

Baidu Inc.

Type of Engagement: Annual Review

Date: July 01, 2022

Engagement Team:

Mahesh Krishnamoorthy, mahesh.krishnamoorthy@sustainalytics.com

Jingjing Chen, Jingjing.Chen@morningstar.com

Introduction

In August 2021, Baidu Inc. (“Baidu” or the “Company”) developed the Baidu Sustainable Finance Framework (the “Framework”). In August 2021 Baidu issued a sustainability bond aimed at financing existing and/or future projects that are expected to reduce the environmental impact of the Company’s operations while increasing access to essential healthcare services in China. In May 2022, Baidu engaged Sustainalytics to review the projects funded through the issued 2021 sustainability bonds and provide an assessment as to whether the projects met the Use of Proceeds criteria and the Reporting commitments outlined in the Framework.¹ Sustainalytics published a Second-Party Opinion on the Framework on August 16, 2021.²

Evaluation Criteria

Sustainalytics evaluated the projects and assets funded with proceeds from the 2021 sustainability bond issuance based on whether the projects and programmes:

1. Met the Use of Proceeds and Eligibility Criteria outlined in the Sustainable Finance Framework; and
2. Reported on at least one of the Key Performance Indicators (KPIs) for each Use of Proceeds criteria outlined in the Baidu Sustainable Finance Framework.

Table 1 lists the Use of Proceeds, Eligibility Criteria, and associated KPIs

Table 1: Use of Proceeds, Eligibility Criteria, and associated KPIs

Use of Proceeds	Eligibility Criteria	Key performance indicators (KPIs)
Green Buildings	<ul style="list-style-type: none"> • Expenditures related to design, construction, and improvements of self-built internet data centers (“IDC”). Example projects may include: <ul style="list-style-type: none"> - Replacement of old servers, and high-consumption IDCs - Baidu’s self-built data centers to (1) achieve Trailing 12-month Power Usage Effectiveness equal to or less than 1.3; or (2) meet or expected to meet 5A “Carbon Neutral Data Center Leader” under Chinese Low-carbon Assessment of Data Centers • Expenditures related to the design, construction and maintenance of buildings that meet or expected to meet regional, national or internationally recognized green building standards or certifications, such as: 	<ul style="list-style-type: none"> • Operational trailing 12-month PUE (#) (site-level/company-level) • Annual energy savings (MWh p.a.) • Greenhouse gas emissions avoided (mtCO₂e) over a building’s/all building/all data centers’ lifetime or annually • Data center or office space that is certified including the type of scheme, certification level • Incremental volume of IDC (MW) with PUE equal to or less than 1.3

¹ Baidu “Sustainable Finance Framework”, at: <https://esg.baidu.com/resource/1ec150d6-3619-63f6-b841-dd6d781c9205/Baidu%20Sustainable%20Finance%20Framework.pdf>

² Baidu Inc., “Second Party Opinion” at: <https://esg.baidu.com/resource/1ec06de2-6d4d-602c-b005-51522224cfa6/Baidu%20Sustainable%20Finance%20Framework%20Second-Party%20Opinion.pdf>

