

ZugEstates

SECOND PARTY OPINION¹ ON THE SUSTAINABILITY OF ZUG ESTATES' GREEN BOND²

June 2018

SCOPE

imug and Vigeo Eiris were commissioned to provide an independent opinion on the sustainability credentials and management of the Green Bond (hereafter the "Bond") proposed to be issued by Zug Estates (the "Issuer"), according to Vigeo Eiris' Environmental, Social and Governance ("ESG") assessment methodology, and on the alignment with the Green Bond Principles voluntary guidelines.

The opinion is based on the review of the two following components:

- **Issuer:** document-based evaluation of the sustainability profile of Zug Estates, including:
 - ESG strategy,
 - ESG controversies' management, capacity to mitigate these risks and the implication of the issuer in controversial activities³ assessed at the hereby due diligence date.
- **Issuance:** analysis of the coherence between the Green Bond Framework and the issuer's sustainability strategy and commitments, and document-based evaluation of the Green Bond Framework.

imug and Vigeo Eiris' sources of information are gathered from our rating databases, from Zug Estates, press content providers and stakeholders, and complemented by interviews with the involved departments and managers, held at the offices of Zug Estates in Zug (Switzerland). imug has carried out its due diligence from May 8th to May 28th, 2018.

We were able to access all the appropriate documents and to speak to all the solicited people. We consider that the information provided enables us to establish our opinions with a reasonable level of assurance on their completeness, precision and reliability.

IMUG'S OPINION

imug confirms that the Bond considered by Zug Estates is a "Green Bond" with positive contribution to sustainable development, aligned with the Green Bond Principles.

imug reaches a reasonable⁴ level of assurance on the Bond contribution to sustainability.

- **Issuer:** Zug Estates displays an overall good⁴ ESG strategy (see Part I).
 - Zug Estates displays a good strategy on the three ESG pillars. The best strategy is observed in the Environmental pillar where the institution addresses all the relevant issues at stake. Zug Estates adopted advanced policies which illustrates the organization's capacity to integrate environmental and climate change risks and opportunities in its strategy. For the Social pillar Zug Estates displays a good strategy with some room for improvement in terms of integration of social factors into the supply chain. The strategy in the Governance pillar is good, due to the integration of ESG issues in the corporate governance strategy and in the internal monitoring system.
 - As of today, we did not identify any controversy involving Zug Estates. Consequently, imug does not have the opportunity to provide an opinion on the Issuer's controversy risk management and mitigation.
 - Zug Estates is not involved in any of the 15 controversial activities analysed by imug.

¹ This opinion is to be considered as the "Second Party Opinion" described by the Green and Social Bond Principles ("External Review's section). www.icmagroup.org

² The Green and Social Bond is to be considered as the potential forthcoming bond, which issuance is subject to market conditions.

³ The 15 controversial activities analysed are: Alcohol, Animal Welfare, Hazardous Chemicals, Civilian Firearms, Fossil fuels, Coal, Tar sands, Gambling, Genetic engineering, Loans, Military Activities, Nuclear, Pornography, Reproductive Medicine and Tobacco.

⁴ Definition of Vigeo Eiris' scales of assessment (as detailed in the Methodology section of this document):

Level of Evaluation: Advanced, Good, Limited, Weak.

Level of Assurance: Reasonable, Moderate, Weak.

- **Issuance:** The Issuer's Green Bond Framework is coherent with Zug Estates' main strategic priorities and is considered to be good. The issuer is committed to make its Framework publicly available by publishing this Second Party Opinion on its website⁵ (see Part II).
 - ▶ The net proceeds of the Green Bond will be used to finance and refinance Eligible Assets, namely "green buildings and residential/working sites", contributing to defined environmental objectives of climate change mitigation and protection of biodiversity and natural resources, and mainly in line with four United Nations Sustainable Development Goals (the "UN SDGs")
 - ▶ The environmental objectives associated to the selected Eligible Assets are defined, relevant, and measurable although partially precise, due to the lack of quantitative targets. They will be assessed and quantified by an external, independent party.
 - ▶ The process for projects' evaluation and selection is clearly defined but partially formalized. The process is good in terms of transparency and governance, and relies on relevant selection criteria. The identification of environmental and social risks related to the Eligible Assets is good. Processes and appropriate measures have been implemented to manage all these environmental risks and most of these social risks.
 - ▶ The rules for the management of proceeds are clearly defined by the Issuer and would enable a documented, transparent and good allocation process.
 - ▶ The reporting commitments and the process are good, covering the funds allocation and environmental benefits of Eligible Assets (outputs and impacts), reaching a reasonable level of assurance on the issuer's capacity to report on the Green Bond's use and impacts.

