

## Appendix A

# Greenhouse gas emissions

		Fiscal year				
		2021	2020	2019	2018	2017
<b>Corporate emissions<sup>1</sup> (metric tons CO<sub>2</sub>e)</b>	<b>Scope 1 (gross emissions)</b>	<b>55,200</b>	<b>47,430</b>	<b>52,730</b>	<b>57,440</b>	<b>47,050</b>
	Natural gas, diesel, propane	40,070	39,340	40,910	42,840	36,210
	Fleet vehicles	12,090	4,270	6,950	11,110	8,300
	Process emissions <sup>2</sup>	3,040	3,830	4,870	3,490	2,540
	<b>Scope 2 (market-based)</b>	<b>2,780</b>	<b>0</b>	<b>0</b>	<b>8,730</b>	<b>36,250</b>
	Electricity	0	0	0	8,730	36,250
	Steam, heating, and cooling <sup>3</sup>	2,780	-	-	-	-
	<b>Scope 3 (gross emissions)<sup>4</sup></b>	<b>23,130,000</b>	<b>22,550,000</b>	<b>24,980,000</b>	<b>25,070,000</b>	<b>27,330,000</b>
	Business travel <sup>5</sup>	22,850	153,000	326,000	337,000	121,000
	Employee commute <sup>6</sup>	85,570	134,000	195,000	183,000	172,000
Corporate carbon offsets <sup>7</sup>	-167,000	-70,000	-	-	-	
<b>Product life cycle emissions<sup>8</sup> (metric tons CO<sub>2</sub>e)</b>	Manufacturing (purchased goods and services)	16,200,000	16,100,000	18,900,000	18,500,000	21,100,000
	Product transportation (upstream and downstream)	1,750,000	1,800,000	1,400,000	1,300,000	1,200,000
	Product use (use of sold products)	4,990,000	4,300,000	4,100,000	4,700,000	4,700,000
	End-of-life treatment	80,000	60,000	60,000	50,000	40,000
	Product carbon offsets <sup>9</sup>	-500,000	-	-	-	-
<b>Total gross carbon footprint (without offsets)<sup>10</sup> (metric tons CO<sub>2</sub>e)</b>	<b>23,200,000</b>	<b>22,600,000</b>	<b>25,100,000</b>	<b>25,200,000</b>	<b>27,500,000</b>	
<b>Total net carbon footprint (after applying offsets)<sup>10</sup> (metric tons CO<sub>2</sub>e)</b>	<b>22,530,000</b>	<b>22,530,000</b>	<b>25,100,000</b>	<b>25,200,000</b>	<b>27,500,000</b>	

1. Apple is carbon neutral for corporate emissions as of April 2020.

2. Emissions from R&D processes.

3. Beginning in FY2021, we're accounting for scope 2 emissions from the purchase of district heating, chilled water, and steam.

4. In fiscal year 2017, we started calculating scope 3 emissions not listed above. In fiscal year 2021, these include electricity transmission and distribution losses amounted to about 28,000 metric tons CO<sub>2</sub>e and life cycle emissions associated with renewable energy amounted to about 95,000 metric tons CO<sub>2</sub>e. We have not accounted for emissions resulting from employees working from home, because we anticipated these emissions are small relative to our carbon footprint and we are still evolving our methodology.

5. We regularly revisit our methodology to hold ourselves to high accountability standards. So in fiscal year 2018, we changed how we calculate emissions from business travel in order to better account for classes of service in air travel. As a result of this change, our scope 3 transportation emissions increased by 77 percent between 2017 and 2018. Without the methodology change, these emissions would have increased by 14 percent, which reflects the growth in our business.

6. Beginning in fiscal year 2020, we updated our methodology to reflect the impact of COVID-19 on employee commute.

7. We retired 167,000 metric tons of carbon credits from the Chyulu Hills project in Kenya to maintain carbon neutrality for our corporate emissions in fiscal year 2021. This project is certified to the VCS and CCB standards.

8. Because we're committed to accuracy and transparency, we regularly refine our product life cycle assessment model and sources of data. For example, we recently obtained more granular data summarizing in which countries our products are sold and used, resulting in more granularity possible for grid emission factors used in the carbon footprint of the product use phase. The net result was an increase in our 2021 carbon footprint. When using the same level of data granularity and model as 2021, our product use carbon emissions in 2021 would have been about 2.5 percent lower.

9. For fiscal year 2021, we retired credits from the Chyulu Hills project in Kenya, and purchased carbon credits from two additional projects to offset a total of 500,000 metric tons of direct emissions across our value chain. The first project, a REDD+ coastal conservation project in Guatemala, protects and conserves forests from deforestation and degradation. The second project aims to establish forests on about 46,000 hectares of barren land that is not otherwise in use across seven counties in the Guizhou Province of China. Both projects are certified to the same high standards that we require for projects in the Restore Fund, including VCS and CCBS. These projects are all certified to the VCS and CCB standards.

10. Due to rounding, our gross and net carbon footprints do not always the sum of the subtotals disclosed above.

Notes: For data on previous years, please reference past Environmental Progress Reports, available at [apple.com/environment](https://apple.com/environment). Dash indicates data that are not available. Due to rounding, totals may not be the sum of the subtotals above.