

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, the airlines operate 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 oneworld alliance, whose members and members-elect serve nearly 1,000 destinations with 14,250 daily flights to 150 countries.

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	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	Yes	2 years

C0.3

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

Argentina
 Brazil
 China, Hong Kong Special Administrative Region
 Japan
 United Kingdom of Great Britain and Northern Ireland
 United States of America

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas 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	The Corporate Governance and Nominating Committee of the Board of Directors oversees the Company's environmental and social sustainability efforts, including sustainability related issues, such as climate change. This committee meets twice a year.

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
Sporadic - as important matters arise	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding business plans Other, please specify (Reviewing goals)	

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
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).

This committee is made up of representatives from various functions, including Safety and Environmental, Operations and Crew Performance, Government Affairs, People and Communications, Legal and Investor Relations.

C1.3

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

Yes

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).

Who is entitled to benefit from these incentives?

Management group

Types of incentives

Monetary reward

Activity incentivized

Other, please specify

Comment

Most managers are eligible for annual incentive pay based on company financial performance. Jet fuel consumption is the leading source of American's GHG emissions and is one of American's largest categories of expense. By helping reduce fuel consumption and its associated emissions, the management team can increase profits and their annual incentive pay.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Other non-monetary reward

Activity incentivized

Efficiency target

Comment

American has a program that contributes to a non-profit organization that helps veterans in times of need when a target is met to reduce Auxiliary Power Unit (APU) usage. Reducing APU usage, which reduces fuel consumption and associated emissions, requires the coordination of many employee groups. All employees benefit from the satisfaction that their efforts are not only helping the environment, but also helping veterans.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term 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	16	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 base line

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

American Airlines manages climate change risks and opportunities on two fronts. First, the process for assessing the physical risks related to climate change, primarily weather events, is integrated into our operational review and is part of the process in place to identify how weather impacts the performance of our operations. The primary focus of this risks relates to how these climate change risks will impact our customer and their experience with traveling on American. Second, the process for assessing other risks related to climate change, including reputational risks, regulatory risks, and others, is managed by the Corporate Responsibility Steering Committee. This committee is represented by relevant stakeholders including Government Affairs, which participates in the airline industry's domestic trade organization (Airlines for America) and international trade organization (International Air Transport Association) environmental committees. The primary focus of these risks relates to the potential financial impact proposed regulations could have on American. These could be driven by additional taxes or fees associated with carbon emissions or an increase in cost associated with enhanced or new equipment (aircraft or ground equipment) that would be necessary to comply with the proposed regulations.

C2.2c

(C2.2c) Which of the following 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 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. Subsequent changes to the scope of the ETS substantially reduced our financial exposure. Airline 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 Climate Change Working Group 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, preempting unilateral and duplicative taxes, charges and emissions trading schemes. However, most recently, both Sweden and the Netherlands proposed carbon emissions-based passenger taxes. We believe these taxes violates the intention that CORSIA serve as the single, global market based measure to address carbon emissions and we support efforts to push back on these proposals. Our Climate Change Working Group 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 be cost 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. 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 the sustainable alternative jet 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 operations, potential legal issues are always a consideration in our risk assessments, including climate-change related risk assessments.
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. As part of our efforts to manage this risk, earlier this year American surveyed passengers on their concerns about the carbon emissions of air travel. The survey captured the tier 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 with additional taxes and fees 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 their 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 try to mitigate its safety risk.
Chronic physical	Relevant, always included	Chronic physical events, such as extreme heat, can affect the safety of our employees, especially those that work outside. As such, this risk is often included in any safety risk assessments related to employees that 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.
Upstream	Relevant, always included	Jet fuel is a critical upstream commodity in our supply chain. Since jet fuel is a major source of GHGs, there are climate change risks related to this industry, especially with respect to emerging regulations. New regulations, such as a carbon tax on the life-cycle emissions of jet fuel, have the potential to make our existing suppliers of jet fuel less competitive than other suppliers.
Downstream	Relevant, always included	The destinations to which we fly represent the downstream "products" in our value chain. Changes in demand to the destinations to which we fly due to the effects of climate change could have an impact on the profitability of these routes and the revenue we generate on these flights. For example, American flies to several ski destinations during winter, such as Vail, Aspen, Hayden/Steamboat Springs, and Jackson Hole. Changes in snowfall and/or temperature to these destinations will have a direct impact on passenger demand to these destinations. Our Network Planning department reviews past profitability of these routes to determine whether changes to our existing service are warranted.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

American is forming an Emissions Risk Analysis group as part of its Safety/Risk Management System which will have oversight of issues related to GHGs and climate change.

