents/Supplier-Code-of-Conduct.pdf

Health and safety

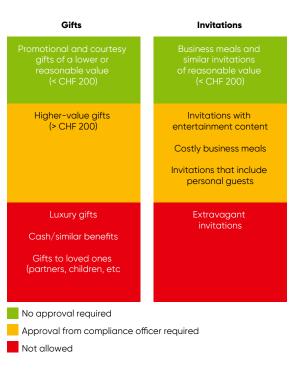
Analyses of events in recent years have shown that construction sites pose the greatest occupational safety hazards for the Zug Estates Group. Zug Estates thus reviews compliance with SUVA standards and contractually obliges its construction site suppliers to comply with the currently valid work and safety regulations as laid out in the "General Conditions of Contract for Work and Services".

All incidents relating to occupational safety (by employees and third parties) are documented. In addition to describing the course of events, the measures taken are also described to prevent further incidents.

	-	2023	
Employees	Real estate	Hotel & catering	Group
Fatal occupational		catering	Gloup
accidents	0	0	0
Work-related injury with severe consequences (absence of more than three working days)	0	3	3
Documentable work-related injuries (minor accident with absence of up to three			
days).	0	1	1
	-	2023	
Suppliers	Real estate	Hotel & catering	Group
Fatal occupational accidents	0	0	0
Work-related injury with severe consequences (absence of more than	_	_	
three working days)	0	0	0
Documentable work-related injuries (minor accident with absence of up to three			
days).	1	0	0

Corruption prevention: Policy for handling gifts and invitations

One measure enacted in an effort to prevent corruption is a clear policy concerning gifts and invitations (Policy on Handling Gifts and Invitations (anti-corruption)). The policy aims to preserve the integrity of the company's employees as well as of business partners and others associated with Zug Estates. This policy is summarised in the chart below:



Insider trading

Insider information refers to confidential content whose disclosure would significantly affect the prices of securities of a company listed on the stock exchange (Art. 2j Financial Markets Infrastructure Act (FMIA)). Information has a significant effect on the price of securities if it is likely that an investor would consider such information when making an investment decision (to purchase, sell or hold the corresponding securities) if they had knowledge of it.

The members of the Board of Directors, the company's Group management, subsidiaries of Zug Estates Holding, as well as other employees of Zug Estates have knowledge about insider information. The Securities and Insider Trading Policy prohibits insider trading, describes the duty of confidentiality, and lists potential sanctions in case of violations. The defined blackout periods for shares trading are shown in the Annual Report 2023 (page 38).

Companies that can access confidential information by virtue of their activities with Zug Estates can be considered insiders within the meaning of the Financial Market Infrastructure Act (FMIA). Zug Estates uses a non-disclosure agreement to govern the handling of confidential information with external partners. Furthermore, organisational, technical and procedural measures are in effect to ensure the confidentiality of the information.

Sponsorship

Group management evaluates and approves all sponsorship requests.

Conflicts of interest

- Resolutions and elections to the Board of Directors GRI 2-15 are decided by an absolute majority of votes. Pursuant to Art. 16 of the company's articles of association⁶, the chairperson has the casting vote in the event of a tie. Voting and elections are conducted by a show of hands. Members of the Board of Directors and Group management are not permitted to do anything that conflicts with the interests of Zug Estates Holding Ltd or a Group company, or that could be construed as such. They must therefore, of their own accord or at the request of the Board of Directors, recuse themselves when business affecting their personal interests or the interests of natural persons or legal entities close to them is being conducted. Members of the Board of Directors and Group management must disclose potential conflicts of interest completely and without delay. The other activities by all members of the Board of Directors - in particular in other management and supervisory bodies, official functions, or political offices – are publicly available (see Annual Report 2023, page 46)⁷. None of the members of the Board of Directors have any material business relationships with Zug Estates Holding Ltd or with the Zug Estates Group.
- *GRI 2-11* The Chair of the Board of Directors is the head of the highest governance body but does not have any management function within the Zug Estates Group.

Zug Estates has disclosed the most important shareholders and their holdings (see Annual Report 2023, p. 70).

Complaints procedure

General

GRI 2-25 Zug Estates cultivates an open and transparent corporate culture. Complaints, concerns or negative impacts can be reported directly by e-mail (info@zugestates.ch) or by using the online contact form⁸. Stakeholders can communicate sensitive issues to the Group management or Board of Directors, or raise them at the General Meeting of Shareholders. Com-

⁸ https://zugestates.ch/en/contact

plex cases with major implications must be discussed at meetings of the Group management and Board of Directors.

