



Second-Party Opinion

# Z Holdings Corporation Green Bond Framework

## Evaluation Summary

Sustainalytics is of the opinion that the Z Holdings Corporation Green Bond Framework is credible and impactful and aligns to the four core components of the Green Bond Principles 2018. This assessment is based on the following:



**USE OF PROCEEDS** The two eligible categories for the use of proceeds Energy Efficiency and Renewable Energy, are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7.



**PROJECT EVALUATION / SELECTION** Z Holdings' project evaluation and selection will be executed by its department in charge of finance in accordance with advice from its department in charge of ESG and the System Management Group of Yahoo Japan Corporation as well as the eligibility criteria. Selected projects will be finally approved by the Senior Managing Corporate Officer. Z Holdings' process for evaluating and selecting projects is in line with market practices.



**MANAGEMENT OF PROCEEDS** The department in charge of finance will track and manage green bond proceeds using an internal management system until the redemption of the bond. Pending allocation, unallocated proceeds will be held in cash or cash equivalents. Z Holding's management of proceeds is aligned with market practices.



**REPORTING** Z Holdings intends to disclose allocation and environmental indices annually on its website. The allocation reporting will include the overview of projects and the allocated and unallocated amounts, while the impact reporting will include, data centers' PUE value and the amount of electricity procured from renewable energy sources. Furthermore, the Company intends to obtain annual reviews from independent parties after the issuance of green bonds. Z Holdings' commitment to the reporting and annual review is in line with market practices.

**Evaluation Date** June 3, 2021

**Issuer Location** Tokyo, Japan

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## Alignment with Japan's Green Bond Guidelines 2020

Sustainalytics is of the opinion that the Z Holdings Corporation Green Bond Framework is in line with Japan's Green Bond Guidelines 2020 developed by the Ministry of the Environment of Japan. The Guidelines communicate what an issuer is expected to do to issue a credible green bond. Sustainalytics assessed the alignment between the Z Holdings Corporation Green Bond Framework and the 'should' items outlined in the Japan's Green Bond Guidelines 2020.

## Introduction

Z Holdings Corporation (hereinafter “Z Holdings” or “the Company”) is an IT service company headquartered in Tokyo. The Company was founded in 1996 as “Yahoo Japan Corporation” and changed its name to “Z Holdings Corporation” in 2019. It provides e-commerce-related, membership, financial and payment-related, and media services, and its subsidiaries and affiliates include Yahoo Japan Corporation, LINE Corporation, ZOZO, Inc. and PayPay Corporation.

Z Holdings has developed the Z Holdings Corporation Green Bond Framework (the “Framework”) under which it intends to issue green bonds and use the proceeds to finance and/or refinance, projects that generate environmental benefits. The Framework defines eligibility criteria in two areas:

1. Energy Efficiency
2. Renewable Energy

Z Holdings engaged Sustainalytics to review the Framework, dated June 2021, and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP)<sup>1</sup> and Japan’s Green Bond Guidelines 2020.<sup>2</sup> A summary overview of the Framework has been provided in Appendix 1.

### Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent<sup>3</sup> opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the GBP administered by the ICMA and Japan’s Green Bond Guidelines 2020;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.9.1, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Z Holdings’ departments in charge of finance, ESG, investor relations, and the System Management Group of Yahoo Japan Corporation to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Z Holdings representatives have confirmed (1) that they understand it is the sole responsibility of Z Holdings to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Z Holdings.

Sustainalytics’ Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics’ Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The

<sup>1</sup> The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

<sup>2</sup> Ministry of the Environment, Japan, “Green Bond Guidelines, 2020”, at: [http://www.env.go.jp/policy/guidelines\\_set\\_version\\_with%20cover.pdf](http://www.env.go.jp/policy/guidelines_set_version_with%20cover.pdf)

<sup>3</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Z Holdings has made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the Z Holdings Corporation Green Bond Framework

Sustainalytics is of the opinion that the Framework is credible and impactful, and aligns with the four core components of the GBP. Sustainalytics highlights the following elements of Z Holdings' Green Bond Framework:

- Use of Proceeds:
  - The two eligible categories for the use of proceeds from the green bond issued under the Framework, Energy Efficiency and Renewable Energy, are in line with the Eligible Green Project Categories recognized by the GBP. The use of green bond proceeds will further promote the reduction of greenhouse gas (GHG) emissions under the Company's policy to respond to climate change, a priority in its sustainability agenda, and will contribute to the achievement of Japan's climate change goals. Please refer to Section 3 for Sustainalytics' in-depth assessment of environmental benefits expected from the use of proceeds.
  - Under the Energy Efficiency category, Z Holdings intends to allocate the green bond proceeds to expenditures for construction, refurbishment, acquisition and operation of data centers. In order to ensure data centers' energy efficiency, the Company qualifies projects as eligible in the Framework when they meet the requirement of PUE (Power Usage Effectiveness) value below 1.5. With regard to the data-center PUE value, the 2018 global average of the Green Grid<sup>4</sup> PUE metric which is a measure of data center infrastructure's energy efficiency, is estimated at 1.58.<sup>5</sup> Sustainalytics acknowledges that, considering the global average PUE, data centers with a PUE value of below 1.5 are considered to be efficient in the market. Taking the value into account, Sustainalytics is of the opinion that the above PUE value set by Z Holdings as an eligibility criterion will improve data centers' energy efficiency and lead to positive environmental impacts.
  - Under the Renewable Energy Category, the Group aims to procure 100% of the electricity consumed in its business activities from renewable energy sources. Yahoo Japan Corporation, the Group's core company, has set a goal of shifting to the renewable energy sources by procuring 100% of the electricity used in its business activities, including those at data centers, by the end of FY2023.<sup>6</sup> To achieve the goal, Z Holdings intends to allocate the proceeds to expenditures for procuring renewable energy-based electricity to be used at data centers. As to procurement, the Company has confirmed to Sustainalytics that the energy sources will be identifiable and do not include any nuclear power, and that positive environmental impacts will be created by making 5-year or longer-term investments.

<sup>4</sup> The Green Grid is an affiliate of the Information Technology Industry Council (ITI) and an industry consortium that works to improve IT and data centers' energy efficiency and eco-design across the world. For further details, refer to the following website: <https://www.thegreengrid.org/en/about-us>

<sup>5</sup> The Green Grid's PUE measures the ratio of the energy consumption of total facility and the energy consumption of IT equipment within that facility. PUE does not consider "the efficiency of IT or networking equipment (or software applications)," and was designed "only to benchmark efficiency gains over time at an individual site rather than to compare one facility against another." The global average of PUE ratio came from the Uptime Institute's survey of almost 900 data center operators, IT and facilities management, and executives. Most survey respondents (62%) were from large, mature data center markets, such as the US, Canada, and Europe, with a balance spread across a mix of emerging and smaller data center markets. Uptime Institute Global Data Center Survey: <https://datacenter.com/wp-content/uploads/2018/11/2018-data-center-industry-survey.pdf>

<sup>6</sup> A period from April 2023 through March 2024.

- Z Holdings intends to allocate the green bond proceeds to financing and refinancing of projects. For refinancing, the Company has limited the look-back period for CAPEX in the Framework to expenditures undertaken within five years from the green bond issuance. For OPEX, the Company has committed to Sustainalytics that use of proceeds will be limited to expenditures undertaken within three years.
- Under the Framework, the Company has set an exclusionary criteria and committed that it will exclude any projects involving inappropriate relationships including unfair business practices not complying with the laws and regulations of the country where the project is located, bribery, corruption, extortion, and embezzlement, as well as transactions that may cause social problems such as human-right and environmental issues.
- Project Evaluation and Selection:
  - Z Holdings' department in charge of finance will be responsible for evaluating and selecting projects. Candidate projects are evaluated and selected by the department in charge of finance in accordance with advice from the department in charge of ESG and the System Management Group of Yahoo Japan Corporation as well as the eligibility criteria in the Framework. Selected projects are finally approved by the Senior Managing Corporate Officer.
  - Considering the involvement by the Company's multiple business units in the project evaluation and selection process, Sustainalytics is of the opinion that the same process is in line with market practices.
- Management of Proceeds:
  - Z Holdings' department in charge of finance will track and manage green bond proceeds using an internal management system until the redemption of the bond. The Company has made a commitment to Sustainalytics to implement this management on an annual basis. Pending allocation, unallocated proceeds will be held in cash or cash equivalents.
  - Given that the responsibilities are assigned to and the proceeds are managed by a specific department, Sustainalytics is of the opinion that Z Holdings' process to manage the proceeds is aligned with market practices.
- Reporting:
  - Z Holdings intends to disclose annually the allocation of green bond proceeds and the environmental performance indicators associated with financed projects on its corporate website. For allocation and impact reporting, the company has committed to continue disclosure until the proceeds are fully allocated, and in a timely manner in the event of major changes or other significant events after full allocation.
  - The Company has designated the overview of financed projects (category and progress) and the amounts of proceeds allocated and unallocated as matters to be reported in the allocation reporting, and the financed data centers' PUE values as well as the amount of electricity (kWh) procured from renewable energy sources for impact reporting, and has committed to Sustainalytics to disclose on the indicators to the extent practicable.
  - In addition, Z Holdings intends to receive an annual review from an independent party within one year after the green bond issuance to confirm that the proceeds have been allocated in accordance with the Framework.
  - Sustainalytics considers that the Company's commitment to the disclosure of allocation and impact reporting and the receipt of annual review are in line with market practices.