EXTERNAL REVIEW

Zug Estates' Green Bond issuance is supported by external reviews:

- The consultant review, i.e. the hereby Second Party Opinion performed by imug under Vigeo Eiris' supervision, on the sustainability credentials of the Green Bond, based on pre-issuance commitments and covering all features of the Bond.
- An external verification (independent ESG verification and/or financial audit), covering the allocation of funds, the compliance in all material aspects, from the real assignation of funds to the Eligible Assets and its alignment with the eligibility criteria, until the full allocation of proceeds and later in the case of any material change.

This Opinion is valid as of the date of issuance limited to Zug Estates' first Green Bond issued in June 2018.

Hannover, June 1st, 2018



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DISCLAIMER

Transparency on the relation between imug / Vigeo Eiris and the Issuer: neither imug nor Vigeo Eiris has ever executed any consultancy activity for Zug Estates until so far and no established relationship (financial or other) exists between imug or Vigeo Eiris and Zug Estates.

This opinion aims to explain investors why the Green Bond is considered sustainable and responsible, based on the information made available and analyzed by imug under supervision of Vigeo Eiris. Providing this opinion does not mean that imug or Vigeo Eiris certifies the materiality, the excellence or the irreversibility of the projects refinanced or financed by the Green Bond. Zug Estates is fully responsible for attesting the compliance with its commitments defined in its policies, for their implementation and their monitoring. The opinion delivered by imug / Vigeo Eiris neither focuses on financial performance of the Green Bond, nor on the effective allocation of funds' use of proceeds. Neither imug nor Vigeo Eiris is liable for the induced consequences when third parties use this opinion either to make investment decisions or to make any kind of business transaction.

The opinion delivered on stakeholder-related social responsibility controversies is not a conclusion on the creditworthiness of Zug Estates or its financial obligations. We do not express an opinion as a score when controversial activities, products and services are not prohibited by international standards or treaties. The controversial activities research provides screening on companies to identify involvement in business activities that are subject to philosophical or moral beliefs. The information does not suggest any approval or disapproval on their content from imug / Vigeo Eiris.

Restriction on distribution and use of this Opinion: the opinion is provided by imug under Vigeo Eiris' supervision to the Issuer and can only be used by the Issuer. The distribution and publication is at the discretion of the Issuer, submitted to imug / Vigeo Eiris approval.

⁵ www.zugestates.ch

DETAILED RESULTS

PART I. ISSUER

Level of Zug Estates' ESG strategy

As of May 2018, Zug Estates' overall approach to integrate ESG related issues in its policies and commitments is overall good.

Domain	Comments	Opinion
Environment	<p>Zug Estates' strategy in the Environmental domain is advanced.</p> <p>The company displays a solid environmental strategy covering both its direct and indirect impacts. Environmental criteria are integrated in the major part of the company's policies. Noteworthy are the integration of targets regarding a zero-zero-strategy (no GHG-emissions and as possible no additional energy input from outside) for the entire portfolio, 100% renewable energy and no GHG-emissions also including mobility and biodiversity aspects.</p> <p>Zug Estates displays a strong awareness of the issue "climate change" by making the zero-zero approach a strategic priority since 2007. The approach is holistic covering also mobility and biodiversity topics. Quantitative output and impact indicators are monitored by external institutions and reported annually. All environmental commitments are integrated into the Code of Conduct and tenders include environmental requirements.</p>	Advanced
		Good
		Limited
		Weak
Social	<p>Zug Estates' strategy in the Social pillar is good.</p> <p>As of Community Involvement and Stakeholder Engagement Zug Estates organizes an open Sustainability Forum every year to report on the latest developments. For their portfolio, a minimum number of apartments for student is set to secure the diversity of tenants and to ensure short ways and low GHG-emissions due to mobility (since the University of Luzern is located on Suurstoffi site). Local authorities and communities are involved in the project planning process from the beginning on.</p> <p>In terms of Business Behaviour, relevant policies are implemented to ensure a fair and responsible relation with clients.</p> <p>Regarding Human Resources, in terms of training and career management, Zug Estates focuses in promoting job mobility. Zug Estates' Code of Conduct includes requirements to ensure labour rights and rights of underage people, non-discrimination, non-exploitation and non-harassment. However, Human Rights and the Core Labour standards by the International Labour Organization (ILO) are not explicitly mentioned.</p>	Advanced
		Good
		Limited
		Weak
Governance	<p>Zug Estates' strategy in Corporate Governance is good.</p> <p>All members of the Zug Management are responsible for the CSR (Corporate Social Responsibility) topic and two are represented in the sustainability meetings.</p> <p>The roles of Chairman of the Board of Directors and CEO are separated and all five members of the Board of Directors are non-executive and independent from the company. An internal control system covers CSR risks inherent to the institution's business operations.</p> <p>Zug Estates commits on the standards of the directive on information relating to Corporate Governance by the SIX Swiss Exchange. The commitment to prevent corruption and money laundering is integrated in the Code of Conduct.</p>	Advanced
		Good
		Limited
		Weak

