Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Every day, more than half a million people depend on American Airlines to take them to the moments that matter most in their lives. We fly over borders, walls and stereotypes to connect people from different races, religions, nationalities, economic backgrounds and sexual orientations. We make the world a more connected and inclusive place. And we do it professionally and safely for more than 500,000 customers per day across five continents.

American Airlines Group (AAG) is a holding company for American Airlines. Together with wholly owned and third-party regional carriers operating as American Eagle, in 2019, AAG operated an average of nearly 6,700 flights per day to 350 destinations in more than 50 countries from its hubs in Charlotte, Chicago, Dallas/Fort Worth, Los Angeles, Miami, New York, Philadelphia, Phoenix and Washington, D.C. American is also a founding member of the **one**world alliance, whose members in 2020 set a goal to achieve net zero emissions by 2050, making **one**world the first global airline alliance to set that goal. Shares of American Airlines Group Inc. trade on Nasdaq under the ticker symbol AAL and the company's stock is included in the S&P 500.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Antigua and Barbuda
Argentina

Aruba
Australia
Bahamas
Barbados
Belize
Bermuda
Bolivia (Plurinational State of)
Brazil
Canada
Cayman Islands
Chile
China
Colombia
Costa Rica
Croatia
Cuba
Czechia
Democratic People's Republic of Korea
Dominican Republic
Ecuador
El Salvador
France
Germany
Greece
Grenada
Guadeloupe
Guatemala
Guyana
Haiti
Honduras
Hungary
Iceland
Ireland
Italy
Jamaica
Japan
Martinique
Mexico
Netherlands
New Zealand
Nicaragua
Panama
Peru
Portugal
Puerto Rico
Saint Kitts and Nevis

Saint Lucia
Spain
Switzerland
Turks and Caicos Islands
United Kingdom of Great Britain and Northern Ireland
United States of America
United States Virgin Islands
Uruguay
Venezuela (Bolivarian Republic of)

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?

Aviation

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	In July 2020, American Airlines' Board of Directors adopted a charter for a new Corporate Governance and Public Responsibility Committee (formerly the Corporate Governance and Nominating Committee). The Board charged this new

	Committee with providing oversight of the Company's sustainability (including climate change risks and opportunities) strategy, objectives, efforts, progress and achievements. In 2020, this Committee discussed the company's sustainability and climate change strategy on three occasions, one of which was a special two-hour meeting, outside of regular Committee business, where the Committee delved into a range of topics related to climate change, including the fuel efficiency of the company's fleet of aircraft, management's focus on specific initiatives to improve fuel efficiency, the company's investment in sustainable aviation fuel and other topics. One example of a climate-related decision in 2020 is the Committee's decision to approve management's recommendation to adopt the framework of the Taskforce on Climate related Financial Disclosures for the company's climate reporting. A second example is the Committee's decision to approve management's recommendation to adopt a goal of net zero emissions by 2050.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding business plans Other, please specify Reviewing goals	American's Board of Directors oversees the company's enterprise-wide approach to risk management. Either as a full Board or through one or more of its committees, it reviews strategy and management's assessment of material risks impacting our business, including potential climate-related risks. Specifically, the Corporate Governance & Nominating Committee of the Board has primary responsibility for oversight of American's sustainability efforts. In early 2020, the Committee's charter was updated to formally codify this role, including explicit reference to its oversight of climate-related risks and opportunities. Additionally, beginning in 2020, climate-related issues will be a standing agenda item for Committee meetings and included in all quarterly updates. The Executive Vice President for Corporate Affairs, who reports directly to the Chairman and CEO, leads the work of the firm's Sustainability Steering Committee.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify Executive Vice President, Corporate Affairs	Both assessing and managing climate-related risks and opportunities	Quarterly
Sustainability committee	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

American's Corporate Affairs group, which is led by an Executive Vice President (EVP) who reports to our Chief Executive Officer, has responsibility for managing and coordinating the company's ESG efforts, including those related to sustainability and climate change. The EVP for Corporate Affairs also has responsibility for the firm's Sustainability Steering Committee. This organization makes sense for American because our Corporate Affairs Group has experience coordinating company-wide initiatives, and the EVP for Corporate Affairs is also responsible for leading many functions that influence our sustainability performance, including those related to corporate governance, government relations, labor relations and real estate. For example, the EVP for Corporate Affairs led the development of American's first TCFD-aligned scenario-analysis in 2020 to better identify and assess climate risks; he also led the process to assess and commit to a science-based emissions reduction target in 2021.

Our Sustainability Steering Committee – which is a cross-functional and cross-operational group of internal practice leaders – has responsibility for monitoring global trends, responding to stakeholder inquiries and understanding stakeholder perspectives, reviewing the company's sustainability strategy and progress, and engaging with our Board on sustainability issues. Led by our Executive Vice President of Corporate Affairs, the group includes senior leadership from all of the internal groups that have the authority and accountability to improve and implement the company's climate change strategy: Airport Operations, Cargo, Finance, Flight Operations, Government Affairs, Investor Relations, Legal, People and Communications, Safety, Technical Operations and Sustainability. In 2020, the EVP for Corporate Affairs trained this committee's focus on the company's ambition for reducing its net GHG emissions. As a result, the committee recommended to the Chairman and CEO that American Airlines adopt a goal of reaching net zero emissions by 2050 and publish an initial plan for attaining that goal.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	American Airlines does provide monetary incentives for the management of climate-related issues.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Corporate executive team	Monetary reward	Energy reduction project	Short- and long-term incentive pay for the senior executive team is based on company financial performance. As such, since jet fuel consumption is the leading source of American's GHG emissions and is also one of American's largest categories of expense, the senior executive team - through the reduction in fuel consumption and its associated emissions - can increase the company's profitability and executives' incentive pay.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	Our short-term horizon aligns with the International Air Transport Association (IATA) short-term strategy to improve the industry's carbon efficiency annually.

Medium-term	2	15	Our medium-term horizon aligns with the International Air Transport Association (IATA) medium-term strategy to cap the growth in the industry's carbon emissions from international flights.
Long-term	15	30	Our long-term horizon aligns with the International Air Transport Association (IATA) long-term strategy to reduce the industry's carbon emissions by 50% by 2050 from a 2005 baseline.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Currently, the firm takes an integrated approach to risk identification, assessment and management. Through the multidisciplinary company-wide risk identification, assessment and management processes described above, we continually monitor climate risks on an ongoing basis and assess those risks across short, intermediate and long-term time horizons on a case-by-case basis. In the context of this report, we define substantive financial and strategic impacts when assessing climate-related risks as those impacts that meet or surpass our financial thresholds, or those impacts that have a direct or indirect impact on our operations, such as risks that may cause significant flight delays, increase flight input prices, limit our ability to maximize our weight load on flights, etc. The quantifiable indicators used to define substantive financial or strategic impacts are those that would cause the firm a loss or gain great enough to change our internal approach to managing the risk or opportunity, which we have determined to be 1% of our pre-tax income, equaling $29 million in 2019. In 2020, due to COVID, the company’s pre-tax income was negative. We determined that the 2019 figure of $29 million remained relevant for 2020 as well, given the company’s anticipated financial recovery from the pandemic.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

A specific climate-related risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

The process for identifying, assessing and responding to risks related to climate change is led by the company's Sustainability Steering Committee, which meets on a formal basis quarterly and between meetings leads the internal process for addressing climate-related physical and transition risks and opportunities. This committee includes senior internal stakeholders from Airport Operations, Cargo, Finance, Flight Operations, Government Affairs, Investor Relations, Legal, People and Communications, Safety, Technical Operations and Sustainability, who together have the authority and accountability to modify, implement and measure the results of the company's climate change strategy. The risks reviewed by the Committee include the transition risks of climate change the company faces, including the potential financial and operational impact of proposed regulations, additional taxes or fees associated with carbon emissions or increases in cost associated with enhanced or new equipment (aircraft or ground equipment) that would be necessary to comply with proposed regulations in the near and medium term. This process also addresses the short-, medium- and long-term physical risks the company faces from climate change. An example of identifying, assessing and responding to a transitional risk would be American's response to the advent of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). The Sustainability Steering Committee identified a transitional risk related to our limited experience in procuring offsets to meet CORSIA offset obligations, and therefore determined that American needed to develop in the short-term greater expertise in the trading and management of carbon offsets to prepare for our compliance responsibilities. With direction from the Committee, American formed a task force to strengthen our network of experts in the offset markets, explore trading options and evaluate potential offset programs. The task force reported back to the Committee with a series of recommendations, which included a proposal to purchase high quality, verified carbon offsets from a set of reputable sellers beginning in January 2021. Since then, offset purchases have been delayed due to COVID. The Sustainability Steering Committee also regularly reviews the company's management of physical risk opportunities from climate change across its direct operations. The primary focus of our risk assessment process is on how climate change risks – in the form of extreme weather events and/or sustained higher temperatures -- will impact our customers and their experience traveling with American. An example of a physical risk would be identifying, assessing and reviewing how our flight operations are subject to disruption from severe weather events. The Committee identified the need to mitigate flight cancellations and other impacts on our customers from these weather events. The Committee asked a group of executives to survey available technologies and identify a possible short-term solution. As a result of this survey, American decided to subscribe to a weather forecast service to allow our flight operations team to incorporate real-time weather forecasts into the flight planning process. Adding this information helps us develop flight plans that account for potential weather events en route or expected upon departure or arrival. As climate change is expected to increase the frequency and severity of natural hazards and extreme weather events, maintaining and enhancing this