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

Physical risk

Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

Company- specific description

Changes in precipitation patterns will 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 will be stopped until the weather passes. American's on-time dependability decreases and cancellations increase during these weather events, especially when these weather events occur at our hub operations. For example, a recent storm event in north Texas caused almost 300 delayed flight at our DFW hub. Delayed flights can result in additional APU fuel burn, crew reserve costs, customer impacts (goodwill) and down-line impacts. Airline for America estimates that a 30 minute delay can result in over \$2,000 in additional direct and indirect cost to an airline.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

50000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We estimate that a major weather event can cost American tens of millions of dollars. Hurricane Florence in 2018 had a negative

impact to pretax earnings of approximately \$50 million. This amount primarily includes the revenue lost from passengers whose flights were cancelled and could not be re-accommodated.

Management method

Weather impacts on flight dependability are closely tracked and monitored and management is focused on continuously improving our dependability. American continuously seeks out opportunities to improve dependability and mitigate the impact of changes to weather patterns. For example, 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, resulting in improved reduced arrival delays, and reduced fuel and emissions. American is also developing software tools to assist customers affected by weather. For example, customers impacted by weather can now use their preferred electronic device to select new routings and re-book themselves without talking with an agent.

Cost of management

5000000

Comment

We estimate the cost to manage operational disruptions due to weather events at \$5 million, which includes the salary and related costs of management 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 on operational disruptions.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Rising sea levels

Type of financial impact

Increased capital costs (e.g., damage to facilities)

Company- specific description

Much of the refinery infrastructure for producing jet fuel is located in the Houston area, which is located just above sea-level near the Gulf of Mexico. Rising sea levels could cause flooding that would impact this critical part of American's supply chain. In addition to closing the refineries that produce jet fuel, flooding could also disrupt the pipelines that are used to transport jet fuel from the refineries to airports.

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, a single figure estimate

Potential financial impact figure (currency)

2800000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

If flooding interrupts the fuel supply at an airport, American has to tanker fuel, or double provision the fuel by loading enough fuel for its return trip, into the airport. Tankering fuel causes extra fuel burn due to the extra weight of the fuel. Flooding from Hurricane Harvey resulted in several airports without sufficient fuel. As a result, American had to tanker over 33,000 of its flights from August through September of 2017. The heavier weight from the extra fuel cost American \$2.8 million in additional fuel burn. In addition to the additional cost incurred to tanker fuel, there are likely additional financial impacts that are more difficult to estimate. For

example, tankering fuel may not be an option for some city pairs due to the distance of the flight and/or aircraft capability. In these circumstances, the flights would likely be cancelled, resulting in lost revenue.

Management method

American's Fuel Purchasing department helps manage this risk by, if possible, increasing fuel inventories at locations when weather forecasts indicate could be affected by severe weather events. This helps reduce the operational impact if weather contributes to limitations on an airport's fuel supply.

Cost of management

80000

Comment

The estimated cost to manage this risk includes the carrying cost of maintaining higher than optimal fuel inventory levels and potential premiums paid to expedite deliveries.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Rising mean temperatures

Type of financial impact

Reduced revenues from lower sales/output

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. Rising temperatures could mean that an American flight is not able to take all of the planned passengers and/or cargo. Aircraft also have maximum temperatures at which they can take-off. Under extreme conditions, flights may be cancelled or delayed until the temperature drops below the aircraft's maximum temperature. For example, record temperatures of up to 120 degrees at American's Phoenix hub in June 2017 resulted in the cancellation of 60 regional flights operated by Bombardier CRJ aircraft because this aircraft type has a maximum take-off temperature limit of 118 degrees. Rising mean temperatures also presents a risk to our employees, such as ground agents and aircraft mechanics who work outdoors or in hangars that are not air-conditioned during summer months. Hot and humid weather increases the likelihood of dehydration.

Time horizon

Current

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

540000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We estimate the cost to cancel 60 flights due to extreme heat is \$540,000. This amount includes the lost revenue from passengers that could not be re-accommodated and other costs related to flight cancellations.

Management method

As part of our effort to manage this risk, American re-evaluated aircrafts' maximum temperature limits and worked with aircraft manufacturers to increase the limits where feasible. For example, after a 10-month review process American was able to increase

the maximum temperature of the CRJs from 118 degrees to 124 degrees which will help reduce future cancellations due to extreme heat. We also have initiatives to reduce the risk of employee injuries due to heat issues, which include employee communications on the importance of hydration, and mobile hydration carts that circulate in areas where employees are working outside during the summer months.

Cost of management

0

Comment

The initiatives mentioned were completed without any incremental headcount. Therefore we do not estimate any additional costs associated with managing this risk.

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 lower-emission sources of energy

Type of financial impact

Reduced operational costs (e.g., through use of lowest cost abatement)

Company-specific description

American is in the midst of the most extensive fleet renewal program in aviation history. Over the past years, the average age of American's fleet has decreased to 10 years, the lowest of any major U.S. carrier. Aircraft like the Boeing 787 Dreamliner improve fuel efficiency by up to 20 percent over similarly sized aircraft. By the end of 2018, American took delivery of 40 Boeing 787 aircraft and we have another 49 on order.