Stakeholder-related ESG controversies

As of today, imug did not identify any controversy involving Zug Estates. Consequently, imug does not have the opportunity to provide an opinion on the Issuer's controversy risk management and mitigation.

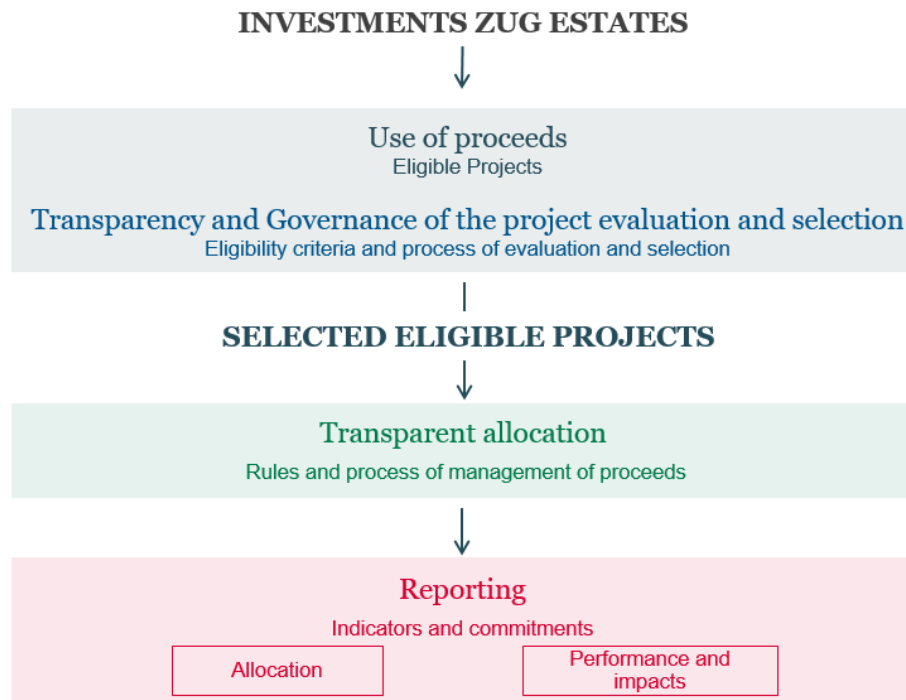
Involvement in controversial activities

Zug Estates is not involved in any of the 15 controversial activities analysed by imug.

PART II. ISSUANCE

Zug Estates has established a framework which applies to the contemplated Green Bond issuance. The issuer is committed to make its Framework publicly available by publishing this Second Party Opinion on its website.

The framework is composed of four steps, aligned with the Green Bond Principles, as presented in the following process:



Coherence of the issuance

Zug Estates' Green Bond Framework is coherent with the organization's main strategic priorities, and contributes to achieve its commitments and objectives.

imug has a reasonable level of assurance on Zug Estates' commitment and capacity to integrate precise environmental objectives in the projects targeted by the issuance.

Zug Estates conceives, develops, markets and manages properties in the Zug region. It focuses on centrally located sites suitable for a wide range of uses and with potential for sustainable development consistent with the sustainable development priorities of the real estate sector – i.e. the reduction of atmospheric emissions and the reduction of energy use and the protection of natural resources.

Zug Estates has a sustainability strategy called "zero-zero" which objective is to operate its entire portfolio with renewable energy and without GHG-emissions. In developing and implementing its real estate projects, Zug Estates has set itself ecological relevant objectives:

- ▶ Energy: Use of renewable energy sources; efficient use of energy and resources
- ▶ Materials and products: Use of materials low in pollutants; use of energy-efficient technologies, products and equipment; short transportation routes
- ▶ Emissions: Minimization of GHG emissions, other combustion gases and fine particulates; reduction of noise and light emissions
- ▶ Outdoor spaces: Creation of green city spaces; diversity of offerings and use of external spaces

Zug Estates plans to contribute to the overall Switzerland goal to reduce the private energy consumption by one third by 2050 compared to 2017, GHG emissions by one quarter. The goal is based on the guideline "energy efficiency path" by the Association of Swiss Architects and Engineers. The guideline emphasizes a holistic energetic approach including operating power, grey energy and site depending mobility. The named targets in the guideline enable an energy analysis including the whole life cycle of buildings that takes also mobility into account.

