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Independent Accountants' Review Report

To the Board of Directors and Management of Alphabet Inc.

We have reviewed the Alphabet Inc. Schedule of Selected Quantitative Performance Indicators (the Subject Matter) included in Appendix A for the year ended December 31, 2019, in accordance with the criteria also set forth in Appendix A (the Criteria). Alphabet Inc.'s management is responsible for the Subject Matter included in Appendix A, in accordance with the Criteria. Our responsibility is to express a conclusion on the Subject Matter based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA) AT-C Section 105, Concepts Common to All Attestation Engagements, and AT-C Section 210, Review Engagements. Those standards require that we plan and perform our review to obtain limited assurance about whether any material modifications should be made to the Subject Matter in order for it to be in accordance with the Criteria. A review consists principally of applying analytical procedures, making inquiries of persons responsible for the subject matter, obtaining an understanding of the data management systems and processes used to generate, aggregate and report the Subject Matter, and performing such other procedures as we considered necessary in the circumstances. A review is substantially less in scope than an examination, the objective of which is to obtain reasonable assurance about whether the Subject Matter is in accordance with the Criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. A review also does not provide assurance that we became aware of all significant matters that would be disclosed in an examination. We believe that our review provides a reasonable basis for our conclusion.

In performing our review, we have also complied with the independence and other ethical requirements set forth in the Code of Professional Conduct and applied the Statements on Quality Control Standards established by the AICPA.

As described in Note A, the Subject Matter is subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Based on our review, we are not aware of any material modifications that should be made to the Alphabet Inc. Schedule of Selected Quantitative Performance Indicators in Appendix A for the year ended December 31, 2019, in order for it to be in accordance with the Criteria.

Ernst & Young LLP

San Jose, California
September 23, 2020

Appendix A:
Alphabet Inc. Schedule of Selected Quantitative Performance Indicators ¹
For the Year Ended December 31, 2019

Indicator	Reported Value ²	Unit	Criteria
Scope 1 greenhouse gas (GHG) emissions ^{3,4}	66,686	Metric tonnes of carbon dioxide equivalents (tCO ₂ e)	World Resources Institute (WRI)/World Business Council for Sustainable Development's (WBCSD), The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (GHG Protocol)
Scope 2 GHG emissions: location-based-method ^{3,5}	5,116,949	tCO ₂ e	WRI WBCSD GHG Protocol Scope 2 Guidance
Scope 2 GHG emissions: market-based-method ^{3,5}	794,267	tCO ₂ e	
Scope 3 GHG emissions, Category 6 Business Travel ^{6,7}	369,000	tCO ₂ e	WRI WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard
Scope 3 GHG emissions, Category 7 Employee Commuting ^{7,8}	173,000	tCO ₂ e	
Total energy consumption ⁹	12,749,458	Megawatt-Hour (MWh)	Global Reporting Initiative (GRI) Disclosure 302-1e
Electricity consumption	12,237,198	MWh	GRI Disclosure 302-1c, i.
Percentage of electricity procured from renewable sources	100	%	Alphabet Inc. calculates the percentage of total global electricity procured from renewable sources as the amount of electricity procured from renewable energy globally, divided by the total electricity consumed by its Global Facilities. Electricity procured from renewable energy globally is calculated as the amount of electricity from renewable energy generation in the grids Alphabet Inc. uses, the amount of on-site renewable energy generation, and the amount sourced through contractual instruments globally. ¹⁰
Carbon credits enabled through contracted carbon offset projects	1,402,953	tCO ₂ e	Alphabet Inc. invests in carbon offset projects. ¹¹ A carbon offset project is an investment activity that reduces carbon emissions, ultimately represented by a carbon credit. The carbon credit signifies that greenhouse gas emissions are lower than if no one had invested in the carbon offset project. One carbon credit equals one metric ton of carbon dioxide prevented from entering the atmosphere. ¹² Alphabet Inc. enters into long-term purchase agreements with their offsets suppliers to secure future deliveries. Once carbon credits from a project under contract are verified by a third-party and issued by a carbon registry, ¹³ per the agreement terms, ownership of the carbon credits is transferred from the project owner to Alphabet Inc. ("delivered"). All carbon credits are retired on a public registry after they are delivered to Alphabet Inc. Due to the timing of third-party verifications, delivery and retirement for some 2019 enabled carbon credits occurs after the year ended December 31, 2019. ¹⁴ As a result, this metric includes 50,592 tCO ₂ e of delivered carbon credits and 1,352,361 tCO ₂ e of contracted carbon credits. All carbon offset projects were contracted prior to December 31, 2019. ¹⁵ As the ongoing third-party project verifications and carbon credit issuances are completed, carbon credits will be delivered to Alphabet Inc. and subsequently permanently retired on Alphabet Inc.'s behalf.
Water withdrawal ¹⁶	5,161	Million gallons	GRI Disclosure 303-3a (total only)
Water discharge ¹⁷	1,749	Million gallons	GRI Disclosure 303-4a (total only)
Water consumption	3,412	Million gallons	GRI Disclosure 303-5a (total only)