Time horizon

Current

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)

<Not Applicable>

Potential financial impact figure – minimum (currency)

170000000

Potential financial impact figure – maximum (currency)

340000000

Explanation of financial impact figure

More efficient aircraft help American reduce fuel cost. In 2018, American spent about \$10.4 million per aircraft in fuel expense. Over the next 3 years American has delivery orders for 164 new aircraft that are about 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 delivery could reduce American's fuel expense by \$170 million to \$340 million annually.

Strategy to realize opportunity

As part of American's fleet renewal strategy, we take delivery of new aircraft to replace older aircraft that are retired and to account 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 invested more than \$18 billion to introduce nearly 500 new aircraft into our fleet while retiring 469 older aircraft. We currently have almost 280 aircraft on order, including 164 orders with deliveries scheduled within the next 3 years.

Cost to realize opportunity

6000000000

Comment

Over the past five years American invested more than \$18 billion to introduce nearly 500 new aircraft into our fleet. Assuming a similar cost per aircraft, American would need to invest approximately \$6 billion for the 164 aircraft that are scheduled to be delivered.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Supply Chain

Opportunity type

Energy source

Primary climate-related opportunity driver

Participation in carbon market

Type of financial impact

Reduced operational costs (e.g., through use of lowest cost abatement)

Company-specific description

The carbon offset market gives American and the aviation industry the opportunity to grow international flights and emissions without growing associated net emissions. With the benefit of the Carbon Offset and Reduction Scheme for International Aviation (CORSIA) adopted by the International Civil Aviation Organization (ICAO), the aviation industry will be able to grow international service without any additional net impact to its carbon footprint. We believe this market-based measure will help the industry and American avoid more punitive carbon abatement programs that would otherwise have been needed to reduce the climate impact from growth in international emissions. Starting in 2021, American will use carbon markets to purchase the offsets required to cover the industry's average GHG emissions growth.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

265000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

There is significant uncertainty as to how much it would cost to cap American's growth in international emissions however some general assumptions can be made to give a framework as to the possible magnitude of financial impact to American. For example, if it is assumed that a third of American's 40.3 million metric tonnes of direct emissions are from its international service, and it is assumed that a \$20 per tonne price of carbon is needed to reduce demand for international flights so that emissions are capped, then American would need to spend \$265 million annually to cap emissions.

Strategy to realize opportunity

American supports the adoption of CORSIA as the single, global market-based measure for addressing international aviation GHG emissions.

Cost to realize opportunity

0

Comment

As part of its strategy to take advantage of carbon offset markets to offset international emission growth, American has assigned an internal team to develop market expertise in this area. The team will develop this expertise through industry events, discussions with our existing suppliers that may be able to assist us in this area, and discussions with potential suppliers that have expertise with carbon offsets.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Supply Chain

Opportunity type

Markets

Primary climate-related opportunity driver

Use of public-sector incentives

Type of financial impact

Other, please specify (Value of financial incentives to develop a market for low carbon fuel)

Company-specific description

Concerns about climate change may encourage government agencies to incentivize low carbon alternatives to traditional jet fuel. For example, in 2018 the State of California allowed low carbon jet fuel to opt into the State's Low Carbon Fuel Standard (LCFS). The State of Oregon also recently passed a similar LCFS program that would allow low carbon jet fuel to opt-in to the program. This legislation has the potential to reduce the cost premium for sustainable low carbon jet fuel, which would help American reduce its carbon footprint and diversify its supply of jet fuel.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4500000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Incentives could benefit American by \$4.5 million annually assuming we purchase 3 million gallons of low carbon jet fuel annually and assuming the LCFS provides a \$1.50 per gallon benefit due to the reduced carbon content of the fuel.

Strategy to realize opportunity

American's Emissions Risk Analysis group has a two part strategy to take advantage of low carbon jet fuels. First, we monitor

potential legislation at the local, state, and national level through our Government Affairs department and through our membership with industry organizations. To promote opportunities, we express our support for efforts that we think will help promote the adoption of cost competitive low carbon fuels. Second, we continue to meet with existing and potential low carbon jet fuel producers to identify potential opportunities where incentives can be used to purchase cost competitive low carbon jet fuel.

Cost to realize opportunity

0

Comment

To date, American has not incurred any direct cost to implement our strategy. While there may be indirect costs related to the time spent monitoring legislation or the time dedicated to meeting with producers, we do not believe these are incremental to our business.

