



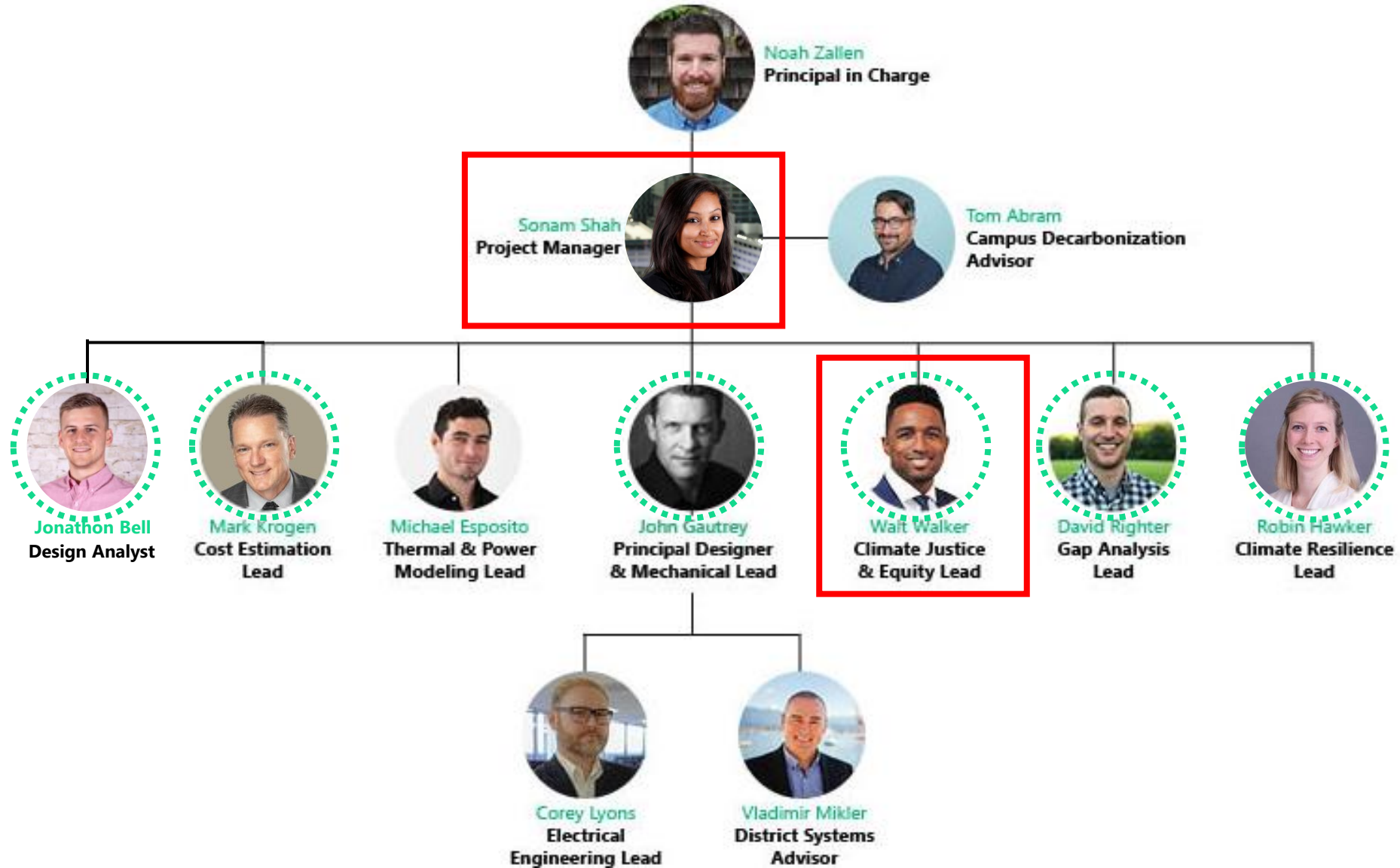
UC Santa Barbara

Decarbonization Environmental Equity Workshop

October 31, 2023



The Consultant Team



Agenda

Start/End Time	Agenda item
9:30-9:45 am	Introductions
9:45-9:55 am	Project Overview: Background, Scope of Work Areas, Schedule
9:55-10:05 am	Where are we now, and where can we go?
10:05-10:45 am	Breakout Activity Sessions: Focus / Vision / Action Mapping
10:45-11:00 am	Final Thoughts and Closing Remarks

Land Acknowledgement

- The UCSB is located on land that is and has long been a center for Native/Indigenous peoples. Many of the projects and research conducted by this University are within the traditional territory of the **Chumash Peoples**, and/or affect other Indigenous peoples in their territories.
- As educators, friends, and allies, together, we can acknowledge the mistakes and atrocities of the past and move forward in remembrance and relationship with the local Chumash peoples and other Indigenous peoples, to facilitate their process of healing by making sure that our processes here make room for their Chumash and Indigenous voices to be heard, their Traditional Ecological Knowledge of these territories to be listened to and their peoples to be a part of the healing of these lands and waters, as well as themselves.

Objectives of this Workshop

- Discuss and map out observations and ideas that advance climate justice and equity considerations related to the green transition of existing campus energy systems to fossil fuel free systems.
- Consider existing dynamics and innovative approaches & partnerships; and propose next steps to identify solutions, referencing the UC Framework for EJ&CJ in Climate Action.
- Collecting stakeholder feedback based on facilitated questions and providing space for participants to share their lived experiences, ideas for equitable & just green transition under the technical scope, and ideating the climate justice outcomes that can be initiated/advanced through the UCSB Clean Energy Master Plan.

Community/Stakeholder Participation

- Recognize history, land, and legacy
 - Coastal Band of the Chumash Nation
- Accountability and Transparency
- UCSB roles
 - Leverage learned **and** lived experiences
 - Facilitate Peer-to-peer exchanges
 - Encourage capacity building and two-way communication
 - Lead workshop outcomes
- Groups + Workshops
 - Core UCSB staff + campus community + Broader Community
- Community
 - Indigenous Communities
 - Campus employees
 - Student groups
 - HSI + AANAPI Alliance and Student Affairs
 - SBC Frontline
 - Center for Innovative Teaching, Research, and Learning (CITRAL)
- Work towards desired outcomes + actions

Introductions

1. **Name, pronouns**
2. **Major / Department / Position**
3. **Your interests:**
 - What brings you here to this session?
 - what do you see as climate/environmental justice issues on campus and in the overall community?