In terms of transparency, since 2012 Zug Estates publishes a Sustainability Report integrated in its financial report or separately concerning its own portfolio focusing on the change/decrease of primary energy consumption and GHG-emissions of real estates. Indicators are assessed by the external University of Luzern.

By issuing a Green Bond to finance the defined Eligible Assets category related to green buildings and residential/working sites, Zug Estates coherently responds to the above-mentioned commitments. In addition, the environmental benefits of the Eligible Assets to be financed by Zug Estates' first Green Bond address the sector's main sustainability issues, namely the GHG emissions reduction, the reduction of energy use by buildings and the protection of natural resources.

Use of proceeds

The Eligible Assets category is clearly defined, with relevant content.

The net proceeds of the Green Bond will be used to finance and refinance Eligible Assets namely green buildings and residential/working sites, contributing to defined environmental objectives of climate change mitigation and protection of biodiversity and natural resources.

The associated environmental objectives are defined, relevant, measurable but only partially precise, due to the lack of quantitative targets. They will be assessed and quantified by an external independent party.

As a result, the use of funds is considered aligned with the Green Bond Principles.

The net proceeds of the Green Bond will be used to finance and refinance, in whole or in part Eligible Assets of green buildings and residential/working sites contributing to defined environmental objectives.

imug has analysed the engagements made by the issuer in terms of Use of Proceeds:

- ▶ The Eligible Assets category is clearly defined, with relevant content and aligned with the sustainability strategy of Zug Estates.
- ▶ The associated environmental objectives are defined, relevant, and measurable although partially precise due to the lack of quantitative targets. imug has recommended quantifying these objectives.
- ▶ The expected environmental benefits from assets have been identified and will be assessed and quantified by an external independent party.

Selected Eligible Assets	Definitions	Objectives	Sustainability benefits
Green buildings and residential/working sites	<p>Building, retrofitting and development of green buildings and residential/working sites in terms of GHG emissions, no additional energy input from outside, the prevention of pollution, biodiversity and mobility</p> <p>> Assets located in Zug/Risch Rotkreuz, CH.</p>	<p>Reduction of energy use and of GHG emissions: with an overall goal to operate the portfolio with 100% of renewable energy and with low GHG-emissions</p> <p>Use of materials low in pollutants and renewable materials.</p> <p>Foster biodiversity and green city spaces: 50% local plants, 80% local trees</p> <p>Sustainable mobility: optimize connections to local transport system; provide car sharing and -pooling options.</p>	<p>Climate change mitigation</p> <p>----</p> <p>Protection of biodiversity and natural resources</p> <p>----</p> <p>Pollution prevention</p>

In addition, imug considers that the defined Eligible Assets category is mainly in line with four United Nations Sustainable Development Goals.



Contribution to achieving the UN SGD 7. Affordable and clean energy

The UN SDG 7 consists in ensuring access to affordable, reliable, sustainable and modern energy for all, with targets by 2030 to ensure universal access to affordable, reliable and modern energy services, increase substantially the share of renewable energy in the global energy mix and double the global rate of improvement in energy efficiency.

By using the Green Bond proceeds to finance Eligible Assets, Zug Estates is contributing to the UN SDG 7, with regards to the above-mentioned targets.



Contribution to achieving the UN SGD 11. Sustainable cities and communities

The UN SDG 11 consists in making cities inclusive, safe, resilient and sustainable, with targets by 2030 on the access for all to adequate, safe and affordable housing and basic services, inclusive and sustainable urbanization, the protection and safeguarding of the world's cultural and natural heritage, the reduction of the adverse per capita environmental impact of cities.

By using the Green Bond proceeds to finance Eligible Assets, Zug Estates is contributing to the UN SDG 11, with regards to the above-mentioned targets.



Contribution to achieving the UN SGD 12. Responsible Consumption and Production

The UN SDG 12 consists in ensuring sustainable consumption and production patterns, with targets by 2030, achieve the sustainable management and efficient use of natural resources a substantially reduce waste generation through prevention, reduction, recycling and reuse.

By using the Green Bond proceeds to finance Eligible Assets, Zug Estates is contributing to the UN SDG 12, with regards to the above-mentioned targets.