Identifier

Opp4

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Type of financial impact

Other, please specify (Retention of customers)

Company-specific description

An increase in the frequency of weather events will likely reduce on-time dependability, resulting in inconveniences to our customers. Creating online tools that allow affected customers to quickly adjust their itinerary themselves would give customers some control over an otherwise frustrating process, which could help retain customers. These tools would also be available to our customers during delays caused by other events, such as mechanical issues or air traffic congestions.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Strategy to realize opportunity

Cost to realize opportunity

250000

Comment

Estimated cost to develop IT tools needed to assist customers that are impacted by weather related service interruptions

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	Our fleet renewal program (Opportunity 1) helps reduce fuel expense because the new aircraft are more fuel efficient than the aircraft they replace. Since 2014, the fuel efficiency of our fleet improved by 6.7%. In addition, new aircraft helps improve our service by providing customers with modern aircraft that have the latest amenities. For example, our new 787-8 aircraft have more overhead bin space, better lighting, and larger windows.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	Supply Chain interruptions (Risk 3) of our jet fuel have occurred at after several weather events. For example, flooding after Hurricane Harvey closed several jet fuel refineries and closed the pipeline that delivers jet fuel to several of our airports.
Adaptation and mitigation activities	Impacted	American and the airports we serve are taking efforts to mitigate the potential impacts of climate change, including the increased risk of flooding due to rising sea levels. For example, LaGuardia Airport (LGA) in New York City where American has more than 120 daily flights spent \$41 million to strengthen its resiliency to flooding after the experience of Superstorm Sandy by installing emergency generators, outfalls, flood walls and pump houses. As a major tenant of LGA, American and its passengers indirectly pay for a portion of this expense.
Investment in R&D	Impacted for some suppliers, facilities, or product lines	As a service provider, American does not invest in R&D. However we rely on suppliers to help improve our carbon efficiency and expect them to make the necessary investments in R&D to further the technology of the products we buy from them. For example, in selecting which new aircraft to purchase and from which supplier, we put a high premium on the fuel efficiency of the aircraft and engines we purchase in order to reduce fuel expense and related GHG emissions. American has taken delivery of 40 Boeing 787-8 and -9 aircraft that have new GE GenX engines with the latest technology which help the aircraft reduce fuel consumption and emissions by 20% from similarly sized aircraft.
Operations	Impacted	Changes in precipitation patters and extreme variations in weather patterns is reducing the reliability of American's operations. American's 2018 on time dependability rate of 78.4% decreased 1.9 points from the prior year, and American's 2018 completion factor of 98.5% decreased 0.1 points from the prior year. This performance can in part be attributed to changing precipitation and extreme whether at our major hub operations, such as the winter storms in early 2018 that resulted in more than 8,000 flight cancellations and numerous flight delays.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted	In 2018 we reported that weather events reduced American's earnings by \$92 million, which was primarily due to lost revenue. As part of our effort to respond to this risk, we are developing tools to help affected passengers rebook their flights by themselves without contacting reservations agents. This helps reduce lost revenue caused by flight cancelations as a result of weather events.
Operating costs	Impacted	Increased weather events result in additional operating costs, such as extra crew costs, hotel expenses, and additional fuel costs.
Capital expenditures / capital allocation	Impacted	American spent more than \$18 billion since our merger in 2013 on new, more efficient aircraft. Numerous factors go into aircraft purchase decision, one of which is improvements in fuel consumption and the reduction in associated emissions.
Acquisitions and divestments	Not impacted	Since our merger in 2013, American has only made one significant acquisitions, which is a \$200 million investment in China Southern for strategic reasons.
Access to capital	Not yet impacted	American has not experienced any notable change in access to capital due to climate change risks or opportunities.
Assets	Impacted	Assets have increased as American has taken delivery of more than 500 new aircraft and retired virtually the same number of depreciated aircraft. Numerous factors go into aircraft purchase decision, one of which is improvements in fuel consumption and the reduction in associated emissions.
Liabilities	Not yet impacted	American has not experienced any notable change in liabilities due to climate change risks or opportunities.
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

Yes

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

Many critical company decisions, including aircraft acquisition, aircraft modifications, and other investments, are made based largely on their impact to fuel use and associated GHG emissions. Our carbon emissions goal to continuously improve the fuel efficiency of our fleet encourages the prioritization of fuel efficiency as part of our fleet renewal program.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios	Details
---------------------------	---------

C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

American's low-carbon transition plan follows IATA's roadmap, which includes continuous improvements to fuel efficiency through 2020, carbon neutral growth in international emissions after 2020 using market based measures, and a 50% reduction in greenhouse gas emissions by 2050 which will primarily come from sustainable alternative jet fuel.

C4. Targets and performance

C4.1

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

Intensity 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

Scope

Scope 1

% emissions in Scope

89

Targeted % reduction from base year

9

Metric

Metric tons CO₂e per unit of service provided

Base year

2014

Start year

2015

Normalized base year emissions covered by target (metric tons CO₂e)

36662664

Target year

2020

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% of target achieved

74

Target status

Underway

Please explain

American set a target to improve its efficiency as measured by CO₂ emissions from jet fuel per revenue ton mile (the measure of its passenger and cargo services that it provides) by 1.5% annually from 2014 to 2020 for a 9% improvement in efficiency. As of the end of 2018 American's efficiency improved 6.7%, which puts it ahead of the pace needed to achieve its target.

