

# Walking Our Talk

*The Union of Concerned Scientists Fiscal Year 2019–2020  
Sustainability Report*



## [ MESSAGE FROM THE THE PRESIDENT

# Sustainability at the Union of Concerned Scientists



I am pleased to present the Union of Concerned Scientists' sustainability report, which covers our fiscal years 2019 and 2020 (October 2018 – September 2020). This report marks our 17th year of measuring and reporting our carbon emissions, and our fourth report under our two-year reporting schedule. The two-year time frame allows our all-volunteer Sustainability Task Force to focus on its

mission-driven work and take a big-picture view of its efforts to reduce our organization's emissions and expand sustainable practices across our offices. These efforts are detailed in the pages that follow.

UCS's mission is to use rigorous, independent science to solve our planet's most pressing problems. We work with people across the country to advance innovative, practical solutions for a healthy, sustainable, and just future. This means confronting the reality that health and safety are enjoyed unequally across racial lines in our country, and working for solutions that end these inequities.

While this report looks at our internal operations, combating climate change is core to our mission. During this reporting period UCS staff worked to modernize our electricity grid so it can operate reliably with large amounts of renewable energy; revamp our transportation system so it runs on clean electricity instead of oil; pave the way for a more sustainable food and agricultural system; and implement policies at the national, regional, and state levels to cut US carbon emissions by more than half before the start of the next decade. We also fought to help communities build their resilience to the climate changes that are here and accelerating. At the same time, UCS research supported lawsuits against fossil fuel companies who have worked for decades to deceive the public about the harm of their products. This is essential for bringing much-needed compensation to frontline communities and forcing fossil fuel companies to end

*We created new protocols to track our business travel, increase energy efficiency, and support low-carbon commuting.*

their harmful practices. The intent of all this work is to make reducing our carbon footprint not only an individual or organizational act, but one that is tackled systemically, and provides benefits to all equitably.

During this two-year reporting period, we sought out ways to reduce the carbon footprint of our operations including composting, recycling, and electronic waste recycling programs. We created new protocols to track our business travel, increase energy efficiency, and support low-carbon commuting. The last quarter of our reporting period (March 13 to September 30, 2020) coincided with the peak of COVID-19 restrictions, which resulted in an immediate halt in business travel, commuting, and a decrease in office energy use. These moments tested and showed us how we can accomplish our work while working remotely and decreasing our emissions, and have informed our sustainability goals moving forward.

In the years that follow, we look forward to building on our goals, learning from our experiences, and seeing the effects of our continued progress, both in our office—and yours—and around the country. Visit [www.ucsusa.org](http://www.ucsusa.org) for the latest news and updates on our work, and learn more about our sustainability efforts at [www.ucsusa.org/about/sustainability](http://www.ucsusa.org/about/sustainability).

A handwritten signature in black ink that reads "Johanna Chao Kreilick". The signature is fluid and cursive.

Johanna Chao Kreilick  
President

## Introduction

The Union of Concerned Scientists (UCS) puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

In fiscal years 2019 and 2020 (FY19 and FY20),<sup>1</sup> UCS experts continued to expose the coordinated climate disinformation campaigns of the world's largest carbon emitters and engaged with policymakers, industry, labor, and others on economic development and clean energy opportunities in communities across the country. We pushed for more sustainable farming practices and for healthier food systems, and we made substantial progress at the state and regional levels on clean energy, transportation, and climate solutions. Perhaps most importantly, we expanded our efforts to defend safe and equitable voting by releasing a suite of resources in the months leading up to the 2020 presidential election.

Our work in climate, energy, agriculture, and transportation has helped reduce heat-trapping emissions and other environmental impacts at the international, national, and state levels. UCS also seeks to reduce emissions, limit waste, and promote sustainability in its internal operations and our day-to-day activities with efforts guided by the UCS Sustainability Task Force (STF). The STF is an all-volunteer group of analysts, advocates, and administrative staff, representing every department and program at UCS. The STF not only helps bring a sustainability focus to UCS's operational decisionmaking, but also monitors and measures UCS carbon emissions for our sustainability reports. The four main sources of carbon emissions measured by the STF are paper use, energy use, business travel, and employee commuting. This report goes into detail about these emissions, and our efforts to reduce them.