### **Alignment with Green Bond Principles 2018**

Sustainalytics has determined that the Framework aligns to the four core components of the GBP. For detailed information please refer to Appendix 3: Green Bond/Green Bond Programme External Review Form.

### **Alignment with Japan's Green Bond Guidelines 2020**

The Japan's Green Bond Guidelines 2020 communicate what an issuer is expected to do to issue a credible green bond. Sustainalytics assessed the alignment between the Framework and the 'should' items outlined in the Japan's Green Bond Guidelines 2020. For detailed information please refer to Appendix 2 Alignment with Japan's Green Bond Guidelines 2020.

## Section 2: Sustainability Strategy of Z Holdings

### Contribution of framework to Z Holdings Corporation's sustainability strategy

Based on its corporate philosophy,<sup>7</sup> Z Holdings aims to contribute to the sustainable development of society and the environment through its business activities. The Company has set the following four areas of key sustainability issues: (1) developing an IT society; (2) supporting disaster relief and social issues; (3) building a society where everyone can play an active role; and (4) working toward a sustainable society.<sup>8</sup> In the area of "working toward a sustainable society," the Company is working on to address climate change, waste management, biodiversity conservation, and water resource conservation. Based on the relevance to the Framework, Sustainalytics considers the following goals, policies, and initiatives as important points:

- As a mid-term goal to mitigate climate change, Z Holdings has set a target of reducing CO<sub>2</sub> emissions per revenue by FY2028 to 50% of the FY2008 level.<sup>9</sup> In addition, in support with the "Zero Emission Tokyo Strategy"<sup>10</sup> developed by the Tokyo Metropolitan Government to achieve net zero CO<sub>2</sub> emissions by 2050, the Company aims to realize net zero CO<sub>2</sub> emissions at its offices located in Tokyo by 2050.<sup>11</sup>
- Z Holdings aims for early membership in "RE100," an international initiative designed to procure 100% of electricity consumed in its business activities from renewable energy sources.<sup>12</sup> Prior to joining the initiative, Yahoo Japan Corporation, the core company of the Group, declared that it would procure 100% of the electricity used in its business activities from renewable energy sources by the end of FY2023, aiming at achieving the goal by shifting to renewable energy-based electricity at its data centers as well as by encouraging offices to purchase Green Electricity Certificates.<sup>13 14</sup>
- As data centers account for 95% of Yahoo Japan's electricity consumption, the Company implements measures to improve energy efficiency of its data centers, through capital investment including the construction of energy-efficient data centers equipped with air conditioning systems that use outside air.<sup>15</sup>

Given the above policies and goals, Sustainalytics positively views that the use of proceeds set forth in this Framework is in line with Z Holdings' sustainability strategy and provides support for the Company's efforts to increase the use of renewable energy and improve the energy efficiency at its data centers.

### Well-positioned to address common environmental and social risks associated with the projects

Sustainalytics acknowledges that, while the eligible projects that Z Holdings defines as eligible for the use of proceeds, will have clear environmental benefits, they may potentially pose environmental and social risks. Major risks include information leakage and invasion of data privacy in the course of data center operations, noise and vibration, and negative impacts on the ecosystem and the surrounding natural environment caused by construction. In view of the following processes and policies adopted by the Company, Sustainalytics is of the opinion that Z Holdings is well positioned to manage and mitigate environmental and social risks associated with the eligible projects.

- Through its code of conduct,<sup>16</sup> Z Holdings has made a commitment to strict compliance, respect for basic human rights, fair business activities, assurance of occupational safety and health, stringent information security, and consideration to the impact on society and the environment during business activities. All officers and employees are required to comply with the code of conduct.
- Z Holdings addresses security risks including information leakage and privacy invasion by establishing its Cybersecurity Policy<sup>17</sup> and building/operating information systems that comply with the cybersecurity

<sup>7</sup> Z Holdings Corporation, "Mission, Vision", at: <https://www.z-holdings.co.jp/en/company/mission/>

<sup>8</sup> Z Holdings Corporation, "Basic Policy", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/01/>

<sup>9</sup> Z Holdings Corporation, "Dealing with Natural Capital", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/11/>