% change anticipated in absolute Scope 1+2 emissions

9

% change anticipated in absolute Scope 3 emissions

0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Renewable fuel

KPI – Metric numerator

2500000 gigajoules

KPI – Metric denominator (intensity targets only)

Base year

2018

Start year

2019

Target year

2025

KPI in baseline year

0

KPI in target year

25000000

% achieved in reporting year

0

Target Status

New

Please explain

American set a target to source 2.5 million gigajoules of cost competitive renewable energy by 2025.

Part of emissions target

2.5 million gigajoules represents less than 1% of American's total annual energy consumption

Is this target part of an overarching initiative?

Other, please specify (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.)

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*		
Implementation commenced*	1	3900
Implemented*	2	
Not to be implemented		

C4.3b

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

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

3900

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

850000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

>30 years

Comment

This initiative involved implementing a manual process at Tech Ops Line Maintenance stations to turn off aircraft APUs whenever possible in favor of using ground power equipment or pre-conditioned air sources. Existing man-power, ground power equipment, and pre-conditional air sources were used, so no additional investment was needed.

C4.3c

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

Method	Comment
Financial optimization calculations	Investments in emissions reduction initiatives must be able to demonstrate a financial return as with any other project.

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?

No

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)

38912664

Comment

In the past year American transitioned its carbon footprint methodology to The Climate Registry General Reporting Protocol. Since only three years of Scope 1 data was re-stated, we are re-establishing our baseline year to 2016.

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

341000

Comment

In the past year American transitioned its carbon footprint methodology to The Climate Registry General Reporting Protocol. Since only three years of Scope 2 data was re-stated, we are re-establishing our baseline year to 2016.

Scope 2 (market-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

341000

Comment

In the past year American transitioned its carbon footprint methodology to The Climate Registry General Reporting Protocol. Since only three years of Scope 2 data was re-stated, we are re-establishing our baseline year to 2016.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

The Climate Registry: General Reporting Protocol

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)

40276453

Start date

January 1 2018

End date

December 31 2018

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

39061411

Start date

January 1 2017

End date

December 31 2017

Comment

American restated its 2017 Scope 1 emissions to reflect its transition to The Climate Registry General Reporting Protocol. As such, its 2017 Scope 1 emissions does not align with emissions reported in its CDP questionnaire response from last year.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

38912664

Start date

January 1 2016

End date

December 31 2016

Comment

American restated its 2016 Scope 1 emissions to reflect its transition to The Climate Registry General Reporting Protocol. As such, its 2016 Scope 1 emissions does not align with emissions reported in its CDP questionnaire responses from past years.

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

328417

Scope 2, market-based (if applicable)

328417

Start date

January 1 2018

End date

December 31 2018

Comment

Past year 1

Scope 2, location-based

326008

Scope 2, market-based (if applicable)

326008

Start date

January 1 2017

End date

December 31 2017

Comment

American restated its 2017 Scope 2 emissions to reflect its transition to The Climate Registry General Reporting Protocol. As such, its 2017 Scope 2 emissions does not align with emissions reported in its CDP questionnaire response from last year.

Past year 2

Scope 2, location-based

341000

Scope 2, market-based (if applicable)

341000

Start date

January 1 2016

End date

December 31 2016

Comment

American restated its 2016 Scope 2 emissions to reflect its transition to The Climate Registry General Reporting Protocol. As such, its 2016 Scope 2 emissions does not align with emissions reported in its CDP questionnaire responses from past years.

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 Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

7253550

Emissions calculation methodology

The WRI Tool was used to calculate Scope 3 emissions related to Purchased Goods and Services. American's expense related to purchased goods and services was input into the tool.

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

0

Explanation

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1358904

Emissions calculation methodology

The WRI Tool was used to calculate Scope 3 emissions related to Capital Goods. American's expenditures related to capital goods was input into the tool to calculate the amount.

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

0

Explanation

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

15322381

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 the 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 used by the State of California's Low Carbon Fuel Standard was used for this calculation.

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

0

Explanation

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

10228

Emissions calculation methodology

The WRI Tool was used to calculate Scope 3 emissions related to Category 5 waste generated by our operations. American's expenditures related to waste was input into the tool to calculate the amount.

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

0

Explanation

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

254658

Emissions calculation methodology

The WRI Tool was used to calculate Scope 3 emissions related to business travel. American's expenditures related to business travel, which includes crew hotel blocks, hotel stays related to training, other business travel, was input into the tool to calculate the amount. American allocates emissions related to air travel only to revenue passengers. To avoid double counting, these emissions are not allocated to travel by American employees.