Contribution to achieving the UN SGD 13. Climate action

The UN SDG 13 consists in taking urgent action to combat climate change and its impacts with targets to Integrate climate change measures into national policies, strategies and planning and Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

By using the Green Bond proceeds to finance Eligible Assets, Zug Estates is contributing to the UN SDG 13, with regards to the above-mentioned targets.

Process for project evaluation and selection

imug considers that the evaluation and selection process of the eligible assets is clearly defined but partially formalized, in line with the Issuer's policies. The evaluation and selection process is considered to be good in terms of transparency and governance, in line with the Green Bond Principles requirements.

- The process for the evaluation and selection of Eligible Assets is clearly defined, but partially formalized.
imug recommends to define clear guidelines for the selection and evaluation of Eligible Assets and to publish them on their website.
- The evaluation and selection of Eligible Assets is expected to be based on relevant internal expertise with well-defined internal roles and responsibilities:
 - The Bond Team is led by the CFO and including employees of the controlling department.
 - The Sustainability Meetings cover recent topics and developments with employees from the department of project development, communication and project managers or topic specific experts – e.g. energy- and building technology as well as two members of the Zug Estate management).
 - Involved people in the process are appropriate including employees from the department of project development, energy- and building technology, controlling and the management.
- The evaluation and selection of Eligible Assets is reasonably structured
 - The Bond Team evaluates and confirms assets compliance with eligibility criteria.
 - This pre-selection of Eligible Assets to be financed by the Green Bond proceeds by the Bond Team is approved within the Sustainability Meetings that take place regularly (approx. once a month).
 - Possible new selection criteria – contributing to the sustainability objectives and in line with the overall Zug Estates' strategy, e.g. reduction of waste or water use – are discussed within the Sustainability Meetings. Input for priorities comes from stakeholder via different channels (Sustainability Forum, politics, consultations, costumers).
 - All investments that have been at Suurstoffi yet do contribute to the sustainability objectives and have been selected according to the same selection principles.
- The verification and traceability is ensured throughout the process:
 - Each Eligible Asset has been documented and selected based on visible criteria, including the confirmation of its eligibility during the Sustainability Meetings. The list of Eligible Assets has been established by a dedicated Bond Team and will be made available when announcing the issuance.
 - Post issuance, compliance with the Green Bond framework will be reviewed annually during one specific Sustainability Meeting and will be audited by the internal audit office, up to the complete allocation of Bond proceeds, and as necessary thereafter in the event of material developments.

The process relies on relevant eligibility criteria. The identification of environmental and social risks related to the Eligible Assets is good. Processes and appropriate measures have been implemented to manage all these environmental risks and most of these social risks.

- Use of proceeds criteria: based on the definition of the Eligible Assets' category and defined in line with the Zug Estates' strategic priorities.
- The proceeds will only be used to finance projects that contribute to:
 - reduction of energy use or
 - reduction of GHG emissions or
 - use of renewable materials low in pollution or
 - biodiversity and green city spaces or
 - sustainable mobility
- ESG factors in assets management are well structured in Zug Estates' overall process for contracting, environmental standards and controlling, supporting services and including local communities. External audits are conducted on energy use, GHG emissions and biodiversity:
 - Environment: The integration of environmental factors in the assets management (energy use, biodiversity etc.) is effective for all assets since it is included in the general contracting process (Code of Conduct) and procurement process (tenders) of Zug Estates. Indicators, contribution to the strategic objectives (GHG emissions, energy use, biodiversity) will be examined by external monitoring audits, checked during the lifetime of the project and after the end of the projects. Additionally, the preference for environmental friendly products, reduction of energy use and use of resources, the consideration of environmental factors for suppliers are set in the Code of Conduct.

imug recommends the implementation of commitment and measures related to the disposal of equipment and end of life management.

- Social: The integration of social factors in the assets management (labor rights, no-discrimination etc.) is effective for all assets since it is included in the general contracting process (Code of Conduct) and procurement process (tenders) of Zug Estates. Additionally, Zug Estates supports participation, communication and information of the local community via a Suurstoffi app, community projects (e.g. Urban Gardening) and cultural events on the Suurstoffi site. Relevant topics brought up by stakeholder via different channels are addressed within the Sustainability Meetings and priorities of related actions are set depending on their materiality and feasibility.

imug recommends to further integrate social aspects into procurement process and requirements for contractors especially on the ILO-Standards as well as on health and safety requirements.

- Governance of the projects (business ethics and integrity): Guidelines for offer submission are in place, defining the procurement process. Compliance with law, fairness, no-corruption, no-bribery and no conflicts of interests are included in the Code of Conduct. Zug Estates integrated a feedback system during procurement and project lifetime for better communication with the contractors and uses BIM-Methodologies and -Software for the optimization of the project management including all involved parties.