ENQUIRE Rechtsanwälte AG, an external whistleblowing reporting office, is available to Zug Estates Group employees and to suppliers and third parties. It ensures that the person submitting the notification remains anonymous to Zug Estates. ENQUIRE reports to Group management on request. The Board of Directors is consulted if there is any suspicion that Group management is involved. ENQUIRE is mandated to clarify the circumstances of the notifications and can be asked to participate in enquiries. Contact details for ENQUIRE are posted on the corporate website⁹.

Group management is responsible for periodic reports to the Board of Directors and for providing information about extraordinary events immediately or in the case of increased risks in connection with the operating activities. Its tasks are laid out in the Organisational Regulations¹⁰.

GRI 2-16

Employees

Employees of the Zug Estates Group must report any violation of the regulations or guidelines of which they are aware as well as any attempted or actual violations. Each complaint is treated confidentially and investigated. Complaints will be passed on to the appropriate person or, in more serious cases, to a manager or Group management member.

Employees of the Zug Estates Group must report even suspected violations. Such reports will be treated anonymously on request. Persons submitting a justified report will not be penalised in any way.

The following contacts are available within the Zug Estates Group:

- The direct or next higher line manager
- Compliance officer
- Chair of the Audit Committee of Zug Estates Holding Ltd

Any retaliation against employees who report incidents in good faith is prohibited. The offices responsible for handling the complaints will protect the rights of the person being accused.

⁶ https://zugestates.ch/assets/documents/230406_Articles_of_association_of_Zug_Estates_Holding_AG.pdf

⁷ https://zugestates.ch/en/downloads

⁹ https://zugestates.ch/en/corporate-governance

¹⁰ https://zugestates.ch/assets/documents/211130_Organisational_regulations_Zug_Estates_Holding_AG.pdf

Employees have the opportunity to give feedback on the complaint procedure to their direct supervisors or to the compliance unit and to make suggestions for improvement.

Tenants

Tenant complaints go directly to the property managers responsible, who record and respond to them and, if necessary, take measures to address the problem. In case of a serious complaint, the line managers or Group management are involved. This process is reviewed with the help of a regular tenant survey.

Procedure for obtaining advice and reporting concerns

GRI 2-26 Individuals can use the website's contact form or a personal contact for getting advice about implementing the policies and for submitting their concerns about business conduct. The Sustainability core team and the compliance officers are available to answer questions and assist all employees. All stakeholders can use the external contact for issues that call for anonymity.

Expenses

The Board of Directors, Group management and employees are reimbursed for all business-related expenses. Such expenses must be approved by the line manager and are subject to random compliance checks by HR. Depending on their level, members of Group management and senior management are not permitted to submit small expenses up to a certain limit but in return are reimbursed through a monthly lump-sum amount for expenses as stipulated in the policy. The expenses regulations were reviewed and approved by the Tax Administration of the Canton of Zuq.

Election criteria for the highest governance body

GRI 2-10 When selecting a new member of the Board of Directors, it must be ensured, among other things, that the Board as a whole adequately covers all defined core competencies and that the defined diversity criteria (see "Attractive working environment") are met. More information about the election and term of office can be found on page 32 of the Annual Report 2023 of Zug Estates Holding Ltd.

Evaluation of the performance of the highest governance body

The Board of Directors evaluates the competencies *GRI 2-18* of its members as part of a self-assessment. These competencies form the starting point for aligning the required and the current responsibilities within the Board as a whole. If the analysis indicates that certain competencies are insufficiently represented or missing within the Board, this will be taken into account the next time a new member is selected.

Results and evaluation

Compliance with laws and ordinances	GRI 2-27
There were no significant violations of laws and c	ordi-
nances during the reporting period.	

Confirmed incidents of corruption and actions taken GRI 205-3

GRI 2-3

No cases of corruption were recorded at Zug Estates during the year under review.

About this report

Reporting period, report frequency and contact

Zug Estates Holding Ltd does not fall under the reporting obligation pursuant to Art. 964a of the Swiss Code of Obligations (CO) regarding non-financial matters. This sustainability report has been prepared on a voluntary basis and is not a report on non-financial matters pursuant to Art. 964b CO.

Zug Estates Holding Ltd has released this report of 21 February 2024 for the period from 1 January 2023 to 31 December 2023 in accordance with the GRI Standards 2021. This is the same period as for the financial report. Financial figures were calculated in accordance with Swiss GAAP FER, Art. 17 of the Directive on Financial Reporting of SIX Swiss Exchange and the statutory provisions. The environmental key figures were obtained via the Greenhouse Gas Protocol. Key figures relating to energy and water refer to the period from 1 October 2022 to 30 September 2023, as stated in the relevant places. Zug Estates reports annually on its sustainability topics. The most recent report was published on 25 August 2023.

