

Alphabet Sustainability Bond Framework 2020

Introduction

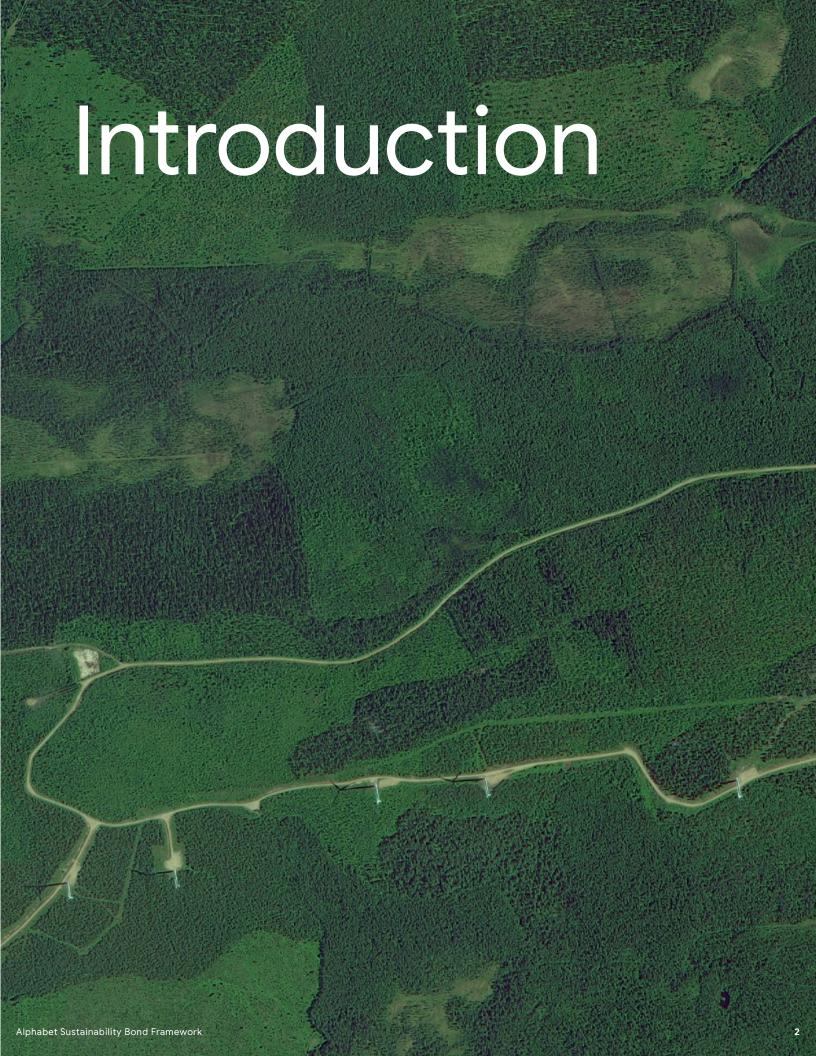
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Executive summary

Alphabet Inc., ("Alphabet," "the Company," "we," "us," "our,") is a collection of businesses—the largest of which is Google. We had \$161.9 billion in total revenues in 2019 and 118,899 full-time employees as of December 31, 2019. We generate revenues primarily by delivering both performance advertising and brand advertising. Google's core products and platforms—Android, Chrome, Drive, Gmail, Maps, Photos, Play, Search, YouTube—each have more than 1 billion monthly active users.

We build our products and services to improve the lives of people all over the world. As part of this, we recognize Google's tremendous responsibility to address some of the most pressing challenges of our time—climate change, housing, racial and economic inequity, and a global pandemic affecting millions of people.

Operating our business in an environmentally and socially responsible way has been a core value since our founding. We've been carbon neutral since 2007 and we've matched our entire electricity consumption with renewables for the past three years. We continue to invest in affordable housing and have made a number of commitments to promote racial equity.