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

0

Explanation

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

219130

Emissions calculation methodology

The WRI Tool was used to calculate Scope 3 emissions related to employee commuting. American used the average emissions per employee from the WRI Tool and applied it to the actual number of employees at American to determine the amount.

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

0

Explanation

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

American's qualitative review of its value chain did not identified any upstream leased assets used as part of the service it provides.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

29763

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 party 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

Explanation

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

American will further investigate whether to include emissions associated with codeshare flights as a Category 14 Franchise emissions, and if it is to be included how best to capture or estimate these emissions.

Investments

Evaluation status

Relevant, calculated

Metric tonnes CO2e

332361

Emissions calculation methodology

American recently invested in China Southern Airlines. American used the WRI Tool to estimate emissions associated with Category 15 Investments related to this investment. The tool multiplies the dollar amount of our investment by a WRI Tool factor.

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

0

Explanation

Other (upstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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 biologically sequestered carbon relevant to your organization?

No

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

0.0009116

Metric numerator (Gross global combined Scope 1 and 2 emissions)

40604870

Metric denominator

unit total revenue

Metric denominator: Unit total

44541000000

Scope 2 figure used

Location-based

% change from previous year

1.35

Direction of change

Decreased

Reason for change

A 14.5% increase in departures by American's owned regional carriers helped drive a 3.1% increase in total Scope 1 and 2 emissions. However, this increase was more than offset on the revenue side. American reported total operating revenues of \$44.5 billion, an increase of \$1.9 billion, or 4.5%, as compared to 2017. Passenger revenues were \$40.7 billion, an increase of \$1.5 billion, or 3.9%, as compared to 2017. The increase in passenger revenues was due to a 2.1% increase in revenue passenger miles (RPMs) and a 1.8% increase in yields driven by strong demand. Domestic yields increased 0.9% and international yields rose 4.2%, led by a 5.3% increase in yield in the Atlantic market. In 2018, cargo revenue was \$1.0 billion, an increase of \$123 million, or 13.8%, as compared to 2017, primarily driven by increases in domestic and international freight yields and international freight volume. Other revenue, driven by higher loyalty revenue, increased \$251 million, or 9.7%, in 2018 as compared to 2017.

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

0.00163

Metric numerator: emissions in metric tons CO2e

40035319

Metric denominator: unit

t.mile

Metric denominator: unit total

24729212000

% change from previous year

0.36

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 intensity increased slightly. The mainline operation's intensity decrease of 0.5% was more than offset by the owned regional's intensity increase of 3%.

ALL

Scopes used for calculation of intensities

Report Scope 1 + 2

Intensity figure

0.00164

Metric numerator: emissions in metric tons CO2e

40604870

Metric denominator: unit

t.mile

Metric denominator: unit total

24729212000

% change from previous year

0.34

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

Scope 1 and 2 emissions include all emissions under American's operational control. Overall intensity increased slightly. The mainline operation's intensity decrease of 0.5% was more than offset by the owned regional's intensity increase of 3%.

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	39887028	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	361	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	335252	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	53812	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)
United States of America	25635730
United Kingdom of Great Britain and Northern Ireland	2598516
China, Hong Kong Special Administrative Region	1483934
Brazil	1302260
Japan	836398
Argentina	690399
Other, please specify (All other countries served by American Airlines but are not included above)	7729217

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	36037236
Envoy Airlines, American's regional affiliate based in Irving, TX	2077239
PSA Airlines, American's regional affiliate based in Vandalia, OH	1727753
Piedmont Airlines, American's regional affiliate based in Salisbury, MD	434225

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	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility generation activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	40276453	<Not Applicable>	All of American's 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 in market-based approach (MWh)
United States of America	326710	326710	649868	0
United Kingdom of Great Britain and Northern Ireland	83	83	1558	0
China, Hong Kong Special Administrative Region	0	0	0	0
Brazil	1233	1233	23173	0
Japan	43	43	803	0
Argentina	60	60	1132	0
Other, please specify (All other countries served by American Airlines but are not included above)	289	289	2111	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 emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
American Airlines mainline operations based in Ft Worth, TX	306285	306285
Envoy Airlines, American's regional affiliate based in Irving, TX	14557	14557
PSA Airlines, American's regional affiliate based Vandalia, OH	5223	5223
Piedmont Airlines, American's regional affiliate based in Salisbury, MD	2352	2352

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
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	328417	328417	All of American's 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?

Increased

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	0	No change		
Other emissions reduction activities	0	No change	0	
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	1063000	Increased	87	Output as measured by revenue ton miles increased 2.7% year over year, while emissions increased 3.1% year over year, or 1.2 million tonnes. Change in output represents 87% of the year over year emissions increase of 1.2 million metric tonnes.
Change in methodology	0	No change	0	Please note that American transitioned to The Climate Registry methodology for calculating emissions and restated prior years' emissions as well
Change in boundary	0	No change	0	As part of American's transition to The Climate Registry to calculate emissions, our boundary for operating control changed. However, we restated prior years' emissions to reflect this change.
Change in physical operating conditions	0	No change	0	
Unidentified	153000	Increased	13	13% of American's emissions increase of 1.2 million metric tonnes are not be identified, but could be from such things as change in aircraft mix, change in average stagelength, or lost efficiency due to delays
Other		<Not Applicable>		

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 20% but less than or equal to 25%

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
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 MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	149350190	149350190
Consumption of purchased or acquired electricity	<Not Applicable>	0	678645	678645
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	0	150028835	150028835

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

148485642

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

American uses the weighted mean net heat of 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

429651

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

262579

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

163138

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

7690

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

Please select

Total fuel MWh consumed by the organization

1490

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

<Not Applicable>

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor

10.3

Unit

kg CO2e per gallon

Emission factor source

The Climate Registry for emissions factors and AR5 for GWP

Comment

Fuel Oil Number 2

Emission factor

75.54

Unit

metric tons CO2e per million Btu

Emission factor source

The Climate Registry for emissions factors and AR5 for GWP

Comment

Jet Kerosene

Emission factor

9.83

Unit

kg CO2e per gallon

Emission factor source

The Climate Registry for emissions factors and AR5 for GWP

Comment

Liquefied Petroleum Gas (LPG)

Emission factor

5.68

Unit

kg CO2e per gallon

Emission factor source

The Climate Registry for emissions factors and AR5 for GWP

Comment

Motor Gasoline**Emission factor**

8.85

Unit

kg CO2e per gallon

Emission factor source

The Climate Registry for emissions factors and AR5 for GWP

Comment**Natural Gas****Emission factor**

53.22

Unit

metric tons CO2e per million Btu

Emission factor source

The Climate Registry for emissions factors and AR5 for GWP

Comment**C8.2f**

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

Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type

<Not Applicable>

Region of consumption of low-carbon electricity, heat, steam or cooling

<Not Applicable>

MWh consumed associated with low-carbon electricity, heat, steam or cooling

<Not Applicable>

Emission factor (in units of metric tons CO2e per MWh)

<Not Applicable>

Comment

The retirement of Renewable Energy Credits in American's name in 2018 did not occur in time for the verification of American's Scope 2 emissions. As such, we are not claiming these credits at this time.

C-TS8.4

(C-TS8.4) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Aviation

Metric figure

0.00607

Metric numerator

MWh

Metric denominator

Revenue-ton.mile

Metric numerator: Unit total

150028835

Metric denominator: Unit total

23446769

% change from last year

0.4

Please explain

American's energy intensity increase in 2018 was driven by its regional flying. A half percent intensity improvement (reduction in intensity) in mainline flying was offset by a 4.1% increase in intensity in regional flying.

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

6

Metric unit

Other, please specify (Percent of mainline fleet that is latest generation of aircraft, which includes Boeing 737MAX, 787-8 and 787-9 aircraft types)

Explanation

Emissions associated with jet fuel is 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 least efficient aircraft. This effort will have the greatest near-term impact on emissions since these new aircraft are up to 40% more fuel efficient than the aircraft they replace.

Activity

Aviation

Metric

Fleet adoption

Technology

Other, please specify (Electric powered ground support equipment (GSE))

Metric figure

26

Metric unit

Other, please specify (Percentage 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. The electric GSE produce significantly less GHGs than either the diesel or gasoline powered versions. This metric measures the percent of our GSE fleet that has transitioned to lower-carbon electric power.

Activity

Aviation

Metric

Yearly purchase

Technology

Other, please specify (Sustainable alternative jet fuel)

Metric figure

0

Metric unit

Other, please specify (Gallons of sustainable alternative jet fuel purchased)

Explanation

In order for the aviation industry to successfully transition to a low-carbon economy, cost competitive sustainable alternative jet fuel (SAF) that meets performance specifications will be needed for the aviation industry to make the transition to a low carbon economy. We have not made any R&D investments in SAF producers at this time. However, we support the commercialization of SAF and we are members of the Commercial Aviation Alternative Fuel Initiative (CAAFI) which has the same objective. We also continue to support SAF through our ongoing discussions with potential SAF producers, sustainable SAF feedstock providers, and academics supporting research in this area.

C-TO9.6/C-TS9.6

(C-TO9.6/C-TS9.6) What is your investment in research and development (R&D), equipment, products and services and which part of it would you consider a direct investment in the low-carbon transition?

Activity

Aviation

Investment start date

January 1 2019

Investment end date

December 31 2019

Investment area

Equipment

Technology area

Airframe

Investment maturity

Large scale commercial deployment

Investment figure

2700000000

Low-carbon investment percentage

41-60%

Please explain

In 2019 American plans to invest \$2.7 billion in new aircraft. American's 2019 delivery schedule includes commitments for 39 aircraft (17 A321neos, 20 B737MAXs, and 2 B787) with the latest technology airframes and engines, as well as 31 additional 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	No third-party verification or assurance

C10.1a

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

Scope

Scope 1

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

AA_EY2018_VerificationStatement_s.pdf

Page/ section reference

Page 1

Relevant standard

The Climate Registry's General Verification Protocol

Proportion of reported emissions verified (%)

100

Scope

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

Page/ section reference

Page 1

Relevant standard

The Climate Registry's General Verification Protocol

Proportion of reported emissions verified (%)

100

Scope

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

Page/ section reference

Page 1

Relevant standard

The Climate Registry's General Verification Protocol

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, we do not verify any other climate-related information reported in our CDP disclosure

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 systems in which you participate.

EU ETS

% of Scope 1 emissions covered by the ETS

1

Period start date

January 1 2018

Period end date

December 31 2018

Allowances allocated

801

Allowances purchased

0

Verified emissions in metric tons CO₂e

343

Details of ownership

Other, please specify (Flights within the EEA)

Comment

American does not have any scheduled flights within the EEA. Its only emissions that fall within the EU ETS are from diverted flights due to in-flight medical emergencies, mechanical issues, or weather related issues.

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

In 2013 the scope of the EU ETS was reduced include aviation emissions only from flights within the EU and participating countries. Since American does not have any scheduled flights within these countries, American's only emissions included in the EU ETS are from unscheduled flights, such as diverted flights due to medical emergencies or mechanical issues. As such, American's largest EU ETS expense is the administrative cost and burden for compliance. American's strategy is to minimize this cost by automating or consolidating reporting functions where possible, and minimizing allowance transaction costs by saving any excess allowances to apply to potential future needs.

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, and we do not currently 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.

C12.1b

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

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 with minor exceptions	American participated in industry efforts to craft an acceptable carbon offset program as part of ICAO's CORSIA (Carbon Offset and Reduction Scheme for International Aviation) initiative.	Offset growth in emissions from international flights after 2020
Energy efficiency	Support	American participated our domestic and international industry associations that supported efforts to establish a carbon emissions standard for new aircraft.	New aircraft will be subject to a carbon emissions standard

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

President of the 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 adopted a set of ambitious targets to mitigate CO2 emissions from air transport.

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

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?

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 voluntary sustainability report

Status

Complete

Attach the document

2018 CRR FINAL.pdf

Page/Section reference

Governance - page 5 Strategy - page 31 Emissions figures - pages 35 and 36 Emissions targets - page 8 Other metrics - page 36

Content elements

Governance

Strategy

Emissions figures

Emission targets

Other metrics

Comment

C14. 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.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1		Please select

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	44541000000

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

<Not Applicable>

Emissions in metric tonnes of CO₂e

44707

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

Bank of America

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

27130

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

Endesa

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

386

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

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

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

148

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

Hewlett Packard Enterprise Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

5609

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

HP Inc

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

2442

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

L'Oréal

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

3775

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

MetLife, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

2961

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

Stanley Black & Decker, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1489

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

Verified

Please select

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

TD Bank Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

3852

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

Wells Fargo & Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

37722

Uncertainty (±%)

5

Major sources of emissions

Jet fuel is the major source of American's GHG emissions.

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

Emissions are allocated to passengers based on the IATA recommended practice.

Requesting member

Accenture

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

345

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

Bank of America

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

216

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

Endesa

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

3

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

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

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

Hewlett Packard Enterprise Company

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

45

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

HP Inc

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

19

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

L'Oréal

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

29

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

MetLife, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

22

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

Stanley Black & Decker, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

11

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

TD Bank Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

26

Uncertainty (±%)

5

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

Wells Fargo & Company

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

294

Uncertainty (±%)

Major sources of emissions

Electricity consumption is the major source of Scope 2 emissions and is determined from utility invoices.

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

GHG emissions associated with the production of electricity is determined based on the eGRID GHG Emissions Rates by region.

Requesting member

Accenture

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

37700

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry

Requesting member

Bank of America

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

19465

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry

Requesting member

Endesa

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

369

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

Please select

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

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

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

81

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

Hewlett Packard Enterprise Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

4060

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

HP Inc

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1969

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

L'Oréal

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

3088

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

MetLife, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

2768

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

Stanley Black & Decker, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1321

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

TD Bank Group

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

5169

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

Requesting member

Wells Fargo & Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

30280

Uncertainty (±%)

30

Major sources of emissions

Major sources of American's Scope 3 emissions include fuel and energy related activities, and purchased goods and services.

Verified

No

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

American used the WRI Scope 3 guidance and tool to estimate its Scope 3 emissions which include general estimates that are not specific to the aviation industry.

SC1.2

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

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?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

The allocation process used by American is the standard agreed to by the airline industry

SC2.1

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

SC2.2

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

No

SC3.1

(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?

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

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

Please confirm below

I have read and accept the applicable Terms