GRI 2-2 Contact for questions about the report

Zug Estates Holding Ltd, Philipp Hodel, Head of Communications, Baarerstrasse 18, CH-6300 Zug, ir@zugestates.ch, +41 41 729 10 10 (head office)

This sustainability report has the same scope of consolidation as the financial report. Deviations are marked and justified at the appropriate places in this report in accordance with GRI Standards.

GRI 2-4 Corrected and revised information

The revised sections of the report are marked.

GRI 2-5 External audit

Zug Estates has not used an external auditor to verify the information and data in its sustainability reporting. The Board of Directors has been informed of this decision and has studied and approved this report.

GRI 2-1 Organisational profile

Legal name: Zug Estates Holding Ltd

Legal form: Zug Estates Holding Ltd is listed on SIX Swiss Exchange, Zurich (securities number: 14 805 212, ticker symbol: ZUGN)

Location of the head office: Zug Estates Holding Ltd, Baarerstrasse 18, CH-6300 Zug

Countries in which Zug Estates Holding Ltd operates: Switzerland







Statement of use Zug Estates Holding AG has reported in accordance with the GRI Standards for the period from 1 January to 31 December 2023. For the Content Index – Essentials Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for all disclosures are included correctly and aligned with the appropriate sections in the body of the report. The service was performed on the German version of the report.

GRI used 1 GRI 1: Foundation 2021

GRI Standard	Disclos	sure	Place	Further disclosures and omissions
GENERAL DISCLOSURE	s			
The organisation and i	ts report	ting practices		
GRI 2: General disclosures 2021	2-1	Organisational details	p. 8, 50	
	2-2	Entities included in the organisation's sustainability reporting	р. 50	
	2-3	Reporting period, frequency and contact point	p. 49	
	2-4	Restatements of information	p. 50	-
	2-5	External assurance	p. 50	-
Activities and workers				
GRI 2: General disclosures 2021	2-6	Activities, value chain and other business relationships	р. 9	
	2-7	Employees	p. 37	
	2-8	Workers who are not employees	p. 37–38	_
Corporate governance	•			
GRI 2: General disclosures 2021	2-9	Governance structure and composition	Annual Report p. 29–32	
	2-10	Nomination and selection of the highest governance body	р. 49	
	2-11	Chair of the highest governance body	p. 48, Annual Report p. 30	
	2-12	Role of the highest governance body in overseeing the management of impacts	p. 16	-
	2-13	Delegation of responsibility for managing impacts	p. 13	
	2-14	Role of the highest governance body in sustainability reporting	p. 13	
	2-15	Conflicts of interest	p. 48	
	2-16	Communication of critical concerns	p. 48	
	2-17	Collective knowledge of the highest governance body	p. 13	
	2-18	Evaluation of the performance of the highest governance body	p. 50	
******	•••••		•••••	••••

GRI Standard	Disclos	ure	Place	Further disclosures and omissions
	2-19 Remuneration policies		Annual Report p. 42–47	
	2-20	Process to determine remuneration	Annual Report p. 42–47	
	2-21	Annual total compensation ratio	p. 38	-
Strategy, policies and practices	-			
GRI 2: General disclosures 2021	2-22	Statement on sustainable development strategy	p. 3	
	2-23	Policy commitments	р. 46	_
	2-24	Embedding policy commitments	р. 46	-
	2-25	Processes to remediate negative impacts	р. 48	-
	2-26	Mechanisms for seeking advice and raising concerns	р. 49	
	2-27	Compliance with laws and regulations	р. 49	
	2-28	Membership in associations and interest groups	р. 43	
	2-29	Approach to stakeholder engagement	p. 12, p. 45	
	2-30	Collective bargaining agreements	p. 38	
MATERIAL TOPICS	_			_
GRI 3: Material topics 2021	3-1	Process of determining material topics	p. 10–11	_
	3-2	List of material topics	р. 11	
nnovation	_			
GRI 3: Material topics 2021	3-3	Management of material topics	p. 15–16	
Own indicator		house gas emissions per square metre of energy reference In the portfolio	p. 16	
Business success	_	_		
GRI 3: Material topics 2021	3-3	Management of material topics	p. 16–18	
GRI 201: Economic performance 2016	201-1	Direct economic value generated and distributed	p. 18, Annual Report p. 80–81	
	201-2	Financial implications and other risks and opportunities related to climate change	p. 18	
Biodiversity				
GRI 3: Material topics 2021	3-3	Management of material topics	p. 19–20	
Own indicator	•	tion of certified area special ecological value	p. 20	