In accordance with our sustainability strategy and to enable investors to join us in tackling these critical issues, we may issue sustainability bonds. We intend to use the proceeds from any sales of sustainability bonds to fund ongoing and new environmentally and socially responsible projects. Eligible projects would fall in eight areas, building on significant investments we've made over the years. Categories include: Energy efficiency, Clean energy, Green buildings, Clean transportation, Circular economy and design, Affordable housing, Commitment to racial equity, and Support for small businesses and COVID-19 crisis response.

Our sustainability approach

We firmly believe that every business has the opportunity and obligation to protect our planet and support the communities where it operates. That's why we strive to build sustainability into everything we do.

Google's five-year sustainability strategy focuses on three key pillars that span both environmental and social initiatives (see Figure 1):

- · Accelerate the transition to carbon-free energy and a circular economy
- · Empower users with technology
- Benefit the people and places where we operate

For additional information, please visit google.com/sustainability and about.google/commitments.

Figure 1

FIVE-YEAR SUSTAINABILITY STRATEGY OVERVIEW

We strive to build sustainability into everything we do



Accelerate carbon-free and circular

Decouple business growth from growth of carbon intensity and material use



Empower with technology

Google products, tools, and platforms inform or enable sustainability



Benefit people and places

Share benefits with communities where we operate



In accordance with Google's five-year sustainability strategy, we have designed this Sustainability Bond Framework (the "Framework") under which we may issue, from time to time, certain bonds or related debt instruments with net proceeds that we intend to allocate to finance one or more projects that we believe may have environmental and/or societal benefits (any such bonds, a "Sustainability Bond"). This Framework details:

- Which project types are eligible for financing/refinancing with the net proceeds from the sale of any Sustainability Bonds we may make from time to time
- · How projects are evaluated and selected
- · How proceeds are managed
- \bullet How the Company intends to provide Sustainability Bond reporting

Use of proceeds

We intend to allocate an amount equal to the net proceeds from the sale of any Sustainability Bond issuances to finance or refinance, in whole or in part, one or more new or existing Eligible Projects.

"Eligible Projects" are investments and expenditures made by us or any of our subsidiaries beginning with the issuance date of any Sustainability Bonds, or in the 24 months prior to any such issuance, in eligible green projects and/or eligible social projects (as defined herein) and aligned with the four core components of both the Green Bond Principles, 2018, and Social Bond Principles, 2020, collectively known as "The Principles," which recommend transparency and disclosure and promote integrity with respect to "sustainable" bonds, and in accordance with the Sustainability Bond Guidelines, 2018, (the "SBG") all of which are administered by the International Capital Markets Association. We expect that each of our Eligible Projects will meet one or more of the following eligibility criteria:

Green and social eligible project category

Eligibility criteria and example projects

Intended environmental and/or social benefit

Sustainable development goal (SDG)¹

Energy efficiency



Expenditures related to design, construction, operation, and maintenance of energy-efficient facilities and infrastructure. Example projects may include, but are not limited to:

- Data centers that are expected to achieve Power Usage Effectiveness (PUE)² less than 1.5
- Server, storage, or networking efficiency and utilization

Minimize the environmental impact of our facilities, including data centers 13: Climate Action

Clean energy



Expenditures related to the construction, development, acquisition, maintenance, and operation of renewable energy projects that are long-term and new to the grid, such as solar, wind, small-scale hydropower generation with a capacity of fewer than 20 megawatts, geothermal with direct emissions of less than 100g CO₂e/kWh, and biomass derived from waste feedstock that is neither derived from sources of high biodiversity nor depletes carbon pools. Example projects may include, but are not limited to:

- Power purchase agreements (PPAs) that meet our criteria of additionality. If Sustainability Bond tranches are longer than the term of the PPA, the proceeds will be reallocated to other eligible projects for the life of the bond
- On-site renewable energy projects and storage installations
- Equity investments commitments in renewable energy projects

Reduce greenhouse gas emissions from our operations and supply chain; Increase availability of renewable energy in areas we operate, key manufacturing regions, and supply chain communities

7: Affordable and Clean Energy

13: Climate Action

Green buildings



Expenditures related to design, construction, and improvements of office spaces and surrounding communities. Example projects may include, but are not limited to:

- Offices that are owned or leased for longer than 10 years that meet our sustainability criteria and are expected to achieve a third-party certification such as Leadership in Energy and Environmental Design (LEED)³ Gold or higher, Living Building Challenge,⁴ or other equivalent third-party sustainability certification
- Design and implementation of our <u>urban ecology</u> program, which aims to enhance ecological resilience of our outdoor environments by expanding wildlife habitat, creating diverse landscapes that can withstand the stresses of climate change, and restoring ecological functions lost due to urban development

Increase environmental benefits through more sustainable workplaces and communities 11: Sustainable Cities and Communities

15: Life on Land

Clean transportation



Expenditures related to the procurement, maintenance, and operation of electric vehicles (EV), bicycles, and associated infrastructure. Example projects may include, but are not limited to:

- Procurement of EVs
- · Installation of EV charging stations
- Procurement of bicycles and operation of EV bike or shared bike programs

Mitigate carbon emissions and take cars off the road by promoting the use of EVs and bicycles. 11: Sustainable Cities and Communities

Eligible project categories

Green and social eligible project category	Eligibility criteria and example projects	Intended environmental and/or social benefit	Sustainable development goal (SDG) ¹
Circular economy and design	Expenditures related to projects that increase waste diversion from landfill and <u>design</u> out <u>waste</u> . Example projects may include, but are not limited to:	Maximize reuse of finite resources across our operations, products, and supply chains and enable others to do the same	11: Sustainable Cities and Communities
	Increasing use of sustainable, recycled, or reused materials, such as post-consumer recycled (PCR) plastic in consumer hardware devices		12: Responsible Consumption and Production
	Creating new sources of or increasing supply of more sustainable materials		
	Improving recovery of materials		
	<u>Reducing waste generation</u> from the construction and operation of offices and cafes		
Affordable housing	Expenditures related to the construction, development, acquisition, and maintenance of affordable housing. Example	Target population: • Middle and low-income residents	1: No Poverty
	projects may include, but are not limited to:		
	Rezoning of Alphabet-owned land to facilitate affordable residential development to address chronic housing shortage		11: Sustainable Cities and Communities
	Investment fund supporting the development of affordable housing units		
Commitment to racial equity	Expenditures focused on advancing economic opportunity and equity for under-represented communities, including the	Target population: Black business owners and/ or businesses that serve the Black community, startup founders, job seekers and developers	4: Quality Education
	Black+ community. Example projects may include, but are not limited to:		8: Decent Work and
	 Financing for small and medium businesses (SMBs) serving the Black community 		Economic Growth
	 Funding participation in Black-led capital firms, startups, and organizations supporting Black entrepreneurs 		10: Reduced Inequalities
	Training to help Black jobseekers grow their skills		
	 Funding to help improve the Black community's access to education, equipment, and economic opportunities in our developer ecosystem 		
	YouTube Black Creators fund dedicated to amplifying and developing the voices and stories of Black artists		
Support for small businesses and COVID-19 crisis response	Expenditures related to support for SMBs, including those impacted by COVID-19. Example projects may include, but are not limited to:	Target population:	8: Decent Work and Economic Growth
		SMBs affected by COVID-19	ECONOMIC GIOWIN
	 Loans to capitalize NGOs and financial institutions that provide SMBs access to capital 		
	Training to help small business owners grow their skills		

Process for project evaluation and selection

A committee consisting of representatives from Alphabet's Sustainability, Treasury, and Finance teams shall be responsible for the assessment and selection of Eligible Projects, on an annual basis, to ensure alignment with this Framework. In addition, all projects allocated funding from the issuance proceeds would follow an internal process that includes final review and approval by Google's Sustainability Officer.

Management of proceeds

The Finance department will track the actual amount of net proceeds from the sale of any Sustainability Bonds spent on Eligible Projects. Pending allocation, an amount equal to the net proceeds from the sale of any Sustainability Bonds may be temporarily invested in cash, cash equivalents, and/or U.S. government securities. Funds will not knowingly be placed in investments that include greenhouse gas intensive projects inconsistent with the delivery of a low carbon economy.

