

## INDEPENDENT VALIDATION OPINION DECLARATION



To: The Stakeholders of Amazon Web Services, Inc.

### Introduction and objectives of work

Apex Companies, LLC (Apex) was engaged to conduct an independent validation of Amazon Web Services, Inc.'s (AWS) customer carbon footprint methodology, a model developed by Amazon to quantify customer-specific greenhouse gas (GHG) emissions associated with the use of AWS cloud services. This declaration applies to the related information included within the scope of work described below.

### Scope of work

The scope of our work was limited to review of select Scope 3 GHG emissions data generation and the validation of the methodology developed by AWS for calculating and allocating greenhouse gas emissions associated with customers' use of AWS services, as described in the AWS customer carbon footprint methodology document released in October 2025 (model version 3.0). Verification of Amazon's Scope 1, Scope 2, and Scope 3 emissions outside of our platform validation from which customer emissions are allocated was not included in our scope of work.

### Criteria against which validation was conducted:

The information reported by AWS' carbon footprint tools needs to be read and understood together with the following standards:

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard
- WRI/WBCSD GHG Protocol Scope 2 Guidance
- WRI/WBCSD Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- ISO 14064-1:2018 – Greenhouse gases – Part 1: Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals

AWS based its calculation methodology on the principles and allocation methods described in these standards.

### Reporting Boundary

- AWS' Scope 1 and Scope 2 GHG emissions arising from activities that directly support the provision of cloud services for AWS' customers.<sup>1</sup>
- Select AWS Scope 3 GHG emissions arising from activities that directly support the provision of cloud services for AWS' customers.
  - Category 2, Capital Goods
  - Category 3, Fuel and Energy-Related Activities
  - Category 4, Upstream Transportation and Distribution
- Exclusions:
  - Scope 1

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<sup>1</sup> The reported Scope 1 emissions include HCFC-22, a hydrochlorofluorocarbon, which is not reportable under the GHGP. The GHGP requires that emissions from HCFCs and other non-Kyoto Protocol gases be reported separately from the scopes.

- Emissions associated with fuel combustion in fleet vehicles.
- Emissions associated with AWS warehouses and manufacturing facilities, offices, and sites that are run in customer facilities (Amazon Cloud Extension, Embedded Points of Presence, Outpost sites).
- Scope 2
  - Emissions associated with operations in facilities beyond data centers, such as AWS warehouses and manufacturing facilities, offices, and sites run in customer facilities
- All Other Scope 3 GHG emissions

### **Level of Assurance and Qualifications**

- Level of Assurance: Limited
- This validation used a materiality threshold of  $\pm 5\%$  for aggregate errors in sampled data.

### **Responsibilities**

The preparation and presentation of the data reported by Amazon is the sole responsibility of Amazon.

Apex was not involved in the determination of the reported data. Our responsibilities were to:

- Provide limited assurance about whether the methodology, data generation, and calculations employed by the customer carbon footprint model have been performed in accordance with the Reporting Criteria; and,
- Form an independent conclusion based on the assurance procedures performed and evidence obtained.

### **Reference Standard**

We performed our work in accordance with ISO 14064-3:2019 - Greenhouse gases -- Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.

### **Summary of work performed**

As part of Apex's validation, the following activities were undertaken:

1. Interviews with relevant personnel responsible for development of the AWS customer carbon footprint calculation model;
2. Review of the data collection and consolidation processes used to compile the reported information, including assessing assumptions made, and the data scope and reporting boundaries; and,
3. Review of Amazon's data and information systems used for collection, aggregation, analysis and review of the reported information.

### **Conclusion**

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the methodology employed by Amazon for their carbon footprint tools is not fairly calculating and reporting client-specific Scope 1, 2, and select Scope 3 emissions associated with AWS cloud services in all material respects.

**Statement of Independence, Impartiality and Competence**

Apex is an independent professional services company that specialises in environmental, health, safety and social accountability with over 30 years history. Its assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. We are particularly vigilant in the prevention of conflicts of interest. No member of the assurance team has a business relationship with Amazon, AWS, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.

The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has over 20 years combined experience in this field and an excellent understanding of Apex's standard methodology for the verification of GHG-related data.

**Attestation:**



Trevor A. Donaghu,  
Lead Verifier  
ESG Director



Mary E. Armstrong-Friberg,  
Technical Reviewer  
ESG Senior Program Manager