approach over time will remain integral to how American Airlines identifies and manages these climate-related risks.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Aviation is a highly regulated industry. To ensure we are complying with regulations, we continuously monitor any changes to current regulations to assess their potential impact. Given American's large carbon footprint and potential exposure to climate change, changes to climate related regulations could have a material financial and/or operational impact on American. For example, the cost of compliance for American's inclusion in the European Union's Emissions Trading Scheme (ETS) when monitoring started in 2010 was originally estimated to be more than $20 million annually, which was a risk to the business in terms of profitability and expense management. Subsequent changes to the scope of the ETS substantially reduced our financial exposure. Airline industry trade associations played an important role in helping reduce the scope of the ETS by excluding our compliance obligation for emissions from flights outside of the European Union. Our Sustainability Steering Committee is responsible for monitoring and assessing risk related to current regulations.
Emerging regulation	Relevant, always included	American continuously monitors emerging domestic and international regulations related to climate change through our Government Affairs department. We are also members of Airlines for America (A4A) and the International Air Transport Association (IATA), which keep us abreast of emerging regulations. Given American's large carbon footprint and potential exposure to climate change, emerging climate related regulations could have a material financial and/or operational impact on American. For example, American supported the adoption of CORSIA to serve as a single, global market-based measure for addressing international aviation GHG emissions, pre-empting unilateral and duplicative taxes, charges and emissions trading schemes. However, most recently, both Sweden and the Netherlands proposed carbon emissions-based passenger taxes. These and other potential new taxes and regulatory schemes pose a risk to our business in that we may have to pay higher taxes and would also have to manage the regulatory and reporting burden of multiple regulatory regimes in different markets. We believe these taxes violate the intention that CORSIA serve as the single, global market-based measure to address carbon emissions, and we support efforts to counter these proposals. Our Sustainability Steering Committee is

		responsible for monitoring and assessing risk related to emerging regulations.
Technology	Relevant, always included	The airline industry is very competitive and historically has had below-average profit margins. To remain profitable, it is critical that American's products and services be price-competitive with other airlines. New technology spurred by efforts to reduce jet fuel consumption and its associated GHG emissions could give an airline a competitive advantage by reducing its costs. The risk to our business is that we are late to adopt a new technology that could improve our fuel efficiency and reduce our costs, thereby putting our products and services at a disadvantage to those of our competitors, reducing our market share and profitability. It is therefore imperative that American monitor and quickly adopt new technology related to reducing emissions in order to be at the forefront of any new technology breakthroughs. For example, 12 years ago, new winglet technology enabled aircraft to reduce fuel consumption by up to 5% on long-haul flights, which provided a significant cost advantage at a time when the price of fuel was high. American was the first airline to retrofit its aircraft with winglets, which helped it survive a challenging period for the industry. More recently, American is monitoring developments relating to sustainable aviation fuel as well as the activities of other airlines in this area. As new technology is developed and new product pathways approved for use, it is important that American position itself to quickly take advantage of any breakthroughs and be able to respond to competitors' efforts as well.
Legal	Relevant, always included	As a large company with extensive global operations, potential legal issues are always a consideration in our risk assessments, including climate-change related risk assessments. We may face specific risks such as litigation or regulatory proceedings in the event a stakeholder files a suite against the airline or airline industry on the basis of climate change impacts. For example, in 2010, the São Paulo State Public Prosecutor's Office filed actions against more than 30 airline companies, including American Airlines and its peers and competitors, seeking compensation for GHG emissions. Ten years later, one of those actions is pending analysis by the Superior Court of Justice. As climate-change focused litigation increases around the world, failure to monitor and prepare for potential legal risks could cause reputational and financial damage to our company.
Market	Relevant, always included	Our customers have a choice in travel, so it is important that we understand their decision-making process in selecting an airline. Changes in travel patterns due to passenger concerns about air travel's carbon footprint could have a significant impact on our revenue. For example, if customers perceive that we are not aware of and acting to reduce the contribution of our operations to climate change, they may choose to fly with another airline, reducing our profitability and market

		share. As part of our efforts to manage this risk, in early 2020 American surveyed passengers on their concerns about the carbon emissions of air travel. The survey captured the type of passenger (how frequently they fly American) and their origin airport (where the passenger lives). We plan to continue to periodically survey customers and monitor any changes in their views on this issue.
Reputation	Relevant, always included	American is aware of its position as an emitter of GHGs and the reputational risks to the company and the aviation industry related to the threat of climate change. We understand that the industry risks being targeted by the United States government and the governments of other countries (e.g., the European Union and others) with additional taxes and fees, which could reduce our profitability, if we are not responsible in addressing our emissions. To help mitigate potential reputational risks, American endorsed the International Civil Aviation Organization's (ICAO) Carbon Offset and Reduction Scheme for International Aviation (CORSIA) that was adopted in 2016. With its adoption, aviation is the first industry to voluntarily cap the growth in its emissions.
Acute physical	Relevant, always included	Acute physical events have the potential to injure our passengers and employees and as such, are included in our safety risk assessments. For example, research suggests that atmospheric disruptions caused by climate change may contribute to more frequent and intense turbulence events. Since turbulence events can result in injuries to our passengers and crew members, American formed a turbulence task force to assess risks related to turbulence and work to mitigate its safety risk. We also equipped our aircraft with our Turbulence Auto-PIREP System (TAPS), which automatically reports turbulence encounters, sends the reports to the ground, and distributes the information to aviation operators and Air Traffic Control. We use data from these encounters to prevent other aviation operators from flying through rough airspace, reducing the potential for flight crew injuries due to turbulence.
Chronic physical	Relevant, always included	Chronic physical events, such as extreme heat, can affect the safety of our employees, especially those who work outside. As such, this risk is often included in any safety risk assessments related to employees who work outdoors during summer months, particularly in hot and/or humid locations, such as our hub operations in Phoenix, Dallas/Fort Worth, and Miami. American conducts job safety analyses on a routine basis.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Other, please specify

Decreased revenues due to reduced service capacity

Company-specific description

Changes in precipitation patterns can impact our operational performance by causing delayed flights and flight cancellations. To ensure the highest level of safety during weather events, the flow of aircraft arrivals and departures may be restricted, and during severe weather, all arrivals and departures may be stopped until the weather becomes less extreme. Particularly when these weather events occur at our hub airports, American's on-time dependability is reduced and cancellations increase. These issues are particularly relevant in certain geographical regions, including the Midwest and Southwest. In these regions, we have several important hub airports, such as Dallas-Fort Worth International Airport and Chicago's O'Hare Airport. In 2020, we diverted ~0.28% of flights in the US. Based on our historical averages, roughly 85% of these diversions, or 0.24% of all flights, are due to weather events. We expect this to potentially increase over time as weather patterns change and the severity of events increase.

While American Airlines integrates weather forecasts into our route planning and scheduling, climate change may present risks in the future for our direct operations due to shifting precipitation patterns that may increase the frequency and severity of extreme weather events.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

200,000

Potential financial impact figure – maximum (currency)

600,000

Explanation of financial impact figure

Airline sources estimates that a 30-minute delay on a given flight can result in over $2,000 in additional direct and indirect costs to an airline, while a diverted flight can result in $10,000 to $15,000 in additional direct costs to an airline. As such, a small storm that results in 20 diverted flights can cost an airline $200,000 (20 diversions x $10,000 per flight) while a larger storm that results in 300 delayed flights can cost an airline $600,000 (300 delays x $2000 per flight)

Cost of response to risk

5,000,000

Description of response and explanation of cost calculation

American closely tracks and monitors weather impacts on flight dependability, and management works to continuously improve our dependability. American also continuously seeks out opportunities to improve dependability and mitigate the impact of changes to weather patterns. For example, flight plans are developed hours before a flight departs, so they do not account for unexpected changes in weather while the aircraft is in en route. As a result, the pilot may not be aware of potential opportunities to reduce flight time and emissions. To address this issue, American uses the NASA-developed Dynamic Weather Routes system that identifies more efficient routings around weather systems while an aircraft is en route to its destination. Using this system has resulted in fewer arrival delays and reduced fuel and emissions. American is also developing software tools to assist customers affected by weather. For example, customers whose flights are impacted by weather can now use their preferred electronic device to select new routings and re-book themselves without talking with an agent. We estimate the cost to manage operational disruptions due to weather events at $5 million annually, which includes the salary and benefits of employees in functions dedicated to service recovery at our Integrated Operations Center, Day of Departure group, and allocation of Information Technology personnel dedicated to developing and supporting IT tools related to mitigating the effects of operational disruptions.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Several of our fuel storage tanks are located near coastal areas just above sea level. Rising sea levels could cause flooding that would impact this critical part of American's supply chain. While our fueling plans account for weather forecasts, including the risk of flooding, any interruption of delivery of jet fuel to our aircraft could significantly impact our operations and possibly result in cancelled flights. For example, in 2017, heavy rains flooded a low-lying fuel storage facility in Port Everglades, FL, preventing us from accessing needed supplies of jet fuel. In response, we now monitor flood risk at vulnerable locations, and incorporate flooding considerations into our business continuity and fuel planning. Approximately 5% of American’s departures in 2020 were from coastal airports at 3 meters or less in altitude and are likely at risk of future flooding.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,300,000

Potential financial impact figure – maximum (currency)

2,600,000

Explanation of financial impact figure

To manage our flooded fuel tanks in Port Everglades, FL, American contracted for nearby tankers to store jet fuel for our operations, which is more expensive. A cost assessment after the event was completed. It included costs to charter the ship (10% to 20% of cost), port and inspection fees, and excess jet fuel charges (70% to 80% of cost). These charges have historically ranged from $1.3 million to $2.6 million.