In the case of divestment or if a project no longer meets the eligibility criteria listed above, we intend to reallocate the funds to other Eligible Projects. Any payment of principal and interest on any Sustainability Bonds will be made from our general account and will not be linked to the performance of any Eligible Project.

Reporting

Annually, until full allocation of the net proceeds from the sale of any Sustainability Bonds, and on a timely basis in case of material developments, we will publish a Sustainability Bond Report on our website that will include:

- the amount of net proceeds from the sale of any Sustainability Bonds that have been allocated to one or more Eligible Projects either individually or by category, subject to confidentiality considerations;
- (ii) the list of Eligible Project categories with a selection of brief descriptions;
- (iii) expected impact metrics, where feasible; and
- (iv) the outstanding amount of net proceeds from the sale of any Sustainability Bonds yet to be allocated to Eligible Projects at the end of the reporting period.

Examples of the types of information that may be included in any Sustainability Bond Report we publish may include, with respect to each Eligible Project category:

Sample impact metrics

Green and social eligible project category	Example expected impact metric
Energy efficiency	Trailing 12-month (TTM) PUE [#]
Clean energy	 Annual GHG emissions reduced/avoided [tCO₂e] Renewable energy capacity commitments [MW]
Green buildings	Office space that is Gold or Platinum LEED-certified [sq m]
Clean transportation	EV charging ports installed [#]
Circular economy and design	Waste diverted from landfill [t]
Affordable housing	Number of housing units constructed/preserved [#]
Commitment to racial equity	 Number of CDFIs loaned to [#] Total number of loans closed to SMBs serving Black communities [#]
Support for small businesses and COVID-19 crisis response	 Number of CDFIs loaned to [#] Total number of loans closed to SMBs and microenterprises [#]

We expect that the Sustainability Bond Report will be accompanied by (i) assertions by our management as to the amount of the net proceeds from the sale of any Sustainability Bonds that have been allocated to Eligible Projects; (ii) a report from an independent third party who will examine and verify our management of the net proceeds from the sale of any Sustainability Bonds and provide assurance as to the compatibility in all material respects of any selected Eligible Project(s), to which a portion or all of the net proceeds from the sale of any Sustainability Bonds have been allocated, with the eligibility criteria set forth in this Framework.

In connection with any issuance of any Sustainability Bonds, Alphabet will obtain and make publicly available a Second Party Opinion (SPO) from a consultant with recognized environmental and social expertise to provide an opinion on the environmental and social benefits of this Framework as well as the alignment to the SBG and the Principles. The SPO will be available on the SPO provider's website.

Appendix

Disclaimer

The information and opinions contained in this Alphabet Sustainability Bond Framework (the "Framework") are provided as of the date of this Framework and are subject to change without notice. None of Alphabet, its subsidiaries or any of its affiliates assume any responsibility or obligation to update or revise any such statements, regardless of whether those statements are affected by the results of new information, future events or otherwise.

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Providing this Framework does not mean that Alphabet certifies the materiality, the excellence or the irreversibility of the projects undertaken by the Eligible Projects. Alphabet is fully responsible for certifying and ensuring the implementation and monitoring of and compliance with the Framework.

Endnotes

- 1. For more information on the Sustainable Development Goals (SDGs), see https://sdgs.un.org/goals
- 2. Power usage effectiveness (PUE) is an industry-recognized ratio to measure data center efficiency. For more information on Google's PUE and how we calculate it, see "Efficiency: How We Do It" on our website: https://www.google.com/about/datacenters/efficiency/
- 3. For more information about Leadership in Energy and Environmental Design (LEED), see https://www.usgbc.org/leed
- 4. For more information about Living Building Challenge, see https://living-future.org/lbc

Alphabet

Sustainability Bond Framework 2020 August 2020

On the cover:

Google Earth image of Hawaii, United States ©2015 DigitalGlobe, U.S.

Introduction:

Maevaara wind farm in Sweden (105 MW for Google)

Our framework:

Google Earth image of Marshall Islands, Australia ©2015 CNES / Astrium, DigitalGlobe