

A Framework for Incorporating Environmental & Climate Justice into Climate Action

University of California

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Background

The University of California is committed to combating global climate change and reducing its carbon footprint, including achieving carbon neutrality in its operational (scope 1 and scope 2) emission by 2025. At the same time, the University is committed to advancing diversity, equity, inclusion, and justice in all its climate work. The UC has embarked on many initiatives and projects to promote diversity, equity, inclusion, and justice in the sustainability space. In 2021, the UC's Global Climate Leadership Council expanded the Carbon Neutrality Initiative's mission and vision to recognize that carbon neutrality is a milestone towards the larger goal of creating a more equitable, sustainable, resilient, and healthy world for everyone. Similarly, the Sustainability Steering Committee updated the Sustainable Practices Policy to instruct campuses, and their associated Health Systems, to update their climate action plans to incorporate environmental justice, adaptation, and resilience.

In line with this vision and policy, UC locations should consider how climate protection actions impact disadvantaged communities, both on and off-campus. This guide was created, with funding from UC's Carbon Neutrality Initiative, as a resource to help UC locations integrate equity into their climate action plans and activities. It was developed by the system-wide Climate Change Working Group, which works to implement the Climate Protection section of the UC Policy on Sustainable Practices and to help campuses update their climate action plans and meet carbon neutrality goals.

The following information is a product of student-led research in consultation with experts from UC campuses. It was developed through a review of reports, toolkits, and other guides from community organizations on the ground leading efforts on equity and environmental and climate justice. The researchers also interviewed staff and researchers working on environmental and climate issues to gain a better understanding of the work the UC is tackling in these fields. This guide is not an exhaustive list of all recommendations for action but is rather an initial starting point in moving toward more equitable climate actions. This document is divided into major themes related to environmental justice, crossing multiple sectors to encourage collaboration. Increasing equity and climate justice will require action on multiple fronts.

This document is meant to accompany the Climate Protection section of the Sustainable Practices policy (connect to greenhouse gas reduction). While many of these recommendations apply to other sections of the Sustainable Practices Policy, further work is needed to incorporate diversity, equity, inclusion, and justice into other policy sections and practices.

Contributors

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Extensive system-wide outreach was conducted to UC's Sustainability Officers, Student Engagement Working Group, Sustainable Procurement Working Group, the Energy Services Unit (ESU) Governing Board Technical Committee, and Carbon Neutrality Initiative (CNI) Student Fellows. Additional input was provided through outreach to multiple student groups from all UC campuses and other locations.

A list of Key Resources consulted as part of the research are included at the end of this document.

Land Acknowledgement

As employees of the University of California, a land grant institution, we acknowledge the diverse traditional caretakers of California. Consistent with the University's values of community and diversity, we have a responsibility to acknowledge and make visible the University's relationship to Native peoples. By offering this Land Acknowledgement, we affirm Indigenous sovereignty and will work to hold the University of California more accountable to the needs of American Indian and Indigenous peoples.

Executive Summary

Addressing the current climate emergency will require an interdisciplinary approach from the University of California that centers on improving the well-being of those most impacted by climate change. Time and time again, frontline communities are left out of the conversation on how to address the climate crisis they experience on a daily basis. By adopting an environmental justice framework for climate action, the UC aims to correct past wrongs and move toward a more sustainable future for all.

The University of California's Framework for Incorporating Environmental & Climate Justice into Climate Action is a guide to help staff and leaders at the UC promote equity, diversity, inclusion, and justice into climate actions. This guide is divided into various sections:

- *Environmental and Climate Justice Principles*: lays out the foundational framework and general ideology required to incorporate environmental and climate justice into campus climate actions. In order to achieve environmental and climate justice, advocates need to understand and hold these principles true in all aspects of their work.
- *Evaluation Questions for All Climate Actions*: is a list of questions that should be asked of all proposed climate actions. This will help ensure actions taken by the UC are continuously evaluated for their impact on marginalized and disenfranchised communities that are often excluded from climate decisions.
- *Best Practices*: are tangible actions the UC can incorporate into climate action planning and other sustainability activities to promote greater equity.
- *Evaluating Equity Impacts*: includes recommendations for evaluating the impact of climate actions in addressing equity. Evaluating the equity impacts of these climate actions is necessary to ensure progress is made and the goals of the action are being met.
- *Questions & Ideas for Sustainable Energy Procurement*: a list of questions that can be included in Requests for Proposals (RFP). These suggestions can be incorporated into other non-energy-related procurement as deemed appropriate.
- *Key Resources*: includes UC and community research centers working on climate action and advancing equity and environmental/climate justice. Many of the recommendations in this guide are also cited and attributed.

The Environmental and Climate Justice Principles and Best Practices sections are organized into various topic areas. These topics are not an exhaustive list but rather highlight the need for a non-siloed approach to reducing greenhouse gas emissions. This guide provides an overview of incorporating environmental and climate justice into climate actions in relation to the Climate Protection section of the Sustainable Practices policy. Further research by other UC working groups is needed to address the other sections of the Sustainable Practices policy.

The major topics areas are as follows:

Community Power: involving community members most impacted by climate change is at the heart of environmental and climate justice. By placing the voices of frontline communities and historically marginalized groups at the center of problem solving, the UC can incorporate innovative solutions into climate actions in a way that supports the needs of those groups.

Economy: reducing greenhouse gas emissions will require a restructuring of the current economic system that puts value on climate solutions and workers' well-being over increasing profits. By accounting for negative externalities and promoting the co-benefits of economic decisions, the UC can advance systems that promote a more equitable society for all.

Food Systems: the way humans eat has a direct impact on greenhouse gas emissions through food production, transportation, and disposal. By modifying its demand, the UC can influence the food supply chain to be less extractive and promote greater access to sustainable and nutritious food for all.

Health Impacts: climate change and public health are intimately related as the climate crisis has already impacted community members' physical and mental well-being. By prioritizing community members' well-being, especially those from frontline communities, the UC can promote climate actions that have a direct impact on improving the quality of life for today and future generations.

Housing: access to safe and affordable housing near job centers and other major attractions is needed to reduce greenhouse gas emissions caused by travel. By encouraging sustainable land use practices and housing solutions, the UC can alter the way students, staff, and affiliated groups interact with the lived environment.

Natural Resources: our interactions with the land and natural resources will shape how we address climate change. By promoting sustainable practices, such as those traditionally used by Indigenous peoples, the UC can promote Traditional Ecological Knowledge and advance systems that protect natural resources for today's uses and for generations to come.

Transportation: transportation systems will need to be redesigned to eliminate dependency on fossil fuels and reduce greenhouse gas emissions. Travel makes up a large share of our greenhouse gas emissions. Substantial changes from the UC are needed to reduce vehicle miles traveled, promote greater mobility for all, and advance additional co-benefits such as respiratory health.

Waste: reducing consumption will be necessary to reduce landfill pollution and greenhouse gas emissions caused by goods production and waste disposal. By altering consumption patterns, the UC can promote sustainable practices that prioritize quality over quantity in goods and proper disposal of unavoidable waste.

Definitions

Climate Action: Stepped-up efforts to reduce greenhouse gas emissions and strengthen resilience and adaptive capacity to climate impacts and hazards; integrating climate change measures into policies, strategies and planning; and improving education, awareness-raising and human and institutional capacity with respect to climate change mitigation, adaptation, impact reduction and early warning.ⁱ

Climate Justice: Insists on a shift from a discourse on greenhouse gasses and melting ice caps into a civil rights movement with the people and communities most vulnerable to climate impacts at its heart.ⁱⁱ

Climate justice acknowledges climate change can have differing social, economic, public health, and other adverse impacts on underprivileged populations. Advocates for climate justice are striving to have these inequities addressed head-on through long-term mitigation and adaptation strategies.ⁱⁱⁱ

Diversity: a defining feature of California's past, present, and future – refers to the variety of personal experiences, values, and worldviews that arise from differences of culture and circumstance. Such differences include race, ethnicity, gender, age, religion, language, abilities/disabilities, sexual orientation, gender identity, socioeconomic status, and geographic region, and more.^{iv}

Environmental Justice: is a community-centered response to environmental racism (see *definition below*) that seeks to abolish environmental harms rather than simply redistribute harms.^v Environmental justice serves as a lens through which social justice principles can be incorporated into the realm of fair sustainability.^{vi}

Environmental racism: the disproportionate impact of environmental hazards on people of color.^{vii}

Frontline Communities: Represent predominantly low-income communities of color that experience the “first and worst” climate outcomes due to insufficiency in basic infrastructure in their neighborhoods. Frontline communities are more susceptible to climate impacts such as heatwaves, drought, floods, and food insecurity.^{viii}

Environmental and Climate Justice Principles

In alignment with the public service mission of the UC, decision-makers shall acknowledge and prioritize solutions for frontline communities as they represent predominantly low-income communities of color that experience the ‘first and worst’ climate outcomes. The following principles lay the foundational framework and general ideology that is required to incorporate environmental and climate justice into campus climate actions. In order to achieve environmental and climate justice, advocates need to understand and hold these principles true in all aspects of their work. These principles are the first step in creating a more sustainable equitable environment and can be applied to a wide range of work-related to climate action, such as resiliency, mitigation, and adaptation. Campuses should include these principles as the basis for all climate-related work.

Community Power

All people, regardless of race, gender, sexuality, nationality, ability, or socioeconomic status, have the right to mutual respect, justice, and freedom from any form of discrimination or bias.^{ix}

The views and perspectives from BIPOC (Black, Indigenous, People of Color), low-income, and communities disproportionately impacted by climate change are essential in shaping policy addressing climate change, environmental justice, and clean energy.^x

Decision makers shall acknowledge, protect, and include frontline communities as they represent predominantly low-income communities of color that experience the “first and worst” climate outcomes. Examples of frontline communities impacted by the UC’s decision includes: houseless students, undocumented students, transit-dependent students, international students, early-outreach program (EOP) students, and students supporting families.

Decision makers shall work toward tangible policy solutions that reach global sustainability goals, such as the several of the United Nations Sustainable Development goals.^{xi}

The education provided to future generations shall highlight social and environmental issues, centering on BIPOC experience and an appreciation for diverse cultural perspectives.^{xii}

Carbon neutrality goals should center equity in all actions and acknowledge that it is not an end goal. Climate actions should continue to engage stakeholders, work toward stronger benchmarks (such as a zero carbon and fossil free future), and center equity in all of these efforts.^{xiii}

Economy

Financial benefits from the transition to a clean, renewable energy economy and carbon reduction strategies should be reinvested in frontline communities most directly impacted by climate change.

A just transition to a clean, renewable economy shall protect low- and middle-income communities from job loss and changes in the economy while ensuring participation of frontline communities in the creation of quality, living-wage, clean, safe, green jobs in the energy sector.^{xiv}

Climate actions should not exacerbate physical and cultural displacement, income inequality, neighborhood disinvestment and neglect, political disenfranchisement, poor public health, high mortality rates, regressive taxes or fees.^{xv}

Food Systems

Food system activities are an essential element to addressing climate change because activities such as food production, transportation, and waste create greenhouse gas.^{xvi}

People have the right to healthy, culturally appropriate, and safe food that is ecologically and sustainably produced.^{xvii}

Adjusting dietary habits is necessary to reach climate justice goals in greenhouse gas reductions.^{xviii}

Health Impacts

Carbon reduction strategies and solutions responding to climate change shall not negatively impact public health nor further exacerbate existing health disparities among communities, especially in or near BIPOC and low-income communities.^{xix}

The current societal and economic system which in the UC currently operates has caused environmental, health, social, and other harms to BIPOC and low-income communities. Climate actions that plan for the future should also consider ways to remediate previous injustices.

All workers, full-time, part-time, remote, tenured, and contracted, have the right to a safe and healthy work environment where safety and worker well-being are a top priority for management at all levels.

The intent of equitable climate action is to reduce greenhouse gas emissions in ways that improve the local environment and make the local economy more sustainable.^{xx}

Climate change and environmental injustice are major concerns for public health and need to be addressed by a coalition of sectors, including the health care system.^{xxi}

Climate change has a direct impact on mental health and the psychological effects are also important to address.^{xxii}

Housing

Affordable housing near transit, campuses, and job centers is an essential component to reducing greenhouse gas emissions caused by auto transportation.^{xxiii}

Housing projects shall not further exacerbate the housing crisis by increasing rents and displacing local residents, including those that are currently unhoused.^{xxiv}

Natural Resources

Land use decisions shall be ethical, balanced, and responsible to promote a sustainable planet for humans and other living things.

Indigenous Peoples are to be consulted and included as decision makers in natural resource and land use policies due to their expertise in environmental stewardship and natural resource management, commonly known as Traditional Ecological Knowledge.^{xxv}

Future policy decisions shall clean up and rebuild communities in balance with nature and honor the cultural integrity of all BIPOC communities.

Water is a human right that entitles everyone to have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use.^{xxvi}

Transportation

Reducing vehicle miles traveled and automobile use is necessary for combating the climate crisis.

Benefits of vehicle electrification shall be equitably distributed to frontline communities and local residents.^{xxvii}

Climate actions should reduce the negative externalities caused by transportation, such as air pollutants, in frontline communities.^{xxviii}

All people, especially those from lower socioeconomic status and with mobility issues, deserve a high level of mobility and accessible multi-modal transportation options.^{xxix}

Waste

Processes that threaten clean air, land, water, and food systems shall be reduced and eliminated, including extraction, fracking, production and disposal of toxic/hazardous wastes and poisons.

Promote consumer, business, and procurement choices to reduce the use of natural resources product waste, prioritize durable products that ensure the health and longevity of the planet.

Environmental equality is the redistribution of proximity to environmentally hazardous facilities between historically disadvantaged communities and wealthier privileged neighborhoods. Environmental justice highlights the need to phase-out and eliminate environmentally damaging facilities to ensure all communities are safer rather than redistributing the proximity to harmful pollutants.

Consumers and purchasers, including the UC, are complicit in demand for fossil fuels in conjunction with the demand for products. Reducing product consumption is necessary to reduce greenhouse gas emissions.^{xxx}

Evaluation Questions for All Climate Actions

The following is a list of questions that should be asked of all proposed climate actions. Leaders should evaluate all climate actions and plans using these criteria to prioritize justice, diversity, equity, and inclusion. This will help ensure actions taken by the UC are continuously evaluated for their impact on marginalized and disenfranchised communities that are often excluded from climate decisions.^{xxx}

1. What specific groups, on or off campuses, are directly and indirectly impacted by this climate action or policy proposal? Particularly think about marginalized groups and those historically not represented at the UC. Be as detailed as possible in brainstorming groups such as student commuters from South Los Angeles.
2. Who will benefit from and/or be burdened by this decision? Is this support or relief prioritized for the people and communities who need it the most and are already marginalized, lower-income, disabled, communities of color?
3. What was the approach for engaging Black, Indigenous, and People of Color (BIPOC), and other underrepresented and marginalized groups, including people with disabilities and LGBTQIA communities, in reviewing this climate action? Particularly those mentioned in questions 1 & 2.
4. How could this climate action potentially ignore or worsen existing disparities or produce other unintended consequences on or off campuses? Please explain how you came to your answer and how you plan to remedy any disparities and unintended consequences.
5. How does this climate action proposal prioritize improvements, programs, and/or changes that address the needs of underrepresented and marginalized communities, on or off campuses? Please explain how you came to your answer.

Best Practices

The following best practices are tangible actions the UC can incorporate into climate actions and other sustainability activities to promote greater equity. The implementation of each best practice will vary depending on the different campuses' capabilities and local infrastructure. Campuses should assess resources and systems available as some of these practices may require the creation of new programs and collaborations. Innovation and dedication are necessary to achieve environmental and climate justice.

Community Power

Identify researchers and experts within the UC system who have experience working with the respective communities of interest, such as immigrants or tribes. Consult with individuals who are familiar in these communities and understand the relationship they have with the UC.

- This includes understanding how the UC's decisions have had negative impacts on communities, especially those on the frontlines of climate change.
- Relationship building will be necessary to open lines of communication to understand how resources can be best allocated to serve the needs of frontline communities.

Consult with UC experts on their respective topics of expertise related to climate action. See [UC Climate Justice Stakeholder Map](#) with information on the appropriate experts and leaders across the campuses.

- The UC is home to a wide range of researchers and experts with extensive knowledge of environmental issues. Addressing climate change will require an interdisciplinary approach to problem solving that will need input from all stakeholders within the UC.

Consult and corroborate quantitative data with qualitative stories from community members' lived experiences and observations of actual conditions.^{xxxii}

- By conducting academic and funded research to support community members' experiences, UC researchers can provide additional legitimacy to communities' concerns with environmental and climate impacts.

Involve and center community voices in the research design to help bolster political awareness, advocacy efforts, and policy changes.

- Examples of collaborative research efforts include:
 - Participatory action research^{xxxiii}
 - Collaborative planning^{xxxiv}
 - Asset based community development^{xxxv}
 - Transformative justice^{xxxvi}

Increase relationships with community-based organizations led by members of frontline communities that have experience with coalition building and direct action.^{xxxvii}

- Collaborating with statewide, tribal, local leaders on environmental justice issues creates strong and comprehensive policy change combating climate change. Building long term partnerships with community organizations will require routine standing meetings with UC staff and increasing the public's access to university information and resources.
- Examples of California coalitions and organizations include California Environmental Justice Alliance (CEJA)^{xxxviii} and the Greenlining Institute^{xxxix}. UC staff can coordinate efforts to have a regular standing meeting, quarterly or bi-annual, for potential collaboration and robust communication.

Increase research and project collaboration with community organizations located in, and working directly with disadvantaged communities, including tribes. This includes prioritizing research projects, programming, internship opportunities, and other initiatives that bring additional funding for clean energy investments in these communities.

- By understanding the communities' experiences, researchers can use their work to advance local efforts and draw attention to environmental and climate issues affecting people's daily lives. Researchers from the University of California can also partner on grant applications with smaller organizations by providing technical and research support.
- Ensure research relationships with communities are co-creative rather than extractive.

Elevate community engagement efforts to move toward community ownership as deemed appropriate for climate action projects.

- Community engagement across a spectrum of development stages: inform, consult, involve, collaborate, and defer to. All climate actions should identify where community engagements are on this spectrum and modify systems to move toward community ownership.^{xl}

Community engagement should follow best practices for accessibility to frontline communities and be tailored to local needs such as materials in appropriate languages, evening public meetings, social media outreach, and technology support.^{xli}

- Engagement efforts should especially consider cultural factors including but limited to literacy level, socioeconomic status, language, local history, and competing interests/time.^{xlii}
- Most frontline communities are working class and residents of color who do not have the same availability as many UC staff whose main job is working on sustainability or research. It's important to acknowledge these differences in accessibility and adapt engagement models to serve communities that are usually underrepresented.^{xliii}

Community outreach efforts should demonstrate how community input will be used, influence decision making, and lead to policy change.^{xliv}

- Community engagement without accountability and policy change is a disservice to community members' time and experiences. Prioritize, uplift, and enact the views and recommendations from low income and marginalized communities as those most directly affected by climate change policy decisions.

Outline the policy goal's direct benefits and co-benefits that prioritize reducing disparities for frontline communities and increasing access to information and resources.^{xlv}

- Collaborating with community members to explicitly outline community benefits helps build transparency and accountability for environmental justice projects. Community partners need to be actively engaged through community-driven processes that promote equity and community ownership of projects.^{xlvi}

Promote hiring practices and financial compensation that put a value on the lived experiences, resilience, and skills of people from frontline communities directly impacted by climate change.^{xlvii}

- Low-income, immigrant, and communities of color have been historically excluded from high-paying quality jobs due to exclusive hiring practices and structural barriers to obtaining employment. Hiring practices should seek community members with lived experiences and increase accessibility. Frontline communities should not only be targets for community engagement but ideal candidates for jobs. Job opportunities should be shared, promoted and made easily accessible to underrepresented communities most impacted by climate change.
- Community outreach and input is necessary for equitable decision making to ensure marginalized voices are included. While community members benefit from sharing their experiences to improve equity, many low-income and marginalized groups are financially limited and time constrained to provide input in their free time. Community members should be financially compensated for time they commit to involvement with the UC

Economy

The intent of equitable climate action is to reduce greenhouse gas emissions in ways that improve the local environment and make the local economy more sustainable.^{xlviii}

- Prioritize local solutions to the climate crisis by investing in local businesses and technologies to strengthen the local economy. The benefits of green energy projects should be distributed to local disadvantaged communities.

Serve as a liaison and resource for community organizations seeking to secure funding opportunities from public and private funds for clean energy projects.^{xlix}

- Many community organizations have limited capacity and experience in obtaining major grants and applying to funding opportunities. By partnering with community organizations, the UC can provide additional administrative, research, and

technical support for local projects. For example, there are various energy related funding opportunities from the California Energy Commission.ⁱ

- The UC can also expand networking with community organizations to provide community-based research and access to student interns and volunteers.ⁱⁱ Connecting students with local organizations is a career enriching opportunity and helps build communal knowledge for environmental justice.

Support statewide efforts to increase renewable energy and zero-carbon resources supply in retail sales. For example, ensure future development projects support and align with the 100% Clean Energy Act of 2017 (SB 100), which requires renewable energy and zero-carbon resources to supply 100% of electric retail sales to end-use customers by 2045.ⁱⁱⁱ

- The UC's should be a leader in meeting state goals and climate change objectives.

Provide research support to economic development strategies at the local and regional levels to promote a green economy. For example, supporting cross sector collaboration for the California Workforce Development Board's High Road Training Partnerships (H RTP) initiative^{iv}, which uses Greenhouse Gas Reduction Fund (GGRF) monies for high road workforce development programs.^v

- Switching from fossil fuels to renewable energy sources will dramatically alter the local economy of communities reliant on jobs from the fossil fuel industry. Fossil fuel dependent communities will need to develop new economic strategies to bring in new jobs.
- H RTP works at the center of climate, equity, and jobs to create quality career opportunities for workers.^{vi}

Provide research support to statewide agency efforts to increase renewable electricity procurement. For example, ensure future development projects support and align with the Clean Energy and Pollution Reduction Act (SB 350) that aims to reduce GHG to 40% below 1990 levels by 2030 and to 80% below 1990 levels by 2050.^{vii}

- As a major energy purchaser, the UC is a key player and leader in California reaching renewable energy goals.^{viii}

Mitigate the social and environmental costs of goods and services as part of the price and value of a product. Do not solely prioritize low price as it does not encompass the downstream environmental costs paid mostly by frontline communities.

- Carbon is not the only good, product, or service that creates negative externalities for society and has a higher social cost than the listed price. Purchasing policies should also consider the social cost of other goods when considering price. Always prioritizing the lowest price and cost savings does not lead to equitable outcomes as some communities will pay the downstream social costs.
- Striking a balance between low cost and reducing carbon emissions will be contingent on achieving the UC's mission and financial constraints.

- For example, thoughtfully planned nature-based solutions can contribute to a community's triple bottom line, providing social, environmental, and financial value.^{lvi}

An equity weighted social cost of carbon should be used for calculations and shall include the global environmental impacts of carbon while considering the environmental impact to frontline communities.^{lx} The Climate Change Working group is currently working with UC Berkeley Faculty on developing an equity weighted social cost of carbon for the UC system's use.

- The social cost of carbon can vary depending on the metrics and criteria used. Some groups use a conservative cost by focusing on domestic impacts only, but since the environment is a global issue, a global analysis is more accurate in depicting the real cost of carbon.^{lx, lxi}

In addition to the global social cost, UC locations should consider how the impacts of carbon impacts different communities. Frontline communities face the costs of climate change faster and stronger than communities living in more privileged areas and with access to more resources.

Evaluate the UC's relationship and partnerships with other business, and organizations that are contributing to increased greenhouse gas emissions.

- By restructuring the relationship with other polluters, the UC can use its influence to further reduce greenhouse gas emissions.

UC campuses should work with procurement staff to identify appropriate opportunities for outsourcing and prioritize Small Businesses and Disabled Veteran Business Enterprises (DVBE).^{lxii}

- It's important to find fair and equitable balance at each campus for procurement projects, between protecting UC employment^{lxiii} and uplifting small, diverse businesses.

Food Systems

Collect and integrate food system changes as part of the UC system greenhouse gas emission reductions plans.^{lxiv}

- Modifying food systems requires less major infrastructure overhauls compared to other climate actions, such as grid reliability, therefore should be considered as a "low-hanging fruit" for climate actions.^{lxv}

Promote "farm to fork" policies that support locally sourced food.

- Purchasing locally sourced food can reduce transportation and storage costs, promote the local economy, and encourage sustainable agriculture.^{lxvi}

Incorporate plant-based menu options at all UC dining and catering events.

- Developing a list of sustainable and just catering can aid environmentally friendly food procurement.^{lxvii}

- For example integrating Indigenous food systems that promote healthy and sustainable food practices.^{lxviii}

Health Impacts

Identify communities impacted by carbon reduction strategies, paying close attention to disadvantaged communities. Assess the impacts of strategies on communities and opportunities to mitigate negative consequences.

- Identifying and assessing impacts before embarking on a strategy is essential and helps when engaging community members. These assessments are needed to hold projects accountable and increase transparency.

Include environmental factors, such as exposure risks, as part of community health assessments to collect data on environmental health.

- Monitoring the health conditions, climate vulnerability, and overall environmental health of patients is necessary to better understand what the public health impacts of climate change and environmental shifts are.^{lxix, lxx, lxxi}

Identify the co-benefits of sustainability policies in respect to public health, for example, the additional health benefits of increasing biking and walking infrastructure.

- By identifying co-benefits, the health sector can become greater advocates for policies that reduce carbon and promote sustainability.^{lxxii}

Provide research support to statewide agency efforts to reduce exposure in communities most impacted by air pollution. For example, ensure future development projects support and align with the California Air Resources Board's Community Air Protection Program established by AB 617, which includes community air monitoring and community emissions reduction programs.^{lxxiii}

- UC researchers have the expertise to help develop and implement new strategies to measure air pollution and reduce health impacts.

Support data sharing networks for health care systems to better identify trends in patient health related to climate change and the environment.

- By sharing and standardizing data, hospitals and health care systems can identify trends and potential strategies to address environmental health issues. Health care professionals can also share resources and tools.^{lxxiv}

Identify opportunities for healthcare systems to become anchors in the community that support the local economy and sustainable development.

- Health care systems have access to a large array of assets that need to be directed toward promoting equity and sustainability for well-rounded community

health. Joining national and local networks can help to share strategies and place-based solutions.^{lxv}

Housing

Incorporate affordable housing into transportation oriented development (TOD) projects to encourage multi-modal transportation and reduce automobile use.^{lxvi}

- Low-income individuals are more likely to rely on public transit and shall be target populations for TOD housing.

Incorporate affordable housing in mixed-use development to increase access to housing local serving businesses.^{lxvii}

- Low-income individuals should also have access to affordable housing near commercial centers and amenities.

Provide research support to statewide agencies and metropolitan planning organizations to reduce greenhouse gas emissions. For example, ensure future development projects support and align with the Sustainable Communities and Climate Protection Act (SB 375), which supports the State's climate goals by helping reduce greenhouse gas emissions through coordinated transportation, housing, and land use planning.^{lxviii}

- The UC is uniquely positioned as a non-local government entity to support regional collaboration between cities and within the region.

Support policies that protect residents from climate gentrification, where people are displaced due to improvements in green infrastructure.

- For example, decision makers should assess the negative impacts for socially disadvantaged people when building more sustainable housing that can attract wealthier residents and lead to displacement.^{lxix}

Natural Resources

Use existing statewide and federal data tools to identify the frontline communities and vulnerable populations most impacted by climate change policy areas.^{lxx}

- Using existing data tools from government entities facilitates collaboration and streamlining policy efforts. Data tools include^{lxxi}:
 - CAL-ADAPT^{lxxii}
 - Urban Heat Island Index for California^{lxxiii}
 - Indicators of Climate Change in California^{lxxiv}
 - California Communities Environmental Health Screening Tool (CalEnviroScreen)^{lxxv}
 - Climate Change & Health Vulnerability Indicators for California (CCHVIs)^{lxxvi}
 - Regional Opportunity Index^{lxxvii}
 - Healthy Places Index^{lxxviii}
 - EJSCREEN^{lxxix}

Increase access for Indigenous people to UC lands by supporting tribal partnerships and demonstration projects. Indigenous land stewardship and expertise is needed in land management. Refer to guides and resources created by Indigenous groups.^{xc}

- Indigenous people have cultural connections with plants and wildlife, which provides them with expertise on restoration projects. Increasing tribes' access to UC lands is an actionable way to move beyond land acknowledgments.

Support municipal efforts to modify land use policies that ban or limit polluting facilities while encouraging proactive planning.^{xcii}

- Cities are common battle grounds for progressive environmental justice policies. The UC should provide research support and community engagement as they are a major institution throughout cities and counties.

Support infill development and containment policies such as urban growth barriers in order to protect from sprawl expanding into open spaces.

- These policies promote creating cities to be more climate smart in their solutions while also preserving natural resources.^{xciii}

Transportation

Enhance data collection methods for commuter data to help identify areas of most need for increased affordable, sustainable transportation options, including disadvantaged communities.

- Data trends can show what areas are in most need of transportation access and where additional routes will have the more effective and equitable impact. Strong commuter data will help shape future policy decisions on where to allocate transportation funding and improvements to reduce vehicle miles traveled, which in turn will reduce greenhouse gas emissions.

Improve public transportation routes to better serve and connect disadvantaged communities to university related areas of interest^{xciii}.

- By connecting more disadvantaged neighborhoods to campuses, the UC system becomes more accessible and equitable for student enrollment, employment, and other events.

Incentivize public transportation, walking, biking, carpooling, and ride sharing, and disincentivize fossil fuel-based, on demand delivery, such as online shopping^{xciv}

- Incentives can include reimbursement for biking expenses^{xcv} and creating systems for campus sponsored carpooling.
- Limit the number of online orders per month to reduce shipping costs and trips. By waiting to submit orders, more items can be shipped at once.

Promote an integrated fare system for public transportation or micro mobility within the UC system.

- Creating a single payment system for transportation will facilitate use.
- Micro-mobility can address challenges to first and last mile access to public transportation.^{xcvi}

Reduce carbon footprint from university-sponsored travel and commuting to and from campus for faculty, students, and staff:

- Support teleconferencing by developing university recommendations and guidelines.
 - Create voluntary offset program via GreenTravel program encouraging no airplane travel^{xcvii}
 - Expand and support for teleworking^{xcviii}
 - Expand online learning
 - Develop compressed course scheduling^{xcix}
 - Promote co-benefits of alternative modes of in-person attendance such as affordability and accessibility

Expand the Car and bike share programs, ensuring that all shared vehicles are electric vehicles and that shared vehicle services address the needs of families, people with disabilities, and frontline communities.^c

- Communities have an array of needs and cannot always rely on public transportation. Commuting via private car/van may be more equipped to accommodate community members' needs.
- The UC should offer memberships to students at a discounted rate, targeting low-income students.

Support efforts from state agencies and metropolitan planning organizations efforts to reduce vehicle miles and automobile use. For example, ensure future development projects support and align with Transportation Impacts (SB 743), which replaces traditional congestion mitigation measures with increasing transit options, facilitating biking and walking, changing development patterns and charging for parking.^{ci}

- The UC efforts should align with statewide and regional goals to adapt land uses to promote multi-modal transportation such as walking and biking.
- Another example of statewide policy is the Clean Transportation Investment Plan (AB 118- 2007, AB 8- 2013), which supports innovations in a broad portfolio of transportation and fuel technologies that help California meet its energy, clean air, and climate change goal.^{cii}

Support statewide and local efforts to increase access to electrification program funding in low-income and disadvantaged communities. For example, ensure future development projects support and align with Electric Program Investment Charge: allocation (AB 523), which funds clean energy technology projects that will promote clean and renewable energy throughout California and improve air quality.^{ciii}

- Benefits from electrification such as electric vehicle charging infrastructure should also be targeted to communities commonly excluded from new technology.

Waste

Support and create programs for reuse, repair, recovery, and refurbishment to increase waste diversion, reduce material consumption, and create employment opportunities.^{civ, cv, cvi}

- Considering the full life cycle of products can save costs while also reducing waste & energy. Programs to reuse and repair items can also create job opportunities for local communities and learning experiences for students. Repair jobs also help build practical skills that can lead to other job opportunities.

Create or expand the existing lending library services, including access to local low-income and disadvantaged communities' members, while encouraging local repair businesses.^{cvii}

- Examples of lending services can include audio/visual equipment, hardware tools, and cooking appliances.^{cviii, cix}
- Lending services are beneficial to low-income communities who do not have the resources to pay up front costs for items, especially for items they do not use frequently. Lending services help reduce the eventual waste of community members purchasing more items than needed.

Promote sustainable building practices during energy efficiency improvements to ensure minimal effects on the economy, society, and the environment through efficient resource and waste management.^{cx, cxi}

- Energy efficiency retrofits can or may lead to increased building waste due to discarding and replacing old appliances and other building elements. Planning for efficient waste management creates transparent and accountable systems to reduce pollutants caused from building waste.
- Also, consider the negative impacts of waste disposal on the environment and its relation to frontline communities.

Communities should be informed about all potential toxins and hazardous materials that impact their surrounding neighborhoods.

- By building good relationships with community organizations, UC staff will be able to notify residents of any toxins and provide community members with an opportunity to share their concerns.
- Work with local organizations to inform students and residents of toxins emitted from a non-UC source but still impacts the community.

Researchers should consider potential risk hazards caused by waste facilities in addition to evaluating proximity to local residents.

- Assessing the health impacts caused by waste facilities more accurately depicts the exposure and experience residents will face. Not all facilities cause the same level of exposure and these risk hazards should be weighted accordingly, in addition to using geographic modeling tools to create buffer zones.^{cxii}

Evaluating Equity Impacts

The following sections include recommendations for how to evaluate the impact of climate actions in addressing equity. The UC is prioritizing climate actions that promote diversity, equity, inclusion and justice in the sustainability space. Evaluating the equity impacts of these climate actions is necessary to ensure progress is made and the goals set out in the action are being met.

Create a committee or task force composed of local experts and representatives from community based organizations.^{cxiii}

- Local experts are knowledgeable on the needs of their communities and have a better understanding of what equity looks like in practice for their communities.

Identify data points that can demonstrate inequities and can be developed into metrics.^{cxiv}. Metrics should be consistent, standardized, and quantitative, related to UC's effort to engage and diminish the harm caused by its climate actions.^{cxv}

- Knowing the present inequities can help shape metrics to directly reduce disparities.

Equity metrics should identify and measure progress on economic, social, health, and environmental issues applicable to climate action.^{cxvi}

- Metrics should include indicators that are of most concern to community members. This will help prioritize the most important concerns to advancing equity and improving the quality of life for disadvantaged groups. For example, the CA Air Resources Board has identified common needs of California's priority populations.^{cxvii}

Identify the intended long-term impact of the climate action.^{cxviii}

- Knowing the long-term goals helps develop short term and intermediate achievements that work toward equity goals.

Questions & Ideas for Sustainable Energy Procurement

The following section is divided into themes for potential questions in request for proposals and should be modified for upcoming and previous projects. These questions were developed considering energy procurement but may also apply to other areas of procurement. The main sources include the private sector and community choice aggregation programs.

Community Experience

Energy projects will have intentional and unintentional impacts on surrounding communities. It's important to ask projects about their plans and interactions with communities to learn more about how the projects will impact residents. Community outreach and engagement is also crucial for understanding the projects' impact on disadvantaged communities.

Example RFP Questions:

1. Describe any community engagement efforts or plan, and current perception of the project by the local communities. Include a contact name in the community, if possible.
 - a. Much of California and other parts of the United States are of special importance to tribal communities. What is the perception of the project to local tribal groups?
2. Describe any economic benefit to the community beyond business as usual.^{cix}
3. Describe what benefits the project provides the community in which it is located, including resiliency.^{cxx}
4. Is your project located within a Disadvantaged Community (DAC)?^{cxxi}
5. Does your project demonstrate benefits to DACs?
 - a. If "Yes," please describe the benefit:
6. Have you conducted outreach to the communities around the project location?
7. Please describe the community outreach, including outreach methods (i.e., door-knocking, phone banking, internet, social media, mailings, physical notices posted), the languages spoken in communities surrounding the proposed project, and the languages in which materials been made available, state the number of responses by community members, describe substantive responses, and describe any changes to the project undertaken in response to community responses.

Land & Environmental Stewardship

The impact of the project on the land and local habitat is essential in protecting wildlife, plants, and other natural resources. The UC should aim to go beyond existing environmental regulation and work with other partners to work on innovative

procurement strategies. The UC should also consider the impacts to neighboring waterways and the downstream effects of project waste.