Cost of response to risk

80,000

Description of response and explanation of cost calculation

More severe weather caused by climate change has the potential to disrupt our fuel supply, which could have a severe impact on our flight operations (including flight cancellations) and revenue. To manage this risk, we increase fuel inventories at certain locations when weather forecasts indicate those areas could be affected by severe weather events. The result of these actions helps reduce the operational impact if weather contributes to limitations on an airport's fuel supply. The estimated cost to manage this risk during the flooding event at Port Everglades was $80,000, which includes the carrying cost of maintaining higher than optimal fuel inventory levels and any premiums paid to expedite deliveries. We utilize our costs from this event as a basis of estimation for the impact of future events on the company, which would be incurred for any future flooding events at one of our fuel storage facilities.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Rising mean temperatures

Primary potential financial impact

Other, please specify

Decreased revenues due to reduced service capacity

Company-specific description

Rising temperatures reduce the performance capability of aircraft. Hotter air is less dense, which means there is less air beneath the wings for lifting the aircraft and less air to flow through the jet engines. To compensate for the impacts caused by warmer temperatures, aircraft must be lighter at take-off, which could mean that an American flight is not able to take all the planned passengers and/or cargo. Hotter temperatures impact American’s operations most frequently in Arizona, Nevada, Colorado, Utah, and certain parts of Texas during the summer months. For example, annually, an average of

90 passengers per month departing Phoenix airport (PHX) between June and August could not be accommodated due to weight restrictions. We expect summer temperatures to increase, and that the scope of this risk will increase over time as more locations and times of each year are affected. We estimated a loss of $52,000 in revenue based on average revenue per segment, or 0.000125% of total passenger revenue due to weight restrictions. A portion of these unaccommodated passengers could have been accommodated if temperatures throughout the Southwest United States were cooler.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

81,000

Potential financial impact figure – maximum (currency)

162,000

Explanation of financial impact figure

Annually, an average of 90 passengers per month departing Phoenix airport (PHX) between June and August could not be accommodated due to weight restrictions. American Airlines accommodates these passengers on later flights and provides them with vouchers for future travel that could average $600 per passenger. Assuming 50% to 100% of unaccommodated PHX passengers due to weight restrictions were caused by extreme heat, American's estimated cost is $81,000 (90 passengers x 3 months x $600 x 50%) to $162,000 (90 passengers x 3 months x $600 x 100%) per year in lost future revenue. We are working to expand this analysis to further markets that are affected by temperature-related restrictions.

Cost of response to risk

53,550

Description of response and explanation of cost calculation

Rising temperatures pose a threat to our operations, especially in the Southwest United States during the summer. When air is too hot, it is not dense enough for some planes to take off at full capacity, which decreases American's revenue for these flights and risks upsetting our customers through delays, diversions, and rescheduling. Therefore,

we have to innovate to find ways to maintain as much capacity as possible and shift our operations to be resilient in warmer conditions. As part of our effort to manage this risk, American has employed strategies to reduce the weight of our aircraft in these regions as a part of our business continuity planning. Examples of weight reduction initiatives include cargo hold reductions, and plane modifications including lighter paints and configuration changes. As a result of these efforts, we estimate that we can reduce passenger reductions on some of our more heavily utilized aircraft up to 2 passengers per flight during extreme temperatures. Our cost to respond to this risk is derived from capacity reductions we enforce at the Phoenix airport from July 1 to August 4. This is the first market where we track temperature-related reductions, and we are working to expand this analysis to other affected markets. American reduces the selling capacity of A321 aircraft departing PHX to Philadelphia by up to 17 seats, which also reduces our potential to sell these seats. Assuming we could have sold 30% of these extra seats at $300 one-way for the 35-day period, American would have made an additional $53,550 (17 seats x 30% x $300 x 35) in revenue. We consider this lost revenue opportunity as the cost to respond to this risk.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

American is in the midst of the most extensive fleet renewal program in aviation history. Over the past few years, the average age of American's fleet has decreased to 10.8 years, the lowest of any U.S. network carrier. Aircraft like the Boeing 737 MAX improve fuel efficiency by up to 20 percent over similarly sized aircraft, which reduces the fuel purchases required and therefore reduces operating costs. In 2020, American took delivery of 10 additional Boeing 737 MAX aircraft and we have another 47 on order, and we have another 59 on order over the next six years.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

130,000,000

Potential financial impact figure – maximum (currency)

260,000,000

Explanation of financial impact figure

More efficient aircraft help American reduce fuel expenses. In a typical year, American spends about $8 million per mainline aircraft in fuel expense assuming current fuel prices. Over the next three years, American has delivery orders for 162 new aircraft that are between 10% to 20% more efficient than the previous generation of aircraft. Assuming this range of fuel efficiency gains and similar fuel expense per aircraft, these new aircraft deliveries could reduce American's fuel expense by $130 million ($8 million x 162 x 10%) to $260 million annually ($8 million x 162 x 20%). Fuel savings from these new aircraft will also help American reduce its carbon emissions by 600,000 to 1.2 million tonnes by 2024.

Cost to realize opportunity

6,500,000,000

Strategy to realize opportunity and explanation of cost calculation

As part of American's fleet renewal strategy, we take delivery of new aircraft to retire older aircraft and to prepare for any increase in projected service. The rate at which older aircraft are replaced will depend on the fuel efficiency benefit from new aircraft, as well as many other factors, such as performance, maintenance expense, dependability and crew training requirements. Since 2013, American has invested $24 billion to

introduce 595 new aircraft into our fleet, including 47 new aircraft in 2020 alone. At the same time, we retired a similar number of older, less fuel-efficient aircraft. In 2020, American retired 158 older mainline and regional airplanes; and from 2013 to March 31, 2021, we retired 667 aircraft. The result of this investment was to give us the youngest fleet among U.S. network carriers. At the beginning of 2021, American had 192 aircraft on order, including 162 orders with deliveries scheduled within the next five years. Assuming a similar cost per aircraft, American would need to invest approximately $6.5 billion (average cost of $40.3 million, which is $24 billion divided by 595 aircraft) for the 162 aircraft that are scheduled to be delivered.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Through surveys and discussions with our customers, we have seen a growing interest from our customers in offsetting their individual GHG emissions produced as a result of air travel. As part of American's efforts to provide a more sustainable travel experience, we are partnering with Cool Effect, a non-profit, to offer a customer-facing carbon offset program. The American Airlines-Cool Effect Partnership program (https://www.cooleffect.org/american-airlines) allows customers to purchase offsets for their flights through Cool Effect, which provides access to high-quality carbon offset projects that are carefully vetted by Cool Effect and validated on an ongoing basis. Information about the carbon offset program is presented to customers at the end of the booking pathway, with a cost-competitive option to offset emissions clearly stated. The integration of our offset option into the booking process provides for a seamless customer experience that reinforces customer confidence in the sustainability of air travel with American. We have also added carbon offsetting as a benefit for elite customers in our American Advantage Program; on an annual basis these customers can choose to offset their emissions as a part of their standard flying. To date .23% of these customers have selected to offset their emissions through this product offering. In addition, American provides corporate customers with the option to offset their scope 3 emissions created by air travel, through the purchase of emissions reductions from

sustainable aviation fuel (SAF), making American more competitive from a GHG standpoint. The market for these SAF emissions reductions is under development, and American has completed and made public two transactions with major corporate customers in order to demonstrate that the idea of a “SAF certificate” can work and can be expanded to signal further demand for SAF.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

10,500,000

Potential financial impact figure – maximum (currency)

15,800,000

Explanation of financial impact figure

While there is much uncertainty regarding how many of our customers will purchase offsets and how that will affect their future loyalty to American, we estimate that if 0.5% to 0.75% of our passengers purchase an offset and decide to increase their future travel with American by 5%, American could increase its revenues by $10.5 million (200 million passengers x 0.5% x $210 x 5%) to $15.8 million (200 million passengers x 0.5% x $210 x 0.75%).

Cost to realize opportunity

250,000

Strategy to realize opportunity and explanation of cost calculation

We identified an opportunity to recognize our customers’ interest in offsetting the carbon emissions from their flights with us. We then spoke to numerous offset providers to find one that would provide high quality offsets at a transparent cost. The result of our market scan was to reach an agreement with Cool Effect, a non-profit carbon offset provider that conducts deep due diligence and is transparent in how they price offsets for consumer purchases. As a result, American’s IT development group worked with Cool Effect to enable our customers purchasing a ticket online to select an option to offset the emissions associated with their travel. In addition, American will manage offsets as a business line that will require marketing and operational support. We

estimate the total cost for IT and management, including software development and connecting IT systems between aa.com and Cool Effect, at $250,000.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Other, please specify

Reduced cost to potential future carbon regulation

Company-specific description

To achieve meaningful reductions in GHG emissions in the future, American will need to rely on the commercialization of cost-competitive sustainable aviation fuel (SAF) with significantly lower life-cycle carbon emissions than petroleum-based jet fuel. To incentivize the development of the SAF industry, the International Civil Aviation Organization (ICAO) is allowing airlines to use carbon reductions from SAF to meet compliance obligations for CORSIA. American has the opportunity to reduce its compliance costs for CORSIA by taking delivery of and otherwise promoting the commercialization of cost-competitive SAF, as we have done with our commitment to purchase nine million gallons of SAF from Neste, a leading SAF producer. While deliveries of SAF started in 2020, qualifying types of SAF after January 1, 2021 will be eligible to be used to meet CORSIA obligation for emissions reductions.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000

Potential financial impact figure – maximum (currency)

2,000,000

Explanation of financial impact figure

American has the opportunity to reduce its compliance obligations under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) by using cost competitive SAF. CORSIA's goal is to cap emissions from international aviation at 2019 levels, either through the purchase of qualifying offsets or through the use of approved SAF. Assuming we have access to annual deliveries of cost competitive SAF that reduces carbon emissions by 100,000 metric tons of CO2, we could reduce our need to purchase 100,000 tons of offsets annually. If offset costs are $10 to $20 per tonne, American could reduce its annual cost to comply with CORSIA by $1 million (100,000 x $10) to $2 million (100,000 x $20) annually.