Zug Estates plans to implement the internal control on business ethics (e.g. corruption) in their new strategy by 2019.

Management of proceeds

imug considers that Zug Estates' rules for management of proceeds are clearly defined and would enable a documented transparent allocation process. The management of proceeds commitments are considered to be good and in line with the Green Bond Principles requirements.

- Some payments* for the Eligible Assets are already completed and interim financed via short-term credits or mortgage loans. Those credits and loans will be repaid by the proceeds of the Green Bond. The loans and credits have been used to finance projects for the Suurstoffi site. All current expenses are covered through rental income, additional financing is explicitly used for the development of the Suurstoffi site.

** In general, the Eligible Assets will only be partial financed since the costs are spread over a longer period. The quota will be reported by Zug Estates for every asset.*

- The use of proceeds will be therefore guaranteed and appropriately tracked and documented within in the processes for transactions and liquidity planning.
- Proceeds will also be used to finance ongoing and upcoming projects at the Suurstoffi site. Zug Estates will allocate the Green Bond proceeds towards Eligible Assets within 6 months after the issuance of the Bond.
- Zug Estates commits to use the net proceeds to finance other Eligible Assets which are compliant with the Green Bond framework, corresponding to the Eligible Assets' category without distinction.
 - Disbursements will be validated collectively during an annual, specific Sustainability Meeting and represented in the annual Sustainability Report.
- The Issuer commits to credit the net proceeds of the Green Bond to a sub-account or to a sub-portfolio in a formal internal process linked to the issuer's investment operations for Eligible Assets managed by the controlling department.
 - Pending the allocation, the net proceeds not yet allocated to Eligible Assets will be held temporarily by the Issuer in form of Cash, Time Deposit with Banks or Other form of available short term funding sources.
- All the management of proceeds will be reviewed annually by an internal and an external auditor and will be reported to the Board of Directors.
- In case of project ceases to comply with eligibility criteria or in case of project divestment, the Issuer commits to replace this asset with another Eligible Asset selected by the Green Bond Team within a 24 months period. An ad hoc report will be provided to investors to transparently disclose the potential changes in the Bond portfolio.

Monitoring & Reporting

The reporting process and commitments are good, covering the funds allocation and environmental benefits of Eligible Assets (outputs and impacts), reaching an overall reasonable level of assurance on the issuer's capacity to report on the Green Bond's use and impacts.

As a result, the reporting is considered aligned with the Green Bond Principles.

The process for monitoring, data collection, consolidation, and reporting are clearly defined and formalized in the Green Bond framework.

This process relies on relevant internal and external expertise:

- External, independent institutions are in charge of collecting the identified information from Zug Estates, energy suppliers or tenants.
- A first consolidation will be provided by the external institutions, notably to the people responsible for project or the topic (energy use, GHG emissions, biodiversity etc.).
- The Bond Team will aggregate the indicators and draft the Bond Report as a part of the Sustainability Report in cooperation with the communication department.

The Issuer is committed to perform its reporting through an annual dedicated report or within its Sustainability Report available on its website, according to the Green Bond Principles guidelines, including on calculation methodology. Moreover, Zug Estates commits to issue its first dedicated report in the end of 2018. Reporting on allocations will be verified by annual internal and external independent audits, input and output indicators will be evaluated by external independent institutions.

Zug Estates has identified reporting indicators and selected calculation methodology based on both internal and external expertise. The selected reporting indicators related to the fund allocation and the environmental benefits are relevant for the defined Eligible Assets category.

- Use of proceeds:
 - List of financed assets with description of exemplary investments, amounts invested and associated Zug Estates' quotas/shares at project level, annually and up to the complete allocation of Bond proceeds, and as necessary thereafter in the event of material developments.
- Environmental benefits:
 - Outputs: annual estimates and/or assessment of major outputs disclosed at project level, annually and up to the complete allocation of Bond proceeds, and as necessary thereafter in the event of material developments.
 - Impacts: annual estimates of ex-post impacts based on specific indicators developed by Zug Estates along with external experts, disclosed at project level annually and up to the complete allocation of Bond proceeds, and as necessary thereafter in the event of material developments.
- Calculations methodologies are defined by the external institutions and will be included in each reporting.
imug recommends defining the indicator units.