GRI Standard	Disclosu	ire	Place	Further disclosures and omissions
Energy and emissions				
GRI 3: Material topics 2021	3-3	Management of material topics	p. 20–30	
GRI 305: Emissions 2016	305-1	Direct GHG emissions (Scope 1)	p. 28	•
	305-2	Energy indirect GHG emissions (Scope 2)	p. 28	•
	305-3	Other indirect GHG emissions (Scope 2)	p. 28	•
	305-4	GHG emissions intensity	p. 28	•
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	p. 27	•
	302-3 Energy intensity		p. 25, 27	•
Materials				•
GRI 3: Material topics 2021	3-3	Management of material topics	p. 31–32	
Own indicator	Percen	tage of lettable area of total space in wooden buildings	p. 32	
Water			-	
GRI 3: Material topics 2021	3-3	Management of material topics	p. 33–34	
GRI 303: Water and effluents 2018	303-1	Water as a shared resource	p. 34	
	303-2	Managing the effects of water recirculation	p. 34	
-	303-3	Water use	p. 34	
Attractive working envir	ronment			-
GRI 3: Material topics 2021	3-3	Management of material topics	p. 35–39	
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	p. 38	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 38	
GRI 403: Occupational health and safety 2018	403-9	Work-related injuries	p. 37	
GRI 404: Training and further education 2016	404-1	Average hours of training and further education per employee per year	p. 39	
	404-3	Percentage of employees receiving regular performance and career development reviews	p. 39	
GRI 405: Diversity and equal opportunity 2016	405-1	Diversity of governance bodies and employees	p. 39	
	405-2	Ratio of basic salary and remuneration of women to men	p. 39	
GRI 406: Non- discrimination 2016	406-1	Cases of discrimination and subsequent measures taken	p. 39	

GRI Standard	Disclosu	ire	Place	Further disclosures and omissions		
Development of living s	oaces					
GRI 3: Material topics 2021	3-3	Management of material topics	p. 40–42			
Own indicator	Mix of u	JSES	p. 42			
Connected communities	5					
GRI 3: Material topics 2021	3-3	Management of material topics	p. 42–43			
GRI 413: Local communi- ties 2016	413-1	Operations with local community engagement, impact assessments, and development programmes	p. 43			
GRI 204: Procurement practices 2016	204-1	Share of expenditures for local suppliers	p. 43			
Transparent communico	ition					
GRI 3: Material topics 2021	3-3	Management of material topics	p. 44–45			
GRI 201: Economic performance 2016	201-4	Financial assistance from public sources	р. 45			
GRI 415: Political influence 2016	415-1	Party donations	p. 45			
Responsible corporate g	joverna	nce				
GRI 3: Material topics 2021	3-3	Management of material topics	p. 46–50			
GRI 205: Anti-corruption 2016	205-3	Confirmed corruption cases and measures taken	р. 49			

7. Appendix

Energy efficiency by building use type

	Unit	2017	2018	2019	2020	2021	2022	2023
Energy efficiency and energy intensity		-	-			-	-	
Commercial								
Final energy requirement	GWh	7.03	6.44	6.61	6.37	6.80	7.24	6.77
Energy reference area	m²	46 404	46 404	46 927	50 001	50 001	50 001	50 001
Energy demand / energy reference area	kWh/m²	151.5	138.7	140.8	127.5	136.0	144.7	135.5
Office								
Final energy requirement	GWh	2.46	2.36	2.54	3.00	2.83	3.60	3.70
Energy reference area	m²	30 609	38 399	47 394	73 678	73 678	78 367	78 367
Energy demand / energy reference area	kWh/m²	80.5	61.6	53.6	40.8	38.4	45.9	47.2
Residential								
Final energy requirement	GWh	4.74	4.80	5.03	4.04	3.78	4.11	4.21
Energy reference area	m²	60 972	78 951	78 951	77 534	77 534	86 225	86 225
Energy demand / energy reference area	kWh/m²	77.7	60.8	63.7	52.1	48.7	47.7	48.8
Other								
Final energy requirement	GWh	1.58	1.54	1.61	1.67	1.94	2.68	2.75
Energy reference area	m²	24 087	28 282	29 223	49 196	49 196	56 915	56 915
Energy demand / energy reference area	kWh/m ²	65.8	54.4	55.0	33.9	39.4	47.2	48.4
Total	kWh/m²	97.6	78.8	77.9	60.9	61.3	64.9	64.2

This chart includes all types of energy (see the table showing energy intensity on page 27)