<sup>10</sup> Bureau of Environment, Tokyo Metropolitan Government, "Zero Emission Tokyo Strategy", at:

[https://www.kankyo.metro.tokyo.lg.jp/en/about\\_us/zero\\_emission\\_tokyo/strategy.html](https://www.kankyo.metro.tokyo.lg.jp/en/about_us/zero_emission_tokyo/strategy.html)

<sup>11</sup> Z Holdings Corporation, "Dealing with Natural Capital", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/11/>

<sup>12</sup> Z Holdings Corporation, "Z Holdings Corporation Business Results FY2020 Q3 (October – December)", at: [https://www.z-holdings.co.jp/en/ir/library/presentations/main/0/teaserItems2/0/linkList/02/link/en2020q3\\_presentation.pdf](https://www.z-holdings.co.jp/en/ir/library/presentations/main/0/teaserItems2/0/linkList/02/link/en2020q3_presentation.pdf)

<sup>13</sup> Z Holdings Corporation, Yahoo Japan Corporation, "Yahoo! JAPAN Declares "FY2023 100% Renewable Energy Challenge", at: <https://www.z-holdings.co.jp/en/pr/press-release/2021/0119/>

<sup>14</sup> Z Holdings Corporation, "Z Holdings Corporation Business Results FY2020 Q3 (October – December)", at: [https://www.z-holdings.co.jp/en/ir/library/presentations/main/0/teaserItems2/0/linkList/02/link/en2020q3\\_presentation.pdf](https://www.z-holdings.co.jp/en/ir/library/presentations/main/0/teaserItems2/0/linkList/02/link/en2020q3_presentation.pdf)

<sup>15</sup> Z Holdings Corporation, "Dealing with Natural Capital", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/11/>

<sup>16</sup> Z Holdings Corporation, "Z Holdings Group Code of Conduct (Japanese only)", at: <https://www.z-holdings.co.jp/company/compliance/>

<sup>17</sup> Z Holdings Corporation, "Z Holdings Group's Cybersecurity Policy", at: <https://www.z-holdings.co.jp/en/company/cybersecurity/>

framework of U.S. National Institute of Standards and Technology (NIST)<sup>18</sup> and a cross-functional structure to ensure the cybersecurity.<sup>19</sup> Furthermore, Z Holdings and certain subsidiaries including Yahoo Japan Corporation received third party audits and acquired Information Security Management System (ISMS) certification ISO/IEC 27001:2013, the ISMS international standard, and JIS Q27001:2014 certification, the Japanese standard, for all of their businesses.<sup>20</sup>

- In the Framework, Z Holdings made a commitment to comply with environmental laws and regulations of, and agreements with, the country or municipality where the project is located. In Japan, in order to ensure the management of possible environmental risks including noise, vibration, and negative impacts on the ecosystem, some municipalities have established ordinances that require data center and other building construction projects to carry out environmental impact assessments when certain scale requirements are met, and provide for procedures of pre- and post-project investigations, estimation, and evaluation of impacts on important environmental elements based on the project type and regional characteristics.
- Using the World Resources Institute's (WRI) Aqueduct Water Risk Atlas,<sup>21</sup> Z Holdings periodically analyzes its water risks associated with water sources that supply its data centers and confirms that the water risk remains at "Low-Medium" both in Japan and overseas. The Company is also committed to implementing measures including capital investment when, in the future, the water stress is determined to be high.<sup>22</sup>

### Section 3: Impact of Use of Proceeds

The two use of proceeds categories are aligned with those recognized by the GBP and Japan's Green Bond Guidelines 2020. Sustainalytics explains why those project categories produce positive environmental impacts in Japan as follows:

#### Importance of improving energy efficiency and procuring electricity from renewable sources in data centers

During the period from 2010 to 2019, global Internet traffic volume has increased 12.1 times and data center workloads has increased 7.5 times.<sup>23</sup> Meanwhile, owing to improvement in energy efficiency, electricity consumption by data centers remains at the same level as that of 2010. Electricity consumption by data centers in 2019 was 200 TWh, which accounted for approximately 0.8% of the world's energy consumption as a whole.<sup>24</sup> Global Internet traffic volume is expected to increase about 3.8 times the 2017 level to 4.2 ZB by 2022,<sup>25</sup> and the Japanese data center service market is projected to grow by an annual average of 9.1% during the period from 2019 to 2024.<sup>26</sup> In order to suppress the electricity consumption resulting from the expected growth in the data center service demand, it is indispensable to improve the energy efficiency at data centers.

