

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

CARBON FUND



ANNUAL REPORT

2023-2024

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ACKNOWLEDGMENTS

THE CARBON FUND, ON BEHALF OF THE UCSC SUSTAINABILITY OFFICE WOULD LIKE TO THANK THE UCSC STUDENT BODY FOR CONTINUING TO COMBAT CLIMATE CHANGE ON CAMPUS THROUGH STUDENT FEES. WE WOULD LIKE TO THANK ALL CARBON FUND PROJECT MANAGERS FOR THEIR COMMITMENT TO REDUCING EMISSIONS AND CREATING OPPORTUNITIES FOR STUDENTS AND THE COMMUNITY.

THANK YOU!



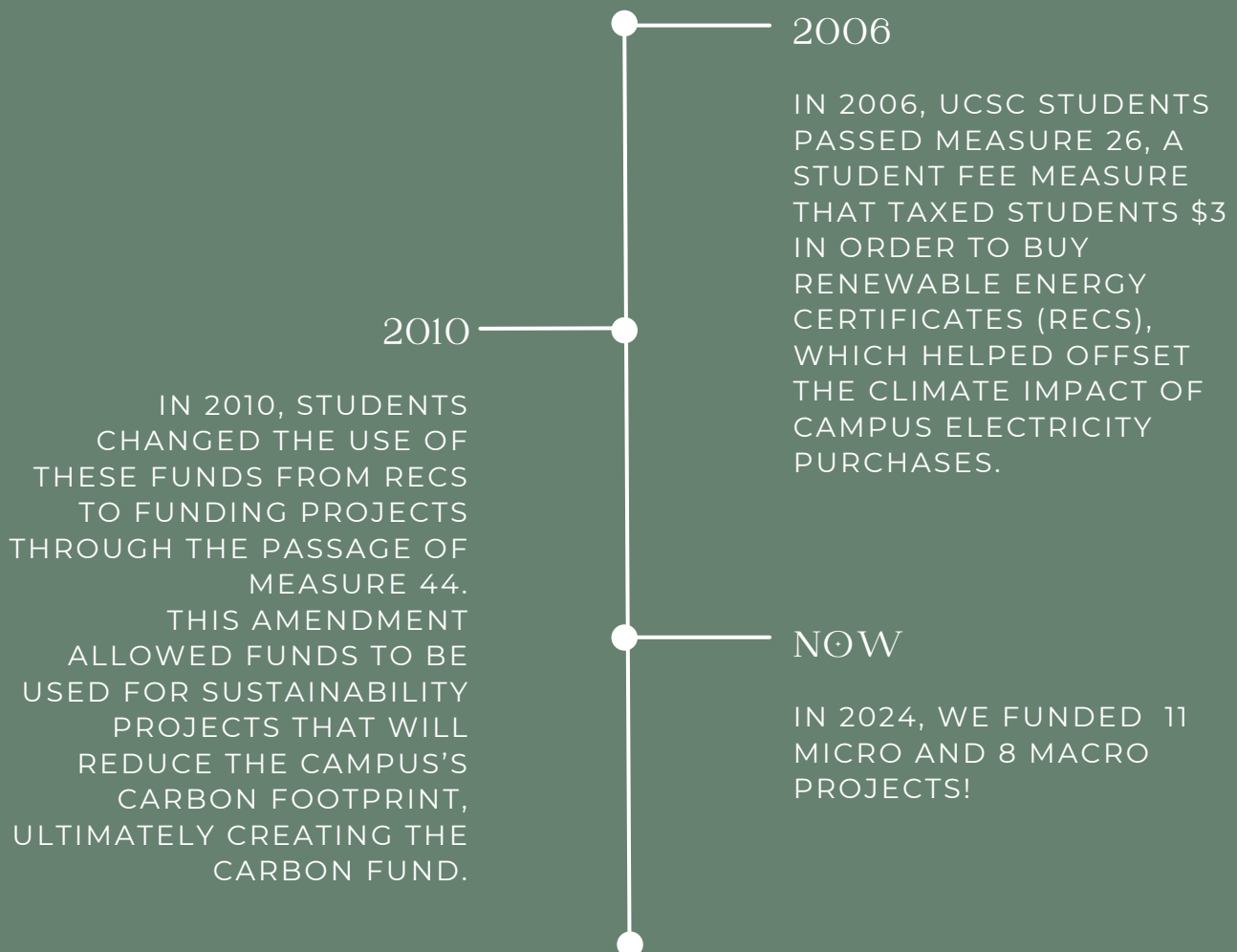
CARBON FUND'S

MISSION AND HISTORY

CARBON FUND GRANTS PROVIDE FUNDING TO PROJECTS THAT DIRECTLY REDUCE GREENHOUSE GAS EMISSIONS, CONDUCT RELEVANT RESEARCH, OR CARRY OUT CLIMATE-RELATED EDUCATIONAL PROGRAMS.

THE CARBON FUND SUPPORTS UCSC'S ULTIMATE GOAL OF BECOMING A FOSSIL FREE CAMPUS THROUGH DECARBONIZATION AND ELECTRIFICATION. IT ALLOCATES APPROXIMATELY \$135,000 ANNUALLY TO PROJECTS THAT WILL HELP REACH THIS GOAL.

GRANTS HAVE TWO FUNDING LEVELS: MACRO GRANTS ARE FOR PROJECTS REQUESTING MORE THAN \$5,000 AND MICRO GRANTS ARE FOR PROJECTS REQUESTING LESS THAN \$5,000. THE CARBON FUND PROVIDES GRANT FUNDING ON A YEARLY CYCLE BASED ON THE ACADEMIC SCHEDULE.



STAFF AND COMMITTEE

THE CARBON FUND COMMITTEE CONSISTS OF 10 VOTING MEMBERS WHO REVIEW PROJECT PROPOSALS FROM STUDENTS, STAFF, AND FACULTY IN ACCORDANCE WITH THE CARBON FUND CRITERIA AND MISSION STATEMENT. THE COMMITTEE ALSO PROVIDES ASSISTANCE TO PROPOSAL AUTHORS IN BOTH PROJECT DEVELOPMENT AND POST-FUNDING IMPLEMENTATION. CARBON FUND COMMITTEE MEETINGS ARE OPEN TO THE PUBLIC. INTERESTED STUDENTS, STAFF, FACULTY, OR COMMUNITY MEMBERS MAY ATTEND COMMITTEE MEETINGS BUT DO NOT HAVE SPEAKING RIGHTS UNLESS REQUESTED IN ADVANCE. IF YOU ARE INTERESTED IN ATTENDING A MEETING, PLEASE CONTACT THE CARBON FUND STAFF.



Yihsu Chen
Faculty Advisor



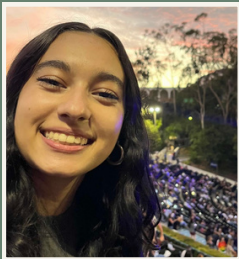
Jessica Keast
*Energy Analyst
(Physical Plant)*



Kathleen Rogers
Procurement



Alberto Ganis
GSA



Nicole Macgaffey
*Climate
Coalition*



Chris Mathura
*People of Color
Sustainability
Collective*



Samuel Perkins
SUA



Noah Sherod
*Sustainability
Office
Representative*



Halle Bohlig
*Carbon Fund
Program
Coordinator*



Amy Fuller
*Carbon Fund
Program
Coordinator*



Ellen Vaughan
*Sust. Office
Carbon Fund
Manager (non-
voting)*



ileana Brunetti
*Sust. Office
(non-voting)*

AWARDED PROJECTS:

MICRO

REDUCING GREENHOUSE GAS EMISSIONS AT THE ARBORETUM

\$5,000 AWARDED

This project is working towards replacing two stroke and four stroke engines at the Arboretum and replacing them with electric equipment. Examples of replacement equipment are chainsaws, lawnmowers, weed whackers and more.

With electric and battery powered equipment, the Arboretum will be able to reduce their greenhouse gas emissions.



MBEST ENERGY EFFICIENT LIGHTING

\$2,500 AWARDED

This energy efficiency project will reduce facility-based carbon emissions by replacing exterior building fluorescent lights with high efficiency LED lights for the UCSC Monterey Bay Education, Science and Technology (MBEST) Center.

MBEST is a satellite location and is utilized by many employees and students.



AWARDED PROJECTS:

MICRO

SISNHEIMER GROWTH CHAMBER ENERGY-EFFICIENT LIGHTING UPGRADE

\$4,558 AWARDED

This project is working on replacing the lighting in one of the growth chamber labs on campus.

In doing so, this group will study the impacts on certain plants growth based on old light bulbs versus energy efficient lighting.



WASHER AND DRYER REPLACEMENT AT LONG MARINE LAB

\$1,800 AWARDED

The washer and dryer at the Long Marine Lab facility is used often by its members like the Marine Mammal Physiology, Pinniped Lab, Elephant Seal researchers and many more.

The current washer and dryer unit is no longer functioning at its full capacity, making it use resources more inefficiently. Therefore, by replacing it, community members at the lab will be able to utilize a more reliable and energy efficient washer and dryer.



AWARDED PROJECTS:

MICRO

FARM FUTURE 2023-2024

\$4,973 AWARDED

This project is expanding integrated aquaculture and agriculture research activities at the Center for Agroecology (CfA). The project involves purchasing feed ingredients for aquafeeds, conducting effluent nutrient and soil/plant biochemical analyses, and incorporating two Integrated Aquaculture Agriculture (IAA) trials in winter and spring, focusing on immediate use of aquaculture effluent for irrigating winter crops.



CAL TEACH TERRA CYCLE BOXES

\$775 AWARDED

The purpose of the Cal Teach TerraCycle Boxes project is to reduce the carbon footprint of operating our program through waste reduction and proper recycling.

They will do so by implementing TerraCycle boxes at Cal Teach employee work locations. Additionally, Cal Teach hosts student events and professional development opportunities, in which they will utilize the TerraCycle Boxes to effectively manage any waste generated.



AWARDED PROJECTS: MICRO

SHORTER SHOWER INITIATIVE

\$1,000 AWARDED

The Shorter Shower Initiative aims to inspire behavioral changes among students to reduce water consumption on campus, fostering a more sustainable connection between the university and the environment. This involves installing plastic hourglass timers with accompanying awareness signs in UCSC's residence hall bathrooms, promoting conscious water usage.



TURNING FOG WATER INTO FOOD CALORIES

\$4,300 AWARDED

The ongoing fog-water harvesting project, operational since 2022, has successfully installed fog collectors for irrigation and engaged the community through workshops. To sustain and expand, the current funds granted involve hiring a summer undergraduate student for maintenance and vegetable garden supervision, fostering sustainable practices at the UCSC Farm and offering insights for other foggy communities.



AWARDED PROJECTS:

MICRO

REPLACING 2 STROKE ENGINES AT THE CENTER OF AGROECOLOGY

\$4,527 AWARDED

The replacement of 2-stroke engines with electric equipment supports the Center's goal of advancing agroecology and equitable food systems.

This project aims to procure two commercial grade weed trimmers along with the required battery packs, furthering our commitment to sustainability and environmental stewardship.



SAVING WASTE WITH IMPROVED DRIP IRRIGATION

\$4,833 AWARDED

This project supports the Center for Agroecology's transition from overhead sprinklers to drip irrigation for improved water conservation.

Their distribution uniformity tests have demonstrated a 50-60% water savings with drip tape, showcasing its effectiveness in optimizing water usage for crop irrigation, making it the preferred method for sustainable water management.



AWARDED PROJECTS:

MICRO

ENVIRONMENTAL HARM REDUCTION AT THE COVE

\$1,475 AWARDED

This student led project, aims to enhance The Cove's sustainability by replacing disposable cups with reusable stainless steel mugs, sourced domestically to reduce emissions.

These mugs, featuring The Cove and The Carbon Fund logos, will be washable, reusable, and equipped with a detachable carabiner handle, reinforcing our commitment to resource efficiency and reducing our carbon footprint.

They will also be free for students to check in and out. This way students are free to take drinks on the go



AWARDED PROJECTS:

MACRO

CAMPUS FOOD SCRAP COMPOST PILOT PROJECT

\$11,241 AWARDED

This pilot program aims to divert food and paper towel waste from campus into a composting system. The goal of this project is to study the viability of on-campus composting.

UCSC's compostable waste is currently taken to ReGen Monterey 36 miles from campus. This project will benefit the campus by minimizing carbon emission by reducing transport.



SANKOFA SKY FARMS

\$20,556 AWARDED

This student led research project at UCSC is dedicated to advancing sustainable agriculture practices and optimizing crop-specific growing parameters to reduce environmental impact and promote long-term viability.

The Sankofa Sky Farm Sustainable Vertical Farm Research Project, also aims to collaborate regionally and extend their impact beyond the campus.



AWARDED PROJECTS:

MACRO

ELECTRIC RTV FOR THE ARBORETUM

\$10,000 AWARDED

The project aims to mitigate greenhouse gas emissions from diesel/gas powered engines by transitioning to electric equivalents. This involves researching, procuring, and maintaining appropriate electric equipment, with the first step being the acquisition of an electric RTV for the Arboretum, envisioning a future where all equipment operates on electric power.



PLASTIC RECYCLING STUDIO

\$12,830 AWARDED

This project aims to establish a plastics recycling studio based on the open-source Precious Plastics format, enabling the Art Department to directly recycle plastics and enhance creative capabilities.

It not only reduces plastic waste volume through collection and shredding but also fosters participatory engagement while supplementing our 3D printing program with recycled-plastic-based filament



AWARDED PROJECTS:

MACRO

ELECTRIFYING TRANSPORTATION TO THE AÑO NUEVO RESERVE

\$10,000 AWARDED

This project aims to address issues with transportation for student fieldwork at the Año Nuevo Reserve. By adding another electric car, there will be fair access to all students while cutting carbon emissions.



MYCELIAL SOLUTIONS FOR WILDFIRE AND RESOURCE RECOVERY: EXPANSION PROJECT

\$25,000 AWARDED

This project aims to unveil the mysteries of fungal contributions to carbon sequestration and ecological regeneration, offering hands-on learning opportunities for students and fostering wider community engagement.

Collaborating with indigenous perspectives, this project empowers students to engage in real-world science while addressing the root causes of wildfires and advancing sustainable forestry practices.



AWARDED PROJECTS: MACRO

ELECTRIFICATION JUMP START

\$69,036 AWARDED

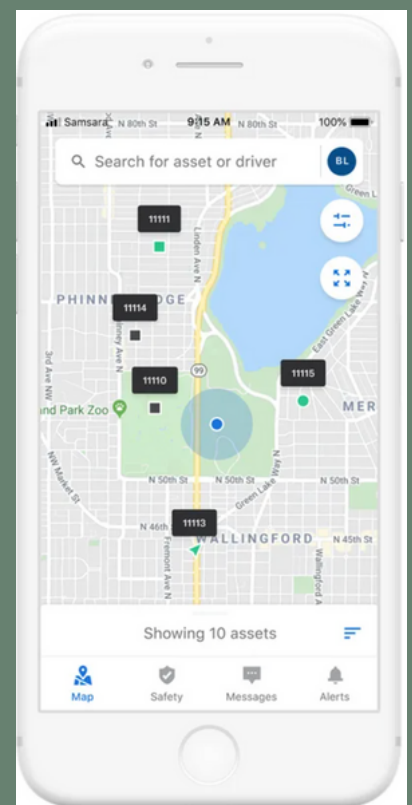
Last August, the chancellor tasked a Decarbonization & Electrification Task Force with devising a plan to transition UCSC away from fossil fuels by 2030 or sooner, resulting in a recently completed report. Now, with an estimated cost of \$700,000,000, efforts are underway to prevent the purchase of new natural gas equipment and advance immediate decarbonization needs.



TAPS BUS TRACKING SOFTWARE SYSTEM

\$46,305 AWARDED

Transportation & Parking Services (TAPS) will install bus tracking technology on all of its buses using the established Samsara technology. This will allow all transit users to open their regular mapping apps and see, in real time, the location and expected arrival times of their buses.



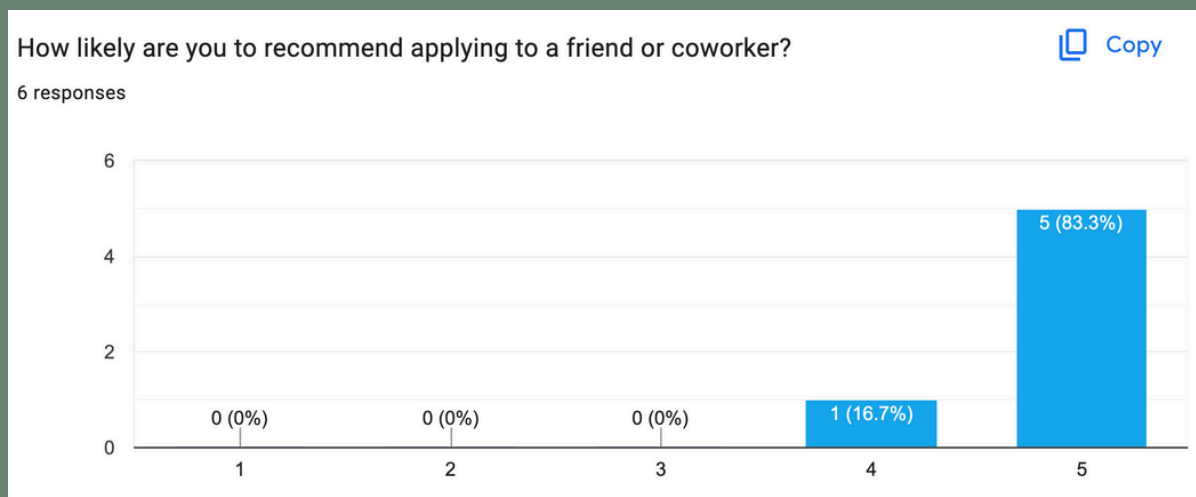
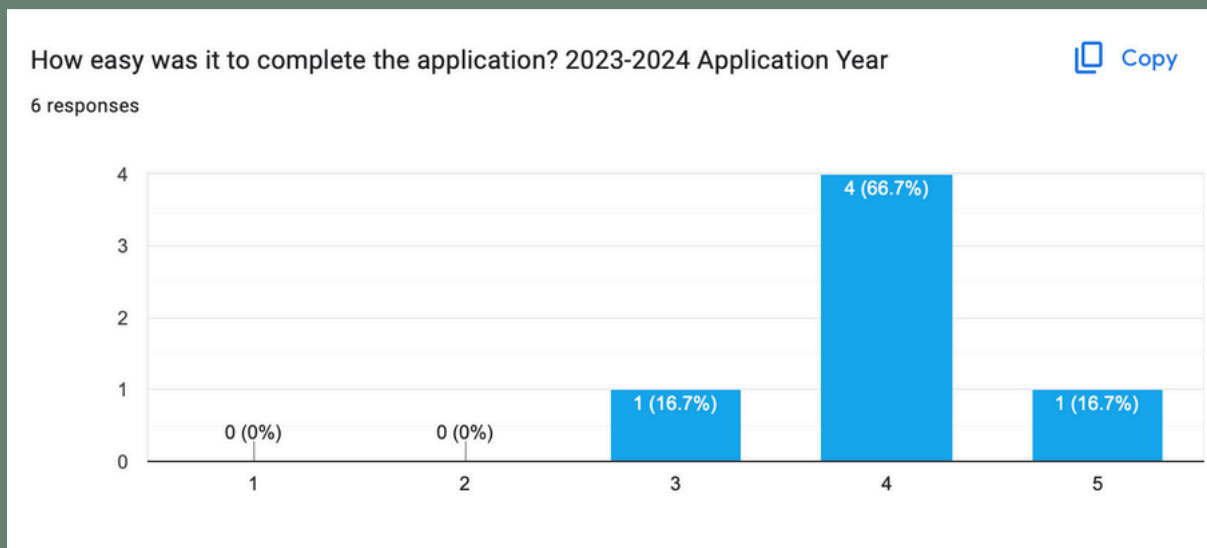
PROCESS IMPROVEMENT

At the Carbon Fund, we are committed to advancing our mission statement by refining our processes to effectively allocate funds towards impactful projects. We are committed to continuous improvement and welcome feedback from our previous Carbon Funded projects. By refining our processes, we hope to enhance transparency, improve our efficiency, and increase our impact.

Each year, we send out a feedback form to those who apply for a grant. The results below show the 2023-2024 responses.

For the first graph, 1 = Not Very , 5 = Very Easy.

For the second graph, 1 = Not Likely, 5 = Very Likely



EXECUTIVE SUMMARY

The Carbon Fund strives to implement our mission statement and allocate funds through processes which including research on calculated life span of projects, carbon mitigation calculations, and cost per ton of carbon saved.

In addition, we have other criteria to ensure a diversity of quality projects including social justice, project feasibility, project implementation plan, metrics and reporting, student involvement, direct savings aspect, quality budget, etc.

Below is a breakdown of the Carbon Fund budget, based on the funding from the 2023-2024 grant cycle.

Carbon Fund Budget Expenditures 2023-24