Emissions by building use type (market-based)

	Unit	2017	2018	2019	2020	2021	2022	2023*.
GHG emissions intensity			-			-	-	
Commercial								
Greenhouse gas emissions	t	658.1	558.9	622.5	127.8	95.1	16.4	9.7
Energy reference area	m²	46 404	46 404	46 927	50 001	50 001	50 001	50 001
GHG emissions / energy reference area	kg/m²	14.2	12.0	13.3	2.6	1.9	0.3	0.2
Office			-	-	-	-		
Greenhouse gas emissions	t	242.5	203.0	231.9	14.0	0.1	62.1	78.9
Energy reference area	m²	30 609	38 399	47 394	73 678	73 678	78 367	78 367
GHG emissions / energy reference area	kg/m²	7.9	5.3	4.9	0.2	0.0	0.8	1.0
Residential								
Greenhouse gas emissions	t	407.2	373.5	404.7	282.0	116.9	79.7	85.4
Energy reference area	m²	60 972	78 951	78 951	77 534	77 534	86 225	86 225
GHG emissions / energy reference area	kg/m²	6.7	4.7	5.1	3.6	1.5	0.9	1.0
Other								
Greenhouse gas emissions	t	114.6	97.5	109.6	21.4	8.0	97.2	125.7
Energy reference area	m²	24 087	28 282	29 223	49 196	49 196	59 915	56 915
GHG emissions / energy reference area	kg/m²	4.8	3.4	3.7	0.4	0.2	1.7	2.2
Average value	kg/m²	8.8	6.4	6.8	1.8	0.9	0.9	1.1

* From 2023: Changed to KBOB 2022 and includes out-of-scope emissions.

Emissions by building use type (location-based)

	Unit		2020	2021	2022	2023*
GHG emissions intensity			••••••••••••••••••••••••••••••••••••••	-	-	
Commercial						
Greenhouse gas emissions	t		163.1	124.5	21.7	355.4
Energy reference area	m²	-	50 001	50 001	50 001	50 001
GHG emissions / energy reference area	kg/m²	-	3.3	2.5	0.4	7.1
Office		-	-	-		
Greenhouse gas emissions	t		37.1	17.7	65.7	202.5
Energy reference area	m²		73 678	73 678	78 367	78 367
GHG emissions / energy reference area	kg/m ²		0.5	0.2	0.8	2.6
Residential						
Greenhouse gas emissions	t	-	309.4	115.8	84.4	256.2
Energy reference area	m²	-	77 534	77 534	86 225	86 225
GHG emissions / energy reference area	kg/m²	-	4.0	1.5	1.0	3.0
Other		-				
Greenhouse gas emissions	t	-	34.4	20.7	100.2	200.4
Energy reference area	m²	-	49 196	49 196	56 915	56 915
GHG emissions / energy reference area	kg/m²		0.7	0.4	1.8	3.5
Average value	kg/m ²		2.2	1.2	1.0	3.7

* In previous years, only electricity consumption was calculated using the location-based approach. With the new conversion factors, district heating is likewise calculated using this approach.

Water efficiency by building use type

	Unit	2017	2018	2019	2020	2021	2022	2023
Efficiency of water use								
Commercial								
Water consumption	m³	36 368	39 250	36 954	28 869	29 748	36 119	33 956
Energy reference area	m²	46 404	46 404	46 927	50 001	50 001	50 001	50 001
Water consumption / energy reference area	l/m²	783.7	845.8	787.5	577.4	595.0	722.4	679.1
Office								
Water consumption	m³	18 786	25 933	26 123	25 480	26 308	31 198	31 277
Energy reference area	m²	30 609	38 399	47 394	73 678	73 678	78 367	78 367
Water consumption / energy reference area	l/m²	613.7	675.4	551.2	345.8	357.1	398.1	399.1
Residential								
Water consumption	m³	49 417	59 283	60 352	61 188	56 848	59 684	61 460
Energy reference area	m²	60 972	78 951	78 951	77 534	77 534	86 225	86 225
Water consumption / energy reference area	l/m²	810.5	750.9	764.4	789.2	733.2	692.2	712.8
Other								
Water consumption	m³	15 135	18 422	17 422	18 599	18 593	23 349	22 959
Energy reference area	m²	24 087	28 282	29 223	49 196	49 196	56 915	56 915
Water consumption / energy reference area	l/m²	628.3	651.4	596.2	378.1	377.9	410.2	403.4
Average value	l/m²	739	744	696	536	525	554	551

Zug Estates Holding Ltd Baarerstrasse 18 CH-6300 Zug www.zugestates.ch