Category	Sustainability benefits	Output indicators	Impact reporting indicators
Green buildings and residential/working sites	Climate change mitigation --- Protection of biodiversity and natural resources --- Pollution prevention	<ul style="list-style-type: none"> • Primary energy consumption • Energy savings • CO2e heating/hot water • Electricity (general/tenants) • CO2e electricity • Use of materials low in pollutants (tons, quality) • Use of renewable materials (tons, quality) • Share of site that is certified as "natural" by an external organization (foundation for nature and economy) 	<ul style="list-style-type: none"> • Carbon dioxide emissions avoided (estimated for assets under construction)

The Issuer may select alternative quantitative or qualitative indicators, to remain relevant to the selected Green Assets.

For all Eligible Assets, Zug Estates may integrate additional qualitative or quantitative indicators as considered appropriate to disclose relevant performances or details on assets management.

METHODOLOGY

In imug / Vigeo Eiris' view, Environmental, Social and Governance (ESG) factors are intertwined and complementary. As such they cannot be separated in the assessment of ESG management in any organization, activity or transaction. In this sense, Vigeo Eiris writes an opinion on the Issuer's Corporate Social Responsibility as an organization, and on the objectives, management and reporting of the projects to be (re)financed by this transaction.

Vigeo Eiris' methodology to define and to assess corporate's ESG performance is based on criteria aligned with public international standards, in compliance with the ISO 26000 guidelines, and organized in 6 domains: Environment, Human Resources, Human Rights, Community Involvement, Business Behavior and Corporate Governance. The evaluation framework has been customized regarding material issues, based on the Real Estate assessment framework, projects specificities and emerging issues.

imug reviewed information under Vigeo Eiris' supervision provided by the Issuer, press content providers and stakeholders (partnership with Factiva Dow Jones: access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magazines, local publications or Non-Government Organizations). Information gathered from these sources will be considered as long as they are public, documented and traceable. imug has reviewed documents and websites of the Issuer (included, but not limited to, Sustainability Reports, Code of Conduct, Zero-Zero-Strategy, Monitoring Reports, notes on the selected projects) and interviewed members from several departments of the Issuer.

Our research and rating procedures are subject to internal quality control at three levels (analysts, heads of cluster sectors, and internal review by the audit department for second party opinions) complemented by a final review and validation by the Direction of Methods. A right of complaint and recourse is guaranteed to all companies under our review, including three levels: first, the team linked to the company, then the Direction of Methods, and finally Vigeo Eiris' Scientific Council. All collaborators are signatories of Vigeo Eiris' Code of Ethics.

Part I. ISSUER

NB: the issuer's performance, i.e., commitments, processes, results of the issuer, related to ESG issues has not been assessed through a complete process of rating and benchmark developed by Vigeo Eiris Rating. This assessment of ESG strategy has been conducted by imug based on information provided by the Issuer, public information and stakeholders' views and opinion collected from public documentation.

Level of the Issuer's ESG strategy

The Issuer has been evaluated by imug under Vigeo Eiris' supervision on its sustainability strategy, based on 21 relevant ESG drivers organized in the 6 sustainability domains. Zug Estates' strategy has been assessed by imug on the basis of its:

- Leadership: relevance of the commitments (content, visibility and ownership).

Scale for assessment of ESG strategy: Advanced, Good, Limited, Weak.

Stakeholder-related ESG controversies and involvement in controversial activities

A controversy is an information, a flow of information, or a contradictory opinion that is public, documented and traceable, allegation against an Issuer on corporate responsibility issues. Such allegations can relate to tangible facts, be an interpretation of these facts, or constitute an allegation on unproven facts.

imug provides an opinion on companies' controversies risks mitigation based on the analysis of 3 factors:

- Severity: the more a controversy will relate to stakeholders' fundamental interests, will prove actual corporate responsibility in its occurrence, and will have adverse impacts for stakeholders and the company, the highest its severity. Severity assigned at corporate level will reflect the highest severity of all cases faced by the company (scale: Minor, Significant, High, Critical).
- Responsiveness: ability demonstrated by an Issuer to dialogue with its stakeholders in a risk management perspective and based on explanatory, preventative, remediating or corrective measures. At corporate level, this factor will reflect the overall responsiveness of the company for all cases faced (scale: Proactive, Remediate, Reactive, Non- Communicative).
- Frequency: reflects for each ESG challenge the number of controversies faced. At corporate level, this factor reflects on the overall number of controversies faced and scope of ESG issues impacted (scale: Isolated, Occasional, Frequent, Persistent).

The impact of a controversy on a company's reputation reduces with time, depending on the severity of the event and the company's responsiveness to this event. Conventionally, Vigeo Eiris' controversy database covers any controversy with Minor or Significant severity during 24 months after the last event registered and during 48 months for High and Critical controversies.