In its Nationally Determined Contribution (NDC)<sup>27</sup> announced in response to the Paris Agreement, the Japanese government set a goal of reducing GHG emissions by 26% from the FY2013 level by FY2030, and explained that, with the aim of achieving the goal, the country would improve the nation's energy efficiency by approximately 35% and reduce its energy demand by 50.3 million kL of crude-oil equivalent. In April 2021, the government announced that it would raise the target and aim to reduce GHG emissions by 46% during the same period.<sup>28</sup> Accordingly, improving energy efficiency at data centers, the demand for whose services is expected to grow, will be an increasingly important measure to achieve Japan's climate targets.

<sup>18</sup> A framework for improving cybersecurity of critical infrastructure issued by the US National Institute of Standards and Technology (NIST)

<sup>19</sup> Z Holdings Corporation, "Privacy and Security", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/06/>

<sup>20</sup> Z Holdings Corporation, "Privacy and Security", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/06/>

<sup>21</sup> A map provided by the World Resources Institute (WRI), an international environmental NGO, to show water risks in regions around the world. It measures water risk scores using 13 indicators of water risk, including water stress, flood risk, and drought risk.

<sup>22</sup> Z Holdings Corporation, "Dealing with Natural Capital", at: <https://www.z-holdings.co.jp/en/sustainability/stakeholder/11/>

<sup>23</sup> International Energy Agency (IEA), "Data Centers and Data Transmission Networks", at: <https://www.iea.org/reports/data-centres-and-data-transmission-networks>

<sup>24</sup> International Energy Agency (IEA), "Data Centers and Data Transmission Networks", at: <https://www.iea.org/reports/data-centres-and-data-transmission-networks>

<sup>25</sup> International Energy Agency (IEA), "Digitalization and Energy", at: <https://www.iea.org/reports/digitalisation-and-energy>

<sup>26</sup> IDC Japan, "IDC Japan announces domestic data center service market forecast (Japanese only)", at: <https://www.idc.com/getdoc.jsp?containerId=prJPJ46788520>

<sup>27</sup> "Japan's Nationally Determined Contribution (NDC) (Japanese only)", at: <https://www.env.go.jp/press/files/jp/113664.pdf>

<sup>28</sup> Prime Minister's Office, "Meeting on Greenhouse Gas Reduction Targets and State of Emergency Declaration (Japanese only)": [https://www.kantei.go.jp/jp/99\\_suga/statement/2021/0422kaiken.html](https://www.kantei.go.jp/jp/99_suga/statement/2021/0422kaiken.html)



In addition, the Japanese government has pledged to achieve net zero GHG emissions by 2050,<sup>29</sup> and in its Green Growth Strategy, it has set out a policy of introducing renewable energy to the maximum extent possible, and has set a reference value of 50-60% for the share of electricity generated from renewable energy sources in 2050 to proceed discussions.<sup>30</sup> Through the strategy, the government also explains its aim to achieve carbon neutrality in data centers by 2040, with a target of improving the energy efficiency of all new installations by at least 30% by 2030, and promoting the use of electricity from renewable energy sources.<sup>31</sup>

In the Framework, Z Holdings states that the proceeds will be allocated to expenditures for constructing, refurbishing, acquiring and operating energy-efficient data centers with a PUE value of below 1.5, as well as to the procurement of renewable energy-based electricity to be used at data centers. Sustainalytics considers that the use of proceeds will contribute to the reduction of energy consumption at data centers, whose demand is expected to grow in the future, as well as to the decrease of GHG emissions, and thereby benefit the achievement of climate targets set by the government of Japan.

### Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The green bonds issued under the Framework advances the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Energy Efficiency	7. Affordable and clean energy	7.3 By 2030, double the global rate of improvement in energy efficiency
Renewable Energy	7. Affordable and clean energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

### Conclusion

Z Holdings has developed the Z Holdings Green Bond Framework under which it intends to issue green bonds and use the proceeds to finance and/or refinance projects related to energy efficiency and renewable energy. Sustainalytics positively views the Company's projects to which the green bond proceeds will be allocated as they are expected to create positive environmental impacts.

The Framework describes processes for tracking, allocating, and managing the proceeds and shows the Company's commitment to reporting allocation and positive impacts of the use of proceeds. Moreover, Sustainalytics considers that the Framework is in alignment with the Company's sustainability strategy and that the eligible project categories for the use of proceeds will provide support for the promotion of the SDG 7. Sustainalytics also considers that Z Holdings is well positioned to identify, manage, and mitigate environmental and social risks commonly associated with eligible projects to be financed with the proceeds.

Based on the above, Sustainalytics is confident that Z Holdings Corporation is well-positioned to issue green bonds and that the Z Holdings Corporation Green Bond Framework is credible, transparent, and in alignment with the four core components of the GBP and Japan's Green Bond Guidelines 2020.

<sup>29</sup> Prime Minister of Japan and His Cabinet, "Policy Speech by the Prime Minister to the 203rd Session of the Diet", at: [https://japan.kantei.go.jp/99\\_suga/statement/202010/\\_00006.html](https://japan.kantei.go.jp/99_suga/statement/202010/_00006.html)

<sup>30</sup> Ministry of Economy, Trade and Industry, "Green growth strategies associated with carbon neutrality in 2050 (Japanese only)", at: <https://www.meti.go.jp/press/2020/12/20201225012/20201225012-2.pdf>

<sup>31</sup> Ministry of Economy, Trade and Industry, "Green growth strategies associated with carbon neutrality in 2050 (Japanese only)", at: <https://www.meti.go.jp/press/2020/12/20201225012/20201225012-2.pdf>

## Appendices

### Appendix 1: Framework Overview

For the purpose of issuing green bonds, Z Holdings has developed the following Framework which addresses the four key core components of the GBP: use of proceeds, process for project evaluation and selection, management of proceeds, and reporting, in June 2021. The Framework belongs to Z Holdings.

#### 1. Use of proceeds

The proceeds of the green bond will be allocated to new expenditures or refinancing relating to eligible projects that meet the eligibility criteria listed below. In the case of refinancing of existing expenditures, the use of proceeds will be restricted to expenditures including construction, refurbishment, and repair, made within five years prior to the green bond issuance.

##### 1.1 Eligibility Criteria

Item	Project	Project Category	Four UPDATES	Alignment with the SDGs
Data Center	Construction, refurbishment, acquisition, or operation of data centers that achieve a Power Usage Effectiveness (PUE) of less than 1.5	Energy Efficiency	Working toward a Sustainable Society	7. Affordable and clean energy
Renewable Energy	Sourcing of electricity to be used for data center operation from renewable energy	Renewable Energy	Working toward a Sustainable Society	7. Affordable and clean energy

##### 1.2 Exclusionary Criteria

The proceeds of the green bonds will not be allocated to projects related to the following:

- Inappropriate relationships, including unfair business practices not complying with the laws and regulations of the country where the project is located, bribery, corruption, extortion and embezzlement.
- Transactions that may cause human-right, environmental, or other social issues.

#### 2 Process for project evaluation and selection

##### 2.1 Application of Eligibility and Exclusionary Criteria in Project Selection

The eligible projects will be selected by the Company's department in charge of finance, seeking advice from the department in charge of ESG and the System Management Group of Yahoo Japan Corporation, and finally approved by the Senior Managing Corporate Officer. In implementing projects, we are committed to adhering to relevant laws and regulations and complying with the Charter of Corporate Behavior, which stipulates principles to be observed in order to act with integrity and in accordance with social ethics.

##### 2.2 Environmental Objectives

###### • Basic Environmental Policy

The Z Holdings Group, comprised of Z Holdings and its subsidiaries and affiliates, will continue to implement initiatives to conserve the global environment for future generations through the use of information technology. For this, we will strive to:

###### 1. Realize a low-carbon society

We will set medium-term environmental load reduction targets and work with the supply chain to achieve these targets.



**2. Conserve natural capital**

- We will consider the impact of our business on the ecosystem and strive for sustainable procurement, waste management, and conservation of water resources and biodiversity.
- We will support efforts to preserve the global environment.

**3. Fulfill legal compliance and international responsibilities**

- We will place importance on environmental issues and strive to reduce risks.
- We will comply with domestic laws and regulations related to environmental conservation.
- We will support international environmental initiatives and work in collaboration with the international community to combat climate change.

**4. Cooperate with the society through our services**

- In response to natural disasters associated with climate change, we will collaborate with the society through cooperation with local municipalities and disaster prevention and mitigation services, etc.
- We will expand and enhance our recycling-oriented services to realize a sustainable society.

**5. Educate and enlighten our employees to create the future**

We will educate and enlighten our employees so that they understand the importance of environmental issues and are able to improve services and create innovations that are environmentally friendly.

- **Declaration of “FY2023 100% Renewable Energy Challenge”**

In the efforts to reduce its impact on the environment, the Z Holdings Group aspires to meet the RE100 goals across the Group and declares its commitment to the “FY2023 100% Renewable Energy Challenge,” which aims to achieve the shift to 100% renewable energy for electricity used for business operations such as in data centers by fiscal year 2023. While many companies have set out medium- to long-term goals of achieving 100% renewable energy by 2040 or 2050, Yahoo! JAPAN is aiming to achieve this goal in a short period of approximately three years.

**2.3 Process to Mitigate Environmental and Social Risks**

In implementing projects, we will comply with environmental laws and regulations and agreements with the local community throughout the execution and duration of the projects and follow our compliance guidelines to ensure that we act with integrity and in conformity with social ethics.

**3 Management of Proceeds**

Z Holdings’ department in charge of finance will manage the allocation of green bond proceeds using its internal management system until the redemption of the bond. Pending full allocation, the proceeds will be held in cash or cash equivalents.

**4 Reporting****4.1 Allocation reporting**

Until the proceeds are fully allocated to eligible projects, Z Holdings will annually report on, while maintaining the confidentiality of the projects, the status of the proceeds, (project category, overview of project including its progress, and allocated/unallocated amounts) on the Company’s website to the extent practicable. If there are any unallocated proceeds, Z Holdings will disclose the allocation schedule and the management method to the extent practicable.

Moreover, when refinancing an asset that requires long-term maintenance through the issuance of multiple green bonds, the Company will disclose, to the extent practicable, the asset’s age, remaining useful life, and the amount to be refinanced at the time of the issuance of the green bond.

In case of significant events that may cause major changes after the full allocation, the Company will disclose it in a timely manner.

**4.2 Impact reporting**

In addition to the allocation reporting above, Z Holdings will report on, to the extent practicable, the following quantitative indicators of environmental improvement on the Company’s website. Prior to the launch of eligible projects, we will disclose estimated values of the indicators.

Item	Project	Reporting Items
Data Center	To be allocated to expenditures for the construction, refurbishment, acquisition, or operation of data centers that achieve a Power Usage Effectiveness (PUE) of less than 1.5	• PUE values
Renewable Energy	Sourcing of electricity to be used for data center operation from renewable energy	• Amount of electricity procured (kWh)

## 5. Annual Review

Before the first anniversary of the green bond issuance date, Z Holdings will obtain a review from Sustainalytics, an independent external review provider, to assess whether the reporting of the eligible projects aligns with the Company's Green Bond Framework. This review will be conducted annually until the full allocation of the proceeds from the green bond.

## Appendix 2: Alignment with Japan's Green Bond Guidelines 2020

Four elements	Alignment	Sustainalytics' comments
1. Use of Proceeds	Yes	Energy Efficiency and Renewable Energy, which Z Holdings designates as eligible project categories for the use of the green bond proceeds under the Framework, are recognized as project categories that have clear environmental benefits in Japan's Green Bond Guidelines 2020. The Company also provides, in the Framework, explanations on its measures to manage and mitigate environmental risks associated with the eligible projects, allowing investors to access the information in advance. In the Framework, the Company commits that, when refinancing assets that require long-term maintenance through multiple issuances of green bonds, it will disclose the assets' age, remaining useful life, and the amount to be refinanced at the time of the issuance of the green bonds.
2. Process for Project Evaluation and Selection	Yes	In the Framework, the Company explains environmental goals that it aims to achieve through the issuance of green bonds. It also describes eligibility and exclusionary criteria in addition to the project evaluation and selection processes.
3. Management of Proceeds	Yes	In the Framework, Z Holdings explains that the department in charge of finance will track and manage the amounts of allocated and unallocated proceeds until the redemption of the green bond using an internal management system. The Company has committed to Sustainalytics that it will implement this management annually. Unallocated proceeds will be held in cash or cash equivalents.
4. Reporting	Yes	Z Holdings intends to disclose the allocation of proceeds and environmental benefits annually until the full allocation of proceeds, or on a timely basis in the event of significant changes in circumstances. For the information on allocation, the overview of the financed projects (category and progress) and the amounts of allocated and unallocated proceeds, will be disclosed. Furthermore, Z Holdings will disclose the allocation schedule and the management method, to the extent practicable, if there are any unallocated proceeds. For environmental benefits, data centers' PUE values and the amount of electricity (kWh) procured from renewable energy sources, will be reported.

## Appendix 3: Green Bond / Green Bond Programme - External Review Form

### Section 1. Basic Information

<b>Issuer name:</b>	Z Holdings Corporation
<b>Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:</b>	Z Holdings Corporation Green Bond Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	June 3, 2021
<b>Publication date of review publication:</b>	

### Section 2. Review overview

#### SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds        | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting                                    |

#### ROLE(S) OF REVIEW PROVIDER

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification   | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):                       |  |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

#### EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.

### Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

#### 1. USE OF PROCEEDS

Overall comment on section (*if applicable*):

The two eligible categories for the use of proceeds, Energy Efficiency and Renewable Energy, are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7.

#### Use of proceeds categories as per GBP:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy  | <input checked="" type="checkbox"/> Energy efficiency  |
| <input type="checkbox"/> Pollution prevention and control   | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation  | <input type="checkbox"/> Clean transportation  |
| <input type="checkbox"/> Sustainable water and wastewater management  | <input type="checkbox"/> Climate change adaptation   |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes                            | <input type="checkbox"/> Green buildings   |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input type="checkbox"/> Other ( <i>please specify</i> ):  |

If applicable please specify the environmental taxonomy, if other than GBP:

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Z Holdings' project evaluation and selection will be executed by its department in charge of finance in accordance with advice from its department in charge of ESG and the System Management Group of Yahoo Japan Corporation as well as the eligibility criteria. Selected projects will be finally approved by the Senior Managing Corporate Officer. Z Holdings' process for evaluating and selecting projects is in line with market practices.

#### Evaluation and selection

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives            | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories               |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available       | <input type="checkbox"/> Other ( <i>please specify</i> ):   |

**Information on Responsibilities and Accountability**

- ☒ Evaluation / Selection criteria subject to external advice or verification
 ☐ In-house assessment
- ☐ Other (please specify):

**3. MANAGEMENT OF PROCEEDS**

Overall comment on section (if applicable):

The department in charge of finance will track and manage green bond proceeds using an internal management system until the redemption of the bond. Pending allocation, unallocated proceeds will be held in cash or cash equivalents. Z Holding's management of proceeds is aligned with market practices.

**Tracking of proceeds:**

- ☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- ☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds
- ☐ Other (please specify):

**Additional disclosure:**

- ☐ Allocations to future investments only
 ☒ Allocations to both existing and future investments
- ☐ Allocation to individual disbursements
 ☐ Allocation to a portfolio of disbursements
- ☐ Disclosure of portfolio balance of unallocated proceeds
 ☐ Other (please specify):

**4. REPORTING**

Overall comment on section (if applicable):

Z Holdings intends to disclose allocation and environmental indices annually on its website. The allocation reporting will include the overview of projects and the allocated and unallocated amounts, while the impact reporting is scheduled to include, data centers' PUE value and the amount of electricity procured from renewable energy sources. Furthermore, the Company plans to obtain annual reviews from independent parties after the issuance of green bonds. Z Holdings' commitment to the reporting and annual review is in line with market practices.

**Use of proceeds reporting:**

- ☐ Project-by-project
 ☐ On a project portfolio basis
- ☒ Linkage to individual bond(s)
 ☐ Other (please specify):



**Information reported:**

- ☒ Allocated amounts
 ☐ Green Bond financed share of total investment
- ☒ Other (*please specify*): Overview of project (category and progress) and unallocated amounts

**Frequency:**

- ☒ Annual
 ☐ Semi-annual
- ☐ Other (*please specify*):

**Impact reporting:**

- ☒ Project-by-project
 ☐ On a project portfolio basis
- ☐ Linkage to individual bond(s)
 ☐ Other (*please specify*):

**Information reported (expected or ex-post):**

- ☐ GHG Emissions / Savings
 ☐ Energy Savings
- ☐ Decrease in water use
 ☒ Other ESG indicators (*please specify*): PUE value of the data center for which the proceeds have been allocated, amount of electricity procured from renewable sources (kWh)

**Frequency**

- ☒ Annual
 ☐ Semi-annual
- ☐ Other (*please specify*):

**Means of Disclosure**

- ☐ Information published in financial report
 ☐ Information published in sustainability report
- ☐ Information published in ad hoc documents
 ☒ Other (*please specify*):  
The Company's website
- ☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

**USEFUL LINKS** (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

**SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE**
**Type(s) of Review provided:**

- |  |  |
|--|--|
| <input type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit                        | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):            |  |

**Review provider(s):**
**Date of publication:**
**ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP**

- i. Second-Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

## Disclaimer

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## About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. The firm works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The world's foremost issuers, from multinational corporations to financial institutions to governments, also rely on Sustainalytics for credible second-party opinions on green, social and sustainable bond frameworks. In 2020, Climate Bonds Initiative named Sustainalytics the "Largest Approved Verifier for Certified Climate Bonds" for the third consecutive year. The firm was also recognized by Environmental Finance as the "Largest External Reviewer" in 2020 for the second consecutive year. For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com).



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