Cost to realize opportunity

18,000,000

Strategy to realize opportunity and explanation of cost calculation

Climate change will pose a number of threats to the aviation industry, especially as increases in severe weather alter operations, affect flight planning, and impact fuel supply throughout the supply chain. Therefore, it is essential for American Airlines to do our part in decarbonizing the aviation industry in order to limit the impacts climate change may have on our business. One of the key pieces of our decarbonization strategy is to promote the development of the market for Sustainable Aviation Fuel (SAF), which is currently much too small to meet industry-level decarbonization targets. To promote the commercialization of SAF, American is working to signal to producers that it is a willing purchaser of SAF with high demand. For example, earlier in 2020, American signed an agreement to purchase 9 million gallons of SAF over the next three years. At the time, this was the largest commitment to take delivery of SAF in the industry. SAF supply is currently very limited since its estimated production cost is $2 to $3 per gallon more than petroleum jet fuel. Based on this premium, American is investing $18 million to $27 million over three years to promote the commercialization of SAF and the decarbonization of our fuel supply, which is the source of our cost to realize this opportunity. As a result, we were able to reduce our emissions by roughly 3600 metric tons in 2020, and hope to expand our purchasing and utilization of SAF over time as a part of our strategy to hit net-zero emissions by 2050.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
RCP 8.5 IEA Sustainable development scenario Other, please specify IEA World Energy Outlook 2019, Current Policies Scenario, Stated Policies Scenario, and Sustainable Development Scenario	For our scenario analysis, American Airlines utilized regionally downscaled IPCC forecasts based on RCP8.5. We utilized RCP8.5 because it represents the worst-case climate scenario American Airlines must be operationally prepared for. Transition risks and opportunities were evaluated based on IEA World Energy Outlook 2019 – Current Policies Scenario, Stated Policies Scenario, and Sustainable Development Scenario. We selected these scenarios to compare the effect of climate-related policies on our operational inputs, including fuel costs, demand for air travel, availability of sustainable aviation fuel (SAF), and carbon taxes. For physical risks, we examined the impact of sea level rise, increased temperatures, and increased precipitation, extreme temperatures, flooding, cyclonic events and extended drought at 10 critical sites in the US and the UK. We created a risk rating for each risk type at these sites based on the combination of the likelihood of occurrence and the scale of impact. We evaluated

	physical risks in the short-term, as well as out to 2035 and 2060. We selected these horizons to capture measurable changes in the physical hazards most important to our operations. We evaluated transition risks and opportunities over the short-term, over the next 5-10 years and over the next 10-20 years. We analyzed reputational risks, policy and legal risks, market risks, risks associated with changes in fleet and operations technology, and supply chain risk. We also explored climate-related opportunities such as shifting to low-carbon fuels, fleet efficiency improvements, and expansion of capabilities in resilient locations. We also evaluated trends in insurance claims and flight decisions. Our Real Estate team reviewed the results of the physical risk analysis. The review showed that American Airlines is not at significant physical risk in our operations in the near term, and that our existing risk management processes (including our efforts to monitor severe weather impacts, integrate new technologies and strategically plan our fuel inventories) are effective in avoiding material risk from the physical impacts of climate change in our direct operations over the short, medium, and long term. However, we continue to monitor the threat of cyclonic events to our supply of fuel from the Gulf of Mexico. Our Finance, Sales and Operations teams reviewed the results of the transition risk analysis and determined we are well positioned to handle transition risks due to our emissions reduction plans, fleet renewal strategy, and aggressive pursuit of sustainable fuels technologies. Our primary transition risk is increased fuel costs due to policies that may price or regulate carbon emissions, but our reduction strategies aid in mitigating this risk over time. Overall, the results of our scenario analysis have informed our business strategy by indicating that we should continue the implementation of our low-carbon transition plan by investing in more fuel-efficient technologies and aircraft and expanding utilization of SAF. Case Study: Our operations depend on the supply of jet fuel at reasonable prices, and much of this fuel is sourced from the Gulf of Mexico. Severe storms in the region will threaten our supply as climate change causes these storms to become more severe. American learned during our scenario analysis that we need to further prepare for these events to ensure that we can meet the needs of our customers when a large storm hits the Gulf coast, especially in the medium and long-term. In response, our risk management team implemented strategies to diversify our fuel supply from multiple regions and to maintain larger fuel reserves at our hub airports, which allows us to better withstand a storm-related supply shock. As a result, we have downgraded the risk rating for cyclonic risk in our risk management process, as we

	believe these strategies will help us to remain operationally flexible in the event of a severe storm.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	American's business strategy is based on three key pillars, one of which is to build American to thrive forever. Addressing the threat of climate change is critical to this pillar, as changes in weather patterns, both acute and chronic, will enhance risks to our operations and supply chain in the form of more severe storms in the Gulf of Mexico and changes in weather patterns that may alter flight plans or capacity amongst others. In 2020, we set a goal to reach net-zero emissions by 2050 in order to combat the risks posed by climate change, and we published an initial pathway to meet that goal, relying on fuel efficiency within our operations, the purchase of more fuel-efficient aircraft, air traffic modernization, sustainable fuels and carbon offsets. As part of this initial pathway, we also identified opportunity to expand our product offerings. The development of a robust market for Sustainable Aviation Fuel (SAF) is a critical element of our strategy to reduce our emissions, but today there is little SAF being produced and it is very expensive. We must participate in the market for SAF and find innovative ways to expand both the supply and demand for SAF. In response, in 2020, we entered into an agreement to purchase 9 million gallons of SAF over three years, one of the largest offtake agreements in our industry, and we began taking deliveries of SAF at San Francisco International Airport in June 2020. As a result, we reduced our Scope 1 emissions by 3,600 metric tons from the portion of this fuel utilized in 2020. We will continue to acquire SAF, hopefully in larger volumes, in the future as a part of our 2050 net-zero strategy. This SAF purchase also allowed us to develop a product offering for our corporate customers to sell them the emissions reduction value of our SAF, for their use in offsetting their Scope 3 emissions from air travel with American. This new

		product, which we began offering in October 2020, culminated in transactions with two customers in early 2021 and will reduce their combined Scope 3 emissions by 31,550 metric tons over the life of the deal. The purpose of both of these actions – purchasing SAF and signaling demand through transactions with our customers – is to boost the production and availability of SAF.
Supply chain and/or value chain	Yes	Maximizing the fuel efficiency of our aircraft is both a core focus of our climate change strategy and a key business objective. Fuel reductions lead to decreased direct costs for the organization and also have a direct correlation to emissions reductions. Therefore, we must maintain an optimal fleet renewal strategy to optimize financial performance and fuel savings. Over the past several years, American has undertaken the most extensive fleet renewal effort in the history of our industry. Since 2013, we have taken delivery of 595 new, more fuel-efficient aircraft—at a cost of $24 billion—including the Boeing 737 MAX and the Airbus 321neo, which were developed with the latest engine and airframe technologies. Our fleet renewal effort will have the greatest near-term impact on emissions, since each new generation of aircraft targets fuel-efficiency improvements of 10–15%. Over the same period, we retired a similar number of less fuel-efficient planes, including the last of our McDonnell Douglas MD-80 aircraft in 2019. And because of the reduction in demand due to the COVID-19 pandemic, we accelerated the retirement of four additional mainline aircraft types—Embraer E190s, Boeing 757s, Boeing 767s and Airbus A330-300s—and two regional fleet types– Embraer 140s and Bombardier CRJ200s. In total, we have retired 667 older aircraft since 2013. And as of March 31, 2021, American now has the youngest mainline fleet of any U.S. network airline, with an average age of 10.8 years, with more than half (57%) of our mainline aircraft being less than 10 years old. As a result of fleet renewal we have been able to reduce emissions per available seat year over year, with a reduction of 0.6% from 2019 to 2020 despite the COVID 19 pandemic. Fleet renewal will continue to be a core focus of our climate change strategy. Over the next five years, we expect to take delivery of nearly 200 new aircraft, which will further improve our fuel efficiency.