Example RFP Questions:

1. Describe the existing condition of the project site (modified lands or natural habitat) and potential impacts to critical/natural habitat, if any, as defined by Guidance.^{cxxii}
 - o Ideally, the land is in a “Multi-Benefit Area” that cannot be used for rich agricultural purposes or other uses.^{cxxiii}
2. Please state whether the project may impact any federal, state, local or other conservation designations or planning effort and if yes, what they are.^{cxxiv}
3. Please describe current and planned surveys to date, and survey findings.
4. Please describe the status of any compensatory mitigation plans.
5. Please describe any onsite efforts made to avoid impacts to protected areas, habitat and habitat linkages (especially for threatened and endangered species) and open space in urbanized areas.
6. The UC values prioritizing “multi-benefit renewable energy” - renewable energy that provides additional societal, health, economic, water saving, or environmental benefits beyond the climate and GHG reduction benefits of renewable energy. Indicate whether your project has multiple benefits, and identify which benefit your project demonstrates:

Workforce Development & Just Transition

Transitioning from carbon dependent to renewable energy sources will cause a shift in the economy. Many people may lose their jobs while new opportunities will become available. New jobs and projects in the green economy need to equitably benefit society and provide opportunities to uplift historically marginalized communities.

Example RFP Questions:

1. Has your project secured a community benefit or project labor agreement?^{cxxv}
 - o If the answer is "No," has your project secured other community benefits or project labor agreements?
2. Please describe any community benefit or project labor agreements your project has secured or will secure.
3. Will your workforce be paid a prevailing hourly wage rate?
4. Please describe the new jobs being created by your project.
5. Please describe the share of your workforce that includes apprentices or skilled journeypersons, veterans, and residents of disadvantaged communities.
6. Will the project be built and maintained under a Responsible Contractor Policy? That includes affirmative performance, labor, environmental, and safety standards along with transparency and whistleblower protections.^{cxxvi}
7. Will jobs created by the project offer pay, benefits and career opportunities consistent with area standards for conventional energy jobs (e.g., coal, gas plants)?

8. Will the developer and EPC contractor partner with registered apprenticeship programs to train and employ workers who work in conventional energy and/or come from environmental justice communities?
9. Will the developer and EPC contractor work with local stakeholders, including labor unions, to maximize use of the local workforce to build and maintain the project?

Key Resources

The following key resources include research centers across the University of California and other leaders working to advance climate action, equity and environmental/climate justice. Resources are organized by topic area, but many organizations span multiple subject expertise. Many of the recommendations in this guide are also cited and attributed, please refer to the references page for additional information.

Community Power for All

California Environmental Justice Alliance

<https://caleja.org/>

Center for Climate Justice @ UC Merced

<http://centerclimatejustice.universityofcalifornia.edu/>

Energy Justice Network

<https://www.ejnet.org/>

The Greenlining Institute

<https://greenlining.org/>

Movement Strategy Center

<https://movementstrategy.org/>

NAACP Environmental and Climate Justice Program (ECJP)

<https://naacp.org/know-issues/environmental-climate-justice>

Economy

Energy Institute @ UC Berkeley

<https://haas.berkeley.edu/energy-institute/>

High Road Training Partnership Initiative: California Workforce Development

<https://cwdb.ca.gov/initiatives/high-road-training-partnerships/>

Labor Center @ UC Berkeley

<https://laborcenter.berkeley.edu/green-economy/>

Labor Center @ UCLA

<https://www.labor.ucla.edu/>

Luskin Center for Innovation @ UCLA

<https://innovation.luskin.ucla.edu/climate/>

Policy Institute for Energy, Environment, and the Economy @ UC Davis

<https://policyinstitute.ucdavis.edu/>

Energy

Advanced Power and Energy Program @ UC Irvine

<http://www.apep.uci.edu/>

California Institute for Energy and Environment @ UC Berkeley

<https://uc-ciee.org/>

Center for Law, Energy & the Environment @ UC Berkeley

<https://www.law.berkeley.edu/research/clee/>

Clean Power Alliance

<https://cleanpoweralliance.org/>

Food Systems

Center for Agroecology @ UC Santa Cruz

<https://agroecology.ucsc.edu/index.html>

National Center for Ecological Analysis and Synthesis @ UC Santa Barbara

<https://www.nceas.ucsb.edu/>

Health Impacts

Atmospheric Integrated Research @ UC Irvine

<http://airuci.uci.edu/about>

Center for Healthy Climate Solutions @ UCLA

<https://ph.ucla.edu/research/centers/ucla-center-healthy-climate-solutions>

Center for Climate Change Impacts & Adaptation @ UC San Diego

<https://climateadapt.ucsd.edu/>

Housing

Center for Regional Change @ UC Davis

<https://regionalchange.ucdavis.edu/>

Terner Center for Housing Innovation @ UC Berkeley

<https://ternercenter.berkeley.edu/>

Natural Resources

Centre for Indigenous Environmental Resources

<https://yourcier.org/>

Institute of Environment & Sustainability @ UCLA

<https://www.ioes.ucla.edu/>

Climate Adaptation Research Center @ UC Davis
<https://climateadaptation.ucdavis.edu/>

Climate Hazards Center @ UC Santa Barbara
<https://www.chc.ucsb.edu/>

Climate Readiness Institute @ UC Berkeley
<https://www.criberkeley.org/>

Climate Science Alliance
<https://www.climatesciencealliance.org/>

Environmental Dynamics and GeoEcology (EDGE) Institute @ UCR
<https://edge.ucr.edu/>

Science Justice Resource Center @ UC Santa Cruz
<https://scijust.ucsc.edu/about-sjrc/>

Transportation

Institute of Transportation Studies @ UC Berkeley
<https://its.berkeley.edu/home>

Institute of Transportation Studies @ UC Davis
<https://its.ucdavis.edu/>

Zero-Emission Vehicle Market Development Strategy: Governor's Office of Business and Economic Development
<https://business.ca.gov/industries/zero-emission-vehicles/zev-strategy/>

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