Note A: Non-financial information is subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable standards and frameworks provide acceptable measurement techniques, which may result in materially different measurements. The precision of different measurement techniques may also vary.

¹ References to Alphabet Inc. include its subsidiaries, except otherwise noted. The geographical scope of the Subject Matter within the schedule includes Alphabet Inc. and its subsidiaries' data centers, offices, and networking infrastructure under its operational control (Global Facilities) for energy and emissions metrics. For water metrics, the geographical scope of the Subject Matter within the schedule includes Alphabet Inc. and its subsidiaries' data centers and offices under its operational control. This excludes Calico and Sidewalk Labs. Where possible, based on the company's reporting timeline and requirements, the company uses the most up-to-date emission factors available at the time of their carbon footprint calculation.

² All indicators are reported for the period January 1, 2019 through December 31, 2019.

³ The company assumes it has operational control over its natural gas consumption where it is billed directly for the consumption. As a result, emissions are considered direct and reported within Alphabet Inc.'s Scope 1 emissions. For facilities within the company's operational control where natural gas is not directly billed, Alphabet Inc. determines that its consumption is indirect. Natural gas consumption for these facilities is estimated and reported within Alphabet Inc.'s Scope 2 emissions.

⁴ Scope 1 emissions capture natural gas and back-up generator fuel use generated by Global Facilities and fuel consumption from Alphabet Inc.'s operated vehicles and aircraft. The emission factors used to calculate Scope 1 emissions include the GHG Protocol Emission Factors from Cross Sector Tools, the Environmental Protection Agency (EPA) Center for Corporate Climate Leadership GHG Emission Factors Hub and Department for Environment, Food and Rural Affairs (DEFRA) UK Government GHG Conversion Factors.

⁵ Scope 2 emissions capture electricity consumption generated by Global Facilities. Where natural gas consumption from offices, or electricity consumption for Global Facilities was not available, Alphabet Inc. estimates consumption. Electricity estimated consumption is calculated using company square footage and internally developed electricity intensity factors by office type based on fiscal year 2019 data. Natural gas estimated consumption is calculated using company square footage and intensity factors supplied by the 2012 Commercial Buildings Energy Consumption Survey ("CBECS") report from the U.S. Energy Information Administration (EIA). The emission factors used to calculate Scope 2 location-based method emissions include the GHG Protocol Emission Factors from Cross Sector Tools and the International Energy Agency (IEA) Emission Factors. The emission factors used to calculate Scope 2 market-based method emissions include the GHG Protocol Emission Factors from Cross Sector Tools, the IEA Emission Factors, the Association for Issuing Bodies (AIB) European Residual Mixes, and emission factors specific to energy attribute certificates applied.