Investment in R&D	Yes	Reducing fuel expense and the resulting emissions is an important near- and long-term business objective. More frequent and more severe weather events caused by climate change will impact our operations to a greater extent over time, affecting flight plans, capacity, and ground operations. We must invest in new technology over the short, medium, and long term to better manage these events and reduce their impact to our operations and our customers. For example, in 2019, we invested in new technology that helps our pilots identify when weather events may cause flight delays. American further customized this technology for our own use. Flight plans are generally developed 4-6 hours in advance of a flight, and while a flight is en route, the new American FMS+ technology alerts the pilot to a change in weather that could cause a delay and the associated increased fuel burn. FMS+ also identifies for the pilot a new, optimized flight altitude and speed to avoid delays. By mid-2020, we were using this technology on 85% of our mainline aircraft and by the end of March 2021, we had saved 1.75 million gallons of fuel, equivalent to 16,600 metric tons of CO2 emissions. We expect over time to expand our use of this technology, further reducing our emissions.
Operations	Yes	Jet fuel emissions represent 98% of our Scope 1 and Scope 2 emissions. Reducing fuel expense and the resulting emissions is an important near- and long-term business objective to reduce costs and reach Net-zero emissions by 2050. Therefore, while we must pursue reductions in fuel use en route, we must also reduce jet fuel consumption pre- and post-flight. For example, in 2020, we enhanced pilot training with the goal of increasing our use of single-engine taxi operation (i.e., using just one aircraft engine to taxi to the gate after landing). American also monitors the use of single engine taxi by aircraft type and provides this feedback to fleet managers to help measure progress and achieve our targets. As a result of the improved training and feedback, through the twelve months ending in March 2021, our use of this technique reduced our CO2 emissions by approximately 19,000 metric tons. We expect our use of this technique to improve over time, further reducing our emissions.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs	The climate-related opportunity to invest in the market for sustainable aviation fuel (SAF) has a significant impact on our financial planning, both now and over the long term. It is a key part of our strategy to meet net-zero emissions by 2050, as well as our intermediate, medium-term targets that we are planning to meet net-zero. This is a climate-related opportunity because the use of SAF can significantly decrease our emissions, and emissions reductions will be a key factor in our license to operate over the next 30 years, as customer expectations around sustainability grow, and CORSIA regulations to reduce emissions take effect. However, because the SAF market is in the early stages of its development – and because public policies globally have not yet come together to promote its cost-effective development – SAF costs significantly more than fossil-based jet fuel. In 2020, American Airlines used nearly 2.3 billion gallons of jet fuel in our operations, so even a small premium to purchase SAF has a big impact on our profitability. As such, American must find a cost-effective pathway to grow the use of SAF in our operations. We believe one way to reduce the cost premium of SAF is to increase the volume of production. In 2020, we signed a commitment to purchase nine million gallons of SAF over a three year period (July 2020 – April 2023) from Neste, a leading producer of renewable products. At the time, it was the largest SAF commitment of any passenger airline, which we believe helped us get a competitive price. Over time, and as the market develops, we expect to purchase SAF in greater quantities, which we expect will help further reduce the premium for SAF. The impact to our financial planning is that we have to project the financial implications on our direct costs by modeling different scenarios for purchasing beyond our 2023 existing commitment for the cost and availability of SAF over the near, mid and long-term planning horizons. Assuming our increased purchases of SAF would eventually reduce its premium to jet fuel to $0.50 per gallon, it would cost American $574 million to replace 50% of its 2020 fuel consumption with SAF. As a result, this would reduce life cycle emissions by an estimated 9.9 million metric tonnes of CO2e.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1

Base year

2019

Covered emissions in base year (metric tons CO2e)

39,086,313

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

95

Target year

2025

Targeted reduction from base year (%)

1.25

Covered emissions in target year (metric tons CO2e) [auto-calculated]
38,597,734.0875

Covered emissions in reporting year (metric tons CO2e)
18,842,488

% of target achieved [auto-calculated]
4,143.4094845426

Target status in reporting year
New

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition

Please explain (including target coverage)
American set a 5-year target in 2020 to achieve a 1.25% reduction in Scope 1 emissions through reducing fuel consumption by at least 50 million gallons from existing company-wide aircraft using a 2019 baseline. Emissions from aircraft that enter the fleet after January 1, 2019 or are retired prior to the target deadline are excluded from this target.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2015

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1

Intensity metric
Metric tons CO2e per unit of service provided

Base year
2014

Intensity figure in base year (metric tons CO2e per unit of activity)
0.001719616

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

89

Target year

2020

Targeted reduction from base year (%)

9

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

0.0015648506

% change anticipated in absolute Scope 1+2 emissions

9

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

0.002053

% of target achieved [auto-calculated]

-215.4124331634

Target status in reporting year

Expired

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain (including target coverage)

American set a target to improve its efficiency as measured by GHG emissions from jet fuel per revenue ton mile (the measure of passenger and cargo services provided) by 1.5% annually from 2014 to 2020 for a 9% cumulative improvement in efficiency. Due to the massive disruption to the airline industry caused by COVID-19, American's fuel efficiency worsened, despite our almost 50% reduction in emissions. At the end of 2020 American's efficiency was 19.4% worse than the 2014 base year. COVID-19 was the primary cause for the decreased performance, as load factor decreased 18 pts to 64%.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
All energy carriers

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
MWh

Target denominator (intensity targets only)

Base year
2018

Figure or percentage in base year
0

Target year
2025

Figure or percentage in target year
694,444

Figure or percentage in reporting year
118,596

% of target achieved [auto-calculated]

17.0778349298

Target status in reporting year

Underway

Is this target part of an emissions target?

While not exclusively a part of American Airlines' existing GHG reduction targets, it is prudent to point out that increasing our carbon-free energy consumption can lead to improved performance on our intensity target.

Is this target part of an overarching initiative?

Other, please specify

The International Air Transportation Association's (IATA) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Please explain (including target coverage)

American set a target to source 2.5 million gigajoules (GJ) (or 694,444 MWh) of cost competitive renewable energy by 2025. 2.5 million GJ represents less than 1% of American's total annual energy consumption. This target is aimed at helping position American to achieve the International Air Transport Association's (IATA) long-term goal to reduce emissions from aviation by 50% by 2050. To achieve this goal the industry will need to source cost competitive low-carbon energy primarily in the form of jet fuel, which represents the majority of our company's total emissions. Additionally, CORSIA aims to stabilize emissions at 2019 levels by requiring airlines to offset the growth of their emissions above 2019 levels.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Not applicable

Target year for achieving net zero

2050

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)

American is currently awaiting final sector guidance from the Science-based Targets Initiative regarding science-based targets for the aviation sector. Once that guidance is finalized, currently anticipated in summer 2021, American will submit an intermediate science-based intensity target to the SBTi. This upcoming target will be linked to American's existing net-zero by 2050 target once approved. American anticipates this will occur mid-to-late 2021, pending SBTi's timeline for final sector guidance release. Further, once SBTi releases final guidance for the aviation sector on net zero commitments, including definitions of net zero, American will consider aligning its current net zero target with SBTi. However, American does not anticipate receiving that final guidance this year and therefore has not committed to setting a science-based net zero target aligned with SBTi at this time.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	
To be implemented*	1	9,500
Implementation commenced*	1	2,850
Implemented*	2	85,900
Not to be implemented	1	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Company policy or behavioral change

Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

23,400

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

4,800,000

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

The use of one-engine-out taxi techniques is on the rise as one means to reduce fuel burn. By shutting down a single engine of the aircraft when it lands, airlines can reduce carbon emissions produced by taxiing by 20 to 40%, and nitrogen oxide emissions by 10 to 30%. American has purchased Airbus A320 aircraft, which are specifically designed to allow single-engine taxi.

Initiative category & Initiative type

Company policy or behavioral change
Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

62,500

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

6,400,000

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

American has implemented an ongoing initiative to optimize the amount of arrival fuel planned. This effort reduces excess weight on our aircraft, which in turn helps reduce fuel burn and associated GHG emissions. American is using training, communication and performance feedback to help flight dispatchers optimize arrival fuel.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Financial optimization calculations	Jet fuel is among the top expenses for American Airlines, and we use the company-wide budget process to drive a wide range of efforts, including financial investments, in activities that will reduce fuel use and emissions. For example, to reduce fuel use, we have invested in a program to upgrade ground power units at airport terminals across our hubs, which in turn will allow flight crews to use ground power, instead of the less efficient on-board auxiliary power units (APUs) that use jet fuel, to keep the aircraft cool and the aircraft's electrical systems functioning while the plane is on the ground. By estimating how many minutes of APU use and associated fuel consumption will be avoided with an investment in a ground power unit, our Finance group will determine whether the payback meets our internal hurdle rate. We have a number of similar other initiatives under way, some of which require behavior change (e.g., single engine taxiing) or special auditing procedures (e.g., on-board weight reductions).