	<ul style="list-style-type: none"> - Chinese Green Building Standards (Two star or above) - LEED V4.0 or V4.1 (Gold or Platinum) - BREEAM (Excellent or Outstanding) 	
Energy Efficiency	<ul style="list-style-type: none"> • Expenditures and investments related to design, construction, operation, and maintenance of energy-efficient facilities and infrastructure. Example projects may include, but are not limited to: <ul style="list-style-type: none"> - Replacement of general lights with LED or other energy efficient lights - Installation of innovative cooling systems - Smart Energy Management System 	<ul style="list-style-type: none"> • Energy savings (MWh/year or over project lifetime) • Greenhouse gas emissions avoided (mtCO₂e) • Quantity of photovoltaic panels installed and electricity produced in IDCs or office buildings
Clean Transportation	<ul style="list-style-type: none"> • Investment and expenditures related to manufacturing and Research and Development (R&D) of electric vehicles • Procurement and maintenance expenditures of electric Robo Taxis 	<ul style="list-style-type: none"> • CO₂ (or other GHG) emissions avoided (ton of CO₂e) from Intelligent Transportation³
Renewable Energy	<ul style="list-style-type: none"> • Expenditures and associated costs of renewable energy generation and procurement at Baidu's sites and offices. Example projects may include: <ul style="list-style-type: none"> - Wind power purchase agreements / mechanism - On-site renewable energy generation 	<ul style="list-style-type: none"> • Electricity from clean and renewable energy (MWh) • Annual greenhouse gas emissions reduced/avoided (mtCO₂e)
Pollution Prevention and Control	<ul style="list-style-type: none"> • Expenditures related to projects that increase waste diversion from landfill and waste conversion for mitigating environmental impact. Example projects may include: <ul style="list-style-type: none"> - Installation and maintenance of waste processing system or equipment in Baidu's office buildings, facilities or IDCs • R&D of AI Waste-Sorting Mini-program to help waste-sorting needs 	<ul style="list-style-type: none"> • Amount of waste reused or recycled (ton or in % of total waste) • Amount of waste treated in an environmentally sound manner (ton) from Baidu's facilities
Access to essential services (Healthcare)	<ul style="list-style-type: none"> • Technologies and expertise dedicated to improve the medical levels of rural areas, including the following: <ul style="list-style-type: none"> - Provision of customized intelligent healthcare instruments for county hospitals, township hospitals and village clinics, etc. - Enhance quality of certain medical diagnosis facilities / systems by AI-powered Baidu healthcare products 	<ul style="list-style-type: none"> • Number of healthcare / systems upgraded or improved • Number of people benefitting from healthcare products/service

Issuing Entity's Responsibility

Baidu is responsible for providing accurate information and documentation relating to the details of the projects that have been funded, including description of projects, amounts allocated, and project impact.

³ Baidu communicated to Sustainalytics that as Baidu's development of electric vehicles and electric Robo Taxis is still in progress, Baidu will disclose the KPI of "Number of electric Robo Taxis" under the Clean Transportation category. Please refer to Appendix 2 for more information. Baidu intends to disclose the KPI of "CO₂ (or other GHG) emissions avoided (ton of CO₂e) from Intelligent Transportation" in future annual ESG report.

Independence and Quality Control

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of Baidu’s Sustainability Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from Baidu employees and review of documentation to confirm the conformance with the Baidu Sustainable Finance Framework.

Sustainalytics has relied on the information and the facts presented by Baidu with respect to the Nominated Projects. Sustainalytics is not responsible nor shall it be held liable if any of the opinions, findings, or conclusions it has set forth herein are not correct due to incorrect or incomplete data provided by Baidu.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the review.

Conclusion

Based on the limited assurance procedures conducted,⁴ nothing has come to Sustainalytics’ attention that causes us to believe that, in all material respects, the reviewed bond projects, funded through proceeds of Baidu’s Sustainability Bond, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the Baidu Sustainable Finance Framework. Baidu has disclosed to Sustainalytics that the proceeds of the sustainability bond were fully allocated as of March 31, 2022.

Detailed Findings

Table 3: Detailed Findings

Eligibility Criteria	Procedure Performed	Factual Findings	Error or Exceptions Identified
Use of Proceeds Criteria	Verification of the projects funded by the sustainability bond in 2021 to determine if projects aligned with the Use of Proceeds Criteria outlined in the Baidu Sustainable Finance Framework and above in Table 1.	All projects reviewed complied with the Use of Proceeds criteria.	None
Reporting Criteria	Verification of the projects funded by the sustainability bond in 2021 to determine if impact of projects was reported in line with the KPIs outlined in the Baidu Sustainable Finance Framework and above in Table 1. For a list of KPIs reported please refer to Appendix 2.	All projects reviewed reported on at least one KPI per Use of Proceeds criteria.	None ⁵

⁴ Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact, which were provided by the Issuer. The Issuer is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

⁵ Baidu intends to report on CO₂ (or other GHG) emissions avoided under Clean Transportation category in a future ESG report, when feasible. Sustainalytics considers this to be aligned with market practice.

Appendices

Appendix 1: Allocation Reporting by Eligibility Criteria

In August 2021, Baidu issued a Sustainability Bond with a value of USD 992 million out of which 60% of net proceeds were used to finance new projects, while 40% were used to refinance existing projects. The table below provides a detailed summary of the allocation of net proceeds by category.

Use of Proceeds Category	Main Allocation Projects	Refinance ⁶ (USD million)	Finance ² (USD million)	Total Expenditure (USD million)	Percentage of total Net Bond Proceeds (%)
Green Buildings	Self-built IDC in Yangquan and Baoding	276.3	373.1	649.4	65.5%
Energy Efficiency	IDC cooling systems and smart energy management system	10.2	5.2	15.4	1.6%
	Replacement of general lights with LED lights, central heating system				
Clean Transportation	Investment related to manufacturing and Research and Development (R&D) of electric vehicles	106.1	215.3	321.4	32.4%
	Procurement and maintenance expenditures of electric Robo Taxis ⁷				
Renewable Energy	Procurement of Green Electricity and Green Electricity Certificate	3.4	0.04	3.5	0.4%
	Solar photovoltaic project related expenditure				
Pollution Prevention and Control	Maintenance of waste processing system or equipment in Baidu's office buildings	0.01	-	0.01	0.001%
Access to essential services (Healthcare)	Procurement and development of Fundus camera or retinal camera that was donated to hospitals/clinics/people in rural areas	1.2	1.2	2.4	0.2%
Total		397.2	594.8	992.0	100%

⁶ Refinancing refers to expenditure from Jan 2020 to Aug 2021 while financing refers to expenditures after Aug 2021.

⁷ Baidu communicated to Sustainalytics that the company has started the process to replace all petrol vehicles with new energy vehicles for Robo Taxis in 2021

Appendix 2: Impact Reporting by Eligibility Criteria

Use of Proceeds Category	Potential KPI and Reporting Metrics	Project Benefit
Green Buildings	Operational trailing 12-month PUE (#) (site-level/company-level)	<ul style="list-style-type: none"> Average annual PUE of Baidu's self-built data centers reached 1.16 in 2021 Average annual PUE of the most energy-efficient single data center decreased to 1.08 in 2021
Energy Efficiency	Energy savings (MWh/year or over project lifetime)	<ul style="list-style-type: none"> 1.81 million kWh of electricity saved annually from replacing ordinary lamps with LED lights in 2021 Energy efficiency increased by more than 40% with Baidu's cooling system in 2021 54,000 m³ gas consumption reduced annually with solar hot water system to generate 7,200 tons of hot water within Baidu Technology Park in 2021
	Greenhouse gas emissions avoided (mtCO ₂ e)	<ul style="list-style-type: none"> 1 million kWh of electricity produced and 600 tons of carbon dioxide emissions reduced annually with photovoltaic panels installed in 2021
	Quantity of photovoltaic panels installed and electricity produced in IDCs or office buildings	
Clean Transportation	Number of electric Robo Taxis	<ul style="list-style-type: none"> 500+ electric Robo Taxis exist in Baidu by March 31, 2022
Renewable Energy	Electricity from clean and renewable energy (MWh)	<ul style="list-style-type: none"> Baidu's data centers generated 268,021 kWh of renewable energy and purchased 500,000 kWh of green electricity, and reduced GHG emissions by approximately 577 tons of carbon dioxide equivalent in 2021
	Annual greenhouse gas emissions reduced/avoided (mtCO ₂ e)	
Pollution Prevention and Control	Amount of waste reused or recycled (ton or in % of total waste)	<ul style="list-style-type: none"> The water treatment system of Baidu Campus reused 3,836 tons of wastewater in 2021
	Amount of waste treated in an environmentally sound manner (ton) from Baidu's facilities	
Access to essential services (Healthcare)	Number of healthcare / systems upgraded or improved	<ul style="list-style-type: none"> 200 fundus cameras and 10 sets of 'Assistance to Doctors' primary medical solutions donated in 2021

Disclaimer

Copyright ©2022 Sustainalytics. All rights reserved.

The information, methodologies and opinions contained or reflected herein are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data), and may be made available to third parties only in the form and format disclosed by Sustainalytics, or provided that appropriate citation and acknowledgement is ensured. They are provided for informational purposes only and (1) do not constitute an endorsement of any product or project; (2) do not constitute investment advice, financial advice or a prospectus; (3) cannot be interpreted as an offer or indication to buy or sell securities, to select a project or make any kind of business transactions; (4) do not represent an assessment of the issuer's economic performance, financial obligations nor of its creditworthiness; and/or (5) have not and cannot be incorporated into any offering disclosure.

These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

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. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics 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. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 1500 staff members, including more than 500 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit www.sustainalytics.com

Or contact us contact@sustainalytics.com