⁶ Scope 3 Category 6 Business Travel includes GHG emissions generated by Alphabet Inc. employees and candidates from air, rail and car rental travel. Travel data is collected through Alphabet Inc.'s online booking system or through a third-party travel agency for all sources except for candidate car rental travel, which is estimated. Emissions are calculated using DEFRA UK Government GHG Conversion Factors for air, the GHG Protocol Emission Factors from Cross Sector Tools for rail, and the EPA Center for Corporate Climate Leadership GHG Emission Factors Hub for car rental travel.

⁷ Scope 3 GHG emissions are rounded up to the nearest thousand.

⁸ Scope 3 Category 7 Employee Commuting estimates GHG emissions generated by private vehicle commuting trips made by Alphabet Inc. employees. To determine the number of private vehicle commuting trips made in 2019, Alphabet Inc. surveyed a sample of its employees to determine typical commuting patterns and applied these commuting patterns to its global employee population. The calculation uses an average commuting distance for passenger vehicles obtained from the U.S. Department of Transportation's 2017 National Household Travel Survey and an average fuel efficiency for passenger vehicles obtained from the U.S. Department of Transportation's Transportation Statistics Table 4-23. Emissions are calculated using DEFRA UK Government GHG Conversion Factors for passenger vehicles.

⁹ Total energy includes all fuel and natural gas consumption as included in Scope 1 emissions, all electricity and natural gas consumption as included in Scope 2 location-based method emissions and all electricity generated on-site from renewable and non-renewable sources.

¹⁰ The percentage of total global electricity procured from renewable sources = $(12,237,198 \text{ MWh total renewable energy procured} (2,515,915 \text{ MWh of renewable energy generation from the grids Alphabet Inc. uses} + 6,271 \text{ MWh from on-site renewable energy generation} + \text{at least } 9,715,012 \text{ MWh of renewable energy sourced through contractual instruments globally})) / (12,237,198 \text{ MWh of Alphabet Inc.'s total electricity consumption})$. Contractual instruments may include power purchase agreements (PPAs) and utility renewable energy tariffs, which may result in renewable energy credits (RECs) or guarantees of origin (GOs). Alphabet Inc.'s renewable energy methodology is a custom calculation and is based on a global approach. The numerator includes all renewable energy procured, regardless of the market in which the renewable energy was consumed. Additional details on Alphabet Inc.'s criteria and methodology can be found in the Achieving Our 100% Renewable Energy Purchasing Goal and Going Beyond disclosure.

¹¹ Alphabet Inc. assesses carbon offset projects against four standards before investing: Additionality, Leakage prevention, Permanence and Verifiability. Refer to Alphabet Inc.'s Carbon Offset White Paper for additional information.

¹² As stated in the GHG Protocol, a GHG target can be met through using offsets that are generated from GHG reduction projects at sources external to the (company's) boundary. Offsets are designed to be interchangeable globally and deliverable from a variety of project types. Alphabet Inc. refers to these emission offsets as "Emissions neutralized by carbon offset projects" within its Environmental Report.

¹³ Alphabet Inc.'s carbon credits are verified under Climate Action Reserve (CAR), American Carbon Registry (ACR), or Verified Carbon Standard (VCS).

¹⁴ Per the carbon registry verification manuals, all projects must complete their initial verification within 12 months of the end of the initial reporting period.

¹⁵ Generation of some carbon credits occurred in the 6 months following December 31, 2019.

¹⁶ Water withdrawal data is based on actual metered or invoiced data when it is available. At offices when actual data is not available, water withdrawal is estimated using facility headcount, or facility square footage when headcount is determined not to be a driving factor in water withdrawal, and internally developed water withdrawal intensity factors by office type based on fiscal year 2019 data.

¹⁷ In all instances where actual potable water discharge is not available, Alphabet Inc. applies a 90% discharge flow factor to the facility water withdrawal to estimate water discharge. This estimation process is applicable to all offices and potable water withdrawal at data centers used for domestic purposes (i.e., water not used for IT cooling) where actual discharge is not available.