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

In July 2020, American Airlines launched a carbon offsetting partnership with Cool Effect. Cool Effect is a nonprofit organization that sources high-quality, verified carbon reduction projects across the globe and is recognized for rigorous vetting and full pricing transparency. The American Airlines-Cool Effect Partnership program will connect

American's customers with options for offsetting the carbon emissions associated with their flights, part of the airline's long-term commitment to help reduce the impact of air travel on the environment. As Cool Effect's first airline partner, American's customers will be connected with a custom website to learn about high-quality carbon offsetting, view project details and community benefits, and buy carbon offsets. The website is available to American's customers now at cooleffect.org/american-airlines.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Comparison against Business as Usual emissions from flying

% revenue from low carbon product(s) in the reporting year

0

Comment

American does not receive revenue or proceeds from the Cool Effect partnership, therefore revenue is 0%. All proceeds are collected by Cool Effect to offset passenger GHG emissions so American's customers can voluntarily reduce their emissions impact when choosing to fly.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

38,912,664

Comment

Scope 2 (location-based)

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

341,000

Comment

Scope 2 (market-based)

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

341,000

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

19,834,198

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

257,751

Scope 2, market-based (if applicable)

250,206

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,905,478

Emissions calculation methodology

Emissions are calculated using spend data. Emission factors are from the U.S. EPA Office of Research and Development, Supply Chain GHG Emission Factors for US Industries and Commodities. These factors are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions. The supply chain emission factors are presented in units of kilogram emissions per US dollar of purchases for a category of goods and services with a defined life cycle scope. The specific factors used in the calculations represent the detailed industry factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

288,809

Emissions calculation methodology

Emissions are calculated using spend data. Emission factors are from the U.S. EPA Office of Research and Development, Supply Chain GHG Emission Factors for US Industries and Commodities. These factors are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions. The supply chain emission factors are presented in units of kilogram emissions per US dollar of purchases for a category of goods and services with a defined life cycle scope. The specific factors used in the calculations represent the detailed industry factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

6,802,384

Emissions calculation methodology

To calculate Scope 3 fuel and energy related activities, American multiplied total jet fuel consumption by the standard life cycle GHG emissions factor for jet fuel. Total Scope 1 emissions related to jet fuel was then subtracted from total life cycle emissions. The remaining amount represents the upstream emissions related to oil extraction and refining to make jet fuel as well as any emissions related to the transportation of the oil and refined jet fuel. The life cycle GHG emissions factor for jet fuel from the June 2019 CORSIA Life Cycle Assessment Methodology was used for this calculation. To calculate emissions from T&D losses in the United States, American uses the EPA's eGRID loss factors for generation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of our value chain did not identify any Category 4 upstream transportation and distribution emissions.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,530

Emissions calculation methodology

Emissions are calculated using spend data. Emission factors are from the U.S. EPA Office of Research and Development, Supply Chain GHG Emission Factors for US Industries and Commodities. These factors are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions. The supply chain emission factors are presented in units of kilogram emissions per US dollar of purchases for a category of goods and services with a defined life cycle scope. The specific factors used in the calculations represent the detailed industry factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

58,444

Emissions calculation methodology

Emissions are calculated using spend data. Emission factors are from the U.S. EPA Office of Research and Development, Supply Chain GHG Emission Factors for US Industries and Commodities. These factors are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions. The supply chain emission factors are presented in units of kilogram emissions per US dollar of purchases for a category of goods and services with a defined life cycle scope. The specific factors used in the calculations represent the detailed industry factors. American's expenditures related to business travel include crew hotel blocks, hotel stays related to training, and other business travel such as ground transportation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

222,618

Emissions calculation methodology

American uses the Scope 3 Evaluator tool developed by Quantis and the Greenhouse Gas Protocol to estimate emissions related to employee commuting. American used the average emissions per employee for commuting calculated in the Tool (and based on 2014 US Department of Transportation data) and applied it to the actual number of employees at American to determine the estimated emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

51,583

Emissions calculation methodology

To calculate emissions from leased facilities not included in Scope 1 and Scope 2, American collects the energy consumption for heating and electricity at each facility and converts to emissions using emissions factors from the EPA Emissions Factor Hub, eGrid 2019, and the International Energy Agency.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

10,818

Emissions calculation methodology

American identified cargo trucked by third party service providers to and from our airport cargo facilities and customer locations as a Category 9 Downstream Transport Scope 3 emissions source. American used the total ton-miles of trucked cargo by third parties and multiplied it by the average emissions per ton-mile from the Environmental Protection Agency.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of its value chain did not identify any emissions associated with Category 10 Processing of sold products. American is a service provider and does not offer products.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of its value chain did not identify any emissions associated with Category 11 Use of sold products. American is a service provider and does not offer products.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of its value chain did not identify any emissions associated with Category 12 End of life treatment of sold products. American is a service provider and does not offer products.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of its value chain did not identify any downstream leased assets or associated Category 13 downstream leased asset emissions.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

American does not own franchises and therefore there are no applicable franchise emissions.

Investments

Evaluation status

Relevant, calculated

Metric tonnes CO2e

332,361

Emissions calculation methodology

American recently invested in China Southern Airlines. American uses the Scope 3 Evaluator tool developed by Quantis and the Greenhouse Gas Protocol to estimate emissions associated with Category 15 Investments. The tool multiplies the dollar amount of our investment by a Tool factor based on “a 2009 world multiregional estimate of average environmental impacts by region-sector combined with global warming potential impact assessment”.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of its value chain did not identify any other upstream Scope 3 emissions.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

American's qualitative review of its value chain did not identify any other downstream Scope 3 emissions.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	24	American Airlines consumed 381,007 gallons of sustainable aviation fuel in 2020, which accounts for 24 metric tonnes of CO2 equivalent

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.001158906

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

20,091,949

Metric denominator

unit total revenue

Metric denominator: Unit total

17,337,000,000

Scope 2 figure used

Location-based

% change from previous year

28

Direction of change

Increased

Reason for change

The COVID-19 pandemic significantly impacted the airline industry. Due to COVID, American experienced a significant decrease in demand as well as a decrease in emissions due to reduced jet fuel consumption. While absolute Scope 1+2 GHGs decreased 51.5%, American reported total operating revenues decreased 62% as compared to 2019. Because revenue decreased more significantly than emissions as a result of the pandemic impacts, this intensity increased in 2020.

C-TS6.15

(C-TS6.15) What are your primary intensity (activity-based) metrics that are appropriate to your emissions from transport activities in Scope 1, 2, and 3?

Aviation

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

0.002

Metric numerator: emissions in metric tons CO2e

19,834,198

Metric denominator: unit

t.mile

Metric denominator: unit total

9,914,113,024

% change from previous year

22.9

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

American's aviation Scope 1 emissions includes emissions associated with jet fuel from American's mainline and owned regional operations. It excludes any emissions from ground operations and from the maintenance of aircraft. These aviation-related emissions represent over 99% of our total Scope 1 emissions. Overall GHG intensity increased significantly in 2020 as a result of the COVID 19 pandemic's impact on the aviation industry. Revenue decreased more than emissions in 2020, driven by the 62% reduction in revenue passenger miles flown.

ALL

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

0.002

Metric numerator: emissions in metric tons CO2e

19,834,198

Metric denominator: unit

t.mile

Metric denominator: unit total

9,914,113,024

% change from previous year

22.9

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

American's aviation Scope 1 emissions includes emissions associated with jet fuel from American's mainline and owned regional operations. It excludes any emissions from ground operations and from the maintenance of aircraft. These aviation-related emissions represent over 99% of our total Scope 1 emissions. Overall GHG intensity

increased significantly in 2020 as a result of the COVID 19 pandemic's impact on the aviation industry. Ton miles decreased much more than emissions in 2020, driven by the 62% reduction in revenue passenger miles flown.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	19,680,133	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	76,893	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	44,213	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	32,959	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Caribbean	374,071
Europe	1,935,340
Asia Pacific (or JAPA)	776,129
Latin America (LATAM)	1,935,515
North America	127,519
United States of America	14,685,625

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
American Airlines mainline operations based in Ft Worth, TX	16,814,105
Envoy Airlines, American's regional affiliate based in Irving, TX	1,484,209
PSA Airlines, American's regional affiliate based in Vandalia, OH	1,237,507
Piedmont Airlines, American's regional affiliate based in Salisbury, MD	298,377

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Transport services activities	19,834,198	All of American Airlines' activities and emissions fall within the transport services sector.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	256,657	249,112	573,604	53,351
Latin America (LATAM)	706	706	7,839	0
Asia Pacific (or JAPA)	135	135	597	0
Europe	253	253	1,513	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
American Airlines mainline operations based in Ft Worth, TX	251,491	244,052
Envoy Airlines, American's regional affiliate based in Irving, TX	5,935	5,829
PSA Airlines, American's regional affiliate based in Vandalia, OH	84	84
Piedmont Airlines, American's regional affiliate based in Salisbury, MD	241	241

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport services activities	257,751	250,206	All of American Airlines’ activities and emissions fall within the transport services sector.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	651	Decreased	0.002	American purchased Renewable Energy Credits (RECs) to offset purchased electricity consumption at its Texas headquarters location. While overall the decrease accounts for less than a 1% reduction of total gross Scope 1 and 2 GHGs, American decreased its Scope 2 (Market Based) emissions by 8.79% from 2019 to 2020. In 2020, the purchase of RECs resulted in a reduction of 22,447 tCO2e, an increase of 651 tCO2e from 2019. Total 2019 scope 1 and 2 GHG emissions were 41,417,820 tCO2e. Therefore, we arrived at a 0.002% reduction attributable to a change in renewable energy consumption through (651/ 41,417,820)* 100 = -0.002% (i.e., a 0.002% decrease in GHG emissions).
Other emissions reduction activities	85,900	Decreased	0.21	American implemented several emission reduction initiatives in 2020, as reported in 4.3b (totaling 85,900 MTCO2e reduced). These activities resulted in a decrease in emissions for scope 1 and 2. Total 2019 scope 1 and 2 GHG emissions were 41,417,820 tCO2e. Therefore, we arrived at a 0.21% reduction attributable to these activities through (85900/ 41,417,820)* 100 = -0.21%
Divestment	0	No change	0	There was no change in emissions value percentage for this category.

