

Environmental Data Verification Statement



VERIFICATION OPINION DECLARATION GREENHOUSE GAS EMISSIONS

To: Stakeholders of JP Morgan Chase & Co.

Apex Companies LLC, (Apex) was engaged to conduct an independent verification of the greenhouse gas (GHG) emissions reported by JP Morgan Chase & Co. (JPMC) for the period stated below. This Verification Opinion applies to the related information included within the scope of work described below.

The determination of the GHG emissions is the sole responsibility of JPMC. JPMC is responsible for the preparation and fair presentation of the GHG statement in accordance with the criteria. Apex's sole responsibility was to provide independent verification on the accuracy of the GHG emissions reported, and on the underlying systems and processes used to collect, analyze, and review the information. Apex is responsible for expressing an opinion on the GHG statement based on the verification. Verification activities applied in a limited level of assurance verification are less extensive in nature, timing, and extent than in a reasonable level of assurance verification.

Boundaries of the reporting company GHG emissions covered by the verification:

- Operational Control
- Worldwide

Types of GHGs: CO₂, N₂O, CH₄, HFCs

GHG Emissions Statement:

- **Electricity Consumption:** 1,693,143 Megawatt hours
- **Purchased Renewable Energy:** 1,696,385 Megawatt hours
- **Scope 1:** 69,570 metric tons of CO₂ equivalent
- **Scope 2 (Location-Based):** 660,601 metric tons of CO₂ equivalent
- **Scope 2 (Market-Based):** 4,187 metric tons of CO₂ equivalent
- **Scope 3: Business Travel:** 36,169 metric tons of CO₂ equivalent
- **Purchased GHG Emissions Offsets:** 110,500 metric tons of CO₂ equivalent
- **Net Emissions of CO₂ equivalent (Scope 1 + Scope 2 Market-Based + Scope 3) - Purchased GHG Emission Offsets:** 0 metric tons of CO₂ equivalent

Data and information supporting the Scope 1, Scope 2, and Scope 3 GHG emissions assertion were historical in nature for the most part. In some cases, data were estimated rather than historical in nature.

Period covered by GHG emissions verification:

- January 1, 2020 to December 31, 2020

Criteria against which verification conducted:

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, Corporate Accounting and Reporting Standard
- WRI/WBCSD Corporate Value Chain (Scope 3) Accounting and Reporting Standard



Reference Standard:

- ISO 14064-3 Second Edition 2019-04: Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Level of Assurance and Qualifications:

- Limited
- This verification used a materiality threshold of +/-5% for aggregate errors in sampled data for each of the above indicators

GHG Verification Methodology:

Evidence-gathering procedures included but were not limited to:

- Interviews with relevant personnel of JPMC and their consultant;
- Review of documentary evidence produced by JPMC;
- Review of JPMC data and information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Audit of sample of data used by JPMC to determine GHG emissions.

Verification Opinion:

Based on the process and procedures conducted, there is no evidence that the GHG emissions statement shown above:

- is not materially correct and is not a fair representation of the GHG emissions data and information; and
- has not been prepared in accordance with the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard (**Scope 1 and 2**), and WRI/WBCSD Greenhouse Gas Protocol Corporate Value Chain Accounting and Reporting Standard (**Scope 3**).

It is our opinion that JPMC has established appropriate systems for the collection, aggregation and analysis of quantitative data for determination of these GHG emissions for the stated period and boundaries.

Statement of independence, impartiality and competence

Apex is an independent professional services company that specializes in Health, Safety, Social and Environmental management services including assurance with over 30 years history in providing these services.

No member of the verification team has a business relationship with JPMC, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

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 greenhouse gas emissions data.



Attestation:

A handwritten signature in blue ink, appearing to read 'Mary E. Armstrong-Friberg'.

Mary E. Armstrong-Friberg, Lead Verifier
Principal Consultant
Apex Companies, LLC
Cleveland, Ohio

A handwritten signature in blue ink, appearing to read 'Trevor A. Donaghu'.

Trevor A. Donaghu, Technical Reviewer
Program Manager
Apex Companies, LLC
Pleasant Hill, California

April 16, 2021

This verification opinion including the opinion expressed herein, is provided to JP Morgan Chase & Co. and is solely for the benefit of JP Morgan Chase & Co. in accordance with the terms of our agreement. We consent to the release of this opinion by you to CDP in order to satisfy the terms of CDP disclosure requirements but without accepting or assuming any responsibility or liability on our part to CDP or to any other party who may have access to this opinion.



VERIFICATION OPINION WATER WITHDRAWAL

To: Stakeholders of JP Morgan Chase & Co.

Apex Companies LLC, (Apex) was engaged to conduct an independent verification of the water withdrawal reported by JP Morgan Chase & Co.(JPMC) for the period stated below. This Verification Opinion applies to the related information included within the scope of work described below.

The determination of the water withdrawal is the sole responsibility of JPMC. Apex was not involved in determining the water withdrawal. Apex's sole responsibility was to provide independent verification on the accuracy of the water withdrawal information reported, and on the underlying systems and processes used to collect, analyze, and review the information. Apex is responsible for expressing an opinion on the water withdrawal statement based on the verification. Verification activities applied in a limited level of assurance verification are less extensive in nature, timing, and extent than in a reasonable level of assurance verification.

Boundaries of the reporting company GHG emissions covered by the verification:

- Operational Control
- USA
- Exclusions from the scope of the reporter's data assertion:
 - Data outside the defined assurance period of calendar year 2020

Data verified:

- **Water Withdrawal:** 5,035,089 cubic meters

Data and information supporting the water withdrawal assertion were historical in nature for the most part. In some cases, data were estimated rather than historical in nature.

Period covered by GHG emissions verification:

- January 1, 2020 to December 31, 2020

Criteria against which verification conducted:

- CDP Guidance for Companies Reporting on Water on Behalf of Investors and Supply Chain Members (**Water Withdrawal**)

Reference Standard:

- Apex's standard procedures and guidelines for external Assurance of Sustainability Reports and International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board. A materiality threshold of ±5-percent was set for the assurance process.

Level of Assurance and Qualifications:

- Limited Assurance Level

Verification Methodology:

- Interviews with relevant personnel of JPMC and their consultant;
- Review of documentary evidence produced by JPMC;



- Review of JPMC data and information systems and methodology for collection, aggregation, analysis and review of information used to determine water withdrawal; and
- Audit of sample of data used by JPMC to determine water withdrawal.

Assurance Opinion:

Based on the process and procedures conducted, there is no evidence that the water withdrawal assertion shown above:

- is not materially correct and is not a fair representation of the water withdrawal data and information; and
- has not been prepared in accordance with the CDP Guidance for Companies Reporting on Water on Behalf of Investors and Supply Chain Members.

It is our opinion that JPMC has established appropriate systems for the collection, aggregation and analysis of quantitative data for determination of water withdrawal for the stated period and boundaries.

Statement of independence, impartiality, and competence

Apex is an independent professional services company that specializes in Health, Safety, Social and Environmental management services, including assurance, with over 30 years history in providing these services.

No member of the verification team has a business relationship with JPMC, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

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 water withdrawal data.

Attestation:

Mary E. Armstrong-Friberg, Lead Verifier
Principal Consultant
Apex Companies, LLC
Cleveland, Ohio

Trevor A. Donaghu, Technical Reviewer
Program Manager
Apex Companies, LLC
Pleasant Hill, California

April 22, 2021

This verification opinion, including the opinion expressed herein, is provided to JP Morgan Chase & Co. and is solely for the benefit of JP Morgan Chase & Co. in accordance with the terms of our agreement. We consent to the release of this opinion by you to CDP in order to satisfy the terms of CDP disclosure requirements but without accepting or assuming any responsibility or liability on our part to CDP or to any other party who may have access to this opinion.