The STF also oversees initiatives to promote sustainable practices within the office and within staff's personal lives. For example, the STF organized our annual Low-Carbon Commuting Month in May 2019 to encourage zero- and low-carbon transportation options. STF members serve as a regular resource for UCS staff on various sustainability issues, which have included residential renewable energy options, climate-friendly gardening and local-food programs, and enjoying a low-carbon holiday season.

Our efforts reach far beyond our Sustainability Task Force. Each new staff member receives a sustainability orientation, and our sustainability report is presented to our entire staff, giving all the opportunity for input to help refine and extend our sustainability goals. We hope this report is not only useful for our staff, but for other organizations looking to identify opportunities in the realm of sustainability.

## FY19 – FY20 Emissions Overview

Our total carbon emissions for FY19 and FY20 were 1,218 and 828 metric tons of CO<sub>2</sub>e,<sup>2</sup> respectively. Compared to what was reported in previous years, these values vary due to a data collection and reporting adjustment in our business travel tracking, as well as the impacts of COVID-19 in the latter half of FY20 (Table 1). These changes make year-over-year comparisons difficult, but we are pleased to know that our new reporting gives us more realistic and accurate results. While these numbers are only snapshots in time and depend on a range of factors (many of which are outside of our control), they represent an encouraging trend that we will look to build on in coming years.

## Emissions from Paper Use

### Three-Year Perspective

UCS measures emissions from paper use in three areas: fund-raising mailings, publications and member communications, and office paper.

TABLE 1. UCS Organizational Overview, FY17 – FY20

	FY17	FY18	FY19	FY20
<b>Staff Size (full-time equivalent)</b>	194	239	266	251
<b>Donors</b>	124,000	130,000	120,500	124,000
<b>Operating Budget (millions \$)</b>	\$40.2	\$39.8	\$37.9	\$44.8
	Metric Tons CO <sub>2</sub> e			
<b>Paper Use</b>	572	592	593	593
<b>Energy Use</b>	84	73	99	79
<b>Business Travel</b>	805	838	387	157
<b>Commuting</b>	119	133	139	70
<b>Total Emissions</b>	1,580	1,636	1,218	828
<b>Per-Employee Emissions</b>	<b>8.1</b>	<b>6.8</b>	<b>4.6</b>	<b>3.3</b>

*FY19 – FY20 emissions vary significantly compared with previous years due to more robust (and accurate) measurements of office activities. The COVID-19 pandemic closed our offices in the middle of FY20; this had the largest impact on emissions categories related to business travel and commuting, and less so for energy and paper use.*

Notes: FY19-FY20 business travel emissions vary from previous years due to a data collection and reporting adjustment. FY20 overall emissions were affected by COVID-19 when UCS closed its offices from March 13, 2020, to September 30, 2020, which coincided with the latter half of FY20. Energy figures reflect net emissions after the purchase of renewable electricity credits; see p. 5 for details. These net emissions are used for calculating total UCS emissions and per-employee emissions.

TABLE 2. Paper Use Emissions

	Metric Tons CO <sub>2</sub> e		
	FY18	FY19	FY20
Fundraising Mailings	391	387	395
Publications and Member Communications	197	203	196
Office Paper	5	2.5	1.5
<b>Total Emissions</b>	<b>592</b>	<b>593</b>	<b>593</b>

Reported CO<sub>2</sub>e emissions from paper use stayed consistent in most categories, but our office paper use decreased 50 percent from FY18 to FY19. This trend continued into FY20 due to efforts from our office managers, as well as a remote workforce during the latter half of FY20.

In FY19 and FY20, paper use represented our largest source of carbon emissions across the four areas that we track and report. Overall CO<sub>2</sub>e emissions from paper use stayed consistent between FY18 and FY20, increasing by only 1 metric ton CO<sub>2</sub>e between FY18 and FY19 (Table 2). Although there were not dramatic increases in paper use, our new tracking methods for air travel decreased the estimated business travel emissions, thus revealing paper use as largest contributor to our organization’s total emissions.

Fundraising—our primary source of paper-related emissions—is the lifeblood of organizations such as UCS. Effectively communicating with our members is critical to our organization’s overall effectiveness, and our publications are an important way to communicate our activity and the impact UCS has on the issues important to our members. That said, our overall paper use in terms of weight has remained relatively stable over the past several years despite a growing membership and operating budget. UCS calculates paper emissions data using the Environmental Paper Network’s (EPN’s) Paper Calculator, an online tool originally developed by the Environmental Defense Fund and now managed by the EPN to help organizations make greener paper purchases and more accurately report their paper footprints.

The EPN’s Paper Calculator takes into account the impacts of forest carbon storage loss from logged forests and short-lived climate pollutants such as black carbon, organic carbon, nitrogen oxides, and sulfur dioxides. It also adjusts the timeframe for global warming potential used in estimating equivalent metric tons of carbon dioxide that also increased the overall estimated impact. In sum, EPN’s estimate of the overall impact of our paper use highlights the need for UCS to continue seeking ways to

reduce our organization’s paper use, particularly in our communications with current and prospective UCS members.

### Addressing Emissions from Paper Use

UCS is taking various steps to reduce our paper-related emissions. We continue to seek out ways to increase our use of 100 percent post-consumer recycled paper, and soy-based inks. In our office we discourage unnecessary printing and set all printers by default to double-sided, grayscale printing. We also continue to use a paperless system for our employee expenses and travel arrangements, and the expansion of organizational intranet continues to help minimize our office-related paper emissions. We are conscious of the carbon footprint of our fundraising and member communications mailings and continue to work to reduce it.

### Emissions from Electricity and Natural Gas Use

#### Three-Year Perspective

Energy-related emissions from UCS offices stem from use of two fuels: natural gas for heating; and electricity for lighting, cooling, powering computers, and more. From FY18 to FY19, emissions from energy use increased by 35 percent (Table 3). Our natural gas-related emissions increased from 73 metric tons of CO<sub>2</sub>e in FY18 to 99 metric tons in FY19 before dropping to 79 metric tons in FY20. The initial increase follows trends of colder winters across much of the country, leading to increased heating demand. In the latter half of FY20, UCS’s decision to operate remotely during COVID-19 lowered the demand for heating office spaces, resulting in a 26 percent decrease in natural gas-related

TABLE 3. Energy Use Emissions

	Metric Tons CO <sub>2</sub> e		
	FY18	FY19	FY20
Electricity	241	297	241
Natural Gas	73	99	79
Energy Subtotal	327	396	320
Net Emissions*	73	99	79
Per-Employee Emissions*	0.31	0.37	0.31

From FY18 to FY19 emissions from our energy use increased 35 percent. We then saw a decrease of 25 percent from FY19 to FY20 due to staff working remotely for the latter half of FY20 for COVID-19 precautions.

\* Reflects net emissions after purchase of renewable electricity credits.

emissions.<sup>3</sup> For electricity, the increase (from 254 metric tons in FY18 to 297 in FY19) was not driven by a growth in office space, but rather by increased power demands from our IT server room. UCS is currently undergoing an energy audit to determine how we can combat this in years to come.

For the emissions associated with our electricity use, we purchase “green power”—renewable energy credits (RECs)—commensurate with our electricity usage. In addition to offsetting almost three-quarters of our total energy-related emissions, REC purchases help drive the further development of wind, solar, and other renewable energy sources. When purchasing RECs to offset our electricity use, we prioritize Green-e certified RECs<sup>4</sup> from the geographic regions where our offices are located.

### Addressing Emissions from Energy Use

Part of the challenge in making continued progress to reduce our office-related emissions is that only two of UCS’s offices (our Cambridge, Massachusetts, headquarters and our Chicago office) have dedicated electricity and gas meters. The other two offices (Washington, DC, and Oakland, California) comprise a small part of their larger building’s tenant base. This means that our own energy efficiency investments and efforts are less visible in the data and increases in energy use by other tenants will affect UCS’s data more appreciably.

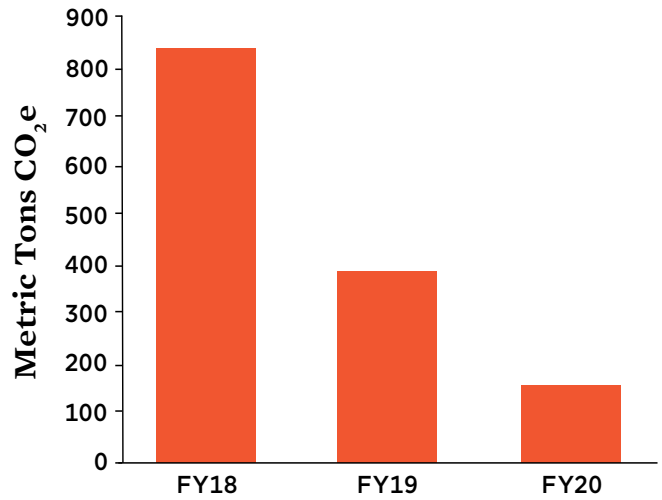
Despite these challenges, UCS is committed to investing in clean energy however possible. In addition to purchasing RECs to account for the electricity use in each of our offices, we also rely on our onsite solar photovoltaic (PV) arrays atop our Cambridge headquarters. Despite the space constraints of our urban environment, this system supplies most of the electricity to one of the four floors we occupy in the office.

### Emissions from Business Travel

#### Three-Year Perspective

As shown in Figure 1, there was a significant decrease in the carbon emissions reported from FY18 to FY19. This is due to an updated tracking protocol that allowed us to capture 93 percent of UCS travel emissions and estimate the remaining 7 percent, compared with prior years in which we were only able to capture 27.5 percent of UCS travel emissions with reliable accuracy. In years prior to FY19, UCS reported travel emissions based on our travel expenses, which we later realized included hotels, meals, events, and other incidentals not directly related to transportation. For FY19 and FY20, we improved our accuracy by manually calculating taxi, air, and personal car mileage emissions from travel reimbursement documentation, and used only bus, car rental gas, train, and subway expenses to estimate the

FIGURE 1. Business Travel Emissions



*Estimated UCS business travel emissions decreased significantly (more than 50 percent) in FY19 and FY20 compared with previous years due to an updated data collection process that more accurately measures our business travel-related emissions. FY20 shows a further substantial decrease due to reductions in travel due to COVID-19 restrictions.*

remaining 7 percent (Table 4). This results in a more than 50 percent decrease of emissions reported from FY18 to FY19. While there is still significant work needed to improve how we track, evaluate, and report on our business travel, we feel confident that recent adjustments now provide a more accurate assessment of our overall impact.<sup>5</sup>

It is important to note that UCS business travel came to a complete halt due to the COVID-19 pandemic from March 13, 2020, to September 30, 2020, which coincides with the latter half of FY20. The majority of emissions captured from business travel during FY20 were from October 1, 2019, to March 12, 2020.

TABLE 4. FY19 – FY20 Travel Emissions

	Metric Tons CO <sub>2</sub> e	
	FY19	FY20
Air	333	134
Personal Car Mileage	12	4
Taxi	14	6
Bus, Subway, Train, Rental Car	29	13
<b>TOTAL</b>	<b>388</b>	<b>157</b>

## Addressing Emissions from Air Travel

To advance our strategic goals, UCS works with leading academic experts, policymakers, the media, and our supporters in the United States and around the world. Maximizing these opportunities often requires staff to travel by air. In FY19, for example, air travel was responsible for more than 76 percent of the UCS business travel emissions that we tracked.

In the latter half of FY20, UCS gained significant experience in video conferencing technology and remote working techniques due to the COVID-19 pandemic. This shift was a difficult transition none of us expected, but has ultimately shown us how capable we are of making progress on our issues and maintaining relationships with colleagues and partners without traveling. While it is still crucial for our mission to engage personally, we hope to continue employing video-based engagement and communications strategies to decrease our emissions in the future, even as business travel becomes possible again. We continue to encourage employees to book direct flights (even if more expensive than one-stop flights), as takeoff and landing account for a significant portion of air travel-related emissions, UCS also prefers that staff travel coach, which results in fewer emissions per square foot of cabin space. Traveling staff also try to schedule visits with foundations and supporters located in their destination cities, to avoid the need for multiple trips to the same location (whether by program staff or Development staff).

**Remote work showed us how capable we are of making progress on our issues and maintaining relationships with colleagues and partners without traveling.**

## Emissions from Employee Commuting

### Three-Year Perspective

UCS employee commuting data are obtained through an annual employee survey administered by the STF at the end of each fiscal year. Due to UCS working remotely for the latter half of FY20, STF did not administer an employee commuting survey for FY20 and instead used FY19 data with the assumption that employee commuting for the first half of FY20 was similar to half of the commuting in the previous fiscal year. The increase of emissions from FY18 to FY19 is primarily due to the increase in

TABLE 5. Employee Commuting Emissions

	FY18	FY19	FY20
Staff Size (FTE equivalent)	194	239	266
Total Miles Traveled	881,553	893,919	446,960
Total Emissions (metric tons CO <sub>2</sub> e)	133	140	70
Per-employee Emissions (metric tons CO <sub>2</sub> e)	0.56	0.52	0.28

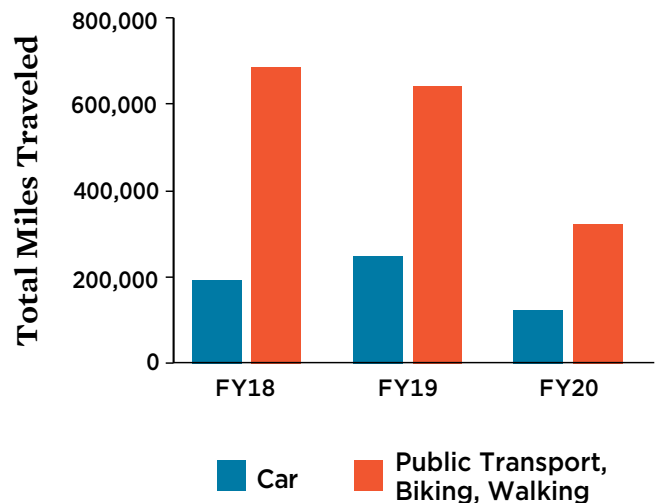
*Commuting-related emissions increased approximately 5 percent from FY18 to FY19 due to an increase in car miles traveled over this period, but decreased by 7 percent on a per-employee basis.*

our staff size as indicated by the fact that our per-employee emissions decreased over this time (Table 5).

## Addressing Emissions from Employee Commuting

UCS employees largely “walk the talk” when it comes to commuting and favor low-carbon forms of transportation as much as possible (Figure 2). To further encourage low-carbon commuting, all UCS offices are located close to public transportation, and UCS offers pretax public transportation passes and bike

FIGURE 2. UCS Commute Miles, by Mode of Transport



*While car travel increased from 22 percent of UCS commuter miles in FY18 to 28 percent in FY19, the decrease shown in per-employee emissions (see Table 5 above) reveals that the greater majority of UCS staff favors alternative transportation to cars.*

***UCS employees largely “walk the talk” when it comes to commuting and favor low-carbon forms of transportation as much as possible.***

parking in all office locations. Additionally, UCS does not pay for parking spaces for staff (to discourage car commuting) and promotes “Low-Carbon Commuting Month” each May, which focuses on biking but also encourages shifting to other low-carbon commuting options such as walking and public transportation. Participation is incentivized through prizes, parties, in-office bike maintenance, and presentations to staff on such topics as biking in inclement weather and biking with children. Although the STF could not host the event in May 2020 due to the COVID-19 pandemic, UCS encouraged staff to get outside for long walks and bike rides during Mondays in April and August, when UCS gifted employees extra time off.

### Acknowledgments

UCS would like to recognize the efforts of the Sustainability Task Force and other UCS staff who collected and analyzed data for this report and participated in the writing process. The Sustainability Task Force is an all-volunteer group of UCS staff representing every department and program. They go above and beyond their normal roles to ensure that UCS emissions reporting is as rigorous and transparent as possible and to help UCS be a leader in discussions surrounding sustainable workplaces.

### Endnotes

1. UCS’s fiscal year runs from October 1 through September 30.
2. All emissions in this report are measured in metric tons of carbon dioxide equivalent (CO<sub>2</sub>e), which takes into account the impact of all heat-trapping emissions (not just CO<sub>2</sub>) by expressing each in terms of the amount of CO<sub>2</sub> that would create the same amount of warming.
3. UCS did not measure increased home energy use due to remote work policies, which would have affected UCS work-related energy use.
4. Green-e is the largest voluntary certification program for renewable energy. RECs that receive Green-e certification have met stringent environmental and consumer protection standards developed in conjunction with leading environmental, energy, and policy organizations. Learn more at [www.green-e.org](http://www.green-e.org).
5. Calculations include travel paid for by UCS, which in some cases includes non-staff. However, calculations do not include UCS staff travel that was paid for by others.

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