Acquisitions	0	No change	0	There was no change in emissions value percentage for this category.
Mergers	0	No change	0	There was no change in emissions value percentage for this category.
Change in output	21,261,115	Decreased	51.31	Jet fuel consumption, our largest contributor to GHG emissions, decreased 50.2% in 2020 as a result of cancelled flights due to the COVID-19 pandemic and its impact on the industry: a drastic reduction in demand. Due to this reduced output from reduced demand, Scope 1+2 GHG emissions decreased overall 51.52% year over year, or -21,347,666.00 tonnes CO2e, with the majority of that (21.2 million MT CO2e) resulting from this change in output.
Change in methodology	0	No change	0	There was no change in emissions value percentage for this category.
Change in boundary	0	No change	0	There was no change in emissions value percentage for this category.
Change in physical operating conditions	0	No change	0	There was no change in emissions value percentage for this category.
Unidentified	0	No change	0	There was no change in emissions value percentage for this category.
Other	0	No change	0	There was no change in emissions value percentage for this category.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 10% but less than or equal to 15%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	13,598	75,101,473	75,115,071
Consumption of purchased or acquired electricity		53,351	530,202	583,553
Total energy consumption		66,949	75,631,675	75,698,624

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application

Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Jet Kerosene

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

74,364,850

Emission factor

9.49

Unit

kg CO2e per gallon

Emissions factor source

WRI Greenhouse Gas Protocol for emissions factors and AR5 for Global Warming Potential

Comment

American uses the weighted mean net heat combustion of jet fuel as measured by the Petroleum Quality Information System (PQIS) survey.

Fuels (excluding feedstocks)

Natural Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

413,941

Emission factor

53.06

Unit

metric tons CO2e per million Btu

Emissions factor source

The EPA GHG Emissions Factor Hub for emissions factors and AR5 for GWP.

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

213,245

Emission factor

8.78

Unit

kg CO2e per gallon

Emissions factor source

The EPA GHG Emissions Factor Hub for emissions factors and AR5 for Global Warming Potential

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

118,817

Emission factor

10.21

Unit

kg CO2e per gallon

Emissions factor source

The EPA Emissions Factor hub for emissions factors and AR5 for Global Warming potential

Comment

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

3,344

Emission factor

75.1

Unit

metric tons CO2e per million Btu

Emissions factor source

The EPA Emissions Factor Hub for emissions factors and AR5 for GWP.

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

875

Emission factor

5.68

Unit

kg CO2e per gallon

Emissions factor source

The EPA Emissions Factor Hub for emissions factors and AR5 for GWP.

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type

Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United States of America

MWh consumed accounted for at a zero emission factor

53,351

Comment

C-TS8.5

(C-TS8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Aviation

Metric figure

0.00776

Metric numerator

MWh

Metric denominator

Revenue-ton.mile

Metric numerator: Unit total

76,944,730

Metric denominator: Unit total

9,914,113,024

% change from last year

28.5

Please explain

American set a target to improve its efficiency as measured/ tracked by CO2 emissions from jet fuel per revenue ton mile (the measure of emissions from revenue-generating passenger and cargo services, by weight, that we provide).

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-TO9.3/C-TS9.3

(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Activity

Aviation

Metric

Fleet adoption

Technology

Other, please specify

Latest generation and airframe and engine technology

Metric figure

15.1

Metric unit

Other, please specify

Percent of mainline seats that are on the latest generation of aircraft, which includes Airbus 321neo, Boeing 737MAX, 787-8 and 787-9 aircraft types.)

Explanation

Emissions associated with jet fuel are American's major source of GHG emissions. This metric tracks the performance of American's fleet renewal program in which it is acquiring new aircraft with the latest generation of technology and improved fuel efficiency, while retiring its oldest and least efficient aircraft. This effort will have the

greatest near-term impact on emissions since these new aircraft are up to 20% more fuel efficient than the previous generation of aircraft.

Activity

Aviation

Metric

Fleet adoption

Technology

Other, please specify

Electric powered ground support equipment (GSE)

Metric figure

23

Metric unit

Other, please specify

Percent of ground support equipment (GSE) that is electric powered

Explanation

American's second largest source of direct GHG emissions comes from the numerous pieces of ground support equipment (GSE) needed to support our operations, such as baggage carts, cargo loaders, pushout tractors, etc. In the past, most of our GSE was either diesel or gasoline powered, but now there are electric versions available for many categories of GSE. Electric GSE produce significantly less GHGs that either the diesel or gasoline powered versions. This metric measures the percent of our GSE fleet that has transitioned to lower-carbon electric power.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-TO9.6a/C-TS9.6a

(C-TO9.6a/C-TS9.6a) Provide details of your organization's investments in low-carbon R&D for transport-related activities over the last three years.

Activity

Aviation

Technology area

Airframe

Stage of development in the reporting year

Large scale commercial deployment

Average % of total R&D investment over the last 3 years

≤20%

R&D investment figure in the reporting year (optional)

Comment

As part of American Airlines' large-scale fleet renewal initiative, we have spent the equivalent of roughly 9% of our total cumulative operating expenses over the past three years towards purchasing more fuel-efficient aircraft.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

AAG_EY2020_VerificationStatement_s2.pdf

Page/ section reference

1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

AAG_EY2020_VerificationStatement_s2.pdf

Page/ section reference

1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

AAG_EY2020_VerificationStatement_s2.pdf

Page/ section reference

1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

AAG_EY2020_VerificationStatement_s2.pdf

Page/section reference

1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

1

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2020

Period end date

December 31, 2020

Allowances allocated

0

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

162

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Other, please specify

Flights within the EFA

Comment

American does not have any scheduled flights within the EEA. Our only emissions that fall within the EU ETS are from flights that are diverted due to in-flight medical emergencies, mechanical issues or weather-related issues. During the reporting period, American was not allocated any allowances, but submitted 162. However, American did not purchase any allowances and instead used our existing bank of allowances.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

We anticipated being regulated by the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which will require airlines to offset the growth in international emissions from 2021 through 2035. In 2019, as the period of CORSIA compliance drew near, the Sustainability Steering Committee determined that American needed to develop in the short-term greater expertise in the trading and management of carbon offsets to prepare for our compliance responsibilities. With direction from the Committee, American formed a task force to strengthen our expertise in the offset markets, explore trading options and evaluate potential offset programs and partners. In 2020, the task force reported back to the Committee with a series of recommendations, which included a proposal to purchase high quality, verified carbon offsets from a set of reputable sellers, starting in 2021. The Committee also asked the task force to continue to report to the Committee and senior management quarterly on the state of the voluntary carbon offset market, the options available to American that meet our requirements for quality and price, and how the company can further develop and refine its strategy in this area over the next few years.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Run a campaign to encourage innovation to reduce climate impacts on products and services

% of suppliers by number

1

% total procurement spend (direct and indirect)

32

% of supplier-related Scope 3 emissions as reported in C6.5

50

Rationale for the coverage of your engagement

American's largest source of emissions is related to the consumption and production of jet fuel. To support the development of low carbon SAF to replace jet fuel, and to encourage increased efficiency in the aircraft equipment that consumes jet fuel, American ran a campaign in 2020 to encourage our fuel suppliers and airframe/engine manufacturers to partner with us in developing new technologies that can reduce our emissions and resulting climate impacts. We selected these suppliers because they represent at least half of our Scope 3 emissions related to jet fuel and are some of our largest suppliers by spend.

Impact of engagement, including measures of success

This is the beginning of a long-term campaign for innovation, as the transition to increased production of fuel-efficient equipment and increased market availability of affordable SAF will take many years. Our immediate measure of success is whether our engagement with our suppliers has resulted in advocacy in the market, and as part of our campaign in 2020, we were able to encourage several of our suppliers to join the SAF Blender's Tax Credit (BTC) Coalition as advocates with federal policymakers for increased policy support SAF. As a result of this engagement and the work that

followed, in early 2021, several Members of the U.S. House of Representatives introduced the Sustainable Skies Act, which aims to create a tax credit to encourage blending of SAF.

Another result of our engagement with suppliers was an agreement American reached with Neste in 2020 to purchase nine million gallons of low carbon SAF from Neste over three years. While this purchase represents a small percentage of our total jet fuel procurement, it is intended to help facilitate the further development in SAF supply by Neste and other producers. In 2020, we reduced 3,590 metric tons of CO2 using SAF, and aim to increase this number over time to meet our carbon reduction goals. We continue to meet with other fuel producers to educate them about the demand for SAF and encourage their participation in this new market. Our long-term measures for success from this engagement will be definitive agreements made between us and our individual suppliers to develop specific new technologies tackling increased efficiency. Long-term measures of success also include whether this engagement results in an increase in production and availability of cost-competitive SAF and the amount of emissions avoided through SAF use in our operations.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

In 2020, during the COVID-19 pandemic and even as corporate travel declined significantly, our corporate customers continued to ask us about our emissions reduction strategy, policies and practices. In 2020, we added information about our net zero 2050 target and our strategy for reaching that goal to our materials for Quarterly Business

Reviews (QBRs) with 100% of our corporate customers. We also provided training to all of American's corporate sales account managers to prepare them to discuss American's climate strategy with their corporate accounts. As part of the discussion in the QBRs in 2020 and early 2021, account managers raised with their corporate accounts the idea of purchasing from American the emissions reduction value of the sustainable aviation fuel that is a core component of our near, mid and long-term climate strategy.