In addition, 15 controversial activities have been analysed following 30 parameters to verify if the company is involved in any of them. The company's level of involvement (Major, Minor, No) in a controversial activity is based on:

- An estimation of the revenues derived from controversial products or services.
- The precise nature of the controversial products or services provided by the company.

Part II. ISSUANCE

The Green Bond framework has been evaluated by imug under Vigeo Eiris' supervision according to the Green Bond Principles and the Vigeo Eiris methodology based on international standards and sector guidelines applying in terms of ESG management and assessment.

Use of proceeds

The use of proceeds guidelines are defined to ensure that the funds raised are used to finance and/or refinance an Eligible Assets and are traceable within the issuing organisation. Each Project endorsed shall comply with at least one of the Eligible Assets category definition in order to be considered as an Eligible Asset. imug evaluates the relevance, visibility, and measurability of the associated environmental and/or social objectives. The sustainability purpose of the Green Bond related Eligible Assets has been precisely defined, with regard to the Issuer's commitments, and assessed based on the described and estimated benefits of Eligible Assets. The contribution of Eligible Assets to sustainable development is evaluated based on the United Nations Sustainable Development Goals.

Process for project evaluation and selection

The evaluation and selection process has been assessed by imug under Vigeo Eiris' supervision regarding its transparency, governance and efficiency. The relevance and exhaustiveness of selection criteria and associated supporting elements integrated in the Green Bond framework, and the coherence of the process are analysed based on material issues considered in Vigeo Eiris' methodology.

Management of proceeds

The rules for the management of proceeds and the allocation process have been evaluated by imug under Vigeo Eiris' supervision regarding their transparency, coherence and efficiency.

Reporting

Reporting indicators, processes and methodologies are defined by the Issuer to enable annual reporting on fund allocation, environmental benefits (output and impact indicators) and on the responsible management of the Eligible Assets financed by the Green Bond proceeds, collected at project level and potentially aggregated at Green Bond level. imug has evaluated the relevance of the reporting framework according to three principles: transparency, exhaustiveness and effectiveness.

- Scale of assessment for processes and commitments: Advanced, Good, Limited, Weak.
- Scale of level of assurance on Issuer's capacity: Reasonable, Moderate, Weak.

IMUG / VIGEO EIRIS' ASSESSMENT SCALES

Performance evaluation		Level of assurance	
Advanced	Advanced commitment; strong evidence of command over the issues dedicated to achieving the objective of social responsibility. Reasonable level of risk management and using innovative methods to anticipate emerging risks.	Reasonable	Able to convincingly conform to the prescribed principles and objectives of the evaluation framework
Good	Convincing commitment; significant and consistent evidence of command over the issues. Reasonable level of risk management.	Moderate	Compatibility or partial convergence with the prescribed principles and objectives of the evaluation framework
Limited	Commitment to the objective of social responsibility has been initiated or partially achieved; fragmentary evidence of command over the issues. Limited to weak level of risk management.	Weak	Lack or unawareness of, or incompatibility with the prescribed principles and objectives of the evaluation framework
Weak	Commitment to social responsibility is non-tangible; no evidence of command over the issues. Level of insurance of risk management is weak to very weak.		



Vigeo Eiris is a global provider of environmental, social and governance (ESG) research to investors and public and private corporates. The agency evaluates the level of integration of sustainability factors into organisations' strategy and operations, and undertakes a risk assessment to assist investors and companies' decision-making.

Vigeo Eiris offers two types of services through separate business units

- ▶ **Vigeo Eiris rating** offers databases, sector-based analyses, ratings, benchmarks and portfolio screening, to serve all ethical and responsible investment strategies.
- ▶ **Vigeo Eiris enterprise** works with organisations of all sizes, from all sectors, public and private in order to support them in the integration of ESG criteria into their business functions and strategic operations.

The Vigeo Eiris methodology is reviewed by an independent scientific council and all our production processes, from information collection to service delivery, are documented and audited. Vigeo Eiris has chosen to certify all its processes to the latest ISO 9001 standard. Vigeo Eiris is an approved verifier for CBI (Climate Bond Initiative).

imug | rating is one of the leading German sustainability rating agencies and the German-speaking address for tailor-made sustainability research. In 1995, imug emerged from the imug institute of the University of Hanover. To date, 39 employees provide consultancy and research services in the area of Corporate Social Responsibility (CSR), Socially Responsible Investment (SRI), market research and marketing.

imug rating has been active in the market for sustainable financial assets for more than 20 years - our references include major asset managers as well as church and environmental banks as well as institutional investors and NGOs. For our clients we provide high quality standards and excellent customer service.

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