Project Overview

Background, Scope of Work Areas, Schedule

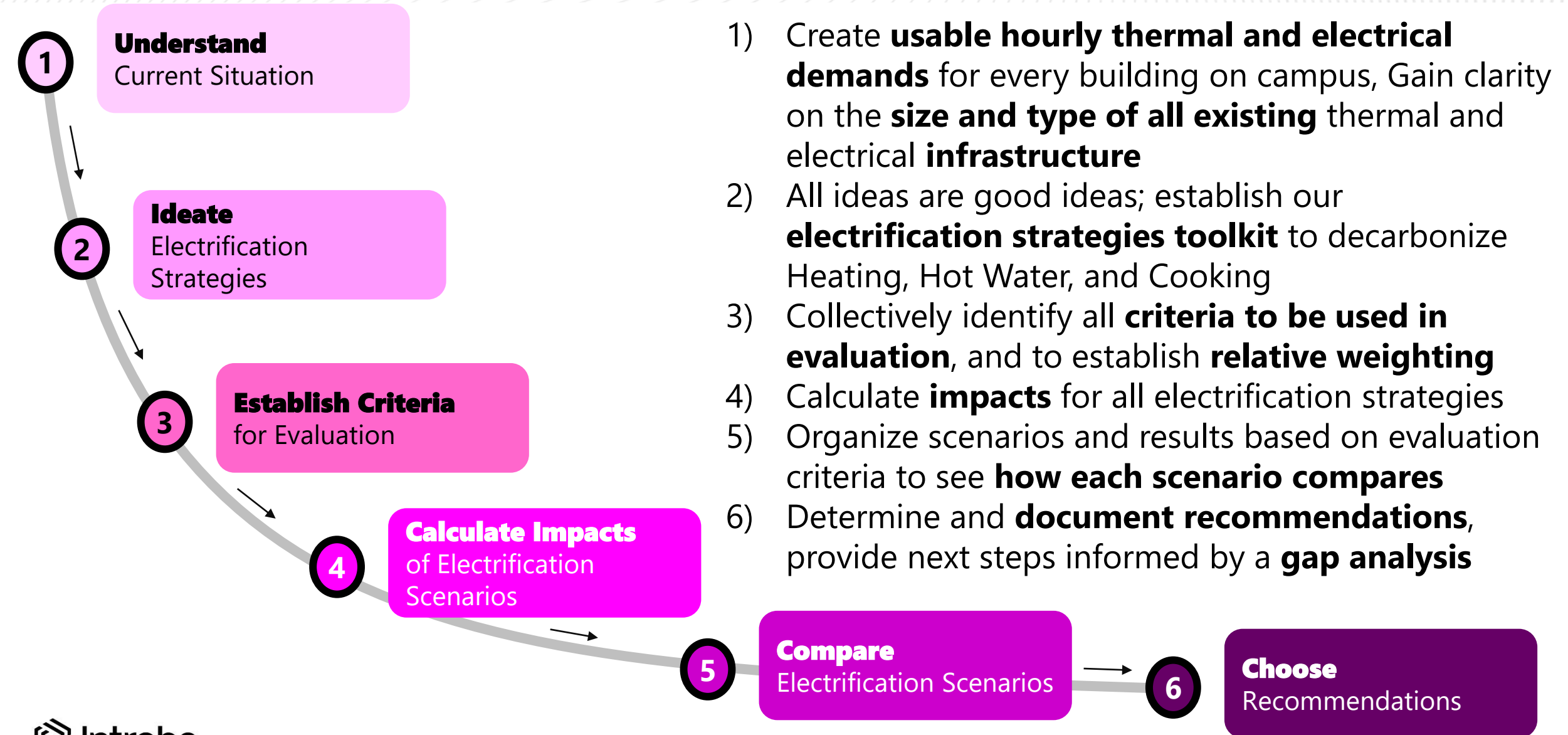
Project Background and Description

- The UCSB campus heating infrastructure comprises distributed dedicated boiler plants at the building level. Plants are of varying capacities, ages, configurations, and design supply water temperatures.
 - Three research laboratory facilities from a single condensing boiler plant.
 - Remaining natural gas consumption is primarily by cooking equipment across four major student dining facilities and other campus-operated cooking facilities.
 - Combined, these sources account for nearly 95% of campus Scope 1 & 2 greenhouse gas emissions.
- UCSB's district cooling system serves approximately 45 major buildings with 6,500 tons of cooling capacity delivered by twelve separate chiller plants.
- **The project will provide decarbonization and electrification pre-design study services and will investigate and document replacement or retrofit options for existing campus fossil fuel energy systems.**
 - The specific areas of focus of this study will include the UCSB distributed natural-gas consuming infrastructure, covering approximately 8 million square feet, the potential expansion of the hot water and chilled water networks, potential centralized or distributed heating plants, and thermal energy storage

Scope of Work Areas

- 1. Decarbonization Strategy and Analysis**
 - 2. Cost Estimation**
 - 3. Environmental Justice and Equity Analysis**
 - 4. Net Zero Planning Gap Analysis**
 - 5. Climate and Resilience Gap Analysis**
- Community and Student Engagement
 - UCSB Student Internships

Clean Energy Master Plan Approach



Net Zero Planning Gap Analysis

How is UCSB already approaching emissions reduction and decarbonization planning on campus?

- **Objectives: Identify opportunities for...**
 - improving existing building efficiency
 - addressing new construction and renovations
 - electrification and district energy decarbonization
 - addressing emissions from university fleet, commute & transit, air travel, waste, and other areas

SNAPSHOT OF BEST PRACTICES

- Conduct ongoing **energy efficiency retrofits**
- Establish standards for all new buildings to be **all-electric**
- Conduct feasibility study for **district energy decarbonization**
- **Electrify transit bus fleet** and replace all university vehicles with EV's
- **Track commute emissions** through student and staff surveys

Climate Resilience Gap Analysis

How is UCSB preparing for future impacts from climate change such as extreme heat, flooding, wildfires and drought?

- **Objectives: Identify opportunities for...**
 - more climate resilient low-carbon energy systems
 - broad climate resilience planning across campus service activities and knowledge sharing, living laboratory opportunities, biodiversity and habitat protection, health and safety, and built systems.

SNAPSHOT OF BEST PRACTICES

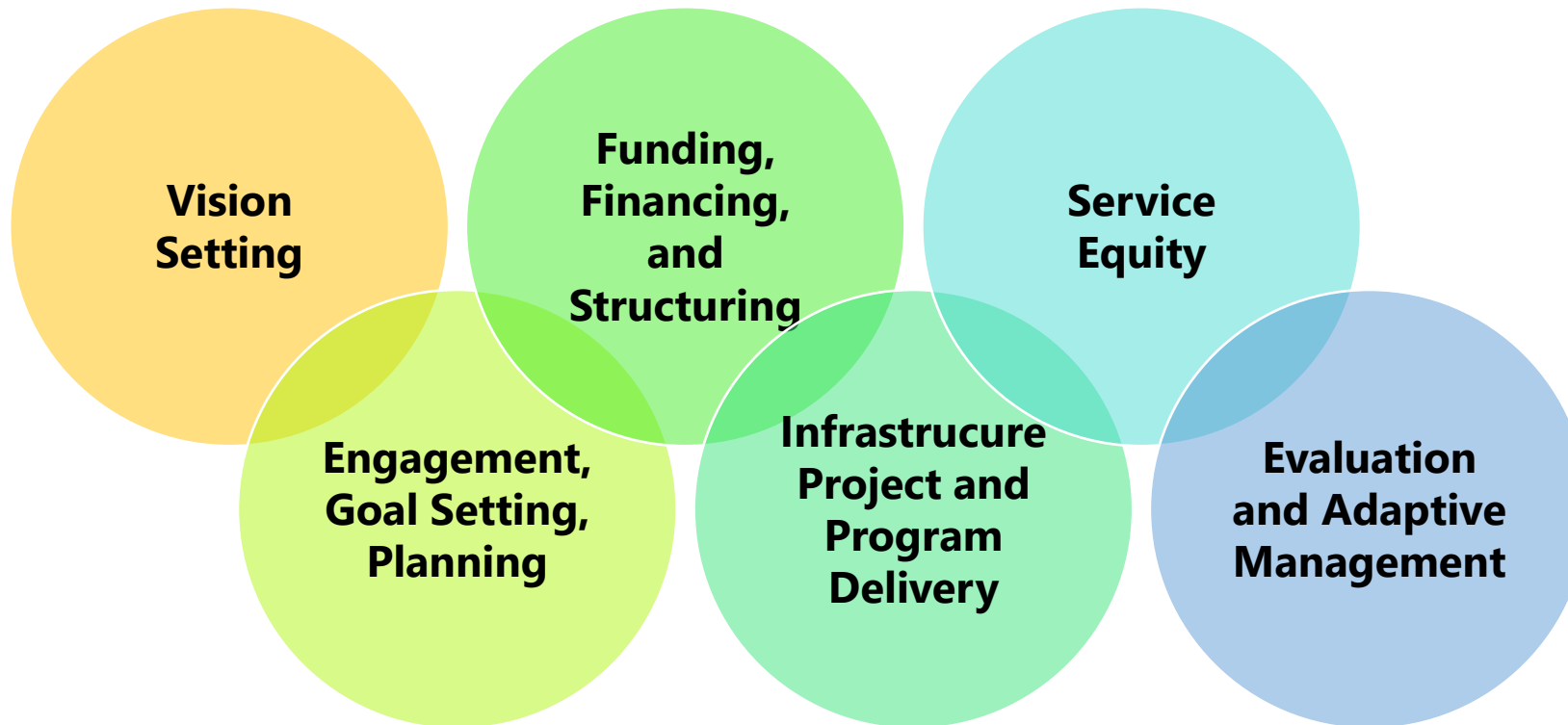
- Build climate resilience into **campus facilities & policy**
- Leverage **community partnerships** to support adaptation
- Build on local **climate change research & academic leadership**
- Integrate climate change **into course curricula & living labs**
- **Track** climate adaptation implementation & impact

Environmental Justice and Equity Analysis

Identify climate justice and equity considerations related to the transition of campus/health system energy systems to fossil fuel free systems and propose solutions or next steps to identify solutions, referencing the **UC Framework for EJ&CJ in Climate Action**

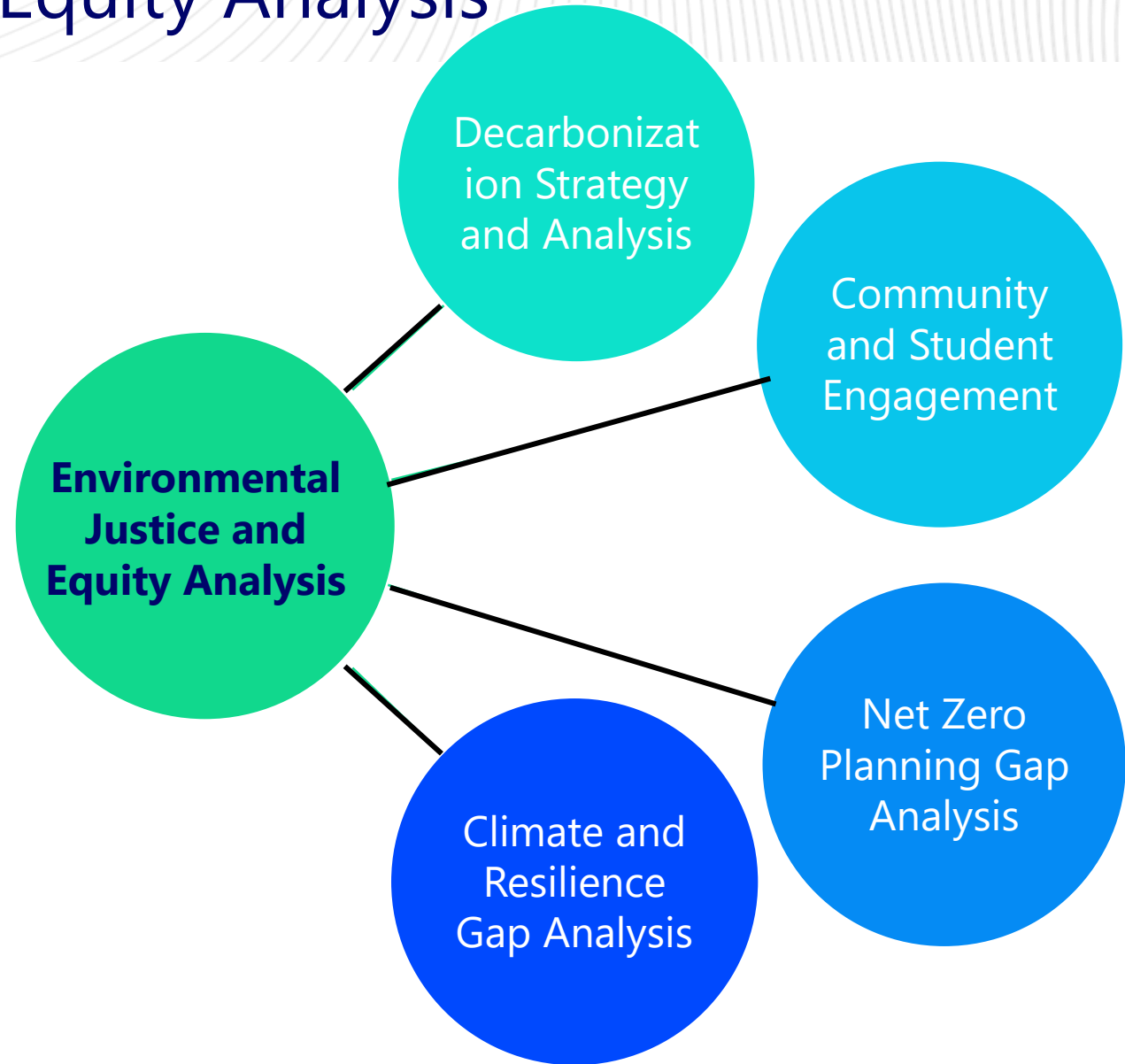


WALT WALKER



Environmental Justice and Equity Analysis

Centering equity **in all solutions**, seeking approaches that achieve **multiple benefits**, to re-envision and reimagine how capital investments positively impact our **communities, infrastructure, and the built environment**.



Internships

- Contribute meaningfully to the deliverables of the Clean Energy Master Plan
- Community focused, to boots-on-the-groundwork with facilities staff, to independent research
- Participate in townhalls, lectures and other community facing engagements

Engineering and Non-Engineering Majors
At least in their **3rd year**
26 weeks Oct through May



- Oversee intern progress and alignment with deliverables
- Develop an action plan at the beginning of their internship
- Weekly progress check-ins
- Guide final report and presentations

Intern 1: Data Collection & Analysis

- Scopes 1,3,4 and 5

Intern 2: New Technology Research

- Scopes 1 and 2

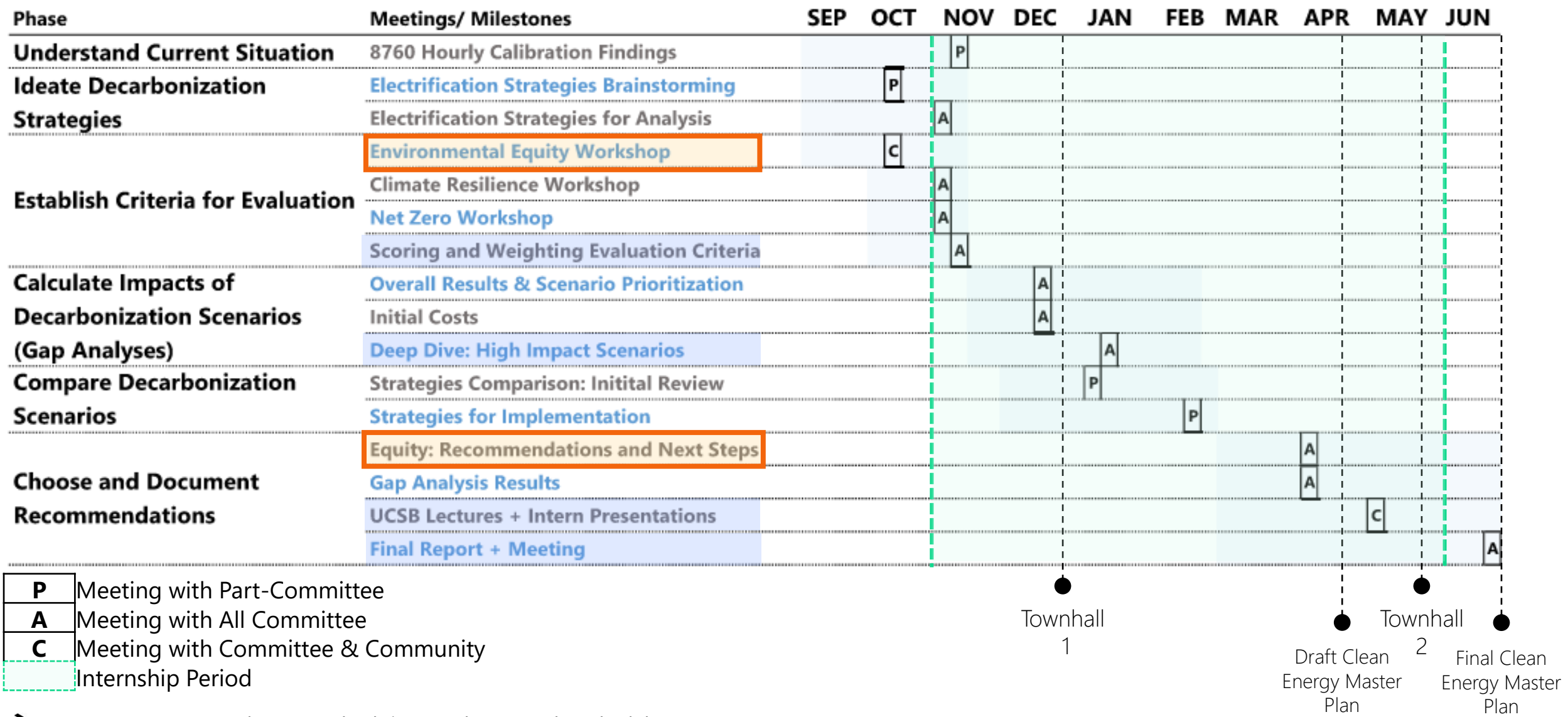
Intern 3: Student Engagement and Outreach

- Scopes 1,3,4 and 5

Intern 4: Environmental Justice and Equity

- Scopes 3, 4 and 5

Schedule: In-Person Meetings, Workshops, Townhalls and Milestones



Townhall 1

Townhall 2

Draft Clean Energy Master Plan

Final Clean Energy Master Plan

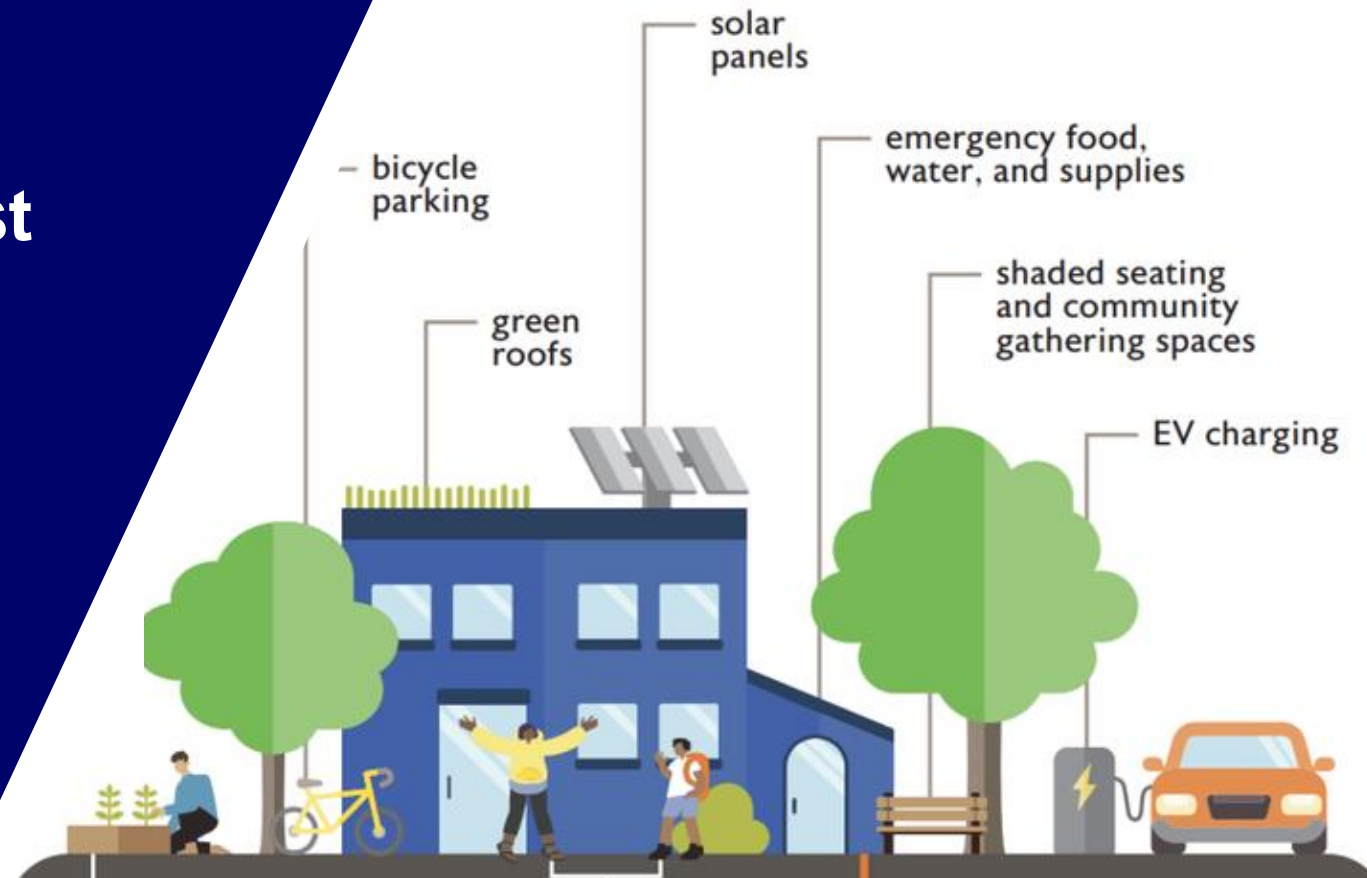
Where are we now, and
where can we go?



What does an Equitable & Just climate future look like?

How do we get there?

Sources: www.communitypoweredworkshop.org/resilience-hub-network/
www.nrdc.org/stories/environmental-justice-chicago-its-been-one-battle-after-another/
www.straughanenvironmental.com/ www.nature.org





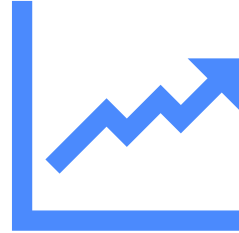
**Creating a community of practice
to spark innovation.**

Defining Our Roadmap

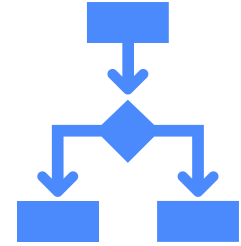
What is the Purpose of an Equity Roadmap?



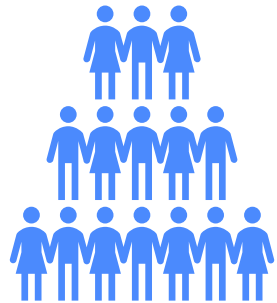
Proactively seeks to **eliminate inequities** and **advance equity**



Identifies who **will benefit or be burdened** by a given decision



Appropriately **resource staff** and identify **who is responsible** for project/initiative/policy implementation



Ensures **community is engaged** in decision-making processes



Is **actionable** and has a **target completion** or reporting date



Examines mechanisms for successful **implementation and evaluation of impact**

UC Work/Resources Available

- Framework for Incorporating Environmental & Climate Justice into Climate Action
- Climate & Environmental Justice Fellowship Pilot Project
- UC Framework for J.E.D.I.-Centered Climate Resilience Planning
- UCSB Climate Resilience Workshop
- UCSB Sustainability Plans and Reports:
- [Global Environmental Justice Project](#)
- Enrollment Dashboard | Office of Budget & Planning
- [Campus Demographics or Equity](#)

Net Zero Planning & Climate Resilience Gap Analysis

UCSB is already recognized as a leader in climate action and resilience planning

- The new UC Climate Policy establishes UC schools as national leaders in climate action
- UCSB has made significant achievements in emissions reduction and clean energy
- UCSB played a role in developing the UC DEIJ Framework for Climate Resilience Planning



Opportunity: learn from other leading institutions and incorporate best practices into current planning efforts

Framework for J.E.D.I.-Centered Climate Resilience Planning

Justice	Equity	Diversity	Inclusion
A practice of both acknowledging and redressing the root causes of historic and present-day disparities , through collaborative efforts that avoid causing additional harm, repair previous harms, and heal communities.	Focusing on, prioritizing, and allocating significant resources to vulnerable communities that have experienced injustices and disproportionate harm in ways that eliminate barriers to meeting their needs.	Including a broad range of voices in the planning process to integrate a comprehensive range of experiences, barriers, needs, and strengths, enabling the creation of robust solutions that solve intersectional issues.	Adopting practices, policies, and programs that create the conditions of belonging and mutual respect for historically excluded groups or individuals to join in participatory decision making.

Table 1: Definition of J.E.D.I. in Climate Resilience Planning

Actions resulting from this process focus on and prioritize the communities who face increased exposure and sensitivity to climate impacts while having the least capacity to adapt, resist, or recover.

UC Framework for Incorporating Environmental & Climate Justice into Climate Action



WHO WILL BE IMPACTED?

All of us will be impacted, but some more than others

CLIMATE EFFECTS



Air Pollution



Extreme Heat



**Increased Food
Prices**



Drought



**Flooding & Water
Contamination**

HEALTH THREATS



Asthma & Allergies



Heat-related Illness



Drowning & Injuries



Pest-borne Diseases



Malnutrition

POPULATIONS & THEIR VULNERABILITIES



Children
Developing Organs
& Spend More time
outdoors



People of Color
Structural Racism &
Health Disparities



Immigrants
Language Barriers
& Physically
Intensive Jobs



Elderly
Low Immunity,
Pre-existing Conditions
& Limited Mobility



Low Income
Less Resources, Less
Means to Evacuate
& Inadequate
Infrastructure

Prioritizing the Needs of Vulnerable Groups

“Vulnerable Groups” are populations or groups who experience heightened risk and increased sensitivity to climate change and have less capacity and fewer resources to cope with, adapt to, or recover from climate impacts.

Groups could be particularly vulnerable if they are:

- **Equity-seeking** or **marginalized** in other ways (e.g. BIPOC, low-income)
- **At-risk** due to pre-existing conditions (e.g. disability, elderly, mental health)
- **Under-served** by existing services on campus (e.g. minority groups)
- **Over-burdened** by other key challenges (e.g. low-income)
- **Frontline workers and communities** who live and work in harm's way (e.g. emergency responders, outdoor workers, enviro. justice communities)



Starting Point: Vulnerable Groups on Campus

Undocumented Students

- Financial aid and work restrictions
- Ineligible for CalFresh
- Need for legal services and application financial support

Black, Indigenous, and Students of Color

- Socioeconomic inequalities
- Bias, harassment, discrimination

EOP Students

- Limited financial support available for emergencies.
- Limited housing and food resources beyond academic year.

International Students

- Housing Limitations
- Financial Barriers

Houseless Students

Food Insecure Students Students Supporting Families

DSP Affiliated Students

- Mental health & health concerns
- Medical devices & medications
- ESA and service animals
- Transportation concerns

LGBTQI+ Students

- Inclusive Housing & Safe Spaces

Transit-Dependent Students, Faculty, & Staff



Investments in People for Thriving Places



Community Benefits Opportunities

Assess the vulnerability of labor and the surrounding community associated with the transition to fossil free systems.

Develop and evaluate equity indicators on transition impacts and opportunities

Equity indicators should be as tangible as possible to provide near-term reassurance to stakeholders over the benefits of the capital project.

Surface equitable climate impact considerations (such as who gets cooling, who gets fresh air, etc)

Surface who gets access to engagement (which communities amongst, students, faculty, staff, etc)

Investigate opportunities for workforce development, job creation, skills development, knowledge transfer, family-sustaining wages and benefits

Explore opportunities to tap into funding from the EPA, ILJA, IRA, Justice 40 and community focused grants that are geared toward economic and workforce development

Multiplying the Benefits – The Opportunity of Our Lifetime

- CA State Climate/Energy Funding
- Bipartisan Infrastructure Law (BIL)
- Inflation Reduction Act (IRA)
- USEPA Pollution Prevention, Community Change, Environmental Education, and Workforce Planning Grants
- Environmental Justice Collaborative Problem Solving (EJCPS) Program
- Justice 40: EPA priorities for disadvantaged communities
- Community Benefits Policies

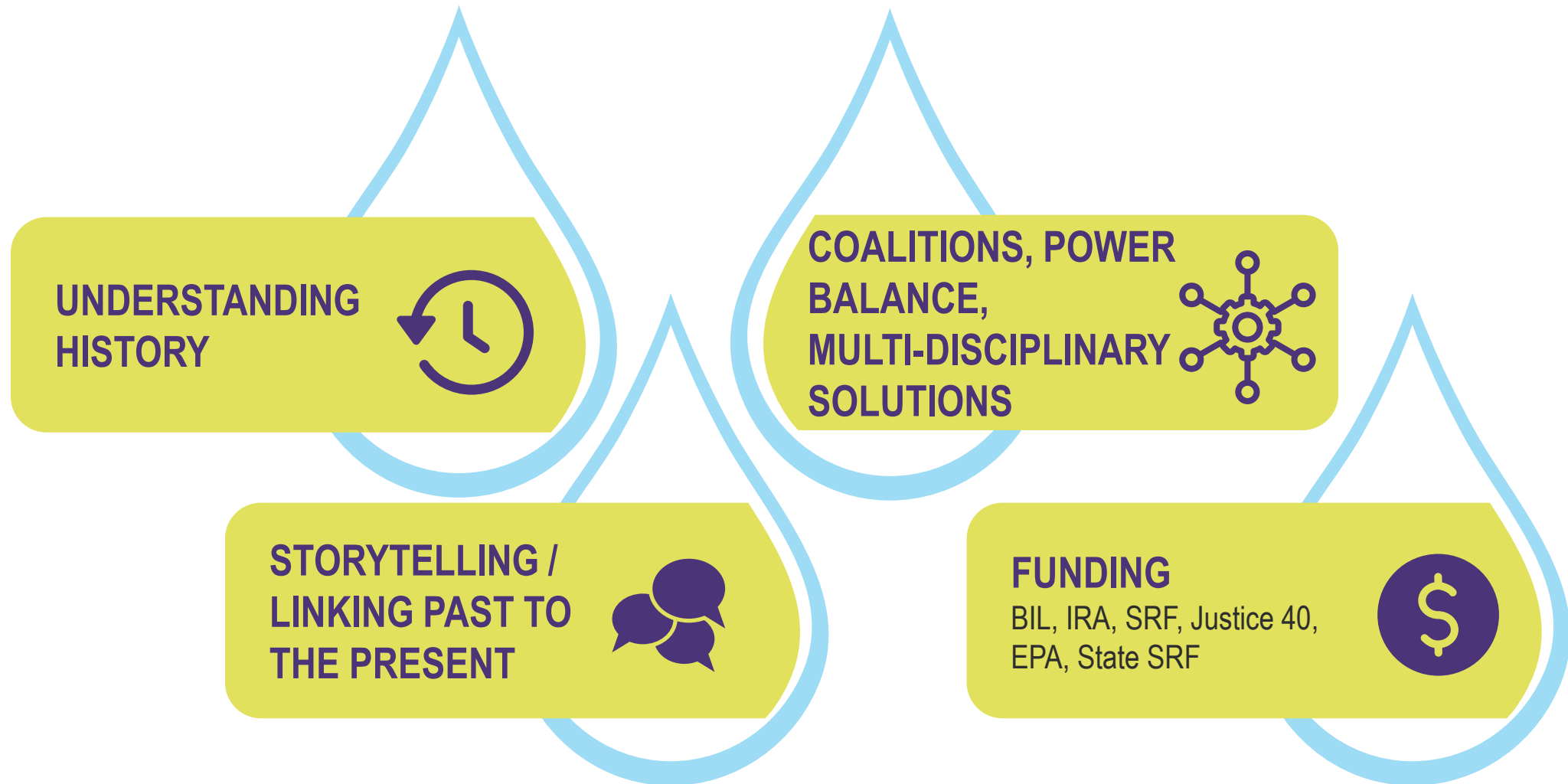


**Let's leverage federal & legislative priorities into
action, impact & impact in our local communities**

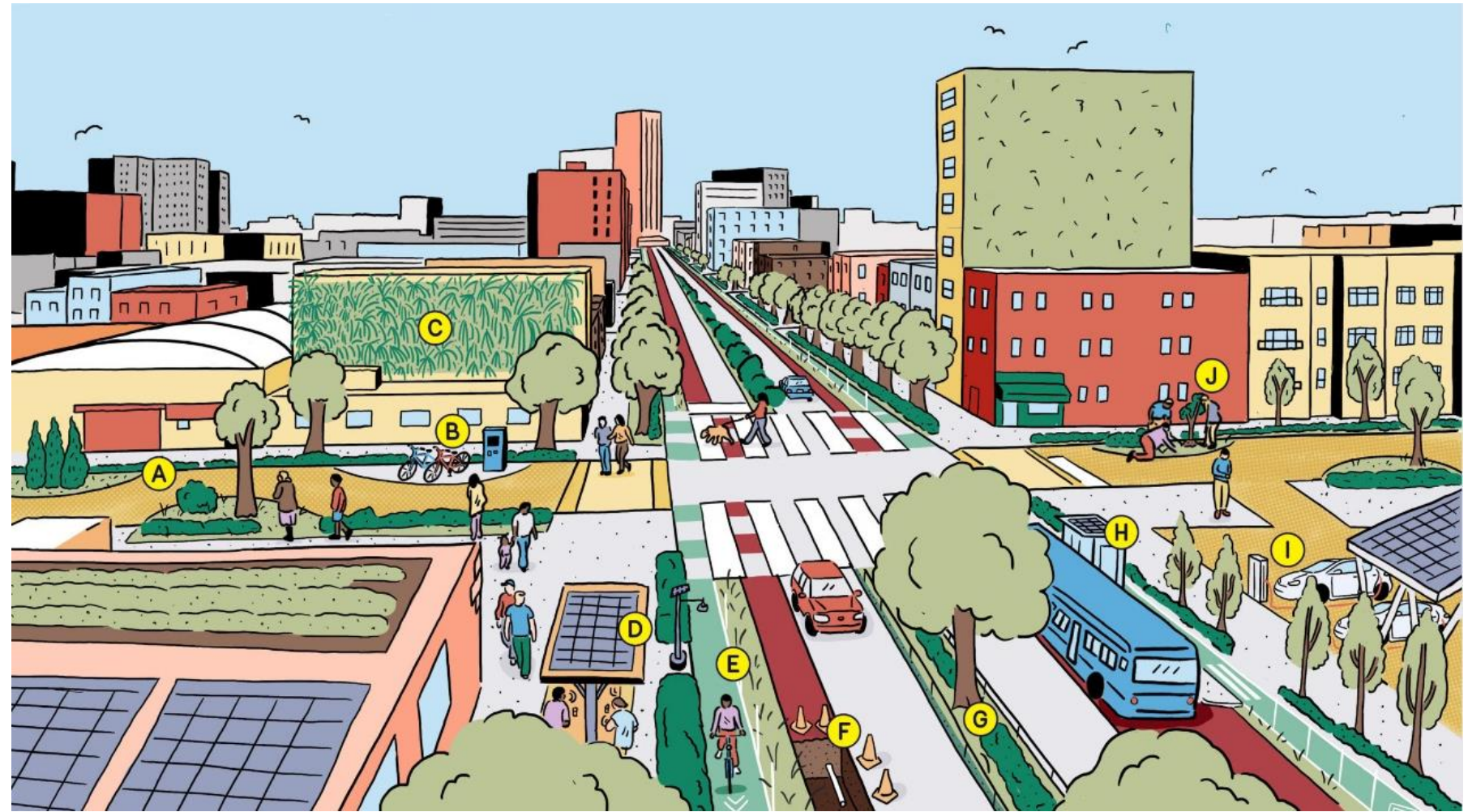
What inspires us?



Where are we now, and where we can go? How can we shape a more Equitable & Just future together?



Now Let's Reimagine a More Equitable & Just Climate Future!



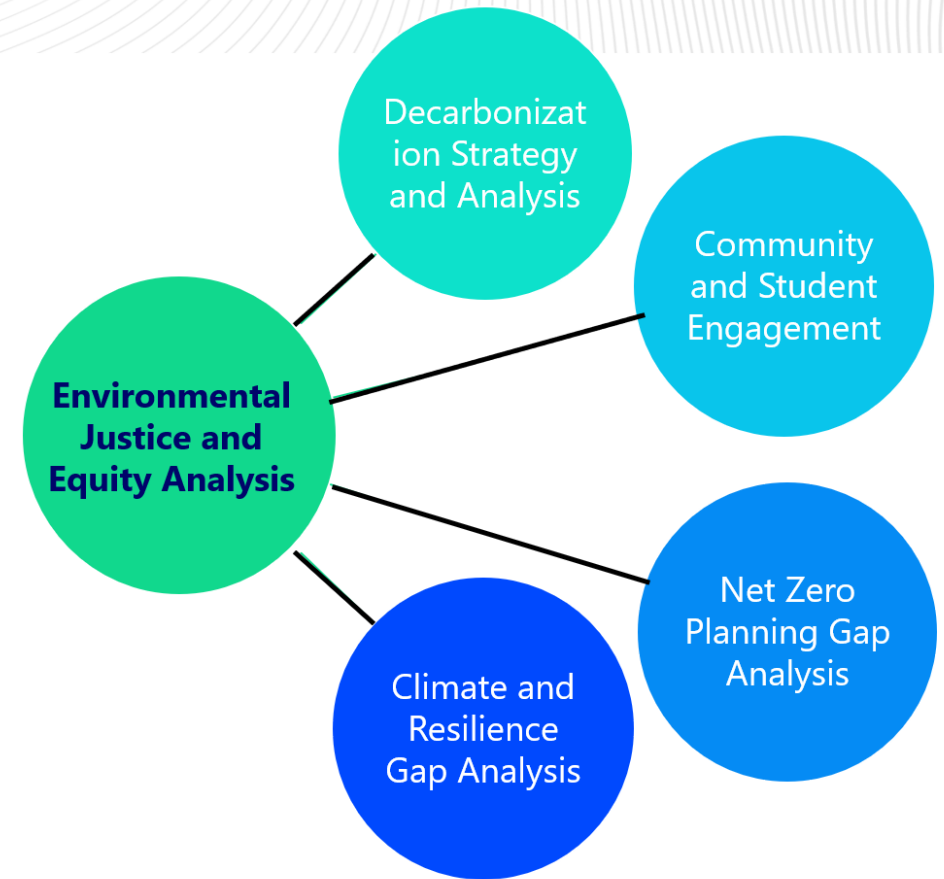
WHAT IF OUR STREETS INCLUDED...

- A** Cool and permeable pavement to let water drain
- B** Dedicated space for micro-mobility parking like bikes and scooters
- C** Green walls that supported biodiversity and habitat for animals
- D** Shaded spaces for gathering that can generate energy
- E** Bike lanes that are protected from cars by plants and trees
- F** Improvement projects that also increase resiliency
- G** Green infrastructure like rain gardens and bioswales
- H** Protected bus shelters that can regenerate energy
- I** Space for charging electric vehicles
- J** Thriving green space stewarded by community groups and used for environmental justice education

Breakout Activity Sessions: Focus / Vision / Action Mapping

Equity in Planning – Workshop Approach

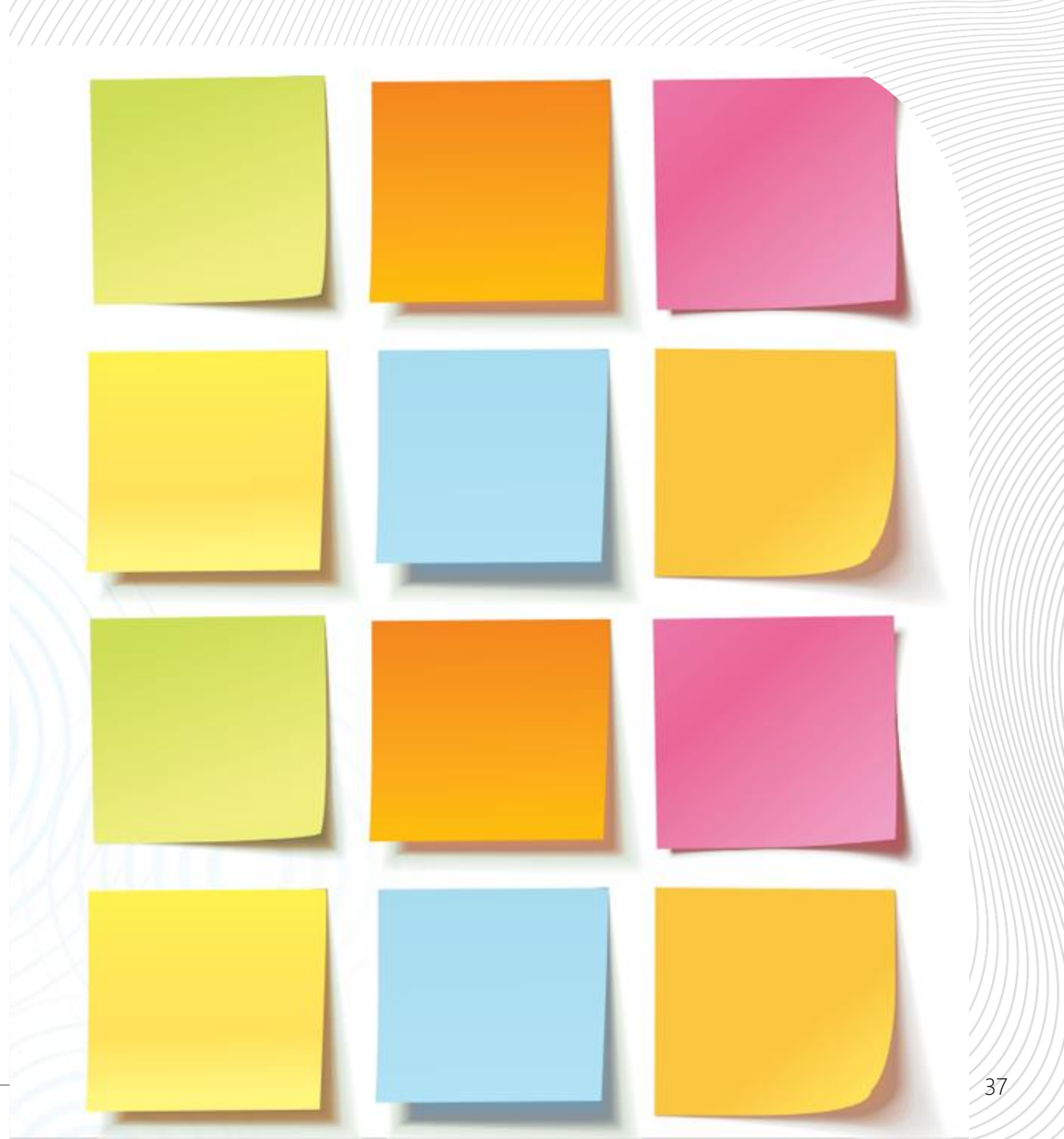
- Goals & Vision setting specific to UCSB
- Identification of success criteria
- Assessing existing dynamics
 - Identification of **facilitators and resources** to achieving goals
 - Identification of **obstacles** to achieving goals
- Engage stakeholders for input and participation that results in a shared strategic vision
- Execution of master plan development through workshops



Focus

Defining Equity Scope & Identifying Stakeholders

- How can equity and climate justice be integrated into the technical scope areas
- What are issues, concerns, observations, and opportunities? Who is affected?
- Equity indicators on transition impacts and opportunities
- Who else needs to be in the room?



Vision

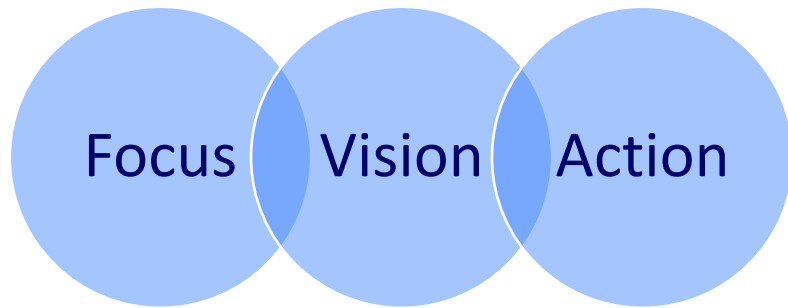
What is the vision of the project in the framework of Equity & Environmental Justice

- Who benefits from these investments?
- Where are the needs?
- What are the desired outcomes?
- *Beginning with the end in mind: what are the desired outcomes/impact from this clean energy transition? Examples:*
 - *workforce development and job creation*
 - *multiplying the benefits: funding for new/ancillary climate action opportunities associated with the primary scope*



Stakeholder Report Out of Ideas

- Action mapping and reporting out on next steps and goals



Action + Next Steps

Development of the equity planning/design approach and tangible climate justice outcomes driven by the UCSB Clean Energy Master Plan

- What barriers or challenges need to be overcome for equitable climate action?
- What strengths and partnerships should be built on for planning and action?
- What are the follow-up items from today's discussion?
- What are items to consider for the other Scope areas?

60 DAYS	6 MONTHS
ACTION: _____	ACTION: _____
ACTION: _____	ACTION: _____
ACTION: _____	ACTION: _____
ACTION: _____	ACTION: _____

Final Thoughts and Closing Remarks



Thank You!

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