Impact of engagement, including measures of success

As a result of the deepened customer engagement on climate change in the QBR sessions, American began work on transactions with two major customers in 2020, which were completed in early 2021. These transactions will reduce the customers' combined Scope 3 emissions by 31,550 metric tons of CO2. The purpose of both of these actions – purchasing SAF and signaling demand through transactions with our customers – is to boost the production and availability of SAF. The quantity of SAF sold and the total emissions reductions associated with SAF sold to our customers are our measures of success for our corporate client engagements.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support	American participated in industry efforts to craft an acceptable carbon offset program for international aviation emissions as part of ICAO's CORSIA (Carbon Offset and Reduction Scheme for International Aviation) initiative.	Offset growth in emissions from international flights.
Energy efficiency	Support	American participated with our domestic and international industry associations in efforts that supported efforts to establish a carbon emissions standard for new aircraft.	New aircraft will be subject to carbon emissions and fuel efficiency standards.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

International Air Transport Association (IATA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IATA recognizes the need to address the global challenges of climate change and has adopted a set of ambitious targets to mitigate GHG emissions from air transport. Those targets include (1) 1.5% annual average improvement in fuel efficiency from 2009 to 2020; (2) a cap on net aviation GHG emissions from 2020 (carbon-neutral growth); and (3) a reduction in net aviation GHG emissions of 50% by 2050, relative to 2005 levels.

How have you influenced, or are you attempting to influence their position?

American's head of ESG serves on IATA's Sustainability and Environment Advisory Council (SEAC), which advises the Board of Governors, the IATA Director General, and other IATA bodies on all matters related to the sustainable development of aviation. SEAC acts as the focal point within IATA on sustainability and environment issues. American regularly engages with IATA through SEAC and at the CEO level to make sure that the airline industry is positioned correctly and with sufficient ambition on climate issues.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Engagement in the policymaking process is important to the success of American Airlines. As a global airline, our Company is subject to numerous laws and regulations that govern various aspects of our business in the United States and around the world. We are committed to participation in policy processes in a manner consistent with exemplary corporate governance practices. The Corporate Governance and Public Responsibility Committee of our Board of Directors oversees our approach to public policy engagement, including those related to climate change. This Committee, which is comprised entirely of independent directors, receives and reviews regular updates on our policy advocacy efforts, including our memberships in trade organizations such as Airlines for America (A4A) and the International Air Transport Association (IATA), at least annually. The Committee also oversees the company's climate change strategy and implementation and works cross-functionally to ensure climate change engagement activities are consistent across business divisions and geographies. This

organization and leadership team help focus our public policy engagement on the issues most relevant to the long-term interests of our Company, team members, customers and shareholders.
Our membership in trade and industry associations, such as A4A and IATA, allows us to gain insight into core issues for the airline industry and the business community and to advocate jointly for public policies that support an efficient, healthy, competitive industry and business environment. Representatives of American participate in A4A and IATA environmental and sustainability committees that are responsible for advancing the industry's emissions reductions goals, developing advocacy strategies to advances those goals, and monitoring climate change regulations that may impact the aviation industry. For example, earlier this year, our Chairman and CEO Doug Parker worked with the other airline leaders in A4A to adopt more ambitious climate change goals. In March 2021, based on support from member airline CEOs, A4A announced two new goals: to reach net zero emissions by 2050 and to work with policymakers to scale the market for sustainable aviation fuel (SAF) to enable airlines to fly on 2 billion gallons SAF by 2030. Our continued membership and participation in our trade associations, including our contributions to the development and support of CORSIA, is one of the ways American Airlines ensures that our business activities on policy are consistent with our company's climate change strategy and the aviation industry more broadly.
Because some of these associations represent a broad range of companies and industries, instances may arise where an association's positions on certain issues may diverge from our views. When that occurs, we engage directly with the association to understand their point of view, to communicate our own view and to attempt to find common ground. We regularly assess the value of all of our trade and industry association memberships to ensure that they are providing the best possible value to the Company and all of our stakeholders and to assess whether any lack of alignment on key issues – including climate change – merit a change in our relationship with any organization and/or our approach to how our activities can influence policy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Underway – previous year attached

Attach the document

aag-esg-report-2019-2020.pdf

Page/Section reference

20

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

In October 2020, American Airlines published its first TCFD-aligned annual sustainability report (for 2019), disclosing our climate change and GHG emissions performance for public stakeholders to review in a user-friendly format. The content included our approach to climate-related governance, strategy, risks and opportunities, and metrics and targets. Emission figures and other relevant environmental, social and governance metrics were included in that report and are also available at www.aa.com/esg. American is currently updating that information for publication in August/September 2021.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President, American Airlines Group and American Airlines	President

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	17,337,000,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	02376R1023

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Accenture

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

13,362

Uncertainty (±%)

2

Major sources of emissions

Jet fuel

Verified

Yes

Allocation method

Allocation based on the energy content of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

Accenture

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

173.6

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member
Accenture

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
6,517.2

Uncertainty (±%)
25

Major sources of emissions
emissions associated with production of jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member
AstraZeneca

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,859

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

AstraZeneca

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

24.2

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

AstraZeneca

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

906.7

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Bank of America

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
8,934

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member
Bank of America

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
116.1

Uncertainty (±%)
10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Bank of America

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

4,357.5

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member
Bank of Montreal

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
440.5

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member
Bank of Montreal

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
5.7

Uncertainty (±%)
10

Major sources of emissions
electricity

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member
Bank of Montreal

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
214.9

Uncertainty (±%)
25

Major sources of emissions
production of jet fuel

Verified
Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Cisco Systems, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

3,368

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

Cisco Systems, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

43.8

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Cisco Systems, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,642.7

Uncertainty (±%)
25

Major sources of emissions
production of jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member
Deloitte Touche Tohmatsu Limited

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
23,891

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

Deloitte Touche Tohmatsu Limited

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,234.1

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Deloitte Touche Tohmatsu Limited

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

46,320.6

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Givaudan SA

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Verified

Yes

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Requesting member

Givaudan SA

Scope of emissions

Scope 2

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

electricity

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity.

However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Givaudan SA

Scope of emissions

Scope 3

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Goldman Sachs Group Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
5,771

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member
Goldman Sachs Group Inc.

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
75

Uncertainty (±%)
10

Major sources of emissions
electricity

Verified
Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Goldman Sachs Group Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

2,814.8

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Grupo Bimbo, S.A.B. de C.V.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

528.1

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

Grupo Bimbo, S.A.B. de C.V.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

6.9

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Grupo Bimbo, S.A.B. de C.V.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

257.6

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

HP Inc

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

554.6

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

HP Inc

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

7.2

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

HP Inc

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

270.5

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

L'Oréal

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

941

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

L'Oréal

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

12.2

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

L'Oréal

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
459.8

Uncertainty (±%)
25

Major sources of emissions
production of jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member
MetLife, Inc.

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
573.6

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

MetLife, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

7.5

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

MetLife, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

279.8

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

NRG Energy Inc

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

282

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

NRG Energy Inc

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

3.7

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

NRG Energy Inc

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

137.5

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

TD Bank Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

446

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

TD Bank Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

5.8

Uncertainty (±%)

10

Major sources of emissions
electricity

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member
TD Bank Group

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
217.5

Uncertainty (±%)
25

Major sources of emissions
production of jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member
Verizon Communications Inc.

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
2,497

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member
Verizon Communications Inc.

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
32.4

Uncertainty (±%)
10

Major sources of emissions
electricity

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member
Verizon Communications Inc.

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
1,217.9

Uncertainty (±%)
25

Major sources of emissions
jet fuel

Verified
Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Wells Fargo & Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

7,339

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

Wells Fargo & Company

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

95.4

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Wells Fargo & Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

3,579.6

Uncertainty (±%)
25

Major sources of emissions
production of jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member
World Bank Group

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
53

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

World Bank Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0.7

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

World Bank Group

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

25.9

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Xylem Inc

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

773.8

Uncertainty (±%)

2

Major sources of emissions

jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member

Xylem Inc

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

10.1

Uncertainty (±%)

10

Major sources of emissions

electricity

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity.

However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Xylem Inc

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

377.4

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

Requesting member

Zimmer Biomet Holdings, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
857

Uncertainty (±%)
2

Major sources of emissions
jet fuel

Verified
Yes

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Jet fuel use , which makes up 99% of Scope 1 emissions, is closely tracked and is reconciled to purchases made. Estimates were made for some of the other emissions, such as fuel for ground service equipment.

Requesting member
Zimmer Biomet Holdings, Inc.

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
11.1

Uncertainty (±%)
10

Major sources of emissions
electricity

Verified
Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

American utilizes a service to collect and manage all utilities, including electric bills, which is used to estimate Scope 2 emissions related to the production of electricity. However, not all airports provide details of the electricity use of their tenants. At those locations, electricity use was estimated based on the space rented.

Requesting member

Zimmer Biomet Holdings, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

418

Uncertainty (±%)

25

Major sources of emissions

production of jet fuel

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions associated with the production of jet fuel are estimated based on industry default valuates (from CORSIA) for the life cycle emissions of jet fuel, less American's Scope 1 emissions related to jet fuel. Additional Scope 3 categories are estimated using EPA default factors for each product and service purchased.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

IATA Recommended Practice 1678 was used to allocate emissions between passenger and cargo customers

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	American uses the industry standard emissions allocation methodology developed by the International Air Transport Association

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

American plans to further improve its carbon footprint methodology by developing emission factors by market, aircraft, and cabin

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO2e savings

Estimated payback

Details of proposal

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms